

FD 36496

310894

ENTERED

Office of Chief Counsel

April 12, 2022

Part of

Public Record

Date: April 12, 2022

Case: Public Evidentiary Hearing



Ace-Federal Reporters, Inc.

Phone: 202-347-3700

Fax: 202-737-3638

Email: info@acefederal.com

Internet: www.acefederal.com

SURFACE TRANSPORTATION BOARD

REMOTE PUBLIC EVIDENTIARY HEARING FOR
"Application of the National Railroad
Passenger Corporation Under 49 U.S.C. Section
24308(e) CSX Transportation, Inc., and Norfolk
Southern Railway Company."

Volume V

Tuesday, April 12, 2022

9:30 a.m.

Via Zoom Government

The above-titled matter came on, pursuant to
notice, at 9:32 a.m., Chairman Martin Oberman,
presiding.

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1535

1 P R O C E E D I N G S

2 CHAIRMAN OBERMAN: All right, good
3 morning, everyone. Welcome to the resumed hearing
4 in the application of Amtrak under Section
5 24308(e).

6 When we recessed on Friday we were in
7 the middle of the cross-examination of Ms. Holly
8 Sinkkanen.

9 Is that where we're going to pick up
10 today?

11 Madame Court Reporter --

12 MR. DONAHOE: This is Dan Donahoe. I
13 will be representing Norfolk during the
14 questioning of Ms. Sinkkanen.

15 CHAIRMAN OBERMAN: All right. Ms.
16 Sinkkanen, you understand that you remain sworn
17 under oath?

18 THE WITNESS: Yes.

19 CHAIRMAN OBERMAN: All right. You may
20 proceed. Thank you.

21 (Holly Sinkkanen, having been
22 previously sworn, further testified as follows.)

1 MS. AMUNSON: Thank you, Mr. Chair.

2 CROSS-EXAMINATION BY MS. AMUNSON:

3 Q. Good morning, Ms. Sinkkanen. How are
4 you this morning?

5 A. Good morning. I'm well.

6 Q. Ms. Sinkkanen, do you still have a copy
7 of your verified statement with you? It's Joint
8 Exhibit 25-3H. I'd like you to look to page four
9 of your verified statement at the last two
10 sentences of the only full paragraph on that page
11 where you're talking about the 2021 RTC model and
12 state that "The model does not replicate the
13 traffic data for an exact set of dates. Rather
14 the RTC modelers used the traffic data to develop
15 a two-week data set".

16 Is that correct?

17 A. You said page four?

18 Q. Yes, page four of your verified
19 statement, the last two sentences of the first
20 full paragraph, or the only full paragraph that's
21 on that page.

22 A. No, I'm not -- I don't see that.

1 Q. Okay. Is it correct that the model did
2 not replicate the traffic data for an exact set of
3 dates and instead you used the data to develop a
4 two-week set that you said was a representative
5 set of data?

6 A. I provided three months worth of data
7 and the RTC modeler developed a two-week set of
8 representative traffic.

9 Q. And who determined that it was
10 representative?

11 A. The modeler, using our data.

12 Q. And by the modeler, do you mean Mr.
13 Dingler?

14 A. That's correct.

15 Q. So Mr. Dingler had the data but chose
16 to use not the actual data but instead construct a
17 set that he determined was representative.

18 Is that correct?

19 A. He did use the actual data to determine
20 a representative set of two-week history, two-week
21 train movements that are representative of actual
22 operations on the network.

1 Q. But there's no way to take the data
2 that's in that set and actually tie it for
3 one-to-one match to actual trains that exist in
4 the real world, correct?

5 A. That's correct, because it's a
6 representative set of data.

7 Q. If we can go to page six of your
8 statement --

9 MS. AMUNSON: And Mr. Peterson, if you
10 would pull that up, please.

11 BY MS. AMUNSON:

12 Q. -- page six of your verified statement,
13 which is Joint Exhibit 23H. The first sentence of
14 subsection D you say that, "Yard work such as
15 switching is typically not incorporated in an RTC
16 model".

17 Do you see that?

18 A. Yes, I do.

19 Q. But it was included in this RTC model,
20 correct?

21 A. So yard work fully within the yard is
22 not normally incorporated, but yard movements that

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1539

1 occupy main line capacity are always included.

2 Q. And so what was included in this -- in
3 the 2021 RTC data?

4 A. The yard movements that occupied main
5 line.

6 Q. And you provided that information on
7 yard work in narrative form. Is that correct?

8 A. That's correct.

9 Q. And so there's no actual records to
10 verify the narrative of yard work. Is that
11 correct?

12 A. There's no data records, correct.

13 Q. So, there's no way to tie these
14 narratives to actual trains that exist in the real
15 world?

16 A. I mean, sure. You can go and watch
17 dispatch history and see them or you can go out in
18 the field and you can watch them and see them.

19 Q. But there is nothing in the work papers
20 by which one could have done that, correct?

21 A. Correct. They're in my narratives.

22 Q. And those narratives, you're -- they

1 were based on interviews with field personnel. Is
2 that correct?

3 A. Interviews and observations.

4 Q. And those interviews are not part of
5 what was turned over as part of the work papers,
6 correct?

7 A. My interviews were compiled into the
8 narrative data that was turned over.

9 Q. If we look at page five of your
10 verified statement, the second to last sentence of
11 the paragraph that comes right before section B
12 where you say you "provided the modelers with a
13 file that documented one week of observed foreign
14 train movements".

15 Do you see that?

16 A. Yes, I do.

17 Q. So you collected that data yourself?

18 A. That's correct.

19 Q. And that data was collected in February
20 2020. Is that correct?

21 A. That is correct.

22 Q. And otherwise, the data in the model

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1541

1 that was supposed to be representative was from
2 September through November of 2019, correct?

3 A. That is correct.

4 Q. So you just mixed together 2020 data
5 with 2019 data?

6 A. No. This was -- my observations -- our
7 dispatch, playback history only goes back one
8 week. As soon as this 2020 HDR model was put
9 underway with the RTC agreement, I immediately did
10 my field research, and that include -- included
11 watching the dispatch history. And because I
12 couldn't go back more than seven days, I used the
13 seven days in February and that's not data that is
14 incorporated into the model. It's used to
15 validate the movements in the model.

16 Q. And you did this by watching dispatch
17 data?

18 A. Dispatch playback. That's correct.

19 Q. And did you interview anyone to verify
20 this dispatch playback?

21 A. Yes. I talked to the field.

22 Q. And are those interviews included in

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1542

1 the work papers that were turned over to Amtrak's
2 experts?

3 A. They're included in my narratives.

4 Q. So the notes of your interviews with
5 dispatchers are included. Is that your testimony?

6 A. I didn't say dispatchers. I said field
7 personnel. But, yes, all my interviews with the
8 field personnel are included in my narrative data.

9 Q. But the actual notes from your
10 interviews, are those included?

11 A. What do you mean? Like my handwritten
12 notes?

13 Q. Anything to actually show what those
14 dispatchers or field personnel told you.

15 A. My narrative data.

16 Q. And it's just your -- it's just that --
17 that file that is your narrative, correct?

18 A. That's correct.

19 Q. If we can look now to your rebuttal
20 verified statement, which is Joint Exhibit 41D,
21 and at page 15, in the very first sentence, you
22 state that, "NS did not provide the modelers with

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1543

1 a .TRAIN file". Is that correct?

2 A. I don't have a 41D.

3 Q. Are you able to see up on the screen?

4 A. What page are you on?

5 Q. It is page 15 of your rebuttal verified
6 statement. 41D is the public version and 40D is
7 the --

8 A. Okay.

9 Q. -- confidential version. So you may
10 have a confidential version with you.

11 A. Yep, I've got it. Go ahead.

12 Q. I'm using the public version to avoid
13 having to go into confidential session.

14 A. Okay, go ahead.

15 Q. So NS did not provide the modelers with
16 a .TRAIN file, correct?

17 A. That's correct.

18 Q. So you didn't have anything kind of off
19 the shelf already for purposes of providing the
20 modelers with data to construct the RTC model?

21 A. That's correct.

22 Q. So everything that you provided them

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1544

1 was compiled solely for purposes of determining
2 the impacts of the Amtrak service to NS, correct?

3 A. No. What I provided was to build a
4 TRAIN file.

5 Q. But you didn't have an existing TRAIN
6 file?

7 A. But I provided the data for the
8 modelers to build a .TRAIN file.

9 Q. But the only impetus for doing so was
10 for purposes of determining the impact of Amtrak
11 service, correct?

12 A. It was to provide the modelers the data
13 necessary to build a TRAIN file.

14 Q. And the only reason for NS to build a
15 TRAIN file was because it needed to determine the
16 impacts of Amtrak's Gulf Coast service, correct?

17 A. That's the purpose of the model but the
18 purpose of the data was to build a .TRAIN file.

19 Q. But you didn't have an existing .TRAIN
20 file, correct?

21 A. That's correct. We provided the data
22 to the modelers to build a .TRAIN file.

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1545

1 Q. And the reason for building this .TRAIN
2 file was to determine the impacts of Amtrak's Gulf
3 Coast service, correct?

4 A. I already answered that.

5 Q. Can you answer it again, please?

6 A. The model was to determine the impact
7 of Amtrak on NS and CSX operations. The data
8 provided was to build the .TRAIN file.

9 Q. So, your statement at pages 15 and 16
10 with this table provides a list of inputs for that
11 .TRAIN file, correct?

12 A. That's correct.

13 Q. And each of these refers to field
14 research. Is that correct?

15 A. Well field research is on there,
16 correct.

17 Q. And there was nothing in your work
18 papers tying your field research to actual
19 dispatch or operating system data.

20 Is that correct?

21 A. Yes. In my Excel spreadsheet that I
22 provided to the modelers, there is data for actual

1 historical movements and train sizes and on
2 network times.

3 Q. And that's based on your interviews
4 with field personnel, correct?

5 A. That's from data.

6 MR. DONAHOE: Objection.

7 THE WITNESS: And I have two documents.
8 There is a document that is an Excel worksheet
9 that is pulled from our databases that is
10 supplemented with our field research that's
11 provided in the narrative data.

12 CHAIRMAN OBERMAN: Jessie, could I just
13 ask the witness to tell us the acronyms in the
14 right-hand column here, what they stand for, so we
15 can follow along? OPD, UTCS, so forth.

16 THE WITNESS: OPD data is -- it's a
17 high level database that has our scheduled train
18 movements in it. It provides high-level data like
19 work events, train symbols, origin and
20 destination.

21 The "TERADATA sched" data is slightly
22 more granular data. It looks at the actual train

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1547

1 movements that happen in history.

2 UTCS data is even more granular and
3 give us more in depth as far as how the train
4 moves, which track they're on.

5 CHAIRMAN OBERMAN: What does UTCS stand
6 for?

7 THE WITNESS: I think it is unified
8 train control system, and that's our -- that's our
9 dispatching system.

10 CHAIRMAN OBERMAN: Is that the name --
11 that's the name of your software program is it?

12 THE WITNESS: Yes.

13 CHAIRMAN OBERMAN: Gotcha.

14 THE WITNESS: Yes.

15 CHAIRMAN OBERMAN: When you said OPD
16 contains "scheduled"?

17 THE WITNESS: Yes, it contains our
18 scheduled trains.

19 CHAIRMAN OBERMAN: What are scheduled
20 trains?

21 THE WITNESS: So we have trains that
22 are regularly scheduled, merchandise and

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1548

1 intermodal trains. Those -- those trains would be
2 captured in our OPD data. It's kind of how we
3 schedule our trains, holistically.

4 CHAIRMAN OBERMAN: Is that -- is that
5 in a -- that schedule something that's produceable
6 to the board or to Amtrak so they can see what the
7 schedule looks like?

8 THE WITNESS: I believe so, yes.

9 CHAIRMAN OBERMAN: Okay. Thank you.
10 Thank you very much.

11 Sorry to interrupt, Jessie, but I
12 thought it would be helpful to understand this
13 page.

14 MS. AMUNSON: No problem, thank you.

15 BY MS. AMUNSON:

16 Q. The field research that is listed for
17 each of those, are -- from whom did you or with
18 whom did you conduct this field research?

19 A. I sat with a dispatcher and did a
20 little bit of questioning with them and I also
21 interviewed our field personnel actually out in
22 New Orleans.

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1549

1 Q. Who were those individuals?

2 A. I don't know that I can tell you the
3 dispatcher's name. Nick Delamarter in New Orleans
4 was my primary contact.

5 Q. And what is his position?

6 A. I believe he is a -- I believe he's a
7 super -- terminal superintendent or assistant
8 super.

9 Q. And was he identified in the work
10 papers or any of the information that was turned
11 over to Amtrak?

12 A. No, I don't believe so.

13 Q. Were any of the individuals that you
14 interviewed for purposes of your field research
15 identified in any of the information that was
16 turned over to Amtrak?

17 A. No, I don't believe so.

18 Q. And you testified that you I don't
19 believe actually went in person to New Orleans for
20 purposes of this field research. You -- you
21 conducted it over the phone.

22 Is that correct?

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1550

1 A. That's correct.

2 Q. How did you verify whether what the
3 field personnel told you was accurate?

4 A. By watching the dispatch playback.

5 Q. So immediately prior to this table,
6 there is a sentence that says that, "These inputs
7 are not all inclusive. Additional data sources
8 may be used for inputs and validation of the data
9 pulled from the databases"?

10 A. That's correct.

11 Q. Are those additional data sources
12 identified anywhere in this statement or your work
13 papers or anything that was turned over to Amtrak?

14 A. So, the additional data sources that
15 I'm referencing here would be the dispatch
16 playback.

17 Q. Any other additional data sources?

18 A. No. I'm -- I think everything else is
19 pretty much covered there.

20 Q. And so, just so I'm clear, there was a
21 dispatcher whose name you don't recall?

22 A. That's correct. It was over two years

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1551

1 ago.

2 Q. Okay. A Nick "Delamorta". Is that
3 correct? Who is the --

4 A. Delamarter.

5 Q. Delamarter, sorry, who's a terminal
6 supervisor?

7 A. That's correct.

8 Q. And then did you say also other people
9 in New Orleans who you might have talked to, or
10 you don't recall?

11 A. Yeah, I don't recall. I'm sure that I
12 could probably find their names, but I don't
13 recall off the top of my head. Nick was my
14 primary contact.

15 Q. And your interviews with these folks as
16 well as your review of the dispatch data, that is
17 what contributed to the 582 trains that are in
18 that waterfall chart listed as inclusion of trains
19 that would not be in the data?

20 Is that correct?

21 A. No. There were only 110 NS trains in
22 that waterfall chart.

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1552

1 Q. Okay, so there were 110 NS trains but
2 those are part of the inclusion of trains that
3 would not be in the data, correct?

4 A. Correct.

5 Q. And also there is a separate part of
6 that waterfall chart that's 140 trains and those
7 are the ones that are based on your narrative?

8 A. All --

9 Q. Correct?

10 A. All of the trains are included in my
11 narratives. All of the trains that are discussed,
12 that 140 and 110, are included in the narrative
13 data.

14 You're talking about lots of cars that
15 would never show up in data. Lots of cars and
16 head room may or may not show up in data. Light
17 power moves may or may not show up in data.

18 Q. And for your narrative descriptions,
19 how would one verify those narrative descriptions?

20 A. I mean, you could go out and watch the
21 trains move in person.

22 MS. AMUNSON: We can take down that

1 document. Thanks, Mr. Peterson.

2 Unless the board -- I was going to move
3 on to something else. If the board had questions
4 on that document.

5 BY MS. AMUNSON:

6 Q. All right. Ms. Sinkkanen, we -- we've
7 heard that a number of bridges along the line have
8 been moved to automation and also a bridge has
9 been moved to a program, a pilot program for
10 scheduled openings.

11 That was not included in the RTC
12 modeling, correct?

13 A. On CSX's side? No, I don't believe so.

14 Q. Do you recall how much delay in the
15 model is attributed to the movable bridges?

16 A. No, you'll have to talk to the modeler
17 for that.

18 Q. And that's Mr. Dingler?

19 A. That's correct.

20 Q. You -- Mr. Johnson, did you happen to
21 hear Mr. Johnson's testimony? He testified that
22 CSX operates both clearing and non-clearing trains

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1554

1 with the non-clearing trains being \$10,000 -- or
2 excuse me, 10,000 feet in length.

3 Was that accounted for in the model?

4 A. Can you explain what you're looking for
5 there?

6 Q. Sure. Mr. Johnson testified that when
7 CSX runs both clearing and non-clearing trains, it
8 plans the meets for those trains so that the
9 clearing train can take the siding.

10 Did you hear that testimony?

11 A. Yeah, I did.

12 Q. Okay. Would it be possible to plan
13 meets for Amtrak and freight trains in the same
14 way?

15 A. I suppose you could, yes.

16 Q. But the model didn't do so, correct?

17 A. I don't think we planned any meets, so
18 I think you'll have to -- you'll have to talk to
19 Mark about that, Mr. Dingler.

20 Q. The model didn't adjust any CSX or NS
21 schedules at all, correct?

22 A. That's correct. I don't believe we

1 changed any of our schedules.

2 Q. And it didn't consider any changes to
3 dispatching practices, correct?

4 A. What do you mean by "dispatching
5 practices"?

6 Q. It didn't consider any changes to the
7 way that CSX or NS dispatches trains?

8 A. I'm going to need an example of what
9 you're -- what you're referring to.

10 Q. Timing or head room or anything like
11 that, the way that CSX or NS dispatches trains?

12 A. I still don't -- I don't know what you
13 mean by changing how we dispatch trains.

14 Q. The timing -- the model didn't consider
15 any operational changes at all for CSX or NS,
16 correct?

17 A. Again, I'm not 100% sure what you mean
18 by "operational changes". I'm going to need a --
19 I mean, I need an example.

20 I'm sorry, I'm not trying to be
21 difficult here but I'm -- I'm not really sure what
22 you're -- what we could have changed operationally

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1556

1 in the -- in the model.

2 Q. Did the model consider for example
3 whether you could -- CSX could run trains that
4 would fit in the existing sidings?

5 A. You -- you're going to have to talk to
6 Mr. Dingler about that. I'm not sure all of the
7 areas he's tested.

8 Q. Thank you. Ms. Sinkkanen I -- I'd like
9 to --

10 MEMBER FUCHS: Jessie.

11 MS. AMUNSON: Sure.

12 MEMBER FUCHS: Sorry, sorry again to
13 interrupt your line of questioning. I just want
14 to make sure I have the terminology correct.

15 Ms. Sinkkanen, you said that there was
16 no change to train schedules. You also said that
17 some trains are scheduled and some trains are not.
18 And you identified some of the trains that were
19 scheduled.

20 Can you, just for clarity on the
21 record, summarize which trains are scheduled,
22 which trains are not scheduled, and of the ones

1 that aren't scheduled, whether you understand the
2 model to have inputs that -- start times or
3 movements that are outside of the time, the normal
4 range of movements from -- from a temporal
5 standpoint, that you'd expect those trains to
6 move.

7 THE WITNESS: Okay, so as far as
8 scheduled trains go, what I mean by scheduled
9 trains, that trains that have definitive schedule,
10 point A to point B, and all of the moves that
11 happen in between.

12 Your yard jobs, I mean, there's a
13 schedule, they're going to be on duty at a
14 specific time, but as far as when they take their
15 head room and how they move is kind of dependent
16 on what's going on in the yard at the time.

17 Locals have a defined schedule but they
18 may not work every location that's listed in
19 their -- their schedule every single day. So they
20 may not follow any kind of schedule as it is in
21 the -- in the database.

22 As far as our incoming trains and

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1558

1 outgoing trains -- go ahead.

2 MEMBER FUCHS: May -- may I quick pause
3 it there?

4 THE WITNESS: Yeah.

5 MEMBER FUCHS: With the locals, is it
6 your understanding that the local trains though
7 began their work in the model and began their
8 work -- you know, and compared to the dispatching
9 launch, within the same range?

10 THE WITNESS: They should, yeah.

11 MEMBER FUCHS: Okay. All right.

12 THE WITNESS: There's a -- yes, there's
13 a typical departure time for the trains, yes.

14 MEMBER FUCHS: Okay.

15 THE WITNESS: As far as the inbound
16 trains, those ones are a little bit more difficult
17 based on variability of, you know, arrival time.
18 Those would be based on historical arrival time.

19 Or outbound trains, again, we've got a
20 time that they generally leave and, you know,
21 depending on again what's going on in the terminal
22 at the time, they're departure times may vary.

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1559

1 MEMBER FUCHS: But -- but in general
2 you would refer to outbound trains, typically
3 merchandise trains, as scheduled trains?

4 THE WITNESS: Yes, yes, yes.

5 MEMBER FUCHS: Okay, okay. And to your
6 knowledge there is no train in the model that
7 would have left at a different scheduled time
8 than what we would observe in the real -- the real
9 world data?

10 THE WITNESS: In the data?

11 MEMBER FUCHS: Yeah.

12 THE WITNESS: No, there -- there
13 shouldn't be. They should be somewhere within
14 that variable range, they should be.

15 MEMBER FUCHS: Okay, got it. Thank you
16 so. Thank you, Jessie.

17 MS. AMUNSON: Any other questions
18 before I proceed?

19 (Mr. Fuchs shakes head in the
20 negative.)

21 MS. AMUNSON: Thanks.

22

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1560

1 BY MS. AMUNSON:

2 Q. Ms. Sinkkanen, I wanted to confirm
3 Norfolk Southern's position on the freight lead
4 extension project, and I'd like you to look at
5 Joint Exhibit 23E, which is Mr. Niemeyer's report,
6 and we'll put it up on the screen for you. But if
7 your counsel wants to provide you with a copy of
8 that, we have no problem with that either.

9 MR. DONAHOE: We do, thank you. Just
10 give us a minute.

11 THE WITNESS: My eyesight's not that
12 good.

13 BY MS. AMUNSON:

14 Q. Okay. I'm going to direct you to
15 section five of his report, which begins on page
16 three, and that's where he starts to list out the
17 14 projects that CSX and NS say are necessary to
18 mitigate any unreasonable impairment of CSX and
19 NS's freight transportation.

20 Do you see that?

21 A. Yeah, I do.

22 Q. Okay. The freight lead extension is

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1561

1 not one of those 14 projects, correct?

2 A. That's correct. I believe he mentions
3 it later in the process or in the packet.

4 Q. And so it was not included in the
5 original RTC modeling?

6 A. That's not necessarily true. We did
7 have that -- Mr. -- Mr. Dingler recommended that
8 as a project initially. We did a high-level
9 internal validation of the feasibility and we
10 determined that it would likely be too expensive
11 to include and asked Mr. Dingler to see if he
12 could find additional projects that would serve
13 the same purpose.

14 Q. So, just to be clear, it was not
15 included -- those 14 projects sum up to about
16 \$440M, and so then the freight lead extension,
17 which is \$84M on top of that?

18 A. That's correct but I believe, as Mr.
19 Hunt said, one of our projects would come out or
20 would not be necessary.

21 Q. And that was the St. John's crossovers?

22 A. Yes, the St. John's crossovers.

1 Q. So if we -- it we go to page 10 of this
2 report and I believe this is the section you were
3 referencing when you said Mr. Niemeyer does talk
4 about the freight lead extension?

5 A. That's correct.

6 Q. So it's this "Other Beneficial Projects
7 For Consideration" and then we turn to page 11 and
8 that's where we finally get to the -- the freight
9 lead extension.

10 A. That's correct.

11 Q. Okay. And so Mr. Niemeyer says, "Some
12 railroads are now operating 12,000 foot trains and
13 in the future most railroads will operate these
14 12,000 foot-long trains.

15 "Due to this NSR should have a siding
16 to hold 12,000 foot-long trains while waiting for
17 Amtrak trains to pass."

18 Do you see that?

19 A. I do.

20 Q. And -- and Mr. Niemeyer estimates the
21 cost at about \$84M for this?

22 A. That's correct.

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1563

1 Q. And that was not included in the
2 original \$440M that CSX and NS said was necessary
3 for Amtrak to pay for before Amtrak could start
4 the Gulf Coast Service, correct?

5 A. I believe it was mentioned in the -- in
6 the report, but, no, it's not in that 440M.

7 Q. So I'm just trying to get clarity on
8 NS' position. So NS' position is actually that
9 there's \$524M in projects that have to be
10 completed before NS can -- before Amtrak can
11 operate the Gulf Coast Service.

12 Is that right?

13 A. We've provided a list of projects that
14 mitigate the impact Amtrak has on our operations.

15 Q. And is it wasn't until Mr. Hunt's
16 testimony on Wednesday that we've learned that NS
17 now considers the freight lead extension not just
18 another beneficial project for consideration but
19 actually a fifteenth project and a prerequisite
20 that must be completed before Amtrak can run a
21 single train.

22 Is that right?

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1564

1 A. We believe that the freight lead is
2 probably the most beneficial project in the New
3 Orleans terminal.

4 Q. So that the total demand now for Amtrak
5 to start Gulf Coast Service is 524M, not 440M. Is
6 that right?

7 A. That's the total for those projects,
8 correct.

9 MS. AMUNSON: And we can take down that
10 document. Thank you, Mr. Peterson.

11 BY MS. AMUNSON:

12 Q. We saw with Mr. Hunt that NS already
13 has two main tracks for the three miles over which
14 Amtrak would travel, correct?

15 A. That's correct.

16 Q. And Amtrak would only need one track to
17 get where it needs to go, correct?

18 A. No. They'd occupy both tracks. They
19 have to cross over.

20 Q. But adding another track is really just
21 about adding another place to park freight trains.
22 Is that right?

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1565

1 A. No, it's to move freight trains out of
2 the way so Amtrak has a clear route.

3 Q. So Amtrak doesn't run 12,000 foot long
4 trains, correct?

5 A. Correct.

6 Q. So the freight lead extensions will be
7 used by freight trains, correct?

8 A. That's correct. It's to move the
9 freight trains off of main two so that Amtrak has
10 a route through.

11 Q. But there's already two main lines?

12 A. That's correct, but Amtrak has to cross
13 over and utilizes both tracks when they move.

14 Q. And Mr. Hunt testified that it takes an
15 Amtrak train about eight minutes to travel the
16 three miles of the Norfolk Southern line.

17 Is that right?

18 A. I don't know that he testified to that.

19 Q. Is it your understanding that it takes
20 an Amtrak train about eight minutes to travel the
21 three lines -- three miles of the NS line?

22 A. That would make sense.

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1566

1 Q. And Amtrak proposes to operate four
2 additional trains per day on that line, correct?

3 A. That's correct.

4 Q. So a total of about 32 minutes for
5 Amtrak on the three miles of NS lines daily,
6 correct?

7 A. That's correct but, as I stated before,
8 when we run Amtrak trains, they need dispatch
9 starts holding trains well before Amtrak arrives
10 to ensure that we have a clear route for them.

11 Q. And so for those 32 minutes Amtrak must
12 pay for about \$100M in improvements to Norfolk
13 Southern lines. Is that right?

14 That's sort of adding in the freight
15 lead extensions, subtracting out the St. John's
16 project and adding in the other projects. Is that
17 your understanding?

18 A. Those are the projects that are going
19 to be necessary for us to be able to keep a clear
20 route and give Amtrak the preference they're
21 afforded.

22 Q. Mr. Hunt also testified that the back

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1567

1 belt can -- can accommodate about a 15- to 20%
2 growth in freight traffic -- traffic without any
3 infrastructure investment by NS.

4 Is that correct?

5 A. I don't recall him testifying to that,
6 but...

7 Q. Is it your understanding that the back
8 belt can accommodate about a 15- to 20% growth in
9 freight traffic through 2039 without NS investing
10 in infrastructure?

11 A. Yes, our -- our operations should be
12 able to handle that. Yes.

13 Q. So without building the freight lead
14 extension?

15 A. That's correct.

16 Q. How many additional freight trains does
17 NS anticipate that 15- to 20% growth resulting in?

18 A. I believe it's two additional freight
19 trains and one local on the back belt. I believe.

20 Q. And how long on average does it take a
21 freight train to traverse the black belt -- back
22 belt?

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1568

1 A. Every train on the back belt has to
2 stop and work. So it just depends on what -- what
3 amount of work they have.

4 Q. Fair to say it would take longer than
5 eight minutes?

6 A. Sure, it would take longer than eight
7 minutes.

8 Q. Fair to say it might be about an hour?

9 A. That's fine.

10 Q. And it could be longer than an hour?

11 A. Sure, it could be longer than an hour.

12 Q. So NS can accommodate three additional
13 trains that will occupy the back belt for several
14 hours without any infrastructure investment but it
15 can't accommodate Amtrak trains that will be on
16 the back belt for 32 minutes without \$100M in
17 infrastructure investment from Amtrak.

18 Is that correct?

19 A. That's correct. If you want us to be
20 able to move Amtrak with the preference that
21 they're afforded, then our own trains can't sit on
22 the main lines. They're going to have to move to

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1569

1 give you guys the -- the route necessary. So,
2 yes, that's correct.

3 Our trains can sit on the main line.
4 It's not an issue for us to sit on the main line.
5 But in order to move Amtrak, with the priority
6 that they're afforded, we have to have another
7 spot to put the freight trains.

8 Q. So that's a third spot, in addition to
9 the two main lines?

10 A. Yes. We'd have to be able to clear
11 both tracks in order for Amtrak to move.

12 Q. I'm going to go back to your verified
13 statement to page 12 of your verified statement,
14 which again is Joint Exhibit 23H, where you're
15 talking about how you arrived at NS' growth
16 projections. And at page 12 you say you
17 "consulted with your internal commercial planning
18 and network planning groups to determine projected
19 car load volumes for 2040".

20 Is that correct?

21 A. I'm sorry, what page are you on?

22 Q. This is page 12 of your verified

1 statement, last paragraph. And I believe we can
2 pull that up if we need to.

3 A. That's correct.

4 Q. Okay. And you projected annual growth
5 of 1.5%. Is that correct?

6 A. Less than 1.5.

7 Q. And is there anything in your work
8 papers that supports that 1.5% growth estimate?

9 A. I believe Mr. Dingler backed out from
10 our gross to -- to come up with that less than one
11 point five number.

12 Q. Is there anything in your work papers
13 that supports that?

14 A. I don't believe I have any work papers.

15 Q. Anything in Mr. Dingler's work papers
16 to support that?

17 A. I don't know.

18 Q. And it is this growth in freight
19 traffic that drives the infrastructure demands for
20 the 2039 case, correct?

21 A. No. It's adding Amtrak that drives the
22 infrastructure in the 2039 case.

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1571

1 Q. The growth in freight traffic does not
2 impact at all the infrastructure demands for 2039?

3 A. No, I don't -- I don't believe so.

4 Q. Does the growth rate -- do the
5 infrastructure demands consider the possibility of
6 operating efficiencies between now and 2039?

7 A. Such as what?

8 Q. Such as increased productivity.

9 A. The back belt works pretty well. I'm
10 not sure what -- what efficiencies you might be
11 referring to.

12 I mean, if you -- if you give me an
13 example, I might be able to tell you whether or
14 not that's something that can -- could be put into
15 place.

16 Q. I believe Mr. Hunt's verified statement
17 said that "there are already lengthy delays along
18 the back belt and that adding Amtrak would
19 exacerbate these delays"?

20 A. That's correct.

21 Q. So, the infrastructure projects that
22 are recommended by the 2021 RTC study are designed

1 to allow NS to maintain the status quo
2 operationally.

3 Is that correct?

4 A. That's correct. It's to allow us to
5 continue our operations as they exist today.

6 Q. Did the 2021 RTC model differentiate
7 between infrastructure projects that would
8 mitigate serious adverse impacts on Norfolk
9 Southern versus projects that would ensure the
10 status quo for Norfolk Southern?

11 A. We identified a set of projects that
12 mitigated the impact of Amtrak on our lines.

13 Q. To allow you to maintain the status
14 quo, correct?

15 A. To allow our operations to exist as
16 they do today.

17 Q. Which of the 15 projects that we've
18 discussed will mitigate the extra 19 minutes of
19 delay that the model says will result from the
20 introduction of passenger service?

21 A. Okay. I think you'd mentioned this
22 metric several times and I'm not sure what the

1 metric is. Can -- can you explain to me what the
2 metric is?

3 Q. Sure. The modelers predicted a 22.7%
4 increase in aggregate train delay per hundred
5 miles and that translates into an increase from
6 83 minutes to 102 minutes.

7 A. Okay, that -- that's 19 minutes of
8 delay additional per hundred train miles?

9 Q. Yes.

10 A. Okay. So, if I may expand on this. I
11 think the board needs to understand what that
12 number is.

13 Nineteen minutes delay per hundred
14 train miles is 19 minutes per hundred train miles
15 traveled over the course of the simulation.
16 Thousands and thousands and thousands of miles are
17 traveled.

18 That 19 minutes equates to 13 hours of
19 additional delay per day.

20 Q. Which projects of the 15 projects that
21 are recommended will mitigate those 19 minutes?

22 A. All of them.

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1574

1 Q. So you need all 15 projects to
2 mitigate --

3 A. That brings us back to zero. I mean,
4 that brings us back to where we were, yes.

5 Q. And which projects will mitigate the
6 reduction in freight train speeds from 14.8 to
7 14.1 miles per hour?

8 A. The defined projects bring us back to
9 where we were.

10 Q. All 15 of them are necessary to
11 mitigate that impact?

12 A. Not 15. Fourteen. If we don't put St.
13 John's in and we put the freight lead in, it's 14.

14 Q. It's actually 15 because of St. John's
15 is -- there's a package of three projects that are
16 counted as one for purposes of NS projects?

17 A. Well, yeah, you're still just swapping
18 them. If St. John comes out and freight goes in,
19 that's still only one project with three pieces.

20 Q. Is the -- the St. John's project, do
21 you recall what that is estimated at?

22 A. No, I don't recall.

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1575

1 Q. Is it estimated at between \$4- and \$5M?

2 A. If that's what it says in the Niemeyer
3 report, then I'll believe that. I don't know off
4 the top of my head.

5 Q. And so we're swapping out an \$84M
6 project for a \$5M project? Is that right?

7 A. They in essence -- I mean, the freight
8 lead mitigates -- or eliminates the need for the
9 St. John's crossover.

10 Q. But it's still 15 projects because, as
11 I said, the three NS projects, including St.
12 John's, were included as project one for Mr.
13 Niemeyer's report?

14 A. We'll go with 15 projects. That's
15 fine.

16 Q. Right. So in any event, which of those
17 projects will mitigate the reduction in freight
18 speeds from 14.8 to 14.1 miles per hour?

19 A. All the projects bring us back to
20 status quo.

21 Q. And which of those projects will
22 mitigate needing to re-crew once more every three

1 days?

2 A. All of the projects bring us back to
3 status quo.

4 Q. So there's no way to tie specific
5 projects that are recommended to specific impacts
6 that are causing unreasonable impairment,
7 supposedly.

8 Is that correct?

9 A. You'll have to -- you'll have to talk
10 to Mr. Dingler about exactly what he looked at.

11 Q. Which of those projects would you need
12 to mitigate what you would consider to be a
13 reasonable impairment of freight transportation?

14 A. The model didn't define reasonable or
15 unreasonable. The model defined a set of projects
16 that would mitigate the impact to Amtrak on our
17 lines.

18 Q. And mitigate them so that you could
19 maintain the status quo, correct?

20 A. So that we could keep our operations as
21 they exist today, correct.

22 Q. And NS has acknowledged that there is

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1577

1 sufficient capacity for the Gulf Coast Service to
2 operate right now, correct?

3 A. There is -- there is room to run more
4 trains on the -- on the line. However that
5 doesn't -- that's not -- that's not the question
6 that's being asked here.

7 Capacity exists. It's what the impact
8 is to our operations. That's what's been defined
9 here.

10 Q. And Norfolk Southern has acknowledged
11 that the Gulf Coast Service can be added now
12 without causing the corridor to grind to a halt,
13 correct?

14 A. No, they will severely impact our
15 operations and it's going to cause our interchange
16 partners to sit on their lines for extended
17 periods of time and cause cascading or ripple
18 effect of issues on their lines.

19 Q. So when you say it will severely impact
20 your operations, the evidence of that severe
21 impact is the RTC study and the statistics that it
22 spit out about modeled train delay per hundred

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1578

1 miles and reduction in freight train speeds and
2 needs -- need to re-crew.

3 Is that correct?

4 A. That's correct.

5 Q. Thank you, Ms. Sinkkanen. If you can
6 just give me one moment.

7 (Brief pause.)

8 Q. Thank you, Ms. Sinkkanen. I have no
9 further questions.

10 CHAIRMAN OBERMAN: Ms. Sinkkanen, I
11 have a couple of questions following up.

12 You had talked about certain freight
13 trains being -- having schedules and other ones
14 don't, so forth. Just on that testimony, do
15 you -- is it your understanding, based on your
16 work, that freight train schedules could be
17 expected to change or vary over a 20-year period,
18 if we're looking towards 2039, from what they are
19 today?

20 THE WITNESS: Sure. That would be
21 fair.

22 CHAIRMAN OBERMAN: So was there any way

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1579

1 to -- I gather that wasn't taken into account,
2 though, in trying to figure out the modeling of
3 how the freight train schedules would change?

4 THE WITNESS: No. Typically speaking
5 we don't adjust operations that way. We don't --
6 we don't change our train schedules when we're
7 modeling. They may happen. I mean, they may
8 happen in the future, but typically speaking, when
9 we're doing a model, that's -- that's typically
10 not -- not something that we're looking at.

11 CHAIRMAN OBERMAN: Why not?

12 THE WITNESS: It -- changing a schedule
13 isn't as simple as just moving, you know, a
14 departure time or an arrival time. You have to
15 make sure that that arrival time will work at the
16 arriving location and that they are going to have
17 the capacity in the yard to handle it at that
18 time, that once we get it into the yard, that
19 there's going to be crews available to move it, to
20 move the -- to move the car loads around that
21 we've got, a local in place that could deliver to
22 our end customer.

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1580

1 At the same time, it's just not as
2 simple as just saying, hey, let's move this
3 schedule two hours away or two hours earlier.

4 CHAIRMAN OBERMAN: Well, whether it's
5 simple or not, there's a half a billion dollars at
6 stake here. Is it doable, whether it's simple or
7 not, to adjust those schedules in the model?

8 THE WITNESS: Sure. I mean, we could
9 test changes in schedules in the model.

10 CHAIRMAN OBERMAN: Okay.

11 THE WITNESS: And usually that's
12 something that -- it does come up potentially in
13 discussions. You know, once we've defined, you
14 know, here's the -- here's the infrastructure that
15 we're looking at to mitigate the impact, and
16 there's negotiations amongst the parties and, you
17 know, operational changes may come into play
18 there.

19 MEMBER FUCHS: And it sounded like --
20 sorry, Marty, to interrupt, but it sounded like
21 the schedule changes are what happened in the real
22 world.

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1581

1 THE WITNESS: Did schedule changes
2 happen in the real world?

3 MEMBER FUCHS: Yeah, over a 20-year
4 period.

5 THE WITNESS: Yes.

6 MEMBER FUCHS: Yes.

7 THE WITNESS: Yeah.

8 MEMBER FUCHS: That would be an
9 instance where the model departs from what you'd
10 reasonably expect in the real world?

11 THE WITNESS: Right.

12 MEMBER FUCHS: All right.

13 CHAIRMAN OBERMAN: And just on the
14 other matter that you were asked about, taking
15 into account changes or improvement in
16 productivity, I think you were asked about the
17 back belt line specifically. But do you expect in
18 your work that productivity will change and
19 presumably improve over a 20-year period as you
20 look out forward?

21 THE WITNESS: The back belt's a kind of
22 unique --

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1582

1 CHAIRMAN OBERMAN: No, I wasn't -- I
2 wasn't limiting it to the back belt, Ms.
3 Sinkkanen.

4 I'm talking about generally when you're
5 modeling and you have all these inputs and so
6 forth, do you take into account any increase in
7 productivity when you're looking out 20 years?

8 THE WITNESS: I mean, we look at things
9 like increasing train length to reduce the number
10 of trains that were running.

11 CHAIRMAN OBERMAN: And you did that --
12 that actually did -- did happen in this modeling,
13 right?

14 THE WITNESS: That did happen in this
15 one, yes.

16 MEMBER FUCHS: Well, wait, wait.
17 Marty, sorry to jump in.

18 You decreased the number of trains
19 running?

20 THE WITNESS: Did we decrease the
21 number of trains running? No. I mean, we --
22 instead of adding -- for CSX, instead of adding

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1583

1 additional trains starts on their lines, they
2 increased the length of the train.

3 MEMBER FUCHS: I thought I heard you
4 say that you increased the train length and
5 decreased the trains running. But it sounds like
6 you just -- what you did is allocated the growth
7 to increase train length but you didn't decrease
8 train starts?

9 THE WITNESS: Yes. But I mean, in
10 other studies, I mean, in the whole, if we take
11 the whole realm of all of our traffic into place,
12 we do -- we do look at, you know, combining trains
13 as a way to increase productivity on our lines.

14 MEMBER FUCHS: What other studies?

15 THE WITNESS: Not this one. Mr.
16 Oberman just asked in general, not -- not limiting
17 it to the back belt.

18 MEMBER FUCHS: No, but what studies do
19 you -- do you decrease train starts?

20 THE WITNESS: So we can combine trains,
21 which would decrease the trains, put two trains
22 together and then look at infrastructure that

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1584

1 maybe we would need to run fewer, longer trains,
2 so maybe longer siding as opposed to running more
3 short trains.

4 MEMBER FUCHS: All right. Sorry,
5 Marty. I didn't mean to interrupt you.

6 CHAIRMAN OBERMAN: Oh, it's okay.

7 The -- any other kinds of improvements
8 in productivity other than train lengths that you
9 consider in these modelings?

10 THE WITNESS: We've looked at DP power,
11 where we've -- we've put power in the middle and
12 the head-in.

13 CHAIRMAN OBERMAN: Do you look at
14 adding more power, just for the trains to have a
15 better velocity?

16 THE WITNESS: I have not.

17 CHAIRMAN OBERMAN: Is that something
18 that's done in RTC modeling, to your knowledge?

19 THE WITNESS: I believe it can be
20 looked at in RTC modeling. I don't believe I have
21 looked at it. But yes, it could -- yes, we
22 could -- we could add additional power.

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1585

1 There are limitations on how much power
2 you can put on a train, but, yes, we could look at
3 that.

4 CHAIRMAN OBERMAN: Any other types of
5 productivity -- I can't -- I'm not knowledgeable
6 enough to list any but do you know of any?

7 THE WITNESS: No. I mean, I can't
8 think of any off the top of my head.

9 CHAIRMAN OBERMAN: Okay. That was --
10 that was all I had. Do any other board members
11 have questions?

12 MEMBER FUCHS: Marty, just to make sure
13 I'm tracking the point...

14 MEMBER HEDLUND: Yeah --

15 CHAIRMAN OBERMAN: What? Hold on.
16 Patrick, do you want to finish?

17 MEMBER FUCHS: It'll be very quick. I
18 didn't mean to jump in front of my colleagues but
19 this is just a really off-shoot of what...

20 So, to be absolutely clear, you're
21 saying if we were to look back at a 20-year
22 period, we would see productivity improvements

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1586

1 beyond just longer trains for a locomotive. You
2 might see things in terms of adding distributor
3 power, you might see things in terms of improving
4 locomotives over time. There are lots of
5 different ways that productivity can increase
6 but --

7 THE WITNESS: I mean, you can also look
8 at infrastructure. I mean, there are -- there are
9 infrastructure that could be put in place that
10 would increase productivity --

11 MEMBER FUCHS: Right.

12 THE WITNESS: -- like if you put signal
13 systems in.

14 MEMBER FUCHS: Right. But and I guess,
15 besides increasing train length, there is no form
16 of freight-driven productivity that was included
17 in the model?

18 THE WITNESS: No, I don't believe so.
19 But I would clarify that with Mr. Dingler.

20 MEMBER FUCHS: I appreciate it. Thank
21 you.

22 CHAIRMAN OBERMAN: Karen?

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1587

1 MEMBER HEDLUND: Listen, can you remind
2 me, how long is the existing freight lead?

3 THE WITNESS: I believe it's -- it's
4 between 3,000 and 3,500 feet.

5 MEMBER HEDLUND: That's all I have.

6 CHAIRMAN OBERMAN: Any other board
7 members have any questions?

8 MEMBER SCHULTZ: Yes.

9 Ms. Sinkkanen, would you be able to
10 answer as to whether or not a model was run with a
11 lesser amount of infrastructure, other than the 14
12 projects?

13 THE WITNESS: I believe for the 2019
14 impact we did reduce the number of projects. I
15 believe it's 11. And you'd have to talk to Mr.
16 Dingler if he tested any other ones. I know that
17 we had other infrastructure projects that were in
18 and have come out. So I know that there have been
19 other iterations. I don't know the extent of
20 those iterations.

21 MEMBER SCHULTZ: Do you know which
22 projects were left out?

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1588

1 THE WITNESS: We had a -- as far as NS
2 is concerned, we had another set of crossovers at
3 East City Junction as part of a way to extend the
4 distance between where Amtrak came on and where
5 our trains worked to try and be able to fit one or
6 two trains in that -- in that space.

7 So we had that in there and eventually
8 it came out.

9 MEMBER SCHULTZ: Sorry, I'm not -- I'm
10 not sure if I was clear.

11 In other words, you -- you removed a
12 couple of crossovers. Is that correct?

13 THE WITNESS: On the NS side, yes.
14 There was an additional project that I know was
15 tested that did not end up in that last -- in the
16 final package.

17 MEMBER SCHULTZ: Do you know by chance
18 how much, you know, the removal of those
19 crossovers shaved off of the total number?

20 THE WITNESS: I don't know. Generally
21 crossovers could be anywhere from \$4- to \$10M.

22 MEMBER SCHULTZ: Each?

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1589

1 THE WITNESS: Yeah.

2 MEMBER SCHULTZ: Okay. And then what
3 would -- once -- once you removed just those
4 crossovers, what -- what was the result?

5 THE WITNESS: That I can't answer.
6 You'll have to talk to Mr. Dingler about that.

7 MEMBER SCHULTZ: And I'm going to guess
8 that Mr. Dingler was the one that made the
9 decision on which projects were removed?

10 THE WITNESS: That's correct, yes,
11 after he tested.

12 So you come up with a whole list of,
13 you know, projects that you're going to test in
14 the model and then you run through iterations as
15 you try to come to a final set of projects that
16 accomplish the goal.

17 MEMBER SCHULTZ: Okay, thank you.

18 THE WITNESS: You're welcome.

19 MEMBER PRIMUS: I have a follow-up
20 question on --

21 CHAIRMAN OBERMAN: All right, Robert,
22 go ahead, surely.

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1590

1 MEMBER PRIMUS: So we've heard a lot,
2 and not just from you, from -- from other
3 witnesses, about Mr. Dingler and -- and he's going
4 to have a lot of answers I hope for -- for us
5 because folks are like, you have to ask him.

6 THE WITNESS: Yeah. So he did the
7 modeling, so he has a little bit more in-depth
8 knowledge of the model and everything that he
9 tested. I mean, it's a lot. There's a lot that
10 goes into a model.

11 MEMBER PRIMUS: No, I understand that,
12 and -- and again I'm not -- nowhere close to being
13 an expert on it. But I guess I'm a little bit --
14 I guess I want to get just clarification here.

15 So, would you say that Mr. Dingler had
16 tremendous leeway and flexibility in terms of
17 altering or -- or making adjustments to the -- the
18 model? Because it sounds like when -- when
19 questions are asked, specific questions, we've --
20 I've heard from again just about every witness
21 say, "I don't know. You're going to have to ask
22 Mr. Dingler". And so that actually -- I'm a

1 little confused at that, because we all -- most of
2 the witnesses had -- had some sort of input into
3 the model, as you said your inputs, but then we
4 don't -- I'm getting confused, because then but no
5 one seems to understand what happened once those
6 inputs were given to Mr. Dingler.

7 And so -- you know, so -- so was he
8 basically the -- the person -- because I'm trying
9 to set this up so when we talk to him, so I can
10 understand. Is he the guy that basically said
11 yea, nay, on the input? He changed the input if
12 it needed to be changed, if he thought it needed
13 to be changed. He's the one that determined the
14 projects if the projects needed to be changed. So
15 he had complete authority to make changes and
16 adjustments to the model.

17 THE WITNESS: He did. We would have
18 conversations if it was something that he felt that
19 we needed to be involved in. But, yes, we gave
20 him the data, he built the model, he ran the
21 model, he came up with the infrastructure, he
22 tested the infrastructure.

1 We had conversations on the
2 infrastructure but ultimately this set of projects
3 that were recommended, the inputs, he did his own
4 validation of the inputs. But yes.

5 MEMBER PRIMUS: Okay, so -- so, in
6 terms of his oversight from NS' perspective, was
7 there oversight or -- or was it a matter of just
8 he gets the input, he's running the model, he's
9 the expert, let him do his -- his thing?

10 You know, because I'm trying to figure
11 out -- I just wanted just clarification --

12 THE WITNESS: Yes.

13 MEMBER PRIMUS: -- in terms of --

14 THE WITNESS: Yes. I would say that
15 that's an accurate representation.

16 It is -- we are involved. He does --
17 if he had questions for us about our inputs, if he
18 had questions for us about, you know,
19 infrastructure, is this buildable, is this not
20 buildable, how would this infrastructure be
21 utilized if we built. Say for the freight lead,
22 you know, would you use that to park the trains or

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1593

1 would that only be used for the specific
2 operations?

3 I mean, there were -- there were
4 questions and there was input from the -- from the
5 railroads, but Mark was the modeler in this case.

6 MEMBER PRIMUS: Thank you.

7 THE WITNESS: You're welcome.

8 CHAIRMAN OBERMAN: Ms. Sinkkanen, I
9 have a couple more questions, just to try to
10 understand the process here. If -- if you know.

11 THE WITNESS: Okay.

12 CHAIRMAN OBERMAN: And if you don't,
13 tell us who knows.

14 So you've talked about the freight lead
15 was looked at in the initial report and it was
16 decided not to include it in the initial report
17 because of the cost, and it was also --

18 THE WITNESS: Yeah.

19 CHAIRMAN OBERMAN: Right?

20 THE WITNESS: I believe that we talk
21 about it in the initial RTC report.

22 CHAIRMAN OBERMAN: Yes, you do.

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1594

1 THE WITNESS: Mm-hmm.

2 CHAIRMAN OBERMAN: And that was --

3 THE WITNESS: It was a -- it was a --
4 it was a cost issue originally.

5 CHAIRMAN OBERMAN: Right.

6 THE WITNESS: Potentially build
7 feasibility issue, and that's why it was pulled
8 out.

9 CHAIRMAN OBERMAN: Right. So -- so my
10 question -- and then Mr. Niemeyer, whose verified
11 statement is the same date, November 3rd, also
12 talks about it, as you --

13 THE WITNESS: That is correct.

14 CHAIRMAN OBERMAN: -- pointed out. And
15 then the rebuttal report was submitted a few weeks
16 later on December 23 and now it is
17 included.

18 THE WITNESS: That's correct.

19 CHAIRMAN OBERMAN: So I'm wondering if
20 you could tell us, what was the process of --
21 first of all, someone had to decide whether to ask
22 Mr. Dingler to make a rebuttal report. Were you

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1595

1 involved in that communication?

2 THE WITNESS: I was aware of the
3 rebuttal report being produced, correct?

4 CHAIRMAN OBERMAN: Right, but who asked
5 him to do it? Do you know?

6 THE WITNESS: No, I don't know.

7 CHAIRMAN OBERMAN: You just heard he
8 was doing it?

9 THE WITNESS: I -- I knew there was a
10 rebuttal report, correct. I -- I don't know who
11 requested that. I don't know if that was NS or
12 CSX. I don't know where the request for that came
13 from.

14 CHAIRMAN OBERMAN: How did you learn
15 that was going on?

16 THE WITNESS: Mark discussed it with
17 me.

18 CHAIRMAN OBERMAN: And he didn't tell
19 you what prompted him to undertake --

20 THE WITNESS: No. No, I don't -- no.

21 CHAIRMAN OBERMAN: All right, so --

22 THE WITNESS: I mean, I -- I'm assuming

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1596

1 that it's to respond to, you know, the reply of
2 evidence from Amtrak.

3 CHAIRMAN OBERMAN: I don't want you
4 to -- I'm not asking you to guess or make
5 assumptions. I'm only -- if you know the answer,
6 could be helpful.

7 And how -- do you remember when the
8 discussions you had with Mr. Dingler took place
9 about that he was going to be preparing a rebuttal
10 report?

11 THE WITNESS: No, I couldn't -- I
12 couldn't tell you that.

13 CHAIRMAN OBERMAN: How many
14 conversations did you have with him?

15 THE WITNESS: With Mark?

16 CHAIRMAN OBERMAN: Yeah, about the
17 rebuttal, I'm sorry.

18 THE WITNESS: Several.

19 CHAIRMAN OBERMAN: About the rebuttal.

20 THE WITNESS: I don't -- I don't know.
21 I couldn't answer that.

22 CHAIRMAN OBERMAN: All right. And were

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1597

1 you the person who suggested that he include the
2 freight lead in the rebuttal report?

3 THE WITNESS: No.

4 CHAIRMAN OBERMAN: Who was the person?

5 THE WITNESS: I can't answer that. I
6 would assume that that came from Mark's analysis
7 of the model, that it was a -- it was a necessary
8 project based on the impacts.

9 CHAIRMAN OBERMAN: This would be the
10 analysis done after the original report and before
11 the rebuttal report?

12 THE WITNESS: That -- I really can't
13 answer that. I'm not sure exactly when.

14 CHAIRMAN OBERMAN: Okay. I didn't -- I
15 didn't know what your involvement is in it. It
16 sounds like you didn't have much involvement in
17 the rebuttal report.

18 Would that be a correct statement?

19 THE WITNESS: Yeah, I read the rebuttal
20 report and my hand in it would have not been very
21 much. It would have been, you know, background.
22 If he had any questions about the model or any of

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1598

1 the inputs, I would have been involved there and
2 we would have discussed that.

3 CHAIRMAN OBERMAN: Did he?

4 THE WITNESS: I don't recall.

5 CHAIRMAN OBERMAN: Did you do any more
6 data gathering for the rebuttal report?

7 THE WITNESS: I did not, no.

8 CHAIRMAN OBERMAN: Do you know if
9 anybody else did?

10 THE WITNESS: No, I don't know that.

11 CHAIRMAN OBERMAN: Were you involved
12 with the discussions before the original report in
13 which it was determined not to include the freight
14 lead because of cost?

15 THE WITNESS: Yes, I was involved in
16 that.

17 CHAIRMAN OBERMAN: Who was involved
18 with those discussions?

19 THE WITNESS: I reached out to our
20 engineering department to get a high-level build
21 feasibility of it, and we came back that, if it
22 was buildable, it would be difficult to build, so

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1599

1 expensive. So I told Mark to pull that out.

2 CHAIRMAN OBERMAN: A-ha. Was that on
3 your own? Did you have authority to tell Mr.
4 Dingler to pull the freight lead out?

5 THE WITNESS: Yeah. So I had
6 conversations with my boss about it and we decided
7 that, because of the cost of that project, we
8 didn't want to pursue it. It was too expensive.
9 We wanted to look and see if there were other
10 options that would mitigate the delay to NS. And
11 we identified a set of projects that did that,
12 however, analysis showed that, while it mitigated
13 the impact to NS, it did not mitigate the impact
14 to our -- our interchange partners.

15 CHAIRMAN OBERMAN: Who is the -- your
16 boss who you discussed it with?

17 THE WITNESS: Michael Williams.

18 CHAIRMAN OBERMAN: And was it a joint
19 decision of yours and Mr. Williams to ask Mr.
20 Dingler to take the freight lead out of the
21 initial report, or somebody else?

22 THE WITNESS: It was -- we didn't take

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1600

1 it out of the initial report. We took it out of
2 the -- the set of projects that he was testing.

3 CHAIRMAN OBERMAN: That's what I meant.

4 THE WITNESS: Yes, yes.

5 CHAIRMAN OBERMAN: Was it a joint
6 decision by you and Mr. Williams?

7 THE WITNESS: Yes.

8 CHAIRMAN OBERMAN: And who in your
9 engineering department did you -- when you said
10 you asked them to do a high-level, you know,
11 feasibility cost and buildability and so forth,
12 who -- who was that you spoke to?

13 THE WITNESS: I'd have to go back and
14 check the emails.

15 CHAIRMAN OBERMAN: Do you have an email
16 chain that reflects that discussion?

17 THE WITNESS: I may.

18 CHAIRMAN OBERMAN: Was there any other
19 way --

20 THE WITNESS: I don't -- I don't recall
21 if I -- if I emailed him or if I used communicator
22 or if it was phone call. There may be an email

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1601

1 chain on it. I'd have to go back and look.

2 CHAIRMAN OBERMAN: Well, it sounds
3 like --

4 THE WITNESS: I don't want to speculate
5 who it was but --

6 CHAIRMAN OBERMAN: Well, I don't --

7 THE WITNESS: -- there's only a few
8 individuals who I would have reached out to.

9 CHAIRMAN OBERMAN: Well, I don't want
10 you to speculate but it might -- it is possible
11 you think to go back through some record that you
12 may have that would identify who you were
13 communicating with on this subject?

14 THE WITNESS: Sure, I can look.

15 CHAIRMAN OBERMAN: Okay. I had -- let
16 me ask you, did -- did you have any discussions
17 with the engineering department about any of the
18 other of the 14 projects in terms of cost and
19 whether it made sense to spend that much money?

20 THE WITNESS: Not as far as -- not as
21 far as cost or whether it made sense to spend that
22 much money.

1 We provided the -- the suite of
2 projects that Mr. Dingler came up with to our
3 engineering department to just get a high-level
4 feasibility.

5 CHAIRMAN OBERMAN: Well, did -- did --
6 was there any discussion about any of the other 14
7 projects of a similar type that you had about the
8 freight lead as to whether the cost was worth it
9 to be included in the projects for the RTC
10 studies?

11 THE WITNESS: I only -- so I only deal
12 with the NS projects, which is one project in a --
13 in a set of three different sets of crossovers in
14 the freight lead -- or it was four I think, four
15 different sets of crossovers in the freight lead
16 at that time.

17 So, no. I had the conversation about
18 our -- our infrastructure.

19 CHAIRMAN OBERMAN: Do you know whether
20 CSX followed a parallel process that you followed
21 on the projects on their line in terms of whether
22 the cost was worth including them in the study?

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1603

1 THE WITNESS: That I don't know.

2 CHAIRMAN OBERMAN: You -- you just
3 didn't have communications on that subject?

4 THE WITNESS: That's correct.

5 CHAIRMAN OBERMAN: Let me ask this.
6 There were communications between your -- your
7 folks at NS and the folks at CSX, in connection
8 with the -- with this study, right?

9 THE WITNESS: That's correct, yes.

10 CHAIRMAN OBERMAN: And was there any
11 discussion during any of those meetings that you
12 recall where there was sort of an overview about
13 how to approach this?

14 In other words, was there any
15 discussion in -- in substance that, you know,
16 when, as we're doing this modeling, we ought to
17 ask our people to look at costs versus the benefit
18 of including a project in the study.

19 Do you recall any sort of overall
20 approach like the one you actually followed with
21 the freight lead?

22 THE WITNESS: No, I don't recall.

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1604

1 CHAIRMAN OBERMAN: All right. Okay.

2 Well, that's all very helpful. Thank
3 you much, Ms. Sinkkanen.

4 THE WITNESS: You're welcome.

5 CHAIRMAN OBERMAN: I think there are no
6 other board member questions, Mr. Donahoe. So
7 your witness for redirect if you have any.

8 MR. DONAHOE: Thank you, Mr. Chairman.
9 I just have one question on redirect.

10 REDIRECT EXAMINATION

11 BY MR. DONAHOE:

12 Q. Holly, will the addition of the four
13 Amtrak trains on the back belt only affect
14 operations for 32 minutes a day?

15 A. No.

16 Q. Why is that?

17 A. We have to clear a path for Amtrak
18 arriving. Generally speaking we use an Amtrak
19 window, typically what it's called in the field,
20 roughly 45 minutes to an hour ahead of Amtrak's
21 arrival, we start staging our trains to keep clear
22 of Amtrak's route.

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1605

1 Q. Thank you.

2 A. You're welcome.

3 MR. DONAHOE: I have no further
4 questions, Chair.

5 CHAIRMAN OBERMAN: All right, any
6 recross, Jessie?

7 MS. AMUNSON: Just one based on --

8 RECROSS-EXAMINATION

9 BY MS. AMUNSON:

10 Q. What specific investments were made in
11 the back belt in the last 20 years?

12 A. You'll have to go back --

13 MR. DONAHOE: Objection. That's beyond
14 the scope of redirect.

15 CHAIRMAN OBERMAN: She may answer.

16 THE WITNESS: I believe -- I believe
17 Mr. Hunt answered that question. You'll need to
18 go back and look at his testimony. I can't tell
19 you off the top of my head.

20 MS. AMUNSON: Thank you.

21 CHAIRMAN OBERMAN: You know, actually,
22 Ms. Sinkkanen, I am sorry to prolong it. I do

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1606

1 have one -- one other question I've overlooked in
2 my notes.

3 Are there bottleneck type issues on the
4 west end of the back belt, wherever that -- I
5 don't -- there hasn't been much discussion about
6 it, but wherever that goes?

7 THE WITNESS: The west -- the west end
8 where we connect to the UP.

9 CHAIRMAN OBERMAN: Well, I don't know
10 where it ends.

11 THE WITNESS: Yeah, I mean -- we --
12 yeah, we go to the East Bridge Junction. We
13 connect to the UP there. That's where -- so, yes,
14 we're -- we're handing off to another railroad
15 there. It's an interchange operation. Those are
16 all -- all three bottlenecked.

17 CHAIRMAN OBERMAN: Okay. But not that
18 Amtrak -- will have no impact on the west end
19 because they turn off long before you get there,
20 right?

21 THE WITNESS: Not long before, but yes
22 before.

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1607

1 CHAIRMAN OBERMAN: Okay, before. Okay.

2 THE WITNESS: Yes, yes.

3 CHAIRMAN OBERMAN: Somewhere before on
4 the map it turns off.

5 THE WITNESS: Yeah, the whole back belt
6 I think is only maybe seven miles.

7 CHAIRMAN OBERMAN: I see. Okay.

8 All right, we -- I think, Ms.
9 Sinkkanen, unless anybody has anything else, you
10 can be dismissed.

11 THE WITNESS: Thank you.

12 CHAIRMAN OBERMAN: Thank you. I
13 appreciate your patience.

14 (Witness is excused.)

15 CHAIRMAN OBERMAN: At this point, we
16 were planning to take a break at 11:00 o'clock.
17 It is 12 minutes to 11:00 and I think it would
18 just make sense to start fresh with -- is our next
19 witness Mr. Dingler?

20 MR. ATKINS: Yes, he is, Chairman.

21 CHAIRMAN OBERMAN: All right. Let's
22 recess at this point until 1:00 p.m., Eastern. We

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1608

1 will proceed with Mr. Dingler. We'll try to stop
2 at, you know, at a reasonable hour. We're
3 certainly not -- I can't imagine we'd be able --
4 if we were able to finish it, it would be great,
5 but it doesn't seem likely, this afternoon. And
6 just so people are reminded of the schedule, we're
7 going to reconvene Thursday morning at 9:30 and
8 then we have scheduled next Monday and Tuesday.
9 And before we leave today -- I don't want to do it
10 now -- we have scheduled for more days in May,
11 which -- which all board members are available to
12 finish this off, assuming we need more days after
13 next Tuesday. So I'd like to have that
14 discussion, maybe when we convene at 1:00.

15 Actually I can tell you now, if counsel
16 would look at their calendars -- and I don't want
17 to get into the discussion -- we're looking at May
18 9th and May 11th, and that should be enough to
19 finish this.

20 MR. ATKINS: So, chairman, just -- if I
21 could just clarify. So is that in addition to the
22 first three day in the first week of -- of --

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1609

1 CHAIRMAN OBERMAN: No. The first week
2 of May is no longer -- not available it turns out.

3 MR. ATKINS: So -- so could you just
4 repeat that for us again. So in May --

5 CHAIRMAN OBERMAN: I'm sorry, the 18th
6 and the 19th of April. And the next two days
7 would be May 9th and May 11th.

8 MR. ATKINS: Okay. Thank you,
9 chairman.

10 CHAIRMAN OBERMAN: Okay, and let's see
11 if we can firm those up when we come back this
12 afternoon.

13 All right, with that, we will recess
14 until 1:00 p.m. Eastern. Thank you all.

15 (Whereupon at 10:50 a.m. a luncheon
16 recess was taken.)

17

18

19

20

21

22

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1610

1 A F T E R N O O N S E S S I O N

2 (Whereupon at 1:05 p.m. the hearing
3 resumed.)

4 CHAIRMAN OBERMAN: All right, everyone
5 is present. We will resume the hearing on the
6 application of Amtrak under 24308(e).

7 Mr. Donahoe, I think it's you, or your
8 partner, next witness.

9 MR ATKINS: Thank you, Mr. Chairman.
10 For the court reporter's benefit, my name is Ray
11 Atkins. I'm counsel for CSX. I'll be doing the
12 direct for Mr. Dingler.

13 (Mark Dingler before the hearing
14 committee.)

15 CHAIRMAN OBERMAN: Oh, okay. I'm
16 sorry, Ray, I wasn't sure who -- who was on. It's
17 you.

18 MR. ATKINS: Would you like to go ahead
19 and swear in the witness, Chairman?

20 CHAIRMAN OBERMAN: I would.

21 Mr. Dingler, would you raise your right
22 hand, please. Do you solemnly swear or affirm

1 that the testimony you are about to give is the
2 truth, the whole truth and nothing but the truth?

3 THE WITNESS: I do.

4 CHAIRMAN OBERMAN: All right, proceed,
5 Ray.

6 MR. ATKINS: Thank you.
7 Whereupon,

8 MARK DINGLER,
9 called as a witness by counsel for CSX, and after
10 having been first duly sworn, was examined and
11 testified as follows:

12 CHAIRMAN OBERMAN: All right, proceed,
13 Mr. Atkins.

14 MR. ATKINS: Thank you.

15 DIRECT EXAMINATION

16 BY MR. ATKINS:

17 Q. Mr. Dingler, would you please introduce
18 yourself to the board.

19 A. My name is Mark Dingler. I am a senior
20 project manager at HNTB Corporation.

21 Q. Could you please describe your
22 educational background.

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1612

1 A. I have a bachelor's and masters of
2 science from the University of Illinois at Urbana
3 Champaign.

4 Q. And what was the focus of your master's
5 degree?

6 A. While at Illinois I was a part of the
7 rail program there. This entailed -- I took a
8 number of rail classes but also conducted rail
9 research.

10 The focus of my masters thesis was I
11 used RTC to look at the impacted train mix. So
12 this included both freight-to-freight mix but also
13 freight and passenger.

14 Q. So you were actually trained on the use
15 of the RTC model in college?

16 A. Yes.

17 Q. Where did you work after achieving your
18 master's degree?

19 A. Upon graduation I joined CSX.

20 Q. How long did you work at CSX?

21 A. I worked there for eight years.

22 Q. What type of work did you do while you

1 were at CSX?

2 A. I started in the service design
3 department, eventually moved to both the finance
4 and then engineering departments.

5 Q. I'm going to move the mic a little
6 closer to me.

7 So, could you describe, did you use the
8 RTC in the course of your employment at CSX?

9 A. Yes. When I say in the service design
10 department, I was there for five years, and my
11 responsibility was to use RTC with primary focus
12 on public projects. So I was involved with
13 commuter projects and intercity passenger rail
14 projects, including New York High Speed Rail,
15 MARC, VRE, Amtrak.

16 Q. Approximately how many RTC simulations
17 projects did you conduct or participate in during
18 your eight years at CSX?

19 A. In the five years I was in the modeling
20 department I included about 20 different studies.

21 Q. Why would you select RTC as the
22 software tool for rail planning purposes?

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1614

1 A. It is the best tool available. It is
2 what -- it is the only tool available that allows
3 us to easily and quickly study different
4 infrastructure and different operations on a
5 corridor.

6 Q. Were there infrastructure investments
7 made by CSX on the basis of your findings from the
8 RTC model?

9 A. Yes.

10 Q. Where did you work after leaving CSX?

11 A. Upon leaving CSX I moved to HNTB
12 Corporation.

13 Q. And how long have you been with HNTB?

14 A. Nearly four years.

15 Q. What type of work do you do at HNTB?

16 A. Among other things I complete -- I use
17 RTC to complete capacity studies.

18 Q. Can you describe what that entails?

19 A. So, depending on the client, so we have
20 a number of different clients come to us. These
21 include state DOTs. This includes railroads.
22 This includes passenger agencies. We will use RTC

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1615

1 to look at questions they're asking, you know.

2 Q. Can you describe -- you mentioned them,
3 but can you describe a little more about the
4 client types that you work for at HNTB?

5 A. So we -- state DOTs. So for instance
6 recently worked with Texas DOT and we were looking
7 at a -- a study of Houston where we worked with
8 BNSF and UP to look at potential capacity
9 projects and grade separations.

10 Q. Have you ever also done work for the
11 Boston Commuter Agency and can you describe that
12 work?

13 A. Yes. That was part of a team that
14 looked at working with MBTA in Boston. They're
15 redesigning North Station and two movable
16 bridges into the station there. So we looked at a
17 number of different infrastructure and
18 configurations and understanding the impact during
19 construction.

20 Q. And were you using the RTC model in
21 that work?

22 A. Yes.

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1616

1 Q. How about -- have you done work for
2 Metra?

3 A. I've done two RTC projects with Metra.
4 The first is I was part of a team looking at sort
5 of the benefits and value engineering and
6 opportunities with the A2 grade separation.

7 So A2 is an interlocking north side of
8 Chicago with four tracks and three tracks crossing
9 at grade. Metra is looking to grade separate that
10 and so that you have -- there's 300 commuter
11 trains a day going through there, so. But it's an
12 expensive project so we're looking at sort of the
13 operations and potential valuing engineering
14 opportunities.

15 Q. So before we talk about your work in
16 this case for the -- the railroads, have you --
17 have you done any work at HNTB that's dealt with
18 passenger service along the Gulf Coast?

19 A. Yes. Soon after I left CSX, HNTB was
20 hired by FDOT to look at the 2016 HDR study.

21 So, you know, as everyone is well
22 aware, that was a different cost estimate from HDR

1 and from the FRA. And so FDOT asked HNTB to look
2 at those different cost estimates using RTC to try
3 and understand a discrepancy between those and
4 come up with a recommendation -- our thoughts on
5 that.

6 Q. When you were working for Florida DOT,
7 can you describe what -- what information you
8 started with in order to conduct your RTC
9 analysis?

10 A. Certainly. We received a -- a TRAIN
11 file from CSX. I took that TRAIN file. I
12 reviewed it, came up with sort of my thoughts on
13 it, you know, its acceptability on what I thought
14 was sort of generally accepted practice, and then
15 we re-looked at all the projects and came up with
16 our own recommendation.

17 Q. And that was for -- and that was for
18 Florida Department of Transportation?

19 A. That is correct.

20 Q. Have you ever testified in any kind of
21 trial or been deposed in any kind of litigation
22 proceeding?

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1618

1 A. No.

2 Q. So Mark, we're going to -- we're going
3 to start talking about the RTC. If you have any
4 questions, please -- please ask them and be
5 mindful that none of the members are RTC experts,
6 so I may ask you to slow down and -- and clarify
7 some of the technical details as we -- as we
8 proceed along.

9 A. I'll do my best.

10 Q. Can you please describe how you came to
11 be involved in this proceeding.

12 A. In March -- February, March of 2021, I
13 was approached by CSX through their counsel to be
14 involved with this case.

15 Q. And what was it you were asked to do by
16 CSX?

17 A. Essentially I was asked to complete the
18 study HDR was not able to.

19 Q. Why did you look at what was happening
20 in traffic over 20 years when you -- when you
21 started this analysis?

22 A. So that is standard practice in any

1 study like this. This is the practice that's
2 outlined by the FRA and -- and to my best
3 knowledge in -- in all similar cases similar to
4 this.

5 Q. So we're going to go into a lot of the
6 details, but at a high level can you describe the
7 basic structure of the RTC model that you built
8 for this -- for this undertaking?

9 A. Yeah, certainly. So when you're doing
10 a case like this, the first step you take is the
11 development of a base case. So in this case, 2019
12 was selected. I think some of the previous
13 witnesses described why. We took the time period
14 from that. We looked at the trains. I took the
15 inputs provided by the different railroads and
16 developed a singular model of CSX and NS. That
17 model was validated by the railroads to sort of
18 make sure that best represented the operations on
19 the corridor in 2019.

20 Q. So once you had the 2019 built, what
21 did you do then?

22 A. To that we layered in 20 years of

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1620

1 growth -- these were numbers provided to me by the
2 railroads -- and then developed -- so with that,
3 we were able to develop a 2039 base case. This
4 included the growth but also I think three or four
5 sidings, I can't remember specifically, between
6 Mobile and Montgomery that CSX told me that they
7 were going to build.

8 Q. So after you designed the two base
9 cases, which is the 2019 and the 2039, what did
10 you do next?

11 A. So then we -- we added in passengers.
12 So we -- we looked at sort of the what-if analysis
13 of what be would the impact of the additional
14 service.

15 Q. And you were doing that in 2039?

16 A. Yes, initially.

17 Q. So after you compared the freight
18 performance in the 2039 passenger case and
19 compared it against the base case, was there
20 anything else that you did with the -- in the
21 model?

22 A. Well, then we looked at potential --

1 if -- if we determined there was a severe
2 degradation and then you start looking at projects
3 to mitigate that impact to that passenger service.

4 Q. Okay. And we're going to talk about
5 that process in more detail later in your
6 testimony.

7 Were you asked to model the impact of
8 passenger service in any year other than 2039?

9 A. It is standard practice to only look at
10 2039, but the board asked us to look at 2019. So
11 we -- we took -- yeah, and so we investigated 2019
12 of the impact to passenger.

13 Q. Okay. Did anyone else participate in
14 the creation of the RTC model in this case?

15 A. Yes. Arel Banks, Larry Guthrie and
16 Charlie Banks were involved. So Larry Guthrie
17 provided sort of -- he looked over my shoulder.
18 He asked a lot of questions. He really provided
19 me a sounding board to ask, you know, am I
20 following standard practice, does this make sense.
21 And he also confirmed that I was following sort of
22 standard practice, that I was putting in, yeah,

1 accurate inputs into the model.

2 Q. But you're here today to present all of
3 the details of the RTC model, right?

4 A. Yes.

5 Q. Okay. So, before we dig into your
6 report, I'd just like for you to explain some of
7 kind of the key features around RTC modeling.
8 Many have already testified earlier that the RTC
9 model attempts to reflect train movement decisions
10 by human dispatcher.

11 Can you please explain how the RTC
12 model compares to human dispatchers?

13 A. I think this is important. Any RTC
14 modeler has to take this into consideration. You
15 have to remember RTC is a computer and so there
16 are sort of inherent abilities of a computer
17 versus a human dispatcher. A -- a computer knows
18 exactly how long a train's going to take to get
19 between two locations. A human would not. There
20 is an inherent sort of conservativeness of a human
21 dispatcher to avoid risk, avoid sort of locking
22 up. Those things aren't present in a -- a

1 computer model.

2 So generally, while RTC is a fantastic
3 tool, the modeler has to take in consideration
4 that sort of difference when thinking about sort
5 of projects and thinking about results.

6 Q. Okay. And you've also -- I think you
7 reported that they have to take into account the
8 variability of rail operations.

9 What in your view is the ideal way to
10 capture the variability of rail traffic when
11 you're studying a corridor?

12 A. In my opinion that is sort of
13 developing a representative model. There are sort
14 of a high variability of trains sort of arriving
15 in the model. There is train dwells. There is a
16 whole host of things that affect the variability
17 on the -- on the corridor.

18 And so to me the best practice is to
19 take that information over a period of time -- in
20 this case it's two to three months -- and develop
21 sort of distributions around that to best
22 represent sort of a typical day on the corridor.

1 Q. And can you just -- the representative
2 model, can you just elaborate on what that term
3 means to you?

4 A. To me that means, if we're not matching
5 one to one with any single day out there, we're
6 taking the characteristic, the trains that are --
7 are generally out there, and representing that.

8 Q. So why not model the -- use -- use
9 specific trains during a fixed time period to
10 model the corridor in question?

11 A. A couple of reasons. One is we don't
12 want to be modeling for a specific time period,
13 because you don't want to design infrastructure
14 for only one operating scenario, one operating day
15 or for a specific set of, you know, things that
16 happened on one day. You know, this
17 infrastructure has to last for 40 years or more,
18 to be honest, a hundred years. And so you try to
19 make sure you have a robust solution over a sort
20 of a wide range of operations, not just one day.

21 Q. And is that -- is that alternative
22 called -- sometimes called a replicative model?

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1625

1 A. At least I call it that, yes.

2 Q. Okay. And -- and why do you think it's
3 important to -- to capture more representative
4 than -- than just a peak period?

5 A. Because as I said, I think it just
6 gives you a better result and a better
7 understanding of the impacts. You're not just
8 measuring one exact day. It -- it sort of -- it
9 gathers the whole wide range. So, you know, in
10 one day you may get fantastic results. Another
11 day it may be much worse. But that's just sort of
12 how rare it operates on a day-to-day basis.

13 Q. Okay. So then how do you go about
14 gathering the data about train movements to
15 include into the RTC model?

16 A. As a consultant, that information is
17 provided by a railroad. So, in this case, CSX
18 provided a .TRAIN file, as Hannah testified, along
19 with data and -- and some additional information.
20 NS provided narratives and -- and additional data
21 as well.

22 Q. So can you describe a little bit any

1 validation process that you might use when that --
2 that information is provided to you?

3 A. Certainly. So anything provided to me
4 I am looking at myself. So, does this make sense?
5 Is this actually correct? You know, when I
6 received the track infrastructures -- so I
7 received an RTC track infrastructure from both
8 railroads. I took a look at it. You know, is
9 this representing all the potential tracks that
10 you would -- you know, affect the capacity of the
11 corridor and -- and I made tweaks. There were, in
12 the -- the .TRAIN file provided by CSX, I looked
13 at that, compared that to the actual operations
14 and I identified a couple of things I felt were
15 not 100% perfect. So I -- I made some tweaks as
16 well.

17 So it is a process of, yeah, taking
18 what they got, looking at it, sort of verifying it
19 myself to develop again the -- the model that best
20 represents the operations on a corridor.

21 Q. Is it unusual to have train movements
22 included in the RTC model where you are relying

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1627

1 solely on descriptions from the client for
2 accuracy?

3 A. All the time. There are -- so, you can
4 often only get data where there is control points.
5 In some studies we're modeling subdivisions that
6 have no clean data, no -- no control points. And
7 so, you have to rely on the railroad and -- and
8 what data they do have at a high level, but also
9 there is locations where you just will never see
10 data or operations you'll never see data for.

11 And so, you know, I use my experience
12 to verify, yeah, that makes sense, but, yeah,
13 that's all the time.

14 Q. And can you describe the type of
15 movements that you typically require field
16 personnel input?

17 A. You know, so there's high-rail
18 movements; there's blocks of cars; there is
19 movement when there's no control point, there --
20 yeah.

21 Q. Okay.

22 A. Yard movements and not yards. These

1 are all very common things.

2 Q. So when you see a train that's
3 operating in reality, you know, in the real world,
4 and you -- it makes a number of movements in a
5 day, how do you decide whether to include it in
6 the model as a single train with multiple
7 movements or to model each movement separately?

8 A. It depends on the best way to represent
9 the operations of that location. In this model,
10 we did it a couple different ways, and -- and the
11 reason was -- was to, at each location, the best
12 way to represent it was differently. It's not to
13 add in trains to the model or anything like that
14 but it is just how the configuration -- yeah, it
15 was a -- it was a decision at each location to
16 best represent the operations.

17 Q. And how do you -- so we talked about
18 the train movements. You also have to figure out
19 the configuration of the line. How do you decide
20 what yard and industry track to add into the RTC
21 model and what that you could safely not include
22 because it won't affect the -- the results?

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1629

1 A. In this case the infrastructure was
2 provided to me. But if I were creating from
3 scratch, you know, you're looking at it. And
4 basically what RTC is is it simulates sort of main
5 line movements. You include sufficient track yard
6 infrastructure to represent the operations in the
7 yard. What does this mean? It means the, you
8 know, yard movements to any train that's out of
9 the yard. So a train will be delayed on the main
10 line, waiting to get into a yard. But you -- you
11 aren't modeling all the different, you know,
12 switching moves in a yard. You're not modeling
13 all the blocks of cars or individual cars in the
14 yard or even, you know, the customers on a line.

15 Q. So you're just trying to capture what
16 will -- what will impact the main line capacity?

17 A. That is correct.

18 Q. Okay. Can you describe a little bit
19 maintenance of way windows and what those are?

20 A. So in RTC you're able to put in sort of
21 permits. These are blocks of time that block out
22 a section of traffic for trains not to move.

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1630

1 In this case we -- we -- one of the
2 types of permits we put into the model was
3 maintenance-of-way. And so these -- these are
4 regular -- these are not failures. These are
5 regular maintenance activities that a railroad has
6 to perform on a day-to-day basis. So tamping,
7 replacing ties, welding, those sort of things.

8 Q. And then when you add passenger trains,
9 how does that affect the maintenance windows?

10 A. So when a passenger service is added to
11 a corridor, they are going to try and schedule
12 those maintenance-of-way movements not during
13 passenger service. So you will try and shift
14 those away from when the passenger service is
15 operating.

16 Yeah, in this case, to ensure that
17 those, you know, did not delay passenger, as would
18 be the effort of every railroad, we allowed
19 passenger trains through those windows if that
20 passenger train sort of deviates away from its
21 regular, normal scheduled time.

22 Q. Okay. So at the start of your

1 testimony you described the two base cases that
2 you used in this report: one for 2019, the other
3 one for 2039.

4 Can you describe how the RTC model
5 permits you to then analyze what-if questions
6 using those base cases?

7 A. That's -- this is the strength of RTC
8 is, you know, you can put in things that aren't
9 actual or real. You can -- you know, so you have
10 to be careful. But you can ask a -- a whole wide
11 range of questions in the model. Whether it's --
12 you know, in this case it's how much
13 infrastructure or if you need infrastructure. You
14 can look at sort of operational changes. You can
15 look at, you know, different train times,
16 different train sizes. You know, yeah, so, where
17 to put in infrastructure, these are all questions
18 you can ask of the model.

19 Q. Okay. So, in this case, what was the
20 first what-if question that you analyzed using
21 these two base cases?

22 A. The first what-if was what is the

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1632

1 impact to passenger onto the corridor.

2 Q. So how do you evaluate the impact of
3 adding the passenger onto the corridor?

4 A. So basically you add in additional
5 traffic onto the corridor with -- and -- and
6 thinking through, how is this going to be -- best
7 represent how this train will be operated in
8 reality.

9 Q. And I think you may have said that you
10 couldn't sort of run the model. Can you describe
11 what that means, what that actually meant in this
12 case, to run the model?

13 A. Certainly. So, for each case, I think
14 there are about -- there are ten in our -- in our
15 initial report. We ran 30 seeds of a two-week
16 simulation. Each of those simulations had ten
17 days. So each -- you know, the averages we
18 produced are over 300 days of simulation.

19 Q. And why would you run so many seeds in
20 a -- in a case?

21 A. Especially with a representative model,
22 you're -- you're looking at sort of a wide range

1 of operations, just to ensure that the model is,
2 you know, robust, that you have sufficient data
3 points to best -- you know, that -- that represent
4 the operations on the corridor.

5 Q. And you explain for the members what
6 the difference would be between say seed one and
7 seed two? What -- what -- what are you -- what
8 are you doing with each seed?

9 A. Yeah, so seed is sort of a statistical
10 coding term. You know, it's a -- a set of random
11 numbers.

12 So in this case what the random number
13 is effected is like train departure times; we had
14 train sizes; we had have times, your permit
15 durations, your -- your dwell times, a whole host
16 of sort of random variables in this -- these
17 models.

18 Q. Okay. So after you run each of these
19 30 seeds, what metrics do you look at to quantify
20 the operational implications of adding passenger
21 trains?

22 A. You know, there are -- you know, the

1 great thing about RTC is I can look at a whole
2 host of outputs. In this case, I think it was six
3 we looked at. We looked at delay, either in pure
4 just number of minutes or in delay per the train
5 miles, which is sort of a standard simulation
6 metric. We looked at average speed. We looked at
7 conflicts. So that's the -- the sort of two
8 trains meeting each other. How often does that
9 happen. We looked at -- let's see if I can
10 remember them all, re-crews.

11 Q. Did you look at variability?

12 A. And, yes. And variability. So
13 variability in this case we defined as the stan
14 deviation -- sorry to get a little bit wonkie
15 there -- stan deviation of run times.

16 Q. And did you also look at the -- the
17 dispatching conflicts?

18 A. Yes.

19 Q. Why do you report the changes in these
20 performance metrics on a -- on a percentage basis?

21 A. It is the best way to contextualize the
22 results. It is sort of a standard practice that I

1 use in all my cases whenever possible.

2 So, yeah, for instance, we'll think of
3 it this way: a -- a five mile per hour change on a
4 ten mile per hour network is a 50% change. That
5 five mile per hour change in a hundred mile per
6 hour network is a 5% change. It is a much better
7 to -- you know, when thinking about the impact, to
8 think about five percent and 50% than to say five
9 miles per hour.

10 Q. Okay. So you mentioned these reports
11 statistics. Are those statistics set forth in
12 your RTC report?

13 A. They are.

14 MR. ATKINS: So Chairman, I'm going to
15 show the witness Exhibit 23D, which has already
16 been introduced into evidence. This is the
17 joint --

18 MEMBER FUCHS: Ray?

19 MR. ATKINS: Sure.

20 MEMBER FUCHS: Before we get there, and
21 I don't want to interrupt your flow at all, I want
22 to give the -- the witness an opportunity to

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1636

1 clarify.

2 MR. ATKINS: Mm-hmm.

3 MEMBER FUCHS: You said that you always
4 represent the delay in percentage terms in all
5 your cases, right?

6 THE WITNESS: When it makes sense to.
7 Not -- yes, there might be situations -- I can't
8 remember, you know, everything, but generally I
9 think that is the best way to represent the
10 results.

11 MEMBER FUCHS: There may be situations
12 where you represent delays in monetary terms?

13 THE WITNESS: No. So, when, you know,
14 we used to work at a railroad, that you have
15 finance to convert that to a monetary term, but I
16 would -- it was always, when we provided out a
17 service that amount.

18 MEMBER FUCHS: You have not run -- you
19 have not run RTC models and quantified delays in
20 monetary terms?

21 THE WITNESS: No -- well, I guess,
22 maybe correct that. In my master's thesis I did.

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1637

1 I came up with delay costs and looked at some
2 options, but not -- and I can't say the finance
3 department at CSX when I was here, they probably
4 did that, but that was not something I
5 specifically did.

6 MEMBER FUCHS: Just in your master's
7 thesis?

8 THE WITNESS: That's the only place I
9 did it.

10 MEMBER FUCHS: Okay, thank you.

11 THE WITNESS: And I guess one thing to
12 add is, when thinking about the percentages, is,
13 you know, we are comparing -- yeah, the reason to
14 do it is you're comparing RTC to RTC. As I
15 mentioned, some of the inherent sort of -- the
16 computerness (sic) of RTC, and so you always have
17 to be really careful as a modeler about sort of
18 comparing an RTC value to actuals, because it can
19 be misleading.

20 MR. ATKINS: So we're going to pull up
21 table 19, which is on page 45 of the report.

22 CHAIRMAN OBERMAN: Ray?

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1638

1 MR. ATKINS: Yes, sir?

2 CHAIRMAN OBERMAN: I think you were in
3 the middle of actually identifying the exhibit as
4 a whole.

5 MR. ATKINS: Yep.

6 CHAIRMAN OBERMAN: Why don't you do
7 that and let's see if there's any objection and
8 then we'll proceed.

9 MR. ATKINS: Understood. This is --
10 we're going to show the witness Joint Exhibit 23D,
11 which is the 2021 Gulf Coast report that was
12 submitted into the record.

13 CHAIRMAN OBERMAN: Just for clarity,
14 this is everybody's joint exhibit, not NS and CSX?

15 MR. ATKINS: Yes, sir. That's correct.

16 CHAIRMAN OBERMAN: Okay. Is there any
17 objection to proceeding with this exhibit?

18 MS. BRACEY: No objection.

19 CHAIRMAN OBERMAN: Okay, proceed.

20 BY MR. ATKINS:

21 Q. So we're going to turn your attention
22 to table 19, which is on page 45, and we're going

1 to focus on the statistics there.

2 Could you please describe the
3 performance of freight traffic in 2019 after
4 adding the passenger trains?

5 A. So this is, Ray, as you mentioned, this
6 is the 2019 passenger case minus the change -- the
7 percentage changes between the 2019 passenger case
8 and the 2019 freight case -- or sorry, 2019 base
9 case. The base case is a sort of a freight-only
10 scenario. That is the case that, you know, sort
11 of if nothing happens, you know, if no passenger
12 is added to the corridor. So you'll see
13 throughout every case is -- is compared back to
14 the base case.

15 So these are the metrics. Some of them
16 I described previously. So we have, working from,
17 you know -- I'll confuse left and right here.
18 I'll just start with "Change in Modeled Freight
19 Train Delay Per One Hundred Train Miles". That's
20 sort of the increase in delay between the cases.
21 And then you have sort of the freight train speed
22 we talking about, dispatching complex. The sort

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1640

1 of one unique one here is the "Change in Delay to
2 Other New Orleans Railroads". This is the delay
3 to trains waiting to get onto the RTC model,
4 waiting to get in -- onto NS in New Orleans.

5 Q. And you used -- you used some colors in
6 this report. Red reflects what?

7 A. A degradation in performance.

8 Q. Okay. You see more colors in the next
9 slide. We're going to turn to the next page,
10 which is page 46.

11 CHAIRMAN OBERMAN: Ray, before you --
12 before you do that, I'm not sure I've ever
13 understood this chart.

14 So there's -- if I could just ask,
15 there's 22.7% more delay per hundred miles in 2019
16 after you add four passenger trains.

17 Is that what this means?

18 THE WITNESS: That is correct.

19 One thing to note is that, yeah, those
20 case -- the 2019 freight case -- base case --
21 sorry, I'm calling it a freight only. I apologize
22 if I keep going back to that. Yeah, the 2019 base

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1641

1 case has delay in it, you know. There is delay
2 inherent, yeah, in a -- a case, so the
3 difference -- the difference between the two.

4 CHAIRMAN OBERMAN: That's my question.
5 What is the -- how do you measure delay? Delay
6 against what in the base case without passenger?
7 What are you measuring that against?

8 THE WITNESS: Certainly. That's a
9 great question.

10 So how we -- in RTC you measure delay,
11 it is your sort of minimum -- it's your actual run
12 time in the model minus your minimum run time. So
13 what that minimum run time is, is if that train
14 was the only train on the corridor, you know. So,
15 you know, if that's the, yeah, the only train,
16 there are no conflicts with any other trains,
17 there is -- that is the difference. So that is
18 the delay.

19 So on any single-track railroad, you
20 will have delay inherent in the operation as you
21 meet trains on single track.

22 CHAIRMAN OBERMAN: All right. So

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1642

1 there's no -- so this base, I'm going to use the
2 word base this way, this hypothetical against what
3 you're measuring it, is if the train starts out at
4 one end and it goes to the other end completely
5 unimpeded by any other trains or any other
6 problems.

7 THE WITNESS: Yes. And so -- but yeah,
8 just because --

9 CHAIRMAN OBERMAN: Does that include --
10 on -- on this -- on this line, when you're
11 measuring this sort of hypothetically ideal case,
12 does that include draw bridges opening up
13 randomly, even if there are no other trains?

14 THE WITNESS: The minimum run time
15 would not include the -- the movable bridges. But
16 your actual would.

17 CHAIRMAN OBERMAN: All right, so the
18 minimum run time is 140 miles or whatever it is
19 nonstop?

20 THE WITNESS: That is correct.

21 CHAIRMAN OBERMAN: And based on how
22 fast you can go on this track I guess, right?

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1643

1 THE WITNESS: That is correct.

2 CHAIRMAN OBERMAN: Okay. So, just so I
3 understand it, I gather that you have to have
4 something to measure other delays against, but it
5 sounds like in the real world, the minimum run
6 time is always just some hypothetical number,
7 no -- no train anywhere ever goes nonstop hundreds
8 of miles, right?

9 THE WITNESS: That is correct. And
10 then that's why sort of the delay per hundred
11 train miles is -- is not really a metric the
12 railroads use in anything but in modeling.

13 CHAIRMAN OBERMAN: Yeah.

14 THE WITNESS: Because -- yeah.

15 CHAIRMAN OBERMAN: Yeah, so, okay. And
16 is there anything in your study -- and this may be
17 jumping the gun, but just so I can anticipate
18 what's coming -- which tells us about this line as
19 compared to other freight lines?

20 Is this one even without passenger
21 trains good, bad, indifferent in comparison to
22 CSX's network or the national network? Can you --

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1644

1 did you look at that? Is that something you're
2 going to enlighten us on?

3 THE WITNESS: No. I -- I always get a
4 little bit nervous with that, because every line
5 is sort of unique and has sort of -- and some of
6 that's how you -- you put the trains in the model,
7 to be honest. I can schedule some of these delays
8 as dwells, which wouldn't show up in that.

9 So, yeah, it's --

10 CHAIRMAN OBERMAN: Okay.

11 THE WITNESS: Yeah, it's always a
12 danger to do that.

13 CHAIRMAN OBERMAN: So, in -- as we go
14 through this process in terms of our trying to
15 compare this to some -- anything else, there isn't
16 anything. We just -- from your point of view
17 we're just looking at this line itself?

18 THE WITNESS: That is correct.

19 CHAIRMAN OBERMAN: Okay. That's very
20 helpful to -- I think to my understanding of what
21 we're about to hear. Thank you very much.

22 THE WITNESS: And just one thing to

1 add. You have to be careful -- a delay in a
2 terminal would be much higher than on the line or
3 road. And so you'll see the different train types
4 when we break down, you know, those will have
5 different sort of inherent base delays. So it's
6 very location specific.

7 MR. ATKINS: So -- so we'll turn to
8 that in -- right -- right now. If you could --
9 we're going to turn to the next page of his report
10 that shows these numbers broken down.

11 BY MR. ATKINS:

12 Q. Did we run through all of the
13 statistics?

14 A. Yes. Then re-crews, yeah.

15 Q. Okay. I don't want to get ahead of
16 ourselves.

17 All right, so this -- this -- could you
18 please describe what this table 20 is depicting?

19 A. So, not only did we look at sort of
20 overall metrics, we actually looked at them by
21 both the trains on the corridor and then just sort
22 of into three critique groups: you know, the CSX

1 local trains, the CSX through trains and the --
2 the NSR trains.

3 And so this was -- the reason we did
4 this was to make sure we didn't fix the problem,
5 you know, and mitigate the impact to one type of
6 train and severely degrade another.

7 So, it is important for us to look at
8 sort of all the trains on the corridor.

9 Q. And often the right-hand side I see
10 "Percent Change in Variability". Can you describe
11 what that statistic is meant to convey?

12 A. To me that's almost one of the most
13 important metrics. So a -- a change in speed can
14 potentially be planned for, you know, but a change
15 in variability, it means one train may show up two
16 hours late one day and eight hours late the next.
17 That is a -- a severe sort of impact and
18 impairment to freight.

19 Q. And if you look at this chart, what
20 trains are experiencing the most change in freight
21 service?

22 A. That is the local trains. So, of the

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1647

1 three types, you know, CSX local trains have a 45%
2 increase in delay.

3 MR. ATKINS: If we could just use
4 the -- can we use the mouse to point that out on
5 the chart?

6 BY MR. ATKINS:

7 Q. You can see that right there. Okay?
8 Around there. Our techs -- we're almost there.
9 Okay.

10 So, why -- so the red is again bad and
11 the green looks like it's good. Can you explain
12 why a handful of trains are improving -- are
13 experiencing an improvement in delay minutes when
14 you add the passenger trains?

15 A. Yeah, certainly.

16 So think of it this way. Is, you know,
17 there's a presidential motorcade or an ambulance
18 on the highway. That first car that follows that
19 is going to actually go faster, but it's due to
20 serve a decrease in speed and delays to all the
21 rest of the traffic. These are trains that happen
22 to be scheduled at the right times, and so the

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1648

1 passenger window -- the passenger trains open up a
2 window for them.

3 Q. Okay. And --

4 CHAIRMAN OBERMAN: Ray, just --

5 MR. ATKINS: Yep. Yes, Chairman?

6 CHAIRMAN OBERMAN: Just so I can get
7 the picture, do you mean if a freight train
8 happens to be lucky enough to be right behind a
9 passenger train --

10 THE WITNESS: Yeah. So it could be --

11 CHAIRMAN OBERMAN: -- it will go
12 faster?

13 THE WITNESS: Yes. So, yeah, if it
14 happens to follow right behind it, or a -- you
15 know, because there's a -- it's sort of a wake
16 behind the passenger train, you know, where
17 freight trains aren't necessarily operating or
18 immediately in front sometimes, so it allows
19 sometimes a local to work a little bit better.
20 You can see CSX 1 is one of those cases.

21 CHAIRMAN OBERMAN: Okay.

22 THE WITNESS: But basically, yeah, it's

1 just that, you know, the change of operations, the
2 shifting of traffic due to passenger sometimes
3 helps a few trains.

4 CHAIRMAN OBERMAN: It's kind of like
5 drafting on my bicycle.

6 THE WITNESS: That's exactly the case,
7 yes.

8 CHAIRMAN OBERMAN: Got it. Thank you.
9 BY MR. ATKINS:

10 Q. So if we go from the present, 2019, to
11 the future, can you describe what happens when you
12 ask your first what-if question but you apply it
13 to the 2039 base case? What happens when you add
14 four passenger trains to that base case?

15 A. We could not get them all to run
16 reliably.

17 Q. And what does that mean to you as an
18 RTC modeler?

19 A. So this is an inherent flaw in RTC.
20 It's just, there is just not sufficient
21 infrastructure to support the operations at the
22 level of service we designed it for.

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1650

1 Q. Okay. So before we leave this kind of
2 first what-if analysis and start talking perhaps
3 about infrastructure and how to alleviate it, I
4 want to dive into three questions that have been
5 raised by members to other witnesses and let you
6 respond to some of those -- those questions.

7 So I'm going to actually start with the
8 concept --

9 CHAIRMAN OBERMAN: Ray?

10 MR. ATKINS: Yes, sir?

11 CHAIRMAN OBERMAN: Before you do that,
12 on page 34 of the RTC study...

13 MEMBER FUCHS: Are you referring to the
14 rebuttal or initial?

15 CHAIRMAN OBERMAN: No, the initial one,
16 table 11.

17 MR. ATKINS: Okay.

18 CHAIRMAN OBERMAN: Isn't that the same
19 measurement as the one we were just looking at
20 on -- I forgot what it was.

21 MR. ATKINS: Yes, sir, so we're going
22 to go ahead and pull it up so everybody can see it

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1651

1 and we're going to blow it up. And we -- we
2 weren't intending on discussing this, but if you
3 like, let me do a few questions on direct and
4 flesh this out for you.

5 CHAIRMAN OBERMAN: I just wondered --
6 he said it wouldn't run.

7 MR. ATKINS: Yes, sir.

8 CHAIRMAN OBERMAN: I thought this is
9 what it is. But maybe --

10 MR. ATKINS: So the key will be -- I'll
11 ask Mark --

12 BY MR. ATKINS:

13 Q. If you look up at table 11 and you see
14 the words "Width Increase Grade Cross Blockages,"
15 that's the key language that you need to
16 understand.

17 MR. ATKINS: So I'll ask Mr. Dingler to
18 walk through what we did to try to get them all to
19 run in -- in 20 years.

20 If that -- if that would help you then,
21 Chairman, and you could ask any follow-ups?

22 CHAIRMAN OBERMAN: Yeah, that would be fine.

1 That's exactly what I was curious about.

2 MR. ATKINS: Excellent.

3 BY MR. ATKINS:

4 Q. So, Mark, the -- the model wouldn't run
5 in 2039 if you -- when you just added the
6 passenger trains.

7 Can you start by talking -- before we
8 talk about what you changed, can you talk about
9 RTC's assumption about block crossings, and that
10 is -- that it -- that it assumes when you try to
11 run the program.

12 A. So in RTC, one of the inputs you put on
13 is the grade crossings on the corridor. And RTC
14 has built in a limit how long a train can be
15 stopped on those crossings. You know, so you're
16 not planning to block crossings on the corridor.

17 And so in this case the -- the number
18 we used was 20 minutes, so it allows the train to
19 be stopped on those crossings for 20 minutes.

20 Q. And how many, roughly how many
21 crossings do you recall were actually in the 2039
22 base case model?

1 A. There's what, about 160 between Mobile
2 and New Orleans, so 104. Yeah, and then there's a
3 number in New Orleans and then going out to
4 Montgomery. So there's probably 300 in the model.

5 Q. And Does the RTC model permit you to
6 have a different limit on the block crossings by
7 crossing or is it a one-limit for all -- all the
8 block crossings in the model?

9 A. I -- I can set each crossing
10 differently.

11 Q. Okay. So -- so the model wouldn't run
12 in 2039. What did you explore as an -- as an
13 additional thought experiment about trying -- how
14 you might get the model to -- to actually
15 successfully run in 2039 when you've added the --
16 the four passenger trains?

17 CHAIRMAN OBERMAN: Before -- before you
18 leave this, Ray, could I just ask a couple of
19 questions about these numbers as compared to the
20 ones on page 45?

21 MR. ATKINS: So, we're going to get
22 there, Chairman, but it would be easier --

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1654

1 CHAIRMAN OBERMAN: Oh, okay. Okay, if
2 you're getting there, I don't want to take you out
3 of order. Go ahead.

4 THE WITNESS: Yep, I just want to make
5 sure you understand what -- what were the
6 assumptions that these numbers are assuming.

7 CHAIRMAN OBERMAN: I'm with you. Go
8 ahead.

9 BY MR. ATKINS:

10 Q. So -- so again, you modeled it with the
11 four passengers, it wouldn't run, then you did a
12 thought experiment to see how you could get it to
13 run.

14 Could you describe that -- what it was
15 that you -- that you tinkered with in the -- in
16 the 20-year case.

17 A. So what we did was we increased that
18 time that a train can sit on a crossings. I'd
19 have to look at what that time was. It's been a
20 while. But, so, basically we allowed that time to
21 be higher and so now trains can sit in -- in
22 sidings on the main line blocking those crossings

1 for I think it was two hours or a little bit
2 higher. And so this then allowed trains to make
3 use of some of the sidings that they wouldn't
4 before.

5 Q. And so we then -- you then reported out
6 the statistics and you're comparing now the base
7 case in 2039 against a case where you've added
8 four passenger trains but you've also permitted
9 the block -- the crossings to be blocked for as
10 much as an hour and a half?

11 A. That is correct.

12 Q. And then -- and now your report, can
13 you describe what these statistics are reporting
14 in that -- in that but-for world or that what-if
15 world?

16 A. Mm-hmm. So what the model showed was,
17 even by allowing all these crossings to be
18 blocked, I think in -- in the previous page
19 there's a table where we saw, you know, the key
20 crossings that just, you know, are going to be sat
21 on a lot longer. We still saw a pretty big
22 degradation, so a 20.4 increase in delay, all

1 these metrics.

2 One thing to note on there, is that
3 changing delays in New Orleans railroads, the
4 reason that gets better is just west of the Amtrak
5 station, to towards the interchange location, the
6 CNIC connection, East Bridge Junction, is just
7 full of grade crossings. And so now -- the model,
8 you know, now that it could sit on those, it
9 actually allowed the trains onto the NS network
10 and it ran better.

11 Q. So if -- if the railroads could block
12 the crossings in New Orleans for an hour or two
13 hours, the interchanges with third parties would
14 go down?

15 A. Yes.

16 Q. So but the key -- did you ever again
17 model any -- in any of the subsequent models that
18 we're going to talk about, did you ever relax the
19 assumption about 20 -- a limit of 20 minutes per
20 block crossing?

21 A. No. This was sort of a thought
22 exercise to try and get this model to run. This

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1657

1 is not acceptable to the railroads. It would not
2 be acceptable for me to recommend projects based
3 on blocking crossings.

4 Q. Okay. So can we --

5 CHAIRMAN OBERMAN: Could I -- could I
6 just follow up there? I think you got to the --

7 MR. ATKINS: Mm-hmm.

8 CHAIRMAN OBERMAN: I think I understand
9 the explanation but let me just ask a couple
10 questions to make sure I got it.

11 MR. ATKINS: Mm-hmm.

12 CHAIRMAN OBERMAN: So I was comparing
13 these numbers to the ones on page 45. So, the
14 increase in delay of 20.4% is a little bit less than
15 the increase in the 2019 case, which is only
16 22.7%.

17 THE WITNESS: So, just --

18 CHAIRMAN OBERMAN: Is that explained by
19 the fact that in this model you used block
20 crossings and in 2019 you did not?

21 THE WITNESS: Somewhat. The other
22 thing to keep in mind is in the 2019 we were

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1658

1 comparing the 2019 passenger case to the 2019 base
2 case. In this case we're comparing that 2039 case
3 of blockages to the 2039 base case. And so
4 they -- they are looking at against a different
5 sort of baselines.

6 BY MR. ATKINS:

7 Q. Just to follow up on the Chairman's
8 question, if you did not permit the grade
9 crossings to be blocked for as much as two hours,
10 would that number be higher or lower?

11 A. Oh, certainly it'd be higher.

12 CHAIRMAN OBERMAN: Would it be fair to
13 say, so I understand how the modeling works, if in
14 2019 you took the lid off of grade crossings, all
15 of the numbers on page 45 would be better I
16 assume?

17 THE WITNESS: Yes.

18 CHAIRMAN OBERMAN: Okay. So you -- so
19 when you ran your 2019 case, you limited
20 crossings, blockings to 20 minutes?

21 THE WITNESS: That is correct.

22 CHAIRMAN OBERMAN: Is that all the

1 crossings?

2 THE WITNESS: Yes.

3 CHAIRMAN OBERMAN: So are there any
4 crossings -- this may sound naive coming from me,
5 because I have to worry about Barrington,
6 Illinois, as well -- but are there any places
7 where, while there's a crossing, it's in a road
8 that nobody ever uses so that blocking it for
9 longer than 20 minutes wouldn't be a problem?

10 Do you ever look at that kind of a
11 variable?

12 THE WITNESS: So great question.

13 So one of the things I did upon
14 receiving the model from CSX and NS is I looked at
15 all the crossings and we removed any crossing from
16 the model that had less than 200 AADT, so that's
17 average annual daily traffic. This came from the
18 FRA Grade Crossing Database. And so this is --
19 those are what I would consider very low volume
20 crossings. And so it was to make sure we weren't
21 accounting -- you know, not allowing trains to
22 block sort of dirt roads.

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1660

1 CHAIRMAN OBERMAN: All right. And
2 those -- did you remove all limitations on time
3 for blocking those crossings that you took out?

4 THE WITNESS: Yeah, I just removed them
5 from the model. So they didn't -- you know, the
6 model --

7 CHAIRMAN OBERMAN: Like they didn't
8 exist you mean?

9 THE WITNESS: Correct.

10 CHAIRMAN OBERMAN: All right, and
11 that -- that -- that factor is already included in
12 the graph on page 45 that we looked at first?

13 THE WITNESS: That is correct.

14 CHAIRMAN OBERMAN: Okay. All right.
15 Well that -- I get it. Okay. Thank you.

16 BY MR. ATKINS:

17 Q. Okay. So again, just kind of
18 re-starting, there were several questions that the
19 members were asking other witnesses. I'd like
20 to -- and we do this again later on, so we're not
21 going to try to cover all of them at one spot...

22 But so let -- I want to start by the

1 concept of operational changes and whether they
2 were, are they in the model, are they not in the
3 model and what the model can do and what it can't
4 do.

5 So just let's just start defining the
6 term, from you as an RTC modeler, what does the
7 term "operational changes" mean to you as a
8 modeler?

9 A. As a modeler I think of an operation --
10 when someone says, "Did you make an operational
11 change," I think that is an operating plan change.
12 So that is sort of schedules for sort of trains
13 coming onto the -- the network.

14 But operations as a whole, the way I
15 think about it is it's the operating plan that is
16 then dispatched. So the output of the model you
17 could claim would be called operations.

18 Q. So what -- what types of -- wait. But
19 staying with your own terminology, what -- can you
20 give some examples of things that would be --
21 would clearly fall into what you would define as
22 an operational change.

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1662

1 A. This would be sort of new departure
2 times, sort of changing of dwells, if possible,
3 changing train size, all those sort of -- sort of
4 operating plan changes.

5 Q. If you were to put a window on the
6 line to --

7 A. Yes.

8 Q. -- for passenger trains, that would be
9 considered operational change?

10 A. Correct.

11 Q. Are these all operational changes that
12 the RTC model can't do itself automatically?

13 A. Correct. Those are all what I would
14 term input into the model. It's something I would
15 have to add.

16 Q. And you've already explained this, but
17 the RTC model let's you test any of those
18 operational changes if they're feasible by putting
19 it in the model and then re-running it and seeing
20 what the implications are?

21 A. That is correct.

22 Q. Now what types of operational

1 changes -- we're going to stay with the just the
2 base case and you've added the passenger, before
3 we start talking about infrastructure. What kind
4 of operational changes did you consider or at
5 least look at as a modeler when you were asking
6 this first what-if question, what happens if I put
7 the passenger trains on?

8 A. So early in the process, you know, when
9 you're looking at I guess -- let me take a step
10 back.

11 When you are ever in an RTC case,
12 you're looking, is there one train that's being
13 delayed the same time every single day due to the
14 same thing. So early on in our modeling we
15 identified one train. That's about the same time,
16 with the help of the clean team, we identified
17 that I had scheduled all the CSX trains in the
18 Eastern time zone and all the -- the CSX -- NS and
19 Amtrak trains in the Central time zone. And so,
20 once we corrected for that, that -- that issue
21 went away.

22 Q. But if you -- if that issue hadn't gone

1 away and you had one train that was just bullocking
2 up the line, what would you -- what would you have
3 done as an RTC modeler?

4 A. I would have made a change to that
5 train because, in effect, that's was what was
6 happening to that train. It would pull out of the
7 yard. It sat there for, you know, a period of
8 time. It would be better for the railroad just to
9 keep it in the yard.

10 Q. Why didn't you look at, at least in the
11 first thought experiment, changing the schedule
12 for the interchange traffic coming into and out of
13 New Orleans?

14 A. So the interchange traffic is highly
15 random and that's how we've modeled it. You know,
16 this is due to, you know, operations on the UP and
17 DMSF, and CN and KCS. These aren't necessarily
18 fully in control of Norfolk Southern and the data
19 backs that up. So those are sort of entered fully
20 random with no schedule.

21 Q. So if we could just -- just to
22 elaborate, can you explain what -- what it means

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1665

1 to make it fully random when you're putting it as
2 an input in the model?

3 A. So there are sort of five inbound
4 trains a day. So basically how I put it in the
5 model is I spread that throughout the day and let
6 them sort of show up throughout that area of the
7 day. So that at any given time any train could
8 show up.

9 Q. And each seed, you'd have randomized it
10 so each seed you'd have the interchange showing up
11 at a slightly different time?

12 A. That is correct.

13 Q. Could it be 15 hours later or is there
14 some parameters around when they would show up?

15 A. It'd be, what, one-fifth of the day,
16 roughly.

17 MS. BRACEY: Objection, leading.

18 Chairman Oberman, I object to the leading.

19 BY MR. ATKINS:

20 Q. So, what if anything did you do to --

21 MS. BRACEY: Objection.

22 CHAIRMAN OBERMAN: I'm sorry. I'm

1 sorry, I was muted, Ray. Could I hear the
2 question again, please?

3 MR. ATKINS: I was asking if -- if
4 the -- if when he randomized it, would it -- could
5 it be as much as a 15-hour difference in terms of
6 its -- in terms of the randomization. I could
7 rephrase it.

8 CHAIRMAN OBERMAN: Can you rephrase it,
9 please.

10 MR. ATKINS: Absolutely.

11 BY MR. ATKINS:

12 Q. So what if any limitations would you
13 place on the -- on the variability of the -- in
14 the seeds for these type of trains?

15 A. So basically I did the -- you know,
16 basically did the uniform -- sorry, getting
17 detailed -- the uniform distribution, and so that
18 one train was never scheduled to show up at the
19 same time as another train. So it is just, you
20 know, basically worked out to be, what, one-fifth
21 of the day, or one-tenth, you know, plus or minus.

22 Q. So that's the interline change.

1 What if anything would go into your
2 consideration about rescheduling local traffic,
3 local -- local customers?

4 A. Yeah, so the challenge of rescheduling
5 some of those things is it requires sort of input
6 from other stakeholders. You know, certain local
7 customers can only be switched at certain times
8 and so, without working with all those customers,
9 I -- I -- I don't have the information to be able
10 to do that.

11 Q. So did you hear questions from Mr.
12 Fuchs to Mr. Hunt about the RTC model and
13 operating changes?

14 A. Yes.

15 Q. Can you describe the kind of changes to
16 the base case, so we got a base -- let's start
17 with 2019, the 2019 base case, that the RTC model
18 itself will automatically do when it's trying to
19 find an efficient way to accommodate four
20 passenger trains.

21 A. And as I said, so how I -- one way to
22 think about operations is the -- the operating

1 plan and then it's dispatched. And so when you
2 add passenger trains into the model, it's going to
3 change the dispatch in these trains. Different
4 trains will take different sidings. You know,
5 there's less flexibility on the corridor now that
6 they have to clear up. You know, you can't sit on
7 the main line, you know, all day at Mobile, you
8 know because that passenger train is now there.

9 So those are in effect operational
10 changes.

11 Q. But from a -- from a modeler's
12 perspective, does that fall within what is the
13 ordinary definition of operating changes?

14 A. No. That is sort of an output. The
15 way I view operation changes in RTC would be an
16 operating plan change, which would be schedules
17 typically.

18 Q. Okay. The second question I wanted to
19 turn to, Mr. Dingler, was a question from again
20 member Fuchs that was a technical question around
21 the departure time for certain trains, leaving
22 Gentilly Yard in the RTC model, and how that

1 compared to the dispatch data. So I'm going to
2 ask you to keep your answers general so that we
3 can avoid going into any kind of confidential
4 setting. I just -- but I -- I think we can do
5 that. But if at any point in time you want to
6 tell me, "I -- to answer that, I need to discuss
7 confidential information," just tell me that and
8 I'll ask the chairman for permission to -- to move
9 into a high -- a more confidential setting.

10 So, can you describe what analysis you
11 might have done to take a look at the dispatching
12 data in your model and the RTC modeling data to
13 see if you could see any discrepancies?

14 A. So, what we did for every train was we
15 looked at -- so, for the departure times, I used
16 the train profile data and so what I did was I
17 looked at that information and created
18 distribution around it -- so, you know, sometimes
19 it was in uniform, sometimes it was triangular --
20 to best represent the data I saw.

21 And so, I think there were two trains
22 in question. I went back and looked at those and

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1670

1 the -- the distributions pretty closely matched
2 the data I was seeing.

3 Q. And so, just to be clear, the -- the
4 actuals, you were looking at what data set?

5 A. The TRAIN profile data.

6 Q. So you were not looking at the
7 dispatching --

8 A. Correct.

9 Q. Okay. What if anything in the
10 dispatching data might create the false impression
11 of a discrepancy?

12 A. So, yeah -- so what I -- I -- what I
13 said -- I think, Member Fuchs, what you said was
14 there was a call timestamp column. What this is,
15 to the best of my understanding, is that is the
16 time a crew is called. This is not typically
17 the -- the data set I would use for that, but when
18 a -- a crew is called and arrives on duty, it
19 can't immediately depart. So it has to go get its
20 papers. There are often sort of, you know, some
21 additional switching moves. There is a whole host
22 of things it has to do waiting for a train to

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1671

1 arrive, finish getting built. And so that can
2 take an hour, two hours. And so you will see a
3 discrepancy between that time that that crew is
4 called on duty and then when that train finally
5 departs.

6 Q. Now, without seeing the board's
7 analysis, can you know for sure what's going on?

8 A. No.

9 Q. Okay. What if any recommendation would
10 you offer if there was a discrepancy between
11 the -- the dispatching and the real data and the
12 train movements -- movements that you put into the
13 .TRAIN file?

14 A. If they find something that was
15 incorrect, we can go back easily. That's the
16 power of RTC, go back in and fix, make that
17 correction and remodel.

18 MEMBER FUCHS: Ray?

19 MR. ATKINS: Yes?

20 MEMBER FUCHS: May I take this opening
21 with my name being invoked?

22 MR. ATKINS: Of course. And again,

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1672

1 Member Fuchs, if you need to move us into
2 confidential setting, we're happy to do so, but I
3 think we can do this at a -- on a public.

4 MEMBER FUCHS: I -- I hope so and I
5 want to express my appreciation for circling back
6 on those questions, especially in a way that can
7 be done in open session. So appreciate it on both
8 counts.

9 So in the dispatching data, it shows
10 there's an entry before the call time, which is
11 the train being built as I take it, there is call
12 time and then there is exactly as you described
13 over let's say a course of an hour and a half, two
14 hours two or three moves --

15 THE WITNESS: Yes.

16 MEMBER FUCHS: -- and then it -- what
17 appeared to be in the RTC model was a departure
18 time that was several hours -- a few hours earlier
19 than the three moves?

20 THE WITNESS: Mm-hmm.

21 MEMBER FUCHS: A little bit earlier
22 than even the train building time. And so the

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1673

1 departure time from Gentilly was before any
2 observable dispatching control point entry?

3 THE WITNESS: So one thing to note
4 within that --

5 MEMBER FUCHS: Without -- without
6 identifying the trains, help me understand that.

7 THE WITNESS: So in the time period,
8 the two- to three-month data set, there was
9 several curfews and so, without getting exactly
10 into it, that, when you have a curfew out there,
11 the railroads will reschedule the trains. And so
12 we were careful when to not -- you know, to remove
13 that data set when we developed sort of our
14 departure times. That is one possible
15 explanation.

16 MEMBER FUCHS: When was -- when was the
17 curfew? Between what hours?

18 THE WITNESS: I don't know. I'd have
19 to -- yeah, so if you go to the train profile
20 data, it's in the name of the train. They say
21 it's a "serfi" (phon) schedule.

22 MEMBER FUCHS: Okay, I don't want to be

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1674

1 too specific. I can tell you when the times were.
2 I don't think that's specific, especially if I
3 don't identify the train. It would be unlikely
4 that curfew would be at play. They were morning
5 trains. Morning and afternoon we're talking
6 about, so.

7 THE WITNESS: You know.

8 MEMBER FUCHS: What else besides curfew
9 might explain it?

10 THE WITNESS: It could be just the data
11 set. So, you know, TM2 -- the TRAIN profile data
12 is sort of a -- a collection of data. It's based
13 on, you know, inputs from, you know, sort of OS
14 data and -- and from potentially an AI reader.
15 That was the source I used and so I didn't
16 necessarily go back and compare that back to the
17 dispatch data. You know, you sort of use
18 different sets for different things. So in
19 looking at it --

20 MEMBER FUCHS: Let me -- well, let's
21 pause here, because you have, you know, obviously
22 a great level of knowledge and so I want to make

1 sure I'm tracking.

2 You said an AID. So in other words,
3 the -- there are identifiers on -- on rail
4 equipment that go past readers typically say at --
5 at key points at the yards that lost something in
6 the system.

7 It's your experience that an AID reader
8 and a dispatching log can be off by a few hours?

9 THE WITNESS: Depends on location.
10 Again, not to get into too much specifics, I'd
11 have to really dig into it. And yeah, I wish I
12 could sit down with you and go through it. But
13 yeah, as I said I looked back at the train profile
14 data to make sure I wasn't doing anything too
15 wrong.

16 Some of it also is -- if you remember
17 in RTC, I randomized the results. And so, you
18 know, yeah, there is some randomization. I -- I
19 think one of the trains was a triangular
20 distribution, and so, you know, there might be
21 some just base distributions --

22 THE WITNESS: Did you ever -- did you

1 ever do a kind of a -- as part of your quality
2 control compare train profile, AID reader to
3 dispatching, control points to RTC region times?

4 THE WITNESS: So, as part of the
5 development of the model, yeah, we looked at those
6 and I think that's in my work papers. At the very
7 least, you know, with rebuttal, yeah, we do have a
8 detailed sort of here is, you know, sort of a -- a
9 tool I developed in Excel to look at those times.

10 But also, as the course of -- when I
11 first received the model, I took the OS data and
12 looked at sort of -- and I took the RTC output and
13 converted it into a similar type format and looked
14 at sort of the times between your OS to OS points
15 and. You know, through that I identified a couple
16 of things I -- I changed in the model. And so it
17 was just a way to make sure the model is sort of
18 going fast where it's supposed to and going slow
19 where it's not supposed to.

20 MEMBER FUCHS: What -- what do you mean
21 by -- could you explain that a little bit more,
22 please.

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1677

1 THE WITNESS: So for instance, there
2 was one train that had intermediate work that we
3 just missed. You know, it was somewhere between
4 Mobile and Montgomery in the -- the TRAIN file
5 provided to me. What I saw in the data was there
6 was -- that train was taking a long time to get
7 between two sidings. And so I did some digging
8 and tried to figure out why that was showing up in
9 the actual data but not in RTC.

10 And so yeah, there -- there's a whole
11 course of events you go through to sort of try and
12 validate the model.

13 MEMBER FUCHS: Okay, I appreciate it.

14 May I -- Ray, are we going to talk more
15 about how that delay chart that Mary identified?
16 I do have one question on that. I -- I figure it
17 might be a good time. I also don't want to take
18 you completely out of your flow. But, you know,
19 the -- the Redding Green part -- min --

20 MR. ATKINS: Yeah, so Member Fuchs, the
21 next line of questioning I'm going to go down is
22 going to take us down -- it's going to be on time

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1678

1 performance and Amtrak preference. So since I
2 know that is -- why don't -- if you'd like to ask
3 your question now, or is that -- is that
4 related --

5 MEMBER FUCHS: I -- I think it might be
6 most efficient if I wait. Thank you.

7 MR. ATKINS: Okay, all right.

8 BY MR. ATKINS:

9 Q. So, Mr. Dingler, the third question I
10 was going to ask you to talk about a little bit
11 was, before we turn to infrastructure solutions,
12 that's been raised by the members with other
13 witnesses is this question about on time
14 performance and Amtrak preference and how it
15 factors into when you did this experiment, what
16 happens when you add the passenger trains.

17 So when you -- when you ran this first
18 what-if question, can you explain whether on-time
19 performance was an input into the RTC model?

20 A. No.

21 Q. But when you added the passenger
22 trains, the preference for those trains, that's an

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1679

1 input, correct?

2 A. That is correct.

3 Q. So this is a point of some confusion.

4 I'd like you to walk through this distinction with
5 the members. Can you start by describing the idea
6 of preference generally, just -- just at a high --
7 before you talk about what you did, talk about how
8 preference factors into the RTC model.

9 A. So preference or sometimes called
10 priority is sort of a -- a metric in RTC that
11 helps, you know -- it determines when it's --
12 there is a conflict between two trains. So a
13 train with a higher priority has sort of a higher
14 delay cost. And so, generally, the train with a
15 lower priority or preference will be the one that
16 enters the siding.

17 Q. And can you describe how you change --
18 how you assign a preference to each movement
19 that's in the -- in the model?

20 A. That is sort of a setting you can
21 apply. So, they're often -- each railroad has
22 their own defaults but sometimes you have to

1 adjust those to best represent the operations in
2 the corridor.

3 In this case we gave Amtrak the highest
4 preference or priority metric I could in the
5 model.

6 Q. Okay. So I want to -- I'd ask you to
7 elaborate on that a little bit.

8 So can you describe the preference in
9 both 2019 and 2039 that you gave to the Amtrak
10 trains when you -- when you introduced them into
11 the -- into the model?

12 A. Certainly. So as I mentioned, we give
13 them -- I give them the highest sort of priority I
14 could in the model, but also, based on sort of how
15 I was informed by the railroads they want to
16 operate these trains. We limited their -- the use
17 of a siding in a "meetless" freight. So they --
18 they -- they said very clearly to me their
19 intention is to, if there is a freight train, a
20 passenger train, the passenger train would stay on
21 the main line. And so we limited their use of the
22 sidings but that being said, you have to use

1 sidings to meet these two Amtrak trains. They
2 meet on the corridor. And so we allowed on a
3 number of the sidings for the trains to enter
4 those sidings to perform those passenger train to
5 passenger train meets.

6 Q. And so when you asked -- you answered
7 this first question about what happens when you
8 had four passenger trains. Are you capturing two
9 different impacts: the impact of adding the trains
10 plus the impact of giving them freight preference?

11 A. That is correct.

12 Q. What if any analysis did you provide
13 to -- in your reports to distinguish between those
14 two effects?

15 A. In our rebuttal report we did a sort of
16 a thought exercise, a what-if, looking at -- and
17 the 2019 and 2039 cases if we removed all
18 preferences from Amtrak.

19 MR. ATKINS: Since I don't think
20 this -- this table is getting a lot of attention,
21 I want to make sure we draw the members' attention
22 to. I'd like to, Chairman, with your permission

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1682

1 to put up Joint Exhibit 41B. This is a public
2 version of the 2021 rebuttal RTC report.

3 CHAIRMAN OBERMAN: Any objection?

4 I'm sorry, I didn't -- Amtrak, Port,
5 any objection?

6 MS. AMUNSON: No objection.

7 MR. WIMBISH: No objection.

8 CHAIRMAN OBERMAN: All right, proceed.

9 BY MR. ATKINS:

10 Q. So we're going to turn to page 38 so we
11 can show the analysis that you did, in the effort
12 of being as transparent as possible with this --
13 with this project.

14 MR. ATKINS: We're going to try to zoom
15 in a little bit, Chairman. So just give us a
16 moment.

17 THE WITNESS: You mean page 13?

18 MR. ATKINS: Yes, I'm sorry. Thank
19 you. I don't know what that 38.

20 BY MR. ATKINS:

21 Q. Okay, so this is -- we're -- we're --
22 we're going to focus here on table two. Was this

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1683

1 table the table you were referring to in your -- i
2 your -- in your response to my last question?

3 A. Yes.

4 Q. Okay. What did this table describe
5 will happen if you add four passenger trains in
6 2019 but gave them the same preference as the
7 freight trains?

8 A. It -- it does reduce the impact of
9 those passenger trains. There is still a -- a
10 sizable impact. You know it's at table three.
11 You could see the local trains still are -- see
12 degradation of 28%, the overall change in delay is
13 still 8% and your delays to the interchange
14 traffic still are out there, but they are less.

15 Q. So, and I think you just misspoke. I
16 want to clarify the record. You said it -- it
17 decreased -- it decreased the effect on passenger.
18 You meant to say it decreased the effect on --

19 A. Freight.

20 Q. Thank you. And so that table three in
21 the right-hand column is showing you -- it's the
22 same statistic that we walked through with the

1 chairman, but it's now giving the Amtrak trains
2 the same preference as the freight trains?

3 A. That is correct.

4 Q. Okay, so in the second column there,
5 what is -- what is that showing, when you see the
6 original passenger case in table three?

7 A. This is the 2019 passenger case. This
8 is sort of the one we presented in our original
9 report. You can see, those are that 45% and 22%
10 delay numbers that you've seen in those other
11 tables.

12 Q. Okay, and so about -- overall about
13 half the effects of impacts on freight is from
14 adding the trains and the other half is from
15 giving them preference?

16 A. Yes.

17 Q. So now you also in table two reported
18 out some on time performance metrics. Now these
19 are -- so where did you get these from?

20 A. These were calculated from the model.

21 Q. So from the output of the model?

22 A. That is correct.

1 Q. Okay. What did the analysis shows
2 happens to the ability of Amtrak to hit its
3 proposed schedule without any -- any preference
4 and can you show them where that is on the -- on
5 the chart?

6 A. That is there, the equal preference
7 case. They had -- we had the four trains. It
8 was, you know, conveyed to me it's important to
9 make sure we look at those individually as, you
10 know, that's how the railroads would be held to
11 those. And you can see that -- that it is much
12 harder for those trains when you have the equal
13 preference to hit their on-time performance
14 metrics.

15 And that's also, to keep in mind with
16 those metrics, this is an RTC value. This is a
17 value in a sort of a -- a perfect day. There
18 aren't all those failures, you know, that are
19 inherent in sort of a normal or a natural
20 variability of the corridor.

21 Q. And so then on that same table when
22 you -- when you modeled the passenger trains but

1 gave them preference over the freight trains, can
2 you describe what the model says will happen to
3 Amtrak's ability to hit its proposed schedules?

4 A. For all but one you have a very high
5 OTP.

6 Q. And the one in question that's a little
7 lower is the afternoon train?

8 A. Yes.

9 Q. But if your RTC analysis shows that the
10 line can be dispatched in 2019 when you add four
11 trains and that giving them preference over the
12 freight train allows Amtrak to hit its schedule,
13 what are the 11 proposed 2019 projects for?

14 A. Entirely to mitigate the impact to
15 freight.

16 Q. And that's being depicted on table
17 three: the 45%, 22% and 33%, right?

18 A. That's correct.

19 Q. Okay.

20 MR. ATKINS: So for the members'
21 benefit, we could -- we could pause here for a
22 second. That's -- that's our discussion about

1 Amtrak preference. My intention is to --

2 MEMBER FUCHS: Ray?

3 MR. ATKINS: Yes?

4 MEMBER FUCHS: Would Mr. Dingler be
5 able to define OTP, how it's calculated?

6 MR. ATKINS: Yes, absolutely.

7 BY MR. ATKINS:

8 Q. Mr. Dingler, could you define, what do
9 you mean by OTP?

10 A. So for this study the way we defined
11 OTP was all station OTP, what the -- the railroads
12 would be held to, or the Amtrak metric is a custom
13 OTP. We don't know the ridership, you know, in
14 each location, so we assumed sort of weighted each
15 station equally, so this is an all-station OTP.

16 MR. ATKINS: Okay.

17 MEMBER FUCHS: How many -- how many
18 stations experienced an on-time performance less
19 than 90%?

20 THE WITNESS: I -- I looked at that at
21 one time in one set but I don't know off the top
22 of my head and I don't think I ever did it sort of

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1688

1 with these numbers.

2 MEMBER FUCHS: So you -- but you heard
3 Mr. Banks say that, if all customer were used, the
4 proper target would be 80%?

5 THE WITNESS: Yes. So that is the --
6 the regulation or, yeah, the metrics and standards
7 is an 80% for, yeah, customer OTP.

8 MEMBER FUCHS: Well, I -- I had
9 thought, and maybe I misheard him, but did -- did
10 you understand him to say that, if a customer was
11 used, the proper target for the RTC study would be
12 80%?

13 THE WITNESS: No. So that is the
14 metrics and standards and that is sort of what the
15 railroad is to be held to. So, when thinking
16 about OTP and the model, it is, if I have done
17 sort of all the projects and I've come back and
18 one of the, you know, the trains was at a 60% OTP,
19 would we have looked at projects to, you know,
20 bring that up? Certainly.

21 In this case, as you can see, there was
22 no need for that. These -- by giving these trains

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1689

1 preference, we were able to get sort of a high OTP
2 for these trains.

3 MEMBER FUCHS: Well, he had said that
4 the reason 95 instead of 80% is a buffer because
5 of the difference between all stations and all
6 customers. Is that right?

7 THE WITNESS: So it is best practice to
8 make sure you -- you get higher than, you know,
9 what is sort of regulated. The reason for that
10 is, you know, all those sort of things I talked
11 about with RTC. Well, it's a fantastic tool. You
12 know, it is, yeah, a computer. It's -- I think a
13 colleague of mine called it 75 degrees and sunny
14 every day.

15 And so, you know, I can't tell you
16 exactly what OTP you need in RTC to get 80%. What
17 I can tell you is, if you just get 80% OTP in RTC,
18 it's going to be very hard to impossible to get
19 that in the real world.

20 MEMBER FUCHS: Well --

21 MR. ATKINS: No, go ahead, Member
22 Fuchs. I was just going to do some redirect, but

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1690

1 go ahead.

2 MEMBER FUCHS: Well -- well -- but --
3 but the -- the FRA standard is not absolute,
4 right?

5 THE WITNESS: It is 80% per each
6 individual train is my understanding.

7 MEMBER FUCHS: I -- I mean to say that
8 that's the trigger for an investigation; it's not
9 the trigger for liability.

10 In other words, a freight railroad is
11 not necessarily -- you know, it doesn't have to
12 pay damages because of less -- so when we say 75
13 and sunny, if there was a, you know, other
14 catastrophe, for example, that pushed --

15 MR. ATKINS: Member -- Member Fuchs, I
16 would just -- I -- I don't want to object
17 unnecessarily but Mr. Dingler's not a lawyer.

18 MEMBER FUCHS: Right.

19 MR. ATKINS: So if -- I don't think he
20 could opine on the legality of it.

21 MEMBER FUCHS: I totally -- I totally
22 appreciate that. You know, I guess I'm trying to

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1691

1 understand why 95% was selected. And there was a
2 witness -- Ray I'm sure you'll appreciate -- that
3 specifically said that there needs to be a 15%
4 buffer because of the difference between all
5 stations and all customers. And I didn't hear
6 from Mr. Dingler that any of the stations were
7 below 90%, in which case, if no stations are, you
8 know -- even if no stations below 80%, well then
9 no weighting of passengers is ever going to get
10 you close.

11 And so I -- with respect, I'm really
12 trying to get clarity because I'm hearing
13 different things from different witnesses and I'm
14 struggling to make them consistent. So -- and
15 it's not an accusation. I'm just asking for help
16 in clarifying how what Mr. Banks said is
17 consistent with what Mr. Dingler's saying in terms
18 of why -- why you need 15% -- why 15% was
19 justified, et cetera.

20 THE WITNESS: Yeah, so to be honest,
21 that 95% was what we ended up with. It was --
22 it's somewhat inelegant. I think we say that in

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1692

1 the rebuttal.

2 MEMBER FUCHS: Wait, wait, "ended up
3 with"? I mean, who selected it?

4 THE WITNESS: We didn't. So it was
5 after we -- we did all the -- the projects. We
6 looked at the OTP and we saw it was, you know,
7 roughly about, you know, about a 95% OTP for these
8 trains. It wasn't some metric we tried to reach.
9 As you could see, we didn't need to add any
10 projects to hit a higher OTP. It was -- it was
11 the output of the model once we mitigated the
12 freight.

13 MR. ATKINS: So --

14 MEMBER FUCHS: Sorry, Ray, please.

15 MR. ATKINS: Yeah, nah, I don't want to
16 ask the same question over and over again, but I
17 just want to make sure it's clear to the members.

18 BY MR ATKINS:

19 Q. OTP -- Mr. Dingler, was OTP an input
20 into the RTC model?

21 A. No.

22 Q. Was it a target for the RTC model?

1 A. No.

2 Q. When you gave them the passenger
3 trains, the preference, the results were depicted
4 on page -- table two of -- of this report,
5 correct, for 2019?

6 A. That is correct.

7 Q. Okay.

8 A. One thing to add is that, when you are
9 modeling, though, you -- you would look at OTP.
10 You know, and, there, as I said, it's good
11 practice to make sure you are somewhat higher. I
12 can't tell -- you know, there was no specific
13 number we were trying to hit in this case.

14 I think what -- what Charlie was trying
15 to say is we looked to that number and we felt,
16 you know, that is -- it was high enough above 80%
17 that there was no need for specifically developed
18 projects for that. It was not a goal, though, to
19 hit that number.

20 MS. BRACEY: Objection to the
21 speculation, just for saying what Mr. Banks was
22 trying to say.

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1694

1 MR. ATKINS: I appreciate --

2 CHAIRMAN OBERMAN: That part of Mr.
3 Dingler's answer from what Mr. Banks was trying to
4 say will be stricken.

5 MR. ATKINS: So I will just note that
6 normally I get a chance to offer my -- my response
7 to an objection, Chairman, but I will --

8 CHAIRMAN OBERMAN: If you have a
9 response, okay. Fair enough.

10 THE WITNESS: Yes, I do. Member Fuchs
11 was asking him questions about what his
12 interpretation was of prior witness testimony. So
13 if that's a grounds for an objection, I'm going to
14 make it for the members, as well.

15 CHAIRMAN OBERMAN: I didn't hear Mr.
16 Dingler say -- let me just -- I did not hear Mr.
17 Zingler -- Dingler say, prior to now, as to what
18 Mr. Banks was trying to say. That is improper
19 guessing about what's going on in Mr. Banks'
20 head.

21 If you -- if you want to strike
22 something else on the same grounds, then show me

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1695

1 the place in the transcript and I'll rule on it,
2 but I think Ms. Bracey's objection to that aspect
3 of the answer is well taken and I will ask that it
4 be stricken -- have it be stricken.

5 BY MR. ATKINS:

6 Q. So, if -- I just have one last
7 follow-up on this line, Mr. Dingler. So we're
8 going to turn to the projects and you indicated
9 the projects were there to address the impact on
10 freight.

11 At the end of the process, when you
12 have the 14 projects in place, if you had run the
13 analysis and seen an on-time performance below
14 95%, what might you have done?

15 A. I don't know, you know, what number I
16 said, but if it had been low, you know below 80%,
17 we probably -- we probably would have looked at
18 some projects.

19 Q. So some supplemental projects, not only
20 to address the freight impairment, but any -- the
21 need to get -- to improve the passenger
22 performance?

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1696

1 A. That is correct.

2 Q. Okay. So what I'm going to do now is
3 turn to --

4 A. There's a hand raised.

5 MR. ATKINS: Oh.

6 MEMBER HEDLUND: Sir, I have a
7 question.

8 MR. ATKINS: Yes, Member Hedlund.

9 CHAIRMAN OBERMAN: Karen, go ahead.

10 MEMBER HEDLUND: Mr. Dingler, could you
11 explain again what equal preference case means,
12 what is equal preference?

13 THE WITNESS: So certainly. Yes. So
14 what I did was I -- as I mentioned the priority in
15 RTC, what I did was I set it the same as the
16 general merchandise traffic on the corridor and
17 then I also allowed Amtrak to take every siding
18 along the way. So basically, it -- the dispatcher
19 will treat it just like a merchandise train on the
20 corridor.

21 BY MR. ATKINS:

22 Q. So Mr. Dingler, if you had a freight

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1697

1 train and a passenger train that were approaching
2 each other, in the equal preference case the
3 passenger train doesn't get preference?

4 A. So in that case, it'd be the train that
5 creates the least delay is what the dispatching
6 decision would be.

7 MR. ATKINS: Madam -- Member Hedlund,
8 does that answer your question?

9 MEMBER HEDLUND: I have a question you
10 probably can't answer and that is are you familiar
11 with the number of routes that Amtrak runs today
12 that have OTP above 95%?

13 THE WITNESS: I -- I don't know.

14 MEMBER HEDLUND: Thank you.

15 MR. ATKINS: Okay, so we're going to
16 turn now to the -- the next thought experiment
17 which is the build cases, so when you're
18 introducing the infrastructure.

19 MEMBER FUCHS: Ray, if I can just, on
20 the delay per hundred train mile and delay --

21 MR. ATKINS: Input, yep.

22 MEMBER FUCHS: You -- you know, I think

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1698

1 Mr. Dingler described it as, you know, maximum
2 versus minimum run time with minimum run time
3 being unopposed, an unopposed run on a -- with a
4 single train.

5 Mr. Dingler, do I have that right,
6 roughly?

7 THE WITNESS: It wasn't maximum. It
8 would be what the sort of that train would
9 dispatch in RTC. So if RTC dispatched in six
10 hours and the minimum run time was four hours,
11 you'd have two hours for the delay.

12 MEMBER FUCHS: And are you aware of --
13 you know, because I think you -- you -- I think,
14 in exchange with -- with Mr. Atkins you -- you had
15 discussed some previous work in this area and
16 are -- are you aware of some kind of disagreement
17 about the appropriateness of using that type of
18 delay measure to ascertain capacity?

19 THE WITNESS: So, you always have to be
20 careful, and so that's why I include it with --
21 with speed.

22 So, for instance, if you increase the

1 speed of a segment of track, you will increase
2 that minimum run time -- sorry, I'm getting a
3 little bit wonkie here -- you will increase the
4 speed of that minimum -- that -- so you're going
5 to see an increase in speed but you may see no
6 decrease in delay. And so that's why we included
7 both, was because -- and you actually see that in
8 some of our metrics, as we improve some of the
9 speed of the sidings that you actually see a -- I
10 think it was a deep increase in delay but a
11 decrease in speed.

12 And so you have to be careful. You
13 can't look at any of these metrics sort of in
14 isolation. You have to sort of look at them as a
15 suite and amongst all trains.

16 MEMBER FUCHS: There -- there is -- I
17 saw that you had cited in some of your work a -- a
18 paper that made the finding that there's not a
19 direct relationship between delay and capacity and
20 that the relationship between delay and efficient
21 operation is not a reliable indicator...

22 And I'm wondering what is your

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1700

1 assessment of the relationship between delay and
2 capacity and, you know, as well as the
3 relationship between delay and efficient
4 operation.

5 THE WITNESS: Do you know which --
6 which paper you're talking about or?

7 MEMBER FUCHS: Well, I think you
8 cited -- it was one from -- from I guess White.

9 THE WITNESS: Okay.

10 MEMBER FUCHS: That was in TRB and, you
11 know, I -- I think you've cited it fairly often,
12 at least in the work that I've read of yours.

13 THE WITNESS: You're joining an elite
14 group of people who have probably read my
15 research.

16 So, yes. Let me think how to answer
17 this. So the way I -- so the interesting thing
18 throughout this is I'm very careful using the word
19 "capacity". The reason is is the way I define
20 capacity is a through-put at a set level of
21 service. And so you have to consider sort of the
22 level of service you have on the corridor sets the

1 capacity of it.

2 So for instance on a -- an intermodal
3 route, you know, you'll have to have less delay
4 than a coal route, for instance. And so, the --
5 the -- it is -- delay is often used as a metric of
6 level of service. And so I think that -- I can't
7 remember specifically the paper, but, you know,
8 I'm -- I'm familiar with it, that that is the
9 reference, is that you can change the level of
10 service on the corridor and it will change the
11 capacity.

12 MEMBER FUCHS: Are you -- well, is
13 level of service maybe -- I thought you said that,
14 because I didn't know exactly what you meant by
15 that.

16 THE WITNESS: So it's like a simple
17 amount of delay basically is how I define level of
18 service.

19 So for instance, Amtrak has to have a
20 very high level of service, which means it has
21 very low amount of delay.

22 MEMBER FUCHS: Well, but you're not

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1702

1 controlling for -- say for example if -- if you're
2 a shipper or a rail customer, you want -- you want
3 to be able to hit your window. You don't -- you
4 might not necessarily care if the train left at
5 9:00 or it left at 12:00 if it hit your ultimate
6 delivery window. You're not -- that's what you
7 mean by level of service?

8 THE WITNESS: No.

9 MEMBER FUCHS: You -- you mean --
10 you're controlling for -- you are controlling for
11 the priority of trains?

12 THE WITNESS: Effectively, yes.

13 So often the level of service and the
14 priority put in RTC are directly correlated. So
15 yeah, you're going to put a higher priority for
16 Amtrak and you're going to have intermodal and
17 you're going to have merchandise and coal, yeah,
18 and -- and then local.

19 MEMBER FUCHS: But you could -- you
20 could reschedule a train or -- or reorganize --
21 you could reorganize train schedules, you could
22 reorganize how long the train is and still achieve

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1703

1 the same level of service.

2 THE WITNESS: Yes, you just have to --

3 MEMBER FUCHS: In the real world, in
4 terms of what customers care about is, does my
5 freight get here on time?

6 THE WITNESS: Yes. You have to be
7 careful. I said the operating plan of a railroad,
8 CSX and NS, has a whole host of factors. You
9 know --

10 MEMBER FUCHS: Right.

11 THE WITNESS: -- it effects the
12 connections at Nashville and Waycross and Atlanta
13 and all across --

14 MEMBER FUCHS: Right.

15 THE WITNESS: -- the network. And so
16 if you shift that train, you might not make that
17 connection and you're adding a day to that train.

18 MEMBER FUCHS: But you haven't -- you
19 haven't -- you haven't explored that?

20 THE WITNESS: Not -- we will get to
21 some of those but we did not look at -- at
22 drastically changing the schedules.

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1704

1 MEMBER FUCHS: So -- so when you say
2 level of service, you're not necessarily meaning
3 the level of service that a customer experiences?

4 THE WITNESS: No.

5 MEMBER FUCHS: You're meaning a very
6 narrow just priority on a set schedule?

7 THE WITNESS: Yes, yes.

8 MEMBER FUCHS: That's -- that's not --
9 you know, if someone were to add trains without
10 infrastructure, that's not what a freight railroad
11 would actually do, right?

12 THE WITNESS: That is correct.

13 MEMBER FUCHS: Yeah, all right, thanks.

14 MR. ATKINS: Okay, so -- so we're going
15 to turn to talk about the build cases and the
16 infrastructure cases and our plan is to walk
17 through all the infrastructure projects with as
18 much detail as you can tolerate and try to put
19 them all into context and explain -- and have Mark
20 explain how he got where -- where he did with each
21 of these projects.

22

1 BY MR. ATKINS:

2 Q. So, after you determined what would
3 happen in 2039 and 2019 from adding the four
4 passenger trains, can you describe what you did --
5 what you did next in your modeling exercise.

6 A. So, upon looking at the results in the,
7 you know, 2039 passenger case, we started looking
8 at potential projects to -- to mitigate that
9 impact to freight.

10 Q. So did the RTC model tell you where to
11 put infrastructure projects?

12 A. It does not.

13 Q. So how do you use it to help you
14 identify at least the starting point for picking
15 projects?

16 A. So I look at two things. One was sort
17 of those overall metrics that we just went
18 through. The other is -- and I think there's some
19 diagrams actually in my report -- is where the
20 delays are occurring. And so you -- you want to
21 build the projects at where your delays are
22 occurring, identifying sort of root causes. So

1 you know, where your delays are occurring may not
2 be the root cause of that. So you're looking,
3 watching the animations, you're looking at the
4 delays, you're -- you're using your understanding
5 of the corridor to identify sort of the best
6 projects to serve, you know, the heavy hitters
7 to -- to mitigate the most delay.

8 Q. And do you recall where like the top
9 three heavy hitters were on the corridor?

10 A. New Orleans, Mobile and Gentilly.

11 Q. Okay. So what criteria did you use to
12 develop the infrastructure solutions?

13 A. So it was important that we only looked
14 at projects that were within the railroad's
15 control. So what this means is we did not look at
16 grade separations, we did not look at grade
17 crossing closures, we did not look at schedule
18 changes for Amtrak and we did not change the
19 interchange train operations.

20 So it was, you know, only things the
21 railroads themselves could control.

22 Q. Can you describe the iterative process

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1707

1 by which you select infrastructure projects?

2 A. I -- I wish it was very linear but it's
3 not. So basically, you know, as I mentioned I
4 looked at those metrics and I start choosing
5 projects that based on where I'm seeing the -- the
6 most delay, trying to come up with sort of the
7 biggest bang for the buck with those. And so I --
8 I add in those projects and then I -- I look at
9 the results and I do it all over again.

10 MEMBER FUCHS: I have to ask you to
11 clarify, Mr. Dingler. You don't actually mean
12 bang for the buck because --

13 THE WITNESS: Sorry. No, no, it's the
14 high delay locations.

15 MEMBER FUCHS: Yeah, because you
16 have -- you have assessed how much delay you save
17 for every dollar of spending, right? In your work
18 you have assessed -- you have assessed the cost
19 effectiveness of infrastructure, cost
20 effectiveness of operational changes, et cetera?

21 THE WITNESS: Not in this study, no.

22 MEMBER FUCHS: No, but in the past -- I

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1708

1 mean, you have expertise and you've done that in
2 your work?

3 THE WITNESS: Yeah, in a theoretical,
4 yeah, academic setting.

5 MEMBER FUCHS: Right. So you could --
6 you could -- you have looked at bang for the buck
7 and you could look at bang for the buck, but you
8 didn't here?

9 THE WITNESS: That is -- that is
10 correct. And -- and one thing to say about sort
11 of operational changes is, when we looked at it,
12 and there's just -- and in my passing looked at
13 it, you know, there aren't clear changes to be
14 made. There is variability on the corridor.
15 Yeah, these trains show up, you know, over a
16 window of time. There was not clear sort of
17 anything to be to done there.

18 MEMBER FUCHS: But -- but based on --
19 based on your past and what you did here, the
20 board has no -- the board can't judge whether or
21 not a project is cost effective?

22 THE WITNESS: No. We looked at these

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1709

1 -- you know, in the end, it's a set of projects.
2 They are selected to work together to mitigate the
3 impact to freight. We don't consider -- we
4 consider these projects an individual project.

5 MEMBER FUCHS: And -- and the board of
6 course, because there was no operational changes
7 contemplated -- the board couldn't contemplate
8 whether or not an operational change would be more
9 cost effective than an infrastructure change?

10 THE WITNESS: No. And -- and I don't
11 even know the cost of the railroad for the most
12 changes. They did --

13 MEMBER FUCHS: But you have -- you have
14 looked at the cost of operational changes for
15 railroads and quantified the cost effectiveness
16 before?

17 THE WITNESS: Yeah, in an academic
18 setting, yes.

19 MEMBER FUCHS: Yeah, and you've
20 generally found that operational changes are more
21 cost effective than infrastructure changes?

22 THE WITNESS: I'm trying to remember.

1 It's been a while.

2 Generally the advantage of an
3 operational change is that it's more flexible.
4 You know, it's something you could -- you could
5 turn on and turn off.

6 In this case, keep in mind, this is a
7 permanent change we're talking about. This is a
8 permanent sort of introduction of Amtrak. And so
9 some of those things that you -- due to natural
10 variability of traffic which would -- would serve
11 to benefit or the reason for doing an operational
12 change aren't the case in this study.

13 MEMBER FUCHS: But, you know, so if
14 you -- the board were -- if -- if someone were to
15 consider how to -- how to lower delay at the
16 lowest cost possible, you know, flexibility and
17 lowest cost, the first place they'd look is
18 operation changes?

19 THE WITNESS: I think railroads are
20 always looking at operations to try and, you
21 know -- again, I can't necessarily speak for CSX
22 and NS, but you would imagine -- you know, they

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1711

1 are constantly looking at those things.

2 MEMBER FUCHS: Well, you know -- you
3 know, you can guess the reason I'm asking is
4 because we're -- we're being asked to evaluate,
5 you know, infrastructure projects but not -- you
6 know what I mean? And so --

7 THE WITNESS: Yeah.

8 MEMBER FUCHS: You're thinking about
9 what -- you know, what is -- what is cost
10 effective. So I appreciate it. Thank you.

11 CHAIRMAN OBERMAN: Mr. Dingler, I'm
12 curious about getting a more direct answer to
13 Member Fuchs' question. He asked you if the first
14 place you would look is operations.

15 Can you answer that question.

16 THE WITNESS: So, I -- I can't speak
17 for how CSX and NS do things today. But, yes,
18 when you're looking at a corridor, if there's a
19 clear and obvious sort of change to be made,
20 you -- you would potentially make that. There was
21 not that in this case. And so, it's that you have
22 to keep in mind that, if you're moving a schedule,

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1712

1 you're going to be shifting that train. There's
2 trains operating all day long. So you're going to
3 increase -- you know, move congestion from one
4 part of the day to another. So there is -- and
5 these trains are variable. You know, there's --
6 there's variability in dwells and arrival times.
7 There is a whole host of things and so -- you
8 know, yeah.

9 CHAIRMAN OBERMAN: Would it be accurate
10 to say that you can't know if there is a clear or
11 obvious change unless you look for it?

12 THE WITNESS: Well, in -- in building
13 these models, I watched the animation, I was
14 looking at the string lines, I was looking at a
15 whole -- at the data. I was looking at a whole
16 host of things and I -- I didn't see anything
17 clear and obvious.

18 CHAIRMAN OBERMAN: Were you looking for
19 operational changes?

20 THE WITNESS: As I said, it is a normal
21 course of action. If I'm seeing -- when I'm
22 watching and I'm seeing the same train delayed at

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1713

1 the same spot every single day, yeah. And I
2 mentioned, we -- we started to look -- go down
3 that path but it ended up not being an issue.

4 MR. ATKINS: So, I --

5 MEMBER PRIMUS: Hey, Ray -- I just have
6 a quick -- I just have a quick clarification.

7 MR. ATKINS: Of course, yep.

8 MEMBER PRIMUS: I just want to clarify.

9 So if you're looking at -- when you're
10 looking for that data, is it -- can the inputs
11 into the model determine whether there's an
12 operational or infrastructure sort of advantage?

13 THE WITNESS: So, what -- what the --
14 so at a high level, what you input into RTC is an
15 operating plan, it's sort of the -- the priorities
16 and the infrastructure.

17 MEMBER PRIMUS: Right.

18 THE WITNESS: And so then -- yeah, then
19 you'd look at the outputs as sort of how the model
20 dispatches those trains.

21 And so, you can look at the outputs and
22 see if there's trends or anything like that but

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1714

1 again, in this case I didn't see anything.

2 MEMBER PRIMUS: Okay. Okay, thank you.

3 THE WITNESS: And as I said, and -- and
4 to keep in mind, you know, there are a whole host
5 of factors and -- and, you know, with -- with a
6 schedule change that -- you know, I don't
7 understand or necessarily know the impact it would
8 have on -- on Nashville or Waycross or Atlanta.

9 MR. ATKINS: Just for the -- to -- to
10 preview for the members where we're going, we're
11 going to walk through the 14 projects, but we are
12 actually going to talk about what-ifs around
13 shortening the train sizes so they're all clearing
14 trains to go through and what the -- and whether
15 that might be an operational change that could
16 help accommodate Amtrak. We're going to look at
17 bridge tenders and the possibility of animation of
18 the bridges and how you can use the RTC model in
19 that what-if -- what-if as well.

20 MS. BRACEY: I'm going to object.

21 Counsel is testifying.

22 MR. ATKINS: Well, I'm just telling the

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1715

1 board where we're going so that we could kind
2 of -- kind of control where the line of questions
3 are coming from.

4 So, we --

5 MS. BRACEY: Could we have a ruling?

6 MR. ATKINS: You're muted, Chairman
7 Oberman.

8 CHAIRMAN OBERMAN: I think Ray's
9 comments were helpful to just give us an idea so
10 that we can hold questions. I didn't count it as
11 testimony. Much as well as I know Ray, I'm not
12 listening to his testimony. I'm listening to his
13 lawyering.

14 MEMBER FUCHS: I would -- I just want
15 to chime in, Marty, and -- and agree with you and
16 especially in light of the fact that I have
17 actually prompted Ray on multiple occasions to ask
18 where they're going, I felt -- I felt his
19 narrative was actually pretty reasonable.

20 CHAIRMAN OBERMAN: Well, not a problem.

21 And Ms. Bracey, you know, I would
22 accord the same deference to you when it gets to

1 your case if you think it will be helpful to the
2 board.

3 Go ahead, Ray.

4 BY MR. ATKINS:

5 Q. So, I -- I -- I'm going to ask this
6 question again because I think -- I just want to
7 make sure we covered it.

8 Can you describe just -- just the
9 iterative process, how this is a -- you know, that
10 you went through as you were looking for these --
11 that led you to the 14 projects?

12 A. So as I said, it's sort of -- it's an
13 iterative process. You -- you first -- you start
14 layering in projects, you -- looking at the
15 results, sort of each step of the way. And then
16 at the end you start going backwards and looking
17 at, did these projects still make sense. If I --
18 you know, for example, you know, you're looking at
19 spacing sidings on the corridor. You know, if
20 you're -- you start placing them at every 20
21 miles, you know, a theoretical, and then you
22 realize you have to do every 15. You know, you

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1717

1 sort of have to go back and sort of adjust those
2 projects. And so it's -- it's sort of a highly
3 iterative -- you know, trying to not give any
4 freight benefit to get us back to sort of the --
5 the base level.

6 Q. Okay. Would a map of the study
7 corridor help you show the members where each of
8 these projects is located?

9 A. Certainly, yes.

10 MR. ATKINS: So Mr. Chairman, I would
11 I'd like to show the witness visual aid Exhibit
12 CSX/Norfolk Southern 277, which is a full map of
13 the -- the corridor showing where the projects --
14 the proposed projects are. For Amtrak's benefit,
15 we're only using this as a visual aid. We're not
16 submitting it for any -- for any other purposes to
17 help the board place where these projects are.

18 CHAIRMAN OBERMAN: This -- it -- it was
19 Joint Exhibit 277?

20 MR. ATKINS: Two seventy-seven. Now
21 when I say "joint," that's the CSX/Norfolk
22 Southern joint exhibit, not a joint for all of the

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1718

1 parties.

2 CHAIRMAN OBERMAN: And -- I know we saw
3 some maps earlier on. Is this one of these maps
4 or is this a different one?

5 MR. ATKINS: It's a -- it's a different
6 map. If we can go ahead and put it up so you can
7 review it and see if there's any objections from
8 Amtrak or the Port.

9 CHAIRMAN OBERMAN: Okay. Are there any
10 objections?

11 MS. BRACEY: Amtrak objects to the
12 admission of the exhibit as substantive evidence
13 but we don't have an objection to it as a visual
14 aid.

15 CHAIRMAN OBERMAN: All right. And that
16 is that the only reason you're putting it up,
17 right, as a visual aid?

18 MR. ATKINS: That is correct.

19 CHAIRMAN OBERMAN: Okay, we will
20 proceed.

21 Port, do you have any objection?

22 MR. WIMBISH: No -- no objection, sir.

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1719

1 CHAIRMAN OBERMAN: All right. We'll
2 proceed on that basis. Go ahead.

3 (Map of the corridor was marked
4 CSX/Norfolk Southern Joint Exhibit 277, for
5 identification.)

6 BY MR. ATKINS:

7 Q. From a high level, could you describe
8 what the map is depicting, Mark?

9 A. This shows geographically proposed
10 projects.

11 Q. And it also shows the existing sidings?

12 A. Yes.

13 Q. Okay.

14 A. Yes. Those white dots are existing
15 sidings on the corridor. The yellow are the --
16 are the proposed projects.

17 Q. Okay. So we're going to -- what I'd
18 ask you to do is we're going to walk the members
19 from New Orleans to Mobile through the projects.
20 We're actually going to -- I have a second map,
21 Chairman, which I'd like to use just as a blow-up
22 so we -- we can come down at a more granular

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1720

1 level. This is the second exhibit, with
2 permission, under the same terms as a visual aid.
3 This is CSX/Norfolk Southern 276, which we would
4 submit is just as a visual aid to help you see
5 where the -- the projects are.

6 CHAIRMAN OBERMAN: Two things, Ray.
7 This is -- says it's 275.

8 MR. ATKINS: Oh. Well, I suspect it's
9 275 then.

10 CHAIRMAN OBERMAN: All right. And is
11 this just the same -- a segment --

12 MR. ATKINS: Yes.

13 CHAIRMAN OBERMAN: -- of the map we
14 just saw, just blown up, correct?

15 MR. ATKINS: Yes.

16 CHAIRMAN OBERMAN: Any objection on the
17 same -- using this for the same basis?

18 MS. BRACEY: No objection to using it
19 as an aid.

20 CHAIRMAN OBERMAN: And Port?

21 MR. WIMBISH: No objection.

22 CHAIRMAN OBERMAN: All right. Thank

1 you.

2 (Blown-up map of the corridor was
3 marked CSX/Norfolk Southern Joint Exhibit 275, for
4 identification.)

5 BY MR. ATKINS:

6 Q. So Why don't we just stick with this
7 and if -- if at any point in time you think it'd
8 be helpful, we can actually go into the diagrams
9 which are in your report. But staying at a high
10 level, could you describe the projects which you
11 referred to as the NS interlocking improvements
12 and -- and why -- how you came to identify them
13 and what their purpose serves.

14 A. These were projects that have been
15 talked about pretty significantly. These are
16 crossover projects on the Norfolk Southern. And
17 so we looked at -- I -- I developed projects based
18 on trying to improve the fluidity of -- of the
19 corridor. And so they are spaced out to give sort
20 of more routing options to both Amtrak and freight
21 so that they can sort of better commingle.

22 Q. Okay. Could you describe the Gentilly

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1722

1 bypass and what it entails and -- and why it was
2 included as one of the projects.

3 A. So this actually was originally an FRA
4 project. They recommended a 10,000 foot bypass at
5 this location. So what this does is it allows
6 trains to move around -- I think Mr. Johnson
7 discussed this -- to move around the yard
8 operations. The reason it went to 14,000 feet is
9 it allows -- it sort of -- it extends it beyond
10 where the -- the yard movements are coming out of
11 the north end of the yard. And so this allows it
12 to sort of keep clear of all the switching
13 movements at the north end and the building of
14 trains.

15 Q. Could you describe then --

16 CHAIRMAN OBERMAN: Could I --

17 MR. ATKINS: Yes, Chairman?

18 CHAIRMAN OBERMAN: I'm looking at Mr.
19 Niemeyer's verified statement that's dated
20 November 3, 2021. I'm sure it's an exhibit. I
21 don't know the number. He refers to the Gentilly
22 bypass as 13,300 feet. So, are we talking -- it

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1723

1 doesn't sound like we're talking about the same
2 project. That's all I'm asking about.

3 THE WITNESS: It may be due to -- so
4 the way he -- I put it in as RTC at 14,000 feet.
5 In his review, I can't speak for him. I'm not
6 100% familiar with his report. That's likely what
7 was constructable and that was -- and what was
8 estimated.

9 CHAIRMAN OBERMAN: So he -- we're
10 talking about the same project?

11 THE WITNESS: Yes.

12 CHAIRMAN OBERMAN: But the RTC report
13 ran this as a 14,000 foot track.

14 THE WITNESS: Yes, yeah -- what 700
15 feet difference? Yeah.

16 CHAIRMAN OBERMAN: Would it turn out a
17 different report if it ran it at 13.3?

18 THE WITNESS: I don't -- no, I don't
19 think so.

20 This -- so the -- in creating projects,
21 you know, I'm using my judgment, you know, as an
22 engineer to try and look at, you know, what is

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1724

1 buildable, make sure I don't put turnouts and
2 crossovers and curves, things like that. But when
3 you start doing a -- a field review or, you know,
4 in more depth, you sort of find things you have to
5 tweak.

6 Upon his review I did not go back
7 and -- and make adjustments to the model. It was
8 sort of done separate from my modeling. You know,
9 he was out there costing the projects I developed.

10 CHAIRMAN OBERMAN: All right, we -- we
11 don't have the advantage of I guess Mr. Niemeyer's
12 testimony. Is -- is he an engineer by trade, do
13 you know?

14 THE WITNESS: I am not familiar.

15 CHAIRMAN OBERMAN: Okay. All right,
16 proceed. I -- I think -- I'm going to try to
17 follow along, Ray --

18 MR. ATKINS: Yep.

19 CHAIRMAN OBERMAN: -- with each of the
20 different witnesses so we know we're talking about
21 the same thing and I -- where it needs to be --

22 MR. ATKINS: Understood --

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1725

1 CHAIRMAN OBERMAN: -- reconciled --

2 MR. ATKINS: -- Chairman and we --

3 we -- we are -- we can go into diagrams on any of
4 these if you want a little more detail, but we're
5 going to leave it at a high level until the board
6 members indicate they would want more granular
7 review, just to move things along.

8 CHAIRMAN OBERMAN: Well, I think for
9 the moment it just would be good to identify if,
10 we're talking about the same projects --

11 MR. ATKINS: Yep.

12 CHAIRMAN OBERMAN: -- and then if there
13 is need to question further you we can do it at
14 the time.

15 MR. ATKINS: Understood.

16 CHAIRMAN OBERMAN: Go ahead, thank you.

17 BY MR. ATKINS:

18 Q. So -- so moving from the Gentilly
19 bypass, can you describe the Michoud double track
20 and its purpose and why -- what you were seeing
21 that led you to recommend it.

22 A. So the Michoud double track, what it is

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1726

1 is we're extending the track from the end of the
2 existing Michoud sort of crop turnout 14,000 feet.
3 So what this does -- it includes the universal
4 crossover -- was it gives you another place to
5 hold the train. When that Amtrak train is coming
6 through, you can only use one of the tracks. And
7 so in the existing condition, you have two tracks
8 to sort of sit trains. And so, yeah, this is
9 important both wait -- for trains waiting to get
10 into Gentilly but also trains waiting to go north.
11 And so, yeah, it allows that train to sit clear of
12 crossings and -- and sit clear of the Amtrak
13 service.

14 Q. Okay.

15 MR. ATKINS: So Mr. Chairman, I'm going
16 to propose to move to a -- a different blow-up,
17 which is the one I --

18 CHAIRMAN OBERMAN: Before you do
19 that --

20 MR. ATKINS: Of course.

21 CHAIRMAN OBERMAN: Now in Mr.
22 Niemeyer's report, he has this as a 12,500 foot

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1727

1 track, which is a greater difference than in the
2 Gentilly bypass.

3 I assume your answers would be the same
4 as to the difference, Mr. Dingler?

5 THE WITNESS: Yes. And we could go
6 back -- it probably might be how we account for
7 distance from the turnouts. He may be doing from
8 a -- I'm not sure. We could always go back and
9 remodel it with any of these changes.

10 MS. BRACEY: May I ask --

11 THE WITNESS: -- but they were sort of
12 done separate. Yeah.

13 MS. BRACEY: May I ask that be stricken
14 as inconsistent with his testimony in his report,
15 his verified statement?

16 CHAIRMAN OBERMAN: Well, I think that's
17 subject to cross-examination, Ms. Bracey, so it's
18 not a basis to strike it. But if it goes to his
19 credibility, you'll have the opportunity to bring
20 that up. So that your motion is denied there, at
21 least at this time, subject to further
22 cross-examination.

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1728

1 MR. ATKINS: So I'd like to use --
2 Chairman, I'd like to show the witness Exhibit
3 CSX/Norfolk Southern 276, which is now moving to
4 the Mississippi projects. This is a zoomed view
5 of just Mississippi, again, submitted just for
6 the -- just to use as a visual aid so that we can
7 walk -- so you understand where these projects are
8 as we walk through them.

9 I just need to wait and see if I have
10 permission to use it.

11 CHAIRMAN OBERMAN: Any objection?

12 MS. BRACEY: Same objection as before,
13 just it can't be used as substantive evidence.

14 CHAIRMAN OBERMAN: You know, in order
15 to save some time here, Ray, how many of these
16 blowups do you have?

17 MR. ATKINS: I have one more after this
18 and it's also there just as a visual aid.

19 CHAIRMAN OBERMAN: All right, so can we
20 have the same understanding that this exhibit and
21 the next one, you don't have to make the objection
22 beyond saying that it's all agreed that this will

1 be used only for the visual ease of describing
2 where these things are and not for the substantive
3 evidence.

4 With that understanding, we can
5 proceed. Go ahead.

6 (Map of Mississippi projects was marked
7 CSX/Norfolk Southern Joint Exhibit 276, for
8 identification.)

9 BY MR. ATKINS:

10 Q. Okay, Mr. Dingler, so now we're in the
11 next state. Could you describe the Claiborne
12 double track, its purpose and why it was included
13 in the model.

14 A. So there was an existing siding there,
15 Claiborne siding. At this location there is --
16 you can see on there the PBVR, a -- a local --
17 it's a -- a local comes out there and serves this
18 sort of interchange customer. Also, at this
19 location, between the Claiborne and Nicholson
20 siding is the scheduled meet between the Amtrak
21 trains.

22 And so, you know, they were equally

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1730

1 likely to sort of meet either in the Nicholson
2 siding or in the Claiborne siding. So we looked
3 at sort of projects so that -- to -- to mitigate
4 that impact to the freight.

5 So what we did was we extended the
6 Claiborne siding, the initial siding out to 12,000
7 feet, and added a sort of a second siding right
8 next to it.

9 The FRA project has an Annesley siding
10 which serves the same purpose at this location.

11 Q. And then turning to -- to the --

12 CHAIRMAN OBERMAN: Ray?

13 MR. ATKINS: I'm sorry, Chairman? Yes.

14 CHAIRMAN OBERMAN: I have a question
15 here.

16 Why do you need 16,000 feet? There is
17 no Amtrak train nearly that long and the longest
18 freight trains are 12.

19 THE WITNESS: How about we go to page
20 62 of my report.

21 MR. ATKINS: So we're going to pull
22 up -- with the board's permission we're going to

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1731

1 pull up page 62 of the exhibit that's -- that's
2 already been introduced. This is marked Dingler's
3 Opening Statement where he lays out the diagrams
4 for each of the projects.

5 CHAIRMAN OBERMAN: Okay.

6 BY MR. ATKINS:

7 Q. What page, Mr. Dingler, would you like
8 us to -- to turn to?

9 A. Well, page 63 of the joint exhibit,
10 page 62 of the report.

11 Q. Okay. It'll take us a moment and we're
12 going to blow this up so you can see it.

13 CHAIRMAN OBERMAN: This is the original
14 RTC report?

15 THE WITNESS: Yes.

16 MR. ATKINS: Yes, correct.

17 CHAIRMAN OBERMAN: Are we looking for
18 Claiborne?

19 MR. ATKINS: Yes.

20 CHAIRMAN OBERMAN: Okay, I see it.

21 Okay.

22 THE WITNESS: And so what that 16,000

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1732

1 feet is effectively here, it allows -- it keeps
2 that local off the main line. It also provides a
3 location for Amtrak to meet without walking a
4 siding for -- for freight to operate.

5 And so basically it gives a -- a short
6 bit of double track so that -- you know, so
7 freight and local and passenger can all commingle.

8 CHAIRMAN OBERMAN: I'm still not
9 following why you need a track that long. I just
10 don't understand it.

11 THE WITNESS: Okay, so a freight train
12 can fit in either of those. So, you know, based
13 on when that train arrives or anything, it
14 increases the flexibility.

15 CHAIRMAN OBERMAN: But the train is not
16 16,000 feet long. I'm just --

17 THE WITNESS: No, it's two 12,000 foot
18 sidings put next to each other.

19 CHAIRMAN OBERMAN: Did you run the
20 model with only one?

21 THE WITNESS: Yes. And so what was
22 happening was the Amtrak train was often sort of

1 meeting in that siding and so that -- none of
2 those freight trains were holding, you know, back
3 at Harbin on one side or even farther and then
4 back at Michoud or in Gentilly yard. So, you
5 know, it was necessary to have both.

6 Also that local that serves the PBVR
7 was experiencing very high delays. And so it
8 was -- adding that project allowed that -- that
9 local to work in the midst of all the other
10 traffic.

11 CHAIRMAN OBERMAN: Well, I don't want
12 to take up more time. I'm sure if we had more
13 time you could educate me on it but I'm still lost
14 on this one. So, but why don't you go ahead.
15 I'll try to figure it out.

16 BY MR. ATKINS:

17 Q. So we're going to go -- actually, while
18 we're in this, why don't we just go ahead and jump
19 to the Nicholson siding --

20 A. Mm-hmm.

21 Q. -- which is the next page. And then
22 we'll go back to the map.

1 So this is the -- can you describe this
2 project, why it was included and -- and what you
3 were seeing in the model that led you to recommend
4 this?

5 A. Certainly. So, as I mentioned, the
6 meet between the two Amtrak trains between
7 Nicholson and Claiborne, what -- we extended this
8 siding south so that that meet can happen on a
9 siding. And the reason we do that is it is -- if
10 that Amtrak train is delayed, it is then an impact
11 in freight. So these were -- yes, it improves
12 sort of the delay to Amtrak but the net results is
13 the benefit freight, is the benefit the model
14 shows to get that train off the network as soon as
15 possible, and so it's not sitting in locations
16 that are then -- that could be used for freight.
17 So, same with the north end. That kept the trains
18 from being delayed in other sidings. At Harbin,
19 yeah, at Belvoir and farther in each direction.

20 Q. Okay. And moving on to the next one
21 that's on -- on the map. We'll -- we'll stay here
22 in this document just one more second and go to

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1735

1 the Harbin siding project.

2 A. Mm-hmm. So this is another project
3 that was actually some version of it was proposed
4 by the FRA. And so basically what you're doing is
5 you're flipping the main line and siding and what
6 that allows is there is a local that works at this
7 location. So it extends it so more trains can
8 fit, but it also allows that local to work off the
9 main line while the -- the passenger and freight
10 and all the sort of additional congestion is going
11 on.

12 Q. Can you explain using this diagram how
13 flipping it from one side to the other improves
14 the ability to serve the local without impairing
15 the capacity of the main line?

16 A. So currently, that -- the Harrison spur
17 is off the main line. So that local, when it's
18 serving that spur, works off the main line. So
19 any sort of bypassing it takes the slow siding.
20 By making it into the siding, sort of the
21 traffic -- the passenger trains, the freight
22 trains -- can continue without any -- a -- a

1 without being slowed.

2 Q. Okay. You know, going back to the map,
3 we're going to -- this is the same map we just
4 showed. This will take a second.

5 Okay, so we're on the Belvoir double
6 track. Can you pronounce it correctly and just
7 explain why it was included in the model, what you
8 were seeing in the RTC that led you to recommend
9 its inclusion?

10 A. I can't guarantee I pronounce
11 everything correctly either. Bo-voir is my
12 understanding of how it's pronounced. It's been a
13 challenge through this entire case.

14 So at that location we recommended -- I
15 recommended double track. The reason for that was
16 that area is full of grade crossings. And so the
17 modeling was showing you need some type of
18 location to meet. Unfortunately there are a very
19 high density of crossings and so you have to have
20 double track so that two trains can meet without
21 stopping and blocking this process.

22 Q. So can you elaborate a little bit.

1 Like this is the only place you're recommending
2 double track. Why -- just elaborate on why the
3 presence of so many block crossings means you're
4 going to put double track as opposed to adding a
5 siding.

6 A. So with the double track, two trains --
7 yeah, it's basically two main lines. Two trains
8 can travel, one in each direction, without
9 stopping. And so, you know, as we mentioned with
10 the grade crossings and -- and reality of
11 railroads not wanting to block them and then RTC,
12 the limit of 20 minutes, their -- those meets and
13 passes and overtakes all take, you know, more than
14 that amount of time to fit in.

15 So trains were just -- if I extended
16 just the existing siding there, trains wouldn't be
17 able to use it efficiently or effectively, and so
18 you need to put the double track so trains can
19 continue without stopping.

20 Q. Okay. And then the last one on this
21 chart, which is near Orange Grove, Fontainebleau,
22 can you describe that project, why it was

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1738

1 included, what the model was showing you that led
2 you to that -- to that recommendation?

3 A. So this is a -- a new siding. It's the
4 only new siding we are representing on the
5 corridor. It is, you know, instead of extending
6 one of the others, it was based on its location.
7 It's just sort of spaced those sidings out so that
8 freight and passenger could serve a mix without
9 significant delays.

10 It is also, if you look there,
11 immediately sort of the -- the railroad north, you
12 have Gautier and Orange Grove, that is -- Bayou
13 Cassotte -- that is -- Pascagoula, that is a
14 congested area with a lot of local traffic. And
15 so you need some sidings near by there so that,
16 you know, you can sort of clear up with all that
17 work going on.

18 Q. I might have -- maybe I should have
19 asked this in the prior map but I'll ask it now
20 before we move off...

21 These are the projects proposed for
22 2039. What if any of these projects would not be

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1739

1 necessary for 2019?

2 A. I think all of these are recommended
3 in -- in 2019. There is -- and previously the
4 Michoud double track is -- was not recommended in
5 2030 -- or 2019.

6 Q. Okay, thank you. All right, so
7 slipping to our last map, which everyone's agreed
8 is okay, this is a blowup of New Orleans.

9 Could you start by talking about the --
10 I'm sorry, it's Mobile, my -- my error. Thank
11 you. Thank you, Chairman. I can see you were
12 going to correct me.

13 So the Bayou Cassotte power turnouts,
14 could you -- could you walk through that proposal
15 for the board's benefit, and why -- why you'd be
16 recommending it, what the model was showing that
17 led you to suggest it as a -- as a -- as a
18 infrastructure project.

19 A. This is another one of those that a
20 version of this is recommended by the FRA as well.
21 I think they actually put together a -- the double
22 track at this location.

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1740

1 So what -- Bayou Cassotte is a -- a
2 yard. There is a lot of sort of local track that
3 goes between here and Mobile and it's a location
4 for originating a lot of local traffic that goes
5 up and down the corridor.

6 And so currently there are hand-thrown
7 switches. These are sort of switches, a train has
8 to stop, the conductor has to get out, he has to
9 manually throw the switch, the train goes through
10 the switch and then he restores it back to sort of
11 the main line movement. He has to do that on
12 departing. And so that train is sitting on the
13 main line and then arriving that train has to
14 stop, the conductor has to get out and he has to
15 throw the switch similarly.

16 And so what a power switch will do
17 is -- is, it is dispatcher controlled, is that the
18 dispatcher controls that -- that turnout, so that
19 the trains can enter and exit that yard without
20 those -- that additional time for that conductor
21 to throw the switches.

22 Q. Okay. And then the next one you've got

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1741

1 is the St. Elmo extension. Can you describe that
2 project, what the model was showing you that led
3 you to include it as a recommended -- recommended
4 infrastructure project.

5 A. This is another siding extension. The
6 reason for that is this is the last siding before
7 Mobile. There is Brookley siding but it is of
8 more effectively part of the yard. That siding is
9 often blocked for -- for yard delays and, you
10 know, changing crews, and so you needed a -- a
11 siding so trains can meet outside of Mobile.

12 Q. Okay. Turning to the Theodore
13 Industrial Park, before you describe the projects,
14 could you just remind the board what the Theodore
15 Industrial Park is and where it's depicted on this
16 map?

17 A. I think it's those light gray lines.
18 This is a very similar, you know -- is a major
19 sort of location. There is a local that goes out
20 there every day. There is a -- a Y at that
21 location, so those sort of three turnouts.

22 So this is similar to the -- the reason

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1742

1 you do -- do Bayou Cassotte. You know, you put in
2 power turnouts that get that train off the main
3 line, which helps the main line through traffic
4 and it also helps the local.

5 And so it just sort of -- it makes
6 that -- that movement all -- much more smooth and
7 allows them to sort it get -- as we add more
8 traffic, there are smaller gaps between trains and
9 so if you can get on and off the network quicker,
10 you are more likely to be able to run those trains
11 without significant delays.

12 Q. Okay. The last three are all in
13 Mobile: the Brookley siding extension, Mobile
14 double track and Mobile station track.

15 MR. ATKINS: I actually would ask
16 Steven if you could pull up that diagram.

17 BY MR. ATKINS:

18 Q. I think it'll be easier for you to walk
19 the members through it.

20 MR. ATKINS: This is again from his --
21 the same diagram -- same exhibit we just had up,
22 which is his expert report, that gives you the

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1743

1 diagrams of each of the projects. And we're going
2 to pull up the diagram of Mobile, which shows all
3 three of them.

4 THE WITNESS: Page 69.

5 BY MR. ATKINS:

6 Q. It's page 69. There you go.

7 So why don't you start with the
8 Brookley siding extension. Explain it, what it
9 is, why you included it, what the model is showing
10 you.

11 A. So, as I mentioned, Brookley siding is
12 often used, you know, for crew changing, for
13 holding out. So we extended it such that, you
14 know, that -- that it could fit every train on --
15 on the corridor.

16 Q. The Mobile double track?

17 A. So this is a -- a double track between
18 the north end of Brookley and Choctaw yard. And
19 so this allows sort of that movement of the Amtrak
20 train and sort of other operations. There's a --
21 a train that connects and does some work down to
22 the local customer near the north end of Brookley

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1744

1 and also the freight movements, just you can sort
2 of keep those movements separate.

3 Q. And the final one is the Mobile station
4 track. Can you describe that?

5 A. Yeah. This is a very critical project.

6 So the FRA proposed a thousand foot
7 version of this. Upon looking at the -- the
8 operations of the corridor, I -- I recommended
9 extending it. I think it's about 3,000 feet. This
10 means that the -- the train will start at that
11 station track at that Choctaw interlocking. The
12 reason for that is so that train clears up and
13 does not, as -- as we heard plenty of testimony
14 about the congestion between Choctaw and -- ad
15 Sibert yard, or Sibert, and so this just sort of
16 keeps that passenger train clear of all that
17 congestion.

18 Q. And -- and when you were looking at the
19 base case, where did you assume the -- the Amtrak
20 trains were going to lay over in the -- in the
21 base case when you added the passenger trains?

22 A. We assumed it would use the main line

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1745

1 to stop, turn around and then go back into Choctaw
2 yard. This station track allows that train not to
3 have to use Choctaw yard as well.

4 Q. Okay --

5 CHAIRMAN OBERMAN: Ray, I have to say
6 you completely loss me about -- the -- the trains
7 are 4- or 500 feet long, as I understand it. So
8 I -- I'm at a loss how he got from 1,000 to 2000.

9 Mr. Dingler?

10 THE WITNESS: Yes, certainly.

11 CHAIRMAN OBERMAN: Could you explain
12 that a little more slowly and a little more
13 laymanly (sic) oriented, please.

14 THE WITNESS: So the -- the -- that
15 track isn't just to hold the train. And so the
16 reason we wanted it -- it needs to be longer is
17 that it has to -- we need an extra track to avoid
18 all the congestion between Choctaw and -- and
19 Sibert yard. So you can see sort of that's where
20 the congestion center is. And so if that -- yeah,
21 that Amtrak train enters in between there, it
22 limits all the movement on one of those tracks.

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1746

1 And so by, you know, as -- as you've
2 heard, all the sort of movements between those
3 yards, the yard movements coming out of Sibert
4 yard, it -- it allows sort of that Amtrak train to
5 get past there without interfering with any of
6 those operations.

7 CHAIRMAN OBERMAN: Well, the -- what
8 congestion were you referring to? I thought --
9 the only congestion I've heard about, but correct
10 me if I've missed something or forgotten it, is
11 if -- if there was no station track, when the
12 Amtrak train pulled into Mobile it would have to
13 sit on the main line.

14 That's what I understood the congestion
15 to be, but maybe I misunderstood what congestion
16 you're talking about.

17 THE WITNESS: Certainly. So that --
18 that is one of the benefits of this, is that now
19 you don't have to sit on the main line for that.

20 The other is, I said, there's --
21 there's yard movements coming out of TSAD towards
22 that direction. There is yard movements coming

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1747

1 out of the CSX yard. There is trains working, you
2 know, southbound trains, northbound trains, all,
3 you know, the tail end and head end of those
4 trains is occupying the track between those two
5 locations.

6 And so, with the -- you know, and then
7 there's movements coming from -- there's coal
8 trains going into the Choctaw yard. So there's a
9 whole host of movements on that track between
10 those two locations.

11 And so, by -- if you put in a shorter
12 station track, you would sort of block that track
13 between Choctaw and Sibert whenever that train
14 arrived and departs. And so this sort of keeps
15 this clear of all those operations.

16 CHAIRMAN OBERMAN: I'm -- I'm lost. If
17 the train is 500 feet long and it pulls off onto a
18 thousand foot station track, the main line is
19 completely clear, so there wouldn't be any worse
20 off than it is today.

21 Unless -- so tell me -- that's the way
22 I see it, tell me what's wrong with that.

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1748

1 THE WITNESS: No, you know, great
2 question.

3 So when that a train is arriving, you
4 know, as you sort of heard with New Orleans, you
5 can't have other traffic on the corridor if you're
6 going to give preference to Amtrak. So, you know,
7 there's going to be a period of time where, you
8 know, those trains can't work. You've can't have,
9 you know, yard movements going on. And so we can
10 keep that clear of that -- that operation, you
11 know, the freight and passenger can come in much
12 more easily. So it's not about -- it's about
13 keeping it clear.

14 So when a dispatcher is sort of lining
15 a switch, he has to -- he can't line that switch
16 for a train to enter that segment if there is that
17 Amtrak train arriving, even with a shorter sort of
18 station track.

19 MR. ATKINS: So chairman, could I
20 try -- I -- I also gave -- I understand you --
21 I'll make sure I'm elevated just to see if we can
22 help a little bit.

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1749

1 CHAIRMAN OBERMAN: Yeah, and by the
2 way, let me throw in this and you can include it
3 in your elevation.

4 Mr. Niemeyer's verified statement talks
5 about a 3,200 foot station track.

6 THE WITNESS: That'd be very -- yeah,
7 it'd be probably rounding.

8 CHAIRMAN OBERMAN: Twelve hundred past
9 2,000, that's a big rounding. So I don't
10 understand it.

11 THE WITNESS: No. So the 1,000 foot is
12 the FRA project that was originally proposed by
13 them. I am recommending a 3,000 foot is what --
14 and so -- yeah --

15 CHAIRMAN OBERMAN: Oh, I thought you
16 said 2,000 feet.

17 THE WITNESS: No.

18 CHAIRMAN OBERMAN: I'm sorry. I
19 misheard you. Okay. So you're pretty much the
20 same as Niemeyer.

21 So go ahead, Ray. I mean, see if you
22 could --

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1750

1 MR. ATKINS: I'll -- I'll do my best.

2 It may not -- but and I don't want to be too
3 direct.

4 BY MR. ATKINS:

5 Q. So can you describe, if you only had
6 1,000 feet on this chart, can you describe so what
7 happens as the passenger train leaves the yard?

8 So when it's on the track it's
9 obviously off the main line track. Describe the
10 operations as it leaves the yard and gets back on
11 the main line one and heads towards Choctaw yard?

12 CHAIRMAN OBERMAN: Ray -- Ray, when you
13 say "yard," yeah, you mean "station"?

14 BY MR. ATKINS:

15 Q. Yeah, when it leaves the station track,
16 describe its operations as it would traverse back
17 towards New Orleans.

18 A. So when that train arrives or departs,
19 if it is a shorter distance, they come on to the
20 main line and that now limits the -- the flow of
21 traffic between Choctaw.

22 So it's blocking -- I can't remember

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1751

1 the track number. I think it's track two. I wish
2 I had put this in the diagram in hindsight. I
3 think that's track two. And so you can't have any
4 freight movement.

5 Now if you have this 3,000 foot station
6 track, trains can move on -- on main one and main
7 two freely while that Amtrak train arrives and
8 departs.

9 CHAIRMAN OBERMAN: Yeah, but when the
10 train is leaving Mobile to go back to New Orleans,
11 if it's on a thousand foot track, it's not going
12 to get on to the main line after 1,000 feet and
13 stop. It's just going to keep going, isn't it?

14 THE WITNESS: Yes, but that time, when
15 it's -- you know, you have to line it for that
16 movement and also provide it preference, that
17 becomes an impact. It can be a sizeable period of
18 time, you know, when you're clearing it to that
19 train arriving.

20 CHAIRMAN OBERMAN: Sizable period?
21 A -- a passenger train trying to get up to speed
22 as fast as it can, going 1,000 feet? How long is

1 that going to take?

2 THE WITNESS: So you're -- you're
3 lining these and preparing for that passenger
4 train well before it arrives. So there is, you
5 know, movements, you know, while you're waiting
6 for that.

7 BY MR. ATKINS:

8 Q. So, Mark, you might -- you might need
9 to elaborate, lining these, what does that mean?

10 A. It's a setting -- turning -- having
11 dispatch reset the switches in the direction it
12 needs to.

13 Q. Okay. And so what -- what if anything
14 would happen to the Amtrak train if as it was
15 trying to leave if there was a freight train
16 parked on main line one?

17 A. It would not be able to leave.

18 Q. And so would this -- and so -- so
19 the -- the dispatchers need to assure themselves
20 that there are no freight trains on main line one
21 between the Mobile station and Choctaw -- and
22 Brookley in order for them to have unimpeded

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1753

1 access, correct?

2 A. That is correct.

3 MR. ATKINS: Is that helpful, chairman?

4 It's to the conversation you heard with Randy Hunt
5 on New Orleans.

6 CHAIRMAN OBERMAN: Well, I'm still
7 mystified. If there's a freight train on the main
8 line track, whether the station track is one- or
9 two- or 3,000 feet, the Amtrak train can't go
10 anywhere.

11 BY MR. ATKINS:

12 Q. So Mr. Dingler, could you address that.

13 And with this proposal, if there is a
14 main line -- if there is a freight train on main
15 line one, how -- how does the Amtrak train
16 traverse from Mobile station to Brookley siding
17 extension?

18 A. So he would go on to -- I wish I had,
19 you know, a pointer.

20 It would -- it would -- so basically
21 that station is right at the south end of the
22 convention center. It would come -- so if you go

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1754

1 1,000 feet, which is what the FRA recommended, you
2 would come on to that main line. So during that
3 time, even though it's a short period of time, you
4 are completely blocking any movements on that main
5 line.

6 And is so, you know, the -- the
7 dispatcher is, in preparation of that, before and
8 after, you know, is waiting for those movements.
9 So, you know, that means switching movements
10 and -- and various other things have to stop for a
11 period of time.

12 CHAIRMAN OBERMAN: Well, how -- how far
13 is it from the end of your proposed 3,000 foot
14 station track to Brookley?

15 THE WITNESS: That's the Mobile double
16 track. The length of that I'm -- about -- I'm not
17 100% sure off the top of my head. I think it's a
18 mile or two.

19 BY MR. ATKINS:

20 Q. So, Mr. Dingler --

21 CHAIRMAN OBERMAN: Does it connect?

22 Does the station track just connect right into the

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1755

1 Mobile double track, so it's off the main line for
2 that whole distance?

3 Is that what you're telling us?

4 THE WITNESS: It would. That would be
5 in the 2039 case. In the 2019 case we would not
6 have that Mobile double track. And so it would
7 come onto that single main between Choctaw and
8 Brookley.

9 CHAIRMAN OBERMAN: So is the reason --
10 is the reason to build the long station track so
11 in 2039 it will connect to the Mobile double track
12 and you'll have a whole long distance there of
13 extra track?

14 Is that the idea?

15 THE WITNESS: So -- well, they -- they
16 do supplement each other but they have sort of
17 independent utility.

18 CHAIRMAN OBERMAN: Couldn't -- couldn't
19 you build a 1,000 foot track now and add the other
20 2,000 feet if you ever need it by 2039?

21 THE WITNESS: Yeah. When -- when
22 building projects, one of the bigger costs is the

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1756

1 interlocking costs themselves, the switch and the
2 signals and all that. So that is a sizable
3 portion of that construction cost. And so it
4 would -- you'd be paying double if you built it
5 and then extended it.

6 BY MR. ATKINS:

7 Q. And Mr. Dingler --

8 CHAIRMAN OBERMAN: Go ahead, Ray.

9 BY MR. ATKINS:

10 Q. Yep. On this chart, I think you
11 already touched on it, which of these projects
12 would not be necessary for 2019?

13 A. The Mobile double track.

14 Q. So that's the one right in the middle.

15 Can you describe -- okay, so we've
16 talked about the 2039 projects. Can you describe
17 a little bit how you actually developed the
18 infrastructure solution to mitigate impact in 2019
19 as opposed to 2039?

20 A. Certainly. So, we -- what we did is I
21 went back to the 2013 case and I used a subset of
22 the 2039 projects, as it wouldn't make any sense

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1757

1 to propose projects in 2019 that did not work in
2 2039. And so in doing that, we identified the
3 three projects I -- I mentioned that would not be
4 required: the Michoud double track, the St. Elmo
5 extension and the Mobile double track.

6 CHAIRMAN OBERMAN: I -- I want to get
7 those again. What was the first one you mentioned
8 that's not needed for 2019?

9 THE WITNESS: If you go into my
10 executive summary, I think that may help.

11 CHAIRMAN OBERMAN: Well, I'm looking at
12 the Niemeyer --

13 THE WITNESS: Okay.

14 CHAIRMAN OBERMAN: The Mich -- I can't
15 pronounce it, Michoud, M-i-c-h-o-u-d.

16 THE WITNESS: Michoud, yeah.

17 CHAIRMAN OBERMAN: That double track is
18 not needed for 2019?

19 THE WITNESS: That is correct -- or
20 sorry, not needed for 2039.

21 CHAIRMAN OBERMAN: I'm sorry, for -- I
22 thought you said for 2019.

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1758

1 THE WITNESS: Yeah.

2 MR. ATKINS: So to help, Chairman, if
3 we could pull up table -- the Summary of Proposed
4 Projects on table seven of the -- this -- this
5 will just help you -- you many need to go back --

6 CHAIRMAN OBERMAN: What page are we on?

7 MR. ATKINS: We're on page seven. This
8 is the original report, Joint Exhibit 23D, and
9 this just lays out for you the projects and you
10 can see included in 2019 --

11 BY MR. ATKINS:

12 Q. Mr. Dingler, can you describe what that
13 column is -- is depicting?

14 A. Those -- so the ones that a don't have
15 a yes are the ones that were in 2039 but not 2019.

16 So the -- there are 11 yeses. Those
17 are the projects recommended for 2019.

18 CHAIRMAN OBERMAN: All right. So
19 Michoud is not for 2019.

20 THE WITNESS: Not for 2039. It is in
21 2019 -- it --

22 CHAIRMAN OBERMAN: No, Michoud, you

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1759

1 don't have a Y --

2 THE WITNESS: You're right, you're
3 right. Not in 2019. Sorry, yes. Not in 2019; is
4 in 2039, I apologize.

5 CHAIRMAN OBERMAN: All right, and St.
6 Elmo --

7 THE WITNESS: Correct.

8 CHAIRMAN OBERMAN: So -- so St. Elmo is
9 not in there and the double track.

10 So let me just ask you this. Trying to
11 keep track of this -- trying to keep track of the
12 players without a program here.

13 According to Niemeyer, the Michoud is
14 the range, the mid point of his range is around
15 \$36M. The midpoint of his St. Elmo is about 13M.
16 So that is 36 and 13, that's 49M. And the
17 midpoint of the Mobile double track is about 68M.
18 So you're talking about, of the 407M, about 100M
19 of it would, according to Niemeyer's numbers,
20 would -- would not be part of the infrastructure included in
21 the 2019 table.

22 Is that right?

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1760

1 THE WITNESS: I am not intimately
2 familiar with the cost estimates. They were sort
3 of done after I recommended the project, but that
4 sounds about right.

5 CHAIRMAN OBERMAN: All right. Well,
6 I'm just reading from his verified statement, so
7 we can add that up ourselves. But I just wanted
8 to try to get a flavor.

9 I'm going to have more questions, Ray,
10 about costing, but more general ones. I'll wait
11 'till you, you know, you're done with the
12 examination for that. But I just wanted to keep
13 track as we go along here.

14 MR. ATKINS: Okay. So --

15 CHAIRMAN OBERMAN: It's very helpful.

16 MR. ATKINS: So chairman, I'm not done
17 with the infrastructures, but I -- but I would
18 like to offer my witness just a five-minute recess
19 to take -- to use the bathroom. Would it be okay
20 to recess for five or ten minutes and then come
21 back and pick up where we --

22 CHAIRMAN OBERMAN: Well, we -- we

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1761

1 normally take a ten-minute recess. So anybody who
2 needs that kind of relief, we're certainly going
3 to award it. So it is 3:08. Why don't we
4 reconvene at 3:20.

5 THE WITNESS: Thank you, sir.

6 CHAIRMAN OBERMAN: And Ray, just before
7 we do, I -- I'm assuming you're not going to be
8 able to finish with Mr. Dingler this afternoon?

9 MR. ATKINS: That is not -- well, it's
10 not our expectation. We're certainly planning on
11 him holding over and -- and finishing up his
12 direct in the morning on Thursday.

13 CHAIRMAN OBERMAN: Well, I think we
14 should aim for 5:00 o'clock. If we go a little
15 bit longer, if we're in the middle of a subject
16 matter, that's okay, but I think --

17 MR. ATKINS: I -- I will keep that in
18 mind, Chairman, and -- and indicate when I thought
19 there might be an appropriate place to -- to pause
20 as we approach 5:00 o'clock.

21 CHAIRMAN OBERMAN: Yeah. So, you know,
22 if it's 5:15, if it helps us move along, 5:20,

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1762

1 that's no problem. We'll see how the board feels
2 about it.

3 But, you know, why don't you think
4 about that, Ray, as we get there.

5 MR. ATKINS: Understood.

6 CHAIRMAN OBERMAN: All right, let's
7 break 'till 3:20. Thank you.

8 (Recess taken.)

9 CHAIRMAN OBERMAN: Mr. Dingler, you --
10 you've been sworn, you understand?

11 THE WITNESS: I do.

12 CHAIRMAN OBERMAN: All rightee.
13 Proceed.

14 BY MR. ATKINS:

15 Q. So -- so Mr. Dingler, I want to stay a
16 little bit longer on Mobile and then I'm actually
17 going to flip over to New Orleans.

18 Did you hear the testimony yesterday by
19 Mr. -- or "yesterday" -- last week by Mr. Johnson,
20 describing the Mobile terminal?

21 A. Yes.

22 Q. Can you elaborate on how -- he -- he

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1763

1 talked about how the TSA2 trains will come down
2 and they -- they might have problems if there's a
3 Mobile -- there's a passenger train in the -- in
4 the -- in the track between the signals.

5 Can you describe how the 3,000 foot
6 project will alleviate that problem that was
7 described by Mr. Johnson?

8 A. So what that 3,000 foot track would --
9 would do is just keeps the train from ever being
10 there. So the dispatcher does not have to even
11 consider the train going in there.

12 So some of those trains, when they're
13 switching or they're pulling out, would have to
14 pull past that -- where that thousand foot track
15 would be or end, and so this allows sort of the
16 movements between those two locations. They can
17 go all the way from Sibert down that same main
18 line into Choctaw.

19 Right now one of those tracks is often
20 used for switching, the other is yard movements on
21 there, and so you're down to one track. If --
22 even, you know, without that 3,000 foot track,

1 you -- during when the Amtrak arrives and departs,
2 you're down to zero tracks.

3 Q. So if anything's on the main line one
4 and trips the signal that -- that prevents the
5 TSA2 trains from -- from traversing across the
6 line because they need to come down into -- into
7 that -- on that portion of main line one, right?

8 A. That is correct.

9 Q. If you flipped this and you only did a
10 thousand foot dedicated siding, would that
11 alleviate the problem?

12 Could you describe how the passenger
13 trains might still trip that signal and prevent
14 the TSA2 -- TSA2 trains from operating down in
15 Sibert?

16 A. So a thousand foot track is definitely
17 better than no track. So -- but still you --
18 there is that section of track where it'll still,
19 when it comes out, it will show a red signal.

20 I am no expert in signaling but that is
21 a short distance, and so it will likely cause all
22 of the -- the -- a train won't be able to enter

1 that block when that train comes out.

2 Q. So, I'd like to turn back to table 16
3 of your report, which describes the overall
4 impact. Once you've identified these 14 projects
5 you ran them through and you did a -- an analysis
6 of what the implications would be.

7 So pulling up table 16, could you --
8 could you -- this shows the overall impact. Can
9 you use just -- can you use this to show some
10 illustrations of trains that are still
11 experiencing a degradation in service after the 14
12 projects were in place in 2039?

13 A. So, as you can see, we weren't able
14 to -- we didn't mitigate in our final project
15 selection every train that is out there. You can
16 see, you know -- and even the CSX local delay
17 is -- is slightly higher, you know, somewhat
18 higher, 3.2%. So we did not, you know, mitigate
19 every train type.

20 You can see there are some trains that
21 are still worse. Two of those that you see are
22 red are the TSAD trains. Those are the sort of

1 movements between the TSAD yards. And then also
2 the coal trains. These are trains that arrive
3 into Mobile from -- from Montgomery and
4 terminating at -- at McDuffie coal pier on the
5 TSAD.

6 Q. Can you explain why, you know, if you
7 were trying to get back to the status quo, why
8 we're seeing you report an overall average slight
9 improvement of 2.5%?

10 A. So, in choosing sort of the projects,
11 again, we were trying to get back close to -- to
12 zero. It is in my opinion best practice to be
13 just slightly higher due to those issues in RTC we
14 discussed. You know, we have to be careful. I
15 said what RTC is and what it isn't. And so, it
16 is -- we are attempting sort of to mitigate that
17 impact.

18 So you can see, the -- yeah, a lot of
19 sort of the -- any green that is there is on the
20 NS. This is due somewhat to sort of the -- the --
21 you know, clumping of -- of the projects. You
22 know, when you put in those projects, they work in

1 tandem and led to a slight improvement there and
2 just sort of a slight improvement overall.

3 Q. If we go back one page to page 40.

4 MR. ATKINS: I don't know if we have
5 this, Steven. We may need -- I may need a second.

6 Just one moment, members. It's a
7 little out of order in our presentation. This
8 will be table 15 on page 40 of the joint appendix.

9 Just back one page. If you could focus
10 in on the -- the table 15.

11 BY MR. ATKINS:

12 Q. So this is showing the overall
13 statistics. Can you describe the -- just hold on
14 a second.

15 MR. ATKINS: There you go. That's good
16 enough, Steven, excellent.

17 BY MR. ATKINS:

18 Q. Can you describe what the statistic in
19 terms of the percent change in delay to other New
20 Orleans railroads is showing? This is in 2039
21 with the full suite of projects.

22 A. So in our -- our mitigation effort,

1 the -- what we were looking to was to sort of
2 mitigate NS and CSX. What we found, as this -- as
3 I described earlier, what this is is trains being
4 delayed entering the -- the back belt. So what we
5 found was, while our projects do mitigate impact
6 to NS, the way -- the way the model was doing that
7 and how it would be in reality is some of those
8 trains are shoved off onto those -- those foreign
9 carriers. And so it leads to an 18.5% increase
10 in those delays for the interchange partners.

11 Q. And were there other projects in the
12 New Orleans terminal area that you evaluated to
13 address the harm experienced by this interchange
14 traffic?

15 A. Yes. The one project we identified
16 that could do that was the freight lead.

17 Q. And -- and who -- who was the first
18 person who identified?

19 A. I did.

20 Q. And what -- what guidance did you
21 receive from Norfolk Southern originally about
22 including that model -- that project in the model?

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1769

1 A. So we identified it in -- in my initial
2 modeling of the Norfolk Southern portion. I
3 identified this as a key project in our
4 discussions. Holly told me that there was
5 concerns about its ability to be constructed. It
6 is next to a canal. And so I was instructed to
7 remove it.

8 Q. Did you do some supplemental --

9 CHAIRMAN OBERMAN: To be clear, we're
10 talking about the -- the freight lead? What are
11 we --

12 MR. ATKINS: Yes. Yes sir.

13 CHAIRMAN OBERMAN: Okay, thank you.

14 BY MR. ATKINS:

15 Q. So did you do some supplemental
16 modeling to show the board sort of an additional
17 what-if in terms of what happens to this
18 impairment to New Orleans interchange partners if
19 you did include the freight lead?

20 A. Yes. As part of the rebuttal report we
21 included a section to see if that freight lead was
22 able to mitigate that hurt change in delay to the

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1770

1 interchange partners.

2 Q. Okay, and what a did it show?

3 A. It showed that that project was -- was
4 able to do that.

5 Q. Okay.

6 A. Unlike the projects we proposed
7 originally.

8 MR. ATKINS: Okay. You can take it
9 down, Steven.

10 So I'd like to turn now, or segue away
11 to turn to three specific questions that the board
12 raised during the public hearing --

13 MEMBER PRIMUS: Hey, Ray?

14 MR. ATKINS: Yes, sir?

15 MEMBER PRIMUS: I'm sorry. Can I ask a
16 question about -- sorry, are you done with
17 infrastructure? I was -- I was going to wait --

18 MR. ATKINS: You know, this -- this
19 would be a good -- I -- I'm probably going to come
20 back to it, but please, ask -- ask away, Member
21 Primus.

22 MEMBER PRIMUS: Okay, I -- just to --

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1771

1 for my sort of edification, so your previous
2 witness said that there was a question raised by
3 the board about whether or not all the projects
4 were necessary for it to be successful, that it
5 basically was an all or nothing and -- and there
6 was a -- -- a -- the answer also sort of alluded
7 to that they could drop one project. I think it
8 was Jefferson. I may be wrong which one they
9 said. But the one that's a \$7M project in New
10 Orleans. Can you -- you know, is your assessment
11 the same as that, that it's either all or nothing
12 with the projects in order for this -- for the
13 model to be -- to be successful and sort of an
14 explanation why?

15 THE WITNESS: Certainly. So I think
16 that was St. John's crossover.

17 MEMBER PRIMUS: St. John's, yeah,
18 sorry.

19 THE WITNESS: Yeah. There is the
20 universal cross basically at where that terminal
21 freight lead would end. And so, yeah, you
22 wouldn't need that if you added the freight lead.

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1772

1 So these projects are designed to
2 mitigate specific congestion. You know, you have
3 congestion in New Orleans, at Gentilly, at -- at
4 Mobile. There's specific projects for those. And
5 then the rest of the projects are -- are to
6 mitigate sort of the -- the meet and pass
7 throughout. They are -- are designed to work
8 together.

9 If you -- if you remove one project, we
10 need to go back and remodel it as they're sort of
11 designed, you know -- you would -- if you have 15
12 mile spacing, all of a sudden you have 30 mile
13 spacing at one location.

14 So yes, they -- that's what the metrics
15 show, is that you need all these projects to
16 impact the mitigation to freight and that's how we
17 sort of defined our analysis.

18 MEMBER PRIMUS: So -- so just to be
19 clear, so, if you -- as you -- you did say if you
20 take away one or -- or don't implement one, it
21 doesn't necessarily cause, you know -- you know, a
22 catastrophic disruption. It just -- the model is

1 just off?

2 THE WITNESS: It reduces the benefit of
3 them. And you may need to select different sort
4 of -- it would change the other projects. So
5 these, I said, these projects are designed to work
6 together, and if you -- you know, if determined to
7 remove one project, we want to go back and remodel
8 it and see how that might affect the -- the
9 ability of the other projects to -- to mitigate
10 the effort -- effect.

11 MEMBER PRIMUS: Thank you.

12 BY MR. ATKINS:

13 Q. And -- and Mr. Dingler, following up,
14 can you describe for the board -- Member Primus
15 and the board members how complex or not it would
16 be to take your work papers and pick a particular
17 project and say, "I'd like to run the what-if and
18 exclude that from the model and then rerun the
19 program".

20 Could you walk him through how -- how
21 complicated or hard that actual inquiry is?

22 A. That's the power of RTC is that it's

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1774

1 relatively easy to do. You know, you can either
2 block out the siding or you can put in a new
3 switch and it's a matter of, you know, 30 minutes
4 to an hour and then letting it run, which takes a
5 longer period of time. But we can quickly look at
6 different alternatives or infrastructure solutions
7 and different options relatively easily.

8 Q. And by a longer period of time, what --
9 what are we talking? What order of magnitude?

10 A. For the 30 seeds we're looking at, it
11 may be a day.

12 Q. Thank you.

13 MR. ATKINS: Other questions about --
14 we are going to talk about freight benefit and
15 so --

16 MEMBER HEDLUND: I have a question.

17 MR. ATKINS: Yep, Member Hedlund.

18 MEMBER HEDLUND: Mr. Dingler, you made
19 reference to a number of FRA projects that were
20 modified or extended.

21 Did you run a 2019 model just looking
22 at the FRA projects.

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1775

1 THE WITNESS: I did not. So standard
2 practice is to only look at 2039. So I only
3 looked at those in 2039.

4 Again, we -- you know, it's one of
5 those things we could easily look at --

6 MEMBER HEDLUND: But you ran a 2019
7 model for -- I mean, but you did run a 2013 model
8 and then you ran a 20 -- with the passenger trains
9 and with the infrastructure that you identified as
10 needed and then you ran also a 2039.

11 So why didn't you run a 2019 model with
12 just the FRA infrastructure?

13 THE WITNESS: So, we did the 2019
14 because we were requested to by the board. So,
15 the -- the -- it was an analysis or another one of
16 those what-if analyses we looked at. We -- we
17 just only looked at 2039 because that's originally
18 what we were looking at.

19 MEMBER HEDLUND: So how did you know
20 that certain FRA recommended projects needed to
21 be changed.

22 THE WITNESS: So, yeah, a great

1 question.

2 So, note that there are actually two
3 sets of FRA simulations I did. Some of the -- the
4 projects they -- they proposed just are either
5 outside the railroad's control, as with some grade
6 crossings, or just aren't buildable with the
7 existing signal system on CSX.

8 So in looking, you know, I looked at
9 those projects and that was actually the first set
10 of projects I was looking at to try and choose
11 from. You know, I -- I have a whole host of --
12 when I looked at the corridor and tried to choose
13 projects, I was trying to choose from their --
14 their set of lists. And so, as I mentioned
15 earlier, some of those projects had to be adjusted
16 based on what I was seeing in the data, what I was
17 seeing in the model.

18 BY MR. ATKINS:

19 Q. Could you be more specific --

20 MEMBER HEDLUND: And -- and who advised
21 you that certain of the projects were not
22 buildable or appropriate? Who made that decision?

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1777

1 THE WITNESS: It was in discussion with
2 CSX. So, you know, I had a lot of questions
3 because I didn't necessarily take it at face value
4 and so they listened to me and they discussed it
5 and we worked -- worked through those and -- yeah.
6 But, yes, it was CSX that informed me those were
7 not constructable.

8

9 BY MR. ATKINS:

10 Q. Can you give a specific --

11 MEMBER HEDLUND: And what does that
12 mean by "not constructable"?

13 THE WITNESS: Certainly. Yeah, so, I
14 said there's two sets there: one is the grade
15 crossing project that FRA proposes. Those are
16 outside the control of the railroads and so we
17 determined that they're outside of what we could
18 propose; the second are -- they took shorter
19 sidings and increased the speeds to them.

20 And so based on the signal system at
21 CSX, as I've been informed and, you know, from my
22 experience, you have to be able to break -- this

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1778

1 is going to get technical -- break a train in that
2 distance. Some of those sidings can't be to the
3 speeds that the -- that set of projects
4 recommended because the signal system will not
5 support it. So a -- a train cannot stop in that
6 distance at that a speed within the distance of
7 the siding.

8 So, you know, you could -- you could do
9 some improvements but not to the speeds they
10 recommended.

11 MEMBER HEDLUND: But you don't have any
12 model that shows just the FRA projects in 2019
13 regardless of whether they're buildable?

14 THE WITNESS: That is correct.

15 MEMBER HEDLUND: You didn't -- you
16 didn't run that model?

17 THE WITNESS: That is correct.

18 MEMBER HEDLUND: And you ran that model
19 for 2039?

20 THE WITNESS: That is correct.

21 MEMBER HEDLUND: Thank you.

22 CHAIRMAN OBERMAN: Just one question --

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1779

1 MEMBER SCHULTZ: Can you just
2 clarify --

3 CHAIRMAN OBERMAN: Go ahead, Michelle.

4 MEMBER SCHULTZ: -- following up on
5 Karen's question. And I think she spoke to this
6 but maybe for my own clarification.

7 I think the Gulf Coast working report
8 indicated there were two levels of infrastructure
9 that were recommended by the FRA. I believe the
10 first was like 5.3M and the second was 94.8M. And
11 when you ran those numbers, you know, or projects
12 I suppose as recommended by the FRA, could you
13 speak to what level of projects you ran?

14 THE WITNESS: Yes. So that 5M, this is
15 working off memory, is just the station track in
16 Mobile. The -- the 90M includes all the rest of
17 those projects. We modeled the whole suite of
18 projects that they included.

19 MEMBER SCHULTZ: And what was the
20 result once you ran the whole suite of projects.

21 THE WITNESS: It's in my report. Yeah,
22 let me pull that up. So, it -- it -- yeah,

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1780

1 projects are work to mitigate some of the impact
2 but it does not impact -- reduce all the impact.
3 And the projects had -- had nothing in -- in New
4 Orleans, and so there was still severe degradation
5 in New Orleans on the NS that those projects did
6 not mitigate.

7 MR. ATKINS: Member Schultz, would you
8 like us to pull up the -- the chart so you could
9 see it in the -- in the report?

10 MEMBER SCHULTZ: I think that would be
11 really helpful.

12 MR. ATKINS: Absolutely. So it's
13 appendix F is the evaluation, table F2 is B with
14 all of the FRA projects in 2039 and then table F4
15 is B with a few projects removed.

16 So we'll -- we'll just focus on table
17 F2. We'll start with F2 and we're going to --
18 we're going to screen a little bit and then I'll
19 ask Mr. Dingler just to walk through what those
20 statistics are showing.

21 THE WITNESS: So that is when we
22 include every single, whether it was constructable

1 or within the control of the railroads, the
2 results. And so you can see, even with all their
3 projects, it didn't fully mitigate the impact to
4 freight.

5 MR. ATKINS: And then if we go to --
6 actually we can go down, just so you can see the
7 full array of it, Member Schultz.

8

9 BY MR. ATKINS:

10 Q. Mr. Dingler, can you walk it through
11 F3, which is showing what?

12 A. This is those three main groups. It is
13 definitely better than if you don't build anything
14 but it is still pretty high degradation here. You
15 know, you're seeing, you know, 12-, 13%, 8% impact
16 to some of those train groups in delay.

17 MEMBER SCHULTZ: I think -- I think you
18 said this is the -- this is the 90M?

19 THE WITNESS: And -- and just to be
20 careful, this is the cost provided in 2016. It is
21 likely those costs have changed in the past six
22 years, so. But, yes, this is the full set of

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1782

1 projects.

2 MR. ATKINS: And then if we were to go
3 to table F4.

4 MEMBER FUCHS: Before we get off this
5 table, Ray...

6 MR. ATKINS: Sure. We'll come back.

7 MEMBER FUCHS: Thank you so much. And
8 Michelle, I didn't mean to -- if you have
9 additional questions.

10 MEMBER SCHULTZ: No, go ahead, Patrick.

11 MEMBER FUCHS: Thanks. For the percent
12 change in delay over a hundred, to -- to what
13 extent are -- are you aware of CSX using that
14 measure as they gauge their own customer service?

15 THE WITNESS: Well that is a -- a --
16 the delay per hundred train miles, that's sort of
17 a -- and it mentions sort of a modeling specific
18 metric that is often used, because again you don't
19 know minimum run times.

20 MEMBER FUCHS: Right.

21 THE WITNESS: Yeah, and so I -- I can't
22 speak to all the metrics, you know, but when I --

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1783

1 I was there, you know --

2 MEMBER FUCHS: Are you --

3 THE WITNESS: Yeah.

4 MEMBER FUCHS: Are you -- are you aware
5 of any operating personnel at CSX relying on that
6 type of measure to gauge their freight
7 transportation performance.

8 THE WITNESS: No, I don't believe any
9 one -- any railroad uses that, except in a
10 modeling sense.

11 MEMBER FUCHS: All right. And then for
12 the percent change in speed, could you put these
13 percentages in context?

14 So, first of all, is the percent change
15 in speed also calculated in the same way in terms
16 of minimum run time?

17 THE WITNESS: No. So speed is that you
18 take the actual run time -- sorry, doing the math
19 in my head. So the total miles traveled divided
20 by the total run time. So, it is -- you know, you
21 have some of the same metrics, which is sort of
22 the total run time, but, yeah, it's --

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1784

1 MEMBER FUCHS: It's a change from what?

2 THE WITNESS: That is the change between
3 2039 -- in this case the 2039 with freight
4 proposed projects and the 2039 base case.

5 MEMBER FUCHS: So comparing those two.
6 And how much in your experience do freight
7 transportation speeds vary in the real world?

8 THE WITNESS: So that's a great
9 question. You know, the one thing to be careful
10 with here is this is an average.

11 MEMBER FUCHS: Exactly.

12 THE WITNESS: Yeah, there's 300 days,
13 you know, simulation. There's to be significant
14 variability amongst that, you know, on a
15 day-to-day basis. You know, due to many factors a
16 railroad speed will -- will vary.

17 And, so, you know, I didn't look at
18 that specifically in this case. You know, that's
19 sort of what that variability metric, when I
20 looked at that entails. But, yeah, there's --
21 there's sizable increase in variability, or
22 variability in speeds today. One thing to also

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1785

1 keep in mind is that variability will not change
2 in this case, that you are adding a permanent
3 change to the -- the corridor that will then
4 further increase that variability.

5 MEMBER FUCHS: An important point. I
6 just want to make sure that --

7 THE WITNESS: Mm-hmm.

8 MEMBER FUCHS: -- everybody is -- I
9 want to make sure I'm following.

10 You're saying that, not only does the
11 average speed go down, but in your experience,
12 when average speeds go down -- you know, you've
13 talked about standard deviations and there's
14 going --

15 THE WITNESS: Mm-hmm.

16 MEMBER FUCHS: -- to be variability of
17 speed. But not only will the -- the -- let's call
18 it the doomsday standard, or the low point of
19 speed go down by an equivalent amount of the
20 average, it's actually possible that the low point
21 would go even further down. Because when you --
22 when you -- when you're in a scenario where the

1 average speed goes down, is it your contention
2 that the variability of the low point could be
3 even worse than just the average drop?

4 So in other words, let me say it
5 another way. Let's say like the bottom five
6 percentile of performance would not just go down
7 by the same percentage, it would actually go down
8 by more?

9 Is that -- is that what you're
10 contending?

11 THE WITNESS: I think that's highly
12 likely and I'd have to look at the metrics. But
13 considering the other metrics we looked at, I did
14 not look at it that way. I think that's -- that's
15 highly likely in this case.

16 MEMBER FUCHS: But have you -- have you
17 provided anything to provide -- to -- so I'm
18 looking at these metrics, right? And so first of
19 all you tell me that, you know, that's not what
20 operating people look at to look at, you know,
21 whether or not their freight transportation is --
22 is -- to judge their performance of their freight

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1787

1 transportation. So the middle one, you know
2 velocity, you know, we see that all the time.

3 THE WITNESS: Mm-hmm.

4 MEMBER FUCHS: Have you provided
5 anything to the board to help us to judge how, you
6 know, the -- I don't want to say, you know,
7 magnitude of -- of the change in speed, but how
8 much this change in speed relates to what we
9 normally expect in the -- in the freight network?

10 THE WITNESS: So, yeah. So as I said,
11 I think the thing to keep in mind is this is a
12 permanent shift of that variability and so that
13 variability is not going to change. There is
14 natural -- you -- you guys see the metrics, you
15 know you. It could be a couple miles per hour
16 change. I -- I'm not -- I don't look at the
17 railroad metrics honestly.

18 MEMBER FUCHS: No, I -- I think that's
19 right. You say couple of miles per hour, I'm
20 like, you know that the -- what do you think is a
21 normal average speed for CSX?

22 THE WITNESS: I -- I don't know. I

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1788

1 haven't looked at it recently.

2 MEMBER FUCHS: Okay. So, let's say,
3 could we -- could we guess and say -- I mean, can
4 you ballpark it?

5 THE WITNESS: It would be speculating.
6 I said -- you know, a lot has changed since I
7 worked there four years ago, so...

8 MEMBER FUCHS: So, well, let's -- let's
9 say -- let me ask it a different way. What is the
10 velocity that you measured in -- in the RTC model?

11 THE WITNESS: You mean, like that --
12 that is the overall of nearly every train in the
13 model?

14 MEMBER FUCHS: Yeah, yeah, yeah, the
15 average -- what's the average speed?

16 THE WITNESS: That's -- that's the
17 same -- in this case, I'm not sure. I think --
18 you know, I think Amtrak keeps bringing up the 14
19 miles an hour and that is a mix of traffic and
20 just sort of a whole host of areas --

21 MEMBER FUCHS: Sure.

22 THE WITNESS: So, yeah, but I'm not

1 sure.

2 MEMBER FUCHS: And I think you just
3 said that freight speeds can vary a couple miles
4 per hour, right? So, you know, when you're
5 talking about 15 miles an hour and a couple mile
6 an hour variance, you know, we're talking, you
7 know, 15% --

8 THE WITNESS: Mm-hmm.

9 MEMBER FUCHS: -- variance and, you
10 know, this change of speed is .9%.

11 THE WITNESS: Mm-hmm.

12 MEMBER FUCHS: So, how -- can you help
13 contextualize this change in speed with variance,
14 you know, in this outdoor sport and to what weight
15 the board should give this change in speed.

16 THE WITNESS: One thing to keep in mind
17 is that the speed in our study is -- is quite low
18 because of New Orleans. You know, if you looked
19 only at CSX, it would likely be higher. So -- and
20 also, you have to keep in mind how the railroads
21 measured -- at least when I was there, measure
22 velocity, does not include the dwell. And so in

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1790

1 this case this does include the dwell of the
2 trains. So for instance, a train arriving at
3 Mobile, you know, they separate out sort of the --
4 the dwell of that train from the velocity. And
5 so, I know some of them had moved to a sort of car
6 velocity but that was I said after my time.

7 MEMBER FUCHS: Right, but a lot of --

8 THE WITNESS: Yeah.

9 MEMBER FUCHS: -- a lot of railroad
10 velocities are still in the 20 mph, right --

11 THE WITNESS: Mm-hmm.

12 MEMBER FUCHS: -- so when you're
13 talking (inaudible) that's still 10% compared to
14 this .9%.

15 Is that the right way to be thinking
16 about it is that this, you know, the natural
17 variability you'd expect at like 10% of speed, and
18 this is .9, and should the board use that for
19 context? Or -- you know, is there anything else
20 that we can use to help contextualize what you're
21 trying to tell us?

22 THE WITNESS: Yeah, it's -- it's -- you

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1791

1 have to be careful because you're comparing a
2 variability with a -- a permanent change, you
3 know, sort of shifting of it. And so, I said and
4 we talked about this is increasing the
5 variability, so this would further increase that
6 variability you already see.

7 But it -- as I said, this is sort of
8 the danger of why we compare RTC to RTC and RTC to
9 actual, is because some of the -- the natural --
10 the optimism of the model, to be honest, and so I
11 think the best way to look at it is at the
12 percentage and -- and thinking about those, is
13 that, you know --

14 MEMBER FUCHS: Right.

15 THE WITNESS: -- you're shifting a
16 permanent degradation of --

17 MEMBER FUCHS: I totally understand.
18 And you can appreciate, you know, the question for
19 us in this case. And I know you're not a lawyer
20 and you're not making a legal judgment and you're
21 a modeling expert and -- you know, we're trying to
22 judge the reasonableness of the impairment, right,

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1792

1 and these are key metrics and, you know, you're
2 telling us one metric's not really used and then
3 the other metric you're not providing context --
4 you know, I'm not hearing context.

5 THE WITNESS: Yeah.

6 MEMBER FUCHS: I'm trying to figure out
7 how these metrics help answer that question, and
8 that's -- that's really where I'm coming from.

9 THE WITNESS: So the delay per 100 I
10 said is used by modelers, you know, at railroads,
11 everyone. It's just not a standard metric poured
12 out to the STB or used internally. So, it's
13 just -- yeah, so -- yeah, I think it's a very
14 important metric, you know. It does provide sort
15 of great context that sort of the increase in --
16 in cost -- you know. I don't want to say cost,
17 but like the congestion on the line. But, yeah --
18 yeah, it is not used on a day-to-day basis by the
19 railroads.

20 MR. ATKINS: Member Schultz, did you
21 have a question?

22 MEMBER SCHULTZ: I do. And I think you

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1793

1 answered this already but just for clarification.

2 What is the percentage change in speed again?

3 THE WITNESS: That is the -- so I take
4 the difference in the -- in this case sort of the
5 questioned case. In this case it's the 2039 case
6 with proposed projects. I subtract the 2039 base
7 case from that and then divide it by the 2039 base
8 case. So it is the -- you know, it's a -- a
9 percentage difference from that 2039 base case.

10 MEMBER SCHULTZ: Okay, and then in
11 terms of the -- the .9%, what would be a range of
12 percentage that -- that would in your mind trigger
13 severe degradation?

14 THE WITNESS: It's that, what to keep
15 in mind is that these projects is that these
16 aren't inherently -- all of these are
17 constructable. So, you know this is -- you know,
18 this is not necessarily a case that might not be
19 feasible. And I said, and that is, you know --
20 so -- so let me put it this way. It is standard
21 practice for when considering projects to get back
22 to as close to zero as possible. I can't tell you

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1794

1 what -- you know, some of those are legal terms
2 and, you know, above my pay grade a little bit,
3 but I would tell you it is standard practice to
4 restore back to as close to zero as possible.

5 MEMBER SCHULTZ: But I guess as a
6 modeler --

7 THE WITNESS: Mm-hmm.

8 MEMBER SCHULTZ: -- not -- not I don't
9 believe severe degradation is necessarily a legal
10 term.

11 As a modeler, what -- what threshold in
12 your opinion would stand out to you as something
13 that would be cause for concern?

14 THE WITNESS: So you'd look at all the
15 metrics, not just one. You know, you can see here
16 the 30% change in delay of the railroads, the 35%
17 increase in dispatching conflicts. And so, you
18 know, can I give you a certain threshold you would
19 consider acceptable or not? No. I -- I think it
20 depends on location by location, corridor by
21 corridor, case by case is sort of what you're
22 looking at. But yeah, you -- you look at the

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1795

1 metrics as a whole, not just isolating for one.

2 MEMBER SCHULTZ: These -- these metrics
3 pertain to the FRA projects as proposed, right?
4 So perhaps you could speak to just in this
5 instance.

6 THE WITNESS: It's that, one thing to
7 keep in mind is this -- you know, there are
8 increase in delays and decreased speed on -- on
9 NS. This is sort of, you know, the most a
10 corridor is on CSX and that's the only place there
11 are projects.

12 I said, these are better than no
13 projects. You know it gets you part of the way.
14 It doesn't get you all the way. And so I would --
15 I would recommend, you know, following standard
16 practice that you would need additional projects
17 beyond this to -- to fully sort of restore the
18 corridor.

19 MEMBER SCHULTZ: How would you define
20 "all the way" or "some of the way"?

21 THE WITNESS: Back to -- to no
22 degradation. So, sorry. You know, zero percent

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1796

1 or as close to, slight -- slightly above change in
2 speed.

3 MEMBER SCHULTZ: And zero degradation
4 in your mind would be zero percent interruption.

5 THE WITNESS: As close to as possible,
6 yes.

7 MEMBER FUCHS: And two follow-on
8 questions. Michelle, do you have --

9 MEMBER SCHULTZ: Well, yes, just one
10 quick question.

11 Is there any place on the CSX or NS
12 network where there is zero -- zero percent
13 interruption?

14 THE WITNESS: And so, keep in mind, is,
15 you know, these are sort of changes between these
16 two cases. Their -- those cases have delay
17 inherent in them. So you're going to be -- you --
18 there is no corridor on any railroad that does not
19 have delay -- I can't speak to any specifics
20 beyond that -- but if you are especially a
21 single-track railroad, every time you meet two
22 trains and have to use a siding, that is sort of

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1797

1 defined as delay. So there is no -- no corridor
2 out there that does not have a quote unquote some
3 type of delay out there.

4 MEMBER SCHULTZ: So in other words zero
5 is -- zero is perhaps an unattainable standard?

6 THE WITNESS: It is zero as compared
7 between the base case and the passenger case.

8 So it is, you know, by -- by definition
9 of how we are looking at this, this is a
10 comparison between the two cases. So, yes, you
11 can achieve a zero, getting back to the railroad
12 as it was before a passenger was introduced.

13 MEMBER SCHULTZ: And before passenger
14 is introduced it is at -- in fact at zero?

15 THE WITNESS: According to this
16 definition, that would be the case.

17 MEMBER SCHULTZ: And so the .9% then is
18 with the introduction of passenger with the FRA
19 proposed projects, correct?

20 THE WITNESS: The full set of the FRA
21 projects. That is correct.

22 MEMBER SCHULTZ: Okay, thank you.

1 THE WITNESS: Yeah. But you could go
2 to table F4. I think that's probably a better
3 table to look at, yeah.

4 BY MR. ATKINS:

5 Q. And can you describe what this is
6 showing us, Mr. Dingler?

7 A. So, yeah. As I mentioned earlier, they
8 have grade crossing closures, which are out of the
9 control of the railroads -- FRA or Amtrak or NS --
10 in their select set of projects. They also have
11 those siding speed improvements. One thing to
12 note, they also recommend some bridge speed
13 improvements -- I outlined this in the report --
14 that -- that improve the speed of those bridges.
15 It is unclear what that would take to have those
16 projects work. It likely is more than those
17 modurails. But because they are feasible, we
18 included them, even, you know, if not at the cost
19 that was recommended by the FRA.

20 Q. And so if you look at table F4, can you
21 describe what type of interference to interchange
22 partners in New Orleans for example would still be

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1799

1 in place if you had adopted the subset of FRA
2 projects?

3 A. This does nothing to fix, you know, New
4 Orleans or, you know, mitigate New Orleans. You
5 still have a 30% increase in delay.

6 Q. And why -- why is that? Aren't there
7 projects in New Orleans within the FRA?

8 A. The -- the closest project they came up
9 with was Gentilly. And I think, according to --
10 if I remember right, according to their report,
11 they said they never even looked at the NS
12 portion.

13 MR. ATKINS: Okay. Steven, if we could
14 take this down.

15 Patrick, you have a question?

16 MEMBER FUCHS: Marty, I just --

17 CHAIRMAN OBERMAN: I wanna -- hold,
18 hold. I have a couple of questions and Patrick I
19 think you do too, right, before you take this
20 down.

21 MR. ATKINS: I'm sorry. You want --
22 I'm sorry. Can you put it back up, Steven. My

1 apologies, Chairman.

2 CHAIRMAN OBERMAN: Maybe -- well, I
3 don't have questions about that exhibit, but I --
4 Patrick may.

5 So Patrick, go ahead.

6 MEMBER FUCHS: Yeah, mine is a quick
7 follow-on from Michelle's great question.

8 You know, the first is you said as
9 close to zero as possible. I just want to be
10 clear, you're not saying as close to zero as cost
11 beneficial?

12 In other words, the solution you're
13 solving for is getting to zero. You're not
14 factoring in, you know, what would make sense in
15 terms of, you know, a cost benefit calculus?

16 THE WITNESS: So when selecting
17 projects, I -- you know, I use my judgment. I'm
18 not going to put a bridge -- you know, a new
19 three-mile bridge or things like that out there.
20 So there is sort of constructability costs, you
21 know, but not directly, considerations. You know
22 I'm not going -- you know, trying to avoid the

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1801

1 middle of a swamp. I wouldn't recommended that
2 project. But no, there is no direct, you know,
3 cost benefit analysis completed.

4 MEMBER FUCHS: And -- and -- and just
5 one more question on this, which is, you know, I
6 think you had said that no -- no railroad, no
7 operating person you know relies on modeled
8 freight train delay per hundred.

9 Why is that?

10 THE WITNESS: It's because you can't
11 really measure it. You'd have to, you know --
12 it's against the minimum run time. And so you'd
13 have to sort of do a -- a simulation of every
14 train on your -- your network to get that minimum
15 run time. It's just a -- a feasibility thing. It
16 is not, you know, necessarily data that exists.

17 MEMBER FUCHS: Thank you.

18 MR. ATKINS: So -- so, Chairman, we'll
19 take this down, but please, if you have some
20 questions.

21 CHAIRMAN OBERMAN: I have a couple of
22 questions.

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1802

1 Did I understand you to say that to
2 run -- to change the input to then run the RTC
3 model takes about a day?

4 THE WITNESS: Assuming everything goes
5 right overnight, there -- sometimes it doesn't,
6 but, yes. You know, for a scenario I can make a
7 change in a matter of hours. You know, I looked
8 at a couple cases to make sure it's operating as
9 it should and then I can run it overnight. That
10 is correct.

11 CHAIRMAN OBERMAN: So you could run the
12 FRA projects on the 2019 case --

13 THE WITNESS: I can.

14 CHAIRMAN OBERMAN: -- in a day roughly,
15 assuming, subject to what you just said about
16 assuming it runs okay?

17 THE WITNESS: Yes.

18 CHAIRMAN OBERMAN: So, you said you ran
19 the 2039 FRA case because somebody asked you to do
20 that?

21 THE WITNESS: No. Well, so we did
22 2039. So when we do the modeling it is standard

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1803

1 practice to only look at 2039. We looked at 2019
2 for the projects because you guys requested it.
3 So -- but it was as part of sort of another one of
4 the what-if analyses we did. I don't remember who
5 actually asked for it. It was just part of our --
6 our, you know, consideration of the project.

7 CHAIRMAN OBERMAN: Well, I'm a little
8 bit lost there as to -- I -- I thought you
9 answered Karen Hedlund when she asked why you ran
10 the 2039 FRA case because someone asked you to do
11 it. Maybe I misheard you. Is that not right?

12 THE WITNESS: There is a lot of people
13 that asked me to look at a lot of scenarios.
14 Likely counsel asked me to look at it as part
15 of -- but I -- I honestly don't remember
16 specifically. If I said that, it was not my
17 intention.

18 CHAIRMAN OBERMAN: But -- but no one
19 asked you to run the FRA 2019 case?

20 THE WITNESS: That is correct.

21 CHAIRMAN OBERMAN: Okay. And who
22 decided that some aspects of the FRA projects

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1804

1 were, quote, "not buildable" or "not feasible"?

2 THE WITNESS: It was through discussion
3 with -- with CSX. You know, I -- I talked to Will
4 Roseborough -- he is a member at the Clean Team --
5 and he sort of talked me through the reason those
6 projects would not be buildable. We had, you
7 know, a lengthy conversation because I had to be
8 convinced. And so we talked through that, and,
9 you know, I am in agreement that those are under
10 the current -- the signaling design of CSX, those
11 are not constructable.

12 CHAIRMAN OBERMAN: Well, what does that
13 mean the signaling design? Can you elaborate on
14 that?

15 THE WITNESS: Yes, certainly.

16 So as I describe earlier, so the -- the
17 projects we considered not constructable was --
18 there is a couple of sidings that the FRA
19 recommended to increase the 40 miles an hour. The
20 CSX has something called speed signaling, so it
21 has to give signaling to enter the siding at a
22 certain speed. To give it a -- you know, for that

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1805

1 train, if it was going in the siding at 40 miles
2 an hour, it has to be able to stop before the next
3 signal. Those trains, you know, it uses a
4 worst-case train when you do signal design. That
5 train cannot stop in time within the length of
6 that siding without extending it. So you can't
7 get to that speed.

8 CHAIRMAN OBERMAN: Could you just build
9 it with the -- the same the FRA project without
10 the 40 mile speed?

11 THE WITNESS: And that's what we did.
12 So the second set of projects, we removed -- we
13 lowered the speeds to what was constructable and
14 we also removed the freight crossings, grade
15 crossing closures.

16 CHAIRMAN OBERMAN: Right. So for some
17 price, could you change the signaling, so you
18 could actually do what the FRA suggested?

19 THE WITNESS: You would have to extend
20 the siding, to give it sufficient distance. It's
21 not a price issue. It's a design of, you know,
22 the fail-safe nature of -- of railroad signaling.

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1806

1 CHAIRMAN OBERMAN: And for example, how
2 long would you have had to extend the siding?

3 THE WITNESS: I -- I couldn't tell you
4 specifically.

5 CHAIRMAN OBERMAN: All right. Did you
6 have an understanding that the projects that you
7 did include in your report, the 14, the
8 buildability of those projects is also not
9 certain, is not the way Mr. Niemeyer's report
10 reads.

11 THE WITNESS: So there went through --
12 as part of those project selection, it went
13 through sort of several reviews. Will Roseborough
14 looked through those projects in the initial
15 review and then there was an additional review by
16 Ted Niemeyer, so that we were recommending
17 projects that -- that, you know, the railroads
18 felt comfortable were constructable.

19 CHAIRMAN OBERMAN: Well, you said they
20 felt comfortable but the engineering and the final
21 design work and the costing, none of that's been
22 done in terms of the real feasibility, right?

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1807

1 THE WITNESS: That is correct. And I
2 think I -- I add that caveat in the -- the in
3 conclusions in my report that these projects may
4 change. You know, this is -- you know, we
5 recommend one set of projects but, you know, there
6 may be adjustments based on permitting a whole
7 host of factors, but, as these -- these projects
8 go into further design.

9 CHAIRMAN OBERMAN: Did you consider
10 asking the FRA about why they recommended these
11 projects in terms of their feasibility?

12 THE WITNESS: They were not -- you
13 know, I -- I read their report and -- and sort of
14 the details with that, but I did nothing beyond
15 that.

16 CHAIRMAN OBERMAN: Did you not think the
17 people at the FRA who came up with these projects
18 would have anything useful to add about the
19 feasibility of projects they recommended to the
20 U.S. Congress?

21 THE WITNESS: I -- I don't know. You
22 know, I -- I was relying on sort of information I

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1808

1 was given. I don't know if the FRA even consulted
2 with CSX when they developed those projects
3 either. So, no, I -- I never talked to the FRA.

4 CHAIRMAN OBERMAN: I mean, it didn't
5 occur to you I take it that, if the FRA went to
6 all the trouble to tell the U.S. Congress to spend
7 \$100M, they hadn't done some homework before they
8 made such a recommendation so that their
9 recommendation would be considered sound?

10 You didn't think about that?

11 THE WITNESS: I did not.

12 CHAIRMAN OBERMAN: Okay. Ray, I have a
13 number of questions relating to cost but I think
14 I -- I should save them 'till Mr. Dingler has
15 finished because they're more of an over --
16 overview.

17 MR. ATKINS: Okay. Member Schultz --
18 Member Schultz, do you have a question?

19 MEMBER SCHULTZ: I do. Actually.

20 CHAIRMAN OBERMAN: Michelle?

21 MEMBER SCHULTZ: Thank you.

22 I'm not sure what the number of the

1 chart was that you had up on the screen earlier
2 but you indicated that the -- the model that you
3 ran regarding the FRA recommended level of
4 infrastructure stopped in -- in Mobile, I believe?
5 It did not include any of the projects in New
6 Orleans.

7 Did I understand that correctly?

8 THE WITNESS: It stops with the
9 Gentilly Bypass. It included no --

10 MEMBER SCHULTZ: Okay.

11 THE WITNESS: Yeah, we had no analysis
12 that I was aware of for projects on the Norfolk
13 Southern.

14 MEMBER SCHULTZ: Is there -- was there
15 a -- a model that was run that would have included
16 the projects in New Orleans?

17 THE WITNESS: So, I -- I chose their
18 projects as I -- I felt they made sense with my
19 modeling effort but I never did sort of a hybrid
20 approach of, you know, adding in beyond theirs.
21 So it was -- I said it was -- they were sort of
22 separate efforts.

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1810

1 MR. ATKINS: Member Schultz, if I could
2 ask a clarifying question. I think you asked a
3 different question.

4 MEMBER SCHULTZ: Sure.

5 BY MR. ATKINS:

6 Q. Mr. Dingler, did you ever model a
7 combination of the FRA proposed projects and
8 the -- the additional projects in New Orleans?

9 A. I did not.

10 MEMBER SCHULTZ: Was there a reason you
11 did not?

12 THE WITNESS: Because we were looking
13 at the FRA projects standalone and, you know, when
14 I was going through my projects, it was -- you
15 know, I said I selected from their -- their list
16 as, you know, I -- I felt that made sense with
17 what the data was telling me in the model. But I
18 did not sort of -- yes, and do -- unless I do a
19 hybrid approach where I built on what they
20 recommended.

21 MEMBER SCHULTZ: But in the chart that
22 you -- you had put on the screen earlier where you

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1811

1 did the point of comparison, I think there was --
2 you showed a -- a 9% slowing in speed but then
3 the -- the next chart below it, you know, the --
4 the numbers were actually higher.

5 What -- what did that chart include
6 then, just what the impact was without any
7 projects in New Orleans? Is that right?

8 THE WITNESS: The table F4 includes --
9 it's the same -- so it's that original set of
10 projects but what I removed was the -- the grade
11 crossing closures and I removed some of those
12 siding speeds.

13 So if you go to appendix -- yeah
14 actually the next page, page 86, it has sort of in
15 a different color -- I wish I'd chose a different
16 color that was a little more clear -- the -- the
17 projects that I removed from that set for table
18 F4. Yeah, the -- the colors aren't different
19 enough. I apologize for that.

20 MEMBER SCHULTZ: No, it's okay. But --

21 CHAIRMAN OBERMAN: Where -- could I
22 just ask, Michelle --

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1812

1 MEMBER SCHULTZ: Sure.

2 CHAIRMAN OBERMAN: -- which of the ones
3 you removed? What am I looking at?

4 THE WITNESS: So page 86, there's a --
5 a schematic. I have similar schematics for -- for
6 my projects that I recommended. So, it's a brown,
7 I say again, it's printed. It's not as clear,
8 so...

9 CHAIRMAN OBERMAN: Just to be clear,
10 why don't we read them off --

11 THE WITNESS: Yeah.

12 CHAIRMAN OBERMAN: -- just so we can
13 all know what you're talking about.

14 THE WITNESS: Actually I think, and as
15 I think about it -- here we go. So go to table
16 F4.

17 MR. ATKINS: So we're going to -- we're
18 going to move you to table F1 that lays out all
19 the FRA projects and -- and -- and he's going to
20 speak from this. We will zoom this up.

21 THE WITNESS: So the single asterisk is
22 a grade crossing closure and the -- the two

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1813

1 asterisks are the -- the infeasible sort of siding
2 speed. So there's three of them. You have Lake
3 Catherine, you have Claiborne and you have
4 Belvoir.

5 CHAIRMAN OBERMAN: And the -- so the
6 only ones that were infeasible are with the
7 three -- the three with the two asterisks and
8 those are all based on the speed with regard to
9 the signals?

10 THE WITNESS: That is correct.

11 CHAIRMAN OBERMAN: And is it your
12 testimony, just so I understand it -- Michelle I'm
13 sorry to interrupt but I'm going to hand it back
14 to you about in a minute.

15 There's nothing you can do to adjust
16 the software of this signalization program to
17 allow for these sidings to be used as proposed?

18 THE WITNESS: It is not a software
19 issue. It's about a train being able to stop. So
20 it's just -- it's a physics problem to be honest.
21 And so the train has to be able to stop within
22 that length, otherwise, it will, if it's trying to

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1814

1 stop from 40 miles an hour, it will drag out to
2 the other side of the siding.

3 CHAIRMAN OBERMAN: Well, but suppose it
4 entered the siding at a slower speed? Could it
5 still work?

6 THE WITNESS: And that's -- that's
7 exactly what sort of we -- we put in there, was
8 you'd have to -- instead of a 40 mile per hour
9 speed you could do a 30 mile per hour speed and
10 then it would work.

11 CHAIRMAN OBERMAN: And you did -- so
12 when you ran the 2039 FRA case, did you run all
13 the FRA projects and slowed the speed for these
14 three? Is that what you did?

15 THE WITNESS: If -- if my memory serves
16 me, that is -- that is what I did. It's been a
17 while.

18 CHAIRMAN OBERMAN: And was it from 40
19 to 30?

20 THE WITNESS: I believe that was the
21 case, yes.

22 CHAIRMAN OBERMAN: So if you were going

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1815

1 to run the -- if you were going to run the 2019
2 case, you could run that the same way with these
3 projects --

4 THE WITNESS: That is correct.

5 CHAIRMAN OBERMAN: -- at the slower
6 speed?

7 THE WITNESS: That is correct.

8 CHAIRMAN OBERMAN: Okay. All right.

9 I'm sorry, Michelle, I didn't mean to
10 cut you off like that.

11 MEMBER SCHULTZ: Oh, no worries.

12 CHAIRMAN OBERMAN: Yeah, go ahead.

13 MEMBER SCHULTZ: Are you aware if NS
14 actually ran a model that was inclusive of the New
15 Orleans projects as well as the proposed FRA
16 projects.

17 THE WITNESS: I am not. I -- I am not
18 aware of any sort of separate modeling NS
19 performed outside of, you know, either the -- the
20 20 -- the 2020 study or the 2021 study.

21 MEMBER SCHULTZ: Wouldn't -- wouldn't
22 the impact to NS' operability have an impact on

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1816

1 CSX? And I'm trying to think of a better way
2 to -- to phrase the question.

3 I think -- I think what I'm trying to
4 ask is, if -- if there was no comprehensive model
5 that was run with the necessary projects in New
6 Orleans for NS, as well as a -- a model that
7 included the proposed FRA projects for CSX, how
8 could the tables that were previously shown
9 accurately reflect what the service levels or
10 whether or not severe degradation would have taken
11 place within the region in its entirety?

12 THE WITNESS: So I, as I said, I
13 provided sort of the overall metrics and I do have
14 sort of it isolated by NS trains. And so sort of
15 to your question about sort of the
16 interconnectedness of it, if there is increased,
17 you know, congestion on NS, it will -- the way
18 that will affect CSX is it will delay them getting
19 the interchange trains and it will delay them
20 being able to depart the interchange trains
21 towards, you know, UP, BNSF, KCS. It will
22 increase the congestion at Gentilly which has --

1 has an effect and that could lead to sort of
2 trains holding out. As you increase yard
3 congestion you increase trains holding out and
4 increase yard congestion.

5 So there is -- yeah, there's definitely
6 a -- it's sort of a combined effect there.

7 MEMBER SCHULTZ: So I guess my final
8 question would be, would -- would it be fair to
9 say that in order to have a comprehensive overview
10 of -- of the region in its entirety, you would
11 have to run a model that included the
12 infrastructure in New Orleans for NS as well as
13 proposed projects for CSX?

14 THE WITNESS: Yes. And that's why we
15 did it in this case. You know, I -- I had started
16 with, you know, one railroad and we worked and
17 added the others and there's -- there's definitely
18 an effect between the two. Yes, that -- you
19 would -- to fully understand the impact to
20 Gentilly and New Orleans, you have to understand
21 both together. So, yeah, you need them in
22 combination.

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1818

1 MEMBER SCHULTZ: Which would be a -- a
2 different model that has not yet been run. Is
3 that correct?

4 THE WITNESS: A different scenario or a
5 different case, correct. You know, we have the
6 base case that has that all in there. It would
7 just be another one of those what-if analyses we
8 would look at. We have not looked at that
9 what-if.

10 MEMBER SCHULTZ: Okay, thank you.

11 CHAIRMAN OBERMAN: Member Hedlund.

12 MEMBER HEDLUND: Why is the grade
13 crossing closure outside of the control of the
14 owner of the right-of-way?

15 THE WITNESS: Great question. So it is
16 up to the local municipalities. You know, I think
17 you can get the railroads that they would love to
18 close grade crossings. They are great projects,
19 they have safety benefits as well as operational
20 benefits, but you -- you have to work in -- in
21 coordination with local stakeholders to -- to
22 close those. Many municipalities like their

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1819

1 crossings.

2 MEMBER HEDLUND: But the railroad owns
3 the grade crossing, the -- the right-of-way?

4 THE WITNESS: I don't know all the --

5 MEMBER HEDLUND: And do the local
6 communities have easements over those
7 right-of-ways?

8 THE WITNESS: I am not -- yeah, I -- I
9 can't speak to that specifically. What I do
10 know --

11 MEMBER HEDLUND: Or is it just a matter
12 of comity, c-o-m-i-t-y?

13 THE WITNESS: Yeah, I'm not sure. I'm
14 just -- I -- I know the effect. I don't know the
15 cause, but that -- that local stakeholders have --
16 you know, impact the ability to close grade
17 crossings.

18 MEMBER HEDLUND: Even though the entire
19 grade crossing is -- is owned by the railroad and
20 the local community doesn't have a real estate
21 interest in the grade crossing --

22 THE WITNESS: Yeah --

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1820

1 MR. ATKINS: So Member Hedlund, I -- I
2 just -- if you -- if you have questions about
3 that, the lawyers can try to answer that for
4 you --

5 MEMBER HEDLUND: Okay.

6 MR. ATKINS: -- and maybe brief it if
7 you have some questions. Mr. Dingler just -- he
8 can't tell you about the legal issues --

9 MEMBER HEDLUND: I -- I understand
10 that. I -- I would like to get some clarity from
11 the lawyers on that because I have some -- I've --
12 I've heard about instances where other railroads
13 have taken a different position.

14 MR. ATKINS: Understood and we'll --
15 we'll put that on our list of legal questions that
16 we're going to brief probably post hearing.

17 MEMBER HEDLUND: Thank you.

18 MEMBER FUCHS: Mr. Dingler, is it
19 possible to put your delay metrics, your -- I
20 always call it service metrics, in terms of the
21 metrics that customers typically look at or that
22 railroads typically look at?

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1821

1 I understand velocity and the context.
2 We've discussed that. But metrics such as car
3 trip planning compliance, cycle time, you know,
4 those are the things we hear most often from
5 customers and we hear most often from railroads,
6 and so -- and that's -- that's oftentimes what
7 people use to judge freight transportation
8 performance, which is the central question in this
9 case.

10 So, I'm wondering if there's a way to
11 translate your findings into more widely used
12 metrics.

13 THE WITNESS: Yeah, the --the one thing
14 to keep in mind is what RTC is. It doesn't
15 consider individual cars. It is a train based
16 model. And so yeah, I can't convert -- I don't
17 know where the cars are on those trains. I don't
18 know anything about the traffic.

19 MEMBER FUCHS: Of course CSX knows what
20 cars are on which train, though, right?

21 THE WITNESS: I would -- yeah, I would
22 hope so.

1 MEMBER FUCHS: So you could take a
2 representative sample and just like you're taking
3 representative -- you know, representative samples
4 of other types of data, right?

5 THE WITNESS: Yeah, again, that's why I
6 said we used sort of delay and all those things,
7 because, you know, there are a number of things
8 that effect sort of car speed and car -- you know,
9 there's connections, there's switching, that is
10 outside the scope of what an RTC model looks at.
11 A lot of what drives some of those metrics is yard
12 performance, again, sort of outside the scope of
13 what an RTC model looks at.

14 MEMBER FUCHS: Right. And I only say
15 that, like unimpeded single-train performance is
16 something we encounter not at all on the freight
17 network, right? And so if that's your baseline
18 for comparison, it -- it -- you know, you -- you
19 understand where I'm -- you know where -- I think
20 in part, you know, it's the feasibility but in
21 part I don't know how much unimpeded run time of a
22 single train on tracks is going to tell a customer

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1823

1 about the freight performance, right, because it's
2 something we'd never see, and something they'll
3 never see. So that basis of comparison relative
4 to what is today, if that's built in, that -- it
5 might -- you know, it might obscure, you know,
6 broader context that -- that -- that is helpful
7 for assessing -- assessing the magnitude of delay.

8 You know, I -- I do you have a -- do
9 you have a reaction to that?

10 THE WITNESS: Well, that being said,
11 but a 45% increase in local delay, however you
12 define it, you know, you're going from, you know,
13 a hundred to 140 is pretty significant and there
14 is -- that's going to inevitably have an impact on
15 the customers. I -- I can't translate it to some
16 of those other metrics, but, yeah, 45% is a large
17 number.

18 MEMBER FUCHS: Got it. I appreciate
19 it.

20 THE WITNESS: Mm-hmm.

21 MR. ATKINS: So we're going to go ahead
22 and take this slide down. In my direct I'm going

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1824

1 to move to -- it's related to a couple of
2 different topics. We have about 45 minutes before
3 5:00 o'clock, so I'm mindful, Chairman, of looking
4 for a good spot to naturally break the -- the
5 direct. But I --

6 CHAIRMAN OBERMAN: All right.

7 THE WITNESS: But I think -- I
8 certainly think the next few segues will --
9 will -- will fit into the time.

10 BY MR. ATKINS:

11 Q. So I'm -- so we're going to talk a
12 little bit, Mark -- we're going to shift gears a
13 little bit and talk about some questions that were
14 raised by the -- the board members at the February
15 hearing, specifically the concept of a freight
16 benefit, which Member Hedlund asked us to address
17 specifically in our direct, so I'm going to try to
18 do so. The idea of shortening the trains, which
19 is also a question that we heard a lot about, and
20 the idea of automating the bridges. And we may
21 not get to automating the bridges today but we'll
22 try.

1 So let's start with the issue of
2 freight benefit. Could you please explain that
3 term "freight benefit," what it means to you as an
4 RTC modeler.

5 A. Certainly. So how I -- when -- when
6 the word "freight benefit" is used, the way I
7 interpret that is after you've added, you know,
8 the passenger trains and all the projects, your
9 result is a -- a sizable improvement from the --
10 the no-build or the base case.

11 Q. So you described a number of passenger
12 companies you've done work for, including like
13 Florida DOT. Can you describe the kind of normal
14 practice you would do for them in terms of
15 restoring operations back to the status quo?

16 A. In -- in all those cases what you're
17 looking at is, as you put it, sort of back to the
18 zero case. You know, you're trying to get as
19 close. Again, you know it is my best practice to
20 have slightly higher due to sort of the -- the
21 nature of RTC versus reality. But, yeah, you're
22 trying to get as close to zero as possible.

1 Q. And in this case -- I think I
2 mentioned -- you mentioned this already -- but
3 the -- you reported results that are a little bit
4 above, 2.5% above zero. Can you describe why --
5 why -- you know, what led you to -- to -- to
6 conclude that was appropriate?

7 A. So, we looked at sort of the three
8 different train groups. We looked at the CSX
9 local. We looked at CSX through and the NS
10 trains. So we had to -- we were trying to
11 mitigate both of those and make sure we weren't,
12 you know, improving the CSX through traffic while
13 severely degrading, you know, the CSX local
14 traffic. In that, you know, you -- you have sort
15 of -- you know, sometimes results in something
16 slightly higher. While you're mitigating one, it
17 will improve the other.

18 Also on the NS, the set of projects we
19 selected, those crossovers, is sort of I think
20 described as a little bit clumpy, when you add in
21 those projects, which are designed to work
22 together, you end up with a -- a slightly higher

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1827

1 benefit than we saw in these -- sort of those
2 other groups.

3 Q. So, in your opinion, if you turn back
4 to the idea of a freight benefit, in your opinion
5 what if any freight benefit did the host railroads
6 derive from the proposed 14 infrastructure
7 projects?

8 A. I don't believe there is any.

9 Q. And I'm not sure I get it, so, when
10 they use the longer sidings, the power switches,
11 the other improvements on a daily basis, why isn't
12 that a freight benefit in your view as an RTC
13 modeler?

14 A. They -- they certainly would. And so
15 to think about it is sort of the time of day, when
16 that passenger train is out there, you are
17 degrading the service. You know, you're adding
18 traffic. There is increased delays. In the off
19 hours, are they able to, you know, use that --
20 that infrastructure? They are. But based on the
21 definition of how we looked at the -- the data,
22 you know, as I -- as described, you know, we

1 looked at the passenger case for the projects, you
2 know the percentage difference from the base case.
3 And so, those two, after our work offset each
4 other.

5 Q. Okay. Over the last week or so we
6 heard a lot of testimony --

7 MEMBER PRIMUS: I'm sorry, Ray, I'm
8 sorry. Forgive me.

9 MR. ATKINS: Of course.

10 MEMBER PRIMUS: And --- and -- and just
11 to clarify on that. So you're saying that there
12 is no freight benefit based on the modeling that
13 you ran, but you also said in previous questioning
14 that you wanted to get back to zero, correct?

15 THE WITNESS: That is correct.

16 MEMBER PRIMUS: So isn't that a
17 benefit, if you use the infrastructure to get back
18 to zero where there's no negligible impact on
19 freight rail by instituting infrastructure? Isn't
20 that a -- why -- I don't see how if you go from
21 degradation to now zero impact that that's not a
22 benefit.

1 So -- so you don't factor that as a --
2 as a -- a benefit to -- to the -- to the freight
3 rail.

4 THE WITNESS: So, it's because we're
5 using the baseline as if passenger service was not
6 introduced. So, yeah, if there's a -- if you're
7 taking your baseline against the passenger case,
8 it is -- you know, when there's severe degradation
9 of freight, yeah, these projects improve freight.
10 But that -- but it is -- we're comparing back to
11 the if -- if Amtrak was not introduced, these
12 projects would not be needed.

13 MEMBER PRIMUS: Okay. Okay, so -- but
14 they're -- but not -- and I -- I guess the
15 clarification is, I understand not needed, but
16 would there be a benefit to -- to them? Because I
17 clearly see again -- we'll go back to the Norfolk
18 Southern New Orleans, where they say, if they had
19 that addition of the line, a train could literally
20 go over the parked train and go into the -- into
21 the yard and work the yard, even with that train
22 changing crews. And that was the question I had

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1830

1 to -- to Norfolk Southern's representative, that
2 to me that sounds like a benefit that you can
3 still move trains while a train is -- is sitting
4 still and then, without that infrastructure,
5 nothing would move into that yard.

6 So I'm -- I'm, not going to play
7 gotcha. I'm just trying to find out that it's --
8 if you have the infrastructure in place, it seems
9 that there would be greater efficiencies to move.
10 You -- you even said that if you created another,
11 a longer one, that the local train could work more
12 efficiently on that -- on that -- if you moved it
13 from -- from the siding from one side to the
14 other.

15 So I guess I'm saying -- again, I'm not
16 looking to play gotcha. I'm just saying that I
17 don't know -- how you can review that and say that
18 there's no benefit to that. I mean, you want to
19 say yes to spend money, it's like, yeah, we didn't
20 need it, but could you benefit?

21 I mean, you know, I don't need, you
22 know, a tour bus, but I could -- yeah, maybe I

1 could benefit if I go cross country in it; I don't
2 have to take a plane. But the idea of having that
3 benefit I think has to be, I mean, again be -- be
4 seen as, yeah, you've got this extra trackage
5 so -- and -- and capacity now, you know, did you
6 need it? No. But is it still a benefit because
7 you could actually take advantage of it?

8 I guess that's why I'm -- I'm just
9 trying to figure that clarification, how they just
10 don't see it as a benefit.

11 THE WITNESS: So you -- you wouldn't
12 need -- you know, the way it sounds like you're
13 defining benefit is as compared to the passenger
14 case. And so if you're going from a -- a 45%
15 degradation to zero, yeah, that -- that benefits
16 the freight but you wouldn't have that degradation
17 if it wasn't for the passenger trains.

18 And so, you know, when I consider sort
19 of freight benefit, it's comparison to if that
20 service never started. And so it's just -- it's
21 based on sort of how we define the benefit.

22 You know, the -- the freight terminal

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1832

1 lead, you don't need that if you weren't losing
2 one of those tracks for sizeable portions of the
3 day when the passenger trains are operating.

4 MEMBER PRIMUS: Right. I mean -- and
5 again, I'm not going to comment. I'm going to let
6 Ray keep going. I guess I'm just getting caught
7 up in the benefit versus need, that even though
8 you don't need it, there's still a benefit though
9 that -- of having it. I guess that's all -- I
10 guess that's what -- I guess in a sense is what
11 I'm saying. That, yes, you don't need it and they
12 didn't have to, but there is still a benefit of
13 having it, because if it's -- if it's utilized,
14 that's the benefit.

15 THE WITNESS: And you -- what do you
16 mean by "need"?

17 MEMBER PRIMUS: Well, you just said
18 that they don't need it. So you said that,
19 without passenger or rail, you don't need the
20 infrastructure. Right, I'm giving you that. But
21 you -- you factored in that, but if we build it,
22 there's no benefit.

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1833

1 THE WITNESS: It's -- once you add that
2 passenger, it changes the operations on the
3 corridor. And so, you know, there's -- there's
4 different infrastructure required to make -- I
5 said get back to as if that -- that passenger
6 service was not there, so.

7 MEMBER PRIMUS: Ray, for the interest
8 of time I'll -- I'll keep going -- I'll let you
9 keep going.

10 CHAIRMAN OBERMAN: Ray, there was one
11 other question I have here. By the way, Ray, I
12 meant to note a moment ago I was very pleased to
13 say -- to hear you say that you do expect there
14 will be a time when there is post hearing. I
15 don't know when that time will come but you see an
16 end to this some day. That's the first time the
17 phrase -- phrase "post hearing" has been used in
18 these proceedings, so I wanted to note it.

19 MR. ATKINS: That -- that day will
20 come, Chairman. I guarantee it.

21 CHAIRMAN OBERMAN: Well, I assume so.

22 Mr. Dingler, I -- there is one thing,

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1834

1 I'm sorry and I meant to go back. Early on in
2 your presentation, you said that when it came time
3 to figure out where projects needed to be made,
4 there were three problem areas that you said:
5 Mobile, New Orleans and Gentilly. And I meant to
6 ask you about all these other -- so you've
7 identified the projects in those areas, but then
8 there are projects, you know, long ways away from
9 both Mobile and New Orleans. And so, I didn't
10 understand how you got from here to there.

11 THE WITNESS: Those are in sort of the
12 places of highest delay. You can sort of see that
13 in my report. So those are the places I started.
14 The rest of the projects are sort of to mitigate
15 all the stuff between as sort of meet locations,
16 local work. But, you know, the biggest source of
17 delay in your corridor are those three locations.

18 So, yeah, you consider all of them but
19 those were the places you sort of start looking at
20 projects.

21 CHAIRMAN OBERMAN: So you didn't run in
22 RTC then with just the projects what you

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1835

1 identified initially as the three big problem
2 areas. You could -- you could do that, right?

3 THE WITNESS: I -- I may have. I said,
4 you know, you build up these projects as you go
5 through it, but I -- I don't remember. And so you
6 sort of -- yeah, again, it's an iterative process.

7 CHAIRMAN OBERMAN: Okay. Thank you.

8 Go ahead, Ray, I'm sorry.

9 BY MR. ATKINS:

10 Q. Okay. So there were a lot of questions
11 that have been talking about bridge tenders and
12 movable bridges so I want to talk about this a
13 little bit.

14 Could you remind the board -- we didn't
15 really talk about it yet -- how movable bridges
16 were modeled in 2019 and 2039.

17 A. So for the movable bridges, I received
18 bridge logs from the railroads. So this has sort
19 of an opening time, a -- a vessel that passes and
20 a closing time. I took that information and I
21 looked at sort of that -- those frequencies, those
22 durations and when those bridge openings occur.

1 To -- we -- I subsequently looked at it
2 so, you could tell in the data, some of those
3 bridge openings remained open if there is two
4 vessels and -- and no trains for a period of time.

5 So what we did was, you know, as if a
6 train had arrived, that would close that bridge,
7 we -- we shortened those -- those -- those -- the
8 opening times and added -- increased the frequency
9 to better match with how it would operate with
10 sort of additional traffic on the line.

11 And so these are sort of random
12 variables that we ran with -- as we mentioned
13 seeds or the number -- you know, each time the 30
14 per case, each one of those has sort of a
15 different set of bridge openings in them.

16 Q. And can you describe bridge tenders and
17 how they were modeled -- introduced in the model
18 and what -- what -- what purpose they served?

19 A. There are -- are three high-rail
20 movements of bridge tenders. These are to get the
21 crews out to those bridges. There are I said,
22 there are three shifts per day, so there's nine of

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1837

1 these in any given day. There are two after, you
2 know, Biloxi and I think Mobile Bay that just go a
3 short distance, about a mile, and then there's one
4 near Claiborne that does Pearl River and Rivalese
5 (phon), where they have to go a farther distance
6 to pick up and drop off those crews.

7 Q. So you modeled those in 2019. Can you
8 describe what if any changes you did for 2039 when
9 the bridges were modeled.

10 A. In 2039 we looked at sort of publicly
11 available vessel growth along the corridor and I
12 increased either the duration or frequency of
13 these openings.

14 Q. So you heard some prior testimony that
15 some of these bridges might be automated and moved
16 to remote control. Did you model that -- did
17 you -- did you assume that in the 2039 model?

18 A. We did not as it's another one of those
19 elements that's out of the railroad's control.

20 Q. And can you elaborate on what you mean
21 by that? Whose control is it in?

22 A. It the Coast Guard. It's in the

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1838

1 federal record. So any changes that the railroads
2 have sort of proposed or are working on have not
3 been finalized into that.

4 Q. So how would you change the model
5 though in 2039 if you were to assume the bridges
6 would be automated by that point in time?

7 A. We would just remove those bridge
8 tenders.

9 Q. And would that -- would remote control
10 solve kind of the problems along the line
11 associated with movable bridges?

12 A. No. It just removes those -- those
13 nine high-rail movements a day. If you were able
14 to do all five of those bridges or four of those
15 bridges, you still have the opening and closings
16 of those bridges.

17 Q. And are you aware of the pilot program
18 that was in place for the 3-Mile Bridge?

19 A. I am.

20 Q. Did you assume that that type of pilot
21 program might be available for some of the other
22 bridges in 2039?

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1839

1 A. We did not.

2 Q. Can you explain why?

3 A. So, at 3-Mile Creek, it's sort of a
4 special case. It is right at the north end of
5 Mobile yard. A lot of the movement across that
6 bridge are -- are yard movements that are sort of
7 set by shift throughout the day. The rest of them
8 is sort of -- you'd have to sort of design these
9 to open at specific -- you know, as to creating,
10 you know, you know -- planning out -- you know, so
11 if you open them all at once, you're shutting
12 down -- you know, because operating them, simply
13 put, it'd be operationally almost impossible to
14 schedule those in an efficient way.

15 Q. So what would happen to the modeler?
16 How could you use the model to test say if the
17 Coast Guard changed the law to give Amtrak trains
18 preference over the water vessels? How might you
19 explore that what-if question?

20 A. So in that situation what would be
21 happening is if a -- a passenger train was
22 approaching the bridge and a vessel approached the

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1840

1 bridge, that bridge, instead of opening, it would
2 remain closed. And so what that does is it shifts
3 that opening from when the passenger train, you
4 know, would be there to after that. So it's --
5 it's sort of shifting the openings.

6 Q. So could you describe how you might --
7 somebody, whether it's Amtrak's experts or the
8 board's experts or you, might take your work
9 papers and try and see what happens to the model
10 if you automated all of the bridges and you gave
11 Amtrak preference over the water carriers?

12 How -- how might you use your work
13 papers to explore that possibility?

14 A. So what you could do is go into our
15 permit -- the PERMIT files. Those are the files
16 that I used to represent the bridge openings. So,
17 you know, it's a -- basically a moment of time
18 when the track is unavailable. I can set the
19 basically speed to be unlimited for passenger
20 trains representing sort of that passenger train
21 never being impacted directly by the bridges.

22 This doesn't fully represent the

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1841

1 shifting of those openings but it would -- would
2 give you a fair guess of what would happen.

3 Q. And what would you do with the bridge
4 tenders?

5 A. You would remove them.

6 Q. How long would that type of inquiry
7 take you to do?

8 A. Again less than a day.

9 Q. So have you done that inquiry?

10 A. I have.

11 MR. ATKINS: So, Chairman, my next
12 question I'd like to ask, but I want to give Ms.
13 Bracey an opportunity object, would be is to
14 disclose when you take the bridge tenders out and
15 give passengers trains preference in 2039. But I
16 appreciate this is -- you know, we've explained
17 the work papers, I'm happy to -- to report out the
18 results, but I want to give Ms. Bracey an
19 opportunity to offer any concern she has.

20 CHAIRMAN OBERMAN: Well, let me --
21 first of all, let me make sure I understand the
22 question. I think you -- the way I heard you

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1842

1 discussing this, Ray, is that you combined two
2 concepts: one was automating the bridges that
3 haven't been automated yet, or the ones that, as I
4 remember the testimony, not all the bridges could
5 ever be automated, only some, so I'm not sure how
6 many bridges were taken into account, and then
7 that would eliminate the high-rail movements for
8 those bridge tenders.

9 MR. ATKINS: Right.

10 CHAIRMAN OBERMAN: And then - then
11 secondly you talked about a preference for Amtrak
12 over ships. So is your question about an RTC
13 study that covered all of those things in one
14 swoop or did he do it one at a time?

15 THE WITNESS: He did them both -- he
16 did them both -- I'll -- I'll offer my question:
17 what impact if any did the supplemental modeling
18 have on the projected level of congestion, and
19 it's for both of those combined.

20 CHAIRMAN OBERMAN: And is it -- does it
21 include all of the non-automated bridges being
22 automated?

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1843

1 MR. ATKINS: Correct, yep, we took all
2 the bridge tenders out.

3 CHAIRMAN OBERMAN: And this is only for
4 2039?

5 MR. ATKINS: Correct.

6 MS. BRACEY: We're now moving on --

7 CHAIRMAN OBERMAN: Wait, let me just
8 finish. And it is with --

9 MS. BRACEY: My apologies.

10 CHAIRMAN OBERMAN: -- the 14 projects
11 included?

12 MR. ATKINS: No. It's the -- it's the
13 passenger only -- it's trying to see what is the
14 impact of putting passengers on in 2039 --

15 THE WITNESS: Is with the projects.

16 MR. ATKINS: -- with the projects.

17 Yes, with the projects.

18 THE WITNESS: Yes. The question is
19 would this change the projects.

20 MR. ATKINS: Yeah.

21 CHAIRMAN OBERMAN: Well, so the
22 question is did he run it with the projects, the

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1844

1 2039 build case but now adding in these changes on
2 the bridge tenders you just described?

3 Is that correct?

4 MR. ATKINS: Correct.

5 CHAIRMAN OBERMAN: -- question?

6 MR. ATKINS: Correct.

7 CHAIRMAN OBERMAN: All right, Ms.

8 Bracey, would you like to be heard on this?

9 MS. BRACEY: Yes, sir. I believe this
10 is new analysis that hasn't been disclosed prior
11 to the hearing.

12 CHAIRMAN OBERMAN: I think it is. Mr.
13 Atkins describes it as such. Are you objecting?

14 MS. BRACEY: I am, sir.

15 CHAIRMAN OBERMAN: The Port.

16 MR. WIMBISH: We do not have any
17 objection.

18 CHAIRMAN OBERMAN: Well, I think
19 this -- I will tell you my view -- and we're in a
20 public record, I don't see any reason why the
21 board can't just discuss this publicly -- I'd like
22 to know the answer to this question. There is a

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1845

1 lot of studies that haven't been done that I'd
2 like to know the answer to, which we'll probably
3 have a discussion about, Ray, before the
4 post-hearing era comes in.

5 I think that Amtrak's objection is well
6 taken in terms of not being able to be prepared to
7 respond to it, so one possibility is to allow the
8 answer subject to Amtrak's objection -- objection,
9 and as this hearing plays out, to see if there is
10 a way that prejudice to Amtrak's case can be
11 eliminated by giving Amtrak an opportunity to
12 adequately pursue the questions, you know, the
13 cross or the challenge to whatever Mr. Dingler is
14 going to say. And if that can't be done, we can
15 certainly strike it from the record as another
16 option before the case is concluded. There may be
17 other alternatives...

18 But what I'd like to do is ask the
19 board members -- I guess it's a two-part question:
20 A, would you like to know the answer, and B, do
21 you think that we should permit the answer to be
22 given at this hearing given -- I would say this,

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1846

1 in my opinion, but for the notion that I think
2 it's important information for the board to hear,
3 I think Amtrak's objection should be sustained.
4 But I'm trying to figure out a way for us to hear
5 it and preserving Amtrak's rights not to be
6 prejudiced.

7 So let me ask the board members. Do
8 you feel like opining? If you let me decide it by
9 myself I will.

10 MEMBER FUCHS: Marty?

11 CHAIRMAN OBERMAN: Yeah.

12 MEMBER FUCHS: I'm wondering if we can
13 give Ms. Bracey an opportunity to respond before
14 we weigh in.

15 CHAIRMAN OBERMAN: You mean to the
16 suggestions I made? That's fair.

17 MEMBER FUCHS: Yes, please.

18 MR. ATKINS: I wouldn't mind an
19 opportunity to weigh in too.

20 MEMBER FUCHS: Thanks, Ray.

21 CHAIRMAN OBERMAN: All right.

22 MEMBER FUCHS: Good point.

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1847

1 CHAIRMAN OBERMAN: And listen, the
2 one -- before we do that, does any board member
3 have an alternative procedural move that the
4 parties can respond to? That's really what I was
5 fishing for here, Patrick. I'm -- I'm not the
6 endless fount of solutions here. There may be
7 better ones. If no one has any, why don't we give
8 Ms. Bracey a chance to respond and --

9 MEMBER PRIMUS: Marty, I'm sorry,
10 Marty. I was going to say that if we could give
11 both parties a chance to review it before we
12 bringing it back up. I mean, if -- if Mr.
13 Dingler's coming back, and if it's -- it's assumed
14 that he is, can -- can they have that conversation
15 and wait before -- you know, have that
16 conversation, see if they can resolve it between
17 the parties before -- before we have to decide?

18 CHAIRMAN OBERMAN: I think -- except I
19 think Ms. Bracey will want to know what the
20 information is before she decides how to deal with
21 it. I plan to do that, so.

22 MEMBER PRIMUS: I figure, can't they

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1848

1 talk about it and then sort of get back to us
2 maybe tomorrow.

3 CHAIRMAN OBERMAN: If they can -- if
4 they're willing to, they can. I can't make them
5 talk.

6 MEMBER PRIMUS: Just a suggestion.

7 CHAIRMAN OBERMAN: No, it's a worthy
8 suggestion.

9 Ms. Bracey?

10 MS. BRACEY: Yes, we can also reserve
11 our rights and we can also have some short
12 briefing on it, as well.

13 CHAIRMAN OBERMAN: All right.

14 THE WITNESS: But are you saying with
15 or without hearing the answer today?

16 MS. BRACEY: Without hearing the
17 answer.

18 CHAIRMAN OBERMAN: Ray, would you like
19 to be heard on it?

20 MR. ATKINS: So I -- I -- so I would
21 make two observations: one is you've been asking a
22 lot of questions about modeling that we or did

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1849

1 not -- that are not in the report. So we -- we
2 can't -- and asking what the implications would
3 be. So I think this is a natural follow-on. I
4 would also observe what Mr. Dinger started with
5 was walking through all the work papers so that
6 your staff could do this and so can Mr. Crowley
7 and Mr. Fapp. And they're not going on until May.
8 So if they would like to go into the work papers
9 and look at -- you know, rerun the analysis for
10 2039 and want to offer a different conclusion
11 about what the model shows, they -- they have a
12 full opportunity to do so in their direct
13 testimony. All we want to do is tell the board,
14 if you make these changes, what does the RTC model
15 tell you? We're not going to advocate any more,
16 but we -- we think that you should know what the
17 implications are, and if Crowley and Mr. Fapp
18 can't figure it out, well, that's -- that's on
19 them. That's not on us.

20 CHAIRMAN OBERMAN: Well, that may be,
21 but in fairness, Ms. Bracey and perhaps other
22 counsel may want the advantage of not only knowing

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1850

1 what Mr. Dingler is going to say before it goes
2 into the record but working with their own experts
3 to prepare to cross-examine them on the subject.
4 I don't presume to anticipate how Ms. Bracey and
5 Ms. Amunson want to try their case. If I was
6 trying the case, I might want to talk to my own
7 experts to be prepared to cross.

8 So I could see the advantage of doing
9 that. I -- I'm going to -- let me just say this:
10 There may be -- we've already talked about other
11 studies that haven't been done here in this
12 testimony and there may be other such subjects
13 that come up for further work that witnesses may
14 either do or be asked to do. So, this may not be
15 the only new piece of evidence that the parties
16 are going to have to grapple with. But I -- I'm
17 not suggesting any order or ruling by the board
18 because none of us have decided anything along
19 those lines. We haven't even discussed it. But
20 certainly there have been a lot of questions
21 raising, for example, the 2019 FRA case and so
22 forth.

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1851

1 So I -- I think in fairness to Amtrak,
2 I'm going to sustain the objection -- objection
3 for the time being and I think that Robert's
4 suggestion is a good one. Perhaps you and Ms.
5 Bracey and Rob can have a discussion tomorrow
6 about how to proceed with this.

7 One possibility, Ray, is to disclose to
8 the other parties what Mr. Dingler's testimony
9 would be on this subject. When we get back, maybe
10 they like it, so they'll withdraw their objection,
11 or they'll know whether they need to be prepared
12 to respond to it and what they need to do, or
13 persist in their objection. But I think it's hard
14 to ask counsel to make a judgment on behalf of
15 their client in the dark.

16 MR. ATKINS: So chairman, I'd be happy
17 to take Ms. Bracey up on that opportunity. I'm
18 sure we're going to be talking tomorrow about
19 schedule anyways.

20 CHAIRMAN OBERMAN: Yeah.

21 MR. ATKINS: So why don't I withdraw
22 the question and if there is an opportunity -- and

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1852

1 we will -- we'll discuss with Ms. Bracey and --
2 and Mr. Wimbish and see if we can reach a
3 reconciliation.

4 CHAIRMAN OBERMAN: Yeah, I think it's
5 worth the effort. I think Robert made a very good
6 suggestion. So let's leave this question hanging
7 for the moment and we will -- well, if progress or
8 a decision is made we will deal with it Thursday,
9 and if we need more work, there's still time, so.

10 MR. ATKINS: That makes sense. I'm
11 going to turn to my next topic and the same
12 question is going to come up at the end of this,
13 but I will -- I will reserve the final question in
14 that is as well for my conversation with Ms.
15 Bracey.

16 BY MR. ATKINS:

17 Q. So Mr. Dingler, I want to talk to you
18 the last -- there's been a lot of talk about
19 shortening trains on the line and whether or not
20 that could improve the overall fluidity of the
21 line.

22 So can you -- first can you describe

1 just generally how shortening a train length could
2 improve the fluidity of the line.

3 A. So what you would do is, by shortening
4 trains you have -- are better able to fit into the
5 existing sidings.

6 Q. So can you describe how shortening
7 trains might actually harm the fluidity of the
8 line?

9 A. The number of cars does not change, so
10 if you are shortening trains, by definition you
11 have to increase the number of trains.

12 Q. Can the RTC model test that -- that
13 question of which of these competing effects is
14 going to be larger?

15 A. Yes.

16 Q. Can you describe how the RTC model
17 might do that?

18 A. So, you can go into RTC and determine
19 sort of a new train length, so you can look at
20 sort of the existing trains in the line, you have
21 the existing sidings on the line and determine
22 sort of a, you know, a maximum siding length and

1 then which trains would no longer fit.

2 Q. So if we -- if we think about your work
3 papers, if you were asked to undertake this type
4 of inquiry, could you start with 2019 and walk
5 through how you would first identify a limit on
6 the train length what you might impose from your
7 work papers?

8 A. So in the work papers we have -- or in
9 my report I have the lengths of sidings and the
10 clear length. So what's important here is the
11 clear length, clear of -- of sidings, as well as
12 the length of the siding itself, as we've talked
13 about grade crossings previously. So then -- then
14 you can look in my work papers, the existing size
15 of trains on the corridor and sort of adjust
16 those -- those train sizes to a new maximum
17 length.

18 Q. And in your opinion what might be a
19 reasonable maximum length to impose, given the --
20 the lengths of the sidings in this -- on this
21 corridor, for this type of hypothetical inquiry?

22 A. Considering you do this in conjunction

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1855

1 with passenger traffic, to ensure that you could
2 fit in the sidings clear crossings, about 7,500
3 feet.

4 Q. Was there any particular crossing that
5 kind of drew your -- that you really wanted to
6 make sure they could fit into and if so which one
7 was it?

8 A. There is a -- a section between Gautier
9 and well Claiborne effectively that has the
10 crossings. There's very limited location, I think
11 6,000 feet clear of crossings. And so we went
12 beyond that but that is sort of the constraint of
13 the corridor.

14 Q. What if anything would you have to do
15 to the number of trains if you shortened them to
16 7,500 feet?

17 A. You'd be would effectively cutting two
18 of them in half or more.

19 Q. And this would be in 2019?

20 A. Yes.

21 Q. What would happen in 2029 -- sorry '39
22 if you limited the train length to 7,500 feet?

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1856

1 How many more trains would you have to add?

2 A. In -- in that case, you know, when we
3 added in the CSX crew, we extended the trains. So
4 we're going from two. You'd have four trains that
5 you'd have to shorten.

6 Q. Mr. Dingler, do you actually perform
7 this analysis in preparation for this hearing?

8 A. I did.

9 MR. ATKINS: So I'm not going to ask
10 the question, Ms. Bracey. I think you and I can
11 just talk about whether it would be appropriate
12 for me to ask the -- the supplemental
13 follow-up question and we could just loop it into
14 the -- the issue about bridge tenders, if that's
15 no -- if there's no objection to Chairman Oberman
16 or members of the board or -- or Amtrak's counsel.

17 MS. BRACEY: No objection.

18 CHAIRMAN OBERMAN: Well, I -- I think
19 the same concerns that we discussed in the last
20 question apply equally here.

21 MR. ATKINS: Mm-hmm.

22 CHAIRMAN OBERMAN: I'd like to ask a --

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1857

1 a couple of questions if I could on this specific
2 point, Ray.

3 MR. ATKINS: Yep. Please go ahead.

4 CHAIRMAN OBERMAN: Are the trains that
5 are longer than the sidings -- I guess there's two
6 12,000 foot trains -- are those trains that you'd
7 pick up on interchange in Gentilly or in
8 Montgomery or are those your own trains that
9 initiate on -- originate on this line?

10 THE WITNESS: So on CSX there were two
11 trains that were -- were longer. These -- they
12 weren't 12,000 feet but one was, you know, 11,000
13 something. I can't remember the other one
14 exactly. But two longer than 10,000 feet. You
15 know, they build all these trains for Gentilly and
16 interchange. It is my understanding -- I -- I
17 can't speak for CSX -- but my understanding is all
18 the interchange trains come into Gentilly and are
19 broken up and rebuilt as new trains.

20 CHAIRMAN OBERMAN: So they don't come
21 in as 11,000 foot trains. You put them together
22 in Gentilly.

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1858

1 THE WITNESS: That is my understanding.

2 CHAIRMAN OBERMAN: All right. And
3 would it also be possible to run the model so that
4 the long trains run at a time of day that doesn't
5 include any of these four passenger trains, either
6 at night or early in the morning? I think these
7 trains all run during the day, the passenger
8 trains?

9 Could you do at that, too?

10 THE WITNESS: One of these trains in
11 the model is in the morning and one is in the
12 evening. So, you have limited opportunities to
13 move these. You know, RTC in itself is
14 effectively doing that. You know, the dispatching
15 in the model is moving these trains so that they
16 can, you know, operate apart from passenger
17 service.

18 CHAIRMAN OBERMAN: So are these longer
19 trains not on this 140 mile line when four new
20 passenger trains are going through?

21 THE WITNESS: No, because there's no
22 place to hold them. So they're often held at

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1859

1 either Mobile or at Gentilly.

2 CHAIRMAN OBERMAN: So why are they even
3 relevant to this study if they're not there when
4 the passenger trains are going through?

5 THE WITNESS: Because they operate
6 there today, and so, you know, the -- the study is
7 to consider the introduction of passenger service
8 on sort of an existing corridor.

9 MR. ATKINS: Chairman, can I --

10 CHAIRMAN OBERMAN: I thought you told
11 me they don't run though when the passenger trains
12 run? So what difference does it make?

13 THE WITNESS: Yeah, let me clarify
14 that.

15 So yes they operate and so you're
16 modeling a full day of simulation, so throughout
17 the day. And again I mentioned sort of time of
18 day impacts is, you know, important when -- when
19 thinking through the impact. And so the model is
20 effectively shifting these trains. You know, it's
21 going to have to hold that train at either end
22 when these passenger trains are operating. That

1 has an effect on other freight trains on the
2 corridor.

3 CHAIRMAN OBERMAN: So are you telling
4 me that the model you reported to us on the
5 November 3rd report already moved the long trains
6 off of the lines at the same times that the
7 passenger trains are on the lines?

8 THE WITNESS: If it was operating at
9 that time, there's -- there's a lot of variability
10 in the model. It would -- there is -- there is no
11 sidings to hold those trains. So in effect -- the
12 model, in its sort of dispatching logic, would be
13 holding those trains, effectively making an
14 operational change so that those trains can
15 operate at the same time.

16 CHAIRMAN OBERMAN: Well, that's the
17 next question I had. We'd been hearing about -- I
18 thought you and the other witnesses had made clear
19 that the RTC model didn't employ operating
20 changes. But apparently it did here. I'm
21 confused.

22 THE WITNESS: Yeah, so let me -- so,

1 this is the -- the operating plan for sort of
2 operations. And so we did not make operating plan
3 changes which is sort of the schedules of these
4 changes. And so, you know, sort of the model
5 takes that operating plan. It, you know,
6 dispatches them and sort of -- that -- that
7 umbrella term you could consider to be called
8 operations. Anything -- any time you make a
9 change to the model you are in effect changing,
10 you know, the dispatching of the model. We did,
11 you know, changing of schedules was not
12 considered, but, you know, the nature of, you
13 know, these studies changed the operations on the
14 corridor once passengers are introduced to the
15 study.

16 CHAIRMAN OBERMAN: Well, if the long
17 trains are not on this line during the hours that
18 the passenger trains are on the line, why do you
19 need to build ten-, 12,000 foot sidings to handle
20 the long trains? They never have to be put on the
21 siding because they aren't there.

22 THE WITNESS: But there -- you know,

1 they are during those time periods if passenger
2 was not out there. And so they are experiencing
3 significant delay waiting for those passenger
4 trains to pass.

5 CHAIRMAN OBERMAN: Well I thought you
6 said the model put them aside, and now you're
7 saying it's building sidings so they aren't put
8 aside. So I -- I -- I'm confused. Which is --
9 which is it?

10 THE WITNESS: So that -- you know, so
11 in how we looked at these cases, we're comparing
12 sort of the difference between sort of your --
13 your scenario or what-if, which would be the
14 passenger scenario, if you, you know, build no
15 projects and the -- the base case. So the way
16 that -- that sort of change shows up is an
17 increase in delay. So those specific trains have
18 a large increase in delay to force them not to
19 operate during that time period.

20 So it goes back to a definitional
21 issue.

22 CHAIRMAN OBERMAN: It's almost

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1863

1 metaphysical in my view. You assemble a train in
2 a yard...

3 THE WITNESS: Mm-hmm.

4 CHAIRMAN OBERMAN: And you say that
5 train's going to leave at 9:00 in the morning and
6 now I'm going to hold it 'till 4:00 in the
7 afternoon so it doesn't interfere with passenger,
8 right? But if you organize the railroad to
9 assemble that train so you plan for it to leave at
10 4:00 o'clock, then there's no delay at all.

11 THE WITNESS: There -- there is, you
12 know, an impact to other locations, impact to the
13 cars on that train. But we -- the -- the trains
14 weren't moved that much. You know, it's -- it's,
15 you know, a couple of hours we're experiencing
16 delay. They're often pulled out. You know, there
17 is congestion in those yards. You know, the train
18 would sit, you know, at Michoud or other
19 locations.

20 CHAIRMAN OBERMAN: Well, I -- I guess
21 I'm -- I find this all very confusing so either
22 I'm missing something or it doesn't make sense or

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1864

1 it's a combination of both. And I'm open to the
2 idea that I'm missing something. But, if the RTC
3 model says, we're going to move these long trains
4 off of the line during the hours that Amtrak's
5 trains run, then couldn't you -- wouldn't it make
6 sense to take the long sidings out, because
7 they're only there for these long trains, as I
8 understand it, and then see how the thing runs and
9 see what kind of delays you get. Because the only
10 delay -- and again I -- to me it's almost a
11 metaphysical question, because it's when the
12 railroad decides it wants the long trains to run
13 in the first place -- is holding them at the
14 Gentilly yard, don't leave until the passenger
15 trains are done...

16 So, couldn't we run the RTC model that
17 way and just say, let's take these very long
18 sidings out for those long trains, we don't need
19 them, because the long trains are going to go at
20 6:00 in the morning or 10:00 o'clock at night or
21 whatever -- you know I'm just -- hypothetically,
22 whatever the hours are, that avoids the conflict

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1865

1 with passengers, couldn't you do that.

2 THE WITNESS: Theoretically you could.

3 There are limited hours of the day that, you know,
4 other -- you know, these passenger trains do take
5 up a fair bit of time during the day.

6 CHAIRMAN OBERMAN: No, I know they do
7 but every time I have talked to the railroads,
8 including yours, about, for example, the Port
9 problems, I am impressed with the fact that
10 railroads are 24/7-365. So if you organized your
11 rail traffic so that long trains were supposed to
12 originate at these other hours, they wouldn't be
13 delayed and all the shippers who get their stuff
14 on the long trains could adjust their schedules,
15 too.

16 I -- I just don't understand why this
17 is so hard.

18 THE WITNESS: Yeah. Just -- just one
19 point of clarity. I -- I don't speak for CSX.
20 I'm not an employee of CSX. I was hired by CSX
21 and NS to perform this modeling. I am -- I'm not
22 an advocate for either side of this. You know,

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1866

1 so, you know, I'm not a member of CSX.

2 CHAIRMAN OBERMAN: No, no, I -- I
3 understand that. But you know about trains. You
4 know about trains. You know more than I know
5 about trains and I'm just raising a question of
6 why these other avenues can't be explored. And
7 from your point of view they could be explored by
8 your adjusting the model and then running the
9 model in different ways, right?

10 THE WITNESS: You can put lots of
11 things in the model that may not be -- you know.
12 That may be feasible or have impacts. The one
13 danger is this model goes to Montgomery. These
14 impacts would -- shifting those schedules would
15 have impacts up to Nashville and Waycross and all
16 other parts of the CSX network. It would also,
17 some of these trains in Gentilly, their departure
18 times are tied to their arrivals from Norfolk
19 Southern from those other carriers. There's a
20 whole host of variables that I am unaware of with
21 those things.

22 So it's -- it's not as simple as sort

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1867

1 of moving a train. There are -- you know, you
2 have to know the cars on the trains and when they
3 are arriving, where they're going, and those
4 factors.

5 CHAIRMAN OBERMAN: Well, I would only
6 say it's more relevant to our next hearing than
7 this hearing, but if I thought avoiding a two-hour
8 delay in a long train would really help the
9 freight network on NS and CSX, I'd be all for it.
10 But given the problems we've been hearing, I don't
11 know that two hours helps anybody.

12 Anyway, it's just the question that may
13 lead to further study I guess is all we're getting
14 at. But this -- your -- your answers are -- are
15 very helpful to try to understand the problem. At
16 least -- at least they're helpful to me.

17 Michelle has a question, I see it.

18 MEMBER SCHULTZ: I do. Just to follow
19 up on a question from Marty where he talked about
20 running the longer trains at different points
21 throughout the day.

22 Do the needs of your customers factor

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1868

1 into the decisions that you make in terms of
2 timing of --of running your -- your trains?

3 THE WITNESS: I said, I've never
4 scheduled cars, you know, or the blocks on a car.
5 I -- I can't speak to that.

6 MEMBER SCHULTZ: Okay, thanks.

7 MEMBER FUCHS: Do you have any
8 examination of interchange points, of schedules at
9 other points in the network, or -- or anything of
10 that sort?

11 THE WITNESS: Can you -- you ask the
12 question again? Sorry, you got cut off.

13 MEMBER FUCHS: You -- you talked about
14 collateral effects. Is there anything that you've
15 contributed that speaks to what those collateral
16 effects are?

17 THE WITNESS: You'd have to create sort
18 of an RTC model for those - those corridors and
19 understand how shifting trains, you know. The
20 other thing to keep in mind is there is a lot -- a
21 lot of sort of variability out there. And so, you
22 know, freight trains don't run like a passenger

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1869

1 schedule. They're not going to show up at 8:05
2 every single day. You know, they're going to --
3 there's -- there's natural variability of trains
4 there, especially when they're coming a long
5 distance. So, you know, it's not as easy to sort
6 of shift a schedule because of the natural
7 variability --

8 CHAIRMAN OBERMAN: Is it -- is it -- is
9 it possible that some of the train holdings that
10 are in the RTC model could have effects that
11 reverberate beyond the study area?

12 THE WITNESS: In a passenger case,
13 absolutely. So if you -- you have severe
14 congestion in Gentilly, you might hold trains in
15 Mobile. If there's congestion in Mobile, you're
16 holding those trains back in Montgomery. You
17 know, that's how -- you know, sort of -- it's sort
18 of a pull operation. You're not able to pull that
19 train forward to the next yard if it is blocked
20 up. So, yes, there could be cascading effects
21 throughout CSX and NS network.

22 MEMBER FUCHS: Thank you.

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1870

1 CHAIRMAN OBERMAN: If you would, just
2 a -- this all sounds like a Rubik's Cube to me,
3 Mr. Dingler, which I've never been able to solve.
4 It does strike me that, to really answer these
5 inquiries, someone has to -- and I assume someone
6 like you -- has to kind of -- this is not a
7 professional term -- play around with the model:
8 what if we do this, what if we do that, and see if
9 you can't fit all the same colors on the cube on
10 the same side with -- and getting out of the way
11 of the passenger trains. It does not sound to me
12 like that kind of effort was undertaken here.

13 THE WITNESS: No, but it is generally
14 best practice not to make any serious changes to
15 the -- the -- the freight schedules. As we
16 discussed, you know, you don't -- the customers,
17 with the local traffic with the connections with
18 these trains, those have -- can have sort of
19 severe impairment, you know, across the CSX and NS
20 network.

21 CHAIRMAN OBERMAN: Now -- but in fact,
22 just to -- to finish here, Mr, Hunt described a

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1871

1 situation the other day, and I'm -- I'll ask
2 actually how it worked. I know there's a dispute
3 between Amtrak and the railroads on this -- but he
4 described what he said did not happen here, and
5 that is everybody on all sides gets in the same
6 room and looks at the same commuter monitor and
7 then you go through the kind of process that I was
8 struggling to describe and say well, why don't you
9 put this train over here and then see what
10 happens, and then run this one later and see what
11 happens, and that it is a cooperative effort to
12 get all the colors on the Rubik's Cube on the same
13 side, and he said that process did not happen
14 here. He blames Amtrak. I'm not looking at blame
15 right now. I'm trying to understand the process.

16 Do you see it the same way?

17 THE WITNESS: So on this corridor, some
18 of those opportunities not -- aren't as readily
19 available as they might be in other locations, you
20 know, due to some of the -- the many sources of
21 variability we talked about. So, yeah, there may
22 be, you know -- and the thing you have to be

1 careful with is I can put things in RTC that just
2 aren't possible. You know, you always have to use
3 your judgment, understanding of the operations.
4 And so, a cooperative effort is always better.
5 You know, there are things like we could have
6 looked at passenger schedules or some of those
7 things, if, you know, if there had been a
8 cooperative effort.

9 CHAIRMAN OBERMAN: Well, Mr. Hunt
10 seemed to suggest that that was a huge gap what
11 happened here, and that it should have been done
12 and should still. I think he said it should still
13 be done. You know, before we spend the \$507M of
14 taxpayers' money, it seems that every possible
15 solution could be explored on all of these bases,
16 and for whatever reason it doesn't seem on either
17 side that they have all been fully explored.
18 There's been a lot of exploration but I'm not sure
19 the exploring's done.

20 THE WITNESS: I said, I'll also defer
21 to Mr. Hunt on that. I was brought on with the,
22 you know, the view of this litigation, this case,

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1873

1 and so, you know, that -- that does change that
2 and make it a little better.

3 CHAIRMAN OBERMAN: Yeah, yeah, I
4 understand that. And I -- I don't mean to suggest
5 in the middle of the litigation there's a way to
6 approach things, that the litigation does change
7 the tenor. I'm just trying to understand
8 factually how we might go forward. So thank you.

9 MEMBER FUCHS: And Marty --

10 Mr. Dingler, when you said best
11 practice is to look at infrastructure changes and
12 not simulate all the schedule changes, you meant
13 best practice with modeling passenger rail
14 additional trains not best practice in terms of,
15 you know, if the freights were at -- if a freight
16 railroad were to add say for example a priority
17 intermodal train, best practice would be to
18 simulate scheduling changes, routing changes,
19 train link changes and that sort of thing before
20 infrastructure.

21 So you were you only referring to the
22 modeling of passenger additions, right?

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1874

1 THE WITNESS: That is correct.

2 Operational changes may have sort of
3 operational costs, you know, and if you're
4 controlling both levers, you know, there's
5 different decisions you can make.

6 So, yeah, it is -- yeah.

7 MEMBER FUCHS: I just wanted to
8 clarify. Thank you.

9 MR. ATKINS: So chairman, we -- we've
10 hit the 5:00 o'clock hour --

11 CHAIRMAN OBERMAN: Is there something
12 you wanted to wrap you here or do you -- is this a
13 natural place.

14 MR. ATKINS: So I think this is a
15 perfect natural place. I may not have much to
16 start tomorrow morning but I would love an
17 opportunity to talk with Amtrak's counsel about
18 some of the residual issues, and if I have nothing
19 more, then we'll end his direct. But --

20 CHAIRMAN OBERMAN: Okay, you're near --
21 you are near the end of the direct?

22 MR. ATKINS: Yes, absolutely, Chairman.

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1875

1 Can I just get two seconds to consult
2 with my cocounsel. They're flagging me. They
3 may -- they may want me to raise an issue.

4 CHAIRMAN OBERMAN: All right. And --
5 and also, Ray, I'd like to raise the -- a couple
6 of more hearing days before we leave today, so
7 people can be looking --

8 MR. ATKINS: Okay.

9 CHAIRMAN OBERMAN: -- at their
10 calendars before Thursday.

11 MR. ATKINS: Chairman, that's what
12 everybody behind the screen was wanting to talk
13 about.

14 So, you know, so if we an -- if it's
15 okay to excuse Mr. Dingler with the -- you know,
16 standard, you know, nobody is to discuss his
17 testimony. I can assure Amtrak no one is going to
18 talk to Mr. Dingler and he doesn't want to talk to
19 the lawyers. We can excuse him and then maybe you
20 could just -- we could wrap up with a discussion
21 about schedule.

22 CHAIRMAN OBERMAN: We can absolutely do

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1876

1 that.

2 Mr. Dingler, you're on your own for the
3 next 36 hours. We'll see you on Thursday.

4 THE WITNESS: Sounds great. Thank you.

5 CHAIRMAN OBERMAN: Thank you. And
6 you -- and you shouldn't talk about your testimony
7 with anybody, not only the lawyers but anybody
8 else.

9 THE WITNESS: Understood.

10 CHAIRMAN OBERMAN: Okay.

11 (Witness is excused for the day.)

12 CHAIRMAN OBERMAN: All right. So we
13 have some dates that the board members have
14 arranged our schedules for. We don't know what
15 your reaction is. So do you want me to throw
16 those out and then we can have this discussion,
17 Ray, or did you want to consult in private with
18 other counsel?

19 MR. ATKINS: No, I mean I -- we've
20 already cleared that the 9th and the 11th works
21 for Norfolk Southern and CSX.

22 CHAIRMAN OBERMAN: Okay.

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1877

1 MR. ATKINS: My -- my only observation,
2 Chairman, is we're trying out best to get
3 this thing done by the 9th or 11th, but I think,
4 just to be conservative, I -- I would ask the
5 board if it were possible to squeak some -- either
6 squeak some time in the first week of May or maybe
7 start some of these proceedings a little -- just a
8 little bit earlier because I'm concerned that by
9 the 11th we won't be done. But we're available.
10 The 9th and 11th works for CSX, works for Norfolk
11 Southern.

12 CHAIRMAN OBERMAN: Well, what about
13 Amtrak?

14 MS. AMUNSON: Amtrak's counsel and all
15 witnesses, other than Mr. Crowley, are available
16 on May 9th and 11th.

17 CHAIRMAN OBERMAN: All right. Can
18 we -- one would hope that you would get to Mr.
19 Crowley before the 9th, so maybe you could put him
20 on first if that works, or at least on one of the
21 days before that. That would be -- well, I guess
22 that would be Monday and Tuesday. Maybe I'm being

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1878

1 optimistic.

2 So what you're suggesting -- the week
3 of May 2nd does not work. We can strive to find
4 another date. I'm not sure when that can be, but
5 we'll look. And, Ray, I'm not sure either, you
6 know, about the idea of finishing on the 9th or
7 11th -- and 11th. We'd like a finish by then,
8 too, but I'd rather make sure that everybody has a
9 full opportunity to make their cases than to
10 squeeze things in. And starting early has merit
11 but these are long days. Some of us are longer
12 than others. So we have to be realistic about
13 just stressing out your team, our team. So I'm a
14 little reluctant to start earlier than 9:30, but
15 we'll take -- we'll take it up. I don't know that
16 the extra half hour every day is going to save us
17 a whole day some place in the future but it's
18 possible.

19 MR. ATKINS: Chairman, could I just get
20 a clarification from Jessie, just -- just to make
21 sure I understood. Mr. Crowley is not available
22 on either the 11th or the 9th or just the 9th?

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1879

1 MS. AMUNSON: He's not available the
2 whole week of May 9th.

3 MR. ATKINS: Okay. Thank -- thank you.

4 CHAIRMAN OBERMAN: Okay. Well,
5 let's -- it's all going to work on our schedules
6 tomorrow and --

7 MR. WIMBISH: Mr. Chairman, if I may.
8 I'm sorry to interrupt you.

9 CHAIRMAN OBERMAN: Who's speaking? I
10 can't see.

11 MR. WIMBISH: I'm sorry, this is Rob
12 Wimbish on behalf of the Port.

13 CHAIRMAN OBERMAN: Yeah, Rob?

14 MR. WIMBISH: I wanted to check in with
15 you and let you know first of all that, to the
16 extent that they are needed, the Port's witnesses
17 would be available on May 9th or -- and the 11th.
18 So we have checked with them on that. I'm hoping
19 that by that point they will not be needed to
20 testify and of course the Port's counsel will also
21 be available on those dates.

22 Port's counsel is available on the 14th

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1880

1 but, as I had mentioned last week, the Port's
2 witnesses, Mr. Golden and Mr. Driscoll, are not
3 available on the 14th but they are planning to be
4 available on the 18th and as needed on the 19th of
5 April.

6 CHAIRMAN OBERMAN: So that should work
7 because it's hard to imagine that Ray will finish
8 on the 14th in time to get your witnesses on.

9 MR. WIMBISH: Understood. We just
10 wanted to make sure that you were aware of that
11 situation. If it turned out that we were
12 fortunate enough to move ahead with other
13 witnesses beyond the ones that Ray has in mind, we
14 would probably have to look to -- to Amtrak if
15 they can to take over that gap on the 14th, if one
16 is -- if one emerged.

17 CHAIRMAN OBERMAN: Let me say this,
18 Rob. The notion that Mr. Dingle's going to be
19 finished and Mr. Guthrie's going to be finished,
20 that's the last -- is that the end, Ray, your
21 witnesses?

22 MR. ATKINS: Yes, sir.

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1881

1 CHAIRMAN OBERMAN: Seems unlikely but I
2 suppose it's possible.

3 So, Amtrak's counsel, why don't you
4 think about filling in a couple of hours if we
5 really did finish early Thursday so we don't lose
6 the afternoon.

7 It seems unlikely, but it would be
8 great if you could -- could start it. So if you
9 can't, you can't. But we are looking, you know,
10 for time slots here to fill.

11 MR. WIMBISH: Also, Mr. Chairman, if I
12 can point out, we're fortunate in this proceeding
13 in that the participants are all -- except for
14 today anyway, I -- I'm speaking to you from --
15 from the west coast. Starting at 9:30 Eastern
16 time is fine when you have folks that are all
17 either on Central or Eastern time; a little bit
18 more of a challenge when you have folks that are
19 on Pacific time.

20 CHAIRMAN OBERMAN: Agreed. Let's try
21 to avoid that. So, all right.

22 MR. ATKINS: Chairman -- Chairman, one

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1882

1 other point of clarification, just for my benefit.
2 On the 9th and 11th will that be in person or will
3 it be at the board's offices in DC?

4 CHAIRMAN OBERMAN: Yeah, right now we
5 are aiming for that to be in person in our hearing
6 room.

7 MR. ATKINS: Thank you.

8 CHAIRMAN OBERMAN: There are possible
9 technical difficulties that'll keep that from
10 happening. I think they should be resolved and
11 the virus hasn't told us what it wants to do on
12 May 9th yet. So, you know, if we go away to
13 Philadelphia, maybe not. But our hope is that
14 those will be in person.

15 MR. ATKINS: Thank you, Chairman.

16 CHAIRMAN OBERMAN: I will -- I will say
17 this by the way, and I'll will speak for myself on
18 that subject, if the CDC or the City of Washington
19 reinstate indoor mask mandates, as much as I'd
20 like to be in person, I -- I would find it an
21 extreme hindrance to be able to look the witness
22 in the face and see a mask. So I think we'd

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1883

1 rather be virtual if that's the only choice. It's
2 unfortunate, but that would be the thing I think
3 that makes the difference.

4 MS. AMUNSON: Mr. Chairman, Jessie
5 Amunson from Amtrak.

6 I just wanted to -- we did discuss with
7 your staff the potential for being in person in
8 May and I just wanted to clarify that that was
9 something that CSX and NS have suggested and
10 supported, such that there will be no claim later
11 that one party or the other was prejudiced by
12 having to put their witnesses on virtually as
13 opposed to in person.

14 MR. ATKINS: And Jessie I can -- I can
15 go ahead and confirm that CSX will have no
16 objection to moving to in person if that's
17 available on the 9th and the 11th.

18 CHAIRMAN OBERMAN: For myself, I am
19 prepared to say that I cannot discern who would
20 come out ahead by being on screen or in person.
21 That's a toss-up, but I think that record is
22 clear, that no one is objecting to shifting to in

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1884

1 person, if -- if we can do it. I would prefer it.
2 I think the board members would much prefer it.
3 But it's up to the virus.

4 So anything else we need to cover
5 quickly before we recess? Thank you all for your
6 ability to work with us on today's schedule and
7 for your long hours of patience but I think these
8 hearings are really productive. So we will recess
9 at this point until 9:30 Eastern on Thursday.

10 Thank -- thank you all.

11 (Whereupon at 5:10 p.m. the hearing
12 stood in recess.)
13
14
15
16
17
18
19
20
21
22

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1885

1 C O N T E N T S

2 WITNESSES: PAGE:

3 HOLLY SINKKANEN

4 Cross-examination by Ms. Amunson 1536

5 Redirect examination by Mr. Donahoe 1604

6 Recross-examination by Ms. Amunson 1605

7 MARK DINGLER

8 Direct examination by Mr. Atkins 1611

9

10 E X H I B I T S

11 EXHIBIT NUMBER ID EVD

12 CSX/Norfolk Southern Joint 277

13 (Visual aid) Map of corridor 1719

14 CSX/Norfolk Southern Joint 275

15 (Visual aid) Blown-up map of corridor 1720

16 CSX/Norfolk Southern Joint 276

17 (Visual aid) Map of Mississippi projects 1729

18

19

20

21

22

1 CERTIFICATE OF NOTARY PUBLIC

2 I, KIM M. BRANTLEY, C.S.R., the officer
3 before whom the foregoing hearing was taken, do
4 hereby, certify that the proceedings were taken by
5 me in stenotype and thereafter reduced to
6 typewriting under my direction; that said hearing
7 is a true record of the proceedings; that I am
8 neither counsel for, related to, nor employed by
9 any of the parties to the action in which this
10 hearing was taken; and, further, that I am not a
11 relative or employee of any counsel or attorney
12 employed by the parties hereto, nor financially or
13 otherwise interested in the outcome of this
14 action.

15

16

KIM M. BRANTLEY, C.S.R.

17

Notary Public in and for
the District of Columbia

18

19

20

21 My commission expires: October 31, 2024

22

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1887

A			
A-ha 1599:2	action 1712:21 1886:9,14	1753:12 1768:13	aiming 1882:5
a.m 1534:11,15 1609:15	activities 1630:5	1824:16	all-station 1687:15
A2 1616:6,7	actual 1537:16,19,21	adequately 1845:12	alleviate 1650:3 1763:6
AADT 1659:16	1538:3 1539:9,14	adjust 1554:20 1579:5	1764:11
abilities 1622:16	1542:9 1545:18,22	1580:7 1680:1 1717:1	allocated 1583:6
ability 1685:2 1686:3	1546:22 1626:13	1813:15 1854:15	allow 1572:1,4,13,15
1735:14 1769:5 1773:9	1631:9 1641:11	1865:14	1813:17 1845:7
1819:16 1884:6	1642:16 1677:9	adjusted 1776:15	allowed 1630:18 1654:20
able 1543:3 1566:19	1773:21 1783:18	adjusting 1866:8	1655:2 1656:9 1681:2
1567:12 1568:20	1791:9	adjustments 1590:17	1696:17 1733:8
1569:10 1571:13	actuals 1637:18 1670:4	1591:16 1724:7 1807:6	allowing 1655:17
1587:9 1588:5 1608:3,4	ad 1744:14	admission 1718:12	1659:21
1618:18 1620:3	add 1584:22 1628:13,20	adopted 1799:1	allows 1614:2 1648:18
1629:20 1667:9 1687:5	1630:8 1632:4 1637:12	advantage 1710:2	1652:18 1686:12
1689:1 1702:3 1737:17	1640:16 1645:1	1713:12 1724:11	1722:5,9,11 1726:11
1742:10 1752:17	1647:14 1649:13	1831:7 1849:22 1850:8	1732:1 1735:6,8 1742:7
1761:8 1764:22	1662:15 1668:2	adverse 1572:8	1743:19 1745:2 1746:4
1765:13 1769:22	1678:16 1683:5	advised 1776:20	1763:15
1770:4 1777:22 1805:2	1686:10 1692:9 1693:8	advocate 1849:15	alluded 1771:6
1813:19,21 1816:20	1704:9 1707:8 1742:7	1865:22	altering 1590:17
1827:19 1838:13	1755:19 1760:7 1807:2	affect 1604:13 1623:16	alternative 1624:21
1845:6 1853:4 1869:18	1807:18 1826:20	1626:10 1628:22	1847:3
1870:3 1882:21	1833:1 1856:1 1873:16	1630:9 1773:8 1816:18	alternatives 1774:6
above-titled 1534:14	added 1577:11 1620:11	affirm 1610:22	1845:17
absolute 1690:3	1630:10 1639:12	afforded 1566:21	ambulance 1647:17
absolutely 1585:20	1652:5 1653:15 1655:7	1568:21 1569:6	amount 1568:3 1587:11
1666:10 1687:6	1663:2 1678:21 1730:7	afternoon 1608:5	1636:17 1701:17,21
1780:12 1869:13	1744:21 1771:22	1609:12 1674:5 1686:7	1737:14 1785:19
1874:22 1875:22	1817:17 1825:7 1836:8	1761:8 1863:7 1881:6	Amtrak 1535:4 1544:2
academic 1708:4 1709:17	1856:3	agencies 1614:22	1544:10 1545:7 1548:6
acceptability 1617:13	adding 1564:20,21	Agency 1615:11	1549:11,16 1550:13
acceptable 1657:1,2	1566:14,16 1570:21	aggregate 1573:4	1554:13 1562:17
1794:19	1571:18 1582:22,22	ago 1551:1 1788:7	1563:3,3,10,14,20
accepted 1617:14	1584:14 1586:2 1632:3	1833:12	1564:4,14,16 1565:2,3
access 1753:1	1633:20 1639:4 1681:9	agree 1715:15	1565:9,12,15,20 1566:1
accommodate 1567:1,8	1684:14 1703:17	agreed 1728:22 1739:7	1566:5,8,9,11,20
1568:12,15 1667:19	1705:3 1733:8 1737:4	1881:20	1568:15,17,20 1569:5
1714:16	1785:2 1809:20	agreement 1541:9 1804:9	1569:11 1570:21
accomplish 1589:16	1827:17 1844:1	ahead 1543:11,14 1558:1	1571:18 1572:12
accord 1715:22	addition 1569:8 1604:12	1589:22 1604:20	1576:16 1588:4 1596:2
account 1579:1 1581:15	1608:21 1829:19	1610:18 1645:15	1604:13,17,18 1606:18
1582:6 1623:7 1727:6	additional 1550:7,11,14	1650:22 1654:3,8	1610:6 1613:15 1656:4
1842:6	1550:17 1561:12	1689:21 1690:1 1696:9	1663:19 1678:1,14
accounted 1554:3	1566:2 1567:16,18	1716:3 1718:6 1719:2	1680:3,9 1681:1,18
accounting 1659:21	1568:12 1573:8,19	1725:16 1729:5	1682:4 1684:1 1685:2
accuracy 1627:2	1583:1 1584:22	1733:14,18 1749:21	1686:12 1687:1,12
accurate 1550:3 1592:15	1588:14 1620:13	1756:8 1779:3 1782:10	1696:17 1697:11
1622:1 1712:9	1625:19,20 1632:4	1800:5 1815:12	1701:19 1702:16
accurately 1816:9	1653:13 1670:21	1823:21 1835:8 1857:3	1706:18 1710:8
accusation 1691:15	1735:10 1740:20	1880:12 1883:15,20	1714:16 1718:8,11
achieve 1702:22 1797:11	1769:16 1782:9	AI 1674:14	1721:20 1726:5,12
achieving 1612:17	1795:16 1806:15	aid 1675:2,7 1676:2	1729:20 1730:17
acknowledged 1576:22	1810:8 1836:10	1717:11,15 1718:14,17	1732:3,22 1734:6,10,12
1577:10	1873:14	1720:2,4,19 1728:6,18	1743:19 1744:19
acronyms 1546:13	additions 1873:22	1885:13,15,17	1745:21 1746:4,12
	address 1695:9,20	aim 1761:14	1748:6,17 1751:7

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1888

1752:14 1753:9,15 1764:1 1788:18 1798:9 1829:11 1839:17 1840:11 1842:11 1845:11 1851:1 1871:3 1871:14 1875:17 1877:13 1880:14 1883:5 Amtrak's 1542:1 1544:16 1545:2 1604:20,22 1686:3 1717:14 1840:7 1845:5,8,10 1846:3,5 1856:16 1864:4 1874:17 1877:14 1881:3 Amunson 1536:1,2 1538:9,11 1548:14,15 1552:22 1553:5 1556:11 1559:17,21 1560:1,13 1564:9,11 1605:7,9,20 1682:6 1850:5 1877:14 1879:1 1883:4,5 1885:4,6 analyses 1775:16 1803:4 1818:7 analysis 1597:6,10 1599:12 1617:9 1618:21 1620:12 1650:2 1669:10 1671:7 1681:12 1682:11 1685:1 1686:9 1695:13 1765:5 1772:17 1775:15 1801:3 1809:11 1844:10 1849:9 1856:7 analyze 1631:5 analyzed 1631:20 animation 1712:13 1714:17 animations 1706:3 Annesley 1730:9 annual 1570:4 1659:17 answer 1545:5 1587:10 1589:5 1596:5,21 1597:5,13 1605:15 1669:6 1694:3 1695:3 1697:8,10 1700:16 1711:12,15 1771:6 1792:7 1820:3 1844:22 1845:2,8,20,21 1848:15 1848:17 1870:4 answered 1545:4 1605:17 1681:6 1793:1 1803:9 answers 1590:4 1669:2 1727:3 1867:14	anticipate 1567:17 1643:17 1850:4 anybody 1598:9 1607:9 1761:1 1867:11 1876:7 1876:7 anything's 1764:3 anyway 1867:12 1881:14 anyways 1851:19 apart 1858:16 apologies 1800:1 1843:9 apologize 1640:21 1759:4 1811:19 apparently 1860:20 appeared 1672:17 appendix 1767:8 1780:13 1811:13 application 1534:4 1535:4 1610:6 apply 1649:12 1679:21 1856:20 appreciate 1586:20 1607:13 1672:7 1677:13 1690:22 1691:2 1694:1 1711:10 1791:18 1823:18 1841:16 appreciation 1672:5 approach 1603:13,20 1761:20 1809:20 1810:19 1873:6 approached 1618:13 1839:22 approaching 1697:1 1839:22 appropriate 1761:19 1776:22 1826:6 1856:11 appropriateness 1698:17 Approximately 1613:16 April 1534:10 1609:6 1880:5 area 1665:6 1698:15 1736:16 1738:14 1768:12 1869:11 areas 1556:7 1788:20 1834:4,7 1835:2 Arel 1621:15 arranged 1876:14 array 1781:7 arrival 1558:17,18 1579:14,15 1604:21 1712:6 arrivals 1866:18 arrive 1671:1 1766:2 arrived 1569:15 1747:14 1836:6	arrives 1566:9 1670:18 1732:13 1750:18 1751:7 1752:4 1764:1 arriving 1579:16 1604:18 1623:14 1740:13 1748:3,17 1751:19 1790:2 1867:3 ascertain 1698:18 aside 1862:6,8 asked 1561:11 1577:6 1581:14,16 1583:16 1590:19 1595:4 1600:10 1617:1 1618:15,17 1621:7,10 1621:18 1681:6 1711:4 1711:13 1738:19 1802:19 1803:5,9,10,13 1803:14,19 1810:2 1824:16 1850:14 1854:3 asking 1596:4 1615:1 1660:19 1663:5 1666:3 1691:15 1694:11 1711:3 1723:2 1807:10 1848:21 1849:2 aspect 1695:2 aspects 1803:22 assemble 1863:1,9 assessed 1707:16,18,18 assessing 1823:7,7 assessment 1700:1 1771:10 assign 1679:18 assistant 1549:7 associated 1838:11 assume 1597:6 1658:16 1727:3 1744:19 1833:21 1837:17 1838:5,20 1870:5 assumed 1687:14 1744:22 1847:13 assumes 1652:10 assuming 1595:22 1608:12 1654:6 1761:7 1802:4,15,16 assumption 1652:9 1656:19 assumptions 1596:5 1654:6 assure 1752:19 1875:17 asterisk 1812:21 asterisks 1813:1,7 Atkins 1607:20 1608:20 1609:3,8 1610:9,11,18 1611:6,13,14,16 1635:14,19 1636:2	1637:20 1638:1,5,9,15 1638:20 1645:7,11 1647:3,6 1648:5 1649:9 1650:10,17,21 1651:7 1651:10,12,17 1652:2,3 1653:21 1654:9 1657:7 1657:11 1658:6 1660:16 1665:19 1666:3,10,11 1671:19 1671:22 1677:20 1678:7,8 1681:19 1682:9,14,18,20 1686:20 1687:3,6,7,16 1689:21 1690:15,19 1692:13,15,18 1694:1,5 1695:5 1696:5,8,21 1697:7,15,21 1698:14 1704:14 1705:1 1713:4 1713:7 1714:9,22 1715:6 1716:4 1717:10 1717:20 1718:5,18 1719:6 1720:8,12,15 1721:5 1722:17 1724:18,22 1725:2,11 1725:15,17 1726:15,20 1728:1,17 1729:9 1730:13,21 1731:6,16 1731:19 1733:16 1742:15,17,20 1743:5 1748:19 1750:1,4,14 1752:7 1753:3,11 1754:19 1756:6,9 1758:2,7,11 1760:14,16 1761:9,17 1762:5,14 1767:4,11,15,17 1769:12,14 1770:8,14 1770:18 1773:12 1774:13,17 1776:18 1777:9 1780:7,12 1781:5,9 1782:2,6 1792:20 1798:4 1799:13,21 1801:18 1808:17 1810:1,5 1812:17 1820:1,6,14 1823:21 1824:10 1828:9 1833:19 1835:9 1841:11 1842:9 1843:1 1843:5,12,16,20 1844:4 1844:6,13 1846:18 1848:20 1851:16,21 1852:10,16 1856:9,21 1857:3 1859:9 1874:9 1874:14,22 1875:8,11 1876:19 1877:1 1878:19 1879:3 1880:22 1881:22
---	---	---	--

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1889

1882:7,15 1883:14 1885:8 Atlanta 1703:12 1714:8 attempting 1766:16 attempts 1622:9 attention 1638:21 1681:20,21 attorney 1886:11 attributed 1553:15 authority 1591:15 1599:3 automated 1837:15 1838:6 1840:10 1842:3 1842:5,22 automatically 1662:12 1667:18 automating 1824:20,21 1842:2 automation 1553:8 available 1579:19 1608:11 1609:2 1614:1 1614:2 1837:11 1838:21 1871:19 1877:9,15 1878:21 1879:1,17,21,22 1880:3 1880:4 1883:17 avenues 1866:6 average 1567:20 1634:6 1659:17 1766:8 1784:10 1785:11,12,20 1786:1,3 1787:21 1788:15,15 averages 1632:17 avoid 1543:12 1622:21 1622:21 1669:3 1745:17 1800:22 1881:21 avoiding 1867:7 avoids 1864:22 award 1761:3 aware 1595:2 1616:22 1698:12,16 1782:13 1783:4 1809:12 1815:13,18 1838:17 1880:10 B B 1540:11 1557:10 1780:13,15 1845:20 1885:10 bachelor's 1612:1 back 1541:7,12 1566:22 1567:7,19,21 1568:1,13 1568:16 1569:12 1571:9,18 1574:3,4,8 1575:19 1576:2 1581:17,21 1582:2	1583:17 1585:21 1598:21 1600:13 1601:1,11 1604:13 1605:11,12,18 1606:4 1607:5 1609:11 1639:13 1640:22 1663:10 1669:22 1671:15,16 1672:5 1674:16,16 1675:13 1688:17 1717:1,4 1724:6 1727:6,8 1733:2 1733:4,22 1736:2 1740:10 1745:1 1750:10,16 1751:10 1756:21 1758:5 1760:21 1765:2 1766:7 1766:11 1767:3,9 1768:4 1770:20 1772:10 1773:7 1782:6 1793:21 1794:4 1795:21 1797:11 1799:22 1813:13 1825:15,17 1827:3 1828:14,17 1829:10,17 1833:5 1834:1 1847:12 1847:13 1848:1 1851:9 1862:20 1869:16 backed 1570:9 background 1597:21 1611:22 backs 1664:19 backwards 1716:16 bad 1643:21 1647:10 ballpark 1788:4 bang 1707:7,12 1708:6,7 Banks 1621:15,16 1688:3 1691:16 1693:21 1694:3,18 Banks' 1694:19 Barrington 1659:5 base 1619:11 1620:3,8,19 1631:1,6,21 1639:8,9 1639:14 1640:20,22 1641:6 1642:1,2 1645:5 1649:13,14 1652:22 1655:6 1658:1,3 1663:2 1667:16,16,17 1675:21 1717:5 1744:19,21 1784:4 1793:6,7,9 1797:7 1818:6 1825:10 1828:2 1862:15 based 1540:1 1546:3 1552:7 1558:17,18 1578:15 1597:8 1605:7 1642:21 1657:2 1674:12 1680:14	1707:5 1708:18,19 1721:17 1732:12 1738:6 1776:16 1777:20 1807:6 1813:8 1821:15 1827:20 1828:12 1831:21 baseline 1822:17 1829:5 1829:7 baselines 1658:5 bases 1872:15 basic 1619:7 basically 1591:8,10 1629:4 1632:4 1648:22 1654:20 1665:4 1666:15,16,20 1696:18 1701:17 1707:3 1732:5 1735:4 1737:7 1753:20 1771:5,20 1840:17,19 basis 1614:7 1625:12 1630:6 1634:20 1719:2 1720:17 1727:18 1784:15 1792:18 1823:3 1827:11 bathroom 1760:19 Bay 1837:2 Bayou 1738:12 1739:13 1740:1 1742:1 began 1558:7,7 begins 1560:15 behalf 1851:14 1879:12 believe 1548:8 1549:6,6 1549:12,17,19 1553:13 1554:22 1561:2,18 1562:2 1563:5 1564:1 1567:18,19 1570:1,9,14 1571:3,16 1575:3 1584:19,20 1586:18 1587:3,13,15 1593:20 1605:16,16 1779:9 1783:8 1794:9 1809:4 1814:20 1827:8 1844:9 belt 1567:1,8,19,21,22 1568:1,13,16 1571:9,18 1581:17 1582:2 1583:17 1604:13 1605:11 1606:4 1607:5 1768:4 belt's 1581:21 Belvoir 1734:19 1736:5 1813:4 beneficial 1562:6 1563:18 1564:2 1800:11 benefit 1603:17 1610:10 1686:21 1710:11 1717:4,14 1734:13,13	1739:15 1773:2 1774:14 1800:15 1801:3 1824:16 1825:2 1825:3,6 1827:1,4,5,12 1828:12,17,22 1829:2 1829:16 1830:2,18,20 1831:1,3,6,10,13,19,21 1832:7,8,12,14,22 1882:1 benefits 1616:5 1746:18 1818:19,20 1831:15 best 1614:1 1618:9 1619:2,18 1623:18,21 1626:19 1628:8,11,16 1632:6 1633:3 1634:21 1636:9 1669:20 1670:15 1680:1 1689:7 1706:5 1750:1 1766:12 1791:11 1825:19 1870:14 1873:10,13,14 1873:17 1877:2 better 1584:15 1625:6,6 1635:6 1648:19 1656:4 1656:10 1658:15 1664:8 1721:21 1764:17 1781:13 1795:12 1798:2 1816:1 1836:9 1847:7 1853:4 1872:4 1873:2 beyond 1586:1 1605:13 1722:9 1728:22 1795:17 1796:20 1807:14 1809:20 1855:12 1869:11 1880:13 bicycle 1649:5 big 1655:21 1749:9 1835:1 bigger 1755:22 biggest 1707:7 1834:16 billion 1580:5 Biloxi 1837:2 bit 1548:20 1558:16 1590:7,13 1625:22 1629:18 1634:14 1644:4 1648:19 1655:1 1657:14 1672:21 1676:21 1678:10 1680:7 1682:15 1699:3 1732:6 1736:22 1748:22 1756:17 1761:15 1762:16 1780:18 1794:2 1803:8 1824:12,13 1826:3,20 1835:13 1865:5 1877:8 1881:17
---	--	--	--

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1890

black 1567:21 blame 1871:14 blames 1871:14 block 1629:21 1652:9,16 1653:6,8 1655:9 1656:11,20 1657:19 1659:22 1737:3,11 1747:12 1765:1 1774:2 blockages 1651:14 1658:3 blocked 1655:9,18 1658:9 1741:9 1869:19 blocking 1654:22 1657:3 1659:8 1660:3 1736:21 1750:22 1754:4 blockings 1658:20 blocks 1627:18 1629:13 1629:21 1868:4 blow 1651:1 1731:12 blow-up 1719:21 1726:16 blown 1720:14 Blown-up 1721:2 1885:15 blowup 1739:8 blowups 1728:16 BNSF 1615:8 1816:21 Bo-voir 1736:11 board 1534:1 1548:6 1553:2,3 1573:11 1585:10 1587:6 1604:6 1608:11 1611:18 1621:10,19 1708:20,20 1709:5,7 1710:14 1715:1 1716:2 1717:17 1725:5 1741:14 1762:1 1769:16 1770:11 1771:3 1773:14,15 1775:14 1787:5 1789:15 1790:18 1824:14 1835:14 1844:21 1845:19 1846:2,7 1847:2 1849:13 1850:17 1856:16 1876:13 1877:5 1884:2 board's 1671:6 1730:22 1739:15 1840:8 1882:3 boss 1599:6,16 Boston 1615:11,14 bottleneck 1606:3 bottlenecked 1606:16 bottom 1786:5 Bracey 1638:18 1665:17 1665:21 1693:20 1714:20 1715:5,21 1718:11 1720:18	1727:10,13,17 1728:12 1841:13,18 1843:6,9 1844:8,9,14 1846:13 1847:8,19 1848:9,10,16 1849:21 1850:4 1851:5 1851:17 1852:1,15 1856:10,17 Bracey's 1695:2 BRANTLEY 1886:2,16 break 1607:16 1645:4 1762:7 1777:22 1778:1 1824:4 bridge 1553:8 1606:12 1656:6 1714:17 1798:12 1800:18,19 1835:11,18,22 1836:3,6 1836:15,16,20 1838:7 1838:18 1839:6,22 1840:1,1,16 1841:3,14 1842:8 1843:2 1844:2 1856:14 bridges 1553:7,15 1615:16 1642:12,15 1714:18 1798:14 1824:20,21 1835:12,15 1835:17 1836:21 1837:9,15 1838:5,11,14 1838:15,16,22 1840:10 1840:21 1842:2,4,6,21 brief 1578:7 1820:6,16 briefing 1848:12 bring 1574:8 1575:19 1576:2 1688:20 1727:19 bringing 1788:18 1847:12 brings 1574:3,4 broader 1823:6 broken 1645:10 1857:19 Brookley 1741:7 1742:13 1743:8,11,18,22 1752:22 1753:16 1754:14 1755:8 brought 1872:21 brown 1812:6 buck 1707:7,12 1708:6,7 buffer 1689:4 1691:4 build 1544:3,8,13,14,18 1544:22 1545:8 1594:6 1598:20,22 1620:7 1697:17 1704:15 1705:21 1755:10,19 1781:13 1805:8 1832:21 1835:4 1844:1 1857:15 1861:19 1862:14	buildability 1600:11 1806:8 buildable 1592:19,20 1598:22 1724:1 1776:6 1776:22 1778:13 1804:1,6 building 1545:1 1567:13 1672:22 1712:12 1722:13 1755:22 1862:7 built 1591:20 1592:21 1619:7,20 1652:14 1671:1 1672:11 1756:4 1810:19 1823:4 bullocking 1664:1 bus 1830:22 but-for 1655:14 bypass 1722:1,4,22 1725:19 1727:2 1809:9 bypassing 1735:19 C C 1535:1 1885:1 c-o-m-i-t-y 1819:12 C.S.R 1886:2,16 calculated 1684:20 1687:5 1783:15 calculus 1800:15 calendars 1608:16 1875:10 call 1600:22 1625:1 1670:14 1672:10,11 1785:17 1820:20 called 1604:19 1611:9 1624:22,22 1661:17 1670:16,18 1671:4 1679:9 1689:13 1804:20 1861:7 calling 1640:21 canal 1769:6 capacity 1539:1 1577:1,7 1579:17 1614:17 1615:8 1626:10 1629:16 1698:18 1699:19 1700:2,19,20 1701:1,11 1735:15 1831:5 capture 1623:10 1625:3 1629:15 captured 1548:2 capturing 1681:8 car 1569:19 1579:20 1647:18 1790:5 1821:2 1822:8,8 1868:4 care 1702:4 1703:4 careful 1631:10 1637:17	1645:1 1673:12 1698:20 1699:12 1700:18 1703:7 1766:14 1781:20 1784:9 1791:1 1872:1 carriers 1768:9 1840:11 1866:19 cars 1552:14,15 1627:18 1629:13,13 1821:15,17 1821:20 1853:9 1863:13 1867:2 1868:4 cascading 1577:17 1869:20 case 1570:20,22 1593:5 1616:16 1618:14 1619:10,11,11 1620:3 1620:18,19 1621:14 1623:20 1625:17 1629:1 1630:1,16 1631:12,19 1632:12,13 1632:20 1633:12 1634:2,13 1639:6,7,8,9 1639:9,10,13,14 1640:20,20,20 1641:1,2 1641:6 1642:11 1649:6 1649:13,14 1652:17,22 1654:16 1655:7,7 1657:15 1658:1,2,2,3 1658:19 1663:2,11 1667:16,17 1680:3 1684:6,7 1685:7 1688:21 1691:7 1693:13 1696:11 1697:2,4 1705:7 1710:6 1710:12 1711:21 1714:1 1716:1 1736:13 1744:19,21 1755:5,5 1756:21 1784:3,4,18 1785:2 1786:15 1788:17 1790:1 1791:19 1793:4,5,5,5,7 1793:8,9,18 1794:21,21 1797:7,7,16 1802:12,19 1803:10,19 1814:12,21 1815:2 1817:15 1818:5 1818:6 1821:9 1825:10 1825:18 1826:1 1828:1 1828:2 1829:7 1831:14 1836:14 1839:4 1844:1 1845:10,16 1850:5,6,21 1856:2 1862:15 1869:12 1872:22 cases 1619:3 1620:9 1631:1,6,21 1635:1 1636:5 1639:20 1648:20 1681:17
---	---	---	---

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1891

1697:17 1704:15,16 1796:16,16 1797:10 1802:8 1825:16 1862:11 1878:9 Cassotte 1738:13 1739:13 1740:1 1742:1 catastrophe 1690:14 catastrophic 1772:22 Catherine 1813:3 caught 1832:6 cause 1577:15,17 1706:2 1764:21 1772:21 1794:13 1819:15 causes 1705:22 causing 1576:6 1577:12 caveat 1807:2 CDC 1882:18 center 1745:20 1753:22 central 1663:19 1821:8 1881:17 certain 1578:12 1667:6,7 1668:21 1775:20 1776:21 1794:18 1804:22 1806:9 certainly 1608:3 1617:10 1619:9 1626:3 1632:13 1641:8 1647:15 1658:11 1680:12 1688:20 1696:13 1717:9 1734:5 1745:10 1746:17 1756:20 1761:2,10 1771:15 1777:13 1804:15 1824:8 1825:5 1827:14 1845:15 1850:20 CERTIFICATE 1886:1 certify 1886:4 cetera 1691:19 1707:20 chain 1600:16 1601:1 Chair 1536:1 1605:4 chairman 1534:15 1535:2,15,19 1546:12 1547:5,10,13,15,19 1548:4,9 1578:10,22 1579:11 1580:4,10 1581:13 1582:1,11 1584:6,13,17 1585:4,9 1585:15 1586:22 1587:6 1589:21 1593:8 1593:12,19,22 1594:2,5 1594:9,14,19 1595:4,7 1595:14,18,21 1596:3 1596:13,16,19,22 1597:4,9,14 1598:3,5,8 1598:11,17 1599:2,15 1599:18 1600:3,5,8,15	1600:18 1601:2,6,9,15 1602:5,19 1603:2,5,10 1604:1,5,8 1605:5,15 1605:21 1606:9,17 1607:1,3,7,12,15,20,21 1608:20 1609:1,5,9,10 1610:4,9,15,19,20 1611:4,12 1635:14 1637:22 1638:2,6,13,16 1638:19 1640:11 1641:4,22 1642:9,17,21 1643:2,13,15 1644:10 1644:13,19 1648:4,5,6 1648:11,21 1649:4,8 1650:9,11,15,18 1651:5 1651:8,21,22 1653:17 1653:22 1654:1,7 1657:5,8,12,18 1658:12 1658:18,22 1659:3 1660:1,7,10,14 1665:18 1665:22 1666:8 1669:8 1681:22 1682:3,8,15 1684:1 1694:2,7,8,15 1696:9 1711:11 1712:9 1712:18 1715:6,8,20 1717:10,18 1718:2,9,15 1718:19 1719:1,21 1720:6,10,13,16,20,22 1722:16,17,18 1723:9 1723:12,16 1724:10,15 1724:19 1725:1,2,8,12 1725:16 1726:15,18,21 1727:16 1728:2,11,14 1728:19 1730:12,13,14 1731:5,13,17,20 1732:8 1732:15,19 1733:11 1739:11 1745:5,11 1746:7 1747:16 1748:19 1749:1,8,15,18 1750:12 1751:9,20 1753:3,6 1754:12,21 1755:9,18 1756:8 1757:6,11,14,17,21 1758:2,6,18,22 1759:5 1759:8 1760:5,15,16,22 1761:6,13,18,21 1762:6 1762:9,12 1769:9,13 1778:22 1779:3 1799:17 1800:1,2 1801:18,21 1802:11,14 1802:18 1803:7,18,21 1804:12 1805:8,16 1806:1,5,19 1807:9,16 1808:4,12,20 1811:21 1812:2,9,12 1813:5,11 1814:3,11,18,22 1815:5	1815:8,12 1818:11 1824:3,6 1833:10,20,21 1834:21 1835:7 1841:11,20 1842:10,20 1843:3,7,10,21 1844:5 1844:7,12,15,18 1846:11,15,21 1847:1 1847:18 1848:3,7,13,18 1849:20 1851:16,20 1852:4 1856:15,18,22 1857:4,20 1858:2,18 1859:2,9,10 1860:3,16 1861:16 1862:5,22 1863:4,20 1865:6 1866:2 1867:5 1869:8 1870:1,21 1872:9 1873:3 1874:9,11,20,22 1875:4,9,11,22 1876:5 1876:10,12,22 1877:2 1877:12,17 1878:19 1879:4,7,9,13 1880:6 1880:17 1881:1,11,20 1881:22,22 1882:4,8,15 1882:16 1883:4,18 Chairman's 1658:7 challenge 1667:4 1736:13 1845:13 1881:18 Champaign 1612:3 chance 1588:17 1694:6 1847:8,11 change 1556:16 1578:17 1579:3,6 1581:18 1635:3,4,5,6 1639:6,18 1640:1 1646:10,13,14 1646:20 1649:1 1661:11,11,22 1662:9 1664:4 1666:22 1668:3 1668:16 1679:17 1683:12 1701:9,10 1706:18 1709:8,9 1710:3,7,12 1711:19 1712:11 1714:6,15 1767:19 1769:22 1773:4 1782:12 1783:12,14 1784:1,2 1785:1,3 1787:7,8,13 1787:16 1789:10,13,15 1791:2 1793:2 1794:16 1796:1 1802:2,7 1805:17 1807:4 1838:4 1843:19 1853:9 1860:14 1861:9 1862:16 1873:1,6 changed 1555:1,22 1591:11,12,13,14 1652:8 1676:16	1775:21 1781:21 1788:6 1839:17 1861:13 changes 1555:2,6,15,18 1580:9,17,21 1581:1,15 1591:15 1631:14 1634:19 1639:7 1661:1 1661:7 1662:4,11,18 1663:1,4 1667:13,15 1668:10,13,15 1706:18 1707:20 1708:11,13 1709:6,12,14,20,21 1710:18 1712:19 1727:9 1796:15 1833:2 1837:8 1838:1 1844:1 1849:14 1860:20 1861:3,4 1870:14 1873:11,12,18,18,19 1874:2 changing 1555:13 1579:12 1656:3 1662:2 1662:3 1664:11 1703:22 1741:10 1743:12 1829:22 1861:9,11 characteristic 1624:6 Charlie 1621:16 1693:14 chart 1551:18,22 1552:6 1640:13 1646:19 1647:5 1677:15 1685:5 1737:21 1750:6 1756:10 1780:8 1809:1 1810:21 1811:3,5 check 1600:14 1879:14 checked 1879:18 Chicago 1616:8 chime 1715:15 Choctaw 1743:18 1744:11,14 1745:1,3,18 1747:8,13 1750:11,21 1752:21 1755:7 1763:18 choice 1883:1 choose 1776:10,12,13 choosing 1707:4 1766:10 chose 1537:15 1809:17 1811:15 circling 1672:5 cited 1699:17 1700:8,11 City 1588:3 1882:18 Claiborne 1729:11,15,19 1730:2,6 1731:18 1734:7 1813:3 1837:4 1855:9 claim 1661:17 1883:10 clarification 1590:14
---	---	---	--

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1892

1592:11 1713:6 1779:6 1793:1 1829:15 1831:9 1878:20 1882:1 clarify 1586:19 1608:21 1618:6 1636:1 1683:16 1707:11 1713:8 1779:2 1828:11 1859:13 1874:8 1883:8 clarifying 1691:16 1810:2 clarity 1556:20 1563:7 1638:13 1691:12 1820:10 1865:19 classes 1612:8 clean 1627:6 1663:16 1804:4 clear 1550:20 1561:14 1565:2 1566:10,19 1569:10 1585:20 1588:10 1604:17,21 1668:6 1670:3 1692:17 1708:13,16 1711:19 1712:10,17 1722:12 1726:11,12 1738:16 1744:16 1747:15,19 1748:10,13 1769:9 1772:19 1800:10 1811:16 1812:7,9 1854:10,11,11 1855:2 1855:11 1860:18 1883:22 cleared 1876:20 clearing 1553:22 1554:7 1554:9 1714:13 1751:18 clearly 1661:21 1680:18 1829:17 clears 1744:12 client 1614:19 1615:4 1627:1 1851:15 clients 1614:20 close 1590:12 1691:10 1766:11 1793:22 1794:4 1796:1,5 1800:9 1800:10 1818:18,22 1819:16 1825:19,22 1836:6 closed 1840:2 closely 1670:1 closer 1613:6 closest 1799:8 closing 1835:20 closings 1838:15 closure 1812:22 1818:13 closures 1706:17 1798:8 1805:15 1811:11	clumping 1766:21 clumpy 1826:20 CN 1664:17 CNIC 1656:6 coal 1701:4 1702:17 1747:7 1766:2,4 coast 1544:16 1545:3 1563:4,11 1564:5 1577:1,11 1616:18 1638:11 1779:7 1837:22 1839:17 1881:15 cocounsel 1875:2 coding 1633:10 collateral 1868:14,15 colleague 1689:13 colleagues 1585:18 collected 1540:17,19 collection 1674:12 college 1612:15 color 1811:15,16 colors 1640:5,8 1811:18 1870:9 1871:12 Columbia 1886:17 column 1546:14 1670:14 1683:21 1684:4 1758:13 combination 1810:7 1817:22 1864:1 combine 1583:20 combined 1817:6 1842:1 1842:19 combining 1583:12 come 1561:19 1570:10 1580:12,17 1587:18 1589:12,15 1609:11 1614:20 1617:4 1688:17 1707:6 1719:22 1750:19 1753:22 1754:2 1755:7 1760:20 1763:1 1764:6 1770:19 1782:6 1833:15,20 1850:13 1852:12 1857:18,20 1883:20 comes 1540:11 1574:18 1729:17 1764:19 1765:1 1845:4 comfortable 1806:18,20 coming 1643:18 1659:4 1661:13 1664:12 1715:3 1722:10 1726:5 1746:3,21,22 1747:7 1792:8 1847:13 1869:4 comingle 1748:11 comity 1819:12	comment 1832:5 comments 1715:9 commercial 1569:17 commingle 1721:21 1732:7 commission 1886:21 committee 1610:14 common 1628:1 communicating 1601:13 communication 1595:1 communications 1603:3 1603:6 communicator 1600:21 communities 1819:6 community 1819:20 commuter 1613:13 1615:11 1616:10 1871:6 companies 1825:12 Company 1534:7 compare 1644:15 1674:16 1676:2 1791:8 compared 1558:8 1620:17,19 1626:13 1639:13 1643:19 1653:19 1669:1 1790:13 1797:6 1831:13 compares 1622:12 comparing 1637:13,14 1637:18 1655:6 1657:12 1658:1,2 1784:5 1791:1 1829:10 1862:11 comparison 1643:21 1797:10 1811:1 1822:18 1823:3 1831:19 competing 1853:13 compiled 1540:7 1544:1 complete 1591:15 1614:16,17 1618:17 completed 1563:10,20 1801:3 completely 1642:4 1677:18 1745:6 1747:19 1754:4 complex 1639:22 1773:15 compliance 1821:3 complicated 1773:21 comprehensive 1816:4 1817:9 computer 1622:15,16,17 1623:1 1689:12 computerness 1637:16 concept 1650:8 1661:1	1824:15 concepts 1842:2 concern 1794:13 1841:19 concerned 1588:2 1877:8 concerns 1769:5 1856:19 conclude 1826:6 concluded 1845:16 conclusion 1849:10 conclusions 1807:3 condition 1726:7 conduct 1548:18 1613:17 1617:8 conducted 1549:21 1612:8 conductor 1740:8,14,20 confidential 1543:9,10,13 1669:3,7,9 1672:2 configuration 1628:14,19 configurations 1615:18 confirm 1560:2 1883:15 confirmed 1621:21 conflict 1679:12 1864:22 conflicts 1634:7,17 1641:16 1794:17 confuse 1639:17 confused 1591:1,4 1860:21 1862:8 confusing 1863:21 confusion 1679:3 congested 1738:14 congestion 1712:3 1735:10 1744:14,17 1745:18,20 1746:8,9,14 1746:15 1772:2,3 1792:17 1816:17,22 1817:3,4 1842:18 1863:17 1869:14,15 Congress 1807:20 1808:6 conjunction 1854:22 connect 1606:8,13 1754:21,22 1755:11 connection 1603:7 1656:6 1703:17 connections 1703:12 1822:9 1870:17 connects 1743:21 conservative 1877:4 conservativeness 1622:20 consider 1555:2,6,14 1556:2 1571:5 1576:12 1584:9 1659:19 1663:4 1700:21 1709:3,4 1710:15 1763:11 1794:19 1807:9 1821:15 1831:18
---	--	--	--

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1893

1834:18 1859:7 1861:7 consideration 1562:7 1563:18 1622:14 1623:3 1667:2 1803:6 considerations 1800:21 considered 1662:9 1804:17 1808:9 1861:12 considering 1786:13 1793:21 1854:22 considers 1563:17 consistent 1691:14,17 constantly 1711:1 constraint 1855:12 construct 1537:16 1543:20 constructability 1800:20 constructable 1723:7 1777:7,12 1780:22 1793:17 1804:11,17 1805:13 1806:18 constructed 1769:5 construction 1615:19 1756:3 consult 1875:1 1876:17 consultant 1625:16 consulted 1569:17 1808:1 contact 1549:4 1551:14 contains 1547:16,17 contemplate 1709:7 contemplated 1709:7 contending 1786:10 contention 1786:1 context 1704:19 1783:13 1790:19 1792:3,4,15 1821:1 1823:6 contextualize 1634:21 1789:13 1790:20 continue 1572:5 1735:22 1737:19 contributed 1551:17 1868:15 control 1547:8 1627:4,6 1627:19 1664:18 1673:2 1676:2,3 1706:15,21 1715:2 1776:5 1777:16 1781:1 1798:9 1818:13 1837:16,19,21 1838:9 controlled 1740:17 controlling 1702:1,10,10 1874:4 controls 1740:18 convene 1608:14 convention 1753:22 conversation 1602:17	1753:4 1804:7 1847:14 1847:16 1852:14 conversations 1591:18 1592:1 1596:14 1599:6 convert 1636:15 1821:16 converted 1676:13 convey 1646:11 conveyed 1685:8 convinced 1804:8 cooperative 1871:11 1872:4,8 coordination 1818:21 copy 1536:6 1560:7 Corporation 1534:5 1611:20 1614:12 correct 1536:16 1537:1 1537:14,18 1538:4,5,20 1539:7,8,11,12,20,21 1540:2,6,18,20,21 1541:2,3,18 1542:17,18 1543:1,16,17,21 1544:2 1544:11,16,20,21 1545:3,11,12,14,16,20 1546:4 1549:22 1550:1 1550:10,22 1551:3,7,20 1552:3,4,9 1553:12,19 1554:16,21,22 1555:3 1555:16 1556:14 1561:1,2,18 1562:5,10 1562:22 1563:4 1564:8 1564:14,15,17 1565:4,5 1565:7,8,12 1566:2,3,6 1566:7 1567:4,15 1568:18,19 1569:2,20 1570:3,5,20 1571:20 1572:3,4,14 1576:8,19 1576:21 1577:2,13 1578:3,4 1588:12 1589:10 1594:13,18 1595:3,10 1597:18 1603:4,9 1617:19 1626:5 1629:17 1636:22 1638:15 1640:18 1642:20 1643:1,9 1644:18 1655:11 1658:21 1660:9,13 1662:10,13 1662:21 1665:12 1670:8 1679:1,2 1681:11 1684:3,22 1686:18 1693:5,6 1696:1 1704:12 1708:10 1718:18 1720:14 1731:16 1739:12 1746:9 1753:1 1753:2 1757:19 1759:7	1764:8 1778:14,17,20 1797:19,21 1802:10 1803:20 1807:1 1813:10 1815:4,7 1818:3,5 1828:14,15 1843:1,5 1844:3,4,6 1874:1 corrected 1663:20 correction 1671:17 correctly 1736:6,11 1809:7 correlated 1702:14 corridor 1577:12 1614:5 1619:19 1623:11,17,22 1624:10 1626:11,20 1630:11 1632:1,3,5 1633:4 1639:12 1641:14 1645:21 1646:8 1652:13,16 1668:5 1680:2 1681:2 1685:20 1696:16,20 1700:22 1701:10 1706:5,9 1708:14 1711:18 1716:19 1717:7,13 1719:3,15 1721:2,19 1738:5 1740:5 1743:15 1744:8 1748:5 1776:12 1785:3 1794:20,21 1795:10,18 1796:18 1797:1 1833:3 1834:17 1837:11 1854:15,21 1855:13 1859:8 1860:2 1861:14 1871:17 1885:13,15 corridors 1868:18 cost 1562:21 1593:17 1594:4 1598:14 1599:7 1600:11 1601:18,21 1602:8,22 1616:22 1617:2 1679:14 1707:18,19 1708:21 1709:9,11,14,15,21 1710:16,17 1711:9 1756:3 1760:2 1781:20 1792:16,16 1798:18 1800:10,15 1801:3 1808:13 costing 1724:9 1760:10 1806:21 costs 1603:17 1637:1 1755:22 1756:1 1781:21 1800:20 1874:3 counsel 1560:7 1608:15 1610:11 1611:9 1618:13 1714:21	1803:14 1849:22 1851:14 1856:16 1874:17 1876:18 1877:14 1879:20,22 1881:3 1886:8,11 count 1715:10 counted 1574:16 country 1831:1 counts 1672:8 couple 1578:11 1588:12 1593:9 1624:11 1626:14 1628:10 1653:18 1657:9 1676:15 1787:15,19 1789:3,5 1799:18 1801:21 1802:8 1804:18 1824:1 1857:1 1863:15 1875:5 1881:4 course 1573:15 1613:8 1671:22 1672:13 1676:10 1677:11 1709:6 1712:21 1713:7 1726:20 1821:19 1828:9 1879:20 court 1535:11 1610:10 cover 1660:21 1884:4 covered 1550:19 1716:7 1842:13 create 1670:10 1868:17 created 1669:17 1830:10 creates 1697:5 creating 1629:2 1723:20 1839:9 creation 1621:14 credibility 1727:19 Creek 1839:3 crew 1670:16,18 1671:3 1743:12 1856:3 crews 1579:19 1741:10 1829:22 1836:21 1837:6 criteria 1706:11 critical 1744:5 critique 1645:22 crop 1726:2 cross 1564:19 1565:12 1651:14 1771:20 1831:1 1845:13 1850:7 cross-examination 1535:7 1536:2 1727:17 1727:22 1885:4 cross-examine 1850:3 crossing 1616:8 1653:7,9 1656:20 1659:7,15,18 1706:17 1777:15 1798:8 1805:15
--	---	---	---

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1894

1811:11 1812:22 1818:13 1819:3,19,21 1855:4 crossings 1652:9,13,15 1652:16,19,21 1653:6,8 1654:18,22 1655:9,17 1655:20 1656:7,12 1657:3,20 1658:9,14,20 1659:1,4,15,20 1660:3 1726:12 1736:16,19 1737:3,10 1776:6 1805:14 1818:18 1819:1,17 1854:13 1855:2,10,11 crossover 1575:9 1721:16 1726:4 1771:16 crossovers 1561:21,22 1588:2,12,19,21 1589:4 1602:13,15 1724:2 1826:19 Crowley 1849:6,17 1877:15,19 1878:21 CSX 1534:6 1545:7 1553:22 1554:7,20 1555:7,11,15 1556:3 1560:17,18 1563:2 1582:22 1595:12 1602:20 1603:7 1610:11 1611:9 1612:19,20 1613:1,8,18 1614:7,10,11 1616:19 1617:11 1618:13,16 1619:16 1620:6 1625:17 1626:12 1637:3 1638:14 1645:22 1646:1 1647:1 1648:20 1659:14 1663:17,18 1703:8 1710:21 1711:17 1747:1 1765:16 1768:2 1776:7 1777:2,6,21 1782:13 1783:5 1787:21 1789:19 1795:10 1796:11 1804:3,10,20 1808:2 1816:1,7,18 1817:13 1821:19 1826:8,9,12,13 1856:3 1857:10,17 1865:19,20,20 1866:1 1866:16 1867:9 1869:21 1870:19 1876:21 1877:10 1883:9,15 CSX's 1553:13 1643:22 CSX/Norfolk 1717:12,21	1719:4 1720:3 1721:3 1728:3 1729:7 1885:12 1885:14,16 cube 1870:2,9 1871:12 curfew 1673:10,17 1674:4,8 curfews 1673:9 curious 1652:1 1711:12 current 1804:10 currently 1735:16 1740:6 curves 1724:2 custom 1687:12 customer 1579:22 1688:3 1688:7,10 1702:2 1704:3 1729:18 1743:22 1782:14 1822:22 customers 1629:14 1667:3,7,8 1689:6 1691:5 1703:4 1820:21 1821:5 1823:15 1867:22 1870:16 cut 1815:10 1868:12 cutting 1855:17 cycle 1821:3 D D 1535:1 1538:14 daily 1566:5 1659:17 1827:11 damages 1690:12 Dan 1535:12 danger 1644:12 1791:8 1866:13 dark 1851:15 data 1536:13,14,15 1537:2,3,5,6,11,15,16 1537:19 1538:1,6 1539:3,12 1540:8,17,19 1540:22 1541:4,5,13,17 1542:8,15 1543:20 1544:7,12,18,21 1545:7 1545:19,22 1546:5,11 1546:16,18,21,22 1547:2 1548:2 1550:7,8 1550:11,14,17 1551:16 1551:19 1552:3,13,15 1552:16,17 1559:9,10 1591:20 1598:6 1625:14,19,20 1627:4,6 1627:8,10,10 1633:2 1664:18 1669:1,12,12 1669:16,20 1670:2,4,5 1670:10,17 1671:11 1672:9 1673:8,13,20 1674:10,11,12,14,17	1675:14 1676:11 1677:5,9 1712:15 1713:10 1776:16 1801:16 1810:17 1822:4 1827:21 1836:2 database 1546:17 1557:21 1659:18 databases 1546:9 1550:9 date 1594:11 1878:4 dated 1722:19 dates 1536:13 1537:3 1876:13 1879:21 day 1557:19 1566:2 1573:19 1604:14 1608:22 1616:11 1623:22 1624:5,14,16 1624:20 1625:8,10,11 1628:5 1646:16 1663:13 1665:4,5,7,15 1666:21 1668:7 1685:17 1689:14 1703:17 1712:2,4 1713:1 1741:20 1774:11 1802:3,14 1827:15 1832:3 1833:16,19 1836:22 1837:1 1838:13 1839:7 1841:8 1858:4,7 1859:16,17,18 1865:3,5 1867:21 1869:2 1871:1 1876:11 1878:16,17 day-to-day 1625:12 1630:6 1784:15 1792:18 days 1541:12,13 1576:1 1608:10,12 1609:6 1632:17,18 1784:12 1875:6 1877:21 1878:11 DC 1882:3 deal 1602:11 1847:20 1852:8 dealt 1616:17 December 1594:16 decide 1594:21 1628:5,19 1846:8 1847:17 decided 1593:16 1599:6 1803:22 1850:18 decides 1847:20 1864:12 decision 1589:9 1599:19 1600:6 1628:15 1697:6 1776:22 1852:8 decisions 1622:9 1868:1 1874:5 decrease 1582:20 1583:7 1583:19,21 1647:20	1699:6,11 decreased 1582:18 1583:5 1683:17,17,18 1795:8 dedicated 1764:10 deep 1699:10 defaults 1679:22 defer 1872:20 deference 1715:22 define 1576:14 1661:21 1687:5,8 1700:19 1701:17 1795:19 1823:12 1831:21 defined 1557:17 1574:8 1576:15 1577:8 1580:13 1634:13 1687:10 1772:17 1797:1 defining 1661:5 1831:13 definitely 1764:16 1781:13 1817:5,17 definition 1668:13 1797:8,16 1827:21 1853:10 definitional 1862:20 definitive 1557:9 degradation 1621:2 1640:7 1655:22 1683:12 1765:11 1780:4 1781:14 1791:16 1793:13 1794:9 1795:22 1796:3 1816:10 1828:21 1829:8 1831:15,16 degrade 1646:6 degrading 1826:13 1827:17 degree 1612:5,18 degrees 1689:13 Delamarter 1549:3 1551:4,5 Delamorta 1551:2 delay 1553:14 1572:19 1573:4,8,13,19 1577:22 1599:10 1630:17 1634:3,4 1636:4 1637:1 1639:19,20 1640:1,2,15 1641:1,1,5,5,10,18,20 1643:10 1645:1 1647:2 1647:13 1655:22 1657:14 1677:15 1679:14 1683:12 1684:10 1697:5,20,20 1698:11,18 1699:6,10 1699:19,20 1700:1,3 1701:3,5,17,21 1706:7
---	---	--	---

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1895

1707:6,14,16 1710:15 1734:12 1765:16 1767:19 1769:22 1781:16 1782:12,16 1792:9 1794:16 1796:16,19 1797:1,3 1799:5 1801:8 1816:18 1816:19 1820:19 1822:6 1823:7,11 1834:12,17 1862:3,17 1862:18 1863:10,16 1864:10 1867:8 delayed 1629:9 1663:13 1712:22 1734:10,18 1768:4 1865:13 delays 1571:17,19 1636:12,19 1643:4 1644:7 1645:5 1647:20 1656:3 1683:13 1705:20,21 1706:1,4 1733:7 1738:9 1741:9 1742:11 1768:10 1795:8 1827:18 1864:9 deliver 1579:21 delivery 1702:6 demand 1564:4 demands 1570:19 1571:2 1571:5 denied 1727:20 density 1736:19 depart 1670:19 1816:20 departing 1740:12 department 1598:20 1600:9 1601:17 1602:3 1613:3,10,20 1617:18 1637:3 departments 1613:4 departs 1581:9 1671:5 1747:14 1750:18 1751:8 1764:1 departure 1558:13,22 1579:14 1633:13 1662:1 1668:21 1669:15 1672:17 1673:1,14 1866:17 dependent 1557:15 depending 1558:21 1614:19 depends 1568:2 1628:8 1675:9 1794:20 depicted 1686:16 1693:3 1741:15 depicting 1645:18 1719:8 1758:13 deposed 1617:21 depth 1547:3 1724:4	derive 1827:6 describe 1611:21 1613:7 1614:18 1615:2,3,11 1617:7 1618:10 1619:6 1625:22 1627:14 1629:18 1631:4 1632:10 1639:2 1645:18 1646:10 1649:11 1654:14 1655:13 1667:15 1669:10 1679:17 1680:8 1683:4 1686:2 1705:4 1706:22 1716:8 1719:7 1721:10,22 1722:15 1725:19 1729:11 1734:1 1737:22 1741:1,13 1744:4 1750:5,6,9,16 1756:15,16 1758:12 1763:5 1764:12 1767:13,18 1773:14 1798:5,21 1804:16 1825:13 1826:4 1836:16 1837:8 1840:6 1852:22 1853:6,16 1871:8 described 1619:13 1631:1 1639:16 1672:12 1698:1 1763:7 1768:3 1825:11 1826:20 1827:22 1844:2 1870:22 1871:4 describes 1765:3 1844:13 describing 1679:5 1729:1 1762:20 descriptions 1552:18,19 1627:1 design 1613:2,9 1624:13 1804:10,13 1805:4,21 1806:21 1807:8 1839:8 designed 1571:22 1620:8 1649:22 1772:1,7,11 1773:5 1826:21 destination 1546:20 detail 1621:5 1704:18 1725:4 detailed 1666:17 1676:8 details 1618:7 1619:6 1622:3 1807:14 determine 1537:19 1544:15 1545:2,6 1569:18 1713:11 1853:18,21 determined 1537:9,17 1561:10 1591:13 1598:13 1621:1 1705:2	1773:6 1777:17 determines 1679:11 determining 1544:1,10 develop 1536:14 1537:3 1620:3 1623:20 1626:19 1706:12 developed 1537:7 1619:16 1620:2 1673:13 1676:9 1693:17 1721:17 1724:9 1756:17 1808:2 developing 1623:13 development 1619:11 1676:5 deviates 1630:20 deviation 1634:14,15 deviations 1785:13 diagram 1735:12 1742:16,21 1743:2 1751:2 diagrams 1705:19 1721:8 1725:3 1731:3 1743:1 difference 1623:4 1633:6 1641:3,3,17 1666:5 1689:5 1691:4 1723:15 1727:1,4 1793:4,9 1828:2 1859:12 1862:12 1883:3 different 1559:7 1586:5 1602:13,15 1613:20 1614:3,4,20 1615:17 1616:22 1617:2 1619:15 1628:10 1629:11 1631:15,16 1645:3,5 1653:6 1658:4 1665:11 1668:3,4 1674:18,18 1681:9 1691:13,13 1718:4,5 1723:17 1724:20 1726:16 1773:3 1774:6 1774:7 1788:9 1810:3 1811:15,15,18 1818:2,4 1818:5 1820:13 1824:2 1826:8 1833:4 1836:15 1849:10 1866:9 1867:20 1874:5 differentiate 1572:6 differently 1628:12 1653:10 difficult 1555:21 1558:16 1598:22 difficulties 1882:9 dig 1622:5 1675:11 digging 1677:7 Dingler 1537:13,15 1553:18 1554:19	1556:6 1561:7,11 1570:9 1576:10 1586:19 1587:16 1589:6,8 1590:3,15,22 1591:6 1594:22 1596:8 1599:4,20 1602:2 1607:19 1608:1 1610:12,13,21 1611:8 1611:17,19 1651:17 1668:19 1678:9 1687:4 1687:8 1691:6 1692:19 1694:16,17 1695:7 1696:10,22 1698:1,5 1707:11 1711:11 1727:4 1729:10 1731:7 1745:9 1753:12 1754:20 1756:7 1758:12 1761:8 1762:9 1762:15 1773:13 1774:18 1780:19 1781:10 1798:6 1808:14 1810:6 1820:7 1820:18 1833:22 1845:13 1849:4 1850:1 1852:17 1856:6 1870:3 1873:10 1875:15,18 1876:2 1885:7 Dingler's 1570:15 1690:17 1691:17 1694:3 1731:2 1847:13 1851:8 1880:18 direct 1560:14 1610:12 1611:15 1651:3 1699:19 1711:12 1750:3 1761:12 1801:2 1823:22 1824:5,17 1849:12 1874:19,21 1885:8 direction 1734:19 1737:8 1746:22 1752:11 1886:6 directly 1702:14 1800:21 1840:21 dirt 1659:22 disagreement 1698:16 discern 1883:19 disclose 1841:14 1851:7 disclosed 1844:10 discrepancies 1669:13 discrepancy 1617:3 1670:11 1671:3,10 discuss 1669:6 1844:21 1852:1 1875:16 1883:6 discussed 1552:11 1572:18 1595:16 1598:2 1599:16
---	--	---	--

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1896

1698:15 1722:7 1766:14 1777:4 1821:2 1850:19 1856:19 1870:16 discussing 1651:2 1842:1 discussion 1600:16 1602:6 1603:11,15 1606:5 1608:14,17 1686:22 1777:1 1804:2 1845:3 1851:5 1875:20 1876:16 discussions 1580:13 1596:8 1598:12,18 1601:16 1769:4 dismissed 1607:10 dispatch 1539:17 1541:7 1541:11,16,18,20 1545:19 1550:4,15 1551:16 1555:13 1566:8 1668:3 1669:1 1674:17 1698:9 1752:11 dispatched 1661:16 1668:1 1686:10 1698:9 dispatcher 1548:19 1550:21 1622:10,17,21 1696:18 1740:17,18 1748:14 1754:7 1763:10 dispatcher's 1549:3 dispatchers 1542:5,6,14 1622:12 1752:19 dispatches 1555:7,11 1713:20 1861:6 dispatching 1547:9 1555:3,4 1558:8 1634:17 1639:22 1669:11 1670:7,10 1671:11 1672:9 1673:2 1675:8 1676:3 1697:5 1794:17 1858:14 1860:12 1861:10 dispute 1871:2 disruption 1772:22 distance 1588:4 1727:7 1750:19 1755:2,12 1764:21 1778:2,6,6 1805:20 1837:3,5 1869:5 distinction 1679:4 distinguish 1681:13 distribution 1666:17 1669:18 1675:20 distributions 1623:21 1670:1 1675:21 distributor 1586:2	District 1886:17 dive 1650:4 divide 1793:7 divided 1783:19 DMSF 1664:17 doable 1580:6 document 1546:8 1553:1 1553:4 1564:10 1734:22 documented 1540:13 documents 1546:7 doing 1544:9 1579:9 1595:8 1603:16 1610:11 1619:9 1620:15 1633:8 1675:14 1710:11 1724:3 1727:7 1735:4 1757:2 1768:6 1783:18 1850:8 1858:14 dollar 1707:17 dollars 1580:5 Donahoe 1535:12,12 1546:6 1560:9 1604:6,8 1604:11 1605:3,13 1610:7 1885:5 doomsday 1785:18 DOT 1615:6 1617:6 1825:13 dots 1614:21 1615:5 1719:14 double 1725:19,22 1729:12 1732:6 1736:5 1736:15,20 1737:2,4,6 1737:18 1739:4,21 1742:14 1743:16,17 1754:15 1755:1,6,11 1756:4,13 1757:4,5,17 1759:9,17 DP 1584:10 drafting 1649:5 drag 1814:1 drastically 1703:22 draw 1642:12 1681:21 drew 1855:5 Driscoll 1880:2 drives 1570:19,21 1822:11 drop 1771:7 1786:3 1837:6 due 1562:15 1647:19 1649:2 1663:13 1664:16 1710:9 1723:3 1766:13,20 1784:15 1825:20 1871:20 duly 1611:10 duration 1837:12	durations 1633:15 1835:22 duty 1557:13 1670:18 1671:4 dwelt 1633:15 1789:22 1790:1,4 dwells 1623:15 1644:8 1662:2 1712:6 E E 1535:1,1 1610:1,1 1885:1,10 earlier 1580:3 1622:8 1672:18,21 1718:3 1768:3 1776:15 1798:7 1804:16 1809:1 1810:22 1877:8 1878:14 early 1663:8,14 1834:1 1858:6 1878:10 1881:5 ease 1729:1 easements 1819:6 easier 1653:22 1742:18 easily 1614:3 1671:15 1748:12 1774:7 1775:5 East 1588:3 1606:12 1656:6 Eastern 1607:22 1609:14 1663:18 1881:15,17 1884:9 easy 1774:1 1869:5 edification 1771:1 educate 1733:13 educational 1611:22 effect 1577:18 1664:5 1668:9 1683:17,18 1773:10 1817:1,6,18 1819:14 1822:8 1860:1 1860:11 1861:9 effected 1633:13 effective 1708:21 1709:9 1709:21 1711:10 effectively 1702:12 1732:1 1737:17 1741:8 1855:9,17 1858:14 1859:20 1860:13 effectiveness 1707:19,20 1709:15 effects 1681:14 1684:13 1703:11 1853:13 1868:14,16 1869:10,20 efficiencies 1571:6,10 1830:9 efficient 1667:19 1678:6 1699:20 1700:3 1839:14	efficiently 1737:17 1830:12 effort 1630:18 1682:11 1767:22 1773:10 1809:19 1852:5 1870:12 1871:11 1872:4,8 efforts 1809:22 eight 1565:15,20 1568:5 1568:6 1612:21 1613:18 1646:16 either 1560:8 1634:3 1730:1 1732:12 1736:11 1771:11 1774:1 1776:4 1808:3 1815:19 1837:12 1850:14 1858:5 1859:1 1859:21 1863:21 1865:22 1872:16 1877:5 1878:5,22 1881:17 elaborate 1624:2 1664:22 1680:7 1736:22 1737:2 1752:9 1762:22 1804:13 1837:20 elements 1837:19 elevated 1748:21 elevation 1749:3 eliminate 1842:7 eliminated 1845:11 eliminates 1575:8 elite 1700:13 Elmo 1741:1 1757:4 1759:6,8,15 email 1600:15,22 emailed 1600:21 emails 1600:14 emerged 1880:16 employ 1860:19 employed 1886:8,12 employee 1865:20 1886:11 employment 1613:8 encounter 1822:16 ended 1691:21 1692:2 1713:3 endless 1847:6 ends 1606:10 engineer 1723:22 1724:12 engineering 1598:20 1600:9 1601:17 1602:3 1613:4 1616:5,13 1806:20 enlighten 1644:2 ensure 1566:10 1572:9
--	--	---	--

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1897

1630:16 1633:1 1855:1 entailed 1612:7 entails 1614:18 1722:1 1784:20 enter 1681:3 1740:19 1748:16 1764:22 1804:21 entered 1664:19 1814:4 entering 1768:4 enters 1679:16 1745:21 entire 1736:13 1819:18 Entirely 1686:14 entirety 1816:11 1817:10 entry 1672:10 1673:2 equal 1685:6,12 1696:11 1696:12 1697:2 equally 1687:15 1729:22 1856:20 equates 1573:18 equipment 1675:4 equivalent 1785:19 era 1845:4 error 1739:10 especially 1632:21 1672:6 1674:2 1715:16 1796:20 1869:4 essence 1575:7 Essentially 1618:17 estate 1819:20 estimate 1570:8 1616:22 estimated 1574:21 1575:1 1723:8 estimates 1562:20 1617:2 1760:2 et 1691:19 1707:20 evaluate 1632:2 1711:4 evaluated 1768:12 evaluation 1780:13 EVD 1885:11 evening 1858:12 event 1575:16 events 1546:19 1677:11 eventually 1588:7 1613:3 everybody 1650:22 1785:8 1871:5 1875:12 1878:8 everybody's 1638:14 everyone's 1739:7 evidence 1577:20 1596:2 1635:16 1718:12 1728:13 1729:3 1850:15 EVIDENTIARY 1534:3 exacerbate 1571:19 exact 1536:13 1537:2 1625:8	exactly 1576:10 1597:13 1622:18 1649:6 1652:1 1672:12 1673:9 1689:16 1701:14 1784:11 1814:7 1857:14 examination 1604:10 1611:15 1760:12 1868:8 1885:5,8 examined 1611:10 example 1555:8,19 1556:2 1571:13 1690:14 1702:1 1716:18 1798:22 1806:1 1850:21 1865:8 1873:16 examples 1661:20 Excel 1545:21 1546:8 1676:9 excellent 1652:2 1767:16 exchange 1698:14 exclude 1773:18 excuse 1554:2 1875:15,19 excused 1607:14 1876:11 executive 1757:10 exercise 1656:22 1681:16 1705:5 exhibit 1536:8 1538:13 1542:20 1560:5 1569:14 1635:15 1638:3,10,14,17 1682:1 1717:11,19,22 1718:12 1719:4 1720:1 1721:3 1722:20 1728:2,20 1729:7 1731:1,9 1742:21 1758:8 1800:3 1885:11 exist 1538:3 1539:14 1572:5,15 1576:21 1660:8 existing 1544:5,19 1556:4 1587:2 1719:11,14 1726:2,7 1729:14 1737:16 1776:7 1853:5 1853:20,21 1854:14 1859:8 exists 1577:7 1801:16 exit 1740:19 expand 1573:10 expect 1557:5 1581:10,17 1787:9 1790:17 1833:13 expectation 1761:10 expected 1578:17 expensive 1561:10 1599:1,8 1616:12	experience 1627:11 1675:7 1777:22 1784:6 1785:11 experienced 1687:18 1768:13 experiences 1704:3 experiencing 1646:20 1647:13 1733:7 1765:11 1862:2 1863:15 experiment 1653:13 1654:12 1664:11 1678:15 1697:16 expert 1590:13 1592:9 1742:22 1764:20 1791:21 expertise 1708:1 experts 1542:2 1618:5 1840:7,8 1850:2,7 expires 1886:21 explain 1554:4 1573:1 1622:6,11 1633:5 1647:11 1664:22 1674:9 1676:21 1678:18 1696:11 1704:19,20 1735:12 1736:7 1743:8 1745:11 1766:6 1825:2 1839:2 explained 1657:18 1662:16 1841:16 explanation 1657:9 1673:15 1771:14 exploration 1872:18 explore 1653:12 1839:19 1840:13 explored 1703:19 1866:6 1866:7 1872:15,17 exploring's 1872:19 express 1672:5 extend 1588:3 1805:19 1806:2 extended 1577:16 1730:5 1734:7 1737:15 1743:13 1756:5 1774:20 1856:3 extending 1726:1 1738:5 1744:9 1805:6 extends 1722:9 1735:7 extension 1560:4,22 1561:16 1562:4,9 1563:17 1567:14 1741:1,5 1742:13 1743:8 1753:17 1757:5 extensions 1565:6 1566:15 extent 1587:19 1782:13	1879:16 extra 1572:18 1745:17 1755:13 1831:4 1878:16 extreme 1882:21 eyesight's 1560:11 F F 1610:1 1780:13 F1 1812:18 F2 1780:13,17,17 F3 1781:11 F4 1780:14 1782:3 1798:2,20 1811:8,18 1812:16 face 1777:3 1882:22 fact 1657:19 1715:16 1797:14 1865:9 1870:21 factor 1660:11 1829:1 1867:22 factored 1832:21 factoring 1800:14 factors 1678:15 1679:8 1703:8 1714:5 1784:15 1807:7 1867:4 factually 1873:8 fail-safe 1805:22 failures 1630:4 1685:18 fair 1568:4,8 1578:21 1658:12 1694:9 1817:8 1841:2 1846:16 1865:5 fairly 1700:11 fairness 1849:21 1851:1 fall 1661:21 1668:12 false 1670:10 familiar 1697:10 1701:8 1723:6 1724:14 1760:2 fantastic 1623:2 1625:10 1689:11 Fapp 1849:7,17 far 1547:3 1557:7,14,22 1558:15 1588:1 1601:20,21 1754:12 farther 1733:3 1734:19 1837:5 fast 1642:22 1676:18 1751:22 faster 1647:19 1648:12 FDOT 1616:20 1617:1 feasibility 1561:9 1594:7 1598:21 1600:11 1602:4 1801:15 1806:22 1807:11,19 1822:20 feasible 1662:18 1793:19
--	--	---	---

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1898

1798:17 1804:1 1866:12 features 1622:7 February 1540:19 1541:13 1618:12 1824:14 federal 1838:1 feel 1846:8 feels 1762:1 feet 1554:2 1587:4 1722:8,22 1723:4,15 1726:2 1730:7,16 1732:1,16 1744:9 1745:7 1747:17 1749:16 1750:6 1751:12,22 1753:9 1754:1 1755:20 1855:3 1855:11,16,22 1857:12 1857:14 felt 1591:18 1626:14 1693:15 1715:18,18 1806:18,20 1809:18 1810:16 fewer 1584:1 field 1539:18 1540:1 1541:10,21 1542:6,8,14 1545:13,15,18 1546:4 1546:10 1548:16,18,21 1549:14,20 1550:3 1604:19 1627:15 1724:3 fifteenth 1563:19 figure 1579:2 1592:10 1628:18 1677:8,16 1733:15 1792:6 1831:9 1834:3 1846:4 1847:22 1849:18 file 1540:13 1542:17 1543:1,16 1544:4,6,8 1544:13,15,18,20,22 1545:2,8,11 1617:11,11 1625:18 1626:12 1671:13 1677:4 files 1840:15,15 fill 1881:10 filling 1881:4 final 1588:16 1589:15 1744:3 1765:14 1806:20 1817:7 1852:13 finalized 1838:3 finally 1562:8 1671:4 finance 1613:3 1636:15 1637:2 financially 1886:12 find 1551:12 1561:12	1667:19 1671:14 1724:4 1830:7 1863:21 1878:3 1882:20 finding 1699:18 findings 1614:7 1821:11 fine 1568:9 1575:15 1651:22 1881:16 finish 1585:16 1608:4,12 1608:19 1671:1 1761:8 1843:8 1870:22 1878:7 1880:7 1881:5 finished 1808:15 1880:19 1880:19 finishing 1761:11 1878:6 firm 1609:11 first 1536:19 1538:13 1542:21 1594:21 1608:22,22 1609:1 1611:10 1616:4 1619:10 1631:20,22 1647:18 1649:12 1650:2 1660:12 1663:6 1664:11 1676:11 1678:17 1681:7 1710:17 1711:13 1716:13 1757:7 1768:17 1776:9 1779:10 1783:14 1786:18 1800:8 1833:16 1841:21 1852:22 1854:5 1864:13 1877:6,20 1879:15 fishing 1847:5 fit 1556:4 1588:5 1732:12 1735:8 1737:14 1743:14 1824:9 1853:4 1854:1 1855:2,6 1870:9 five 1540:9 1560:15 1570:11 1613:10,19 1635:3,5,8,8 1665:3 1760:20 1786:5 1838:14 five-minute 1760:18 fix 1646:4 1671:16 1799:3 fixed 1624:9 flagging 1875:2 flavor 1760:8 flaw 1649:19 flesh 1651:4 flexibility 1590:16 1668:5 1710:16 1732:14 flexible 1710:3 flip 1762:17 flipped 1764:9	flipping 1735:5,13 Florida 1617:6,18 1825:13 flow 1635:21 1677:18 1750:20 fluidity 1721:18 1852:20 1853:2,7 focus 1612:4,10 1613:11 1639:1 1682:22 1767:9 1780:16 folks 1551:15 1590:5 1603:7,7 1881:16,18 follow 1546:15 1557:20 1648:14 1657:6 1658:7 1724:17 1867:18 follow-on 1796:7 1800:7 1849:3 follow-up 1589:19 1695:7 1856:13 follow-ups 1651:21 followed 1602:20,20 1603:20 following 1578:11 1621:20,21 1732:9 1773:13 1779:4 1785:9 1795:15 follows 1535:22 1611:11 1647:18 Fontainebleau 1737:21 foot 1562:12 1565:3 1722:4 1723:13 1726:22 1732:17 1744:6 1747:18 1749:5 1749:11,13 1751:5,11 1754:13 1755:19 1763:5,8,14,22 1764:10 1764:16 1857:6,21 1861:19 foot-long 1562:14,16 force 1862:18 foregoing 1886:3 foreign 1540:13 1768:8 Forgive 1828:8 forgot 1650:20 forgotten 1746:10 form 1539:7 1586:15 format 1676:13 forth 1546:15 1578:14 1582:6 1600:11 1635:11 1850:22 fortunate 1880:12 1881:12 forward 1581:20 1869:19 1873:8 fount 1709:20 1768:2,5 fount 1847:6	four 1536:8,17,18 1566:1 1602:14,14 1604:12 1614:14 1616:8 1620:4 1640:16 1649:14 1653:16 1654:11 1655:8 1667:19 1681:8 1683:5 1685:7 1686:10 1698:10 1705:3 1788:7 1838:14 1856:4 1858:5 1858:19 Fourteen 1574:12 FRA 1617:1 1619:2 1659:18 1690:3 1722:3 1730:9 1735:4 1739:20 1744:6 1749:12 1754:1 1774:19,22 1775:12,20 1776:3 1777:15 1778:12 1779:9,12 1780:14 1795:3 1797:18,20 1798:9,19 1799:1,7 1802:12,19 1803:10,19,22 1804:18 1805:9,18 1807:10,17 1808:1,3,5 1809:3 1810:7,13 1812:19 1814:12,13 1815:15 1816:7 1850:21 freely 1751:7 freight 1554:13 1560:3 1560:19,22 1561:16 1562:4,8 1563:17 1564:1,21 1565:1,6,7,9 1566:14 1567:2,9,13,16 1567:18,21 1569:7 1570:18 1571:1 1574:6 1574:13,18 1575:7,17 1576:13 1578:1,12,16 1579:3 1587:2 1592:21 1593:14 1597:2 1598:13 1599:4,20 1602:8,14,15 1603:21 1612:13 1620:17 1639:3,8,18,21 1640:20 1640:21 1643:19 1646:18,20 1648:7,17 1680:17,19 1681:10 1683:7,19 1684:2,13 1686:1,12,15 1690:10 1692:12 1695:10,20 1696:22 1703:5 1704:10 1705:9 1709:3 1717:4 1721:20 1730:4 1730:18 1732:4,7,11 1733:2 1734:11,13,16 1735:9,21 1738:8 1744:1 1748:11 1751:4
---	---	---	---

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1899

1752:15,20 1753:7,14 1768:16 1769:10,19,21 1771:21,22 1772:16 1774:14 1781:4 1783:6 1784:3,6 1786:21,22 1787:9 1789:3 1801:8 1805:14 1821:7 1822:16 1823:1 1824:15 1825:2,3,6 1827:4,5,12 1828:12,19 1829:2,9,9 1831:16,19 1831:22 1860:1 1867:9 1868:22 1870:15 1873:15 freight-driven 1586:16 freight-only 1639:9 freight-to-freight 1612:12 freights 1873:15 frequencies 1835:21 frequency 1836:8 1837:12 fresh 1607:18 Friday 1535:6 front 1585:18 1648:18 Fuchs 1556:10,12 1558:2 1558:5,11,14 1559:1,5 1559:11,15,19 1580:19 1581:3,6,8,12 1582:16 1583:3,14,18 1584:4 1585:12,17 1586:11,14 1586:20 1635:18,20 1636:3,11,18 1637:6,10 1650:13 1667:12 1668:20 1670:13 1671:18,20 1672:1,4,16 1672:21 1673:5,16,22 1674:8,20 1676:20 1677:13,20 1678:5 1687:2,4,17 1688:2,8 1689:3,20,22 1690:2,7 1690:15,18,21 1692:2 1692:14 1694:10 1697:19,22 1698:12 1699:16 1700:7,10 1701:12,22 1702:9,19 1703:3,10,14,18 1704:1 1704:5,8,13 1707:10,15 1707:22 1708:5,18 1709:5,13,19 1710:13 1711:2,8 1715:14 1782:4,7,11,20 1783:2 1783:4,11 1784:1,5,11 1785:5,8,16 1786:16 1787:4,18 1788:2,8,14 1788:21 1789:2,9,12	1790:7,9,12 1791:14,17 1792:6 1796:7 1799:16 1800:6 1801:4,17 1820:18 1821:19 1822:1,14 1823:18 1846:10,12,17,20,22 1868:7,13 1869:22 1873:9 1874:7 Fuchs' 1711:13 full 1536:10,20,20 1656:7 1717:12 1736:16 1767:21 1781:7,22 1797:20 1849:12 1859:16 1878:9 fully 1538:21 1664:18,19 1665:1 1781:3 1795:17 1817:19 1840:22 1872:17 further 1535:22 1578:9 1605:3 1725:13 1727:21 1785:4,21 1791:5 1807:8 1850:13 1867:13 1886:10 future 1562:13 1579:8 1649:11 1878:17 G G 1535:1 gap 1872:10 1880:15 gaps 1742:8 gather 1579:1 1643:3 gathering 1598:6 1625:14 gathers 1625:9 gauge 1782:14 1783:6 Gautier 1738:12 1855:8 gears 1824:12 general 1559:1 1583:16 1669:2 1696:16 1760:10 generally 1558:20 1582:4 1588:20 1604:18 1617:14 1623:2 1624:7 1636:8 1679:6,14 1709:20 1710:2 1853:1 1870:13 Gentilly 1668:22 1673:1 1706:10 1721:22 1722:21 1725:18 1726:10 1727:2 1733:4 1772:3 1799:9 1809:9 1816:22 1817:20 1834:5 1857:7,15,18,22 1859:1 1864:14 1866:17 1869:14 geographically 1719:9	getting 1591:4 1654:2 1666:16 1671:1 1673:9 1681:20 1699:2 1711:12 1797:11 1800:13 1816:18 1832:6 1867:13 1870:10 give 1547:3 1560:10 1566:20 1569:1 1571:12 1578:6 1611:1 1635:22 1661:20 1680:12,13 1682:15 1715:9 1717:3 1721:19 1748:6 1777:10 1789:15 1794:18 1804:21,22 1805:20 1839:17 1841:2,12,15 1841:18 1846:13 1847:7,10 given 1591:6 1665:7 1808:1 1837:1 1845:22 1845:22 1854:19 1867:10 gives 1625:6 1726:4 1732:5 1742:22 giving 1681:10 1684:1,15 1686:11 1688:22 1832:20 1845:11 go 1538:7 1539:16,17 1541:12 1543:11,13,14 1552:20 1557:8 1558:1 1562:1 1564:17 1569:12 1575:14 1589:22 1600:13 1601:1,11 1605:12,18 1606:12 1610:18 1619:5 1625:13 1642:22 1644:13 1647:19 1648:11 1649:10 1650:22 1654:3,7 1656:14 1667:1 1670:19 1671:15,16 1673:19 1674:16 1675:4,12 1677:11,21 1689:21 1690:1 1696:9 1713:2 1714:14 1716:3 1717:1 1718:6 1719:2 1721:8 1724:6 1725:3,16 1726:10 1727:5,8 1729:5 1730:19 1733:14,17,18,22 1734:22 1743:6 1745:1 1749:21 1751:10 1753:9,18,22 1756:8 1757:9 1758:5 1760:13	1761:14 1763:17 1767:3,15 1772:10 1773:7 1779:3 1781:5,6 1782:2,10 1785:11,12 1785:19,21 1786:6,7 1798:1 1800:5 1807:8 1811:13 1812:15,15 1815:12 1823:21 1828:20 1829:17,20,20 1831:1 1834:1 1835:4,8 1837:2,5 1840:14 1849:8 1853:18 1857:3 1864:19 1871:7 1873:8 1882:12 1883:15 goal 1589:16 1693:18 goes 1541:7 1574:18 1590:10 1606:6 1642:4 1643:7 1727:18 1740:3 1740:4,9 1741:19 1786:1 1802:4 1850:1 1862:20 1866:13 going 1535:9 1553:2 1555:8,18 1556:5 1557:13,16 1558:21 1560:14 1566:18 1568:22 1569:12 1577:15 1579:16,19 1589:7,13 1590:3,21 1595:15 1596:9 1608:7 1613:5 1616:11 1618:2 1618:2 1619:5 1620:7 1621:4 1622:18 1630:11 1632:6 1635:14 1637:20 1638:10,21,22 1640:9 1640:22 1642:1 1644:2 1645:9 1647:19 1650:7 1650:21 1651:1 1653:3 1653:21 1655:20 1656:18 1660:21 1663:1 1668:2 1669:1,3 1671:7 1676:18,18 1677:14,21,22,22 1678:10 1682:10,14,22 1689:18,22 1691:9 1694:13,19 1695:8 1696:2 1697:15 1699:4 1702:15,16,17 1704:14 1712:1,2 1714:10,11,12 1714:16,20 1715:1,18 1716:5,16 1719:17,18 1719:20 1724:16 1725:5 1726:15 1730:21,22 1731:12 1733:17 1735:10 1736:2,3 1737:4
---	---	---	--

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1900

1738:17 1739:12 1743:1 1744:20 1747:8 1748:6,7,9 1751:11,13 1751:13,22 1752:1 1760:9 1761:2,7 1762:17 1763:11 1770:17,19 1774:14 1778:1 1780:17,18 1785:14 1787:13 1796:17 1800:18,22 1805:1 1810:14 1812:17,18,19 1813:13 1814:22 1815:1 1820:16 1822:22 1823:12,14,21,22 1824:11,12,17 1830:6 1831:14 1832:5,5,6 1833:8,9 1845:14 1847:10 1849:7,15 1850:1,9,16 1851:2,18 1852:11,12 1853:14 1856:4,9 1858:20 1859:4,21 1863:5,6 1864:3,19 1867:3 1869:1,2 1875:17 1878:16 1879:5 1880:18,19 Golden 1880:2 good 1535:2 1536:3,5 1560:12 1643:21 1647:11 1677:17 1693:10 1725:9 1767:15 1770:19 1824:4 1846:22 1851:4 1852:5 gotcha 1547:13 1830:7 1830:16 Government 1534:12 grade 1615:9 1616:6,9,9 1651:14 1652:13 1656:7 1658:8,14 1659:18 1706:16,16 1736:16 1737:10 1776:5 1777:14 1794:2 1798:8 1805:14 1811:10 1812:22 1818:12,18 1819:3,16 1819:19,21 1854:13 graduation 1612:19 granular 1546:22 1547:2 1719:22 1725:6 graph 1660:12 grapple 1850:16 gray 1741:17 great 1608:4 1634:1 1641:9 1659:12	1674:22 1748:1 1775:22 1784:8 1792:15 1800:7 1818:15,18 1876:4 1881:8 greater 1727:1 1830:9 green 1647:11 1677:19 1766:19 grind 1577:12 gross 1570:10 grounds 1694:13,22 group 1700:14 groups 1569:18 1645:22 1781:12,16 1826:8 1827:2 Grove 1737:21 1738:12 growth 1567:2,8,17 1569:15 1570:4,8,18 1571:1,4 1583:6 1620:1 1620:4 1837:11 guarantee 1736:10 1833:20 Guard 1837:22 1839:17 guess 1586:14 1589:7 1590:13,14 1596:4 1636:21 1637:11 1642:22 1663:9 1690:22 1700:8 1711:3 1724:11 1788:3 1794:5 1817:7 1829:14 1830:15 1831:8 1832:6 1832:9,10,10 1841:2 1845:19 1857:5 1863:20 1867:13 1877:21 guessing 1694:19 guidance 1768:20 Gulf 1544:16 1545:2 1563:4,11 1564:5 1577:1,11 1616:18 1638:11 1779:7 gun 1643:17 Guthrie 1621:15,16 Guthrie's 1880:19 guy 1591:10 guys 1569:1 1787:14 1803:2 H H 1885:10 half 1580:5 1655:10 1672:13 1684:13,14 1855:18 1878:16 halt 1577:12 hand 1597:20 1610:22 1696:4 1813:13	hand-thrown 1740:6 handful 1647:12 hanging 1606:14 handle 1567:12 1579:17 1861:19 handwritten 1542:11 hanging 1852:6 Hannah 1625:18 happen 1547:1 1553:20 1557:11 1579:7,8 1581:2 1582:12,14 1634:9 1647:21 1683:5 1686:2 1705:3 1734:8 1752:14 1839:15 1841:2 1855:21 1871:4 1871:13 happened 1580:21 1591:5 1624:16 1872:11 happening 1618:19 1664:6 1732:22 1839:21 1882:10 happens 1639:11 1648:8 1648:14 1649:11,13 1663:6 1678:16 1681:7 1685:2 1750:7 1769:17 1840:9 1871:10,11 happy 1672:2 1841:17 1851:16 Harbin 1733:3 1734:18 1735:1 hard 1689:18 1773:21 1851:13 1865:17 1880:7 harder 1685:12 harm 1768:13 1853:7 Harrison 1735:16 HDR 1541:8 1616:20,22 1618:18 head 1551:13 1552:16 1555:10 1557:15 1559:19 1575:4 1585:8 1605:19 1687:22 1694:20 1747:3 1754:17 1783:19 head-in 1584:12 heads 1750:11 hear 1553:21 1554:10 1644:21 1666:1 1667:11 1691:5 1694:15,16 1762:18 1821:4,5 1833:13 1846:2,4 heard 1553:7 1583:3 1590:1,20 1595:7 1688:2 1744:13 1746:2	1746:9 1748:4 1753:4 1820:12 1824:19 1828:6 1837:14 1841:22 1844:8 1848:19 hearing 1534:3 1535:3 1610:2,5,13 1691:12 1770:12 1792:4 1820:16 1824:15 1833:14,17 1844:11 1845:9,22 1848:15,16 1856:7 1860:17 1867:6 1867:7,10 1875:6 1882:5 1884:11 1886:3 1886:6,10 hearings 1884:8 heavy 1706:6,9 Hedlund 1585:14 1587:1 1587:5 1696:6,8,10 1697:7,9,14 1774:16,17 1774:18 1775:6,19 1776:20 1777:11 1778:11,15,18,21 1803:9 1818:11,12 1819:2,5,11,18 1820:1 1820:5,9,17 1824:16 held 1685:10 1687:12 1688:15 1858:22 help 1651:20 1663:16 1673:6 1691:15 1705:13 1714:16 1717:7,17 1720:4 1748:22 1757:10 1758:2,5 1787:5 1789:12 1790:20 1792:7 1867:8 helpful 1548:12 1596:6 1604:2 1644:20 1715:9 1716:1 1721:8 1753:3 1760:15 1780:11 1823:6 1867:15,16 helps 1649:3 1679:11 1742:3,4 1761:22 1867:11 hereto 1886:12 hey 1580:2 1713:5 1770:13 high 1546:17 1613:14 1619:6 1623:14 1627:8 1669:9 1679:6 1686:4 1689:1 1693:16 1701:20 1707:14 1713:14 1719:7 1721:9 1725:5 1733:7 1736:19 1781:14 high-level 1546:18
---	---	---	---

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1901

1561:8 1598:20 1600:10 1602:3 high-rail 1627:17 1836:19 1838:13 1842:7 higher 1645:2 1654:21 1655:2 1658:10,11 1679:13,13 1689:8 1692:10 1693:11 1702:15 1765:17,18 1766:13 1789:19 1811:4 1825:20 1826:16,22 highest 1680:3,13 1834:12 highly 1664:14 1717:2 1786:11,15 highway 1647:18 hindrance 1882:21 hindsight 1751:2 hired 1616:20 1865:20 historical 1546:1 1558:18 history 1537:20 1539:17 1541:7,11 1547:1 hit 1685:2,13 1686:3,12 1692:10 1693:13,19 1702:3,5 1874:10 hitters 1706:6,9 HNTB 1611:20 1614:11 1614:13,15 1615:4 1616:17,19 1617:1 hold 1562:16 1585:15 1715:10 1726:5 1745:15 1767:13 1799:17,18 1858:22 1859:21 1860:11 1863:6 1869:14 holding 1566:9 1733:2 1743:13 1761:11 1817:2,3 1860:13 1864:13 1869:16 holdings 1869:9 holistically 1548:3 Holly 1535:7,21 1604:12 1769:4 1885:3 homework 1808:7 honest 1624:18 1644:7 1691:20 1791:10 1813:20 honestly 1787:17 1803:15 hope 1590:4 1672:4 1821:22 1877:18 1882:13 hoping 1879:18 host 1623:16 1633:15	1634:2 1670:21 1703:8 1712:7,16 1714:4 1747:9 1776:11 1788:20 1807:7 1827:5 1866:20 hour 1568:8,10,11 1574:7 1575:18 1604:20 1608:2 1635:3 1635:4,5,6,9 1655:10 1656:12 1671:2 1672:13 1774:4 1787:15,19 1788:19 1789:4,5,6 1804:19 1805:2 1814:1,8,9 1874:10 1878:16 hours 1568:14 1573:18 1580:3,3 1646:16,16 1655:1 1656:13 1658:9 1665:13 1671:2 1672:14,18,18 1673:17 1675:8 1698:10,10,11 1802:7 1827:19 1861:17 1863:15 1864:4,22 1865:3,12 1867:11 1876:3 1881:4 1884:7 Houston 1615:7 huge 1872:10 human 1622:10,12,17,19 1622:20 hundred 1573:4,8,13,14 1577:22 1624:18 1635:5 1639:19 1640:15 1643:10 1697:20 1749:8 1782:12,16 1801:8 1823:13 hundreds 1643:7 Hunt 1561:19 1564:12 1565:14 1566:22 1605:17 1667:12 1753:4 1870:22 1872:9 1872:21 Hunt's 1563:15 1571:16 hurt 1769:22 hybrid 1809:19 1810:19 hypothetical 1642:2 1643:6 1854:21 hypothetically 1642:11 1864:21	1878:6 ideal 1623:9 1642:11 identification 1719:5 1721:4 1729:8 identified 1549:9,15 1550:12 1556:18 1572:11 1599:11 1626:14 1663:15,16 1676:15 1677:15 1757:2 1765:4 1768:15 1768:18 1769:1,3 1775:9 1834:7 1835:1 identifiers 1675:3 identify 1601:12 1674:3 1705:14 1706:5 1721:12 1725:9 1854:5 identifying 1638:3 1673:6 1705:22 Illinois 1612:2,6 1659:6 illustrations 1765:10 imagine 1608:3 1710:22 1880:7 immediately 1541:9 1550:5 1648:18 1670:19 1738:11 impact 1544:10 1545:6 1563:14 1571:2 1572:12 1574:11 1576:16 1577:7,14,19 1577:21 1580:15 1587:14 1599:13,13 1606:18 1615:18 1620:13 1621:3,7,12 1629:16 1632:1,2 1635:7 1646:5,17 1681:9,10 1683:8,10 1686:14 1695:9 1705:9 1709:3 1714:7 1730:4 1734:10 1751:17 1756:18 1765:4,8 1766:17 1768:5 1772:16 1780:1,2,2 1781:3,15 1811:6 1815:22,22 1817:19 1819:16 1823:14 1828:18,21 1842:17 1843:14 1859:19 1863:12,12 impacted 1612:11 1840:21 impacts 1544:2,16 1545:2 1572:8 1576:5 1597:8 1625:7 1681:9 1684:13 1859:18 1866:12,14,15 impairing 1735:14	impairment 1560:18 1576:6,13 1646:18 1695:20 1769:18 1791:22 1870:19 impetus 1544:9 implement 1772:20 implications 1633:20 1662:20 1765:6 1849:2 1849:17 important 1622:13 1625:3 1646:7,13 1685:8 1706:13 1726:9 1785:5 1792:14 1846:2 1854:10 1859:18 impose 1854:6,19 impossible 1689:18 1839:13 impressed 1865:9 impression 1670:10 improper 1694:18 improve 1581:19 1695:21 1699:8 1721:18 1798:14 1826:17 1829:9 1852:20 1853:2 improvement 1581:15 1647:13 1766:9 1767:1 1767:2 1825:9 improvements 1566:12 1584:7 1585:22 1721:11 1778:9 1798:11,13 1827:11 improves 1734:11 1735:13 improving 1586:3 1647:12 1826:12 in-depth 1590:7 inaudible 1790:13 inbound 1558:15 1665:3 include 1541:10 1561:11 1593:16 1597:1 1598:13 1614:21 1625:15 1628:5,21 1629:5 1642:9,12,15 1698:20 1741:3 1749:2 1769:19 1780:22 1789:22 1790:1 1806:7 1809:5 1811:5 1842:21 1858:5 included 1538:19 1539:1 1539:2 1541:10,22 1542:3,5,8,10 1552:10 1552:12 1553:11 1561:4,15 1563:1 1575:12 1586:16 1594:17 1602:9 1612:12 1613:20
--	---	---	---

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1902

1620:4 1626:22 1660:11 1699:6 1722:2 1729:12 1734:2 1736:7 1738:1 1743:9 1758:10 1759:20 1769:21 1779:18 1798:18 1809:9,15 1816:7 1817:11 1843:11 includes 1614:21,22 1726:3 1779:16 1811:8 including 1575:11 1602:22 1603:18 1613:14 1768:22 1825:12 1865:8 inclusion 1551:18 1552:2 1736:9 inclusive 1550:7 1815:14 incoming 1557:22 inconsistent 1727:14 incorporated 1538:15,22 1541:14 incorrect 1671:15 increase 1573:4,5 1582:6 1583:7,13 1586:5,10 1639:20 1647:2 1651:14 1655:22 1657:14,15 1698:22 1699:1,3,5,10 1712:3 1768:9 1784:21 1785:4 1791:5 1792:15 1794:17 1795:8 1799:5 1804:19 1816:22 1817:2,3,4 1823:11 1853:11 1862:17,18 increased 1571:8 1583:2 1583:4 1654:17 1777:19 1816:16 1827:18 1836:8 1837:12 increases 1732:14 increasing 1582:9 1586:15 1791:4 independent 1755:17 indicate 1725:6 1761:18 indicated 1695:8 1779:8 1809:2 indicator 1699:21 indifferent 1643:21 individual 1629:13 1690:6 1709:4 1821:15 individually 1685:9 individuals 1549:1,13 1601:8 indoor 1882:19 Industrial 1741:13,15 industry 1628:20	inelegant 1691:22 inevitably 1823:14 infeasible 1813:1,6 information 1539:6 1549:10,15 1617:7 1623:19 1625:16,19 1626:2 1667:9 1669:7 1669:17 1807:22 1835:20 1846:2 1847:20 informed 1680:15 1777:6 1777:21 infrastructure 1567:3,10 1568:14,17 1570:19,22 1571:2,5,21 1572:7 1580:14 1583:22 1586:8,9 1587:11,17 1591:21,22 1592:2,19 1592:20 1602:18 1614:4,6 1615:17 1624:13,17 1626:7 1629:1,6 1631:13,13,17 1649:21 1650:3 1663:3 1678:11 1697:18 1704:10,16,17 1705:11 1706:12 1707:1,19 1709:9,21 1711:5 1713:12,16 1739:18 1741:4 1756:18 1759:20 1770:17 1774:6 1775:9,12 1779:8 1809:4 1817:12 1827:6,20 1828:17,19 1830:4,8 1832:20 1833:4 1873:11,20 infrastructures 1626:6 1760:17 inherent 1622:16,20 1637:15 1641:2,20 1645:5 1649:19 1685:19 1796:17 inherently 1793:16 initial 1593:15,16,21 1599:21 1600:1 1632:15 1650:14,15 1730:6 1769:1 1806:14 initially 1561:8 1620:16 1835:1 initiate 1857:9 input 1591:2,11,11 1592:8 1593:4 1627:16 1662:14 1665:2 1667:5 1678:19 1679:1 1692:19 1697:21 1713:14 1802:2 inputs 1545:10 1550:6,8	1557:2 1582:5 1591:3,6 1592:3,4,17 1598:1 1619:15 1622:1 1652:12 1674:13 1713:10 inquiries 1870:5 inquiry 1773:21 1841:6,9 1854:4,21 instance 1581:9 1615:5 1635:2 1677:1 1698:22 1701:2,4,19 1790:2 1795:5 instances 1820:12 instituting 1828:19 instructed 1769:6 intending 1651:2 intention 1680:19 1687:1 1803:17 interchange 1577:15 1599:14 1606:15 1656:5 1664:12,14 1665:10 1683:13 1706:19 1729:18 1768:10,13 1769:18 1770:1 1798:21 1816:19,20 1857:7,16 1857:18 1868:8 interchanges 1656:13 intercity 1613:13 interconnectedness 1816:16 interest 1819:21 1833:7 interested 1886:13 interesting 1700:17 interfere 1863:7 interference 1798:21 interfering 1746:5 interline 1666:22 interlocking 1616:7 1721:11 1744:11 1756:1 intermediate 1677:2 intermodal 1548:1 1701:2 1702:16 1873:17 internal 1561:9 1569:17 internally 1792:12 interpret 1825:7 interpretation 1694:12 interrupt 1548:11 1556:13 1580:20 1584:5 1635:21 1813:13 1879:8 interruption 1796:4,13 interview 1541:19 interviewed 1548:21	1549:14 interviews 1540:1,3,4,7 1541:22 1542:4,7,10 1546:3 1551:15 intimately 1760:1 introduce 1611:17 introduced 1635:16 1680:10 1731:2 1797:12,14 1829:6,11 1836:17 1861:14 introducing 1697:18 introduction 1572:20 1710:8 1797:18 1859:7 investigated 1621:11 investigation 1690:8 investing 1567:9 investment 1567:3 1568:14,17 investments 1605:10 1614:6 invoked 1671:21 involved 1591:19 1592:16 1595:1 1598:1 1598:11,15,17 1613:12 1618:11,14 1621:16 involvement 1597:15,16 isolated 1816:14 isolating 1795:1 isolation 1699:14 issue 1569:4 1594:4,7 1663:20,22 1713:3 1805:21 1813:19 1825:1 1856:14 1862:21 1875:3 issues 1577:18 1606:3 1766:13 1820:8 1874:18 it'd 1658:11 1665:15 1697:4 1721:7 1749:7 1839:13 it'll 1585:17 1731:11 1742:18 1764:18 iterations 1587:19,20 1589:14 iterative 1706:22 1716:9 1716:13 1717:3 1835:6
J			
Jefferson 1771:8 Jessie 1546:12 1548:11 1556:10 1559:16 1605:6 1878:20 1883:4 1883:14 jobs 1557:12 John 1574:18 John's 1561:21,22			

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1903

1566:15 1574:13,14,20 1575:9,12 1771:16,17 Johnson 1553:20 1554:6 1722:6 1762:19 1763:7 Johnson's 1553:21 joined 1612:19 joining 1700:13 joint 1536:7 1538:13 1542:20 1560:5 1569:14 1599:18 1600:5 1635:17 1638:10,14 1682:1 1717:19,21,22,22 1719:4 1721:3 1729:7 1731:9 1758:8 1767:8 1885:12,14,16 judge 1708:20 1786:22 1787:5 1791:22 1821:7 judgment 1723:21 1791:20 1800:17 1851:14 1872:3 jump 1582:17 1585:18 1733:18 jumping 1643:17 Junction 1588:3 1606:12 1656:6 justified 1691:19 K Karen 1586:22 1696:9 1803:9 Karen's 1779:5 KCS 1664:17 1816:21 keep 1566:19 1576:20 1604:21 1640:22 1657:22 1664:9 1669:2 1685:15 1710:6 1711:22 1714:4 1722:12 1744:2 1748:10 1751:13 1759:11,11 1760:12 1761:17 1785:1 1787:11 1789:16,20 1793:14 1795:7 1796:14 1821:14 1832:6 1833:8,9 1868:20 1882:9 keeping 1748:13 keeps 1732:1 1744:16 1747:14 1763:9 1788:18 kept 1734:17 key 1622:7 1651:10,15 1655:19 1656:16 1675:5 1769:3 1792:1 KIM 1886:2,16	kind 1543:18 1548:2 1557:15,20 1581:21 1617:20,21 1622:7 1649:4 1650:1 1659:10 1660:17 1663:3 1667:15 1669:3 1676:1 1698:16 1715:1,2 1761:2 1825:13 1838:10 1855:5 1864:9 1870:6,12 1871:7 kinds 1584:7 knew 1595:9 know 1549:2 1555:12 1558:8,17,20 1565:18 1570:17 1575:3 1579:13 1580:13,14,17 1583:12 1585:6 1587:16,18,19,21 1588:14,17,18,20 1589:13 1590:21 1591:7 1592:10,18,22 1593:10 1595:5,6,10,11 1595:12 1596:1,5,20 1597:15,21 1598:8,10 1600:10 1602:19 1603:1,15 1605:21 1606:9 1608:2 1615:1 1616:21 1617:13 1621:19 1624:15,16 1625:9 1626:5,8,10 1627:11,17 1628:3 1629:3,8,11,14 1630:17 1631:8,9,12,15,16 1632:17 1633:2,3,10,22 1633:22 1635:7 1636:8 1636:13 1637:13 1639:10,11,17 1641:1 1641:14,15 1645:4,22 1646:5,14 1647:1,16 1648:15,16 1649:1 1652:15 1655:19,20 1656:8 1659:21 1660:5 1663:8 1664:7,15,16 1666:15,20,21 1667:6 1668:4,6,7,8 1669:18 1670:20 1671:7 1673:12,18 1674:7,11 1674:13,13,17,21 1675:18,20 1676:7,8,15 1677:3,18 1678:2 1679:11 1682:19 1683:10 1685:8,10,18 1687:13,13,21 1688:18 1688:19 1689:8,10,12 1689:15 1690:11,13,22 1691:8 1692:6,7	1693:10,12,16 1695:15 1695:15,16 1697:13,22 1698:1,13 1700:2,5,11 1701:3,7,14 1703:9 1704:9 1705:7 1706:1,6 1706:20 1707:3 1708:13,15 1709:1,11 1710:4,13,16,21,22 1711:2,3,5,6,9 1712:3,5 1712:8,10 1714:4,5,6,7 1715:11,21 1716:9,18 1716:18,19,21,22 1717:3 1718:2 1722:21 1723:21,21,22 1724:3,8 1724:13,20 1728:14 1729:22 1732:6,12 1733:2,5 1736:2 1737:9 1737:13 1738:5,16 1741:10,18 1742:1 1743:12,14 1746:1 1747:2,3,6 1748:1,4,6,8 1748:9,11 1751:15,18 1752:5,5 1753:19 1754:6,8,9 1760:11 1761:21 1762:3 1763:22 1765:16,17,18 1766:6,14,21,22 1767:4 1770:18 1771:10 1772:2,11,21,21 1773:6 1774:1,3 1775:4,19 1776:8,11 1777:2,21 1778:8 1779:11 1781:15,15 1782:19,22 1783:1,20 1784:9,13,14 1784:15,17,18 1785:12 1786:19,20 1787:1,2,6 1787:6,15,20,22 1788:6 1788:18 1789:4,6,7,10 1789:14,18 1790:3,5,16 1790:19 1791:3,13,18 1791:19,21 1792:1,4,10 1792:14,16 1793:8,17 1793:17,19 1794:1,2,15 1794:18 1795:7,9,13,15 1795:22 1796:15 1797:8 1798:18 1799:3 1799:4 1800:8,14,15,17 1800:18,21,21,22 1801:2,5,7,11,16 1802:6,7 1803:6 1804:3 1804:7,9,22 1805:3,21 1806:17 1807:4,4,5,13 1807:21,22 1808:1 1809:20 1810:13,15,16 1811:3 1812:13 1815:19 1816:17,21	1817:15,16 1818:5,16 1819:4,10,14,14,16 1821:3,17,18 1822:3,7 1822:8,18,19,20,21 1823:5,5,8,12,12 1825:7,18,19 1826:5,12 1826:13,14,15 1827:17 1827:19,22,22 1828:2 1829:8 1830:17,21,22 1831:5,12,18,22 1833:3 1833:15 1834:8,16 1835:4 1836:5,13 1837:2 1839:9,10,10,10 1839:12 1840:4,17 1841:16 1844:22 1845:2,12,20 1847:15 1847:19 1849:9,16 1851:11 1853:22 1856:2 1857:12,15 1858:13,14,16 1859:6 1859:18,20 1861:4,5,10 1861:11,12,13,22 1862:10,14 1863:12,14 1863:15,16,17,18 1864:21 1865:3,4,6,22 1866:1,3,4,4,4,11 1867:1,2,11 1868:4,19 1868:22 1869:2,5,17,17 1870:16,19 1871:2,20 1871:22 1872:2,5,7,13 1872:22 1873:1,15 1874:3,4 1875:14,15,16 1876:14 1878:6,15 1879:15 1881:9 1882:12 knowing 1849:22 knowledge 1559:6 1584:18 1590:8 1619:3 1674:22 knowledgeable 1585:5 knows 1593:13 1622:17 1821:19 L Lake 1813:2 language 1651:15 large 1823:16 1862:18 larger 1853:14 Larry 1621:15,16 late 1646:16,16 launch 1558:9 law 1839:17 lawyer 1690:17 1791:19 lawyering 1715:13 lawyers 1820:3,11 1875:19 1876:7
--	---	---	--

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1904

lay 1744:20 layered 1619:22 layering 1716:14 laymanly 1745:13 lays 1731:3 1758:9 1812:18 lead 1560:3,22 1561:16 1562:4,9 1563:17 1564:1 1565:6 1566:15 1567:13 1574:13 1575:8 1587:2 1592:21 1593:14 1597:2 1598:14 1599:4,20 1602:8,14,15 1603:21 1768:16 1769:10,19,21 1771:21,22 1817:1 1832:1 1867:13 leading 1665:17,18 leads 1768:9 learn 1595:14 learned 1563:16 leave 1558:20 1608:9 1650:1 1653:18 1725:5 1752:15,17 1852:6 1863:5,9 1864:14 1875:6 leaves 1750:7,10,15 leaving 1614:10,11 1668:21 1751:10 led 1716:11 1725:21 1734:3 1736:8 1738:1 1739:17 1741:2 1767:1 1826:5 leeway 1590:16 left 1559:7 1587:22 1616:19 1639:17 1702:4,5 legal 1791:20 1794:1,9 1820:8,15 legality 1690:20 length 1554:2 1582:9 1583:2,4,7 1586:15 1754:16 1805:5 1813:22 1853:1,19,22 1854:6,10,11,12,17,19 1855:22 lengths 1584:8 1854:9,20 lengthy 1571:17 1804:7 lesser 1587:11 let's 1580:2 1607:21 1609:10 1634:9 1638:7 1661:5 1662:17 1667:16 1672:13 1674:20 1762:6 1785:17 1786:5 1788:2 1788:8,8 1825:1 1852:6	1864:17 1879:5 1881:20 letting 1774:4 level 1546:17 1619:6 1627:8 1649:22 1674:22 1700:20,22 1701:6,9,13,17,20 1702:7,13 1703:1 1704:2,3 1713:14 1717:5 1719:7 1720:1 1721:10 1725:5 1779:13 1809:3 1842:18 levels 1779:8 1816:9 levers 1874:4 liability 1690:9 lid 1658:14 light 1552:16 1715:16 1741:17 limit 1652:14 1653:6 1656:19 1737:12 1854:5 limitations 1585:1 1660:2 1666:12 limited 1658:19 1680:16 1680:21 1855:10,22 1858:12 1865:3 limiting 1582:2 1583:16 limits 1745:22 1750:20 line 1539:1,5 1553:7 1556:13 1565:16,21 1566:2 1569:3,4 1577:4 1581:17 1602:21 1628:19 1629:5,10,14 1629:16 1642:10 1643:18 1644:4,17 1645:2 1654:22 1662:6 1664:2 1668:7 1677:21 1680:21 1686:10 1695:7 1715:2 1732:2 1735:5,9,15,17,18 1740:11,13 1742:3,3 1744:22 1746:13,19 1747:18 1748:15 1750:9,11,20 1751:12 1751:15 1752:16,20 1753:8,14,15 1754:2,5 1755:1 1763:18 1764:3 1764:6,7 1792:17 1829:19 1836:10 1838:10 1852:19,21 1853:2,8,20,21 1857:9 1858:19 1861:17,18 1864:4 linear 1707:2 lines 1565:11,21 1566:5	1566:13 1568:22 1569:9 1572:12 1576:17 1577:16,18 1583:1,13 1643:19 1712:14 1737:7 1741:17 1850:19 1860:6,7 lining 1748:14 1752:3,9 link 1873:19 list 1545:10 1560:16 1563:13 1585:6 1589:12 1810:15 1820:15 listed 1548:16 1551:18 1557:18 listen 1587:1 1847:1 listened 1777:4 listening 1715:12,12 lists 1776:14 literally 1829:19 litigation 1617:21 1872:22 1873:5,6 little 1548:20 1558:16 1590:7,13 1591:1 1613:5 1615:3 1625:22 1629:18 1634:14 1644:4 1648:19 1655:1 1657:14 1672:21 1676:21 1678:10 1680:7 1682:15 1686:6 1699:3 1725:4 1736:22 1745:12,12 1748:22 1756:17 1761:14 1762:16 1767:7 1780:18 1794:2 1803:7 1811:16 1824:12,13 1826:3,20 1835:13 1873:2 1877:7,8 1878:14 1881:17 load 1569:19 loads 1579:20 local 1558:6 1567:19 1579:21 1646:1,22 1647:1 1648:19 1667:2 1667:3,3,6 1683:11 1702:18 1729:16,17 1732:2,7 1733:6,9 1735:6,8,14,17 1738:14 1740:2,4 1741:19 1742:4 1743:22 1765:16 1818:16,21 1819:5,15,20 1823:11 1826:9,13 1830:11 1834:16 1870:17 locals 1557:17 1558:5 located 1717:8	location 1557:18 1579:16 1628:9,11,15 1645:6 1656:5 1675:9 1687:14 1722:5 1729:15,19 1730:10 1732:3 1735:7 1736:14,18 1738:6 1739:22 1740:3 1741:19,21 1772:13 1794:20,20 1855:10 locations 1622:19 1627:9 1707:14 1734:15 1747:5,10 1763:16 1834:15,17 1863:12,19 1871:19 locking 1622:21 locomotive 1586:1 locomotives 1586:4 log 1675:8 logic 1860:12 logs 1835:18 long 1565:3 1567:20 1587:2 1606:19,21 1612:20 1614:13 1622:18 1652:14 1677:6 1702:22 1712:2 1730:17 1732:9,16 1745:7 1747:17 1751:22 1755:10,12 1806:2 1834:8 1841:6 1858:4 1860:5 1861:16 1861:20 1864:3,6,7,12 1864:17,18,19 1865:11 1865:14 1867:8 1869:4 1878:11 1884:7 longer 1568:4,6,10,11 1584:1,2 1586:1 1609:2 1655:21 1659:9 1745:16 1761:15 1762:16 1774:5,8 1827:10 1830:11 1854:1 1857:5,11,14 1858:18 1867:20 1878:11 longest 1730:17 look 1536:8 1540:9 1542:19 1560:4 1581:20 1582:8 1583:12,22 1584:13 1585:2,21 1586:7 1599:9 1601:1,14 1603:17 1605:18 1608:16 1612:11 1615:1,8 1616:20 1617:1 1618:19 1621:9 1621:10 1626:8 1631:14,15 1633:19
---	---	--	---

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1905

1634:1,11,16 1644:1 1645:19 1646:7,19 1651:13 1654:19 1659:10 1663:5 1664:10 1669:11 1676:9 1685:9 1693:9 1699:13,14 1703:21 1705:16 1706:15,16,17 1707:8 1708:7 1710:17 1711:14 1712:11 1713:2,19,21 1714:16 1723:22 1738:10 1774:5 1775:2,5 1784:17 1786:12,14,20 1786:20 1787:16 1791:11 1794:14,22 1798:3,20 1803:1,13,14 1818:8 1820:21,22 1849:9 1853:19 1854:14 1873:11 1878:5 1880:14 1882:21 looked 1576:10 1584:10 1584:20,21 1593:15 1615:14,16 1619:14 1620:12,22 1621:17 1626:12 1634:3,3,6,6,9 1637:1 1645:20 1659:14 1660:12 1669:15,17,22 1675:13 1676:5,12,13 1687:20 1688:19 1692:6 1693:15 1695:17 1706:13 1707:4 1708:6 1708:11,12,22 1709:14 1721:17 1730:2 1775:3 1775:16,17 1776:8,12 1784:20 1786:13 1788:1 1789:18 1799:11 1802:7 1803:1 1806:14 1818:8 1826:7 1826:8,9 1827:21 1828:1 1835:21 1836:1 1837:10 1862:11 1872:6 looking 1554:4 1578:18 1579:10 1580:15 1582:7 1608:17 1615:6 1616:4,9,12 1621:2 1626:4,18 1629:3 1632:22 1644:17 1650:19 1658:4 1663:9 1663:12 1670:4,6 1674:19 1681:16 1705:6,7 1706:2,3 1710:20 1711:1,18	1712:14,14,15,18 1713:9,10 1716:10,14 1716:16,18 1722:18 1731:17 1744:7,18 1757:11 1768:1 1774:10,21 1775:18 1776:8,10 1786:18 1794:22 1797:9 1810:12 1812:3 1824:3 1825:17 1830:16 1834:19 1871:14 1875:7 1881:9 looks 1546:22 1548:7 1647:11 1822:10,13 1871:6 loop 1856:13 lose 1881:5 losing 1832:1 loss 1745:6,8 lost 1675:5 1733:13 1747:16 1803:8 lot 1590:1,4,9,9 1619:5 1621:18 1655:21 1681:20 1738:14 1740:2,4 1766:18 1777:2 1788:6 1790:7,9 1803:12,13 1822:11 1824:19 1828:6 1835:10 1839:5 1845:1 1848:22 1850:20 1852:18 1860:9 1868:20,21 1872:18 lots 1552:14,15 1586:4 1866:10 love 1818:17 1874:16 low 1659:19 1695:16 1701:21 1785:18,20 1786:2 1789:17 lower 1658:10 1679:15 1686:7 1710:15 lowered 1805:13 lowest 1710:16,17 lucky 1648:8 luncheon 1609:15 M M 1886:2,16 M-i-c-h-o-u-d 1757:15 Madam 1697:7 Madame 1535:11 magnitude 1774:9 1787:7 1823:7 main 1539:1,4 1564:13 1565:9,11 1568:22 1569:3,4,9 1629:4,9,16 1654:22 1668:7	1680:21 1732:2 1735:5 1735:9,15,17,18 1737:7 1740:11,13 1742:2,3 1744:22 1746:13,19 1747:18 1750:9,11,20 1751:6,6,12 1752:16,20 1753:7,14,14 1754:2,4 1755:1,7 1763:17 1764:3,7 1781:12 maintain 1572:1,13 1576:19 maintenance 1629:19 1630:5,9 maintenance-of-way 1630:3,12 major 1741:18 making 1590:17 1735:20 1791:20 1860:13 manager 1611:20 mandates 1882:19 manually 1740:9 map 1607:4 1717:6,12 1718:6 1719:3,8,20 1720:13 1721:2 1729:6 1733:22 1734:21 1736:2,3 1738:19 1739:7 1741:16 1885:13,15,17 maps 1718:3,3 MARC 1613:15 March 1618:12,12 Mark 1554:19 1593:5 1595:16 1596:15 1599:1 1610:13 1611:8 1611:19 1618:2 1651:11 1652:4 1704:19 1719:8 1752:8 1824:12 1885:7 Mark's 1597:6 marked 1719:3 1721:3 1729:6 1731:2 Martin 1534:15 Marty 1580:20 1582:17 1584:5 1585:12 1715:15 1799:16 1846:10 1847:9,10 1867:19 1873:9 Mary 1677:15 mask 1882:19,22 master's 1612:4,18 1636:22 1637:6 masters 1612:1,10 match 1538:3 1836:9 matched 1670:1 matching 1624:4 math 1783:18	matter 1534:14 1581:14 1592:7 1761:16 1774:3 1802:7 1819:11 maximum 1698:1,7 1853:22 1854:16,19 MBTA 1615:14 McDuffie 1766:4 mean 1537:12 1539:16 1542:11 1552:20 1555:4,13,17,19 1557:8 1557:12 1571:12 1574:3 1575:7 1579:7 1580:8 1582:8,21 1583:9,10 1584:5 1585:7,18 1586:7,8 1590:9 1593:3 1595:22 1606:11 1629:7 1648:7 1649:17 1660:8 1661:7 1676:20 1682:17 1687:9 1690:7 1692:3 1702:7,9 1707:11 1708:1 1711:6 1749:21 1750:13 1752:9 1775:7 1777:12 1782:8 1788:3 1788:11 1804:13 1808:4 1815:9 1830:18 1830:21 1831:3 1832:4 1832:16 1837:20 1846:15 1847:12 1873:4 1876:19 meaning 1704:2,5 means 1624:3,4 1629:7 1632:11 1640:17 1646:15 1664:22 1696:11 1701:20 1706:15 1737:3 1744:10 1754:9 1825:3 meant 1600:3 1632:11 1646:11 1683:18 1701:14 1833:12 1834:1,5 1873:12 measure 1641:5,10 1643:4 1698:18 1782:14 1783:6 1789:21 1801:11 measured 1788:10 1789:21 measurement 1650:19 measuring 1625:8 1641:7 1642:3,11 meet 1641:21 1681:1,2 1729:20 1730:1 1732:3 1734:6,8 1736:18,20 1741:11 1772:6 1796:21 1834:15 meeting 1634:8 1733:1
--	--	--	--

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1906

meetings 1603:11 meetless 1680:17 meets 1554:8,13,17 1681:5 1737:12 member 1556:10,12 1558:2,5,11,14 1559:1 1559:5,11,15 1580:19 1581:3,6,8,12 1582:16 1583:3,14,18 1584:4 1585:12,14,17 1586:11 1586:14,20 1587:1,5,8 1587:21 1588:9,17,22 1589:2,7,17,19 1590:1 1590:11 1592:5,13 1593:6 1604:6 1635:18 1635:20 1636:3,11,18 1637:6,10 1650:13 1668:20 1670:13 1671:18,20 1672:1,4,16 1672:21 1673:5,16,22 1674:8,20 1676:20 1677:13,20 1678:5 1687:2,4,17 1688:2,8 1689:3,20,21 1690:2,7 1690:15,15,18,21 1692:2,14 1694:10 1696:6,8,10 1697:7,9 1697:14,19,22 1698:12 1699:16 1700:7,10 1701:12,22 1702:9,19 1703:3,10,14,18 1704:1 1704:5,8,13 1707:10,15 1707:22 1708:5,18 1709:5,13,19 1710:13 1711:2,8,13 1713:5,8 1713:17 1714:2 1715:14 1770:13,15,20 1770:22 1771:17 1772:18 1773:11,14 1774:16,17,18 1775:6 1775:19 1776:20 1777:11 1778:11,15,18 1778:21 1779:1,4,19 1780:7,10 1781:7,17 1782:4,7,10,11,20 1783:2,4,11 1784:1,5 1784:11 1785:5,8,16 1786:16 1787:4,18 1788:2,8,14,21 1789:2 1789:9,12 1790:7,9,12 1791:14,17 1792:6,20 1792:22 1793:10 1794:5,8 1795:2,19 1796:3,7,9 1797:4,13 1797:17,22 1799:16 1800:6 1801:4,17	1804:4 1808:17,18,19 1808:21 1809:10,14 1810:1,4,10,21 1811:20 1812:1 1815:11,13,21 1817:7 1818:1,10,11,12 1819:2,5,11,18 1820:1 1820:5,9,17,18 1821:19 1822:1,14 1823:18 1824:16 1828:7,10,16 1829:13 1832:4,17 1833:7 1846:10,12,17 1846:20,22 1847:2,9,22 1848:6 1866:1 1867:18 1868:6,7,13 1869:22 1873:9 1874:7 members 1585:10 1587:7 1608:11 1618:5 1633:5 1650:5 1660:19 1678:12 1679:5 1692:17 1694:14 1714:10 1717:7 1719:18 1725:6 1742:19 1767:6 1773:15 1824:14 1845:19 1846:7 1856:16 1876:13 1884:2 members' 1681:21 1686:20 memory 1779:15 1814:15 mentioned 1563:5 1572:21 1615:2 1635:10 1637:15 1639:5 1680:12 1696:14 1707:3 1713:2 1734:5 1737:9 1743:11 1757:3,7 1776:14 1798:7 1826:2,2 1836:12 1859:17 1880:1 mentions 1561:2 1782:17 merchandise 1547:22 1559:3 1696:16,19 1702:17 merit 1878:10 metaphysical 1863:1 1864:11 Metra 1616:2,3,9 metric 1572:22 1573:1,2 1634:6 1643:11 1679:10 1680:4 1687:12 1692:8 1701:5 1782:18 1784:19 1792:3,11,14 metric's 1792:2 metrics 1633:19 1634:20	1639:15 1645:20 1646:13 1656:1 1684:18 1685:14,16 1688:6,14 1699:8,13 1705:17 1707:4 1772:14 1782:22 1783:21 1786:12,13,18 1787:14,17 1792:1,7 1794:15 1795:1,2 1816:13 1820:19,20,21 1821:2,12 1822:11 1823:16 mic 1613:5 Mich 1757:14 Michael 1599:17 Michelle 1779:3 1782:8 1796:8 1808:20 1811:22 1813:12 1815:9 1867:17 Michelle's 1800:7 Michoud 1725:19,22 1726:2 1733:4 1739:4 1757:4,15,16 1758:19 1758:22 1759:13 1863:18 mid 1759:14 middle 1535:7 1584:11 1638:3 1756:14 1761:15 1787:1 1801:1 1873:5 midpoint 1759:15,17 midst 1733:9 mile 1635:3,4,5,5 1697:20 1754:18 1772:12,12 1789:5 1805:10 1814:8,9 1837:3 1858:19 miles 1564:13 1565:16,21 1566:5 1573:5,8,14,14 1573:16 1574:7 1575:18 1578:1 1607:6 1634:5 1635:9 1639:19 1640:15 1642:18 1643:8,11 1716:21 1782:16 1783:19 1787:15,19 1788:19 1789:3,5 1804:19 1805:1 1814:1 min 1677:19 mind 1657:22 1685:15 1710:6 1711:22 1714:4 1761:18 1785:1 1787:11 1789:16,20 1793:12,15 1795:7 1796:4,14 1821:14 1846:18 1868:20	1880:13 mindful 1618:5 1824:3 mine 1689:13 1800:6 minimum 1641:11,12,13 1642:14,18 1643:5 1698:2,2,10 1699:2,4 1782:19 1783:16 1801:12,14 minus 1639:6 1641:12 1666:21 minute 1560:10 1813:14 minutes 1565:15,20 1566:4,11 1568:5,7,16 1572:18 1573:6,6,7,13 1573:14,18,21 1604:14 1604:20 1607:17 1634:4 1647:13 1652:18,19 1656:19 1658:20 1659:9 1737:12 1760:20 1774:3 1824:2 misheard 1688:9 1749:19 1803:11 misleading 1637:19 missed 1677:3 1746:10 missing 1863:22 1864:2 Mississippi 1728:4,5 1729:6 1885:17 misspoke 1683:15 misunderstood 1746:15 mitigate 1560:18 1563:14 1572:8,18 1573:21 1574:2,5,11 1575:17,22 1576:12,16,18 1580:15 1599:10,13 1621:3 1646:5 1686:14 1705:8 1706:7 1709:2 1730:3 1756:18 1765:14,18 1766:16 1768:2,5 1769:22 1772:2,6 1773:9 1780:1,6 1781:3 1799:4 1826:11 1834:14 mitigated 1572:12 1599:12 1692:11 mitigates 1575:8 mitigating 1826:16 mitigation 1767:22 1772:16 mix 1612:11,12 1738:8 1788:19 mixed 1541:4 Mm-hmm 1594:1 1636:2 1655:16 1657:7,11 1672:20 1733:20 1735:2 1785:7,15
---	---	---	---

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1907

1787:3 1789:8,11 1790:11 1794:7 1823:20 1856:21 1863:3 Mobile 1620:6 1653:1 1668:7 1677:4 1706:10 1719:19 1739:10 1740:3 1741:7,11 1742:13,13,14 1743:2 1743:16 1744:3 1746:12 1751:10 1752:21 1753:16 1754:15 1755:1,6,11 1756:13 1757:5 1759:17 1762:16,20 1763:3 1766:3 1772:4 1779:16 1790:3 1809:4 1834:5,9 1837:2 1839:5 1859:1 1869:15,15 model 1536:11,12 1537:1 1538:16,19 1540:22 1541:8,14,15 1543:20 1544:17 1545:6 1553:15 1554:3,16,20 1555:14 1556:1,2 1557:2 1558:7 1559:6 1572:6,19 1576:14,15 1579:9 1580:7,9 1581:9 1586:17 1587:10 1589:14 1590:8,10,18 1591:3,16,20,21 1592:8 1597:7,22 1612:15 1614:8 1615:20 1619:7 1619:16,17 1620:21 1621:7,14 1622:1,3,9 1622:12 1623:1,13,15 1624:2,8,10,22 1625:15 1626:19,22 1628:6,7,9 1628:13,21 1630:2 1631:4,11,18 1632:10 1632:12,21 1633:1 1640:3 1641:12 1644:6 1652:4,22 1653:4,5,8 1653:11,14 1655:16 1656:7,17,22 1657:19 1659:14,16 1660:5,6 1661:2,3,3,16 1662:12 1662:14,17,19 1665:2,5 1667:12,17 1668:2,22 1669:12 1672:17 1676:5,11,16,17 1677:12 1678:19 1679:8,19 1680:5,11,14 1684:20,21 1686:2 1688:16 1692:11,20,22 1705:10 1713:11,19	1714:18 1724:7 1729:13 1732:20 1734:3,13 1736:7 1738:1 1739:16 1741:2 1743:9 1768:6,22,22 1771:13 1772:22 1773:18 1774:21 1775:7,7,11 1776:17 1778:12,16,18 1788:10 1788:13 1791:10 1802:3 1809:2,15 1810:6,17 1815:14 1816:4,6 1817:11 1818:2 1821:16 1822:10,13 1836:17 1837:16,17 1838:4 1839:16 1840:9 1849:11,14 1853:12,16 1858:3,11,15 1859:19 1860:4,10,12,19 1861:4 1861:9,10 1862:6 1864:3,16 1866:8,9,11 1866:13 1868:18 1869:10 1870:7 modeled 1577:22 1639:18 1654:10 1664:15 1685:22 1779:17 1801:7 1835:16 1836:17 1837:7,9 modeler 1537:7,11,12 1553:16 1593:5 1622:14 1623:3 1637:17 1649:18 1661:6,8,9 1663:5 1664:3 1794:6,11 1825:4 1827:13 1839:15 modeler's 1668:11 modelers 1536:14 1540:12 1542:22 1543:15,20 1544:8,12 1544:22 1545:22 1573:3 1792:10 modeling 1553:12 1561:5 1579:2,7 1582:5,12 1584:18,20 1590:7 1603:16 1613:19 1622:7 1624:12 1627:5 1629:11,12 1643:12 1658:13 1663:14 1669:12 1693:9 1705:5 1724:8 1736:17 1769:2 1769:16 1782:17 1783:10 1791:21 1802:22 1809:19	1815:18 1828:12 1842:17 1848:22 1859:16 1865:21 1873:13,22 modelings 1584:9 models 1633:17 1636:19 1656:17 1712:13 modified 1774:20 modurails 1798:17 moment 1578:6 1682:16 1725:9 1731:11 1767:6 1833:12 1840:17 1852:7 Monday 1608:8 1877:22 monetary 1636:12,15,20 money 1601:19,22 1830:19 1872:14 monitor 1871:6 Montgomery 1620:6 1653:4 1677:4 1766:3 1857:8 1866:13 1869:16 months 1537:6 1623:20 morning 1535:3 1536:3,4 1536:5 1608:7 1674:4,5 1761:12 1858:6,11 1863:5 1864:20 1874:16 motion 1727:20 motorcade 1647:17 mouse 1647:4 movable 1553:15 1615:15 1642:15 1835:12,15,17 1838:11 move 1552:21 1553:2 1557:6,15 1565:1,8,13 1568:20,22 1569:5,11 1579:19,20,20 1580:2 1613:5 1629:22 1669:8 1672:1 1712:3 1722:6,7 1725:7 1726:16 1738:20 1751:6 1761:22 1812:18 1824:1 1830:3,5,9 1847:3 1858:13 1864:3 1880:12 moved 1553:8,9 1613:3 1614:11 1790:5 1830:12 1837:15 1860:5 1863:14 movement 1622:9 1627:19 1628:7 1679:18 1740:11 1742:6 1743:19 1745:22 1751:4,16 1839:5	movements 1537:21 1538:22 1539:4 1540:14 1541:15 1546:1,18 1547:1 1557:3,4 1625:14 1626:21 1627:15,18,22 1628:4,7,18 1629:5,8 1630:12 1671:12,12 1722:10,13 1744:1,2 1746:2,3,21,22 1747:7 1747:9 1748:9 1752:5 1754:4,8,9 1763:16,20 1766:1 1836:20 1838:13 1839:6 1842:7 moves 1547:4 1552:17 1557:10 1629:12 1670:21 1672:14,19 moving 1579:13 1711:22 1725:18 1728:3 1734:20 1843:6 1858:15 1867:1 1883:16 mph 1790:10 multiple 1628:6 1715:17 municipalities 1818:16 1818:22 muted 1666:1 1715:6 mystified 1753:7 N N 1535:1 1610:1,1,1 1885:1,1 nah 1692:15 naive 1659:4 name 1547:10,11 1549:3 1550:21 1610:10 1611:19 1671:21 1673:20 names 1551:12 narrative 1539:7,10 1540:8 1542:8,15,17 1546:11 1552:7,12,18 1552:19 1715:19 narratives 1539:14,21,22 1542:3 1552:11 1625:20 narrow 1704:6 Nashville 1703:12 1714:8 1866:15 national 1534:4 1643:22 natural 1685:19 1710:9 1787:14 1790:16 1791:9 1849:3 1869:3,6 1874:13,15 naturally 1824:4 nature 1805:22 1825:21
---	--	---	---

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1908

1861:12 nay 1591:11 near 1737:21 1738:15 1743:22 1837:4 1874:20,21 nearly 1614:14 1730:17 1788:12 necessarily 1561:6 1648:17 1664:17 1674:16 1690:11 1702:4 1704:2 1710:21 1714:7 1772:21 1777:3 1793:18 1794:9 1801:16 necessary 1544:13 1560:17 1561:20 1563:2 1566:19 1569:1 1574:10 1597:7 1733:5 1739:1 1756:12 1771:4 1816:5 need 1555:8,18,19 1564:16 1566:8 1570:2 1574:1 1575:8 1576:11 1578:2 1584:1 1605:17 1608:12 1631:13 1651:15 1669:6 1672:1 1688:22 1689:16 1691:18 1692:9 1693:17 1695:21 1725:13 1728:9 1730:16 1732:9 1736:17 1737:18 1738:15 1745:17 1752:8,19 1755:20 1758:5 1764:6 1767:5,5 1771:22 1772:10,15 1773:3 1795:16 1817:21 1830:20,21 1831:6,12 1832:1,7,8 1832:11,16,18,19 1851:11,12 1852:9 1861:19 1864:18 1884:4 needed 1544:15 1591:12 1591:12,14,19 1741:10 1757:8,18,20 1775:10 1775:20 1829:12,15 1834:3 1879:16,19 1880:4 needing 1575:22 needs 1564:17 1573:11 1578:2 1691:3 1724:21 1745:16 1752:12 1761:2 1867:22 negative 1559:20 negligible 1828:18	negotiations 1580:16 neither 1886:8 nervous 1644:4 net 1734:12 network 1537:22 1546:2 1569:18 1635:4,6 1643:22,22 1656:9 1661:13 1703:15 1734:14 1742:9 1787:9 1796:12 1801:14 1822:17 1866:16 1867:9 1868:9 1869:21 1870:20 never 1552:15 1627:9,10 1666:18 1799:11 1808:3 1809:19 1823:2 1823:3 1831:20 1840:21 1861:20 1868:3 1870:3 new 1548:22 1549:3,19 1551:9 1564:2 1613:14 1640:2,4 1653:2,3 1656:3,12 1662:1 1664:13 1706:10 1719:19 1738:3,4 1739:8 1748:4 1750:17 1751:10 1753:5 1762:17 1767:19 1768:12 1769:18 1771:9 1772:3 1774:2 1780:3,5 1789:18 1798:22 1799:3,4,7 1800:18 1809:5,16 1810:8 1811:7 1815:14 1816:5 1817:12,20 1829:18 1834:5,9 1844:10 1850:15 1853:19 1854:16 1857:19 1858:19 Nicholson 1729:19 1730:1 1733:19 1734:7 Nick 1549:3 1551:2,13 Niemeyer 1562:3,11,20 1575:2 1594:10 1749:20 1757:12 1759:13 1806:16 Niemeyer's 1560:5 1575:13 1722:19 1724:11 1726:22 1749:4 1759:19 1806:9 night 1858:6 1864:20 nine 1836:22 1838:13 Nineteen 1573:13 no-build 1825:10 non-automated 1842:21 non-clearing 1553:22	1554:1,7 nonstop 1642:19 1643:7 Norfolk 1534:6 1535:13 1560:3 1565:16 1566:12 1572:8,10 1577:10 1664:18 1721:16 1768:21 1769:2 1809:12 1829:17 1830:1 1866:18 1876:21 1877:10 normal 1557:3 1630:21 1685:19 1712:20 1787:21 1825:13 normally 1538:22 1694:6 1761:1 1787:9 north 1615:15 1616:7 1722:11,13 1726:10 1734:17 1738:11 1743:18,22 1839:4 northbound 1747:2 Notary 1886:1,17 note 1640:19 1656:2 1673:3 1694:5 1776:2 1798:12 1833:12,18 notes 1542:4,9,12 1606:2 notice 1534:15 notion 1846:1 1880:18 November 1541:2 1594:11 1722:20 1860:5 NS 1542:22 1543:15 1544:2,14 1545:7 1551:21 1552:1 1554:20 1555:7,11,15 1560:17 1563:2,10,16 1564:12 1565:21 1566:5 1567:3,9,17 1568:12 1572:1 1574:16 1575:11 1576:22 1588:1,13 1595:11 1599:10,13 1602:12 1603:7 1619:16 1625:20 1638:14 1640:4 1656:9 1659:14 1663:18 1703:8 1710:22 1711:17 1721:11 1766:20 1768:2,6 1780:5 1795:9 1796:11 1798:9 1799:11 1815:13,18 1816:6,14 1816:17 1817:12 1826:9,18 1865:21 1867:9 1869:21 1870:19 1883:9	NS' 1563:8,8 1569:15 1592:6 1815:22 NS's 1560:19 NSR 1562:15 1646:2 number 1553:7 1570:11 1573:12 1582:9,18,21 1587:14 1588:19 1612:8 1614:20 1615:17 1628:4 1633:12 1634:4 1643:6 1652:17 1653:3 1658:10 1681:3 1693:13,15,19 1695:15 1697:11 1722:21 1751:1 1774:19 1808:13,22 1822:7 1823:17 1825:11 1836:13 1853:9,11 1855:15 1885:11 numbers 1620:1 1633:11 1645:10 1653:19 1654:6 1657:13 1658:15 1684:10 1688:1 1759:19 1779:11 1811:4
O			
O 1535:1 1610:1,1,1 1885:1 o'clock 1607:16 1761:14 1761:20 1824:3 1863:10 1864:20 1874:10 oath 1535:17 Oberman 1534:15 1535:2,15,19 1546:12 1547:5,10,13,15,19 1548:4,9 1578:10,22 1579:11 1580:4,10 1581:13 1582:1,11 1583:16 1584:6,13,17 1585:4,9,15 1586:22 1587:6 1589:21 1593:8 1593:12,19,22 1594:2,5 1594:9,14,19 1595:4,7 1595:14,18,21 1596:3 1596:13,16,19,22 1597:4,9,14 1598:3,5,8 1598:11,17 1599:2,15 1599:18 1600:3,5,8,15 1600:18 1601:2,6,9,15 1602:5,19 1603:2,5,10 1604:1,5 1605:5,15,21 1606:9,17 1607:1,3,7 1607:12,15,21 1609:1,5 1609:10 1610:4,15,20			

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1909

1611:4,12 1637:22 1638:2,6,13,16,19 1640:11 1641:4,22 1642:9,17,21 1643:2,13 1643:15 1644:10,13,19 1648:4,6,11,21 1649:4 1649:8 1650:9,11,15,18 1651:5,8,22 1653:17 1654:1,7 1657:5,8,12 1657:18 1658:12,18,22 1659:3 1660:1,7,10,14 1665:18,22 1666:8 1682:3,8 1694:2,8,15 1696:9 1711:11 1712:9 1712:18 1715:7,8,20 1717:18 1718:2,9,15,19 1719:1 1720:6,10,13,16 1720:20,22 1722:16,18 1723:9,12,16 1724:10 1724:15,19 1725:1,8,12 1725:16 1726:18,21 1727:16 1728:11,14,19 1730:12,14 1731:5,13 1731:17,20 1732:8,15 1732:19 1733:11 1745:5,11 1746:7 1747:16 1749:1,8,15,18 1750:12 1751:9,20 1753:6 1754:12,21 1755:9,18 1756:8 1757:6,11,14,17,21 1758:6,18,22 1759:5,8 1760:5,15,22 1761:6,13 1761:21 1762:6,9,12 1769:9,13 1778:22 1779:3 1799:17 1800:2 1801:21 1802:11,14,18 1803:7,18,21 1804:12 1805:8,16 1806:1,5,19 1807:9,16 1808:4,12,20 1811:21 1812:2,9,12 1813:5,11 1814:3,11,18 1814:22 1815:5,8,12 1818:11 1824:6 1833:10,21 1834:21 1835:7 1841:20 1842:10,20 1843:3,7,10 1843:21 1844:5,7,12,15 1844:18 1846:11,15,21 1847:1,18 1848:3,7,13 1848:18 1849:20 1851:20 1852:4 1856:15,18,22 1857:4 1857:20 1858:2,18 1859:2,10 1860:3,16 1861:16 1862:5,22	1863:4,20 1865:6 1866:2 1867:5 1869:8 1870:1,21 1872:9 1873:3 1874:11,20 1875:4,9,22 1876:5,10 1876:12,22 1877:12,17 1879:4,9,13 1880:6,17 1881:1,20 1882:4,8,16 1883:18 object 1665:18 1690:16 1714:20 1841:13 objecting 1844:13 1883:22 objection 1546:6 1605:13 1638:7,17,18 1665:17 1665:21 1682:3,5,6,7 1693:20 1694:7,13 1695:2 1718:13,21,22 1720:16,18,21 1728:11 1728:12,21 1844:17 1845:5,8,8 1846:3 1851:2,2,10,13 1856:15 1856:17 1883:16 objections 1718:7,10 objects 1718:11 obscure 1823:5 observable 1673:2 observation 1877:1 observations 1540:3 1541:6 1848:21 observe 1559:8 1849:4 observed 1540:13 obvious 1711:19 1712:11 1712:17 obviously 1674:21 1750:9 occasions 1715:17 occupied 1539:4 occupy 1539:1 1564:18 1568:13 occupying 1747:4 occur 1808:5 1835:22 occurring 1705:20,22 1706:1 October 1886:21 off-shoot 1585:19 offer 1671:10 1694:6 1760:18 1841:19 1842:16 1849:10 officer 1886:2 offices 1882:3 offset 1828:3 oftentimes 1821:6 Oh 1584:6 1610:15 1654:1 1658:11 1696:5 1720:8 1749:15	1815:11 okay 1537:1 1543:8,14 1548:9 1551:2 1552:1 1554:12 1557:7 1558:11,14 1559:5,5,15 1560:14,22 1562:11 1570:4 1572:21 1573:7 1573:10 1580:10 1584:6 1585:9 1589:2 1589:17 1592:5 1593:11 1597:14 1601:15 1604:1 1606:17 1607:1,1,7 1609:8,10 1610:15 1621:4,13 1622:5 1623:6 1625:2,13 1627:21 1629:18 1630:22 1631:19 1633:18 1635:10 1637:10 1638:16,19 1640:8 1643:2,15 1644:10,19 1645:15 1647:7,9 1648:3,21 1650:1,17 1653:11 1654:1,1 1657:4 1658:18 1660:14,15,17 1668:18 1670:9 1671:9 1673:22 1677:13 1678:7 1680:6 1682:21 1683:4 1684:4,12 1685:1 1686:19 1687:16 1693:7 1694:9 1696:2 1697:15 1700:9 1704:14 1706:11 1714:2,2 1717:6 1718:9 1718:19 1719:13,17 1721:22 1724:15 1726:14 1729:10 1731:5,11,20,21 1732:11 1734:20 1736:2,5 1737:20 1739:6,8 1740:22 1741:12 1742:12 1745:4 1749:19 1752:13 1756:15 1757:13 1760:14,19 1761:16 1769:13 1770:2,5,8,22 1788:2 1793:10 1797:22 1799:13 1802:16 1803:21 1808:12,17 1809:10 1811:20 1815:8 1818:10 1820:5 1828:5 1829:13,13 1835:7,10 1868:6 1874:20 1875:8,15	1876:10,22 1879:3,4 on-time 1678:18 1685:13 1687:18 1695:13 once 1575:22 1579:18 1580:13 1589:3,3 1591:5 1619:20 1663:20 1692:11 1765:4 1779:20 1833:1 1839:11 1861:14 one- 1753:8 one-fifth 1665:15 1666:20 one-limit 1653:7 one-tenth 1666:21 one-to-one 1538:3 ones 1552:7 1556:22 1558:16 1578:13 1587:16 1653:20 1657:13 1758:14,15 1760:10 1812:2 1813:6 1842:3 1847:7 1880:13 OPD 1546:15,16 1547:15 1548:2 open 1648:1 1672:7 1836:3 1839:9,11 1864:1 opening 1642:12 1671:20 1731:3 1835:19 1836:8 1838:15 1840:1,3 openings 1553:10 1835:22 1836:3,15 1837:13 1840:5,16 1841:1 operability 1815:22 operate 1562:13 1563:11 1566:1 1577:2 1680:16 1732:4 1836:9 1858:16 1859:5,15 1860:15 1862:19 operated 1632:7 operates 1553:22 1625:12 operating 1545:19 1562:12 1571:6 1624:14,14 1628:3 1630:15 1648:17 1661:11,15 1662:4 1667:13,22 1668:13,16 1703:7 1712:2 1713:15 1764:14 1783:5 1786:20 1801:7 1802:8 1832:3 1839:12 1859:22 1860:8,19 1861:1,2,5 operation 1606:15 1641:20 1661:9
--	---	--	---

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1910

1668:15 1699:21 1700:4 1710:18 1748:10 1869:18 operational 1555:15,18 1580:17 1631:14 1633:20 1661:1,7,10,22 1662:9,11,18,22 1663:4 1668:9 1707:20 1708:11 1709:6,8,14,20 1710:3,11 1712:19 1713:12 1714:15 1818:19 1860:14 1874:2,3 operationally 1555:22 1572:2 1839:13 operations 1537:22 1545:7 1563:14 1567:11 1572:5,15 1576:20 1577:8,15,20 1579:5 1593:2 1604:14 1614:4 1616:13 1619:18 1623:8 1624:20 1626:13,20 1627:10 1628:9,16 1629:6 1633:1,4 1649:1 1649:21 1661:14,17 1664:16 1667:22 1680:1 1706:19 1710:20 1711:14 1722:8 1743:20 1744:8 1746:6 1747:15 1750:10,16 1825:15 1833:2 1861:2,8,13 1872:3 opine 1690:20 opining 1846:8 opinion 1623:12 1766:12 1794:12 1827:3,4 1846:1 1854:18 opportunities 1616:6,14 1858:12 1871:18 opportunity 1635:22 1727:19 1841:13,19 1845:11 1846:13,19 1849:12 1851:17,22 1874:17 1878:9 opposed 1584:2 1737:4 1756:19 1883:13 optimism 1791:10 optimistic 1878:1 option 1845:16 options 1599:10 1637:2 1721:20 1774:7 Orange 1737:21 1738:12 order 1569:5,11 1617:8 1654:3 1728:14	1752:22 1767:7 1771:12 1774:9 1817:9 1850:17 ordinary 1668:13 organize 1863:8 organized 1865:10 oriented 1745:13 origin 1546:19 original 1561:5 1563:2 1597:10 1598:12 1684:6,8 1731:13 1758:8 1811:9 originally 1594:4 1722:3 1749:12 1768:21 1770:7 1775:17 originate 1857:9 1865:12 originating 1740:4 Orleans 1548:22 1549:3 1549:19 1551:9 1564:3 1640:2,4 1653:2,3 1656:3,12 1664:13 1706:10 1719:19 1739:8 1748:4 1750:17 1751:10 1753:5 1762:17 1767:20 1768:12 1769:18 1771:10 1772:3 1780:4 1780:5 1789:18 1798:22 1799:4,4,7 1809:6,16 1810:8 1811:7 1815:15 1816:6 1817:12,20 1829:18 1834:5,9 OS 1674:13 1676:11,14 1676:14 OTP 1686:5 1687:5,9,11 1687:11,13,15 1688:7 1688:16,18 1689:1,16 1689:17 1692:6,7,10,19 1692:19 1693:9 1697:12 ought 1603:16 outbound 1558:19 1559:2 outcome 1886:13 outdoor 1789:14 outgoing 1558:1 outlined 1619:2 1798:13 output 1661:16 1668:14 1676:12 1684:21 1692:11 outputs 1634:2 1713:19 1713:21 outside 1557:3 1741:11 1776:5 1777:16,17 1815:19 1818:13	1822:10,12 overall 1603:19 1645:20 1683:12 1684:12 1705:17 1765:3,8 1766:8 1767:2,12 1788:12 1816:13 1852:20 overlooked 1606:1 overnight 1802:5,9 oversight 1592:6,7 overtakes 1737:13 overview 1603:12 1808:16 1817:9 owned 1819:19 owner 1818:14 owns 1819:2 P P 1535:1 p.m 1607:22 1609:14 1610:2 1884:11 Pacific 1881:19 package 1574:15 1588:16 packet 1561:3 page 1536:8,10,17,18,21 1538:7,12 1540:9 1542:21 1543:4,5 1548:13 1560:15 1562:1,7 1569:13,16,21 1569:22 1637:21 1638:22 1640:9,10 1645:9 1650:12 1653:20 1655:18 1657:13 1658:15 1660:12 1682:10,17 1693:4 1730:19 1731:1 1731:7,9,10 1733:21 1743:4,6 1758:6,7 1767:3,3,8,9 1811:14 1811:14 1812:4 1885:2 pages 1545:9 paper 1699:18 1700:6 1701:7 papers 1539:19 1540:5 1542:1 1545:18 1549:10 1550:13 1570:8,12,14,15 1670:20 1676:6 1773:16 1840:9,13 1841:17 1849:5,8 1854:3,7,8,14 paragraph 1536:10,20,20 1540:11 1570:1 parallel 1602:20 parameters 1665:14 park 1564:21 1592:22	1741:13,15 parked 1752:16 1829:20 part 1540:4,5 1552:2,5 1588:3 1612:6 1615:13 1616:4 1676:1,4 1677:19 1694:2 1712:4 1741:8 1759:20 1769:20 1795:13 1803:3,5,14 1806:12 1822:20,21 participants 1881:13 participate 1613:17 1621:13 particular 1773:16 1855:4 parties 1580:16 1656:13 1718:1 1847:4,11,17 1850:15 1851:8 1886:9 1886:12 partner 1610:8 partners 1577:16 1599:14 1768:10 1769:18 1770:1 1798:22 parts 1866:16 party 1883:11 Pascagoula 1738:13 pass 1562:17 1772:6 1862:4 passenger 1534:5 1572:20 1612:13 1613:13 1614:22 1616:18 1620:18 1621:3,8,12 1630:8,10 1630:13,14,17,19,20 1632:1,3 1633:20 1639:4,6,7,11 1640:16 1641:6 1643:20 1647:14 1648:1,1,9,16 1649:2,14 1652:6 1653:16 1655:8 1658:1 1662:8 1663:2,7 1667:20 1668:2,8 1678:16,21 1680:20,20 1681:4,5,8 1683:5,9,17 1684:6,7 1685:22 1693:2 1695:21 1697:1 1697:3 1705:4,7 1732:7 1735:9,21 1738:8 1744:16,21 1748:11 1750:7 1751:21 1752:3 1763:3 1764:12 1775:8 1797:7,12,13,18 1825:8 1825:11 1827:16 1828:1 1829:5,7 1831:13,17 1832:3,19
--	--	--	--

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1911

1833:2,5 1839:21 1840:3,19,20 1843:13 1855:1 1858:5,7,16,20 1859:4,7,11,22 1860:7 1861:18 1862:1,3,14 1863:7 1864:14 1865:4 1868:22 1869:12 1870:11 1872:6 1873:13,22 passengers 1620:11 1654:11 1691:9 1841:15 1843:14 1861:14 1865:1 passes 1737:13 1835:19 passing 1708:12 path 1604:17 1713:3 patience 1607:13 1884:7 Patrick 1585:16 1782:10 1799:15,18 1800:4,5 1847:5 pause 1558:2 1578:7 1674:21 1686:21 1761:19 pay 1563:3 1566:12 1690:12 1794:2 paying 1756:4 PBVR 1729:16 1733:6 peak 1625:4 Pearl 1837:4 people 1551:8 1603:17 1608:6 1700:14 1786:20 1803:12 1807:17 1821:7 1875:7 percent 1635:8 1646:10 1767:19 1782:11 1783:12,14 1795:22 1796:4,12 percentage 1634:20 1636:4 1639:7 1786:7 1791:12 1793:2,9,12 1828:2 percentages 1637:12 1783:13 percentile 1786:6 perfect 1626:15 1685:17 1874:15 perform 1630:6 1681:4 1856:6 1865:21 performance 1620:18 1634:20 1639:3 1640:7 1678:1,14,19 1684:18 1685:13 1687:18 1695:13,22 1783:7 1786:6,22 1821:8 1822:12,15 1823:1 performed 1815:19	period 1578:17 1581:4,19 1585:22 1619:13 1623:19 1624:9,12 1625:4 1664:7 1673:7 1748:7 1751:17,20 1754:3,11 1774:5,8 1836:4 1862:19 periods 1577:17 1862:1 permanent 1710:7,8 1785:2 1787:12 1791:2 1791:16 permission 1669:8 1681:22 1720:2 1728:10 1730:22 permit 1633:14 1653:5 1658:8 1840:15,15 1845:21 permits 1629:21 1630:2 1631:5 permitted 1655:8 permitting 1807:6 persist 1851:13 person 1549:19 1552:21 1591:8 1597:1,4 1768:18 1801:7 1882:2 1882:5,14,20 1883:7,13 1883:16,20 1884:1 personnel 1540:1 1542:7 1542:8,14 1546:4 1548:21 1550:3 1627:16 1783:5 perspective 1592:6 1668:12 pertain 1795:3 Peterson 1538:9 1553:1 1564:10 Philadelphia 1882:13 phon 1673:21 1837:5 phone 1549:21 1600:22 phrase 1816:2 1833:17 1833:17 physics 1813:20 pick 1535:9 1760:21 1773:16 1837:6 1857:7 picking 1705:14 picture 1648:7 piece 1850:15 pieces 1574:19 pier 1766:4 pilot 1553:9 1838:17,20 place 1564:21 1571:15 1579:21 1583:11 1586:9 1596:8 1637:8 1666:13 1695:1,12 1710:17 1711:14 1717:17 1726:4 1737:1	1761:19 1765:12 1795:10 1796:11 1799:1 1816:11 1830:8 1838:18 1858:22 1864:13 1874:13,15 1878:17 places 1659:6 1834:12,13 1834:19 placing 1716:20 plan 1554:12 1661:11,15 1662:4 1668:1,16 1703:7 1704:16 1713:15 1847:21 1861:1,2,5 1863:9 plane 1831:2 planned 1554:17 1646:14 planning 1569:17,18 1607:16 1613:22 1652:16 1761:10 1821:3 1839:10 1880:3 plans 1554:8 play 1580:17 1674:4 1830:6,16 1870:7 playback 1541:7,18,20 1550:4,16 players 1759:12 plays 1845:9 please 1538:10 1545:5 1610:22 1611:17,21 1618:4,4,10 1622:11 1639:2 1645:18 1666:2 1666:9 1676:22 1692:14 1745:13 1770:20 1801:19 1825:2 1846:17 1857:3 pleased 1833:12 plenty 1744:13 plus 1666:21 1681:10 point 1557:10,10 1570:11 1585:13 1607:15,22 1627:19 1644:16 1647:4 1669:5 1673:2 1679:3 1705:14 1721:7 1759:14 1785:5,18,20 1786:2 1811:1 1838:6 1846:22 1857:2 1865:19 1866:7 1879:19 1881:12 1882:1 1884:9 pointed 1594:14 pointer 1753:19 points 1627:4,6 1633:3 1675:5 1676:3,14 1867:20 1868:8,9 Port 1682:4 1718:8,21 1720:20 1844:15	1865:8 1879:12 Port's 1879:16,20,22 1880:1 portion 1756:3 1764:7 1769:2 1799:12 portions 1832:2 position 1549:5 1560:3 1563:8,8 1820:13 possibility 1571:5 1714:17 1840:13 1845:7 1851:7 possible 1554:12 1601:10 1635:1 1662:2 1673:14 1682:12 1710:16 1734:15 1785:20 1793:22 1794:4 1796:5 1800:9 1820:19 1825:22 1858:3 1869:9 1872:2,14 1877:5 1878:18 1881:2 1882:8 post 1820:16 1833:14,17 post-hearing 1845:4 potential 1615:8 1616:13 1620:22 1626:9 1705:8 1883:7 potentially 1580:12 1594:6 1646:14 1674:14 1711:20 poured 1792:11 power 1552:17 1584:10 1584:11,14,22 1585:1 1586:3 1671:16 1739:13 1740:16 1742:2 1773:22 1827:10 practice 1617:14 1618:22 1619:1 1621:9,20,22 1623:18 1634:22 1689:7 1693:11 1766:12 1775:2 1793:21 1794:3 1795:16 1803:1 1825:14,19 1870:14 1873:11,13,14,17 practices 1555:3,5 predicted 1573:3 prefer 1884:1,2 preference 1566:20 1568:20 1678:1,14,22 1679:6,8,9,15,18 1680:4,8 1681:10 1683:6 1684:2,15 1685:3,6,13 1686:1,11 1687:1 1689:1 1693:3 1696:11,12 1697:2,3 1748:6 1751:16
--	---	--	--

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1912

1839:18 1840:11 1841:15 1842:11 preferences 1681:18 prejudice 1845:10 prejudiced 1846:6 1883:11 preparation 1754:7 1856:7 prepare 1850:3 prepared 1845:6 1850:7 1851:11 1883:19 preparing 1596:9 1752:3 prerequisite 1563:19 presence 1737:3 present 1610:5 1622:2,22 1649:10 presentation 1767:7 1834:2 presented 1684:8 preserving 1846:5 presidential 1647:17 presiding 1534:16 presumably 1581:19 presume 1850:4 pretty 1550:19 1571:9 1655:21 1670:1 1715:19 1721:15 1749:19 1781:14 1823:13 prevent 1764:13 prevents 1764:4 preview 1714:10 previous 1619:12 1655:18 1698:15 1771:1 1828:13 previously 1535:22 1639:16 1739:3 1816:8 1854:13 price 1805:17,21 primary 1549:4 1551:14 1613:11 Primus 1589:19 1590:1 1590:11 1592:5,13 1593:6 1713:5,8,17 1714:2 1770:13,15,21 1770:22 1771:17 1772:18 1773:11,14 1828:7,10,16 1829:13 1832:4,17 1833:7 1847:9,22 1848:6 printed 1812:7 prior 1550:5 1694:12,17 1738:19 1837:14 1844:10 priorities 1713:15 priority 1569:5 1679:10	1679:13,15 1680:4,13 1696:14 1702:11,14,15 1704:6 1873:16 private 1876:17 probably 1551:12 1564:2 1637:3 1653:4 1695:17 1695:17 1697:10 1700:14 1727:6 1749:7 1770:19 1798:2 1820:16 1845:2 1880:14 problem 1548:14 1560:8 1646:4 1659:9 1715:20 1762:1 1763:6 1764:11 1813:20 1834:4 1835:1 1867:15 problems 1642:6 1763:2 1838:10 1865:9 1867:10 procedural 1847:3 proceed 1535:20 1559:18 1608:1 1611:4,12 1618:8 1638:8,19 1682:8 1718:20 1719:2 1724:16 1729:5 1762:13 1851:6 proceeding 1617:22 1618:11 1638:17 1881:12 proceedings 1833:18 1877:7 1886:4,7 process 1561:3 1593:10 1594:20 1602:20 1621:5 1626:1,17 1644:14 1663:8 1695:11 1706:22 1716:9,13 1736:21 1835:6 1871:7,13,15 produceable 1548:5 produced 1595:3 1632:18 productive 1884:8 productivity 1571:8 1581:16,18 1582:7 1583:13 1584:8 1585:5 1585:22 1586:5,10,16 professional 1870:7 profile 1669:16 1670:5 1673:19 1674:11 1675:13 1676:2 program 1547:11 1553:9 1553:9 1612:7 1652:11 1759:12 1773:19 1813:16 1838:17,21 progress 1852:7 project 1560:4 1561:8 1563:18,19 1564:2	1566:16 1574:19,20 1575:6,6,12 1588:14 1597:8 1599:7 1602:12 1603:18 1611:20 1616:12 1682:13 1708:21 1709:4 1722:4 1723:2,10 1730:9 1733:8 1734:2 1735:1,2 1737:22 1739:18 1741:2,4 1744:5 1749:12 1760:3 1763:6 1765:14 1768:15,22 1769:3 1770:3 1771:7,9 1772:9 1773:7,17 1777:15 1799:8 1801:2 1803:6 1805:9 1806:12 projected 1569:18 1570:4 1842:18 projections 1569:16 projects 1560:17 1561:1 1561:12,15,19 1562:6 1563:9,13 1564:7 1566:16,18 1571:21 1572:7,9,11,17 1573:20 1573:20 1574:1,5,8,15 1574:16 1575:10,11,14 1575:17,19,21 1576:2,5 1576:11,15 1587:12,14 1587:17,22 1589:9,13 1589:15 1591:14,14 1592:2 1599:11 1600:2 1601:18 1602:2,7,9,12 1602:21 1613:12,13,14 1613:17 1615:9 1616:3 1617:15 1621:2 1623:5 1657:2 1686:13 1688:17,19 1692:5,10 1693:18 1695:8,9,12,18 1695:19 1704:17,21 1705:8,11,15,21 1706:6 1706:14 1707:1,5,8 1709:1,4 1711:5 1714:11 1716:11,14,17 1717:2,8,13,14,17 1719:10,16,19 1720:5 1721:10,14,16,17 1722:2 1723:20 1724:9 1725:10 1728:4,7 1729:6 1730:3 1731:4 1738:21,22 1741:13 1743:1 1755:22 1756:11,16,22 1757:1,3 1758:4,9,17 1765:4,12 1766:10,21,22 1767:21 1768:5,11 1770:6 1771:3,12 1772:1,4,5	1772:15 1773:4,5,9 1774:19,22 1775:20 1776:4,9,10,13,15,21 1778:3,12 1779:11,13 1779:17,18,20 1780:1,3 1780:5,14,15 1781:3 1782:1 1784:4 1793:6 1793:15,21 1795:3,11 1795:13,16 1797:19,21 1798:10,16 1799:2,7 1800:17 1802:12 1803:2,22 1804:6,17 1805:12 1806:6,8,14,17 1807:3,5,7,11,17,19 1808:2 1809:5,12,16,18 1810:7,8,13,14 1811:7 1811:10,17 1812:6,19 1814:13 1815:3,15,16 1816:5,7 1817:13 1818:18 1825:8 1826:18,21 1827:7 1828:1 1829:9,12 1834:3,7,8,14,20,22 1835:4 1843:10,15,16 1843:17,19,22 1862:15 1885:17 prolong 1605:22 prompted 1595:19 1715:17 pronounce 1736:6,10 1757:15 pronounced 1736:12 proper 1688:4,11 proposal 1739:14 1753:13 propose 1726:16 1757:1 1777:18 proposed 1685:3 1686:3 1686:13 1717:14 1719:9,16 1735:3 1738:21 1744:6 1749:12 1754:13 1758:3 1770:6 1776:4 1784:4 1793:6 1795:3 1797:19 1810:7 1813:17 1815:15 1816:7 1817:13 1827:6 1838:2 proposes 1566:1 1777:15 provide 1542:22 1543:15 1544:12 1560:7 1681:12 1751:16 1786:17 1792:14 provided 1537:6 1539:6 1540:12 1543:22 1544:3,7,21 1545:8,22
---	---	--	--

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1913

1546:11 1563:13 1602:1 1619:15 1620:1 1621:17,18 1625:17,18 1625:20 1626:2,3,12 1629:2 1636:16 1677:5 1781:20 1786:17 1787:4 1816:13 provides 1545:10 1546:18 1732:2 providing 1543:19 1792:3 public 1534:3 1543:6,12 1613:12 1672:3 1682:1 1770:12 1844:20 1886:1,17 publicly 1837:10 1844:21 pull 1538:10 1570:2 1599:1,4 1637:20 1650:22 1664:6 1730:21 1731:1 1742:16 1743:2 1758:3 1763:14 1779:22 1780:8 1869:18,18 pulled 1546:9 1550:9 1594:7 1746:12 1863:16 pulling 1763:13 1765:7 pulls 1747:17 pure 1634:3 purpose 1544:17,18 1561:13 1721:13 1725:20 1729:12 1730:10 1836:18 purposes 1543:19 1544:1 1544:10 1549:14,20 1574:16 1613:22 1717:16 pursuant 1534:14 pursue 1599:8 1845:12 pushed 1690:14 put 1541:8 1560:6 1569:7 1571:14 1574:12,13 1583:21 1584:11 1585:2 1586:9,12 1629:20 1630:2 1631:8 1631:17 1644:6 1652:12 1662:5 1663:6 1665:4 1671:12 1682:1 1702:14,15 1704:18 1705:11 1718:6 1723:4 1724:1 1732:18 1737:4 1737:18 1739:21 1742:1 1747:11 1751:2 1766:22 1774:2 1783:12 1793:20 1799:22 1800:18	1810:22 1814:7 1820:15,19 1825:17 1839:13 1857:21 1861:20 1862:6,7 1866:10 1871:9 1872:1 1877:19 1883:12 putting 1621:22 1662:18 1665:1 1718:16 1843:14 Q quality 1676:1 quantified 1636:19 1709:15 quantify 1633:19 question 1577:5 1589:20 1594:10 1604:9 1605:17 1606:1 1624:10 1631:20 1641:4,9 1649:12 1658:8 1659:12 1663:6 1666:2 1668:18,19,20 1669:22 1677:16 1678:3,9,13,18 1681:7 1683:2 1686:6 1692:16 1696:7 1697:8,9 1711:13,15 1716:6 1725:13 1730:14 1748:2 1770:16 1771:2 1774:16 1776:1 1778:22 1779:5 1784:9 1791:18 1792:7,21 1796:10 1799:15 1800:7 1801:5 1808:18 1810:2,3 1816:2,15 1817:8 1818:15 1821:8 1824:19 1829:22 1833:11 1839:19 1841:12,22 1842:12,16 1843:18,22 1844:5,22 1845:19 1851:22 1852:6,12,13 1853:13 1856:10,13,20 1860:17 1864:11 1866:5 1867:12,17,19 1868:12 questioned 1793:5 questioning 1535:14 1548:20 1556:13 1677:21 1828:13 questions 1553:3 1559:17 1578:9,11 1585:11 1587:7 1590:19,19 1592:17,18 1593:4,9 1597:22 1604:6 1605:4 1615:1 1618:4 1621:18 1631:5,11,17 1650:4,6	1651:3 1653:19 1657:10 1660:18 1667:11 1672:6 1694:11 1715:2,10 1760:9 1770:11 1774:13 1777:2 1782:9 1796:8 1799:18 1800:3 1801:20,22 1808:13 1820:2,7,15 1824:13 1835:10 1845:12 1848:22 1850:20 1857:1 quick 1558:2 1585:17 1713:6,6 1796:10 1800:6 quicker 1742:9 quickly 1614:3 1774:5 1884:5 quite 1789:17 quo 1572:1,10,14 1575:20 1576:3,19 1766:7 1825:15 quote 1797:2 1804:1 R R 1535:1 1610:1 rail 1612:7,8,8 1613:13 1613:14,22 1623:8,10 1675:3 1702:2 1828:19 1829:3 1832:19 1865:11 1873:13 railroad 1534:4 1606:14 1625:17 1627:7 1630:5 1630:18 1636:14 1641:19 1664:8 1679:21 1688:15 1690:10 1703:7 1704:10 1709:11 1738:11 1783:9 1784:16 1787:17 1790:9 1796:18,21 1797:11 1801:6 1805:22 1817:16 1819:2,19 1863:8 1864:12 1873:16 railroad's 1706:14 1776:5 1837:19 railroads 1562:12,13 1593:5 1614:21 1616:16 1619:15,17 1620:2 1626:8 1640:2 1643:12 1656:3,11 1657:1 1673:11 1680:15 1685:10 1687:11 1706:21 1709:15 1710:19	1737:11 1767:20 1777:16 1781:1 1789:20 1792:10,19 1794:16 1798:9 1806:17 1818:17 1820:12,22 1821:5 1827:5 1835:18 1838:1 1865:7,10 1871:3 Railway 1534:7 raise 1610:21 1875:3,5 raised 1650:5 1678:12 1696:4 1770:12 1771:2 1824:14 raising 1850:21 1866:5 ran 1591:20 1632:15 1656:10 1658:19 1678:17 1723:13,17 1765:5 1775:6,8,10 1778:18 1779:11,13,20 1802:18 1803:9 1809:3 1814:12 1815:14 1828:13 1836:12 random 1633:10,12,16 1664:15,20 1665:1 1836:11 randomization 1666:6 1675:18 randomized 1665:9 1666:4 1675:17 randomly 1642:13 Randy 1753:4 range 1557:4 1558:9 1559:14 1624:20 1625:9 1631:11 1632:22 1759:14,14 1793:11 rare 1625:12 rate 1571:4 Ray 1610:10,16 1611:5 1635:18 1637:22 1639:5 1640:11 1648:4 1650:9 1653:18 1666:1 1671:18 1677:14 1687:2 1691:2 1692:14 1697:19 1713:5 1715:11,17 1716:3 1720:6 1724:17 1728:15 1730:12 1745:5 1749:21 1750:12,12 1756:8 1760:9 1761:6 1762:4 1770:13 1782:5 1808:12 1828:7 1832:6 1833:7,10,11 1835:8 1842:1 1845:3 1846:20 1848:18 1851:7 1857:2
--	--	--	--

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1914

1875:5 1876:17 1878:5 1880:7,13,20 Ray's 1715:8 re-crew 1575:22 1578:2 re-crews 1634:10 1645:14 re-looked 1617:15 re-running 1662:19 re-starting 1660:18 reach 1692:8 1852:2 reached 1598:19 1601:8 reaction 1823:9 1876:15 read 1597:19 1700:12,14 1807:13 1812:10 reader 1674:14 1675:7 1676:2 readers 1675:4 readily 1871:18 reading 1760:6 reads 1806:10 real 1538:4 1539:14 1559:8,8 1580:21 1581:2,10 1628:3 1631:9 1643:5 1671:11 1689:19 1703:3 1784:7 1806:22 1819:20 realistic 1878:12 reality 1628:3 1632:8 1737:10 1768:7 1825:21 realize 1716:22 really 1555:21 1564:20 1585:19 1597:12 1621:18 1637:17 1643:11 1675:11 1691:11 1780:11 1792:2,8 1801:11 1835:15 1847:4 1855:5 1867:8 1870:4 1881:5 1884:8 realm 1583:11 reason 1544:14 1545:1 1628:11 1637:13 1646:3 1656:4 1689:4,9 1700:19 1710:11 1711:3 1718:16 1722:8 1734:9 1736:15 1741:6 1741:22 1744:12 1745:16 1755:9,10 1804:5 1810:10 1844:20 1872:16 reasonable 1576:13,14 1608:2 1715:19 1854:19 reasonableness 1791:22 reasonably 1581:10	reasons 1624:11 rebuilt 1857:19 rebuttal 1542:19 1543:5 1594:15,22 1595:3,10 1596:9,17,19 1597:2,11 1597:17,19 1598:6 1650:14 1676:7 1681:15 1682:2 1692:1 1769:20 recall 1550:21 1551:10 1551:11,13 1553:14 1567:5 1574:21,22 1598:4 1600:20 1603:12,19,22 1652:21 1706:8 receive 1768:21 received 1617:10 1626:6 1626:7 1676:11 1835:17 receiving 1659:14 recess 1607:22 1609:13 1609:16 1760:18,20 1761:1 1762:8 1884:5,8 1884:12 recessed 1535:6 recommend 1657:2 1725:21 1734:3 1736:8 1795:15 1798:12 1807:5 recommendation 1617:4 1617:16 1671:9 1738:2 1808:8,9 recommended 1561:7 1571:22 1573:21 1576:5 1592:3 1722:4 1736:14,15 1739:2,4,20 1741:3,3 1744:8 1754:1 1758:17 1760:3 1775:20 1778:4,10 1779:9,12 1798:19 1801:1 1804:19 1807:10,19 1809:3 1810:20 1812:6 recommending 1737:1 1739:16 1749:13 1806:16 reconciled 1725:1 reconciliation 1852:3 reconvene 1608:7 1761:4 record 1556:21 1601:11 1638:12 1683:16 1838:1 1844:20 1845:15 1850:2 1883:21 1886:7 records 1539:9,12 recross 1605:6	Recross-examination 1605:8 1885:6 red 1640:6 1647:10 1764:19 1765:22 Redding 1677:19 redesigning 1615:15 redirect 1604:7,9,10 1605:14 1689:22 1885:5 reduce 1582:9 1587:14 1683:8 1780:2 reduced 1886:5 reduces 1773:2 reduction 1574:6 1575:17 1578:1 refer 1559:2 reference 1701:9 1774:19 referencing 1550:15 1562:3 referred 1721:11 referring 1555:9 1571:11 1650:13 1683:1 1746:8 1873:21 refers 1545:13 1722:21 reflect 1622:9 1816:9 reflects 1600:16 1640:6 regard 1813:8 regarding 1809:3 regardless 1778:13 region 1676:3 1816:11 1817:10 regular 1630:4,5,21 regularly 1547:22 regulated 1689:9 regulation 1688:6 reinstate 1882:19 related 1678:4 1824:1 1886:8 relates 1787:8 relating 1808:13 relationship 1699:19,20 1700:1,3 relative 1823:3 1886:11 relatively 1774:1,7 relax 1656:18 relevant 1859:3 1867:6 reliable 1699:21 reliably 1649:16 relief 1761:2 relies 1801:7 reluctant 1878:14 rely 1627:7 relying 1626:22 1783:5 1807:22 remain 1535:16 1840:2 remained 1836:3	remember 1596:7 1620:5 1622:15 1634:10 1636:8 1675:16 1701:7 1709:22 1750:22 1799:10 1803:4,15 1835:5 1842:4 1857:13 remind 1587:1 1741:14 1835:14 reminded 1608:6 remodel 1671:17 1727:9 1772:10 1773:7 remote 1534:3 1837:16 1838:9 removal 1588:18 remove 1660:2 1673:12 1769:7 1772:9 1773:7 1838:7 1841:5 removed 1588:11 1589:3 1589:9 1659:15 1660:4 1681:17 1780:15 1805:12,14 1811:10,11 1811:17 1812:3 removes 1838:12 reorganize 1702:20,21,22 repeat 1609:4 rephrase 1666:7,8 replacing 1630:7 replicate 1536:12 1537:2 replicative 1624:22 reply 1596:1 report 1560:5,15 1562:2 1563:6 1575:3,13 1593:15,16,21 1594:15 1594:22 1595:3,10 1596:10 1597:2,10,11 1597:17,20 1598:6,12 1599:21 1600:1 1622:6 1631:2 1632:15 1634:19 1635:12 1637:21 1638:11 1640:6 1645:9 1655:12 1681:15 1682:2 1684:9 1693:4 1705:19 1721:9 1723:6,12,17 1726:22 1727:14 1730:20 1731:10,14 1742:22 1758:8 1765:3 1766:8 1769:20 1779:7,21 1780:9 1798:13 1799:10 1806:7,9 1807:3,13 1834:13 1841:17 1849:1 1854:9 1860:5 reported 1623:7 1655:5 1684:17 1826:3 1860:4 Reporter 1535:11
--	---	---	--

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1915

reporter's 1610:10 reporting 1655:13 reports 1635:10 1681:13 represent 1623:22 1628:8 1628:12,16 1629:6 1632:7 1633:3 1636:4,9 1636:12 1669:20 1680:1 1840:16,22 representation 1592:15 representative 1537:4,8 1537:10,17,20,21 1538:6 1541:1 1623:13 1624:1 1625:3 1632:21 1822:2,3,3 1830:1 represented 1619:18 representing 1535:13 1624:7 1626:9 1738:4 1840:20 represents 1626:20 request 1595:12 requested 1595:11 1775:14 1803:2 require 1627:15 required 1757:4 1833:4 requires 1667:5 rerun 1773:18 1849:9 reschedule 1673:11 1702:20 rescheduling 1667:2,4 research 1541:10 1545:14,15,18 1546:10 1548:16,18 1549:14,20 1612:9 1700:15 reserve 1848:10 1852:13 reset 1752:11 residual 1874:18 resolve 1847:16 resolved 1882:10 respect 1691:11 respond 1596:1 1650:6 1845:7 1846:13 1847:4 1847:8 1851:12 response 1683:2 1694:6,9 responsibility 1613:11 rest 1647:21 1772:5 1779:16 1834:14 1839:7 restore 1794:4 1795:17 restores 1740:10 restoring 1825:15 result 1572:19 1589:4 1625:6 1779:20 1825:9 resulting 1567:17 results 1623:5 1625:10 1628:22 1634:22 1636:10 1675:17	1693:3 1705:6 1707:9 1716:15 1734:12 1781:2 1826:3,15 1841:18 resume 1610:5 resumed 1535:3 1610:3 reverberate 1869:11 review 1551:16 1718:7 1723:5 1724:3,6 1725:7 1806:15,15 1830:17 1847:11 reviewed 1617:12 reviews 1806:13 ridership 1687:13 right 1535:2,15,19 1540:11 1553:6 1558:11 1563:12,22 1564:6,22 1565:17 1566:13 1575:6,16 1577:2 1581:11,12 1582:13 1584:4 1586:11,14 1589:21 1593:19 1594:5,9 1595:4,21 1596:22 1603:8 1604:1 1605:5 1606:20 1607:8,21 1609:13 1610:4,21 1611:4,12 1622:3 1636:5 1639:17 1641:22 1642:17,22 1643:8 1645:8,8,17 1647:7,22 1648:8,14 1660:1,10,14 1678:7 1682:8 1686:17 1689:6 1690:4,18 1698:5 1703:10,14 1704:11,13 1707:17 1708:5 1713:17 1718:15,17 1719:1 1720:10,22 1724:10,15 1728:19 1730:7 1739:6 1753:21 1754:22 1756:14 1758:18 1759:2,3,5,22 1760:4,5 1762:6 1763:19 1764:7 1782:20 1783:11 1786:18 1787:19 1789:4 1790:7,10,15 1791:14,22 1795:3 1799:10,19 1802:5 1803:11 1805:16 1806:5,22 1811:7 1815:8 1821:20 1822:4 1822:14,17 1823:1 1824:6 1832:4,20 1835:2 1839:4 1842:9	1844:7 1846:21 1848:13 1858:2 1863:8 1866:9 1871:15 1873:22 1875:4 1876:12 1877:17 1881:21 1882:4 right-hand 1546:14 1646:9 1683:21 right-of-way 1818:14 1819:3 right-of-ways 1819:7 rightee 1762:12 rights 1846:5 1848:11 ripple 1577:17 risk 1622:21 Rivalese 1837:4 River 1837:4 road 1645:3 1659:7 roads 1659:22 Rob 1851:5 1879:11,13 1880:18 Robert 1589:21 1852:5 Robert's 1851:3 robust 1624:19 1633:2 room 1552:16 1555:10 1557:15 1577:3 1871:6 1882:6 root 1705:22 1706:2 Roseborough 1804:4 1806:13 roughly 1604:20 1652:20 1665:16 1692:7 1698:6 1802:14 rounding 1749:7,9 route 1565:2,10 1566:10 1566:20 1569:1 1604:22 1701:3,4 routes 1697:11 routing 1721:20 1873:18 RTC 1536:11,14 1537:7 1538:15,19 1539:3 1541:9 1543:20 1553:11 1561:5 1571:22 1572:6 1577:21 1584:18,20 1593:21 1602:9 1612:11,15 1613:8,11 1613:16,21 1614:8,17 1614:22 1615:20 1616:3 1617:2,8 1618:3 1618:5 1619:7 1621:14 1622:3,7,8,11,13,15 1623:2 1625:15 1626:7 1626:22 1628:20 1629:4,20 1631:4,7 1634:1 1635:12	1636:19 1637:14,14,16 1637:18 1640:3 1641:10 1649:18,19 1650:12 1652:12,13 1653:5 1661:6 1662:12 1662:17 1663:11 1664:3 1667:12,17 1668:15,22 1669:12 1671:16 1672:17 1675:17 1676:3,12 1677:9 1678:19 1679:8 1679:10 1682:2 1685:16 1686:9 1688:11 1689:11,16,17 1692:20,22 1696:15 1698:9,9 1702:14 1705:10 1713:14 1714:18 1723:4,12 1731:14 1736:8 1737:11 1766:13,15 1773:22 1788:10 1791:8,8,8 1802:2 1821:14 1822:10,13 1825:4,21 1827:12 1834:22 1842:12 1849:14 1853:12,16,18 1858:13 1860:19 1864:2,16 1868:18 1869:10 1872:1 RTC's 1652:9 Rubik's 1870:2 1871:12 rule 1695:1 ruling 1715:5 1850:17 run 1556:3 1563:20 1565:3 1566:8 1577:3 1584:1 1587:10 1589:14 1632:10,12,19 1633:18 1634:15 1636:18,19 1641:11,12 1641:13 1642:14,18 1643:5 1645:12 1649:15 1651:6,19 1652:4,11 1653:11,15 1654:11,13 1656:22 1695:12 1698:2,2,3,10 1699:2 1732:19 1742:10 1773:17 1774:4,21 1775:7,11 1778:16 1782:19 1783:16,18,20,22 1801:12,15 1802:2,2,9 1802:11 1803:19 1809:15 1814:12 1815:1,1,2 1816:5 1817:11 1818:2 1822:21 1834:21
--	---	--	--

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1916

1843:22 1858:3,4,7 1859:11,12 1864:5,12 1864:16 1868:22 1871:10 running 1582:10,19,21 1583:5 1584:2 1592:8 1866:8 1867:20 1868:2 runs 1554:7 1697:11 1802:16 1864:8	1556:22 1557:1,8,8 1559:3,7 1608:8,10 1630:21 1647:22 1663:17 1666:18 1729:20 1868:4 schedules 1554:21 1555:1 1556:16 1578:13,16 1579:3,6 1580:7,9 1661:12 1668:16 1686:3 1702:21 1703:22 1861:3,11 1865:14 1866:14 1868:8 1870:15 1872:6 1876:14 1879:5 scheduling 1873:18 schematic 1812:5 schematics 1812:5 Schultz 1587:8,21 1588:9 1588:17,22 1589:2,7,17 1779:1,4,19 1780:7,10 1781:7,17 1782:10 1792:20,22 1793:10 1794:5,8 1795:2,19 1796:3,9 1797:4,13,17 1797:22 1808:17,18,19 1808:21 1809:10,14 1810:1,4,10,21 1811:20 1812:1 1815:11,13,21 1817:7 1818:1,10 1867:18 1868:6 science 1612:2 scope 1605:14 1822:10 1822:12 scratch 1629:3 screen 1543:3 1560:6 1780:18 1809:1 1810:22 1875:12 1883:20 second 1540:10 1668:18 1684:4 1686:22 1719:20 1720:1 1730:7 1734:22 1736:4 1767:5 1767:14 1777:18 1779:10 1805:12 secondly 1842:11 seconds 1875:1 section 1534:5 1535:4 1540:11 1560:15 1562:2 1629:22 1764:18 1769:21 1855:8 see 1536:22 1538:17 1539:17,18 1540:15 1543:3 1548:6 1560:20 1561:11 1562:18 1585:22 1586:2,3	1599:9 1607:7 1609:10 1627:9,10 1628:2 1634:9 1638:7 1639:12 1640:8 1645:3 1646:9 1647:7 1648:20 1650:22 1651:13 1654:12 1669:13,13 1671:2 1683:11,11 1684:5,9 1685:11 1688:21 1692:9 1699:5 1699:5,7,9 1712:16 1713:22 1714:1 1718:7 1720:4 1728:9 1729:16 1731:12,20 1739:11 1745:19 1747:22 1748:21 1749:21 1758:10 1762:1 1765:13,16,20,21 1766:18 1769:21 1773:8 1780:9 1781:2,6 1787:2,14 1791:6 1794:15 1823:2,3 1828:20 1829:17 1831:10 1833:15 1834:12 1840:9 1843:13 1844:20 1845:9 1847:16 1850:8 1852:2 1864:8,9 1867:17 1870:8 1871:9 1871:10,16 1876:3 1879:10 1882:22 seed 1633:6,7,8,9 1665:9 1665:10 seeds 1632:15,19 1633:19 1666:14 1774:10 1836:13 seeing 1662:19 1670:2 1671:6 1707:5 1712:21 1712:22 1725:20 1734:3 1736:8 1766:8 1776:16,17 1781:15 seen 1684:10 1695:13 1831:4 segment 1699:1 1720:11 1748:16 segue 1770:10 segues 1824:8 select 1613:21 1707:1 1773:3 1798:10 selected 1619:12 1691:1 1692:3 1709:2 1810:15 1826:19 selecting 1800:16 selection 1765:15 1806:12 senior 1611:19	sense 1565:22 1601:19,21 1607:18 1621:20 1626:4 1627:12 1636:6 1716:17 1756:22 1783:10 1800:14 1809:18 1810:16 1832:10 1852:10 1863:22 1864:6 sentence 1538:13 1540:10 1542:21 1550:6 sentences 1536:10,19 separate 1552:5 1616:9 1724:8 1727:12 1744:2 1790:3 1809:22 1815:18 separately 1628:7 separation 1616:6 separations 1615:9 1706:16 September 1541:2 serfi 1673:21 serious 1572:8 1870:14 serve 1561:12 1647:20 1706:6 1710:10 1735:14 1738:8 served 1836:18 serves 1721:13 1729:17 1730:10 1733:6 1814:15 service 1544:2,11,16 1545:3 1563:4,11 1564:5 1572:20 1577:1 1577:11 1613:2,9 1616:18 1620:14 1621:3,8 1630:10,13,14 1636:17 1646:21 1649:22 1700:21,22 1701:6,10,13,18,20 1702:7,13 1703:1 1704:2,3 1726:13 1765:11 1782:14 1816:9 1820:20 1827:17 1829:5 1831:20 1833:6 1858:17 1859:7 serving 1735:18 session 1543:13 1672:7 set 1536:13,15 1537:2,4,5 1537:7,17,20 1538:2,6 1572:11 1576:15 1588:2 1589:15 1591:9 1592:2 1599:11 1600:2 1602:13 1624:15 1633:10 1635:11 1653:9 1670:4,17
---	--	--	--

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1917

1673:8,13 1674:11 1687:21 1696:15 1700:20 1704:6 1709:1 1776:9,14 1778:3 1781:22 1797:20 1798:10 1805:12 1807:5 1811:9,17 1826:18 1836:15 1839:7 1840:18 sets 1602:13,15 1674:18 1700:22 1776:3 1777:14 setting 1669:4,9 1672:2 1679:20 1708:4 1709:18 1752:10 seven 1541:12,13 1607:6 1758:4,7 seventy-seven 1717:20 severe 1577:20 1621:1 1646:17 1780:4 1793:13 1794:9 1816:10 1829:8 1869:13 1870:19 severely 1577:14,19 1646:6 1826:13 shakes 1559:19 shaved 1588:19 shelf 1543:19 shift 1630:13 1703:16 1787:12 1824:12 1839:7 1869:6 shifting 1649:2 1712:1 1791:3,15 1840:5 1841:1 1859:20 1866:14 1868:19 1883:22 shifts 1836:22 1840:2 shipper 1702:2 shippers 1865:13 ships 1842:12 short 1584:3 1732:5 1754:3 1764:21 1837:3 1848:11 shorten 1856:5 shortened 1836:7 1855:15 shortening 1714:13 1824:18 1852:19 1853:1,3,6,10 shorter 1747:11 1748:17 1750:19 1777:18 shoulder 1621:17 shoved 1768:8 show 1542:13 1552:15,16 1552:17 1635:15 1638:10 1644:8	1646:15 1665:6,8,14 1666:18 1682:11 1685:4 1694:22 1708:15 1717:7,11 1728:2 1764:19 1765:9 1769:16 1770:2 1772:15 1869:1 showed 1599:12 1655:16 1736:4 1770:3 1811:2 showing 1665:10 1677:8 1683:21 1684:5 1717:13 1736:17 1738:1 1739:16 1741:2 1743:9 1767:12,20 1780:20 1781:11 1798:6 shown 1816:8 shows 1645:10 1672:9 1685:1 1686:9 1719:9 1719:11 1734:14 1743:2 1765:8 1778:12 1849:11 1862:16 shutting 1839:11 Sibert 1744:15,15 1745:19 1746:3 1747:13 1763:17 1764:15 sic 1637:16 1745:13 side 1553:13 1588:13 1616:7 1646:9 1733:3 1735:13 1814:2 1830:13 1865:22 1870:10 1871:13 1872:17 sides 1871:5 siding 1554:9 1562:15 1584:2 1679:16 1680:17 1696:17 1729:14,15,20 1730:2,2 1730:6,6,7,9 1732:4 1733:1,19 1734:8,9 1735:1,5,19,20 1737:5 1737:16 1738:3,4 1741:5,6,7,8,11 1742:13 1743:8,11 1753:16 1764:10 1774:2 1778:7 1796:22 1798:11 1804:21 1805:1,6,20 1806:2 1811:12 1813:1 1814:2 1814:4 1830:13 1853:22 1854:12 1861:21 sidings 1556:4 1620:5 1654:22 1655:3 1668:4 1677:7 1680:22 1681:1	1681:3,4 1699:9 1716:19 1719:11,15 1732:18 1734:18 1738:7,15 1777:19 1778:2 1804:18 1813:17 1827:10 1853:5,21 1854:9,11,20 1855:2 1857:5 1860:11 1861:19 1862:7 1864:6 1864:18 signal 1586:12 1764:4,13 1764:19 1776:7 1777:20 1778:4 1805:3 1805:4 signaling 1764:20 1804:10,13,20,21 1805:17,22 signalization 1813:16 signals 1756:2 1763:4 1813:9 significant 1738:9 1742:11 1784:13 1823:13 1862:3 significantly 1721:15 similar 1602:7 1619:3,3 1676:13 1741:18,22 1812:5 similarly 1740:15 simple 1579:13 1580:2,5 1580:6 1701:16 1866:22 simply 1839:12 simulate 1873:12,18 simulates 1629:4 simulation 1573:15 1632:16,18 1634:5 1784:13 1801:13 1859:16 simulations 1613:16 1632:16 1776:3 single 1557:19 1563:21 1624:5 1628:6 1641:21 1663:13 1698:4 1713:1 1755:7 1780:22 1812:21 1822:22 1869:2 single-track 1641:19 1796:21 single-train 1822:15 singular 1619:16 Sinkkanen 1535:8,14,16 1535:21 1536:3,6 1553:6 1556:8,15 1560:2 1578:5,8,10 1582:3 1587:9 1593:8 1604:3 1605:22 1607:9	1885:3 sir 1638:1,15 1650:10,21 1651:7 1696:6 1718:22 1761:5 1769:12 1770:14 1844:9,14 1880:22 sit 1568:21 1569:3,4 1577:16 1654:18,21 1656:8 1668:6 1675:12 1726:8,11,12 1746:13 1746:19 1863:18 sitting 1734:15 1740:12 1830:3 situation 1839:20 1871:1 1880:11 situations 1636:7,11 six 1538:7,12 1634:2 1698:9 1781:21 sizable 1683:10 1751:20 1756:2 1784:21 1825:9 size 1662:3 1854:14 sizeable 1751:17 1832:2 sizes 1546:1 1631:16 1633:14 1714:13 1854:16 slide 1640:9 1823:22 slight 1766:8 1767:1,2 1796:1 slightly 1546:21 1665:11 1765:17 1766:13 1796:1 1825:20 1826:16,22 slipping 1739:7 slots 1881:10 slow 1618:6 1676:18 1735:19 slowed 1736:1 1814:13 slower 1814:4 1815:5 slowing 1811:2 slowly 1745:12 smaller 1742:8 smooth 1742:6 software 1547:11 1613:22 1813:16,18 solely 1544:1 1627:1 solemnly 1610:22 solution 1624:19 1756:18 1800:12 1872:15 solutions 1678:11 1706:12 1774:6 1847:6 solve 1838:10 1870:3 solving 1800:13 somebody 1599:21 1802:19 1840:7 somewhat 1657:21 1691:22 1693:11
---	--	--	--

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1918

1765:17 1766:20 soon 1541:8 1616:19 1734:14 sorry 1548:11 1551:5 1555:20 1556:12,12 1569:21 1580:20 1582:17 1584:4 1588:9 1596:17 1605:22 1609:5 1610:16 1634:14 1639:8 1640:21 1665:22 1666:1,16 1682:4,18 1692:14 1699:2 1707:13 1730:13 1739:10 1749:18 1757:20,21 1759:3 1770:15,16 1771:18 1783:18 1795:22 1799:21,22 1813:13 1815:9 1828:7,8 1834:1 1835:8 1847:9 1855:21 1868:12 1879:8,11 sort 1566:14 1591:2 1603:12,19 1616:4,12 1617:12,14 1619:17 1620:12 1621:17,21 1622:16,20,21 1623:4,4 1623:12,13,14,21,22 1624:19 1625:8,11 1626:18 1629:4,20 1630:7,20 1631:14 1632:10,22 1633:9,16 1634:5,7,22 1637:15,17 1639:9,10,20,21,22 1641:11 1642:11 1643:10 1644:5,5 1645:5,19,21 1646:8,17 1648:15 1656:21 1658:5 1659:22 1661:12,12 1662:1,2,3 1662:3 1664:19 1665:3 1665:6 1667:5 1668:14 1670:20 1673:13 1674:12,13,17 1676:8,8 1676:12,14,17 1677:11 1679:10,13,20 1680:13 1680:14 1681:15 1684:8 1685:17,19 1687:14,22 1688:14,17 1689:1,9,10 1698:8 1699:13,14 1700:21 1705:16,22 1706:5 1707:6 1708:10,16 1710:8 1711:19 1713:12,15,19 1716:12 1716:15 1717:1,1,2,4	1721:19,21 1722:9,12 1724:4,8 1726:2,8 1727:11 1729:18 1730:1,3,7 1732:22 1734:12 1735:10,19,20 1738:7,11,16 1740:2,7 1740:10 1741:19,21 1742:5,7 1743:19,20 1744:1,15 1745:19 1746:2,4 1747:12,14 1748:4,14,17 1755:16 1760:2 1763:15 1765:22 1766:10,16,19 1766:20 1767:2 1768:1 1769:16 1771:1,6,13 1772:6,10,17 1773:3 1782:16,17 1783:21 1784:19 1788:20 1790:3,5 1791:3,7 1792:14,15 1793:4 1794:21 1795:9,17 1796:15,22 1800:20 1801:13 1803:3 1804:5 1806:13 1807:13,22 1809:19,21 1810:18 1811:14 1813:1 1814:7 1815:18 1816:13,14,14 1816:15 1817:1,6 1822:6,8,12 1825:17,20 1826:7,14,19 1827:1,15 1831:18,21 1834:11,12 1834:14,15,19 1835:6 1835:18,21 1836:10,11 1836:14 1837:10 1838:2 1839:3,6,8,8 1840:5,20 1848:1 1853:19,20,22 1854:15 1855:12 1859:8,17 1860:12 1861:1,3,4,6 1862:12,12,16 1866:22 1868:10,17,21 1869:5 1869:17,17 1870:18 1873:19 1874:2 sound 1659:4 1723:1 1808:9 1870:11 sounded 1580:19,20 sounding 1621:19 sounds 1583:5 1590:18 1597:16 1601:2 1643:5 1760:4 1830:2 1831:12 1870:2 1876:4 source 1674:15 1834:16 sources 1550:7,11,14,17 1871:20 south 1734:8 1753:21 southbound 1747:2	Southern 1534:7 1565:16 1566:13 1572:9,10 1577:10 1664:18 1717:12,22 1719:4 1720:3 1721:3,16 1728:3 1729:7 1768:21 1769:2 1809:13 1829:18 1866:19 1876:21 1877:11 1885:12,14,16 Southern's 1560:3 1830:1 space 1588:6 spaced 1721:19 1738:7 spacing 1716:19 1772:12 1772:13 speak 1710:21 1711:16 1723:5 1779:13 1782:22 1795:4 1796:19 1812:20 1819:9 1857:17 1865:19 1868:5 1882:17 speaking 1579:4,8 1604:18 1879:9 1881:14 speaks 1868:15 special 1839:4 specific 1557:14 1576:4,5 1590:19 1593:1 1605:10 1624:9,12,15 1645:6 1674:1,2 1693:12 1770:11 1772:2,4 1776:19 1777:10 1782:17 1839:9 1857:1 1862:17 specifically 1581:17 1620:5 1637:5 1691:3 1693:17 1701:7 1784:18 1803:16 1806:4 1819:9 1824:15 1824:17 specifics 1675:10 1796:19 speculate 1601:4,10 speculating 1788:5 speculation 1693:21 speed 1613:14 1634:6 1639:21 1646:13 1647:20 1698:21 1699:1,4,5,9,11 1751:21 1778:6 1783:12,15,17 1784:16 1785:11,17,19 1786:1 1787:7,8,21 1788:15 1789:10,13,15,17 1790:17 1793:2 1795:8	1796:2 1798:11,12,14 1804:20,22 1805:7,10 1811:2 1813:2,8 1814:4 1814:9,9,13 1815:6 1822:8 1840:19 speeds 1574:6 1575:18 1578:1 1777:19 1778:3 1778:9 1784:7,22 1785:12 1789:3 1805:13 1811:12 spend 1601:19,21 1808:6 1830:19 1872:13 spending 1707:17 spit 1577:22 spoke 1600:12 1779:5 sport 1789:14 spot 1569:7,8 1660:21 1713:1 1824:4 spread 1665:5 spreadsheet 1545:21 spur 1735:16,18 squeak 1877:5,6 squeeze 1878:10 St 1561:21,22 1566:15 1574:12,14,18,20 1575:9,11 1741:1 1757:4 1759:5,8,15 1771:16,17 staff 1849:6 1883:7 staging 1604:21 stake 1580:6 stakeholders 1667:6 1818:21 1819:15 stan 1634:13,15 stand 1546:14 1547:5 1794:12 standalone 1810:13 standard 1618:22 1621:9 1621:20,22 1634:5,22 1690:3 1775:1 1785:13 1785:18 1792:11 1793:20 1794:3 1795:15 1797:5 1802:22 1875:16 standards 1688:6,14 standpoint 1557:5 start 1557:2 1563:3 1564:5 1604:21 1607:18 1618:3 1621:2 1630:22 1639:18 1650:2,7 1652:7 1660:22 1661:5 1663:3 1667:16 1679:5 1707:4 1716:13,16,20 1724:3 1739:9 1743:7 1744:10 1780:17 1825:1
--	---	--	---

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1919

1834:19 1854:4 1874:16 1877:7 1878:14 1881:8 started 1613:2 1617:8 1618:21 1705:7 1713:2 1817:15 1831:20 1834:13 1849:4 starting 1705:14 1878:10 1881:15 starts 1560:16 1566:9 1583:1,8,19 1642:3 state 1536:12 1542:22 1614:21 1615:5 1729:11 stated 1566:7 statement 1536:7,9,19 1538:8,12 1540:10 1542:20 1543:6 1545:9 1550:12 1569:13,13 1570:1 1571:16 1594:11 1597:18 1722:19 1727:15 1731:3 1749:4 1760:6 station 1615:15,16 1656:5 1687:11,15 1742:14 1744:3,11 1745:2 1746:11 1747:12,18 1748:18 1749:5 1750:13,15 1751:5 1752:21 1753:8 1753:16,21 1754:14,22 1755:10 1779:15 stations 1687:18 1689:5 1691:5,6,7,8 statistic 1646:11 1683:22 1767:18 statistical 1633:9 statistics 1577:21 1635:11,11 1639:1 1645:13 1655:6,13 1767:13 1780:20 status 1572:1,10,13 1575:20 1576:3,19 1766:7 1825:15 stay 1663:1 1680:20 1734:21 1762:15 staying 1661:19 1721:9 STB 1792:12 stenotype 1886:5 step 1619:10 1663:9 1716:15 Steven 1742:16 1767:5 1767:16 1770:9 1799:13,22 stick 1721:6 stood 1884:12	stop 1568:2 1608:1 1740:8,14 1745:1 1751:13 1754:10 1778:5 1805:2,5 1813:19,21 1814:1 stopped 1652:15,19 1809:4 stopping 1736:21 1737:9 1737:19 stops 1809:8 strength 1631:7 stressing 1878:13 stricken 1694:4 1695:4,4 1727:13 strike 1694:21 1727:18 1845:15 1870:4 string 1712:14 strive 1878:3 structure 1619:7 struggling 1691:14 1871:8 studies 1583:10,14,18 1602:10 1613:20 1614:17 1627:5 1845:1 1850:11 1861:13 study 1571:22 1577:21 1602:22 1603:8,18 1614:3 1615:7 1616:20 1618:18 1619:1 1643:16 1650:12 1687:10 1688:11 1707:21 1710:12 1717:6 1789:17 1815:20,20 1842:13 1859:3,6 1861:15 1867:13 1869:11 studying 1623:11 stuff 1834:15 1865:13 subdivisions 1627:5 subject 1601:13 1603:3 1727:17,21 1761:15 1802:15 1845:8 1850:3 1851:9 1882:18 subjects 1850:12 submit 1720:4 submitted 1594:15 1638:12 1728:5 submitting 1717:16 subsection 1538:14 subsequent 1656:17 subsequently 1836:1 subset 1756:21 1799:1 substance 1603:15 substantive 1718:12 1728:13 1729:2 subtract 1793:6	subtracting 1566:15 successful 1771:4,13 successfully 1653:15 sudden 1772:12 sufficient 1577:1 1629:5 1633:2 1649:20 1805:20 suggest 1739:17 1872:10 1873:4 suggested 1597:1 1805:18 1883:9 suggesting 1850:17 1878:2 suggestion 1848:6,8 1851:4 1852:6 suggestions 1846:16 suite 1602:1 1699:15 1767:21 1779:17,20 sum 1561:15 summarize 1556:21 summary 1757:10 1758:3 sunny 1689:13 1690:13 super 1549:7,8 superintendent 1549:7 supervisor 1551:6 supplement 1755:16 supplemental 1695:19 1769:8,15 1842:17 1856:12 supplemented 1546:10 support 1570:16 1649:21 1778:5 supported 1883:10 supports 1570:8,13 suppose 1554:15 1779:12 1814:3 1881:2 supposed 1541:1 1676:18 1676:19 1865:11 supposedly 1576:7 sure 1539:16 1551:11 1554:6 1555:17,21 1556:6,11,14 1568:6,11 1571:10 1572:22 1573:3 1578:20 1579:15 1580:8 1585:12 1588:10 1597:13 1601:14 1610:16 1619:18 1624:19 1635:19 1640:12 1646:4 1654:5 1657:10 1659:20 1671:7 1675:1,14 1676:17 1681:21 1685:9 1689:8 1691:2 1692:17 1693:11 1716:7 1722:20 1724:1	1727:8 1733:12 1748:21 1754:17 1782:6 1785:6,9 1788:17,21 1789:1 1802:8 1808:22 1810:4 1812:1 1819:13 1826:11 1827:9 1841:21 1842:5 1851:18 1855:6 1872:18 1878:4,5,8,21 1880:10 surely 1589:22 SURFACE 1534:1 suspect 1720:8 sustain 1851:2 sustained 1846:3 swamp 1801:1 swapping 1574:17 1575:5 swear 1610:19,22 switch 1740:9,10,15,16 1748:15,15 1756:1 1774:3 switched 1667:7 switches 1740:7,7,21 1752:11 1827:10 switching 1538:15 1629:12 1670:21 1722:12 1754:9 1763:13,20 1822:9 swoop 1842:14 sworn 1535:16,22 1611:10 1762:10 symbols 1546:19 system 1545:19 1547:8,9 1675:6 1776:7 1777:20 1778:4 systems 1586:13
T			
T 1610:1 1885:1,1,10			
table 1545:10 1550:5			
1637:21 1638:22			
1645:18 1650:16			
1651:13 1655:19			
1681:20 1682:22			
1683:1,1,4,10,20			
1684:6,17 1685:21			
1686:16 1693:4 1758:3			
1758:4 1759:21 1765:2			
1765:7 1767:8,10			
1780:13,14,16 1782:3,5			
1798:2,3,20 1811:8,17			
1812:15,18			
tables 1684:11 1816:8			
tail 1747:3			

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1920

take 1538:1 1552:22 1554:9 1557:14 1564:9 1567:20 1568:4,6 1582:6 1583:10 1599:20,22 1607:16 1619:10 1622:14,18 1623:3,7,19 1654:2 1663:9 1668:4 1669:11 1671:2,20 1672:11 1677:17,22 1696:17 1731:11 1733:12 1736:4 1737:13 1752:1 1760:19 1761:1 1770:8 1772:20 1773:16 1777:3 1783:18 1793:3 1798:15 1799:14,19 1801:19 1808:5 1822:1 1823:22 1831:2,7 1840:8 1841:7,14 1851:17 1864:6,17 1865:4 1878:15,15 1880:15 taken 1579:1 1609:16 1695:3 1762:8 1816:10 1820:13 1842:6 1845:6 1886:3,4,10 takes 1565:14,19 1735:19 1774:4 1802:3 1861:5 talk 1553:16 1554:18 1556:5 1562:3 1576:9 1587:15 1589:6 1591:9 1593:20 1616:15 1621:4 1652:8,8 1656:18 1677:14 1678:10 1679:7,7 1704:15 1714:12 1774:14 1824:11,13 1835:12,15 1848:1,5 1850:6 1852:17,18 1856:11 1874:17 1875:12,18,18 1876:6 talked 1541:21 1551:9 1578:12 1593:14 1628:17 1689:10 1721:15 1756:16 1763:1 1785:13 1791:4 1804:3,5,8 1808:3 1842:11 1850:10 1854:12 1865:7 1867:19 1868:13 1871:21 talking 1536:11 1552:14 1569:15 1582:4 1618:3 1639:22 1650:2 1652:7 1663:3 1674:5 1700:6 1710:7 1722:22 1723:1	1723:10 1724:20 1725:10 1739:9 1746:16 1759:18 1769:10 1774:9 1789:5 1789:6 1790:13 1812:13 1835:11 1851:18 talks 1594:12 1749:4 tamping 1630:6 tandem 1767:1 target 1688:4,11 1692:22 taxpayers' 1872:14 team 1615:13 1616:4 1663:16 1804:4 1878:13,13 technical 1618:7 1668:20 1778:1 1882:9 techs 1647:8 Ted 1806:16 tell 1546:13 1549:2 1571:13 1593:13 1594:20 1595:18 1596:12 1599:3 1605:18 1608:15 1669:6,7 1674:1 1689:15,17 1693:12 1705:10 1747:21,22 1786:19 1790:21 1793:22 1794:3 1806:3 1808:6 1820:8 1822:22 1836:2 1844:19 1849:13,15 telling 1714:22 1755:3 1792:2 1810:17 1860:3 tells 1643:18 temporal 1557:4 ten 1632:14,16 1635:4 1760:20 ten- 1861:19 ten-minute 1761:1 tenders 1714:17 1835:11 1836:16,20 1838:8 1841:4,14 1842:8 1843:2 1844:2 1856:14 tenor 1873:7 TERADATA 1546:21 term 1624:2 1633:10 1636:15 1661:6,7 1662:14 1794:10 1825:3 1861:7 1870:7 terminal 1549:7 1551:5 1558:21 1564:3 1645:2 1762:20 1768:12 1771:20 1831:22 terminating 1766:4 terminology 1556:14	1661:19 terms 1586:2,3 1590:16 1592:6,13 1601:18 1602:21 1636:4,12,20 1644:14 1666:5,6 1691:17 1703:4 1720:2 1767:19 1769:17 1783:15 1793:11 1794:1 1800:15 1806:22 1807:11 1820:20 1825:14 1845:6 1868:1 1873:14 test 1580:9 1589:13 1662:17 1839:16 1853:12 tested 1556:7 1587:16 1588:15 1589:11 1590:9 1591:22 testified 1535:22 1549:18 1553:21 1554:6 1565:14,18 1566:22 1611:11 1617:20 1622:8 1625:18 testify 1879:20 testifying 1567:5 1714:21 testimony 1542:5 1553:21 1554:10 1563:16 1578:14 1605:18 1611:1 1621:6 1631:1 1694:12 1715:11,12 1724:12 1727:14 1744:13 1762:18 1813:12 1828:6 1837:14 1842:4 1849:13 1850:12 1851:8 1875:17 1876:6 testing 1600:2 Texas 1615:6 thank 1535:20 1536:1 1548:9,10,14 1556:8 1559:15,16 1560:9 1564:10 1578:5,8 1586:20 1589:17 1593:6 1604:2,8 1605:1 1605:20 1607:11,12 1609:8,14 1610:9 1611:6,14 1637:10 1644:21 1649:8 1660:15 1678:6 1682:18 1683:20 1697:14 1711:10 1714:2 1720:22 1725:16 1739:6,10,11 1761:5 1762:7 1769:13 1773:11 1774:12 1778:21 1782:7	1797:22 1801:17 1808:21 1818:10 1820:17 1835:7 1869:22 1873:8 1874:8 1876:4,5 1879:3,3 1882:7,15 1884:5,10,10 thanks 1553:1 1559:21 1704:13 1782:11 1846:20 1868:6 That'd 1749:6 theirs 1809:20 Theodore 1741:12,14 theoretical 1708:3 1716:21 Theoretically 1865:2 thesis 1612:10 1636:22 1637:7 they'd 1564:18 1710:17 thing 1592:9 1634:1 1637:11 1640:19 1644:22 1656:2 1657:22 1663:14 1673:3 1693:8 1700:17 1708:10 1724:21 1784:9,22 1787:11 1789:16 1795:6 1798:11 1801:15 1821:13 1833:22 1864:8 1868:20 1871:22 1873:19 1877:3 1883:2 things 1582:8 1586:2,3 1614:16 1622:22 1623:16 1624:15 1626:14 1628:1 1630:7 1631:8 1659:13 1661:20 1667:5 1670:22 1674:18 1676:16 1689:10 1691:13 1705:16 1706:20 1710:9 1711:1 1711:17 1712:7,16 1720:6 1724:2,4 1725:7 1729:2 1754:10 1775:5 1800:19 1821:4 1822:6 1822:7 1842:13 1866:11,21 1872:1,5,7 1873:6 1878:10 think 1547:7 1550:18 1554:17,18 1572:21 1573:11 1581:16 1585:8 1601:11 1602:14 1604:5 1607:6 1607:8,17 1610:7 1619:12 1620:4 1622:13 1623:6 1625:2
---	---	---	--

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1921

1625:5 1632:9,13 1634:2 1635:2,8 1636:9 1638:2 1644:20 1647:16 1655:1,18 1657:6,8 1661:9,11,15 1667:22 1669:4,21 1670:13 1672:3 1674:2 1675:19 1676:6 1678:5 1681:19 1683:15 1687:22 1689:12 1690:19 1691:22 1693:14 1695:2 1697:22 1698:13,13 1699:10 1700:7,11,16 1701:6 1705:18 1710:19 1715:8 1716:1 1716:6 1721:7 1722:6 1723:19 1724:16 1725:8 1727:16 1739:2 1739:21 1741:17 1742:18 1744:9 1751:1 1751:3 1754:17 1756:10 1757:10 1761:13,16 1762:3 1771:7,15 1779:5,7 1780:10 1781:17,17 1786:11,14 1787:11,18 1787:20 1788:17,18 1789:2 1791:11 1792:13,22 1794:19 1798:2 1799:9,19 1801:6 1807:2,16 1808:10,13 1810:2 1811:1 1812:14,15 1816:1,3,3 1818:16 1822:19 1824:7,8 1826:1,19 1827:15 1831:3 1837:2 1841:22 1844:12,18 1845:5,21 1846:1,3 1847:18,19 1849:3,16 1851:1,3,13 1852:4,5 1854:2 1855:10 1856:10,18 1858:6 1872:12 1874:14 1877:3 1881:4 1882:10,22 1883:2,21 1884:2,7 thinking 1623:4,5 1632:6 1635:7 1637:12 1688:15 1711:8 1790:15 1791:12 1859:19 third 1569:8 1656:13 1678:9 thought 1548:12 1583:3 1591:12 1617:13	1651:8 1653:13 1654:12 1656:21 1664:11 1681:16 1688:9 1697:16 1701:13 1746:8 1749:15 1757:22 1761:18 1803:8 1859:10 1860:18 1862:5 1867:7 thoughts 1617:4,12 thousand 1744:6 1747:18 1751:11 1763:14 1764:10,16 thousands 1573:16,16,16 three 1537:6 1560:16 1564:13 1565:16,21,21 1566:5 1568:12 1574:15,19 1575:11,22 1602:13 1606:16 1608:22 1616:8 1620:4 1623:20 1645:22 1647:1 1650:4 1672:14 1672:19 1683:10,20 1684:6 1686:17 1706:9 1741:21 1742:12 1743:3 1757:3 1770:11 1781:12 1813:2,7,7 1814:14 1826:7 1834:4 1834:17 1835:1 1836:19,22 three-mile 1800:19 three-month 1673:8 threshold 1794:11,18 through-put 1700:20 throw 1740:9,15,21 1749:2 1876:15 Thursday 1608:7 1761:12 1852:8 1875:10 1876:3 1881:5 1884:9 tie 1538:2 1539:13 1576:4 tied 1866:18 ties 1630:7 till 1760:11 1762:7 1808:14 1863:6 time 1557:3,14,16 1558:13,17,18,20,22 1559:7 1577:17 1579:14,14,15,18 1580:1 1586:4 1602:16 1619:13 1623:19 1624:9,12 1627:3,13 1629:21 1630:21 1641:12,12,13 1642:14 1642:18 1643:6	1654:18,19,20 1660:2 1663:13,15,18,19 1664:8 1665:7,11 1666:19 1668:21 1669:5 1670:16 1671:3 1672:10,12,18,22 1673:1,7 1677:6,17,22 1678:13 1684:18 1687:21 1698:2,2,10 1699:2 1703:5 1708:16 1721:7 1725:14 1727:21 1728:15 1733:12,13 1737:14 1740:20 1748:7 1751:14,18 1754:3,3,11 1774:5,8 1783:16,18,20 1783:22 1787:2 1790:6 1796:21 1801:12,15 1805:5 1821:3 1822:21 1824:9 1827:15 1833:8 1833:14,15,16 1834:2 1835:19,20 1836:4,13 1838:6 1840:17 1842:14 1851:3 1852:9 1858:4 1859:17 1860:9 1860:15 1861:8 1862:1 1862:19 1865:5,7 1877:6 1880:8 1881:10 1881:16,17,19 times 1546:2 1557:2 1558:22 1572:22 1631:15 1633:13,14,15 1634:15 1647:22 1662:2 1667:7 1669:15 1673:14 1674:1 1676:3 1676:9,14 1712:6 1782:19 1836:8 1860:6 1866:18 timestamp 1670:14 timing 1555:10,14 1868:2 tinkered 1654:15 TM2 1674:11 today 1535:10 1572:5,16 1576:21 1578:19 1608:9 1622:2 1697:11 1711:17 1747:20 1784:22 1823:4 1824:21 1848:15 1859:6 1875:6 1881:14 today's 1884:6 told 1542:14 1550:3 1599:1 1620:6 1769:4 1859:10 1882:11 tolerate 1704:18 tomorrow 1848:2 1851:5 1851:18 1874:16	1879:6 tool 1613:22 1614:1,2 1623:3 1676:9 1689:11 top 1551:13 1561:17 1575:4 1585:8 1605:19 1687:21 1706:8 1754:17 topic 1852:11 topics 1824:2 toss-up 1883:21 total 1564:4,7 1566:4 1588:19 1783:19,20,22 totally 1690:21,21 1791:17 touched 1756:11 tour 1830:22 track 1547:4 1564:16,20 1626:6,7 1628:20 1629:5 1641:21 1642:22 1699:1 1723:13 1725:19,22 1726:1 1727:1 1729:12 1732:6,9 1736:6,15,20 1737:2,4,6,18 1739:4 1739:22 1740:2 1742:14,14 1743:16,17 1744:4,11 1745:2,15,17 1746:11 1747:4,9,12,12 1747:18 1748:18 1749:5 1750:8,9,15 1751:1,1,3,6,11 1753:8 1753:8 1754:14,16,22 1755:1,6,10,11,13,19 1756:13 1757:4,5,17 1759:9,11,11,17 1760:13 1763:4,8,14,21 1763:22 1764:16,17,18 1779:15 1840:18 trackage 1831:4 tracking 1585:13 1675:1 tracks 1564:13,18 1565:13 1569:11 1616:8,8 1626:9 1726:6 1726:7 1745:22 1763:19 1764:2 1822:22 1832:2 trade 1724:12 traffic 1536:13,14 1537:2 1537:8 1567:2,2,9 1570:19 1571:1 1583:11 1618:20 1623:10 1629:22 1632:5 1639:3 1647:21 1649:2 1659:17 1664:12,14 1667:2 1683:14 1696:16
--	---	--	--

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1922

1710:10 1733:10 1735:21 1738:14 1740:4 1742:3,8 1748:5 1750:21 1768:14 1788:19 1821:18 1826:12,14 1827:18 1836:10 1855:1 1865:11 1870:17 train 1537:21 1540:14 1543:1,16 1544:4,5,8 1544:13,15,18,19,22 1545:1,8,11 1546:1,17 1546:19,22 1547:3,8 1554:9 1556:16 1559:6 1563:21 1565:15,20 1567:21 1568:1 1573:4 1573:8,14,14 1574:6 1577:22 1578:1,16 1579:3,6 1582:9 1583:2 1583:4,7,8,19 1584:8 1585:2 1586:15 1612:11 1617:10,11 1622:9 1623:15 1625:14,18 1626:12,21 1628:2,6,18 1629:8,9 1630:20 1631:15,16 1632:7 1633:13,14 1634:4 1639:19,19,21 1641:13,14,15 1642:3 1643:7,11 1645:3 1646:6,15 1648:7,9,16 1652:14,18 1654:18 1662:3 1663:12,15 1664:1,5,6 1665:7 1666:18,19 1668:8 1669:14,16 1670:5,22 1671:4,12,13 1672:11 1672:22 1673:19,20 1674:3,11 1675:13 1676:2 1677:2,4,6 1679:13,14 1680:19,20 1680:20 1681:4,5 1686:7,12 1690:6 1696:19 1697:1,1,3,4 1697:20 1698:4,8 1702:4,20,21,22 1703:16,17 1706:19 1712:1,22 1714:13 1726:5,5,11 1730:17 1732:11,13,15,22 1734:10,14 1740:7,9,12 1740:13 1742:2 1743:14,20,21 1744:10 1744:12,16 1745:2,15 1745:21 1746:4,12 1747:13,17 1748:3,16	1748:17 1750:7,18 1751:7,10,19,21 1752:4 1752:14,15 1753:7,9,14 1753:15 1763:3,9,11 1764:22 1765:1,15,19 1778:1,5 1781:16 1782:16 1788:12 1790:2,4 1801:8,14 1805:1,4,5 1813:19,21 1821:15,20 1822:22 1826:8 1827:16 1829:19,20,21 1830:3 1830:11 1836:6 1839:21 1840:3,20 1853:1,19 1854:6,16 1855:22 1859:21 1863:1,9,13,17 1867:1 1867:8 1869:9,19 1871:9 1873:17,19 train's 1622:18 1863:5 trained 1612:14 trains 1538:3 1539:14 1547:18,20,21 1548:1,1 1548:3 1551:17,18,21 1552:1,2,6,10,11,21 1553:22 1554:1,7,8,13 1555:7,11,13 1556:3,17 1556:17,18,21,22 1557:5,8,9,9,22 1558:1 1558:6,13,16,19 1559:2 1559:3,3 1562:12,14,16 1562:17 1564:21 1565:1,4,7,9 1566:2,8,9 1567:16,19 1568:13,15 1568:21 1569:3,7 1577:4 1578:13 1582:10,18,21 1583:1,5 1583:12,20,21,21 1584:1,3,14 1586:1 1588:5,6 1592:22 1604:13,21 1616:11 1619:14 1623:14 1624:6,9 1628:13 1629:22 1630:8,19 1633:21 1634:8 1639:4 1640:3,16 1641:16,21 1642:5,13 1643:21 1644:6 1645:21 1646:1 1646:1,2,8,20,22 1647:1,12,14,21 1648:1 1648:17 1649:3,14 1652:6 1653:16 1654:21 1655:2,8 1656:9 1659:21 1661:12 1662:8 1663:7 1663:17,19 1665:4	1666:14 1667:20 1668:2,3,4,21 1669:21 1673:6,11 1674:5 1675:19 1678:16,22,22 1679:12 1680:10,16 1681:1,3,8,9 1683:5,7,9 1683:11 1684:1,2,14 1685:7,12,22 1686:1,11 1688:18,22 1689:2 1692:8 1693:3 1699:15 1702:11 1704:9 1705:4 1708:15 1712:2,5 1713:20 1714:14 1722:6,14 1726:8,9,10 1729:21 1730:18 1733:2 1734:6,17 1735:7,21,22 1736:20 1737:6,7,15,16,18 1740:19 1741:11 1742:8,10 1744:20,21 1745:6 1747:1,2,2,4,8 1748:8 1751:6 1752:20 1763:1,12 1764:5,13,14 1765:10,20,22 1766:2,2 1768:3,8 1775:8 1790:2 1796:22 1805:3 1816:14,19,20 1817:2,3 1821:17 1824:18 1825:8 1826:10 1830:3 1831:17 1832:3 1836:4 1839:17 1840:20 1841:15 1852:19 1853:4,7,10,11,20 1854:1,15 1855:15 1856:1,3,4 1857:4,6,6,8 1857:11,15,18,19,21 1858:4,5,7,8,10,15,19 1858:20 1859:4,11,20 1859:22 1860:1,5,7,11 1860:13,14 1861:17,18 1861:20 1862:4,17 1863:13 1864:3,5,7,12 1864:15,18,19 1865:4 1865:11,14 1866:3,4,5 1866:17 1867:2,20 1868:2,19,22 1869:3,14 1869:16 1870:11,18 1873:14 transcript 1695:1 translate 1821:11 1823:15 translates 1573:5 transparent 1682:12 transportation 1534:1,6 1560:19 1576:13 1617:18 1783:7 1784:7	1786:21 1787:1 1821:7 travel 1564:14 1565:15 1565:20 1737:8 traveled 1573:15,17 1783:19 traverse 1567:21 1750:16 1753:16 traversing 1764:5 TRB 1700:10 treat 1696:19 tremendous 1590:16 trends 1713:22 trial 1617:21 triangular 1669:19 1675:19 tried 1677:8 1692:8 1776:12 trigger 1690:8,9 1793:12 trip 1764:13 1821:3 trips 1764:4 trouble 1808:6 true 1561:6 1886:7 truth 1611:2,2,2 try 1588:5 1589:15 1593:9 1608:1 1617:2 1624:18 1630:11,13 1651:18 1652:10 1656:22 1660:21 1677:11 1682:14 1704:18 1710:20 1723:22 1724:16 1733:15 1748:20 1760:8 1776:10 1820:3 1824:17,22 1840:9 1850:5 1867:15 1881:20 trying 1555:20 1563:7 1579:2 1591:8 1592:10 1629:15 1644:14 1653:13 1667:18 1690:22 1691:12 1693:13,14,22 1694:3 1694:18 1707:6 1709:22 1717:3 1721:18 1751:21 1752:15 1759:10,11 1766:7,11 1776:13 1790:21 1791:21 1792:6 1800:22 1813:22 1816:1,3 1825:18,22 1826:10 1830:7 1831:9 1843:13 1846:4 1850:6 1871:15 1873:7 1877:2 TSA2 1763:1 1764:5,14 1764:14
--	---	---	--

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1923

TSAD 1746:21 1765:22 1766:1,5 Tuesday 1534:10 1608:8 1608:13 1877:22 turn 1562:7 1606:19 1638:21 1640:9 1645:7 1645:9 1668:19 1678:11 1682:10 1695:8 1696:3 1697:16 1704:15 1710:5,5 1723:16 1731:8 1745:1 1765:2 1770:10,11 1827:3 1852:11 turned 1540:5,8 1542:1 1549:10,16 1550:13 1880:11 turning 1730:11 1741:12 1752:10 turnout 1726:2 1740:18 turnouts 1724:1 1727:7 1739:13 1741:21 1742:2 turns 1607:4 1609:2 tweak 1724:5 tweaks 1626:11,15 Twelve 1749:8 two 1536:9,19 1546:7 1550:22 1564:13 1565:9,11 1567:18 1569:9 1580:3,3 1583:21 1588:6 1609:6 1615:15 1616:3 1620:8 1622:19 1623:20 1631:1,21 1633:7 1634:7 1641:3 1646:15 1655:1 1656:12 1658:9 1669:21 1671:2 1672:13,14 1677:7 1679:12 1681:1,8,14 1682:22 1684:17 1693:4 1698:11 1705:16 1717:20 1720:6 1726:7 1732:17 1734:6 1736:20 1737:6 1737:7,7 1747:4,10 1751:1,3,7 1754:18 1763:16 1765:21 1776:2 1777:14 1779:8 1784:5 1796:7,16,21 1797:10 1812:22 1813:7 1817:18 1828:3 1836:3 1837:1 1842:1 1848:21 1855:17 1856:4 1857:5,10,14 1867:11 1875:1 two- 1673:8 1753:9	two-hour 1867:7 two-part 1845:19 two-week 1536:15 1537:4,7,20,20 1632:15 tying 1545:18 type 1602:7 1606:3 1612:22 1614:15 1627:14 1646:5 1666:14 1676:13 1698:17 1736:17 1765:19 1783:6 1797:3 1798:21 1838:20 1841:6 1854:3,21 types 1585:4 1615:4 1630:2 1645:3 1647:1 1661:18 1662:22 1822:4 typewriting 1886:6 typical 1558:13 1623:22 typically 1538:15 1559:2 1579:4,8,9 1604:19 1627:15 1668:17 1670:16 1675:4 1820:21,22 U U.S 1807:20 1808:6 U.S.C 1534:5 ultimate 1702:5 ultimately 1592:2 umbrella 1861:7 unattainable 1797:5 unavailable 1840:18 unaware 1866:20 unclear 1798:15 understand 1535:16 1548:12 1557:1 1573:11 1590:11 1591:5,10 1593:10 1617:3 1643:3 1651:16 1654:5 1657:8 1658:13 1673:6 1688:10 1691:1 1714:7 1728:7 1732:10 1745:7 1748:20 1749:10 1762:10 1791:17 1802:1 1809:7 1813:12 1817:19,20 1820:9 1821:1 1822:19 1829:15 1834:10 1841:21 1864:8 1865:16 1866:3 1867:15 1868:19 1871:15 1873:4,7 understanding 1558:6 1565:19 1566:17 1567:7 1578:15	1615:18 1625:7 1644:20 1670:15 1690:6 1706:4 1728:20 1729:4 1736:12 1806:6 1857:16,17 1858:1 1872:3 understood 1638:9 1640:13 1724:22 1725:15 1746:14 1762:5 1820:14 1876:9 1878:21 1880:9 undertake 1595:19 1854:3 undertaken 1870:12 undertaking 1619:8 underway 1541:9 unfortunate 1883:2 Unfortunately 1736:18 unified 1547:7 uniform 1666:16,17 1669:19 unimpeded 1642:5 1752:22 1822:15,21 unique 1581:22 1640:1 1644:5 universal 1726:3 1771:20 University 1612:2 unlimited 1840:19 unnecessarily 1690:17 unopposed 1698:3,3 unquote 1797:2 unreasonable 1560:18 1576:6,15 unusual 1626:21 Urbana 1612:2 use 1537:16,19 1592:22 1604:18 1612:14 1613:7,11 1614:16,22 1624:8,8 1626:1 1627:11 1635:1 1642:1 1643:12 1647:3,4 1655:3 1670:17 1674:17 1680:16,21,22 1705:13 1706:11 1714:18 1719:21 1726:6 1728:1,6,10 1737:17 1744:22 1745:3 1760:19 1765:9 1765:9 1790:18,20 1796:22 1800:17 1821:7 1827:10,19 1828:17 1839:16 1840:12 1872:2 useful 1807:18 uses 1659:8 1783:9 1805:3	usually 1580:11 UTCS 1546:15 1547:2,5 utility 1755:17 utilized 1592:21 1832:13 utilizes 1565:13 V V 1534:9 validate 1541:15 1677:12 validated 1619:17 validation 1550:8 1561:9 1592:4 1626:1 value 1616:5 1637:18 1685:16,17 1777:3 valuing 1616:13 variability 1558:17 1623:8,10,14,16 1634:11,12,13 1646:10 1646:15 1666:13 1685:20 1708:14 1710:10 1712:6 1784:14,19,21,22 1785:1,4,16 1786:2 1787:12,13 1790:17 1791:2,5,6 1860:9 1868:21 1869:3,7 1871:21 variable 1559:14 1659:11 1712:5 variables 1633:16 1836:12 1866:20 variance 1789:6,9,13 various 1754:10 vary 1558:22 1578:17 1784:7,16 1789:3 velocities 1790:10 velocity 1584:15 1787:2 1788:10 1789:22 1790:4,6 1821:1 verified 1536:7,9,18 1538:12 1540:10 1542:20 1543:5 1569:12,13,22 1571:16 1594:10 1722:19 1727:15 1749:4 1760:6 verify 1539:10 1541:19 1550:2 1552:19 1627:12 verifying 1626:18 version 1543:6,9,10,12 1682:2 1735:3 1739:20 1744:7 versus 1572:9 1603:17 1622:17 1698:2 1825:21 1832:7 vessel 1835:19 1837:11
--	---	--	--

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1924

1839:22 vessels 1836:4 1839:18 view 1623:9 1644:16 1668:15 1728:4 1827:12 1844:19 1863:1 1866:7 1872:22 virtual 1883:1 virtually 1883:12 virus 1882:11 1884:3 visual 1717:11,15 1718:13,17 1720:2,4 1728:6,18 1729:1 1885:13,15,17 volume 1534:9 1659:19 volumes 1569:19 VRE 1613:15	1835:12 1841:12,18 1847:19 1849:10,13,22 1850:5,6 1852:17 1875:3,18 1876:15,17 wanted 1560:2 1592:11 1599:9 1668:18 1745:16 1760:7,12 1828:14 1833:18 1855:5 1874:7,12 1879:14 1880:10 1883:6,8 wanting 1737:11 1875:12 wants 1560:7 1864:12 1882:11 Washington 1882:18 wasn't 1563:15 1579:1 1582:1,2 1610:16 1675:14 1692:8 1698:7 1831:17 watch 1539:16,18 1552:20 watched 1712:13 watching 1541:11,16 1550:4 1706:3 1712:22 water 1839:18 1840:11 waterfall 1551:18,22 1552:6 way 1538:1 1539:13 1554:14 1555:7,11 1565:2 1576:4 1578:22 1579:5 1583:13 1588:3 1600:19 1623:9 1628:8 1628:12 1629:19 1634:21 1635:3 1636:9 1642:2 1647:16 1661:14 1667:19,21 1668:15 1672:6 1676:17 1687:10 1696:18 1700:17,19 1716:15 1723:4 1747:21 1749:2 1763:17 1768:6,6 1783:15 1786:5,14 1788:9 1790:15 1791:11 1793:20 1795:13,14,20,20 1806:9 1815:2 1816:1 1816:17 1821:10 1825:6 1831:12 1833:11 1839:14 1841:22 1845:10 1846:4 1862:15 1864:17 1870:10 1871:16 1873:5 1882:17 Waycross 1703:12	1714:8 1866:15 ways 1586:5 1628:10 1834:8 1866:9 we'll 1560:6 1575:14 1608:1 1635:2 1638:8 1645:7 1719:1 1733:22 1734:21,21 1762:1 1780:16,16,17 1782:6 1801:18 1820:14,15 1824:21 1829:17 1845:2 1852:1 1874:19 1876:3 1878:5,15,15 we're 1535:9 1575:5 1578:18 1579:6,9,10 1580:15 1603:16 1606:14,14 1608:2,6,17 1616:12 1618:2,2 1619:5 1621:4 1624:4,5 1627:5 1637:20 1638:10,21,22 1640:9 1644:17,21 1645:9 1647:8 1650:21 1651:1 1653:21 1656:18 1658:2 1660:20 1663:1 1672:2 1674:5 1682:10 1682:14,21,21,22 1695:7 1697:15 1704:14 1710:7 1711:4 1711:4 1714:10,10,16 1715:1 1717:15,15 1719:17,18,20 1723:1,9 1724:20 1725:4,10 1726:1 1729:10 1730:21,22 1731:11 1733:17,18 1736:3,5 1743:1 1758:7 1761:2 1761:10,15 1766:8 1769:9 1774:10 1780:17,18 1789:6 1791:21 1812:17,17 1820:16 1823:21 1824:11,12 1829:4,10 1843:6 1844:19 1849:15 1851:18 1856:4 1862:11 1863:15 1864:3 1867:13 1877:2,9 1881:12 we've 1553:6 1558:19 1563:13,16 1572:17 1579:21 1580:13 1584:10,11,11 1590:1 1590:19 1664:15 1756:15 1821:2 1841:16 1850:10 1854:12 1867:10	1874:9 1876:19 Wednesday 1563:16 week 1540:13 1541:8 1608:22 1609:1 1762:19 1828:5 1877:6 1878:2 1879:2 1880:1 weeks 1594:15 weigh 1846:14,19 weight 1789:14 weighted 1687:14 weighting 1691:9 welcome 1535:3 1589:18 1593:7 1604:4 1605:2 welding 1630:7 went 1549:19 1663:21 1669:22 1705:17 1716:10 1722:8 1756:21 1806:11,12 1808:5 1855:11 weren't 1651:2 1659:20 1765:13 1826:11 1832:1 1857:12 1863:14 west 1606:4,7,7,18 1656:4 1881:15 what-if 1620:12 1631:5 1631:20,22 1649:12 1650:2 1655:14 1663:6 1678:18 1681:16 1714:19,19 1769:17 1773:17 1775:16 1803:4 1818:7,9 1839:19 1862:13 what-ifs 1714:12 white 1700:8 1719:14 wide 1624:20 1625:9 1631:10 1632:22 widely 1821:11 Width 1651:14 Williams 1599:17,19 1600:6 willing 1848:4 Wimbish 1682:7 1718:22 1720:21 1844:16 1852:2 1879:7,11,12,14 1880:9 1881:11 window 1604:19 1648:1 1648:2 1662:5 1702:3,6 1708:16 windows 1629:19 1630:9 1630:19 wish 1675:11 1707:2 1751:1 1753:18 1811:15 withdraw 1851:10,21 witness 1535:18 1546:7
--	---	--	---

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1925

1546:13,16 1547:7,12 1547:14,17,21 1548:8 1557:7 1558:4,10,12,15 1559:4,10,12 1560:11 1578:20 1579:4,12 1580:8,11 1581:1,5,7 1581:11,21 1582:8,14 1582:20 1583:9,15,20 1584:10,16,19 1585:7 1586:7,12,18 1587:3,13 1588:1,13,20 1589:1,5 1589:10,18 1590:6,20 1591:17 1592:12,14 1593:7,11,18,20 1594:1 1594:3,6,13,18 1595:2 1595:6,9,16,20,22 1596:11,15,18,20 1597:3,5,12,19 1598:4 1598:7,10,15,19 1599:5 1599:17,22 1600:4,7,13 1600:17,20 1601:4,7,14 1601:20 1602:11 1603:1,4,9,22 1604:4,7 1605:16 1606:7,11,21 1607:2,5,11,14,19 1610:8,19 1611:3,9 1635:15,22 1636:6,13 1636:21 1637:8,11 1638:10 1640:18 1641:8 1642:7,14,20 1643:1,9,14 1644:3,11 1644:18,22 1648:10,13 1648:22 1649:6 1654:4 1657:17,21 1658:17,21 1659:2,12 1660:4,9,13 1672:15,20 1673:3,7,18 1674:7,10 1675:9,22 1676:4 1677:1 1682:17 1687:20 1688:5,13 1689:7 1690:5 1691:2 1691:20 1692:4 1694:10,12 1696:13 1697:13 1698:7,19 1700:5,9,13 1701:16 1702:8,12 1703:2,6,11 1703:15,20 1704:4,7,12 1707:13,21 1708:3,9,22 1709:10,17,22 1710:19 1711:7,16 1712:12,20 1713:13,18 1714:3 1717:11 1723:3,11,14 1723:18 1724:14 1727:5,11 1728:2 1730:19 1731:15,22 1732:11,17,21 1743:4 1745:10,14 1746:17	1748:1 1749:6,11,17 1751:14 1752:2 1754:15 1755:4,15,21 1757:9,13,16,19 1758:1 1758:20 1759:2,7 1760:1,18 1761:5 1762:11 1771:2,15,19 1773:2 1775:1,13,22 1777:1,13 1778:14,17 1778:20 1779:14,21 1780:21 1781:19 1782:15,21 1783:3,8,17 1784:2,8,12 1785:7,15 1786:11 1787:3,10,22 1788:5,11,16,22 1789:8 1789:11,16 1790:8,11 1790:22 1791:15 1792:5,9 1793:3,14 1794:7,14 1795:6,21 1796:5,14 1797:6,15,20 1798:1 1800:16 1801:10 1802:4,13,17 1802:21 1803:12,20 1804:2,15 1805:11,19 1806:3,11 1807:1,12,21 1808:11 1809:8,11,17 1810:12 1811:8 1812:4 1812:11,14,21 1813:10 1813:18 1814:6,15,20 1815:4,7,17 1816:12 1817:14 1818:4,15 1819:4,8,13,22 1821:13 1821:21 1822:5 1823:10,20 1824:7 1828:15 1829:4 1831:11 1832:15 1833:1 1834:11 1835:3 1842:15 1843:15,18 1848:14 1857:10 1858:1,10,21 1859:5,13 1860:8,22 1861:22 1862:10 1863:3,11 1865:2,18 1866:10 1868:3,11,17 1869:12 1870:13 1871:17 1872:20 1874:1 1876:4 1876:9,11 1882:21 witnesses 1590:3 1591:2 1619:13 1650:5 1660:19 1678:13 1691:13 1724:20 1850:13 1860:18 1877:15 1879:16 1880:2,8,13,21 1883:12 1885:2 wondered 1651:5	wondering 1594:19 1699:22 1821:10 1846:12 wonkie 1634:14 1699:3 word 1642:2 1700:18 1825:6 words 1588:11 1603:14 1651:14 1675:2 1690:10 1786:4 1797:4 1800:12 work 1538:14,21 1539:7 1539:10,19 1540:5 1542:1 1545:17 1546:19 1549:9 1550:12 1557:18 1558:7,8 1568:2,3 1570:7,12,14,15 1578:16 1579:15 1581:18 1612:17,20,22 1614:10,15 1615:4,10 1615:12,21 1616:1,15 1616:17 1636:14 1648:19 1676:6 1677:2 1698:15 1699:17 1700:12 1707:17 1708:2 1709:2 1733:9 1735:8 1738:17 1743:21 1748:8 1757:1 1766:22 1772:7 1773:5 1773:16 1780:1 1798:16 1806:21 1814:5,10 1818:20 1825:12 1826:21 1828:3 1829:21 1830:11 1834:16 1840:8,12 1841:17 1849:5,8 1850:13 1852:9 1854:2,7,8,14 1878:3 1879:5 1880:6 1884:6 worked 1588:5 1612:21 1615:6,7 1666:20 1777:5,5 1788:7 1817:16 1871:2 working 1615:14 1617:6 1639:16 1667:8 1747:1 1779:7,15 1838:2 1850:2 works 1571:9 1658:13 1735:6,18 1876:20 1877:10,10,20 worksheet 1546:8 world 1538:4 1539:15 1559:9 1580:22 1581:2 1581:10 1628:3 1643:5 1655:14,15 1689:19	1703:3 1784:7 worries 1815:11 worry 1659:5 worse 1625:11 1747:19 1765:21 1786:3 worst-case 1805:4 worth 1537:6 1602:8,22 1852:5 worthy 1848:7 wouldn't 1644:8 1651:6 1652:4 1653:11 1654:11 1655:3 1659:9 1737:16 1747:19 1756:22 1771:22 1801:1 1815:21,21 1831:11,16 1846:18 1864:5 1865:12 wrap 1874:12 1875:20 wrong 1675:15 1747:22 1771:8 X X 1885:10 Y Y 1741:20 1759:1 yard 1538:14,21,21,22 1539:4,7,10 1557:12,16 1579:17,18 1627:22 1628:20 1629:5,7,8,9 1629:10,12,14 1664:7,9 1668:22 1722:7,10,11 1733:4 1740:2,19 1741:8,9 1743:18 1744:15 1745:2,3,19 1746:3,4,21,22 1747:1 1747:8 1748:9 1750:7 1750:10,11,13 1763:20 1817:2,4 1822:11 1829:21,21 1830:5 1839:5,6 1863:2 1864:14 1869:19 yards 1627:22 1675:5 1746:3 1766:1 1863:17 yea 1591:11 yeah 1551:11 1554:11 1558:4,10 1559:11 1560:21 1574:17 1581:3,7 1585:14 1589:1 1590:6 1593:18 1596:16 1597:19 1599:5 1606:11,12 1607:5 1619:9 1621:11 1621:22 1626:17 1627:12,12,20 1628:14 1630:16 1631:16
--	--	--	--

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1926

1633:9 1635:2 1637:13 1640:19,22 1641:2,15 1642:7 1643:13,14,15 1644:9,11 1645:14 1647:15 1648:10,13,22 1651:22 1653:2 1660:4 1667:4 1670:12 1673:19 1675:11,13,18 1676:5,7 1677:10,20 1688:6,7 1689:12 1691:20 1692:15 1702:15,17 1704:13 1707:15 1708:3,4,15 1709:17,19 1711:7 1712:8 1713:1,18 1723:14,15 1726:8,11 1727:12 1734:19 1737:7 1744:5 1745:20 1749:1,6,14 1750:13,15 1751:9 1755:21 1757:16 1758:1 1761:21 1766:18 1771:17,19,21 1775:22 1777:5,13 1779:21,22 1782:21 1783:3,22 1784:12,20 1787:10 1788:14,14,14,22 1790:8,22 1792:5,13,13 1792:17,18 1794:22 1798:1,3,7 1800:6 1809:11 1811:13,18 1812:11 1815:12 1817:5,21 1819:8,13,22 1821:13,16,21 1822:5 1823:16 1825:21 1829:6,9 1830:19,22 1831:4,15 1834:18 1835:6 1843:20 1846:11 1851:20 1852:4 1859:13 1860:22 1865:18 1871:21 1873:3,3 1874:6,6 1879:13 1882:4 year 1621:8 years 1550:22 1582:7 1605:11 1612:21 1613:10,18,19 1614:14 1618:20 1619:22 1624:17,18 1651:19 1781:22 1788:7 yellow 1719:15 yep 1543:11 1638:5 1648:5 1654:4 1697:21 1713:7 1724:18 1725:11 1756:10	1774:17 1843:1 1857:3 yeses 1758:16 yesterday 1762:18,19 York 1613:14 Z zero 1574:3 1764:2 1766:12 1793:22 1794:4 1795:22 1796:3 1796:4,12,12 1797:4,5 1797:6,11,14 1800:9,10 1800:13 1825:18,22 1826:4 1828:14,18,21 1831:15 Zingler 1694:17 zone 1663:18,19 zoom 1534:12 1682:14 1812:20 zoomed 1728:4 0 1 1 1648:20 1,000 1745:8 1749:11 1750:6 1751:12,22 1754:1 1755:19 1.5 1570:5,6,8 1:00 1607:22 1608:14 1609:14 1:05 1610:2 10 1562:1 10% 1790:13,17 10,000 1554:1,2 1722:4 1857:14 10:00 1864:20 10:50 1609:15 100 1792:9 100% 1555:17 1626:15 1723:6 1754:17 100M 1566:12 1568:16 1759:18 1808:7 102 1573:6 104 1653:2 10M 1588:21 11 1562:7 1587:15 1650:16 1651:13 1686:13 1758:16 11,000 1857:12,21 11:00 1607:16,17 110 1551:21 1552:1,12 11th 1608:18 1609:7 1876:20 1877:3,9,10,16 1878:7,7,22 1879:17 1882:2 1883:17 12 1534:10 1569:13,16,22	1607:17 1730:18 12- 1781:15 12,000 1562:12,14,16 1565:3 1730:6 1732:17 1857:6,12 1861:19 12,500 1726:22 12:00 1702:5 13 1573:18 1682:17 1759:16 13% 1781:15 13,300 1722:22 13.3 1723:17 13M 1759:15 14 1560:17 1561:1,15 1574:13 1587:11 1601:18 1602:6 1695:12 1714:11 1716:11 1765:4,11 1788:18 1806:7 1827:6 1843:10 14,000 1722:8 1723:4,13 1726:2 14.1 1574:7 1575:18 14.8 1574:6 1575:18 140 1552:6,12 1642:18 1823:13 1858:19 14th 1879:22 1880:3,8,15 15 1542:21 1543:5 1545:9 1572:17 1573:20 1574:1,10,12 1574:14 1575:10,14 1665:13 1716:22 1767:8,10 1772:11 1789:5 15- 1567:1,8,17 15-hour 1666:5 15% 1691:3,18,18 1789:7 1536 1885:4 16 1545:9 1765:2,7 16,000 1730:16 1731:22 1732:16 160 1653:1 1604 1885:5 1605 1885:6 1611 1885:8 1719 1885:13 1720 1885:15 1729 1885:17 18.5 1768:9 18th 1609:5 1880:4 19 1572:18 1573:7,14,18 1573:21 1637:21 1638:22 19th 1609:6 1880:4 2	2,000 1749:9,16 1755:20 2.5 1766:9 1826:4 20 1582:7 1605:11 1613:20 1618:20 1619:22 1645:18 1651:19 1652:18,19 1656:19,19 1658:20 1659:9 1716:20 1737:12 1775:8 1790:10 1815:20 20-year 1578:17 1581:3 1581:19 1585:21 1654:16 20% 1567:1,8,17 20.4 1655:22 1657:14 200 1659:16 2000 1745:8 2013 1756:21 1775:7 2016 1616:20 1781:20 2019 1541:2,5 1587:13 1619:11,19,20 1620:9 1621:10,11 1631:2 1639:3,6,7,8,8 1640:15 1640:20,22 1649:10 1657:15,20,22 1658:1,1 1658:14,19 1667:17,17 1680:9 1681:17 1683:6 1684:7 1686:10,13 1693:5 1705:3 1739:1,3 1739:5 1755:5 1756:12 1756:18 1757:1,8,18,22 1758:10,15,17,19,21 1759:3,3,21 1774:21 1775:6,11,13 1778:12 1802:12 1803:1,19 1815:1 1835:16 1837:7 1850:21 1854:4 1855:19 2020 1540:20 1541:4,8 1815:20 2021 1536:11 1539:3 1571:22 1572:6 1618:12 1638:11 1682:2 1722:20 1815:20 2022 1534:10 2024 1886:21 2029 1855:21 2030 1739:5 2039 1567:9 1570:20,22 1571:2,6 1578:18 1620:3,9,15,18 1621:8 1621:10 1631:3 1649:13 1652:5,21 1653:12,15 1655:7 1658:2,3 1680:9
---	---	--	---

REDACTED - PUBLIC VERSION

Public Evidentiary Hearing
April 12, 2022

Page 1927

1681:17 1705:3,7 1738:22 1755:5,11,20 1756:16,19,22 1757:2 1757:20 1758:15,20 1759:4 1765:12 1767:20 1775:2,3,10,17 1778:19 1780:14 1784:3,3,4 1793:5,6,7,9 1802:19,22 1803:1,10 1814:12 1835:16 1837:8,10,17 1838:5,22 1841:15 1843:4,14 1844:1 1849:10 2040 1569:19 22% 1684:9 1686:17 22.7 1573:3 1640:15 1657:16 23 1594:16 23D 1635:15 1638:10 1758:8 23E 1560:5 23H 1538:13 1569:14 24/7-365 1865:10 24308(e) 1534:6 1535:5 1610:6 25-3H 1536:8 275 1720:7,9 1721:3 1885:14 276 1720:3 1728:3 1729:7 1885:16 277 1717:12,19 1719:4 1885:12 28% 1683:12 2nd 1878:3	34 1650:12 35% 1794:16 36 1759:16 1876:3 36M 1759:15 38 1682:10,19 39 1855:21 3rd 1594:11 1860:5	7,500 1855:2,16,22 700 1723:14 75 1689:13 1690:12 7M 1771:9	
	4	8	
	4- 1575:1 1588:21 1745:7 4:00 1863:6,10 40 1624:17 1767:3,8 1804:19 1805:1,10 1814:1,8,18 407M 1759:18 40D 1543:6 41B 1682:1 41D 1542:20 1543:2,6 440M 1561:16 1563:2,6 1564:5 45 1604:20 1637:21 1638:22 1653:20 1657:13 1658:15 1660:12 1824:2 45% 1647:1 1684:9 1686:17 1823:11,16 1831:14 46 1640:10 49 1534:5 49M 1759:16	8% 1683:13 1781:15 8:05 1869:1 80% 1688:4,7,12 1689:4 1689:16,17 1690:5 1691:8 1693:16 1695:16 83 1573:6 84M 1561:17 1562:21 1575:5 86 1811:14 1812:4	
	5	9	
3	5% 1635:6 5.3M 1779:10 5:00 1761:14,20 1824:3 1874:10 5:10 1884:11 5:15 1761:22 5:20 1761:22 50% 1635:4,8 500 1745:7 1747:17 507M 1872:13 524M 1563:9 1564:5 582 1551:17 5M 1575:1,6 1779:14	9 1790:18 9% 1789:10 1790:14 1793:11 1797:17 1811:2 9:00 1702:5 1863:5 9:30 1534:11 1608:7 1878:14 1881:15 1884:9 9:32 1534:15 90% 1687:19 1691:7 90M 1779:16 1781:18 94.8M 1779:10 95 1689:4 95% 1691:1,21 1692:7 1695:14 1697:12 9th 1608:18 1609:7 1876:20 1877:3,10,16 1877:19 1878:6,22,22 1879:2,17 1882:2,12 1883:17	
	6		
3 1722:20 3-Mile 1838:18 1839:3 3,000 1587:4 1744:9 1749:13 1751:5 1753:9 1754:13 1763:5,8,22 3,200 1749:5 3,500 1587:4 3.2 1765:18 3:08 1761:3 3:20 1761:4 1762:7 30 1632:15 1633:19 1772:12 1774:3,10 1814:9,19 1836:13 30% 1794:16 1799:5 300 1616:10 1632:18 1653:4 1784:12 31 1886:21 32 1566:4,11 1568:16 1604:14 33% 1686:17	6,000 1855:11 6:00 1864:20 60% 1688:18 62 1730:20 1731:1,10 63 1731:9 68M 1759:17 69 1743:4,6		
	7		