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TOTAL PETROCHEMICALS & REFINING USA, INC.	)	
Complainant,	)	
v.	)	**Docket No. NOR 42121**
CSX TRANSPORTATION, INC.	)	
Defendant.	)	

REPLY SUPPLEMENTAL AND COMPLIANCE EVIDENCE OF TOTAL PETROCHEMICALS & REFINING USA, INC.

Jeffrey O. Moreno
Nicholas J. DiMichael
David E. Benz
Jason D. Tutrone
Thompson Hine LLP
1919 M Street, N.W., Suite 700
Washington, D.C. 20036
(202) 331-8800

Counsel for Total Petrochemicals & Refining USA, Inc.

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Compliance Order	STB Compliance Decision in Docket NOR 42121, *Total Petrochemicals & Refining USA, Inc. v. CSX Transportation, Inc.*, decided July 21, 2015
CSXT Recon. Reply	*CSXT's Reply to Complainant's Petition for Reconsideration and Clarification*, filed Aug. 12, 2015
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Wisconsin P&L	*Wis. Power & Light Co. v. Union Pac. R.R. Co.*, 5 S.T.B. 955 (2001).

Acronyms

The following acronyms are used:

ATC	Average Total Cost
BNSF	BNSF Railway Company
CAGR	Compound Annual Growth Rate
CP	Canadian Pacific Railroad
CSXT	CSX Transportation, Inc.
CTC	Central Traffic Control
DCF	Discounted Cash Flow
G&A	General and Administrative
MMM	Maximum Markup Methodology
MOW	Maintenance of Way
NS	Norfolk Southern Railway Company
PAF	Productivity Adjustment Factor
PTC	Positive Train Control
RCAF	Rail Cost Adjustment Factor
RSIA	Rail Safety Improvement Act of 2008
RTC	Rail Traffic Controller Model
SAC	Stand-Alone Cost
SARR	Stand-Alone Railroad
STB	Surface Transportation Board
T&E	Train and Engine
TPI	Total Petrochemicals & Refining USA, Inc.
TPIRR	TPI Stand-Alone Railroad
UP	Union Pacific Railroad Company

Pursuant to decisions served in this docket on July 24[1] and September 4, 2015,[2] the Surface Transportation Board ("Board" or "STB") directed Complainant, Total Petrochemicals & Refining USA, Inc. ("TPI"), and Defendant, CSX Transportation, Inc. ("CSXT"), to simultaneously submit "Compliance Evidence" and "Supplemental Opening Evidence" on October 7, 2015, and "Supplemental Reply Evidence" on November 20, 2015. TPI hereby submits this Supplemental Reply Evidence in response to CSXT's Compliance and Supplemental Opening Evidence ("CSXT Supp. Op.").[3]

In developing its own Supplemental Opening evidence, TPI followed the STB Ex Parte 347 (Sub No. 3)[4] guidelines for presenting evidence in stand-alone cost ("SAC") rate cases. CSXT, however, did not do so in developing its Supplemental Opening evidence, which has made it difficult to marry CSXT's Supplemental Opening evidence with its initial Reply evidence. In this Supplemental Reply evidence, TPI has followed the format of CSXT's Supplemental Opening evidence to more easily match its responses to CSXT. In addition, TPI has created Supplemental Reply Exhibit TPI-1 to facilitate the Board's ability to compare CSXT's Supplemental Opening evidence with CSXT's July 21, 2014 Reply evidence.

TPI has organized this Supplemental Reply evidence under the following six topical headings, which correspond with the headings in CSXT's Supplemental Opening evidence:

I. CSXT's Supplemental Opening RTC Model is NOT Based on its MultiRail Train List

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[1] The Board served two decisions on July 24th, one requesting compliance evidence and the other requesting supplemental evidence (hereafter referred to as the "*Compliance Order*" and "*Supplemental Evidence Order*," respectively).

[2] The September 4 decision granted in part, and denied in part, TPI's Petition to Reconsider the Supplemental Evidence Order ("*Reconsideration Decision*").

[3] Throughout TPI's Supplemental Reply Evidence, all text within double brackets is {{HIGHLY CONFIDENTIAL}} pursuant to the Protective Order adopted in the Board's decision served on June 23, 2010.

[4] STB Ex Parte 347 (Sub No. 3), *General Procedures for Presenting Evidence in Stand-Alone Cost Rate Cases* (served March 9, 2001).

I. CSXT'S SUPPLEMENTAL OPENING RTC MODEL IS NOT BASED ON ITS MULTIRAIL TRAIN LIST

The Board ordered CSXT to "run its RTC model with its full MultiRail train list and to submit an RTC model that has been run with all the trains it proposes as necessary to support its operating plan."[5] CSXT has not complied with this directive. CSXT claims that, to comply with the Board's order, "CSXT reviewed the train list that it utilized in developing its Peak Year MultiRail analysis, confirmed the trains that would be necessary to handle the TPIRR's selected traffic, and identified the specific operating parameters required to model the movement of these trains in the Supplemental RTC simulation."[6] But CSXT's review of its Reply train list did not confirm that all of the MultiRail trains were necessary to handle the selected traffic. Moreover, CSXT made modifications in its Supplemental Opening that contravene the Board's instruction to the parties not to revise their evidence beyond the scope of the *Supplemental Evidence Order.*[7]

CSXT points to its peak year MultiRail output summary file, "SARR19F_Estimated Train Volumes.xlsx", as the primary source of information for the train list that CSXT input into its Supplemental Opening RTC model. Specifically, CSXT claimed that it used this file to develop:

> (i) the origin and destination stations of each train; (ii) the frequency and day(s) of week that the train operates; (iii) the stops at intermediate points that the train makes between its origin and destination; (iv) the blocks of merchandise cars that the train picks up or sets off at each intermediate stop; (v) the number of cars on the train as it moves between stops; and (vi) other work events (*e.g.*, crew changes) that occur at each stop.[8]

Although CSXT began with this file, it removed thousands of trains from the train list included in that file, and for many of the remaining trains, CSXT altered the frequency and days of the

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5 *See Supplemental Evidence Order*, slip op., at 8.
6 *See* CSXT Supp. Op. at 4 (emphasis added).
7 *See Supplemental Evidence Order*, slip op., at 9.
8 *See* CSXT Supp. Op. at 4.

week that trains operated according to its MultiRail operating plan. CSXT also omitted many of the intermediate stops that MultiRail required to provide complete end-to-end service for the TPIRR traffic group. As a consequence of those alterations, the TPIRR fails to move many blocks of cars in accordance with CSXT's MultiRail operating plan, and it fails to serve over one hundred carload shippers whose traffic is included in the TPIRR traffic group.

Furthermore, because MultiRail did not assign any traffic to the roughly 29,000 intermodal trains included in CSXT's train list, CSXT used historical consist data as a surrogate for the data missing from its intermodal train list. CSXT's choice of surrogate, however, is invalid because of the apples-to-oranges nature of the historical vs. MultiRail intermodal train lists. As a result, CSXT's operating plan for intermodal traffic fails to serve the TPIRR traffic group.

CSXT also heavily modified the outputs of its MultiRail model for inclusion in the RTC simulation, thereby perpetuating the mismatch between CSXT's MultiRail and RTC operating plans that prompted the Board to request supplemental evidence in the first place.[9] For example, CSXT relied upon payroll data, car-event data, scheduling information from train profiles, and even TPI's RTC model to compile a complete train list for its Supplemental Opening RTC model.[10] The end result of all of these adjustments is an RTC simulation that bears little resemblance to—and thus does not model—CSXT's MultiRail operating plan.

CSXT's Supplemental RTC train list is a heavily distorted reflection of its MultiRail train list. Because CSXT has made such drastic adjustments, and because it has selectively applied those adjustments to meet its agenda, the Board should reject CSXT's operating plan. The

[9] *See Supplemental Evidence Order*, slip op., at 7.
[10] *See* CSXT Supp. Op. at 5.

sections that follow address the specific shortcomings related to CSXT's treatment of: Road Trains; Local Trains; Industrial Yard Trains; and Issue Traffic.

A. Road Trains

CSXT's Supplemental MultiRail train list included 2,237 weekly carload road trains, which CSXT states includes merchandise, intermodal, and automotive trains.[11] CSXT, however, should not have included intermodal trains as carload road trains, but instead should have treated them as it does unit trains. Because MultiRail "does not assign individual intermodal shipments to blocks or trains, and the MultiRail data do not identify the specific containers moving on each intermodal train,"[12] CSXT could not identify specific containers moving on its intermodal trains. Therefore, CSXT relied upon information external to MultiRail to assign intermodal shipments to trains. This caused multiple problems that render CSXT's MultiRail operating plan infeasible and unrealistic.

CSXT does not use MultiRail to develop an operating plan for unit trains. According to CSXT:

> TPIRR's unit train traffic was not input to MultiRail because that traffic moves in trainload service between a single origin (or on-SARR junction) and a single destination (or off-SARR junction). As the Board's Orders do not require adjustments to the TPIRR's unit trains, CSXT continues to model in its Supplemental RTC simulation the same unit trains that it included in its Reply RTC simulation.[13]

Although CSXT did not input unit trains into MultiRail "because that traffic moves in trainload service between a single origin and a single destination," CSXT inconsistently input intermodal trains into MultiRail despite the fact that, just like unit-train traffic, "[i]ntermodal containers

[11] *See* CSXT Supp. Op. at 5 (n. 8).
[12] *See* CSXT Supp. Op. at 6.
[13] *See* CSXT Supp. Op. at 5 (n. 9).

generally move in trainload shipments and are not classified or blocked at intermediate yards."[14] If CSXT had modeled intermodal traffic as unit trains instead of carload trains, it would have modeled and costed the same 28,730 historical intermodal trains moving under 270 unique train symbols that TPI modeled and costed,[15] and it would have accounted for the movement of all TPIRR intermodal traffic. Instead, CSXT inflated its operating expenses by modeling 29,016 intermodal trains moving under 138 unique train symbols that it cannot link to a single TPIRR shipment.[16] As a result, CSXT failed to demonstrate that any of its intermodal trains are required—it merely assumed they are.

CSXT imposed historical consist data upon its hypothetical (MultiRail) intermodal train list because MultiRail could not provide consist data information for intermodal trains. But this created a disconnect between the TPIRR traffic group and the intermodal trains in CSXT's operating plan because CSXT's MultiRail trains do not match the historical trains carrying the TPIRR's intermodal traffic. As a result, CSXT's intermodal train list is divorced from the flow of TPIRR intermodal traffic, which caused CSXT to overserve many intermodal lanes and underserve others.

For example, 71 "L128" historical intermodal trains actually moved in the base year.[17] These 71 trains contained an average of 36.42 cars per train.[18] In contrast, CSXT included 364

[14] *See* CSXT Supp. Op. at 6.
[15] *See* TPI Supp. Reply workpaper "Comparison of TPI and CSXT Road Trains_v2.xlsx" at level "Summary By ID" cell Q15 and P15.
[16] *See* TPI Supp. Reply workpaper "Comparison of TPI and CSXT Road Trains_v2.xlsx" at level "Summary By ID" cell W15 and V15.
[17] *See* TPI Supp. Reply workpaper "Comparison of TPI and CSXT Road Trains_v2.xlsx" at level "Summary By ID" cell Q24.
[18] *See* TPI Supp. Reply workpaper "Comparison of TPI and CSXT Road Trains_v2.xlsx" at level "Summary By ID" cell O24.

"L128" intermodal trains in its MultiRail analysis.[19] But CSXT could not assign any cars or blocks to those trains because MultiRail does not produce consist data for intermodal trains. Therefore, CSXT assumed that the 364 "L128" trains in its MultiRail train list would have the same average consist of 36.42 cars as the 71 "L128" historical trains in TPI's train list.

The folly in CSXT's approach is obvious because multiplying the average consist per historical train by a larger number of MultiRail trains overstates the total volume of intermodal traffic handled and thus the operating costs to serve that traffic. Historical train "L128" actually moved 2,586 carloads on 71 trains to provide complete service to the TPIRR traffic group.[20] However, CSXT included 364 "L128" trains in MultiRail to provide the same service. CSXT therefore modeled and costed the movement of 13,258 carloads[21] (364 x 36.42) on 364 trains to provide service to TPIRR shippers when the real-world CSXT actually handled just 2,586 carloads (71 x 36.42) using 71 trains.

This problem also caused MultiRail to assign too few trains for the required service in other instances. For example, 143 "Q101" historical intermodal trains actually moved in the base year.[22] These 143 trains had an average consist of 23.28 cars per train.[23] But CSXT included only 104 "Q101" intermodal trains in its MultiRail analysis.[24] Because MultiRail does not produce consist data for intermodal trains, CSXT assumed the 104 "L128" trains in its MultiRail train list

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[19] *See* TPI Supp. Reply workpaper "Comparison of TPI and CSXT Road Trains_v2.xlsx" at level "Summary By ID" cell W24.

[20] *See* TPI Supp. Reply workpaper "Comparison of TPI and CSXT Road Trains_v2.xlsx" at level "Summary By ID" cell R24.

[21] *See* TPI Supp. Reply workpaper "Comparison of TPI and CSXT Road Trains_v2.xlsx" at level "Summary By ID" cell X24.

[22] *See* TPI Supp. Reply workpaper "Comparison of TPI and CSXT Road Trains_v2.xlsx" at level "Summary By ID" cell Q45.

[23] *See* TPI Supp. Reply workpaper "Comparison of TPI and CSXT Road Trains_v2.xlsx" at level "Summary By ID" cell O45.

[24] *See* TPI Supp. Reply workpaper "Comparison of TPI and CSXT Road Trains_v2.xlsx" at level "Summary By ID" cell W45.

would have the same average consists of 23.28 cars as the 143 "Q101" historical trains in TPI's train list. In this example, historical train "Q101" actually moved 3,329 carloads on 143 trains to provide complete service to the TPIRR traffic group.[25] However, CSXT assumed it would only need 104 "Q101" trains to provide the same service. Because CSXT was unable to determine which traffic those 104 trains would serve in MultiRail, it assumed the trains would be identical in consist to the 143 historical trains. CSXT therefore modeled the movement of only 2,421 carloads[26] (104 x 23.28) on 104 trains to provide service to TPIRR shippers that were historically served by 143 trains. As a result, CSXT's plan failed to move 908 shipments in that lane (3,329 – 2,421 = 908.)

For intermodal trains moving under the 138 train symbols common to CSXT's hypothetical MultiRail train list and TPI's historical train list, the train counts matched for only 11 train symbols (8 percent of the time).[27] Therefore, for the remaining 127 train symbols (**92 percent!**) common to CSXT's hypothetical MultiRail train list and TPI's historical train list, CSXT's operating plan either under- or over-serves the lanes served by those trains. Furthermore, CSXT failed to model any of the 1,995 historical intermodal trains that moved under 132 symbols[28] that CSXT excluded from its MultiRail intermodal train list, which constitutes nearly half of the historical intermodal train symbols moving TPIRR traffic. This would not necessarily be a problem if CSXT had assigned the TPIRR intermodal traffic moved

[25] *See* TPI Supp. Reply workpaper "Comparison of TPI and CSXT Road Trains_v2.xlsx" at level "Summary By ID" cell R45.
[26] *See* TPI Supp. Reply workpaper "Comparison of TPI and CSXT Road Trains_v2.xlsx" at level "Summary By ID" cell X45.
[27] *See* TPI Supp. Reply workpaper "Comparison of TPI and CSXT Road Trains_v2.xlsx" at level "Summary By ID" range AK15:AN15.
[28] *See* TPI Supp. Reply workpaper "Comparison of TPI and CSXT Road Trains_v2.xlsx" at level "Summary By ID" cells Q11 and P11.

by those trains to different trains serving those lanes in MultiRail. However, by CSXT's own admission, it did not assign any traffic to intermodal trains in MultiRail.

CSXT's intermodal train list implies that it moved 935,809 carloads[29] of intermodal traffic, but it cannot identify any of the individual shipments moving on any of the individual 29,016 trains it modeled. Thus, CSXT's imposition of surrogate historical car count statistics to its hypothetical MultiRail train list fails to demonstrate that any TPIRR intermodal shippers were served. It is a meaningless statistic that is divorced from the TPIRR shipper group. Even though CSXT's operating plan moves roughly the correct volume of intermodal traffic on roughly the correct volume of trains in the aggregate, its traffic flows do not align with the needs of the TPIRR's intermodal shippers on a lane-by-lane basis. In contrast, consist data for the intermodal trains included in TPI's train list reflect the actual containers and flatcars moved by the individual historical trains.

CSXT's description of MultiRail's inability to assign intermodal traffic to blocks or trains raises serious questions about the appropriateness of using MultiRail to develop an operating plan for intermodal trains. CSXT's subsequent use of mismatched historical consist data in lieu of MultiRail output for these trains demonstrates that it is not appropriate.

Finally, CSXT inappropriately applied the same loaded-to-empty ratio for all intermodal trains for RTC modeling purposes. For example, the historical traffic for train "L031" shows 49 loaded cars and zero empty cars for a total of 49 carloads.[30] However, in its RTC model, CSXT

[29] *See* TPI Supp. Reply workpaper "Comparison of TPI and CSXT Road Trains_v2.xlsx" at level "Summary By ID" cell X15.

[30] *See* TPI Supp. Reply workpaper "Comparison of TPI and CSXT Road Trains_v2.xlsx," at level "IM Comparison" cell H116 and cell I116.

assumed a uniform 89 percent loaded cars and 11 percent empty cars for all intermodal trains.[31] As a result, CSXT modeled a train that historically operated 100-percent loaded cars with 44 loaded and five empty cars.[32] In another example, train "L128" historically moved one loaded and 48 empty cars for a total of 49 carloads.[33] However, in its RTC model, CSXT applied its one-size-fits-all distribution of approximately 89 percent loaded cars and 11 percent empty cars.[34] Therefore, CSXT improperly modeled train "L128" with 44 loaded cars and five empty cars.[35] Overall, CSXT altered the loaded-to-empty ratio by more than 10 percent compared to the historical intermodal trains bearing the same symbols for 45 percent of the 138 intermodal train symbols it modeled.[36]

B. Local Trains

The *Supplemental Evidence Order*, slip op. at 8, directed: (a) TPI to add "local trains that deliver and/or pick up SARR traffic at shipper locations in the base year to its train list"; and (b) CSXT to "run its RTC model with all trains that it claims are necessary to provide service to the selected traffic group and that are included in its MultiRail train list." TPI's supplemental evidence added all of the remaining local trains in dispute per the Board's request, although TPI still contends that there is no evidence that those trains actually handled any SARR traffic at

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[31] CSXT's empty/load ratios utilized in its Supplemental Opening RTC model are further discussed in Section II.A below and demonstrated in Supplemental Reply Exhibit TPI-3.

[32] *See* TPI Supp. Reply workpaper "Comparison of TPI and CSXT Road Trains_v2.xlsx," at level "IM Comparison" cell S12 and cell T12.

[33] *See* TPI Supp. Reply workpaper "Comparison of TPI and CSXT Road Trains_v2.xlsx," at level "IM Comparison" cell H19 and cell I19.

[34] *See* TPI Supp. Reply workpaper "Comparison of TPI and CSXT Road Trains_v2.xlsx," at level "IM Comparison" cell S12 and cell T12.

[35] *See* TPI Supp. Reply workpaper "Comparison of TPI and CSXT Road Trains_v2.xlsx," at level "IM Comparison" cell L19 and cell M19.

[36] *See* TPI Supp. Reply workpaper "Comparison of TPI and CSXT Road Trains_v2.xlsx," at level "IM Comparison" cell Y12.

shipper locations in the base year.[37] CSXT's supplemental evidence does nothing to alter TPI's position. Therefore, TPI contends that the Board should rely upon TPI's Rebuttal evidence instead of either parties' supplemental evidence.

CSXT offers two justifications for the disputed local trains. First, CSXT asserts that its traffic data "generally do not report car handlings by a train unless the train transports one or more cars between two discrete reporting 'stations'" and that, "[b]ecause the work performed by switcher trains occurs within the boundaries of a single station, CSXT's event data (and thus MultiRail) do not report that the switched cars were handled by the train."[38] Although these statements—*if they were true*—might explain why CSXT's traffic data may not capture all historic movements, they still would not prove that <u>any</u> of the disputed local trains, <u>much less all of them</u>, handled TPIRR traffic in the base year. CSXT has not offered any evidence to prove its allegations as to the disputed local trains other than "trust me" that this is what happened. Despite this lack of evidence, TPI's Rebuttal generously added 11,373 local trains, including trains with zero cars assigned to them in CSXT's traffic data that fell within a category that CSXT called "local switchers." But that was as far as TPI was willing to trust CSXT's unsupported assertions, because CSXT did not identify the remaining 4,461 disputed local trains as local switchers.[39]

Second, CSXT claims to corroborate the operation of the disputed local trains through its payroll records.[40] But that claim misses the point entirely. TPI has not disputed whether these

[37] *See* TPI Supp. Op. at III-C-18-24.
[38] *See* CSXT Supp. Op. at 8.
[39] *See* TPI Supp. Op. at III-C-19-23.
[40] *See* CSXT Supp. Op. at 9-10.

trains operated in the base year; rather, TPI has disputed whether they handled TPIRR traffic.[41] CSXT's payroll data does not shed any light on that question.

CSXT's Supplemental Opening evidence for local trains is riddled with problems. First, CSXT provided inadequate support for including the disputed local trains to which MultiRail does not assign any carloads. Second, instead of remedying the disconnect between its MultiRail and RTC train lists as directed by the Board, CSXT creates a new set of critical disconnects that prevent its RTC model from supporting its MultiRail operating plan. TPI addresses each of these issues below.

1. CSXT provided inadequate support for including the disputed local trains to which Multirail does not assign any carloads

Although CSXT's Supplemental Opening MultiRail train list included 1,169 weekly local trains,[42] MultiRail did not assign any cars to many of those trains. In its Reply evidence, CSXT described a subset of these zero-car trains as "local switchers" and suggested that those trains may not appear in the car-event data because they may only perform switching and blocking at a customer location, as opposed to moving cars between locations.[43] In Rebuttal, TPI accepted the concept of "local switchers" and conservatively included all local switcher trains that CSXT claimed would not appear in the event data because those trains did not move carloads from

[41] *E.g.*, TPI Reb. at III-C-74 ("as CSXT itself acknowledges, those trains do not participate in the movement of TPIRR traffic according to CSXT's own car event data"); III-C-75 ("TPI accepts the premise that such trains do operate on the CSXT system and that they enhance the efficiency of the network. TPI, however, does not accept CSXT's implications that all 5,302 trains omitted from TPI's opening train list are in fact local switchers"); and III-C-79 ("CSXT made no attempt to determine what the train operations were, or why they were critical to providing service to TPIRR customers. If CSXT had bothered to review the data—as TPI did—the reasons for the trains having been 'excluded' would have been obvious.") [footnotes omitted].

[42] *See* CSXT Supp. Op. at 8.

[43] *See* CSXT Reply at III-C-32-33.

station to station like standard local trains.[44] CSXT's Supplemental Opening introduces two new arguments in an effort to further justify the remaining zero-car local trains still in dispute. Both arguments are fundamentally flawed.

a. CSXT inaccurately identifies a traffic data anomaly that, even if it did exist, cannot justify MultiRail's zero-car local trains

CSXT makes the puzzling claim that MultiRail assigned zero cars to many local trains due to an anomaly in CSXT's event data:

> [T]he fact that MultiRail may have assigned "0" cars to a local train does not mean that the train does not operate and handle cars. On the contrary, it is an anomaly resulting from the manner in which CSXT's event data are recorded in the normal course of business. Specifically, the event data generally do not report car handlings by a train unless the train transports one or more cars between two discrete reporting "stations."
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> * * *
>
> Because the work performed by switcher trains occurs within the boundaries of a single station, CSXT's event data (and thus MultiRail) do not report that the switched cars were handled by the train.[45]

This new argument has two crucial flaws.

First, MultiRail does not use historical event data to assign carloads to blocks or blocks to trains. Thus, CSXT cannot legitimately assert that the reason MultiRail assigned zero cars to many trains is attributable to a recording anomaly in its event data, because that anomaly would not inhibit MultiRail's ability to assign a given shipment to an individual train.

In fact, CSXT claims elsewhere in its Supplemental Opening that MultiRail's SuperSim feature "accounts for every step in the process of transporting each car from the origin customer location (or point at which the car is interchanged to TPIRR) to the destination customer location (or location at which TPIRR interchanges the car to another carrier)."[46] Therefore, if MultiRail

[44] TPI Reb. at III-C-74 to -77, -82.
[45] *See* CSXT Supp. Op. at 8.
[46] *See* CSXT Supp. Op. at 18.

did not assign any cars to a local train, that train by definition is not necessary to transport a car from one location to another on the TPIRR in CSXT's operating plan.

Second, CSXT's representation of its event data reporting anomaly is inaccurate. For example, TPI Opening workpaper "Sample Car Events V02 11192013.xlsx" contains the historical car-event data for shipment {{[redacted]}}.[47] This shipment was received in interchange at {{[redacted]}};[48] moved on merchandise train {{[redacted]}} from {{[redacted]}} to {{[redacted]}},[49] where it was classified and placed on local train {{[redacted]}}[50] and then moved to {{[redacted]}}.[51] The next day the shipment was placed at industry at {{[redacted]}} by local train {{[redacted]}}.[52] The car-event data recorded only a single event for local train {{[redacted]}}, and it occurred at a single location, {{[redacted]}}. Thus, CSXT's statement that the event data "do not report car handlings by a train unless the train transports one or more cars between two discrete reporting stations" is incorrect.

b. CSXT inappropriately relies upon a combination of historical and MultiRail train data that invalidates its model for local trains

Next, CSXT turns to its payroll data in an effort to prove that all of the zero-car local trains are needed to handle the TPIRR's traffic:

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[47] *See* Opening workpaper "Sample Car Events V02 11192013.xlsx" at level "Sk2" column D.
[48] *See* Opening workpaper "Sample Car Events V02 11192013.xlsx" at level "Sk2" rows 2 and 4, columns H and Q.
[49] *See* Opening workpaper "Sample Car Events V02 11192013.xlsx" at level "Sk2" rows 5-59, columns F, G, and I.
[50] *See* Opening workpaper "Sample Car Events V02 11192013.xlsx" at level "Sk2" row 60, columns F, G, H, and M; and row 61, columns F, G, H, and N.
[51] *See* Opening workpaper "Sample Car Events V02 11192013.xlsx" at level "Sk2" rows 62-64, columns F, G, H, and I.
[52] *See* Opening workpaper "Sample Car Events V02 11192013.xlsx" at level "Sk2" row 65, columns F, G, H, and S.

> The need for TPIRR to operate the local trains assigned "0" cars in MultiRail is corroborated by other data sources in the record. CSXT's Second Quarter 2013 payroll records (which were furnished to TPI in discovery and appear in CSXT's Reply workpapers) document the real-world operation of all but one of the local train symbols that was assigned "0" cars by MultiRail.[53]

This payroll data cannot support CSXT's claim that all of the zero-car local trains were required, for two reasons.

First, CSXT cannot demonstrate that any of the historical trains that were dispatched per the payroll data handled any of the selected TPIRR traffic. CSXT simply assumes that, because the train operated, it must have handled TPIRR traffic. TPI has employed CSXT's own traffic data to identify trains that handled the TPIRR's traffic. Although CSXT claims that its traffic data is incomplete, CSXT has not offered any alternative evidence to corroborate its claim that additional trains did handle TPIRR traffic other than mere "trust me" assertions. CSXT cannot baldly claim that a train is required to handle the TPIRR's traffic without proof that the train in fact did so. But that is precisely what CSXT is attempting to do by requiring TPI to disprove the need for every train that CSXT's payroll data indicates operated during the base year. This turns the burden of proof on its head by requiring TPI to prove a negative (i.e., that a train did not handle TPIRR traffic).

Second, the historical trains that operated on CSXT's system moved <u>different</u> cars and blocks from the cars and blocks assigned in MultiRail.[54] If the historical trains moved the same traffic as the MultiRail trains, there would—by definition—be no need to run MultiRail, because

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[53] *See* CSXT Supp. Op. at 9 (footnotes omitted).

[54] As stated in TPI Rebuttal at III-C-30, "CSXT has historically operated its local trains with an average 23.2 cars per train. But CSXT models its local trains in MultiRail with an average 10.7 cars per train." This statement continues to be accurate based on TPI's Supplemental evidence that contains additional local trains. The historical average cars per train for local trains in TPI Supplemental evidence is 21.4. *See* TPI Supp. Reply workpaper "Comparison of TPI and CSXT Local Trains_v2.xlsx," tab "Carload Summary" cell N532.

it would simply recreate historical operations. The payroll data for historical trains therefore is meaningless with respect to evaluating hypothetical (and different) MultiRail-based trains that have nothing in common but their train symbol.

CSXT's claim that there is a 99 percent correlation between historical payroll data and MultiRail train operations also is false. CSXT stated that:

> Overall, 216 of the 226 local train symbols included in CSXT's Supplemental MultiRail Train List are documented by the CSXT payroll data. Moreover, there is a 99% correlation between the frequency with which those 216 train symbols operate in CSXT's operating plan and the frequency with which the payroll data indicate they actually operated in the Base Year.[55]

This is not a correlation at all. It is a ratio of the aggregate number of historical local trains with any symbol in CSXT's MultiRail train list to the number of local trains in CSXT's MultiRail train list. For 216 train symbols that appear in both the MultiRail list and the payroll data, there are 57,628 aggregate (annualized) trains in the payroll data[56] and there are 58,396 aggregate trains in CSXT's MultiRail train list.[57] CSXT divided the former by the latter to arrive at its 99 percent "correlation" figure.

When looking at individual train symbols, however, the ratios show a much larger range. For example, CSXT assumed that train C712 would operate 260 times per year in MultiRail,[58] but the payroll data showed that train C712 operated 164 times per year.[59] This is a ratio of 63 percent (164 ÷ 260 = 0.63). When considering the ratios for all of the 216 individual train

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[55] *See* CSXT Supp. Op. at 9 (emphasis in original) (footnotes omitted).

[56] *See* TPI Supp. Reply workpaper "Supplemental RTC Local Trains_TPI Supplemental Reply_v2.xlsx" at level "Ref_Payroll", cell J11.

[57] *See* TPI Supp. Reply workpaper "Supplemental RTC Local Trains_TPI Supplemental Reply_v2.xlsx" at level "Ref_Payroll", cell I11.

[58] *See* TPI Supp. Reply workpaper "Supplemental RTC Local Trains_TPI Supplemental Reply_v2.xlsx" at level "Ref_Payroll", cell D71.

[59] *See* TPI Supp. Reply workpaper "Supplemental RTC Local Trains_TPI Supplemental Reply_v2.xlsx" at level "Ref_Payroll", cell E71.

symbols that appear in both the MultiRail train list and the annualized payroll data, the "correlation" is 86 percent.[60] This correlation falls even further when adding the 10 local train symbols in CSXT's Multirail train list that do not appear in the payroll data at all. For example, CSXT assumed train B808 would operate 260 times per year,[61] but there is no payroll data for train B808.[62] This is a ratio of 0 percent (0 ÷ 260 = 0.00). When considering the ratios of all 226 individual train symbols that appear in the MultiRail train list, the "correlation" is 63 percent.[63] As with CSXT's intermodal train analysis, although it included roughly the correct number of local trains, those trains did not operate where they were needed to move the TPIRR traffic. CSXT's plan overserves some regions and underserves others.

When CSXT's payroll data fails to return a match for a zero-car train symbol, CSXT relies upon historical car-event data to justify operating that zero-car MultiRail train:

> The only local train symbol assigned "0" cars that does not appear in the payroll data is Train B892, which operates along a route between Buffalo and Lockport, NY. However, CSXT's car event data indicate that Train B892 originated and/or terminated an average of three cars of TPIRR's selected traffic per day at Lockport during the Base Year. Indeed, TPI's own operating plan posits that TPIRR would operate Train B892 five days per week.[64]

This reliance upon historical data fails for the same reason CSXT's reliance upon payroll data fails. Historical trains that operated on CSXT's system moved different cars and blocks from the cars and blocks assigned in MultiRail. If the historical trains moved the same traffic as the MultiRail trains, there would—by definition—be no need to run MultiRail, because it would

[60] *See* TPI Supp. Reply workpaper "Supplemental RTC Local Trains_TPI Supplemental Reply_v2.xlsx" at level "Ref_Payroll", cell K14.
[61] *See* TPI Supp. Reply workpaper "Supplemental RTC Local Trains_TPI Supplemental Reply_v2.xlsx" at level "Ref_Payroll", cell D63.
[62] *See* TPI Supp. Reply workpaper "Supplemental RTC Local Trains_TPI Supplemental Reply_v2.xlsx" at level "Ref_Payroll", cell E63.
[63] *See* TPI Supp. Reply workpaper "Supplemental RTC Local Trains_TPI Supplemental Reply_v2.xlsx" at level "Ref_Payroll", cell K15.
[64] *See* CSXT Supp. Op. at 9 (footnotes omitted) (emphasis in original).

simply recreate historical operations. In simple terms, while the car-event data are useful in evaluating historical train operations, they are meaningless for evaluating hypothetical (and different) MultiRail-based operations.

2. There are critical disconnects between CSXT's Multirail and RTC train operations

CSXT did not model its MultiRail local train operations in its Supplemental RTC model. Instead, CSXT took shortcuts that created critical disconnects between its MultiRail and RTC train lists.

Although CSXT started with its MultiRail train list, which theoretically includes stops at all TPIRR customer locations, CSXT did not model service to all TPIRR locations in its RTC simulation:

> CSXT modeled local trains to make intermediate station stops at every location where CSXT Reply WP "SARR19F_EstimatedTrain Volumes.xls" indicated that the average number of cars on the local train increased or decreased by at least two cars. In addition, because that workpaper identifies the net change in the number of cars on a train between the train's inbound arrival at and outbound departure from each station (rather than the actual number of cars picked up and/or set off), CSXT recognized that relying solely on CSXT Reply WP "SARR19F_EstimatedTrainVolumes.xls" in modeling local train operations might miss stops at which cars were switched but the net change in the train's consist was less than two cars. (For example, a station at which the train set off four cars and picked up three cars would only show a net change of one car.) [65]

In other words, CSXT intentinally opted to model fewer station stops than its MultiRail operating plan required. In acknowledgment of this fact, CSXT attempts to devise an inadequate remedy:

> Accordingly, for any local train that was not assigned intermediate station stop(s) based on CSXT Reply WP "SARR19F_EstimatedTrain Volumes.xls," CSXT reviewed the car event records to identify stations at which that local train originated or terminated an average of two or more

[65] *See* CSXT Supp. Op. at 10-11 (emphasis added).

> cars per day during the Base Year, and CSXT modeled those station stops in its Supplemental RTC simulation.[66]

Train A701 illustrates the inadequacy of CSXT's remedy. Train A701 served three intermediate stations according to MultiRail. But because only one of those stations required a consist change of two or more cars,[67] CSXT's shortcut missed the other two intermediate stops. Moreover, CSXT's remedy also failed to identify these stops because that remedy only required CSXT to manually review the car event records when the shortcut failed to assign <u>any</u> intermediate station stops. Since CSXT's shortcut did assign one intermediate station stop, a manual review for the other two stops was not triggered. Thus, although the MultiRail operating plan requires train A701 to serve three intermediate stops between the train origin and destination stations (five total stops), CSXT modeled only one intermediate stop plus the origin and destination (three total stops) in RTC.

Furthermore, CSXT's remedy for the failings caused by its shortcut is misguided and incomplete. CSXT first consulted car-event data to identify locations served by historical trains with the same train symbol as CSXT's MultiRail train. But such data is irrelevant because MultiRail trains move <u>different</u> blocks of <u>different</u> cars than their real-world counterparts with the same train symbol. If they did move the same consists, there would not be any reason to undertake the MultiRail analysis.[68] Thus, merely adding stops to hypothetical MultiRail trains based upon historic train operations of the same symbol does not equate to adding the correct stops.

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[66] *Id.* at 11 (emphasis added) (footnotes omitted).

[67] *See* TPI Supp. Reply workpaper "Supplemental RTC Local Trains_TPI Supplemental Reply_v2.xlsx" at level "Trains2" excel row 12 through 16.

[68] TPI, for example, did not need to use MultiRail because it adopted CSXT's actual historical trains and consists.

CSXT's shortcut eliminated 158,600 of the 245,388 station stops (65 percent)[69] in CSXT's MultiRail operating plan for local trains.[70] Overall, the eliminated stops affected the routes of 45,344 of the 64,428 local trains it modeled in RTC.[71] This means CSXT failed to model the full operations for 70 percent of the local trains in its MultiRail operating plan.

C. Industrial Yard Trains

Both TPI and CSXT have attempted to identify and add historic "Y" trains that moved carload traffic to and from customer locations outside of a yard to their base year train lists per the Board's *Supplemental Evidence Order*.[72] Both TPI and CSXT, however, have stated that they already have accounted for these "Y" trains in their yard jobs evidence.[73] Indeed, TPI has demonstrated, and CSXT has now confirmed, that CSXT's traffic data is ill-suited to identifying historic "Y" trains, which is why they have accounted for "Y" trains in their yard jobs evidence instead of their base year train list.[74] TPI also has demonstrated that its yard jobs evidence is superior to CSXT's evidence.[75] Therefore, the Board should adopt TPI's Rebuttal evidence as opposed to using either parties' supplemental "Y" train evidence.

CSXT's supplemental "Y" train evidence also vindicates TPI's steadfast assertion throughout this proceeding that the allegedly omitted 28,860 "Y" trains are not actual historic trains that handled TPIRR traffic, but merely are train symbols for possible trains that could handle such traffic.[76] When forced by the Board's *Supplemental Evidence Order* to account for

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[69] 158,600 ÷ 245,388 = 0.65.
[70] *See* TPI Supp. Reply workpaper "Overview of Supplemental RTC Local and Ind Yard Trainsv2.xlsx" at level "Train Analysis Summary 2" range M26:O26.
[71] *See* TPI Supp. Reply workpaper "Overview of Supplemental RTC Local and Ind Yard Trainsv2.xlsx" at level "Train Analysis Summary 2" range J12:J27.
[72] *Compare* TPI Supp. Op. at III-C-13-14 *with* CSXT Supp. Op. at 11-14.
[73] *See* TPI Supp. Op. at III-C-6 and citations in notes 50 & 51.
[74] *See* TPI Supp. Op. at III-C-6-7. *See also*, TPI Reb. at III-C-62-65.
[75] *See* TPI Supp. Op. at III-C-8-13.
[76] *See* TPI Reb. at III-C-65-67.

historic "Y" trains, CSXT could only offer evidence to support 23,868 of the 28,860 trains in its Reply evidence, which equates to a 21 percent overstatement.[77] In other words, TPI was absolutely correct to challenge CSXT's assertions that TPI "missed" 28,860 historic "Y" trains in TPI's Opening Evidence.[78]

CSXT draws a distinction among yard trains, by claiming that so-called "industrial yard trains" materially differed in operation from yard, or "Y," trains generally.

> Industrial yard trains perform local pickups and setoffs at customer facilities. While those trains are assigned a "Y" (yard) train symbol in CSXT's event data, they operate in essentially the same manner as local trains operating in "turnaround" service, traveling to industries located beyond the yard, setting off inbound cars and picking up outbound cars (or switching cars at the customer facility), and returning to the yard. *See* CSXT Reply at III-C-26.[79]

However, CSXT did not adhere to this distinction in its operating statistics and cost evidence submitted in Reply. Specifically, CSXT did not operate the industrial yard trains "in essentially the same manner as local trains." Rather, CSXT developed operating statistics and expenses for all yard trains the same as TPI, by assuming they operated over an 8-hour shift at an average speed of six miles per hour and did not track specific activities of any individual yard trains.[80]

Although its Reply narrative suggested otherwise, CSXT accounted for industrial yard train operations in precisely the same manner as TPI did in its Opening (and Rebuttal) evidence. In its Supplemental evidence, CSXT finally admitted this fact:

> [O]n Reply CSXT calculated operating statistics and expenses for TPIRR yard assignments without distinguishing among different types of assignments (*e.g.*, in-yard switching, hump, bowl, industrial yard trains).[81]

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[77] *See* CSXT Supp. Op. at 13-14.
[78] *See* CSXT Reply at III-C-26-27; TPI Reb. at III-C-62-70.
[79] *See* CSXT Supp. Op. at 11.
[80] *See*, "CSXT Reply to Complainant's Motion for Leave to File Reply to Reply," at 4 (filed Aug. 21, 2015).
[81] *See* CSXT Supp. Op. at 11 (n. 28).

The truth is that these trains were not missing from either parties' evidence. They were simply included in the parties' yard-train operations analyses rather than in their train lists. Because industrial yard trains already are included in both parties' yard-jobs analyses, their supplemental evidence would create a double count. In recognition of this fact, both parties amended their yard matrices in their Supplemental Opening evidence to address this double-count as to industrial yard trains.[82]

Despite its recent admission of this fact, CSXT continues to misconstrue TPI's evidence and argument:

> On Rebuttal, TPI vociferously challenged the need for TPIRR to operate industrial yard trains—indeed, TPI categorically rejected every one of the 28,860 industrial yard trains that CSXT identified as necessary to provide complete train service to TPIRR customers. *See* TPI Reb. at III-C-5, III-C-61 to III-C-68. In its *Supplemental Evidence Reconsideration* (at 6), the Board correctly observed that "[t]he record to date shows that historic 'Y' trains did not operate only within yards but also provided service between yards and shipment origins and destinations."[83]

TPI has never questioned the need for the TPIRR to operate industrial yard trains. Nor has TPI posited that the yard trains in its evidence operated only within the boundaries of their home yards. TPI consistently has stated that all yard train operations (within and outside yard limits) were included in its yard-jobs analysis.

The Board instructed the parties to submit amended train lists and supplemental RTC simulations to include the operation of all trains necessary to serve the TPIRR's selected traffic group, including industrial yard trains. CSXT's Supplemental Opening evidence as to industrial yard trains is deficient in multiple ways. First, although the Board explicitly instructed CSXT to model the trains included in its MultiRail train list (including the 28,860 industrial yard trains) in

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[82] *See* CSXT Supp. Op. workpaper "TPIRR Yard Operations_Reply (Suppl).xlsx," tab "Yard Switching LUM" and TPI Supp. Op. workpaper "TPIRR Yard Operations_Rebuttal_Supplemental.xlsx," tab "Sheet1," cell AI106.

[83] *See* CSXT Supp. Op. at 11-12.

its RTC model,[84] CSXT could not do so because it had grossly overstated industrial yard trains in Reply. Second, CSXT could not provide adequate support for the industrial yard trains it did include in Supplemental Opening. Third, CSXT has presented conflicting definitions for "industrial yard trains." Fourth, CSXT makes inconsistent claims that MultiRail accounts for every train on which a shipment moves from origin to destination, including industrial yard trains, but that MultiRail also failed to assign any cars to some industrial yard trains due to a data anomaly. Fifth, CSXT's attempt to combine historical train frequency information with hypothetical MultiRail train consists renders its model invalid. Sixth, there are critical discrepancies between CSXT's Reply MultiRail, Opening Supplemental MultiRail, and Opening Supplemental RTC train Lists. TPI addresses each of these issues below.

1. CSXT grossly overstated industrial yard trains in Reply

CSXT has conceded in its Supplemental Opening evidence that it grossly overstated the number of industrial yard trains required to serve the TPIRR traffic group in its Reply MultiRail analysis. Specifically:

> Consistent with the Board's orders, CSXT undertook a review of the industrial yard trains in its Reply MultiRail train list to confirm that they are necessary to handle the TPIRR's selected traffic.[85]
>
> * * *
>
> CSXT's Supplemental MultiRail Train List includes a total of 459 weekly industrial yard trains, which represent a total of 23,868 annual industrial yard trains (459 x 52 = 23,868 industrial yard trains). CSXT's Supplemental RTC simulation incorporates the movement of those 459 weekly industrial yard trains.[86]

CSXT claims it undertook a review of its industrial yard train list to "confirm" that they are necessary, and according to that review, CSXT's Reply evidence overstated the number of

[84] *See Compliance Order* at 2; *Supplemental Evidence Order* at 8.
[85] *See* CSXT Supp. Op. at 12.
[86] *See* CSXT Supp. Op. at 13-14.

industrial yard trains "required" to move the TPIRR traffic by nearly 5,000 trains![87] This is a 21 percent overstatement.[88]

CSXT's response reveals that it never attempted to confirm that these industrial yard trains were needed when it developed its Reply evidence. Nor does CSXT offer any explanation as to how it overstated these trains by 21 percent. CSXT's failure to demonstrate the need for—or historical operation of—roughly 5,000 of the 28,860 allegedly missing industrial yard trains, and its subsequent removal of those trains from its Supplemental Opening train list, validates TPI's Rebuttal criticism that CSXT created these trains for the purpose of padding its train list and implying that TPI's train list was grossly deficient. TPI continues to stand by its Rebuttal evidence that none of the 28,860 allegedly missing industrial yard trains should be added to either party's train list because all necessary trains have been accounted for in their yard jobs matrices.

CSXT's confession with regard to industrial yard trains also casts substantial doubt as to the need for the disputed local trains that CSXT also has insisted the TPIRR requires to provide complete service, even though CSXT has not provided evidence to support that assertion for any disputed train.

2. CSXT's support for industrial yard trains it included in Supplemental Opening is inadequate

In addition to the roughly 5,000 industrial yard trains CSXT admits it cannot demonstrate are necessary to move TPIRR traffic, CSXT offers inadequate support for more than 13,000 additional trains. CSXT attempts to justify the need for TPIRR to operate these trains as "industrial yard trains" based on an analysis of one quarter of payroll data.

[87] 28,860 – 23,868 = 4,992.
[88] 4,992 ÷ 23,868 = 0.21.

> Specifically, CSXT analyzed the CSXT Second Quarter 2013 payroll records to identify which industrial yard trains with "0" cars in MultiRail actually operated in TPIRR's service territory during that time period. [*See* CSXT Reply WP "Yard Crew Size and Starts Update.xlsx."] For each industrial yard train symbol that CSXT identified in the payroll records, it included that train symbol in its Supplemental MultiRail Train List with the service frequency with which those trains operated according to the payroll data.[89]

This payroll data cannot support CSXT's claim that, "industrial yard trains included in CSXT's Supplemental MultiRail Train List are necessary to provide complete train service to TPIRR's customers,"[90] because it cannot demonstrate that any of the historical trains that were dispatched handled any of the TPIRR traffic group. CSXT simply assumes that, if the train operated, it must have handled TPIRR traffic.

Furthermore, the payroll records do not support CSXT's claim that the trains included in its industrial yard train list operated as industrial yard trains, as opposed to "Y" trains generally, because they do not demonstrate that any of the trains that were dispatched ever moved carloads to or from industry beyond yard limits. Supplemental Reply Exhibit TPI-2 compares the payroll data for the train symbols included in CSXT's industrial yard train list to the corresponding train symbols included in the historical CSXT event data. As demonstrated by that Exhibit, although the payroll data shows 22,464 annualized train starts for the 78 affected train symbols, only 8,935 historical trains with matching train symbols operated as industrial yard trains according to the CSXT car-event data. Therefore, 13,529 of the trains documented in the payroll data operated as standard "Y" trains according to CSXT's event data. There is simply no proof in the record that those trains ever moved carloads to and from industry beyond their home yards as industrial yard trains.

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89 *See* CSXT Supp. Op. at 13.
90 *Id.*

3. CSXT has proffered conflicting definitions of an industrial yard train

CSXT is playing a semantic game with its conflicting definition of "industrial yard trains" that is in conflict with itself. Initially, CSXT describes industrial yard trains as follows:

> Industrial yard trains perform local pickups and setoffs at customer facilities. While those trains are assigned a "Y" (yard) train symbol in CSXT's event data, they operate in essentially the same manner as local trains operating in "turnaround" service, traveling to industries located beyond the yard, setting off inbound cars and picking up outbound cars (or switching cars at the customer facility), and returning to the yard.[91]

A few paragraphs later, however, CSXT attempts to justify industrial yard trains to which MultiRail assigns zero cars based on a new argument that those trains operated entirely within the limits of a single reporting station (i.e., their operations do not meet the forgoing definition of industrial yard trains), and that CSXT's event data does not associate a car with a train in those circumstances. Specifically:

> TPI's claim that industrial yard trains that were assigned "0" cars by MultiRail are not needed to serve TPIRR customers is incorrect. *See* TPI Reb. at III-C-26 to III-C-27. Industrial yard trains handle cars for short distances between a yard and customer origins (or destinations). Those customer facilities are often physically located within the same reporting station as the yard itself or are designated by the same station name as the serving yard in CSXT's event data. As CSXT explained above (in connection with the local trains in CSXT's Supplemental MultiRail Train List), CSXT's event data do not associate a car with a train unless the car is handled by that train between two or more discrete reporting stations.[92]

The operation described above—that of a yard train operating within the same reporting station—fails to qualify as an industrial yard train per CSXT's initial definition because operations within the same reporting station as the yard are by definition operations within the yard. In fact, CSXT uses the home reporting station to distinguish the multiple "Y" trains operating under the same train symbol from one another. Conversely, operations beyond the yard

[91] *See*, CSXT Supp. Op. at 11 (emphasis added).
[92] *Id.* at 12 (emphasis added).

are by definition operations between different stations and thus should be captured in CSXT's event data. CSXT's new arguments that yard trains often operate within a single reporting station and that their activities are often not captured by CSXT's event data actually support TPI's position that the proper way to account for yard-train activities is through a separate analysis (i.e., the parties' yard-operations matrices.) For reasons addressed in the next subpart, the event-data anomaly to which CSXT refers does not actually exist, and even if it did, cannot explain why MultiRail—which does not depend upon event data—does not assign cars to industrial yard trains.

4. CSXT inaccurately identifies a traffic data anomaly that, even if it did exist, cannot justify MultiRail's zero-car industrial yard trains

CSXT's MultiRail analysis does not assign cars to all of the industrial yard trains in CSXT's Supplemental Opening train list. CSXT nevertheless attempts to justify these yard trains based on the same inaccurate description of its event data that it uses to justify local trains to which MultiRail does not assign any cars:

> CSXT's event data do not associate a car with a train unless the car is handled by that train between two or more discrete reporting stations. Accordingly, the fact that MultiRail may have assigned "0" cars to certain industrial yard trains does not demonstrate that those trains do not handle any cars or that they are not needed to serve TPIRR's selected traffic.[93]

As discussed in Section I.B.1.a. for local trains, this claim is demonstrably false.

For example, TPI Opening workpaper "Sample Car Events V02 11192013.xlsx" contains the historical car-event data for shipment {{[redacted]}}.[94] This shipment was received in interchange at {{[redacted]}}[95]; moved on merchandise train {{[redacted]}}

[93] *See* CSXT Supp. Op. at 12-13.
[94] *See* Opening workpaper "Sample Car Events V02 11192013.xlsx" at level "Sk3" column D.
[95] *See* Opening workpaper "Sample Car Events V02 11192013.xlsx" at level "Sk3" row 2, columns H and Q.

from {{[redacted]}} to {{[redacted]}}[96], where it was classified and placed on local train {{[redacted]}}[97] and then moved to {{[redacted]}}.[98] The next day, the shipment was placed at industry at {{[redacted]}} by yard train {{[redacted]}}.[99] Only a single event is in the car-event data for yard train {{[redacted]}}, and it occurred at a single location, {{[redacted]}}. In other words, CSXT's event data does associate a car with a yard train even when the car is handled by that train within a single reporting station.

In addition, CSXT's new argument still does not explain why MultiRail has not assigned any cars to some industrial yard trains. Because MultiRail does not rely upon—or even consider—historical event data to assign carloads to blocks or blocks to trains, CSXT cannot legitimately assert that the reason MultiRail assigned zero cars to so many yard trains is attributable to a recording anomaly in its event data. Therefore, even if CSXT's inaccurate description of its event data were true, the alleged data anomaly would not limit MultiRail's ability to assign a given shipment to an individual train. Car-event data has no bearing whatsoever on CSXT's MultiRail analysis.

Furthermore, CSXT presents other evidence that contradicts its assertion that industrial yard trains to which MultiRail assigned zero cars are required to handle the TPIRR traffic. Specifically, CSXT has provided SuperSim "train service plans" for four individual shipments at pages 19-24 of its Supplemental Opening. Those plans identify every MultiRail train that touches those shipments, <u>including industrial yard trains</u>. Indeed, CSXT touts these examples as

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[96] *See* Opening workpaper "Sample Car Events V02 11192013.xlsx" at level "Sk3" rows 3-16, columns F, G, and I.

[97] *See* Opening workpaper "Sample Car Events V02 11192013.xlsx" at level "Sk3" row 17, columns F, G, H, and M; and row 18, columns F, G, H, and N.

[98] *See* Opening workpaper "Sample Car Events V02 11192013.xlsx" at level "Sk3" rows 19-22, columns F, G, H, and I.

[99] *See* Opening workpaper "Sample Car Events V02 11192013.xlsx" at level "Sk3" row 23, columns F, G, H, and S.

confirmation that its MultiRail analysis accounts for the complete movement of each carload from its actual origin (or on-SARR junction) to its actual destination (or off-SARR junction):

> As these examples illustrate, CSXT's MultiRail analysis created a complete blocking sequence and train service plan for each carload shipment in the TPIRR's Peak Year traffic group. The examples also demonstrate the critical role played by "Y" trains in providing complete service to TPIRR customers. The SuperSim simulation traced the movement of each car from its customer origin or interchange location to its ultimate destination (or off-SARR point). Thus, CSXT's MultiRail evidence proves that CSXT's operating plan "provide[s] for full service from each specific origin, through the network, and to each specific destination for the selected traffic group," as required by the Board's *DuPont* decision.[100]

Accepting this statement at face value, if MultiRail did not assign any cars to an industrial yard train, that train is not required to serve the TPIRR traffic, by CSXT's own proclamation.

On the one hand, CSXT claims that SuperSim identifies every train required to move each shipment from origin to destination, but on the other hand it claims that several thousand trains that are not included in the SuperSim simulation (i.e., trains to which MultiRail assigned zero cars) are also required. The only proof CSXT offers for the latter claim is that CSXT historical trains—with unknown consists and to which CSXT cannot link a single carload of TPIRR traffic—happened to operate sometime during the second quarter of 2013 and happened to have the same train symbol as the trains deemed unnecessary by the SuperSim simulation.

5. CSXT's inappropriate reliance upon a combination of historical train frequency and MultiRail train consists renders its model invalid for industrial yard trains

CSXT implicitly has abandoned its MultiRail analysis for industrial yard trains in favor of historical operations of trains moving different traffic. Specifically:

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100 *See* CSXT Supp. Op. at 24 (emphasis added).

> For industrial yard train symbols to which MultiRail did assign cars, CSXT adjusted the frequency of those trains to match the frequency with which those trains operated according to the payroll data.[101]

In Reply, CSXT used train profiles to decide how frequently each train would operate and input that information into MultiRail. CSXT then flowed the TPIRR traffic through MultiRail, which assigned cars to blocks and blocks to trains based in part upon the operating frequency of those trains. In its Supplemental Opening, however, CSXT severed this MultiRail connection by determining the frequency of train operations based upon payroll data for historic trains that shared the same train symbols but not the same consists. Because MultiRail determines train consists based upon train operations, CSXT's decision to use historic train operations in its Supplemental Opening evidence, without also changing those operations in MultiRail, invalidates CSXT's operating plan.

For example, in its peak year MultiRail analysis, CSXT assumed train "Y129 Export Yd Transfer" would operate seven days per week.[102] CSXT further assumed the train would move two blocks of cars every day it operated: a block of 14.01 cars[103] from "JACKSONVI FL" to "JACEXIM FL," and a block of 22.16 cars[104] from "JACEXIM FL" to "JACKSONVI FL." Therefore, CSXT's MultiRail plan calls for this train to operate 364 days per year (7 x 52) and move 13,165.88 cars annually (36.17 x 364). However, CSXT abandoned its MultiRail-based frequency of operations for this hypothetical yard train because it conflicted with payroll data for historical yard trains with the same train symbol. Specifically, because the payroll data indicated that this train operated five days per week rather than seven, CSXT assumed that the TPIRR also

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101 *See* CSXT Supp. Op. at 13.

102 *See* TPI Supp. Reply workpaper "Comparison of CSXT Multirail YTrains.xlsx" at level "CSXT MultiRail Yard Jobs-Supp" cell F33.

103 *See* CSXT Supp. Op. workpaper "SARR19F_EstimatedTrainVolumes.xls" at level "Yard" cell C1001.

104 *See* CSXT Supp. Op. workpaper "SARR19F_EstimatedTrainVolumes.xls" at level "Yard" cell C1007.

would operate that train only five days per week (5 x 52 = 260 times per year). But, CSXT did not make a corresponding adjustment to the MultiRail train consist for the affected trains.[105] Consequently, CSXT modeled operations that moved fewer carloads than it included in the traffic group (260 trains x 36.17 cars per train = 9,404.20 carloads). As a result, CSXT's model fails to move 3,761.68 carloads that its MultiRail operating plan requires this train to handle.

Furthermore, when its payroll data could not corroborate the operation of an industrial yard train at all, CSXT conveniently opted to ignore that data and continue to rely upon its MultiRail analysis for how frequently those trains operated:

> Due to differences between the periods covered by the train plan and the payroll data, CSXT was unable to find a direct match in the payroll records for six of the 459 industrial yard train symbols. CSXT modeled those trains in RTC based on the frequency assigned by MultiRail.[106]

As shown in TPI Supplemental Reply Table I-1 below, CSXT ignored 1,612 instances in which there was no payroll data to corroborate the operation of historic yard trains with a common train symbol in MultiRail. CSXT's selective use of historical data only to the extent it corroborates train operations, while ignoring it when it does not, belies CSXT's claims that the payroll data supports its MultiRail train list.

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105 *See* CSXT Supp. Op. at 14 ("CSXT utilized information contained in CSXT Reply WP 'SARR19F_ EstimatedTrainVolumes.xls' to develop the origin yard, route and volume inputs for industrial yard trains in its Supplemental RTC Model").

106 *See* CSXT Supp. Op. at 14 (n. 35).

TPI Supplemental Reply Table I-1
Effect of Selective Use of Payroll Data on
CSXT Supplemental Industrial Yard Train List
(Jobs with Cars Assigned by MultiRail)

	MultiRail Symbol	Serving Yard	Weekly Activity: MultiRail Frequency	Weekly Activity: Payroll Records	Weekly Activity: CSXT Supplemental
	(1)	(2)	(4)	(5)	(6)
1.	Y102 Northend Sw	* T_WAUHATCHI TN	7	0	7
2.	Y121 2Nd Shift Sw/Censoya	* T_MARYARD OH	2	0	2
3.	Y140 Hump	* T_BIRMINGHA AL	7	0	7
4.	Y251	* T_JACKSONVI FL	7	0	7
5.	Y391 Sibert Yd Job	* T_MOBILE AL	7	0	7
6.	Y520 Cartersville Yard Job	* T_CARTERSVI GA	1	0	1
7.	Total	All Yards	31	0	31
8.	Annualized Total	All Yards	1,612	0	1,612

Source: TPI Supp. Reply workpaper "Comparison of CSXT Multirail YTrains.xlsx" at tab "PayrollSum".

6. There are critical discrepancies among CSXT's Reply MultiRail, Opening Supplemental MultiRail, and Opening Supplemental RTC train lists

There are multiple discrepancies among CSXT's Reply MultiRail train list, its Supplemental Opening MultiRail train list, and its Supplemental Opening RTC train list. CSXT included 2,704 industrial yard trains in its Reply MultiRail train list that are no longer included in CSXT's Supplemental Opening MultiRail train list, as shown in TPI Supplemental Reply Table I-2 below.

TPI Supplemental Reply Table I-2

Trains Included in CSXT Reply Industrial Yard Train List
But Excluded from CSXT Supplemental Opening Train List 1/

	Transportation Milepost	TrainID	HomeStation	MultiRail Frequency	
				Reply	Supplemental
	(1)	(2)	(3)	(4)	(5)
1.	BAA 1	Y330 BV INDUSTRIAL	MD, BALTI	7	0
2.	000190	Y331 KAYNE AVE TRANSFER	TN, NASHV	5	0
3.	ANB865	Y334 Y331 HULSEY RAMP	GA, ATLAN	5	0
4.	QC 434	Y339 3RD SHIFT YD LD & CHEVY	NY, BUFFA	7	0
5.	BAA 1	Y350 CONSOL COAL	MD, BALTI	7	0
6.	000307	Y390 DECATUR YARD JOB	AL, DECAT	6	0
7.	BFA328	Y391 DEMMLER JOB	PA, PITTS	7	0
8.	000665	Y396 Y391 SIBERT YD JOB	AL, MOBIL	7	0
9.	000389	Y520 Y396 TRANSFER	AL, BIRMI	1	0
10.	Total	xxx	xxx	52	0
11.	Annualized Total		xxx	2,704	0

Source: TPI Supp. Reply workpaper "Comparison of CSXT Multirail YTrains.xlsx" at tab "MultiRailChangesSum".

1/ The weekly frequencies filed by CSXT in Reply (the basis for the 28,860 industrial yard jobs) were based on the Base Year MultiRail outputs.

For example, on Reply, CSXT claimed that MultiRail designated a "Y330 BV INDUSTRIAL" to operate out of Baltimore, MD. On Supplemental, CSXT renamed that industrial yard job to "Y327 BV INDUSTRIAL".

Conversely, CSXT added 3,172 trains to its Supplemental Opening MultiRail train list that were not included in its Reply MultiRail train list, as shown in TPI Supplemental Reply Table I-3 below. Thus, CSXT did not model its Reply MultiRail train list, as the Board instructed.

TPI Supplemental Reply Table I-3
Trains Included in CSXT Supplemental Industrial Yard Train List
But Excluded from CSXT Reply Train List 1/

	Transportation Milepost	TrainID	HomeStation	MultiRail Frequency Reply	MultiRail Frequency Supplemental
	(1)	(2)	(3)	(4)	(5)
1.	BAA 1	Y327 Bv Industrial	MD, BALTI	0	7
2.	000190	Y330 Kayne Ave Transfer	TN, NASHV	0	7
3.	ANB865	Y331 Hulsey Ramp	GA, ATLAN	0	7
4.	QC 434	Y334 3Rd Shift Yd Ld & Chevy	NY, BUFFA	0	5
5.	BAA 1	Y339 Consol Coal	MD, BALTI	0	7
6.	000307	Y350 Decatur Yard Job	AL, DECAT	0	7
7.	BFA328	Y390 Demmler Job	PA, PITTS	0	6
8.	000665	Y391 Sibert Yd Job	AL, MOBIL	0	7
9.	000389	Y396 Transfer	AL, BIRMI	0	7
10.	00J240	Y520 Cartersville Yard Job	GA, CARTE	0	1
11.	Total	xxx	xxx		61
12.	Annualized Total		xxx	0	3,172

Source: TPI Supp. Reply WP "Comparison of CSXT MultiRail Trains.xlsx" at tab "MultiRailChangesSum".
1/ The industrial yard job list was adjusted on Supplemental to match the list defined by CSXT Reply workpaper "SARR19F_EstimatedTrainVolumes.xlsx" (a MultiRail output file). The weekly frequencies filed by CSXT in Reply (the basis for the 28,860 industrial yard jobs) did not match the underlying workpaper.

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For many trains that do appear in both CSXT's Supplemental Opening MultiRail train list and its Supplemental Opening RTC train list, CSXT modeled operations in RTC that differed from the MultiRail operations that CSXT costed. For example, MultiRail assigned six stops to the "Y101Y101" industrial yard job based out of Defiance, OH.[107] CSXT removed two of those stops (Hamler, OH and North Baltimore, OH) in its Supplemental RTC model because the net change in cars at those stops was less than two and CSXT's review of car-event data and profiles data did not suggest that the historical Y101 train served those locations in the base year.[108]

[107] *See* CSXT Supp. Op. workpaper "Supplemental RTC Ind Yard Trains.xlsx" at tab "Trains2" range A22:AT27.

[108] *See* CSXT Supp. Op. workpaper "Supplemental RTC Ind Yard Trains.xlsx" at tab "Trains2" range AN22:AN27.

Although Train Y101's other two intermediate stops (Standley, OH and Deshler, OH) also show a net change of less than two cars in the MultiRail operating plan and in the car-event data,[109] CSXT retains both intermediate stops because the train profile suggests that all "Y101Y101" trains stop at those locations—but only *twice* per week.[110] CSXT selectively used the route information from profiles data to support including these stops in its plan while ignoring the part of the profiles data related to frequency of these stops by operating this train five days per week.[111]

As discussed in the preceding sections regarding CSXT's treatment of local trains, CSXT also has failed to model station stops that its MultiRail analysis determined were necessary for several industrial yard trains. Specifically, CSXT eliminated 13,780 of the 41,756 station stops (33 percent)[112] that MultiRail required for industrial yard trains.[113] This affected the routes of 8,320 of the 23,868 industrial yard trains CSXT modeled in RTC,[114] which means CSXT failed to model the full operations for 35 percent of the industrial yard trains included in its MultiRail operating plan. As discussed in Part III-A-1 below, this resulted in a complete failure to serve over one hundred shippers and hundreds of thousands of shipments.

In contrast, TPI's Supplemental RTC model includes all required stops where cars must be handled, regardless of the net change in consist, which is a meaningless statistic as it relates to

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109 *See* CSXT Supp. Op. workpaper "Supplemental RTC Ind Yard Trains.xlsx" at tab "Trains2" cells AO23 and AO25.

110 *See* CSXT Supp. Op. workpaper "Supplemental RTC Ind Yard Trains.xlsx" at tab "Trains2" cells AR23 and AR25.

111 *See* CSXT Supp. Op. workpaper "Supplemental RTC Ind Yard Trains.xlsx" at tab "Trains2" range AH22:AH27.

112 13,780 ÷ 41,756 = 0.33.

113 *See* TPI Supp. Reply workpaper "Overview of Supplemental RTC Local and Ind Yard Trainsv2.xlsx" at level "Train Analysis Summary 2" range M44:O44.

114 *See* TPI Supp. Reply workpaper "Overview of Supplemental RTC Local and Ind Yard Trainsv2.xlsx" at level "Train Analysis Summary 2" range J30:J45.

serving individual shippers. In TPI's model, as in the real world, each train represents a specific train moving a specific group of cars to/from a specific group of shippers rather than an "average" train moving an "average" consist.

In summary, CSXT has not eliminated the disconnect between its MultiRail and RTC operations that the Board sought to address through its *Supplemental Evidence Order*. Furthermore, by adding some industrial yard trains and removing others from its Supplemental evidence train list, CSXT has not modeled its Reply train list as directed by the Board.[115]

D. CSXT fails to provide complete service to the issue traffic

CSXT makes the following claims regarding MultiRail's SuperSim feature:

> The SuperSim feature simulates the movement of TPIRR trains along the network, and the transfer of blocks of cars between trains, during the study week.
>
> * * *
>
> MultiRail accounts for every step in the process of transporting each car from the origin customer location (or point at which the car is interchanged to TPIRR) to the destination customer location (or location at which TPIRR interchanges the car to another carrier).
>
> * * *
>
> In order to confirm that its Supplemental MultiRail Train List and RTC simulation account for the movement of each carload from its actual origin (or on-SARR junction) to its actual destination (or off-SARR junction), CSXT ran a SuperSim of the Peak Year MultiRail car blocking and train service plan that it submitted as part of its Reply Evidence. Figures III-C-2, III-C-3, III-C-4, and III-C-5 provide examples of the train service plans developed by MultiRail for the TPIRR's Peak Year issue, local, interline forwarded and interline received shipments.[116]

There are several problems with CSXT's claims.

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115 *Supp. Evid. Order*, slip op. at 7.

116 *See* CSXT Supp. Op. at 18 (footnotes omitted).

First, CSXT's workpapers include blocking and train service plans for issue traffic only (not all TPIRR traffic).[117] Analysis of issue traffic is important, but it does not prove that all traffic was served.

Second, CSXT's RTC simulation does not model the blocking and train service plans for the issue traffic that are included in CSXT's workpapers. As a result, even though CSXT's MultiRail operating plan accounts for the end-to-end movement of issue traffic, CSXT still has not modeled that operating plan either in its Reply or Supplemental evidence. This is easily demonstrated by the very same shipments that CSXT highlighted in its Supplemental Opening narrative.

For the issue move described at page 19 of CSXT's Supplemental Opening evidence, CSXT's MultiRail trip plan indicates that Train Q388 v.1 moves the issue shipment from {{[redacted]}} (where it is received in interchange from BNSF) to {{[redacted]}}; Train Q378 v.1 moves this issue shipment from {{[redacted]}} to {{[redacted]}}; Train Y321 v.4 moves this issue shipment from {{[redacted]}} to {{[redacted]}}; and Train Y121 v.3 moves this issue shipment from {{[redacted]}} to {{[redacted]}} (where it is terminated). CSXT's RTC simulation, however, did not model these operations. Although CSXT's RTC simulation properly models the Q388 and Q378 trains, it <u>does not include any</u> Y321 trains.[118] Furthermore, although CSXT's RTC model includes 14 Y121 trains, <u>none of them</u> serve either {Niagara Falls, NY} or {Lockport, NY}.[119]

[117] *See* CSXT Supp. Op. workpapers "SARR19B-TripPlan_IssueTraffic_Loads.pdf" and "CSXT MultiRail Trip Plans.xlsx".

[118] *See* CSXT Supp. Op. workpaper "Supplemental RTC Ind Yard Trains.xlsx" tab "Ref_MR2" excel Column C, there are no Y321 trains. *See also* CSXT Supp. Op. workpaper "CSXT Supplemental RTC w UPS.zip" and "CSXT Supplemental RTC.zip."

[119] *See* CSXT Supp. Op. workpaper "Supplemental RTC Ind Yard Trains.xlsx" tab "Ref_MR2" excel rows 89 through excel row 101, Column F shows all locations in Ohio. As shown on

Therefore, even accepting at face value CSXT's claim that its MultiRail trip plans account for the movement of all issue traffic, that claim is meaningless because CSXT's RTC analysis does not model the operations reflected in those trip plans.[120] TPI has evaluated the MultiRail trip plans for all issue traffic relative to the RTC model and has determined that CSXT failed to model the MultiRail trip plans for 60 percent of the issue traffic.[121]

Furthermore, CSXT did not develop trip plans for all issue-traffic lanes. Specifically, CSXT failed to include any MultiRail trip plan for four issue-traffic lanes.[122] In addition, CSXT included two MultiRail trip plans for issue traffic that contain "ERROR" in field "Trip Time Days/Time" and have zero miles.[123] This indicates that MultiRail was unable to move the traffic from origin to destination during the MultiRail SuperSim simulation. TPI provides details regarding these missing issue-traffic trip plans in Section IV.A.1 below.

"Ref_MR2" excel column D "Y121 Oakley Job – Pcf" runs five days a week (or 10 times during the RTC model) and "Y121 2Nd Shift Sw/Censoya" runs two days a week (or four times during the RTC model). *See also* CSXT Supp. Op. workpaper "CSXT Supplemental RTC w UPS.zip" and "CSXT Supplemental RTC.zip."

[120] *See* CSXT Supp. Op. at 24.

[121] *See* TPI Supp. Reply workpaper "CSXT Trip Plans for Issue Traffic.xlsx," tab "Issue Traffic Lane Summary," cell F7.

[122] *See* TPI Supp. Reply workpaper "Issue Traffic Trip Plan Summary.xlsx," tab "Summary," cell A7.

[123] *See* CSXT Supp. Op. workpaper "SRR19B-TripPlan IssueTraffic_Loads.pdf" pages 60- 63 for the MultiRail block "J_CHICAGO IL_DCGBNS_BNSF to T_SPRINGDAL OH (T_BE 11)" and pages 131-135 for the MultiRail block "J_NEWORLEANLA_LNOBNS_BNSF to T_BALHIGHLA MD (T_BBS 1)" for CSXT's base year issue loads. *See also* CSXT Supplemental Opening workpaper "CSXT MultiRail Trip Plans.xlsx" excel rows 2836-2967 for the MultiRail block "J_CHICAGO IL_DCGBNS_BNSF to T_SPRINGDAL OH (T_BE 11)" and excel rows 6147-6362 for the MultiRail block "J_NEWORLEANLA_LNOBNS_BNSF to T_BALHIGHLA MD (T_BBS 1)" for CSXT's forecast year issue loads.

II. OTHER RTC INPUTS

In addition to demonstrating that CSXT's Supplemental Opening RTC model is not based on its MultiRail train list, TPI disputes several other RTC inputs used by CSXT. TPI addresses the other RTC inputs from CSXT's Supplemental Opening under the following topical headings:

A. Train Sizes and Weights
B. Trains with Corrected Routing
C. Maximum Train Speeds
D. Locomotives
E. Dwell Times

A. Train Sizes and Weights

CSXT modeled unrealistic train consists in its Supplemental Opening RTC model. In contrast to TPI's use of historical train data to determine the number of loaded and empty cars on its trains, CSXT used "average" consist data created in MultiRail to develop its Supplemental Opening evidence. Consistent with real-world operations, TPI's evidence contains a variety of different consists for all non-unit trains as needed to move the appropriate number of loaded and empty cars from origin to destination. The number of empty or loaded cars that CSXT modeled, however, have no relation to those required for carrying historical traffic, and therefore no basis in real-world operations.

Supplemental Reply Exhibit TPI-3 illustrates this point. All the RTC models in this case, in each evidentiary round from Opening through Rebuttal (including CSXT's own Reply model), have assigned the correct number of loaded cars and empty cars necessary to serve the selected traffic. But CSXT makes no attempt to identify the proper number of loaded and empty cars on each train in its Supplemental Opening RTC model. In fact, CSXT's model contains little or no variation at all for consists of non-unit trains. For example, CSXT's Supplemental Opening Merchandise trains only show two types of consist, either completely empty or half empty/half

full (50/50).[124] CSXT's Supplemental Opening Intermodal trains only show one type of consist, every single Intermodal train modeled is 90 percent[125] full. Although MultiRail is capable of discerning between loaded cars and empty cars, CSXT did not capture the necessary details in the output generated in the "SARR 19F_EstimatedTrainVolumes.xls" file. In turn, CSXT's train spreadsheets cannot discern the actual number of loaded cars and empty cars for each non-unit train. The fact that CSXT clones each of its Supplemental "trains" multiple times throughout the peak period compounds this flaw in train-list development by repeatedly dispatching each train modeled with identical departure times and consists.

In reality, the TPIRR varies widely in how many loaded cars and empty cars are on each train, what time of day they depart, and what stops they make. As demonstrated below, CSXT's designation of homogenous train consists produces unrealistic operating statistics and fails to properly serve all customers.

1. CSXT's unrealistic train consists will not generate realistic statistics

Each CSXT train that should be mostly loaded but is incorrectly half loaded will outperform its real-world counterpart. Conversely, each CSXT train that should be mostly empty but is incorrectly half full will run slower than its real-world counterpart. While this potentially could "balance out" for a few trains, the subtle shift of cycle times when applied to thousands of trains results in different conflicts, different dwells, and different cycle times for all trains involved.

[124] *See* TPI Supp. Reply workpaper "CSXT Supplemental with UPS Train Inputs.xlsx," tab "All Train Stops" column V "Loaded Ratio." *See also* TPI Supp. Reply workpaper "RTC Train Consists Comparison.xlsx," tab "Merchandise Graph Data."

[125] *See* TPI Supp. Reply workpaper "CSXT Supplemental with UPS Train Inputs.xlsx," tab "All Train Stops" column V "Loaded Ratio." *See also* TPI Supp. Reply workpaper "RTC Train Consists Comparison.xlsx," tab "Intermodal Graph Data."

In addition, each MultiRail train that is scheduled to depart at 1:00 PM every day may encounter conflicts that its real-world counterpart, which was dispatched at various intervals, did not. For example, MultiRail train Q282 is scheduled six days a week to depart at exactly 7:00 AM with exactly 27 loaded cars, 14 empty cars, and 3,223 trailing tons every single time in CSXT's Supplemental RTC simulation. The same Q282 train (represented by various unique RTC train IDs) in TPI's Supplemental RTC simulation is scheduled at various intervals and has a varying departing consist ranging from 72 loaded cars and zero empty cars to zero loaded cars and 47 empty cars.[126] TPI's Q282 trains are based on historical data and represent the dispatching schedule that reflects the real-world operations of a freight railroad. CSXT's Q282 trains do not follow a realistic freight-railroad schedule.

2. Customers are not properly served

Due to CSXT's failure to correctly model train-specific consists, MultiRail trains inevitably set out empty cars at destinations where the delivery should be fully loaded and vice versa. Essentially, a Merchandise Train customer expecting ten loaded cars would only receive five loaded cars and five empty cars, and customers expecting ten empty cars necessary to load their shipment would receive five empty cars and five cars that are already loaded with a different customer's payload.

For example, TPI Supplemental train "M3018HAMNEW" represents train profile {{[redacted]}}. This train stops at {{[redacted]}} and has a net change of {{[redacted]}} Conversely, the {{[redacted]}} train in CSXT's Supplemental RTC model stops at {{[redacted]}} and has a net change

[126] *See* TPI Supp. Reply workpaper "TPI vs CSXT Frequency and Car Set Out Examples.xlsx," tab "Frequency Comparison."

of {{[redacted]}}.[127] CSXT fails to explain how the customer at {{[redacted]}} is going to compensate for the missing {{[redacted]}} it requires. CSXT's supporting train spreadsheet "Supplemental RTC Road Trains.xlsx" shows that train {{[redacted]}} should arrive at {{[redacted]}} with {{[redacted]}}, but it does not indicate how many of those should be loaded or empty or how many cars should be set out.[128] Clearly, CSXT's MultiRail operating plan has failed to meet the needs of all the customers it purports to serve.

In another example of an unrealistic and unsupported RTC model, CSXT has included 667 trains[129] that never touch a single car during the peak period. These trains leave their origin, travel to some point miles away, and return to the origin without picking up or setting out any cars whatsoever. Nor has CSXT explained what, if any, other services essential to the TPIRR's traffic those trains are providing. Both TPI and CSXT have modeled so-called "local switcher" locomotives that travel to locations, switch cars and then return to origin, but 165 of the trains CSXT included never even approach an industry where they might perform a switching job.[130] Instead they travel from one yard to another yard (which already has its own switching locomotives) and then return to their origin yard. These trains have no apparent purpose except to increase locomotive requirements and disrupt the flow of other trains.

Comparing the number of "local switcher" locomotives between models raises obvious questions. Historic records indicate that roughly 154 peak week local and yard trains combined

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127 *See* TPI Supp. Reply workpaper "TPI vs CSXT Frequency and Car Set Out Examples.xlsx," tab, "Service Comparison."

128 *See*, CSXT Supp. Opening workpaper "Supplemental RTC Road Trains.xlsx," tab, "Trains_4," row 1438.

129 *See* TPI Supp. Reply workpaper "CSXT Supplemental with UPS RTC Zero Car Trains.xlsx," tab "Trains that Never Move a Car," cell J98.

130 *See* TPI Supp. Reply workpaper "CSXT Supplemental with UPS RTC Zero Car Trains.xlsx," tab "Trains Not Serving an Industry," cell J28.

leave their origins "light" to perform switching duties at an industry. Where TPI models these 154 peak trains in its Supplemental Opening RTC model as arriving at industry, and picking up cars, CSXT has modeled 567 "average" week (667 average period) trains that never touch a car in the RTC model. This represents a 368-percent increase in light locomotive movements over the peak historical record.[131] These "light engine" trains are unsupported by historical data, are modeled improperly, and serve no reasonable function that CSXT has explained. Clearly CSXT has overstated the activity and frequency of switcher locomotives in its Supplemental Opening RTC model.

B. Trains with Corrected Routing

TPI and CSXT agree on the TPIRR train routings used in Supplemental.

C. Maximum Train Speeds

TPI and CSXT agree on the maximum TPIRR train speeds used in the RTC model.

D. Locomotives

TPI and CSXT agree on all of the locomotive configurations used in the RTC model.

E. Dwell Times

TPI stated on Rebuttal that it believes CSXT's dwell times are excessive, but accepted them to eliminate this point of contention and generate conservative, non-controversial results from its RTC Model.[132] TPI maintains this position in its Supplemental evidence.

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131 *See* TPI Supp. Reply workpaper "Comparison of Peak Week Light Engine Movements.xlsx" tab "Light Move Summary."

132 *See* TPI Reb. at III-C-158 to -160.

III. CSXT'S SUPPLEMENTAL OPENING RTC SIMULATION INCLUDES TRACK AND FACILITIES THAT ARE NOT NECESSARY

In this Part III of TPI's Supplemental Reply, TPI demonstrates that CSXT's RTC model does not require the infrastructure investment that CSXT claims the TPIRR needs for efficient operations. TPI also demonstrates that CSXT has made adjustments to operating statistics and operating expenses in its Supplemental Opening that go beyond actions permitted by the Board. TPI makes these demonstrations under the following topical headings:

A. Track and Capacity Configuration
B. Average RTC Train Speeds
C. TPIRR Operating Expenses
D. Summary of Impact on Operating Expenses and DCF Model

A. Track and Capacity Configuration

TPI identified several problems with CSXT's Supplemental Opening RTC track capacity and configuration. First, multiple locations, including issue traffic locations, do not receive services. Second, CSXT grossly overstates the track infrastructure required to handle even its own RTC operating plan, as demonstrated by TPI's ability to run CSXT's train list on TPI's Rebuttal infrastructure. Third, CSXT's Supplemental Opening RTC model continues to demonstrate both overstatements and understatements of receiving and departure tracks in yards. TPI addresses each of these issues below.

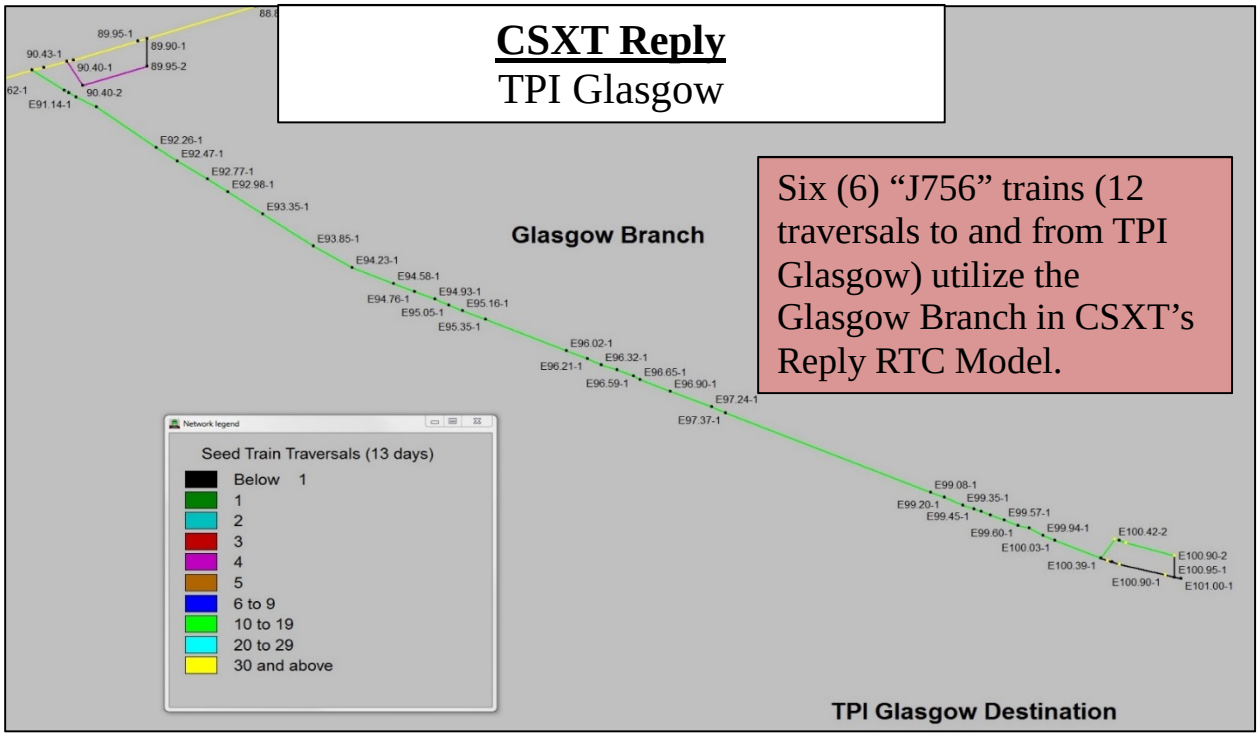
1. Issue and Selected Traffic Locations which are Not Served

CSXT begins its Supplemental Opening narrative with a claim that "[t]he trains in CSXT's Supplemental RTC model provide complete service to the selected traffic group."[133] CSXT's Supplemental Opening RTC simulation does not support this claim.

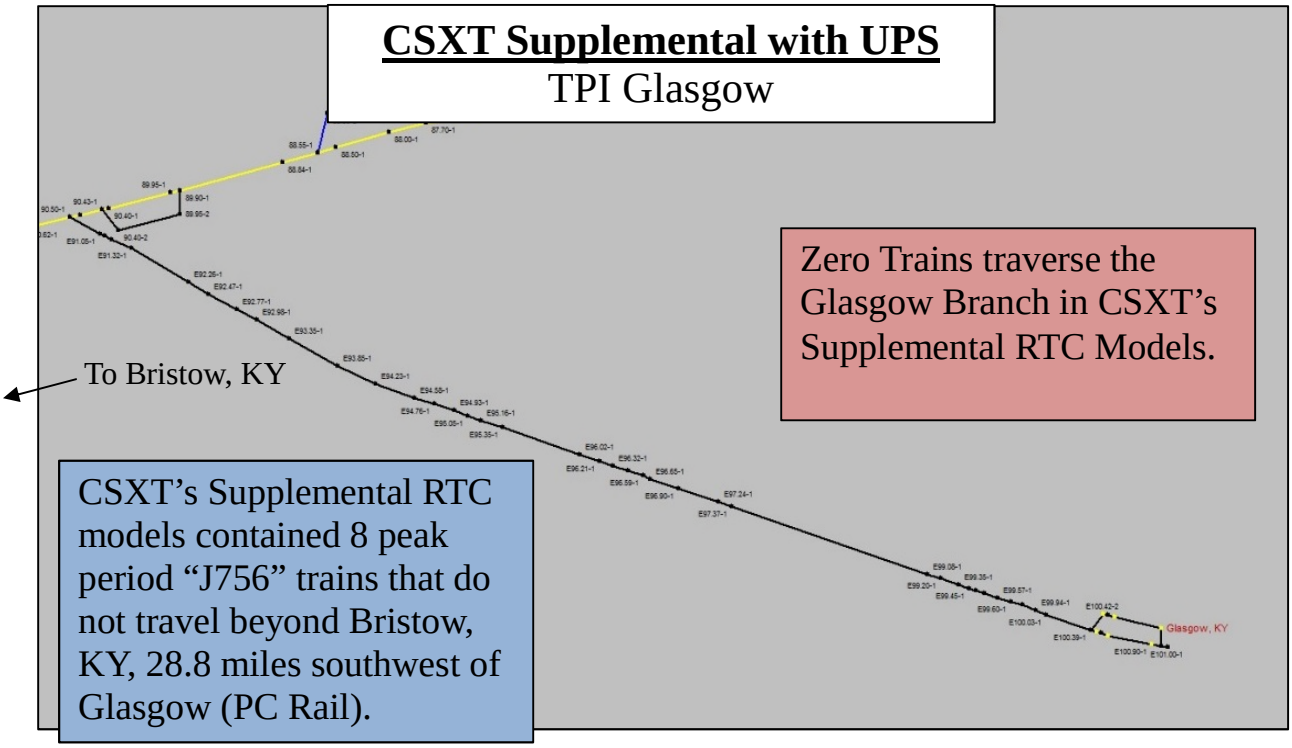
The principal indicator of this fact is the absence of any train activity in CSXT's Supplemental RTC model at locations that were served by trains in CSXT's Reply RTC model

133 *See* CSXT Supp. Op. at 17.

(and TPI's Opening, Rebuttal, and Supplemental RTC models). For example, the TPI issue traffic location at Glasgow, KY had six trains[134] stop during the peak period in CSXT's Reply RTC simulation, but CSXT's Supplemental RTC model contains zero stops at this location. The screenshots below show Glasgow, KY in both CSXT's Reply RTC model and CSXT's Supplemental Opening RTC model.



134 *See* CSXT Reply RTC Trains "L741MEMMEM," "L742MEMMEM," "L743MEMMEM," "L744MEMMEM," "L745MEMMEM," and "L746MEMMEM."



TPI compared all of the locations served in CSXT's Reply RTC model to the locations served in CSXT's Supplemental Opening RTC model. This analysis identified 115 unique locations that inexplicably no longer receive any service in CSXT's Supplemental Opening RTC model. Of these 115 locations, 15 are issue traffic locations.[135] These 115 locations account for more than 280,000 carloads of TPIRR traffic, including more than 80,000 carloads of ***issue*** traffic that CSXT has failed to service.[136] CSXT's failure to serve the TPIRR traffic group, including the issue traffic, is discussed in more detail in Part I above.

CSXT cannot explain this discrepancy based upon its decision to model an "average" rather than "peak" period in its Supplemental RTC simulation. When modeling the peak period, which both TPI's Opening and Rebuttal evidence and CSXT's Reply evidence did, it would not

135 *See* Supp. Reply Exhibit TPI-4 for example Screenshots of these locations. *See also,* TPI Supp. Reply workpaper "Unserved RTC Nodes CSXT Reply vs CSXT Supplemental.xlsx," tab "Unique Unserved Locations," columns D and E.

136 *See* TPI Supp. Reply workpaper "Unserved RTC Nodes CSXT Reply vs CSXT Supplemental.xlsx," tab "Unserved Summary."

be surprising if some locations did not receive service because not all locations have traffic during the peak period. But CSXT's decision to model an average period means that there should be ***some*** traffic at ***all*** selected traffic destinations and origins in its RTC model. The only exception might be locations that receive an average of less than one carload per week, but any location that would receive an average of at least one carload per week should be included in CSXT's model.

This concept highlights the fallacy of CSXT's decision to model an average period. Average trains, average consists, and average frequencies have nothing in common with the complexity of real-world Class I operations. Most of the trains modeled in CSXT's RTC simulation are running on a repeating "frequency" and are effectively dispatched carrying the same consist, stopping at the same locations, and departing at the same time every day. As a result, CSXT's model has no variance in departure times, routing, or stops for any given train prefix. It is utterly unrealistic because freight railroads simply do not operate this way.

2. TPI's infrastructure is sufficient to handle even CSXT's RTC operating plan

CSXT has criticized TPI's infrastructure as insufficient to handle the operations of the TPIRR. TPI demonstrates the falsehood of this criticism by inputting CSXT's Supplemental train list, inflated dwell times, and unrealistic train consists into TPI's Rebuttal RTC network and successfully running the simulation[137] while achieving the same level of service as CSXT's Supplemental RTC simulation.[138] This successful simulation (titled "TPI Supp with CSXT Supp Trains") demonstrates that TPI's infrastructure, as modeled in its RTC simulation and supported by its investment, is sufficient to handle not only TPI's operating plan, but CSXT's operating

[137] *See* TPI Supp. Reply workpaper "TPI Supp Track w CSX Supp Trains.zip".

[138] *See* TPI Supp. Reply workpaper "TPI and CSXT RTC Train Speed Comparison.xlsx," tab "Comparison," row 15 vs row 12.

plan as well. Given these facts, the Board should adopt TPI's investment units as the best evidence on record.

To further demonstrate that CSXT has overbuilt its network, TPI removed over 415 miles of Mainline, Yard, Siding, and other track[139] from CSXT's Supplemental RTC model and reran that simulation.[140] This revised simulation (titled "CSXT Supplemental Reduced") generated identical cycle times overall[141] to CSXT's Supplemental RTC simulation. This analysis confirms TPI's assertions that CSXT has overbuilt its network.

3. Development of Receiving and Departure Tracks in Yards

CSXT claims that the difference between yard track miles posited by CSXT and TPI is due to "TPI's erroneous reliance upon the RTC Model to determine TPIRR's R&D track requirements"[142] in yards. TPI has refuted CSXT's claims on Rebuttal and therefore does not repeat its arguments here.[143] Furthermore, TPI's Rebuttal demonstrated that CSXT's decision to ignore the RTC model in determining the appropriate number of receiving and departure tracks understated the required tracks in some yards and overstated them in others based upon CSXT's own Reply RTC model.[144] TPI makes the same showing below based upon CSXT's Supplemental RTC model.

Supplemental Reply Exhibit TPI-5 demonstrates that CSXT both underbuilt and overbuilt the receiving and departure tracks necessary to execute its operating plan. For example, CSXT's yard sizing model indicates that Hamlet Yard in Hamlet, NC requires a minimum of 13 receiving

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139 *See* TPI Supp. Reply workpaper "Unused Track in CSXT Supplemental Reply wUPS v4.xlsx," tab, "Track Deletion Summary," cell D14.

140 *See*, TPI Supp. Reply workpaper, "CSXT Supplemental Reduced.zip"

141 *See* TPI Supp. Reply workpaper, "TPI and CSXT RTC Train Speed Comparison.xlsx," tab "Comparison," row 14 vs row 12.

142 *See* CSXT Supp. Op. at 35 (n.. 93).

143 *See* TPI Reb. at III-C-117-125.

144 *See*, TPI Rebuttal Exhibit III-C-1.

and departure tracks to handle operations.[145] However, CSXT's Supplemental Opening RTC representation of Hamlet yard only has five tracks. [146] Despite the implicit claim that Hamlet yard could not function properly without 13 tracks, CSXT's RTC model experiences little or no problems operating efficiently with only five tracks. In another example, CSXT's yard sizing model indicates that Rice Yard in Waycross, GA requires a minimum of 18 tracks to handle operations, yet CSXT's Supplemental Opening RTC model only has 12 tracks and never requires more than 11.[147] The difference between the receiving and departure tracks in CSXT's yard sizing model and what is required by CSXT's RTC model is substantial.

CSXT cannot blame the foregoing overstatements of receiving and departure tracks upon its decision to model an average, rather than peak, week in the RTC model for at least two reasons. First, CSXT's RTC model also demonstrates that it has underbuilt yard receiving and departure tracks. For example, CSXT's yard sizing model shows that Willard Yard in Willard, OH requires only 14 tracks, but CSXT's Supplemental Opening RTC model shows that Willard Yard requires 20 tracks to handle operations.[148] The modeling of an average week cannot explain the failure to build enough tracks to execute CSXT's operating plan. Second, CSXT cannot assert that modeling an "average week" proves the feasibility of its operating plan while simultaneously showing that its track infrastructure cannot handle even an average week of traffic.

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145 *See* CSXT Reply workpaper, "TPIRR Yard Matrix CSXT Reply.xlsx," tab "Yard Track Length" Cell AJ15. *See also,* Supp. Reply Exhibit TPI-5, page 1, Column (4), Line 10.

146 *See* CSXT Reply workpaper, "TPIRR Yard Matrix CSXT Reply.xlsx," tab "Yard Track Length" Cell AJ15. *See also,* Supp. Reply Exhibit TPI-5, page 1, Column (6), Line 10.

147 *See* TPI Supp. Reply workpaper "CSXT Yard Size Analysis.xlsx," tab "Yard Comparison," Row 12. *See also* Supp. Reply Exhibit TPI-5, page 1, Columns (4), (6) and (7), Line 11.

148 *See* TPI Supp. Reply workpaper "CSXT Yard Size Analysis.xlsx," tab "Yard Comparison" Row 2. *See also,* Supp. Reply Exhibit TPI-5, page 1, Columns (4) and (7), Line 2.

B. Average RTC Train Speeds

TPI Supplemental Reply Table III-1 below shows the average train speeds generated by all of the RTC simulations submitted for this case. Neither TPI nor CSXT modeled more than a "sample" of Industrial Yard Trains before the Supplemental round of evidence, so there is no real basis for comparison to the train speeds achieved by Yard trains in the Supplemental round of evidence.

TPI Supplemental Reply Table III-1
Average Train Speeds from RTC Simulations (MPH)

RTC Simulation Name	Road & Unit Trains	Local Trains	Industrial Yard Trains
(1)	(2)	(3)	(4)
1. TPI Open	25.4	11.2	N/A
2. CSXT Reply	20.8	11.1	N/A
3. TPI Rebuttal	20.9	10.4	N/A
4. CSXT Supplemental	20.8	11.9	6.8
5. TPI Supplemental Scenario 2	20.9	10.2	4.0
6. CSXT Supplemental with UPS	20.7	11.8	6.8
7. TPI Supplemental Scenario 3	20.9	10.2	4.1
8. CSXT Supplemental Reduced	20.7	11.8	6.8
9. TPI Supp with CSXT Supp Trains	20.7	12.2	8.0

Source: TPI Supp. Reply WP "TPI and CSXT RTC Train Speed Comparison.xlsx" tab "Comparison."

The average train speeds achieved in the "CSXT Supplemental Reduced" simulation are identical to those achieved in CSXT's "CSXT Supplemental with UPS" scenario. This proves that CSXT substantially overbuilt its network since the latter contains 337 additional miles of mainline, siding, and yard track.[149] In addition, the average speed for local trains achieved in the "TPI Supp with CSXT Supp Trains" simulation is actually slightly faster (12.2 MPH) than the speeds achieved in CSXT's "CSXT Supplemental with UPS" scenario (11.8 MPH). This again

[149] *See* TPI Supp. Reply workpaper "Unused Track in CSXT Supplemental Reply wUPS v4.xlsx,"tab "Track Deletion Summary," cell D16.

demonstrates the fact that CSXT has unnecessarily overbuilt its network and that both its Reply and Supplemental RTC simulations do not require CSXT's excessive infrastructure investment.

C. TPIRR Operating Expenses

In its *Compliance Order*,[150] the STB asked the parties to recalculate service units based on the amended train list and RTC model results and to recalculate all costs that are dependent on the amended train statistics. The STB specifically asked CSXT to submit an RTC model that reflects its narrative and spreadsheet evidence to provide a complete record for this proceeding.[151] The STB pointed out that CSXT failed to include more than 44,000 local and yard trains that its narrative claimed were necessary for the TPIRR's base year operations.[152]

In its Supplemental Opening, CSXT claims it has fulfilled the STB's request. CSXT noted that its road and local trains included in its Reply MultiRail train lists carry forward to its Supplemental Opening MultiRail train lists.[153] Since the deficient trains noted by the STB only affected CSXT's Reply RTC simulation and not its train lists, any changes to operating statistics and expenses should be those driven by CSXT's revised RTC simulation results, which are based on Reply MultiRail train lists (which already included the local trains the STB requested) and the additional 23,868 industrial yard trains that were revised in CSXT's Supplemental Opening evidence.[154] Specifically, any changes to operating statistics and expenses should be the result of revised train speeds and locomotive requirements generated by the Supplemental RTC results.[155] CSXT claims that its Supplemental Opening RTC simulation resulted in a slight increase in

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150 *See Compliance Order* at 2.
151 *See Supp. Evid. Order* at 7.
152 *Id.* at n. 26.
153 CSXT Supp. Op. at 5 and 8.
154 *Id.* at 13.
155 RTC results are not used to generate local locomotive requirements because local locomotive requirements are not based on locomotive hours, rather they are based on historical locomotives in yards.

operating expenses.[156] However, TPI's comparison of CSXT's Reply and Supplemental Opening operating expenses reveals that changes in CSXT's Supplemental Opening were quite significant, especially to expense components that should have seen almost no impact from the additional trains included in the RTC modeling. TPI Supplemental Reply Table III-2 below compares CSXT's Reply and Supplemental Opening operating expenses.

TPI Supplemental Reply Table III-2
Comparison of CSXT's Reply and Supplemental Opening Operating Expenses
($ in millions)

Item	CSXT Reply	CSXT Supplemental Opening	Difference1/
(1)	(2)	(3)	(4)
1. Train & Engine Personnel	$457.2	$457.2	$0.0
2. Locomotive Lease	113.0	116.8	3.8
3. Locomotive Maintenance	181.9	188.0	6.1
4. Locomotive Operating	800.8	857.5	56.7
5. Railcar Lease	364.1	342.9	(21.2)
6. Material & Supply Operating	6.7	6.7	0.0
7. Ad Valorem Tax	62.4	61.5	(0.9)
8. Operating Managers	145.0	145.0	-
9. General & Administration	166.6	166.6	-
10. Loss and Damage	8.2	8.2	-
11. Trackage Rights	28.2	28.2	-
12. Intermodal Lift and Ramp	104.1	104.1	-
13. Motor Vehicle	22.6	22.6	-
14. Bulk Transfer	18.8	18.8	-
15. Insurance	40.8	41.4	0.6
16. Maintenance of Way	404.3	404.3	-
17. Startup and Training	105.3	105.3	-
18. Total	$3,030.1	$3,075.2	$45.1

Source: workpaper "Comp III-D Reply and Supp Opening.xlsx," tab "OpEx Table".
1/ Column (3) - Column (2).

The differences between CSXT's Reply and Supplemental Opening operating expenses are surprising, especially considering CSXT's claim that it did not alter its base-year train lists and all it did was run its MultiRail train list and 23,868 industrial yard trains through its RTC

156 *See* CSXT Supp. Op. at 1.

model. This exercise should generate a few changes in locomotive and car costs, but not an increase in total locomotive costs of $67 million in the base year.[157] Car costs ***decrease*** by $21 million in part due to an unacknowledged correction CSXT makes to its Reply evidence.[158] This correction is discussed in detail below. The following comparison of CSXT's Reply and Supplemental Opening operating statistics in Supplemental Reply Table III-3 points to the origins of CSXT's unusual results.

TPI Supplemental Reply Table III-3
Comparison of CSXT's Reply and Supplemental Opening Operating Statistics

Item	CSXT Reply	CSXT Supplemental Opening	Difference1/
(1)	(2)	(3)	(4)
Locomotive Requirements			
1. Road	882	913	31
2. Local	270	285	15
3. Yard	245	245	-
4. Total	1,397	1,443	46
Locomotive Unit Miles			
5. Road	106,090,044	115,586,394	9,496,351
6. Local	3,623,910	3,297,716	(326,194)
7. Yard	8,857,226	8,247,586	(609,640)
8. Total	118,571,180	127,131,697	8,560,516
9. Car Miles	3,073,345,464	3,219,072,997	145,727,533
10. Car Hours	145,656,692	149,791,419	4,134,728
11. Crew Personnel	3,713	3,713	-

Source: workpaper "Comp III-D Reply and Supp Opening.xlsx," tab "OpStat Table".
1/ Column (3) – Column (2).

The only details that seem consistent with adding 23,868 industrial yard trains to the RTC model, and removing those trains from the yard jobs matrices, are the absence of change to yard locomotives and crew personnel, and the decrease in yard locomotive unit miles. The decrease in

157 *See* TPI Supp. Reply Table III-2, Column 4, lines 2 through 4.
158 *Id.*, Column 4, line 5.

CSXT's yard-locomotive unit miles occurs because CSXT (like TPI), to avoid a double-count of locomotive operating expenses for industrial yard trains modeled in RTC, made an offsetting reduction to the yard locomotive unit miles calculated in its yard operations.[159] This reduction in locomotive unit miles exceeded the additional yard-locomotive unit miles resulting from the RTC simulation because the parties have based locomotive unit miles for industrial yard trains upon actual miles which turned out to be less than the assumed miles in both parties' yard matrices, which demonstrates that the parties were assuming conservatively high mileage.

The added industrial yard trains cause unexpected and inexplicably large increases to road and local locomotives, road-locomotive unit miles, and car miles and hours. The increases to car miles and hours appear unusual because CSXT's railcar lease expenses actually decrease by $21 million from Reply to Supplemental Opening.[160] The answer to this riddle lies in the fact that CSXT made multiple undisclosed changes in its Supplemental Opening evidence that exceed the permitted scope of supplemental evidence.

1. CSXT has made impermissible adjustments to operating expenses

TPI conducted an investigation into the reasons for these surprising differences and determined that CSXT made changes beyond just updating its train list for industrial yard trains and re-running its RTC model. Specifically, CSXT modified its Reply non-unit train miles, added local locomotives, and corrected an error made in the calculation of Reply car lease costs.

The STB should reject all three changes made by CSXT to its Reply evidence because none of these changes relate to RTC train speeds and locomotive requirements developed using CSXT's MultiRail train lists with the inclusion of 23,868 industrial yard trains. CSXT clearly goes beyond the STB's instructions to the parties for developing supplemental evidence:

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159 *See* CSXT Supp. Op. workpaper "TPIRR Yard Operations_Reply (Suppl).xlsx," Tab "Yard Switching LUM".

160 *See* Supp. Reply Table III-2, line 5.

> The intent of these instructions was to advise the parties that they could make changes to their evidence that follow from the supplemental evidence that the Board ordered, but that they should not take this as an opportunity to redesign their SARR or make other unrelated changes.[161]

Reversing these three changes reduces CSXT's restated Supplemental Opening operating expenses to $3.031 billion, which is $44 million lower than the $3.075 billion in CSXT's Supplemental Opening evidence. TPI Supplemental Reply Table III-4 below compares CSXT's Reply and Supplemental Opening operating expenses to TPI's restatement of CSXT's Supplemental Opening operating expenses.

[161] *See Reconsideration Decision* at 11.

TPI Supplemental Reply Table III-4
Comparison of CSXT's Supplemental Opening and
TPI's Restated Supplemental Opening Operating Expenses
($ in millions)

	Item	CSXT Supplemental Opening	Restated CSXT Supplemental Opening	Restated Difference From: CSXT Supplemental Opening 1/	Restated Difference From: CSXT Reply 2/
	(1)	(2)	(3)	(4)	(5)
1.	Train & Engine Personnel	$457.2	$457.2	$0.0	$0.0
2.	Locomotive Lease	116.8	113.0	(3.8)	0.0
3.	Locomotive Maintenance	188.0	181.9	(6.1)	(0.0)
4.	Locomotive Operating	857.5	801.6	(55.9)	0.8
5.	Railcar Lease	342.9	364.6	21.7	0.5
6.	Material & Supply Operating	6.7	6.7	(0.0)	0.0
7.	Ad Valorem Tax	61.5	62.5	1.0	0.1
8.	Operating Managers	145.0	145.0	-	-
9.	General & Administration	166.6	166.6	-	-
10.	Loss and Damage	8.2	8.2	-	-
11.	Trackage Rights	28.2	28.2	-	-
12.	Intermodal Lift and Ramp	104.1	104.1	-	-
13.	Motor Vehicle	22.6	22.6	-	-
14.	Bulk Transfer	18.8	18.8	-	-
15.	Insurance	41.4	40.8	(0.6)	0.0
16.	Maintenance of Way	404.3	404.3	-	-
17.	Startup and Training	105.3	105.3	-	-
18.	Total	$3,075.2	$3,031.4	($43.8)	$1.3

Source: workpaper "TPIRR Operating Expense_Reply (Suppl)_All Corrections.xlsx," tab "DCF Transfer".
1/ Column (3) – Column (2).
2/ Column (3) minus Suppl. Reply Table III-2, Column (2).

TPI discusses the propriety of these three changes in the following subsections, after which TPI follows the format used by CSXT in its Supplemental Opening to discuss the individual operating expense categories impacted by CSXT's Supplemental Opening evidence.

a. Replacement of Non-Unit Train List Train Miles

In Reply, CSXT developed operating statistics by including RTC train speeds and locomotive requirements in its base-year MultiRail train lists. In its Supplemental Opening, CSXT again adds RTC train speeds and locomotive requirements (excluding local locomotives) to its base-year MultiRail train lists. But CSXT inexplicably also restates miles per train for non-

unit trains.[162] CSXT does not explain why its Reply non-unit train miles need to be restated, nor does it support the restatement of these miles in its Supplemental Opening workpapers. Because of this lack of explanation and support, it is difficult to determine CSXT's reasoning behind this mileage restatement that, as will be explained below, significantly contributes to the inflation of locomotive and car statistics and expenses. TPI has identified some examples of specific mileage errors to illustrate some of the difference between CSXT's Reply and Supplemental Opening mileage differences. These examples of the mileage errors are shown in Supplemental Reply Table III-5 below.

[162] *See* CSXT Supp. Op. workpaper "TPIRR Reply Train Lists (Suppl).xlsx," tab "NonUnit," column M.

TPI Supplemental Reply Table III-5

Examples of Errors in CSX Supplemental Opening Train Miles

	Train	CSXT Miles 1/ Reply	CSXT Miles 1/ Suppl.	TPI Suppl. 2/	Notes
	(1)	(2)	(3)	(4)	(5)
1.	L680	396	929	374	Waycross, GA - Birmingham, AL; CSXT shows this train going to Avon, IN.
2.	Q376	253	452	208	Salem, IL to Avon, IN; CSXT takes all trains to Willard, OH; of the 173 historical trains in base year, only 15 go to Willard.
3.	Q188	165	91	210	Tampa, FL to Jacksonville, FL.
4.	Q197	324	461	343	Atlanta, GA to Augusta, GA (128 trains and 178 miles) or Nashville, TN to Augusta, GA (166 trains and 462 miles); CSXT is routing all from Nashville.
5.	Q198	324	462	344	Augusta, GA to Atlanta, GA (130 trains and 178 miles) or Augusta, GA to Nashville, TN (164 trains and 462 miles); CSXT is routing all to Nashville.
6.	Q389	611	478	617	Cumberland, MD to Chicago, IL; 3 records with 146.18 miles each get averaged into miles for Q389; these are labeled Q389A and start at Garrett, IN.
7.	A730	48	387	22	Local train Cordell, GA.
8.	Q219	169	289	236	Kellar Siding, OH to Avon, IN.
9.	Y126	n/a	396	6	Winston, FL yard job.

1/ Source: workpaper "TPIRR Reply Train Lists (Suppl).xlsx" tab "NonUnit", column E for Reply miles, column M for Supplemental miles.
2/ Source: workpaper "Comparison of CSXT Non-unit Train Miles.xlsx" tab "TPI Supplemental Miles".

TPI Supplemental Reply Table III-6 below demonstrates the extent to which CSXT revised its non-unit-train miles in Supplemental Opening.

TPI Supplemental Reply Table III-6
Summary of Change from Reply and Supplemental Opening in CSXT Non-Unit Train Mileages

Amount of Mileage Percent Change	Count of Mileage Changes: Number of Trains	Count of Mileage Changes: Percent of Total Trains
(1)	(2)	(3)
1. +/- 10%	216	34%
2. > 10% and < 50%	171	27%
3. > 50%	127	20%
4. <-10% and >- 50%	54	9%
5. <- 50%	64	10%
6. Total	632	100%

Source: Comparison of CSXT Non-unit Train Miles.xlsx.

Of the 632 unique non-unit trains, CSXT increased miles by at least 10 percent for 47 percent of the trains (lines 2 and 3 in Supplemental Reply Table III-6). Roughly one-third of CSXT's Supplemental Opening non-unit-train miles were adjusted only slightly (line 1 in Supplemental Reply Table III-6) and only 19 percent of CSXT's non-unit-train miles were adjusted down significantly (lines 4 and 5 in Supplemental Reply Table III-6). Nowhere has CSXT acknowledged that it made these changes, much less explained why it did so or offered any justification for doing so as part of its Supplemental Opening.

A comparison of CSXT's operating statistics derived from its train lists, including RTC train speeds and locomotive requirements, clearly points to increased train miles as the driver behind CSXT's inflated Supplemental Opening operating costs. Supplemental Reply Table III-7 below compares statistics from CSXT's Reply and Supplemental Opening train lists.

TPI Supplemental Reply Table III-7
Comparison of CSXT's Reply and Supplemental Opening
Detailed Operating Statistics by Train Type

Item	Train Type: Auto	Intermodal	Merchandise	Local	Unit	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)
CSXT Reply						
1. Trains	16,016	29,016	71,292	60,788	24,081	201,193
2. Train Miles (000s)	5,652	10,796	20,226	3,202	9,811	49,687
3. LUM (000s)	11,478	23,091	46,456	3,698	24,458	109,181
4. Locomotive Hours	689,244	1,319,872	3,175,015	412,344	1,675,109	7,271,584
5. Car-miles (000s)	284,976	371,446	1,457,963	38,242	861,149	3,013,776
CSXT Supplemental Opening						
6. Trains	16,016	29,016	71,292	60,788	24,081	201,193
7. Train Miles (000s)	6,553	14,127	20,400	2,846	9,811	53,738
8. LUM (000s)	13,400	30,739	47,236	3,365	24,297	119,036
9. Locomotive Hours	744,384	1,492,369	3,252,320	281,067	1,641,965	7,412,106
10. Car-miles (000s)	334,971	474,597	1,459,459	38,310	861,149	3,168,486
Percent Difference						
11. Trains	0%	0%	0%	0%	0%	0%
12. Train Miles	16%	31%	1%	-11%	0%	8%
13. LUM	17%	33%	2%	-9%	-1%	9%
14. Locomotive Hours	8%	13%	2%	-32%	-2%	2%
15. Car-miles	18%	28%	0%	0%	0%	5%

Source: workpaper "Comp III-D Reply and Supp Opening.xlsx," tab "OpStat Detail Table".

Although the number of trains does not change in CSXT's Supplemental Opening, train miles and locomotive unit miles change significantly. By deriving average train characteristics from the statistics above, TPI determined that CSXT's revised RTC train speeds and locomotive requirements did not drive the changes shown in Supplemental Reply Table III-7.

Supplemental Reply Table III-8 below shows average train characteristics derived from the statistics in Supplemental Reply Table III-7 above.

TPI Supplemental Reply Table III-8
Comparison of CSXT's Reply and Supplemental Opening
Average Train Characteristics by Train Type

Item	Train Type: Auto	Intermodal	Merchandise	Local	Unit
(1)	(2)	(3)	(4)	(5)	(6)
CSXT Reply					
1. Miles per Train 1/	353	372	284	53	407
2. Locomotives per Train 2/	2.0	2.1	2.3	1.2	2.5
3. Train Speed 3/	16.7	17.5	14.6	9.0	14.6
4. Cars per Train 4/	50.4	34.4	72.1	11.9	87.8
CSXT Supplemental Opening					
5. Miles per Train 5/	409	487	286	47	407
6. Locomotives per Train 6/	2.0	2.2	2.3	1.2	2.5
7. Train Speed 7/	18.0	20.6	14.5	12.0	14.8
8. Cars per Train 8/	51.1	33.6	71.5	13.5	87.8
Percent Difference					
9. Miles per Train 9/	16%	31%	1%	-11%	0%
10. Locomotives per Train 10/	1%	2%	1%	2%	-1%
11. Train Speed 11/	8%	18%	-1%	34%	1%
12. Cars per Train 12	1%	-2%	-1%	13%	0%

Source: workpaper "Comp III-D Reply and Supp Opening.xlsx," tab "TrainAvg Table".
1/ TPI Supp. Reply Table_III-7, Line 2 x 1,000 ÷ TPI Supp. Reply Table_III-7, Line 1.
2/ TPI Supp. Reply Table_III-7, Line 3 ÷ TPI Supp. Reply Table_III-7, Line 2.
3/ TPI Supp. Reply Table_III-7, Line 3 x 1,000 ÷ TPI Supp. Reply Table_III-7, Line 4.
4/ TPI Supp. Reply Table_III-7, Line 5 ÷ TPI Supp. Reply Table_III-7, Line 2.
5/ TPI Supp. Reply Table_III-7, Line 7 x 1,000 ÷ TPI Supp. Reply Table_III-7, Line 6.
6/ TPI Supp. Reply Table_III-7, Line 8 ÷ TPI Supp. Reply Table_III-7, Line 7.
7/ TPI Supp. Reply Table_III-7, Line 8 x 1,000 ÷ TPI Supp. Reply Table_III-7, Line 9.
8/ TPI Supp. Reply Table_III-7, Line 10 ÷ TPI Supp. Reply Table_III-7, Line 7.
9/ Line 5 ÷ Line 1.
10/ Line 6 ÷ Line 2.
11/ Line 7 ÷ Line 3.
12/ Line 8 ÷ Line 4.

The implied miles per train (Supplemental Reply Table III-8, lines 1 and 5) change dramatically between Reply and Supplemental Opening, especially for auto and intermodal trains. At the same time, locomotives per train remain comparable and average train speeds actually improve. Thus, the inflated statistics CSXT uses to calculate its Supplemental Opening operating expenses are driven by restated non-unit train miles, not restated RTC train speeds and

locomotive requirements. This restatement of non-unit train miles per train is unsupported in CSXT's narrative or workpapers.

The *Supplemental Evidence Order*, at page 7, states:

> With respect to the defendant, CSXT is asked to submit an RTC model that reflects its narrative and spreadsheet evidence in order to provide a complete record for this proceeding.

CSXT modifies RTC train speeds and locomotive requirements as permitted, but it also restates its non-unit train miles, which is not reflected in or explained by its narrative or spreadsheet evidence. CSXT appears to have taken advantage of the STB's *Supplemental Evidence Order* to add expense-inflating calculations into its SAC evidence. As shown in Supplemental Reply Table III-8 above, RTC train speeds actually improve with CSXT's inclusion of the 23,868 industrial yard trains, which should improve operating statistics. But CSXT's unexplained and unacknowledged adjustments to non-unit-train miles provides a countervailing offset to that improvement. The STB should reject this adjustment to non-unit-train miles because it does not reflect the adjustments permitted by the STB.

Using CSXT's Supplemental Opening train lists, TPI reverted the non-unit-train miles back to those used by CSXT in Reply to determine the impact on operating expenses. This correction of CSXT's non-unit-train miles reduced CSXT's overall operating expenses by $73 million.[163]

b. Addition of Local Locomotives

In Reply, CSXT relied upon an analysis of historical local trains serving individual yards to develop locomotive requirements for TPIRR local trains.[164] After applying spare-margin and

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[163] *See* TPI Supp. Reply workpaper "TPIRR Operating Expense_Reply (Suppl)_All Corrections.xlsx," tab "DCF Transfer," cell N36.

[164] *See* CSXT Reply workpaper "Nearest Yard for Local Trains_Reply.xlsx," tab "Unique Yards," cell N66.

peaking-factor adjustments, CSXT determined that the TPIRR required 270 local locomotives. In Supplemental Opening evidence, however, CSXT employs a different, unexplained approach to developing local locomotive requirements.[165] In its narrative, CSXT claims it has recalculated local-train locomotive requirements based on local trains included in its Supplemental Opening MultiRail Train List.[166] After applying a spare-margin adjustment and peaking-factor adjustment, CSXT determined that the TPIRR requires 285 local locomotives, an increase of 15 local locomotives over its Reply evidence.

As compared to CSXT's Reply base-year statistics, CSXT's Supplemental Opening local-train count is the same, train miles and locomotive unit miles decrease, and train speeds increase.[167] These results do not support an increase of 15 local locomotives. CSXT, in its Supplemental Opening, is clearly using an alternative approach to calculating local locomotives, one that is not supported by its Reply narrative or explained in its Supplemental narrative, and one that defies the STB's instructions not to make unrelated changes to its Reply evidence. When CSXT's Reply local locomotive requirements are included in CSXT's Supplemental Opening operating statistics, CSXT's Supplemental Opening operating expenses decrease by $2.3 million.[168]

c. Correction of Reply Car Lease Cost Calculation Error

In Reply, CSXT uses a historical percentage of foreign cars by car type to calculate TPIRR foreign-car hours by car type. However, CSXT applied the wrong historical percentages of foreign cars by car type to TPIRR foreign car hours, resulting in an overstatement of TPIRR

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165 *See* CSXT Supp. Op. workpaper "Supplemental TPIRR Local Train Locomotives.xlsx," tab "summary by yard," cell J4.

166 *See* CSXT Supp. Op. at 39.

167 *See* TPI Supp. Reply Tables III-7 and III-8 above.

168 *See* TPI Supp. Reply workpaper "TPIRR Operating Expense_Reply (Suppl)_All Corrections.xlsx", Tab "DCF Transfer," cell T36.

car costs in Reply.[169] CSXT corrects this error in its Supplemental Opening evidence, which results in a decrease to car lease expenses of $32.0 million.[170] This correction to CSXT's Reply evidence is another example of CSXT making changes in Supplemental Opening that were not permitted by the STB.

2. Locomotives

As discussed above, CSXT makes two inappropriate adjustments to its Reply evidence that result in an overstatement of locomotive requirements and associated locomotive expenses. First, CSXT revised miles in its non-unit-train list that drives the addition of 31 road locomotives. Second, CSXT replaces its Reply approach to developing local locomotives, which results in an increase of 15 local locomotives in Supplemental Opening. Removing these two adjustments reduces CSXT's Supplemental Opening locomotive-related expenses by $66 million.[171] Compared to Reply, CSXT's restated Supplemental Opening locomotive-related expenses increase by only $0.8 million.

3. Rail Cars

As discussed above, CSXT made two inappropriate adjustments to its Reply evidence that modify car expenses inconsistent with the *Supplemental Evidence Order*. First, CSXT restated Reply train miles for non-unit trains. This unauthorized restatement of train miles increases car miles and car hours, which in turn increases car lease expenses. This increase in car lease expenses is offset by the second inappropriate adjustment made to car expenses by CSXT in Supplemental Opening, which is the correction of its car cost calculations made in Reply. When these two adjustments are removed from CSXT's Supplemental Opening expense

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169 *See* CSXT Reply workpaper "TPIRR Car Costs_CSXT Reply.xlsx," tab "Foreign Cars," cells M34:M48 as applied to cells P10:P23.

170 *See* TPI Supp. Reply workpaper "TPIRR Operating Expense_Reply (Suppl)_All Corrections.xlsx", Tab "DCF Transfer," cell Q36.

171 *See* TPI Supp. Reply Table III-4, Lines 2 through 4.

calculations, car lease costs increase by $21.7 million.[172] Compared to Reply, the restated Supplemental Opening railcar lease expenses increase by $0.5 million.

4. Operating Personnel

In its Supplemental Opening evidence, CSXT does not change the number of operating personnel as a result of including its MultRail train lists and 23,868 industrial yard trains in its RTC simulation. TPI agrees that operating personnel should not change with only changes to RTC train speeds and locomotive requirements. However, CSXT significantly increased train miles and locomotive requirements in addition to amending its train list and recalculating RTC results for industrial yard trains. TPI would expect such a significant increase in train mileages and locomotive requirements to require more crew. However, CSXT does not make adjustments to crews, nor does it explain the inconsistency it creates by significantly increasing train miles and locomotive requirements without adjusting crews.

5. Insurance

In Supplemental Opening, CSXT continues to calculate insurance expenses in the same manner as TPI by applying the CSXT historical relationship between insurance costs and total operating expenses to TPIRR operating expenses. With CSXT's three inappropriate adjustments described above, CSXT's Supplemental Opening insurance expenses increased by $0.6 million over Reply.[173] However, when CSXT's three adjustments are excluded, CSXT's restated insurance expenses only increase by $0.02 million over Reply.[174]

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172 *See* TPI Supp. Reply Table III-4, Line 5.
173 *See* TPI Supp. Reply Table III-2, Line 15.
174 *See* TPI Supp. Reply Table III-4, Line 15.

6. Ad Valorem Taxes

CSXT's Supplemental Opening ad valorem tax decreased by $0.9 million when compared to Reply.[175] However, when CSXT's three inappropriate adjustments are excluded, CSXT's restated ad valorem tax expense increases by $0.1 million when compared to Reply.[176]

D. Summary of Impact on Operating Expenses and DCF Model

In Supplemental Opening, CSXT restates its Reply operating expenses based on its Supplemental RTC calculations resulting from the use of CSXT's MultiRail train lists, which includes the 23,868 industrial yard trains it revised in Supplemental Opening. However, CSXT also includes unauthorized changes to non-unit-train miles, local locomotive requirements and car costs described above. CSXT's restatement of operating expenses not only shows a disregard for the Board's instructions but also produces results that are inconsistent with its Reply evidence. Like CSXT, TPI develops an amended train list and corresponding RTC results in Supplemental Opening. However, none of CSXT's Supplemental Opening evidence contains appropriate changes that TPI should make to its operating expenses provided in Supplemental Opening. Thus, TPI's operating expenses in this Supplemental Reply remain unchanged from Supplemental Opening.

175 *See* TPI Supp. Reply Table III-2, Line 7.
176 *See* TPI Supp. Reply Table III-4, Line 7.

IV. CSXT'S COMPLIANCE EVIDENCE IS INCOMPLETE

In this Part IV of TPI's Supplemental Reply, TPI identifies deficiencies in the following three sections of CSXT's Supplemental Opening, which contains CSXT's evidence in response to the *Compliance Order*:

A. Traffic Group

B. Operating Plan

C. RTC Model

A. Traffic Group

1. Identification of Issue-Traffic Movement over the TPIRR

In its Supplemental Opening evidence, CSXT has not responded completely to the Board's order to identify the movement of issue traffic over the TPIRR. Specifically, the Board requested that both parties "[i]dentify how all the issue traffic moves over the stand-alone railroad"…and…"[l]ist the trains (including local trains) on which the issue traffic moves."[177] TPI explained in great detail in its Supplemental Opening evidence how every issue-traffic carload moved from origin to destination on every train along the route and pointed to detailed references in its workpapers where the Board could find the issue-traffic movements over the TPIRR.[178] In contrast, CSXT summarized how the issue traffic moved over the TPIRR in a single paragraph of its Supplemental Opening evidence and referenced two workpapers that it claimed addressed the Board's order.[179] TPI's review of CSXT's Supplemental Opening workpapers reveals gaps in CSXT's evidence.

CSXT has not demonstrated in its workpapers the following statement in its Supplemental Opening narrative:

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177 *See Compliance Order* at 2.

178 *See* TPI Supp. Op. at III-A-3-10.

179 *See* CSXT Supp. Op. at 48.

> For each lane of issue traffic, "SARR19B-TripPlan_IssueTraffic_Loads.pdf" details train operations needed to service the traffic from origin to destination, including the blocking sequence, locations, all trains, and scheduled times. CSXT also summarizes the TPIRR train symbols used to move the issue traffic in Supplemental WP "TPIRR Issue Traffic Train Symbols.xlsx."[180]

CSXT omitted MultiRail trip plans for four issue-traffic lanes.[181] In addition, CSXT included two MultiRail trip plans for issue traffic that contain "ERROR" in the field "Trip Time Days/Time" and that have zero associated miles.[182] This indicates that MultiRail was unable to move the traffic from origin to destination during the MultiRail SuperSim simulation that CSXT utilized for operating statistics.

For example, CSXT failed to provide a MultiRail trip plan for Complaint Lane B71: New Orleans, LA to Eton, GA. In discovery, CSXT provided a historical trip plan for Lane B71,[183] which detailed the movement of this issue shipment on CSXT train Q612 from New Orleans, LA to Atlanta, GA; then on train Q540 from Atlanta, GA to Etowah, TN; then finally on train A704 from Etowah, TN to Eton, GA. However, in CSXT's Supplemental Opening evidence, there is no trip plan to Eton, GA in the workpaper that CSXT claims identifies issue traffic movements.[184] In fact, TPI's review of the MultiRail local train list that CSXT used in its Supplemental Opening RTC simulation confirms that train A704 is the only local train for which

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180 *Id.*

181 *See* TPI Supp. Reply workpaper "Issue Traffic Trip Plan Summary.xlsx" tab "Summary".

182 *See* CSXT Supp. Op. workpaper "SRR19B-TripPlan IssueTraffic_Loads.pdf" pages 60-63 for the MultiRail block "J_CHICAGO IL_DCGBNS_BNSF to T_SPRINGDAL OH (T_BE 11)" and pages 131-135 for the MultiRail block "J_NEWORLEANLA_LNOBNS_BNSF to T_BALHIGHLA MD (T_BBS 1)" for CSXT's base year issue loads. *See also,* CSXT Supp. Op. workpaper "CSXT MultiRail Trip Plans.xlsx" excel rows 2836-2967 for the MultiRail block "J_CHICAGO IL_DCGBNS_BNSF to T_SPRINGDAL OH (T_BE 11)" and excel rows 6147-6362 for the MultiRail block "J_NEWORLEANLA_LNOBNS_BNSF to T_BALHIGHLA MD (T_BBS 1)" for CSXT's forecast year issue loads.

183 *See* TPI Supp. Op. workpaper "Trip Plans (CSX-TPI-C-28781 to 28891).pdf" at page 73 of the PDF.

184 *See* CSXT Supp. Op. workpaper "SARR19B-TripPlan_IssueTraffic_Loads.pdf."

MultiRail has a stop at Eton, GA,[185] and CSXT did not identify train A704 as a MultiRail train serving issue traffic.[186] Not only did CSXT fail to identify train A704 as an issue traffic train, as discussed in Section I.B.2 above, but CSXT also deleted stops in which MultiRail identified a net change of less than two carloads. In doing so, CSXT deleted the Eton, GA destination from the MultiRail output altogether before entering this train into its Supplemental Opening RTC simulation.[187]

CSXT has identified an error in its Reply electronic work papers that resulted in no records in 2012 being identified as issue traffic for purposes of the application of ATC percentages to issue traffic.[188] Because the issue traffic was not flagged properly in the spreadsheet, in many instances the issue traffic received less than 100 percent of the CSXT revenue identified for these issue traffic movements. TPI agrees that this error exists in the electronic workpaper that both CSXT and TPI used to calculate (and forecast) TPIRR revenue for issue traffic. The impact of correcting this error is the addition of less than $850,000 in TPIRR revenue over the 2013-2020 time period. For purposes of this Supplemental Reply evidence, TPI acknowledges that this error exists but, in keeping with the strict instructions of

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185 *See* CSXT Supp. Op. workpaper "Supplemental RTC Local Trains.xlsx" tab "Trains2" excel Column F, filtering on "* T_ETON GA".

186 *See* CSXT Supp. Op. workpaper "TPIRR Issue Traffic Train Symbolx.xlsx," tab "All Symbols."

187 *See* CSXT Supp. Op. workpaper "Supplemental RTC Local Trains.xlsx" tab "Trains2" excel row 44. Column AM shows that the Change at Eton, GA according to MultiRail is 0.5 cars per day, or 156 annual cars (0.5 cars per day x 6 days operated per week in Column AG x 52 weeks per year). CSXT Methodology shows "DELETE" for the Eton, GA in Column AR. *See also* CSXT Supp. Op. workpaper "SUPPLEMENTAL.TRAIN" where Eton, GA does not appear as a stop for train A704.

188 *See* CSXT Supp. Op. at 48-49.

the *Supplemental Evidence Order*, has not made any revisions or adjustment to its traffic and revenue evidence.[189]

2. High-Priority Traffic

CSXT claims that it followed the Board's order and identified high-priority UPS and Threads Express traffic in the relevant intermodal-traffic spreadsheets.[190] TPI reviewed CSXT's supplemental electronic workpapers and confirms that CSXT correctly identified the same containers that TPI identified as high-priority intermodal traffic.

CSXT also claims that it followed the Board's order and identified all of the trains carrying the high-priority UPS and Threads Express traffic on the TPIRR in spreadsheets that CSXT filed as Supplemental Opening electronic workpapers.[191] TPI reviewed CSXT's Supplemental Opening electronic workpapers and confirms that CSXT correctly identified the same trains that TPI identified as moving the high-priority intermodal traffic.

TPI's review of the CSXT train list for high-priority intermodal traffic did uncover a related issue, however, that TPI addresses in an Errata filed simultaneously with this Supplemental Reply evidence. Specifically, CSXT adjusted (shortened) the length of intermodal trains that share common train symbols with the historical trains moving the UPS and Threads Express high-priority containers, but retained the trains themselves in the RTC train list because CSXT presumed they still would be required to move the remaining non-priority traffic in their consists. CSXT attributed the revenues for this non-priority traffic to the TPIRR. In its Supplemental Opening evidence, TPI completely removed the historical trains that carried the high-priority containers from its RTC train list but still included the revenues for this non-

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189 Such changes are outside the realm of evidence requested by the Board in its Compliance Order. That being said, TPI stands ready to make such a change should the Board specifically request that it do so.

190 *See* CSXT Supp. Op. at 49-50.

191 *See* CSXT Supp. Op. at 50-51.

priority traffic in the TPIRR revenues. In the Errata, TPI restores the cost of operating the shortened trains that handle the non-priority traffic for which both TPI and CSXT have assigned revenue to the TPIRR.

B. Operating Plan

As explained earlier in TPI's Supplemental Reply, CSXT failed to tie its MultiRail train list to its RTC model and therefore the simulation CSXT provided and the resulting operating plan is of no value.

C. RTC Model

Parts II and III of this Supplemental Reply, along with the referenced exhibits, demonstrate the numerous problems with CSXT's MultiRail train list and CSXT's attempt to model that train list in its RTC model. TPI will not repeat those demonstrations here.

V. REBUTTAL TO CSXT'S SUPPLEMENTAL REPLY TO "NEW TPI REBUTTAL EVIDENCE"

In this Part V of TPI's Supplemental Reply evidence, TPI addresses and corrects statements made by CSXT related to bridge-abutment investment and cross-subsidy calculations.

A. TPI's Bridge Abutment Revisions

In TPI's Rebuttal[192] and TPI's Petition to Supplement the Record,[193] TPI stated that, in preparing its Rebuttal testimony, it discovered that it had double-counted the number of abutments in the bridges-replacing-oversized-culverts calculations and corrected the error in its Rebuttal presentation. In CSXT's Supplemental Opening, CSXT claims that TPI did not correct a double-count, but instead, "TPI made a series of inexplicable manual adjustments to its bridge abutments that created a new double count."[194] CSXT's claim is disingenuous because TPI's Rebuttal made the same manual adjustments to bridges replacing oversized culverts that CSXT itself had made in its Reply.

In Reply, CSXT recognized that manual adjustments to the number of bridge spans and abutment costs was required by its alteration of the bridge heights and lengths in TPI's Opening bridge-construction worksheet. CSXT correctly recognized in its Supplemental Opening that, when it changed the bridge heights and lengths, the resulting number of spans and abutments were incorrect based on TPI's sizing formulas for bridges replacing oversized culverts used in Opening.[195] But CSXT has failed to recognize that TPI's Rebuttal adopted the same approach CSXT used in Reply to correct these formulas. Instead of acknowledging this fact, CSXT has mischaracterized TPI's approach as "inexplicable" and "unsupported" even though it is the same approach CSXT used.

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192 *See* TPI Reb. at III-F-79.
193 *See* TPI Petition to Supplement the Record at 4 (filed Nov. 5, 2014).
194 *See* CSXT Supp. Op. at 53 (emphasis in original).
195 *See* CSXT Supp. Op. at 54.

To understand the double count of abutments, TPI offers the following clarifying discussion. In TPI's Opening, there was not a double count for abutment costs using the lengths/heights and sizing formulas TPI used for the bridges replacing oversized culverts. Specifically, there was only one abutment cost assigned to each bridge, either a Type I & II Abutment Cost, or a Type III Abutment Cost, or a Type IV Abutment Cost.[196]

In CSXT's Reply evidence, CSXT made multiple adjustments to the bridges-replacing-oversized-culverts calculations. In particular, CSXT changed the bridge length/height and resulting counts of spans needed. CSXT made multiple manual adjustments to both the spans and abutments needed as a result of CSXT's revised bridge lengths and TPI's Opening evidence formulas. CSXT included the following note in its supporting workpapers regarding the manual adjustments: "CSX's engineers used TPI's cell formulas for calculating required number of each type of span as a starting point. Manual adjustments were then made to ensure an odd number of spans, so that there is no pier in the center of the waterway."[197] Overall, CSXT made manual adjustments to 56 out of the 83 bridges replacing culverts.[198]

In Rebuttal, TPI accepted some of CSXT's Reply calculations but adjusted the bridge length by a ratio of 1.5:1 (in lieu of CSXT's proposed ratio of 2:1) and increased the bridge height to account for fill between the culvert and track. [199] TPI also accepted the various "manual adjustments" that CSXT made to the number of spans. Making these changes in Rebuttal caused

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196 *See* TPI Op. workpaper "TPI Bridge Construction Costs.xlsx," tab "Oversized Culverts," columns BI:BK, which can be found in TPI's Supplemental Reply evidence.

197 *See* CSXT Reply workpaper "TPI Bridge Construction Costs CSXT Reply.xlsx," tab "Oversized Culverts," cells BZ90:CC92, which can be found in TPI's Supplemental Reply evidence.

198 *See* CSXT Reply workpaper "TPI Bridge Construction Costs CSXT Reply.xlsx," tab "Oversized Culverts," cells BZ89:CC89 (filter on the yellow highlight in these columns to find the 56), which can be found in TPI's Supplemental Reply evidence.

199 *See* TPI Reb. at III-F-78.

some of the bridges to incur double-counts of abutment costs using the formulas from TPI's Opening evidence. To correct these errors, TPI manually zeroed out abutment costs for bridges that would incur a double-count in the same manner CSXT did in Reply. Zeroing out these values resulted in the bridges incurring only one abutment cost, instead of the two that would result from the formulas in TPI's Opening evidence. Overall, TPI made manual adjustments to 56 out of the 83 bridges replacing culverts, which are the same 56 bridges to which CSXT made manual adjustments in its Reply evidence.[200]

Supplemental Reply Table IV-1 below compares the abutment and oversized-culvert costs presented in each round of evidence and demonstrates the double counts discussed above.

TPI Supplemental Reply Table IV-1
Summary of TPI's Opening, CSXT's Reply, TPI's Rebuttal
And TPI's Restated Rebuttal Bridge Abutment Costs

Item	Bridge Abutment Costs				Oversized Culverts
	Type I & II	Type III	Type IV	Total	
(1)	(2)	(3)	(4)	(5)	(6)
1. TPI Opening 1/	$1,732,888	$299,537	$0	$2,032,426	$5,939,358
2. CSXT Reply 2/	$924,160	$1,725,885	$1,594,889	$4,244,935	$83,857,805
3. TPI Rebuttal 3/	$1,096,765	$1,198,149	$2,121,586	$4,416,499	$59,078,570
4. TPI Reb. Revised 4/	$1,096,765	$1,123,264	$1,591,189	$3,811,219	$58,044,807
5. Line 3 – Line 4	$0	$74,885	$530,397	$605,280	$1,033,763

Source:
1/ TPI Opening workpaper "TPI Bridge Construction Costs.xlsx," tab "Oversized Culverts," columns BI-BK and column BT.
2/ CSXT Reply workpaper "TPI Bridge Construction Costs CSXT Reply.xlsx," tab "Oversized Culverts," columns CH-CJ and column CQ.
3/ TPI Rebuttal workpaper "TPI Bridge Construction Costs Rebuttal.xlsx," tab "Oversized Culverts," columns BJ-BL and column BV.
4/ TPI Supp. Reply workpaper "TPI Bridge Construction Costs Rebuttal_Revised.xlsx," tab "Oversized Culverts," columns BJ-BL and column BV.
Note: All of the spreadsheets listed above can be found in TPI's Supplemental Reply evidence.

[200] *See* TPI Supp. Reply workpaper "TPI Bridge Construction Costs Rebuttal_Revised.xlsx," tab "Oversized Culverts," cells AZ92:BC92 (filter on the yellow highlight in these columns to find the 56). In its Supplemental Opening evidence (CSXT Supp. Op. at 54) CSXT points out that TPI made manual adjustments to "55 of the 83 bridges replacing culverts;" however, as shown in this workpaper TPI believes the correct number is 56.

TPI makes one final observation with respect to its Rebuttal correction of bridge abutments. When TPI attempted to correct the "double-count" problem in Rebuttal, it apparently overlooked seven bridges that still contained double-counts in addition to the 25 that TPI corrected.[201] This oversight resulted in a $1.03 million overstatement in investment. For purposes of this Supplemental Reply evidence, however, TPI has not made any revisions or adjustments for the overstatement in investment because the impact on the SAC results is negligible.

B. The Board should not apply the *Otter Tail* cross-subsidy test

Both TPI and CSXT addressed the *Otter Tail* cross-subsidy test in their Supplemental Opening evidence. TPI contends that the test is an arbitrary and unwarranted departure from contestable-market theory which is a pillar of constrained-market-pricing principles,[202] whereas CSXT defends the test as an established and consistent part of the Board's rate regulatory scheme.[203] TPI anticipated and fully refuted CSXT's substantive claims, and thus will not repeat its arguments here. Rather, TPI will focus this reply upon CSXT's assertion that the *Otter Tail* test is "well-established law."[204]

First, TPI notes that the Board has never applied the *Otter Tail* test in a single case and the test has never been subjected to judicial review. The Board did not apply the test even in the *Otter Tail* decision that announced the test, because the Board denied Otter Tail any relief under the threshold *PPL* cross-subsidy test and thus had no occasion to apply the secondary *Otter Tail* test. This fact renders the test merely *dicta*. The Eighth Circuit never addressed the *Otter Tail* test

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201 In its Supplemental Opening evidence, CSXT states that "TPI's manual adjustments created a double-count of abutments for six Rebuttal bridges replacing culverts" (CSXT Supp. Op. at 55 and footnote 134). There are actually seven double-count abutments that TPI is correcting in its Supplemental Reply evidence. *See* TPI Supp. Reply workpaper "TPI Bridge Construction Costs Rebuttal_Revised.xlsx," tab "Oversized Culverts," cells BK31, BL41:BL43, BL47, BL88:BL89 (highlighted in red).

202 *See e.g.*, *Guidelines*, 1 I.C.C. 2d at 525, 528-29.

203 *Compare* TPI Supp. Op. at III-H-4-13 *with* CSXT Supp. Op. at 55-60.

204 *See* CSXT Supp. Op. at 56-57.

on appeal because it held that "Otter Tail has waived its challenge to the *PPL*-test," which disposed of Otter Tail's rate challenge.[205]

Second, CSXT's citations to the Board's decisions in *Major Issues*, *AEPCO 2011*, and *WFA* as evidence that the *Otter Tail* test is well-established does not withstand scrutiny. In *Major Issues*,[206] the Board refused to revisit an issue that was not a logical outgrowth of that rulemaking proceeding and was pending judicial review at the time. In *AEPCO 2011*,[207] the discussion cited by CSXT is to the *PPL* test and pertained to an issue that did not involve application of either the *PPL* or *Otter Tail* tests in that case. CSXT's citation to *WFA* is a mystery because there is no discussion of the *Otter Tail* decision on the cited page, nor does the decision discuss the *Otter Tail* cross-subsidy test anywhere within its text.

Finally, CSXT's criticism of TPI for repeating the same arguments as Otter Tail did to challenge the *Otter Tail* test is unfounded.[208] As noted above, the Eighth Circuit denied Otter Tail's appeal of the *PPL* test because Otter Tail waived its arguments by not sufficiently raising them before the Board. Otter Tail did not vigorously pursue its challenge at the Board, however, because its arguments essentially were those already rejected by the Board in the *PPL* decision. Therefore, to preserve its right to appeal the Board's potential application of the *Otter Tail* cross-subsidy test in this case, TPI must raise all of its arguments against the *Otter Tail* test, including those presented in the *Otter Tail* case itself, to avoid the same fate that befell Otter Tail in the Eighth Circuit.

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205 *See Otter Tail Power Co. v. STB*, 484 F.3d 959, 963 (8th Cir. 2007).
206 *See Major Issues*, slip op. at 9 (n. 4).
207 *See AEPCO 2011*, slip op. at 9.
208 *See* CSXT Supp. Op. at 55-56.

There is no foundation for CSXT's claim that the *Otter Tail* test is well-established. In addition, CSXT's contention that TPI is re-litigating a SAC issue resolved in past cases is unsupported.

1. Use of 2012 to Identify Cross-Subsidy on North Vernon Line Segment

TPI's Rebuttal stated that CSXT's decision to impute the 2012 North Vernon line segment traffic mix to traffic moving over the segment in years 2010 and 2011 could lead to an understatement in revenue in these other years.[209] CSXT disagreed with this statement and claimed that, while TPI criticized CSXT's matching approach to identifying and adjusting volumes for traffic moving on the North Vernon segment, TPI's Rebuttal evidence nevertheless adopted CSXT's approach.[210]

CSXT's assertion is not accurate. While TPI did use CSXT's Reply cross-subsidy workpapers as a starting point for its North Vernon revenue allocations, it subsequently made changes to account for annual changes in the TPI traffic mix made as part of TPI's Rebuttal analyses. Specifically, after identifying the traffic moving over the North Vernon line segment using CSXT's general approach, TPI then made further adjustments to reflect changes to its Rebuttal traffic group analysis. These adjustments included revising 2010, 2011 and 1Q13-2Q13 traffic volumes and revenues and removing traffic that did not actually traverse the TPIRR.[211] Stated differently, TPI included adjustments made for the historic time periods 2010, 2011 and 1Q13-2Q13 into its cross-subsidy analysis.[212]

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209 *See* TPI Reb. at III-H-32.

210 *See* CSXT Supp. Op. at 59 to 60.

211 *See* TPI Reb. at III-A-4.

212 These adjustments were incorporated into the North Vernon cross-subsidy analysis by adjusting the North Vernon traffic and revenues in TPI's Rebuttal cross-subsidy DCF model. *See* TPI Reb. workpaper "Exhibit III-H-1 XSub – Rebuttal.xlsm," worksheet "Inputs," cells C458 to C468 and E458 to E468.

2. TPI properly claims revenue for traffic originating and terminating on the North Vernon line segment

TPI's Rebuttal evidence demonstrated that CSXT's Reply cross-subsidy analysis was flawed because it improperly excluded traffic that had waybill destinations at mileposts BC 72 or BC 87, the two end-points of the North Vernon line segment ("North Vernon End-Points").[213] In its Supplemental Opening, CSXT acknowledges that it incorrectly excluded movements at the North Vernon End Points, but then asserts that TPI's Rebuttal evidence overstated the revenue for the North Vernon End-Point traffic because TPI's Rebuttal evidence either did not claim origination/termination credit for the traffic or did not show movement miles across the North Vernon line segment for this traffic. CSXT's Supplemental Opening workpapers indicate that it identified 1,141 carloads out of 1,364 total carloads with waybill origins or destinations at the North Vernon End-Points that it claims TPI did not include in its Rebuttal revenue calculations.[214]

CSXT's assertion that TPI failed to include the North Vernon End-Point locations in its Rebuttal revenue calculations rests on misapplications and narrow definitions of TPI's average total cost ("ATC") division development process. TPI developed its ATC revenue divisions, in part, by reviewing CSXT's car-event data for each movement in the TPIRR traffic group to determine various movement characteristics, including, but not limited to, routing of movements, calculating on-SARR and off-SARR movement miles and determining on-SARR and off-SARR locations. CSXT's car-event data consist of a list of movement records for individual shipments as they move across the CSXT network broken down into link events and nodal events. A link event shows a car moving over a defined segment between two (2) mileposts on the CSXT

213 *See* TPI Reb. at III-H-32 to III-H-33.

214 *See* CSXT Supp. Op. at 60 and CSXT Supp. Op. workpaper "N Vernon Traffic Selection.xlsx," worksheet "Pivot," Columns (D) and (E). The 1,141 can be derived by summing the car counts in Column (E) when the number in Column (D) is equal to "0."

system, and records the miles traveled across the link. A nodal event shows the amount of time a railcar spent at a specific CSXT milepost or "node" and was used to identify on-SARR and off-SARR locations and whether a movement was originating or terminating. As part of its ATC division process, TPI classified each link event and nodal event as either an on-SARR or off-SARR event. Specifically, if the railcar moved on a TPIRR train on a link or node on the CSXT system replaced by the TPIRR, TPI classified the event as on-SARR.[215]

CSXT asserts that it used TPI's ATC division methodology process to demonstrate that TPI did not take revenue for 1,141 movements that originate or terminate at the North Vernon End-Points while those movements were on the North Vernon line segment.[216] In actuality, CSXT took a very narrow view of what constitutes an on-SARR movement and ignored other data to reach its incorrect conclusion that TPI did not include the North Vernon End-Points in its revenue calculations.

First, CSXT incorrectly excluded traffic if the waybill origin and destination was at one of the North Vernon End-Points, but the TPIRR did not take an origin or termination credit for the movement.[217] CSXT's approach was incorrect because revenue recognition for a cross-subsidy analysis is not dependent upon whether traffic originates or terminates at a particular location, but instead it depends upon whether the traffic moved in SARR revenue service over any point along the segment. In this instance, the TPIRR may not have ultimately originated or terminated the movement at one of the North Vernon End-Points, but the TPIRR at some point

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215 *See, e.g.*, TPI Reb. workpaper "ATC - Create URCS Costing Input V42.sql," at lines 1194, 1235, 1236 to 1238 and 3030.

216 CSXT is not asserting that the movements did not move on the TPIRR; rather CSXT is asserting that TPI did not include revenue for these movements as they moved over the North Vernon line segment.

217 *See* CSXT Supp. Op. workpaper "N Vernon Traffic Selection.xlsx," worksheet "Pivot," column (D).

operated over these locations with the shipment.[218] In total, CSXT's Supplemental analysis ignored 227 movements where the TPIRR carried traffic over the North Vernon End-Points, but did not originate or terminate the traffic at the end-points.[219]

Second, CSXT improperly excluded 276 carloads where CSXT's car-event data show nodal events at one of the North Vernon End-Point locations, but no link events.[220] In other words, while CSXT's car-event data did not record any miles moving across the North Vernon line segment, they did show these cars stopping or passing through one of the North Vernon End-Points while on TPIRR trains. Including revenues for these movements is consistent with the Board's cross-subsidy procedures since these procedures call for allocating total SARR revenues for traffic moving over any portion of the cross-subsidy line segment.[221] CSXT's car-event data show these 276 railcars on TPIRR trains while at the North Vernon End-Point milepost, and their revenues are correctly included in the cross-subsidy traffic group.

Third, CSXT's analysis improperly excluded 607 carloads that move on local or yard trains over the North Vernon line segment.[222] TPI explained in great detail in its Rebuttal evidence the rationale for including or excluding certain trains.[223] CSXT went to great lengths to identify what it alleges are missing trains and to chastise TPI for its alleged failure to include

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218 This occurred because TPI chose not to operate certain local and yard trains. If a TPIRR road train moved a railcar over the station and then passed on the railcar to a local or yard train not operated by the TPIRR, the movement would still have moved over the station while in TPIRR service, but not receive an originating or terminating credit.

219 *See* TPI Supp. Reply workpaper "Analysis if North Vernon Traffic -Supplemental.xlsx," worksheet "Summary," cell B7.

220 *See* TPI Supp. Reply workpaper "Analysis if North Vernon Traffic -Supplemental.xlsx," worksheet "Summary," cell B8. CSXT car-event data report both events that occur on a link defined by two mileposts and that occur at a specific milepost or "node."

221 *See PPL 2002* at 297.

222 *See* TPI Supp. Reply workpaper "Analysis if North Vernon Traffic -Supplemental.xlsx," worksheet "Summary," cell B6.

223 *See* TPI Reb. at III-C-43 to III-C-82.

many of these trains in its Opening evidence. However, after going to such lengths, CSXT failed to include these trains when developing its cross-subsidy analysis.

All told, of the 1,141 carload movements on the North Vernon line segment for which CSXT alleges TPI did not include in its revenue calculations, TPI properly and affirmatively included revenues for 1,110, or 97.3 percent, of the carloads. The remaining 31 carloads, or the difference between CSXT's excluded 1,141 and TPI's 1,110 properly included carloads, consists of two groups of movements. The first group consists of 20 movements for which TPI could not identify a specific train in the car-event data or could not identify car-event data for the movement.[224] The second group consists of 11 movements which TPI incorrectly included in the North Vernon traffic group.[225] For the sake of conservancy, TPI has adjusted its Supplemental Reply cross-subsidy analysis to reflect the removal of these 31 carloads. The exclusion of these 31 carloads reduces TPI's Rebuttal North Vernon line segment attributable revenue by less than 0.7 percent over the 10-year DCF period, and has no material impact on TPI's cross-subsidy analysis, which continues to show TPIRR revenues exceed allocated SAC on this segment.[226]

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224 *See* TPI Supp. Reply workpaper "Analysis if North Vernon Traffic -Supplemental.xlsx," worksheet "Unidentified Trains." In 19 of the 20 cases, some of the car events at the North Vernon End-Points indicated the car moved on an "Unknown" train, so TPI could not definitely state whether the movement was an on-SARR movement. The one remaining movement consisted of a shipment with no car-event data.

225 *See* TPI Supp. Reply workpaper "Analysis if North Vernon Traffic -Supplemental.xlsx," worksheet "No SARR Trains."

226 Compare aggregate revenues of $82,100,121 from TPI Rebuttal workpaper "Exhibit III-H-1 XSub – Rebuttal.xlsm," worksheet "Netting", sum of Column (6) to aggregate revenues of $81,557,255 from TPI Supp. e-workpaper "Exhibit III-H-1 XSub - Rebuttal_Supplemental.xlsm," worksheet "Netting," sum of Column (6). TPI Supp. workpaper "Exhibit III-H-1 XSub - Rebuttal_Supplemental.xlsm," worksheet "Netting," cell K50 also shows that SARR revenues continue to exceed allocated SAC.

VI. CONCLUSION

For the above reasons and the reasons set forth in TPI's Rebuttal and Supplemental Opening evidence, the Board should find that: (1) CSXT's SAC presentation is critically deficient because CSXT failed to model its operating plan and therefore failed to demonstrate its plan is feasible, and (2) TPI's SAC presentation demonstrates that the challenged rates are unreasonable and that TPI is entitled to the revenue to variable cost ratios shown in TPI Rebuttal Exhibit III-H-2.

Respectfully submitted,

Jeffrey O. Moreno
Nicholas J. DiMichael
David E. Benz
Jason D. Tutrone
Thompson Hine LLP
1919 M Street, N.W., Suite 700
Washington, D.C. 20036
(202) 331-8800

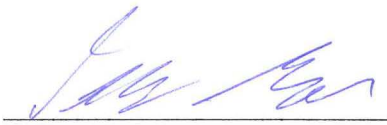
November 20, 2015

CERTIFICATE OF SERVICE

I hereby certify that this 20th day of November 2015, I served a copy of the Reply Supplemental and Compliance Evidence of the Plaintiff upon Defendant via electronic mail and first class mail at the address below:

G. Paul Moates
Paul A. Hemmersbaugh
Sidley Austin LLP
1501 K Street, NW
Washington, DC 20005

Counsel for CSX Transportation, Inc.



Jeffrey O. Moreno

CSXT Evidentiary Crosswalk:
CSXT Supplemental
Opening vs. CSXT Reply

CSXT Supplemental Opening			CSXT Reply	
Section	**Pages**	**Section Title**	**Section**	**Pages**
(1)	(2)	(3)	(4)	(5)
I.	3 - 25	**CSXT'S SUPPLEMENTAL RTC MODEL IS BASED ON ITS MULTIRAIL TRAIN LIST, AS THE BOARD REQUESTED**	III.C.4.	III-C-55 - III-C-73
I.A.	5 - 8	Road Trains	III.C.4.	III-C-61 - III-C-68
I.B.	8 - 11	Local Trains	III.C.4.	III-C-61 - III-C-68
I.C.	11 - 17	Industrial Yard Trains	III.C.4.	III-C-61 - III-C-68
I.D.	17 - 25	The Trains In CSXT's Supplemental RTC Model Provide Complete Service To the Selected Traffic Group	III.C.2	III-C-15 - III-C-36
II.	25 - 32	**CSXT USED OTHER RTC MODEL INPUTS THAT WERE CONSISTENT WITH ITS REPLY EVIDENCE**	III.C.10.	III-C-169 - III-C-196
II.A.	25 - 25	Train Sizes and Weight	III.C.10.a.	III-C-172 - III-C-178
II.B.	25 - 26	Trains With Routing Modeled Incorrectly	III.C.10.b.	III-C-178 - III-C-186
II.C.	26 - 26	Maximum Train Speeds	III.C.10.b.iii.	III-C-185 - III-C-186
II.D.	26 - 27	Locomotives	III.C.10.c.	III-C-186 - III-C-187
II.D.1.	26 - 27	Road Locomotive Consists	III.C.10.c.i.	III-C-186 - III-C-187
II.D.2.	27 - 27	Helper Locomotives	III.C.10.c.ii.	III-C-187 - III-C-187
II.E.	27 - 32	Dwell Times	III.C.10.d.	III-C-187 - III-C-196
II.E.1.	28 - 28	Dwell Time At Origins and Destinations	III.C.10.d.i.	III-C-187 - III-C-188
II.E.2.	28 - 30	Dwell Times at Yards	III.C.10.d.i.	III-C-188 - III-C-194
II.E.2.a.	28 - 29	Trains Arriving/Departing TPIRR Hump Yards	III.C.10.d.i.(a).	III-C-188 - III-C-192
II.E.2.b.	29 - 30	Trains Changing Consist At Flat Switching Yards	III.C.10.d.i.(b).	III-C-192 - III-C-194
II.E.3.	30 - 31	Train Inspection Dwells	III.C.5.b.	III-C-98 - III-C-125
II.E.4.	31 - 31	Time Required to Interchange Trains With Other Railroads	III.C.10.e.	III-C-194 - III-C-194
II.E.5.	31 - 32	Crew Change Locations/Times	III.C.10.f.	III-C-194 - III-C-195
II.E.6.	32 - 32	Time Required to Attach/Detach Helper Locomotives	III.C.10.g.	III-C-195 - III-C-195
II.E.7.	32 - 32	Track Inspections/Maintenance Windows	III.C.10.h.	III-C-195 - III-C-195
II.E.8.	32 - 32	Time for Random Failures/Line Outages	III.C.10.i.	III-C-195 - III-C-196
III.	33 - 47	**CSXT'S SUPPLEMENTAL RTC SIMULATION HAD NO EFFECT ON INFRASTRUCTURE AND ONLY MINOR EFFECTS ON OPERATING EXPENSES**	III-B; III-C; III-D	III-B - III-D
III.A.	33 - 35	Track Capacity and Configuration	III.B.3	III-B-18 - III-B-24
III.B.	35 - 36	Train Speeds	III.C.11.	III-C-197 - III-C-202
III.C.	36 - 45	Other TPIRR Operating Expenses	III.D.	III-D-1 - III-D-73
III.C.1.	38 - 42	Locomotives	III.D.1.	III-D-4 - III-D-29
III.C.1.a.	38 - 40	Locomotive Acquisition	III.D.1.a.	III-D-5 - III-D-24
III.C.1.b.	40 - 41	Locomotive Maintenance	III.D.1.b.	III-D-24 - III-D-26
III.C.1.c.	41 - 42	Locomotive Operations (including Servicing and Fuel)	III.D.1.c.	III-D-26 - III-D-29
III.C.2.	42 - 43	Railcars	III.D.1.	III-D-29 - III-D-46
III.C.2.a.	42 - 43	Acquisition	III.D.1.a.	III-D-29 - III-D-23
III.C.3.	43 - 44	Operating Personnel	III.D.3.	III-D-46 - III-D-74
III.C.3.a.	43 - 44	Train/Switch Crew Personnel	III.D.3.a.	III-D-46 - III-D-61
III.C.4.	44 - 42	Insurance	III.D.7.	III-D-239 - III-D-239

CSXT Supplemental Opening			CSXT Reply	
Section	**Pages**	**Section Title**	**Section**	**Pages**
(1)	(2)	(3)	(4)	(5)
III.C.5.	45 - 45	Ad Valorem Taxes	III.D.8.	III-D-239 - III-D-247
III.D.	45 - 47	Summary of Impact on Overall Operating Expenses and DCF	III.D; III.G; III-H	xxx - xxx
IV.	47 - 53	**CSXT HAS PROVIDED THE COMPLIANCE EVIDENCE REQUESTED BY THE BOARD**	xxx	xxx - xxx
V.	53 - 61	**RESPONSES TO NEW TPI REBUTTAL EVIDENCE**	xxx	xxx - xxx
V.A.	53 - 53	TPI's Bridge Abutment Revisions Should Be Rejected	III.F.5.b	III-F-103 - III-F-146
V.B.	53 - 61	TPI's Collateral Attack on the *PPL/Otter* Tail Test Should Be Rejected	III.H.	III-H-1 - III-H-27
VI.	61 - 61	Conclusion	xxx	xxx - xxx
xxx	xxx - xxx	Verifications	IV.	IV-1 - IV-168
xxx	xxx - xxx	Exhibits	xxx	xxx - xxx

Base Year Yard Train Jobs by Service Type

	CSXT Payroll TrainID 1/	Home Station Milepost 2/	Count of Annualized Payroll Trains 3/	Count of Industrial Yard Trains in CSXT Event Data 4/	Count of Yard Trains Working Entirely Within Yard Limits 5/
	(1)	(2)	(3)	(4)	(5)
1.	Y101-AL, OAKWO	000307	352	27	325
2.	Y101-IN, LAFAY	00Q120	360	0	360
3.	Y101-IN, TERRE	0ZA178	256	102	154
4.	Y101-OH, DEFIA	BI 87	256	66	190
5.	Y101-OH, HAMIL	BE 25	364	224	140
6.	Y101-TN, JACKS	0NG152	260	4	256
7.	Y102-IN, EVANS	00H323	364	5	359
8.	Y102-OH, DAYTO	BE 60	356	18	338
9.	Y103-AL, OAKWO	000307	352	349	3
10.	Y108-FL, JACKS	A 640	364	258	106
11.	Y110-FL, LAKEL	A 852	248	242	6
12.	Y110-KY, BOWLI	000118	300	115	185
13.	Y111-GA, ATHEN	SG 506	312	62	250
14.	Y111-NY, DEWIT	QC 285	256	84	172
15.	Y112-GA, LAGRA	ANJ819	260	10	250
16.	Y119-OH, CINCI	0KC110	260	244	16
17.	Y120-IN, EVANS	00H323	260	250	10
18.	Y120-NC, ROANO	A 83	364	113	251
19.	Y120-PA, NEW C	BG 58	312	37	275
20.	Y120-VA, RICHM	A 0	256	59	197
21.	Y121-OH, CINCI	0KC110	360	347	13
22.	Y122-FL, JACKS	A 640	256	10	246
23.	Y122-TN, NASHV	000190	356	102	254
24.	Y123-FL, JACKS	A 640	252	250	2
25.	Y123-IL, CHICA	DD 2	356	322	34
26.	Y124-NY, DUNKI	QD 41	248	103	145
27.	Y125-GA, ATLAN	ANB865	360	342	18
28.	Y125-IL, CHICA	DD 2	308	300	8
29.	Y125-OH, WILLA	BG 204	364	0	364
30.	Y126-FL, LAKEL	A 852	252	243	9
31.	Y127-OH, CINCI	0KC110	264	18	246
32.	Y128-IL, CHICA	DD 2	364	1	363
33.	Y129-FL, JACKS	A 640	260	256	4
34.	Y130-IL, CHICA	DD 2	356	354	2
35.	Y131-MD, BALTI	BAA 1	364	2	362
36.	Y135-IL, CHICA	DD 2	364	0	364
37.	Y139-MD, BALTI	BAA 1	364	93	271
38.	Y150-AL, DECAT	000307	184	0	184
39.	Y150-GA, AUGUS	AK 459	72	0	72
40.	Y150-PA, ERIE	QD 87	20	0	20
41.	Y150-TN, MEMPH	000118	12	0	12
42.	Y151-NY, DUNKI	QD 41	36	0	36
43.	Y190-PA, PITTS	BFA328	356	1	355
44.	Y196-AL, BIRMI	000389	252	30	222
45.	Y201-IN, LAFAY	00Q120	352	0	352
46.	Y201-OH, HAMIL	BE 25	328	4	324
47.	Y201-PA, NEW C	BG 58	364	1	363
48.	Y202-MD, BALTI	BAA 1	364	257	107
49.	Y208-FL, JACKS	A 640	364	251	113
50.	Y210-IN, LAFAY	00Q120	364	15	349
51.	Y211-IL, CHICA	DD 2	364	324	40
52.	Y219-OH, CINCI	0KC110	52	2	50
53.	Y220-OH, DAYTO	BE 60	356	75	281
54.	Y221-GA, AUGUS	AK 459	260	196	64
55.	Y221-OH, MARIO	CD 46	240	72	168
56.	Y222-FL, JACKS	A 640	356	255	101
57.	Y222-TN, NASHV	000190	264	255	9
58.	Y223-OH, CINCI	0KC110	308	70	238
59.	Y223-TN, NASHV	000190	256	246	10
60.	Y226-TN, NASHV	000190	364	55	309
61.	Y231-MD, BALTI	BAA 1	312	0	312

Base Year Yard Train Jobs by Service Type

	CSXT Payroll TrainID 1/	Home Station Milepost 2/	Count of Annualized Payroll Trains 3/	Count of Industrial Yard Trains in CSXT Event Data 4/	Count of Yard Trains Working Entirely Within Yard Limits 5/
	(1)	(2)	(3)	(4)	(5)
62.	Y239-MD, BALTI	BAA 1	364	78	286
63.	Y250-AL, OAKWO	000307	20	2	18
64.	Y250-LA, NEW O	A 852	4	0	4
65.	Y290-PA, PITTS	BFA328	352	2	350
66.	Y290-TN, NASHV	000190	260	233	27
67.	Y304-GA, ATLAN	ANB865	256	0	256
68.	Y308-FL, JACKS	A 640	352	1	351
69.	Y323-FL, JACKS	A 640	252	229	23
70.	Y327-MD, BALTI	BAA 1	356	287	69
71.	Y327-OH, CINCI	0KC110	252	190	62
72.	Y330-TN, NASHV	000190	332	254	78
73.	Y331-GA, ATLAN	ANB865	364	0	364
74.	Y331-NY, BUFFA	QC 434	252	239	13
75.	Y334-NY, DEPEW	QC 434	260	210	50
76.	Y339-MD, BALTI	BAA 1	352	84	268
77.	Y390-PA, PITTS	BFA328	352	3	349
78.	Y396-AL, BIRMI	000389	324	2	322
79.	Base Year Total 6/		22,464	8,935	13,529

1/ Column (1) contains 78 industrial yard jobs with payroll data from CSXT supplemental evidence. These records are formatted to match CSXT Reply WP "CSXT Payroll Records (Crew Size and Starts Update).xlsx" tab "Yard Locals Combined - Total."

2/ Column (2) indicates the transportation milepost for a particular home station based on a manual review of data contained in CSXT Reply WP "YardJobs_OnSARR_w_Customers.xlsx." This field allowed a comparison of annualized historic CSXT payroll data for 2Q13 to annual industrial yard train statistics that TPI compiled from historic car event data from the entire base year.

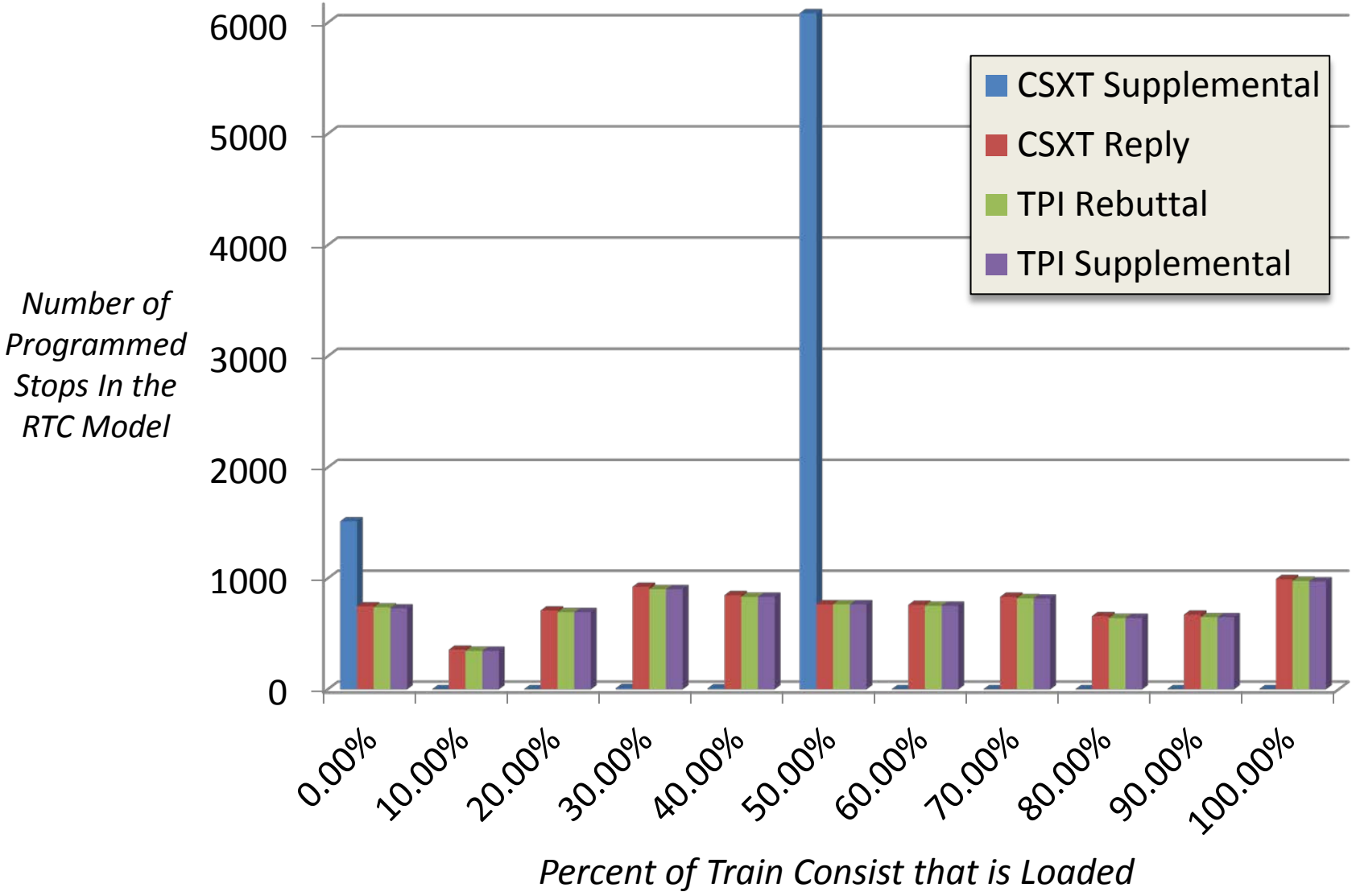
3/ Column (3) calculates the total annualized number of starts in the payroll data based on the Column (1) train ID. The payroll data does not distinguish between activity performed entirely within the yard and activity beyond yard limits.

4/ Column (4) represents the number of industrial yard train starts determined by TPI using CSXT car event data as shown in TPI Supp. Open WP "Y trn 1 on with miles.xlsx." This figure demonstrates all work performed by a particular TrainID beyond the limits of its home station yard.

5/ Column (5) = Column (3) - Column (4), except when Column (4) is greater than Column (3).

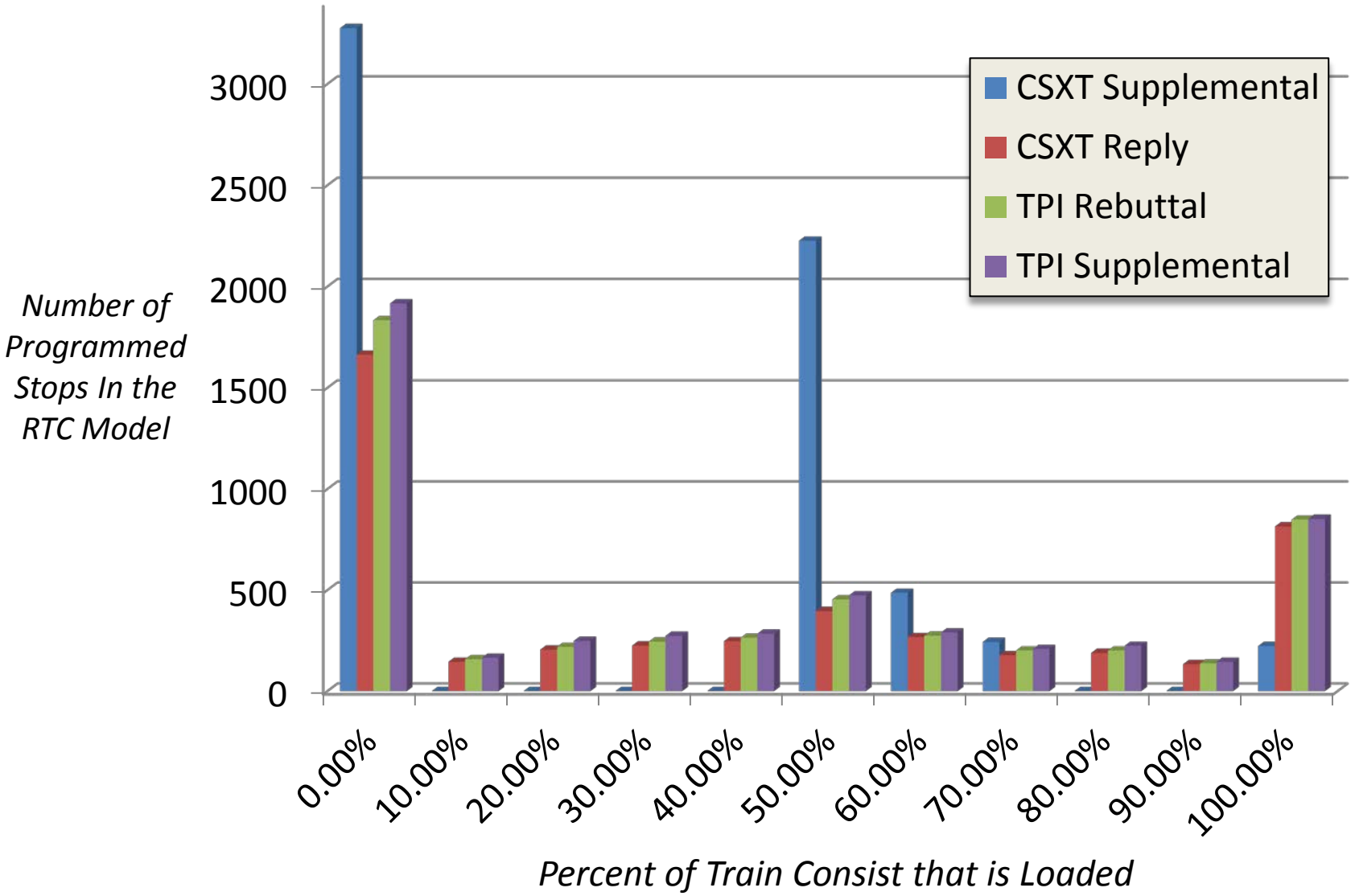
6/ The total in Column (3) represents the annual starts for "Y" trains in the payroll data. 15 MultiRail jobs did not have supporting payroll data. Of these jobs, 9 were removed because they were assigned 0 cars by MultiRail. The remaining 6 are documented in "Table I-1 Effect of Selective Use of Payroll Data on CSXT Supplemental Industrial Yard Train List."

Comparison of Percentage of Loaded Cars in Train Consists at All Stops in the RTC Model (Merchandise Trains)



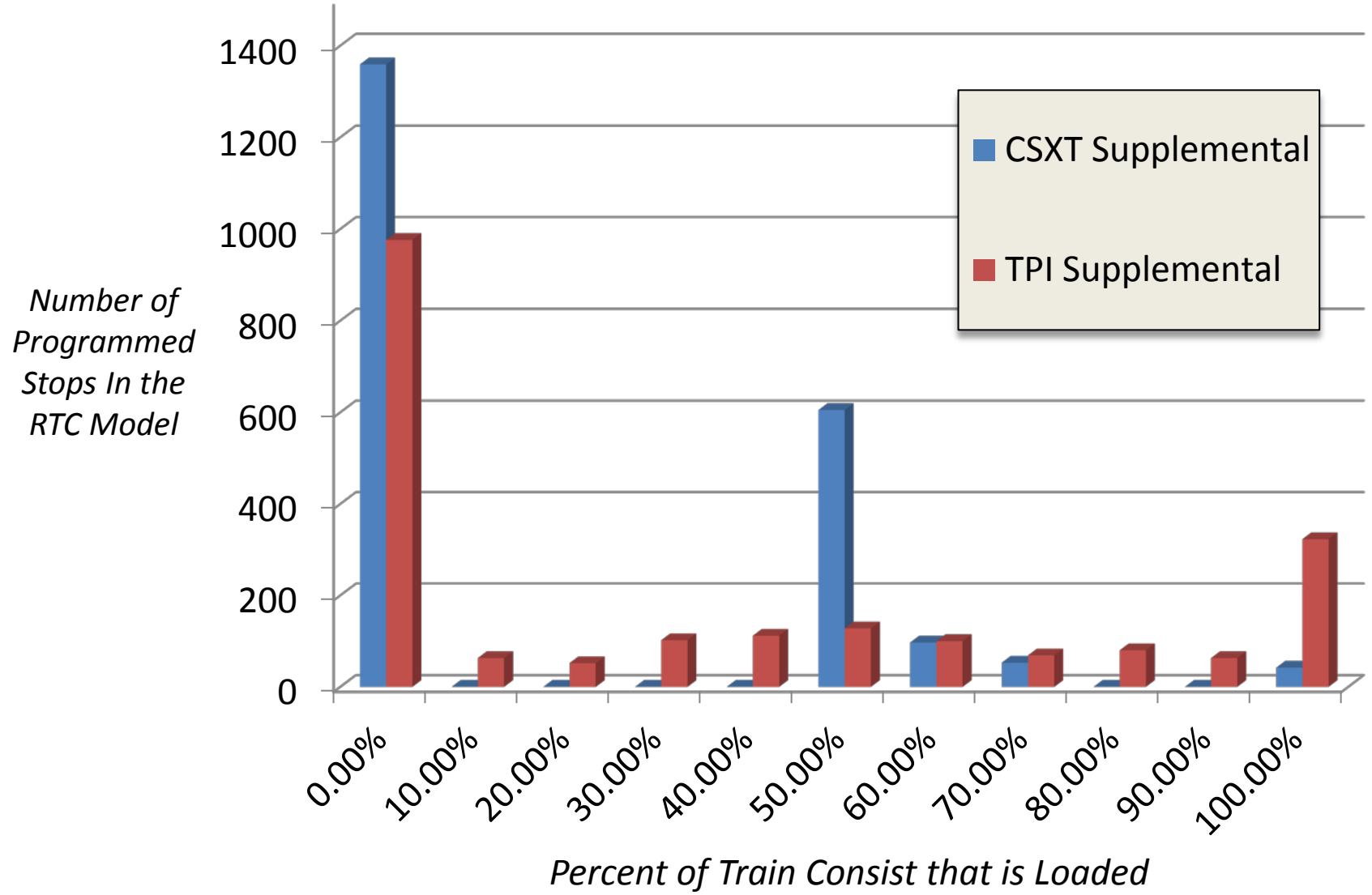
Source: TPI Supplemental Reply Workpaper "RTC Train Consists Comparison.xlsx"

Comparison of Percentage of Loaded Cars in Train Consists at All Stops in the RTC Model (Local Trains)



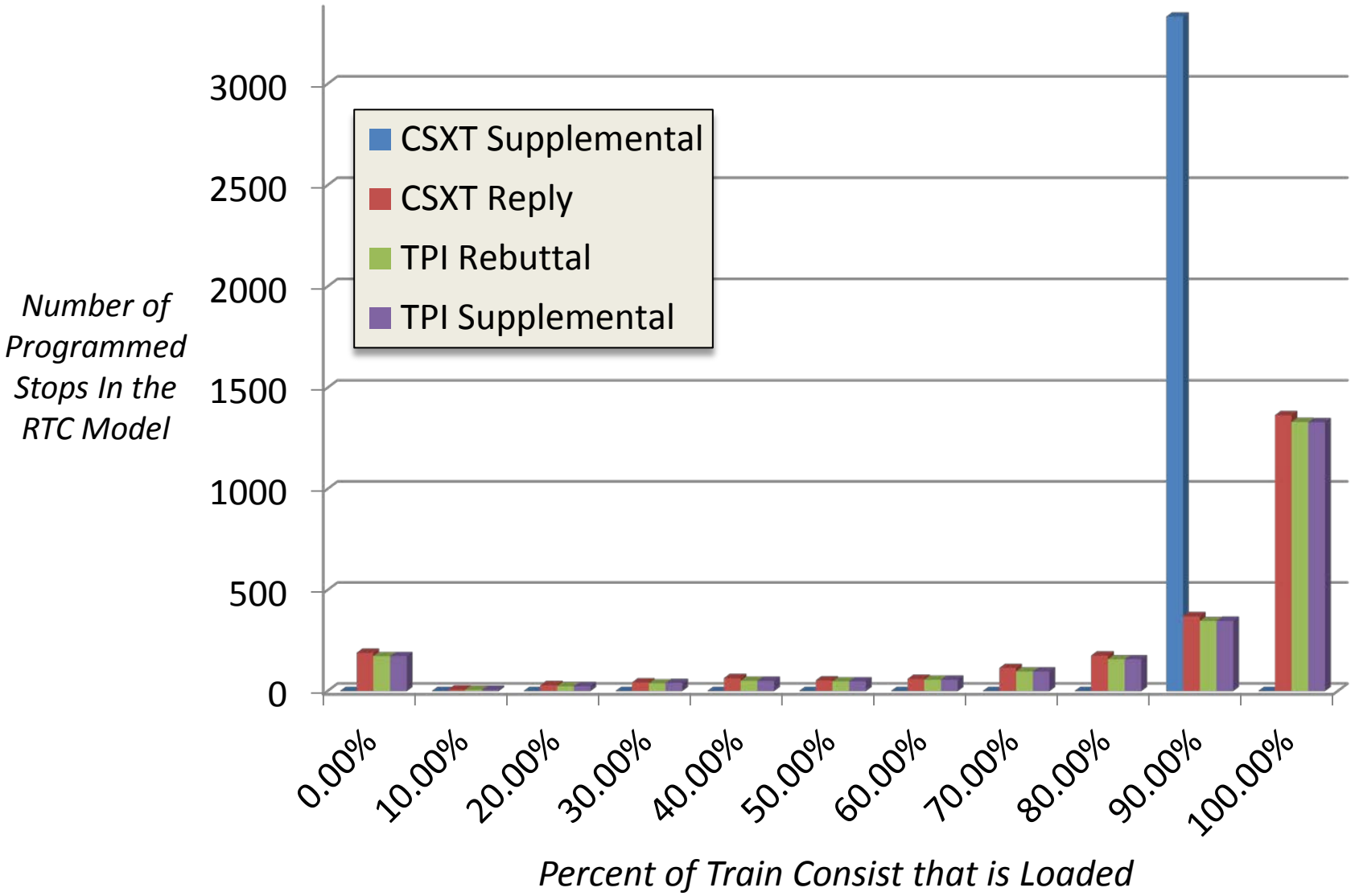
Source: TPI Supplemental Reply Workpaper "RTC Train Consists Comparison.xlsx"

Comparison of Percentage of Loaded Cars in Train Consists at All Stops in the RTC Model (Yard Trains)



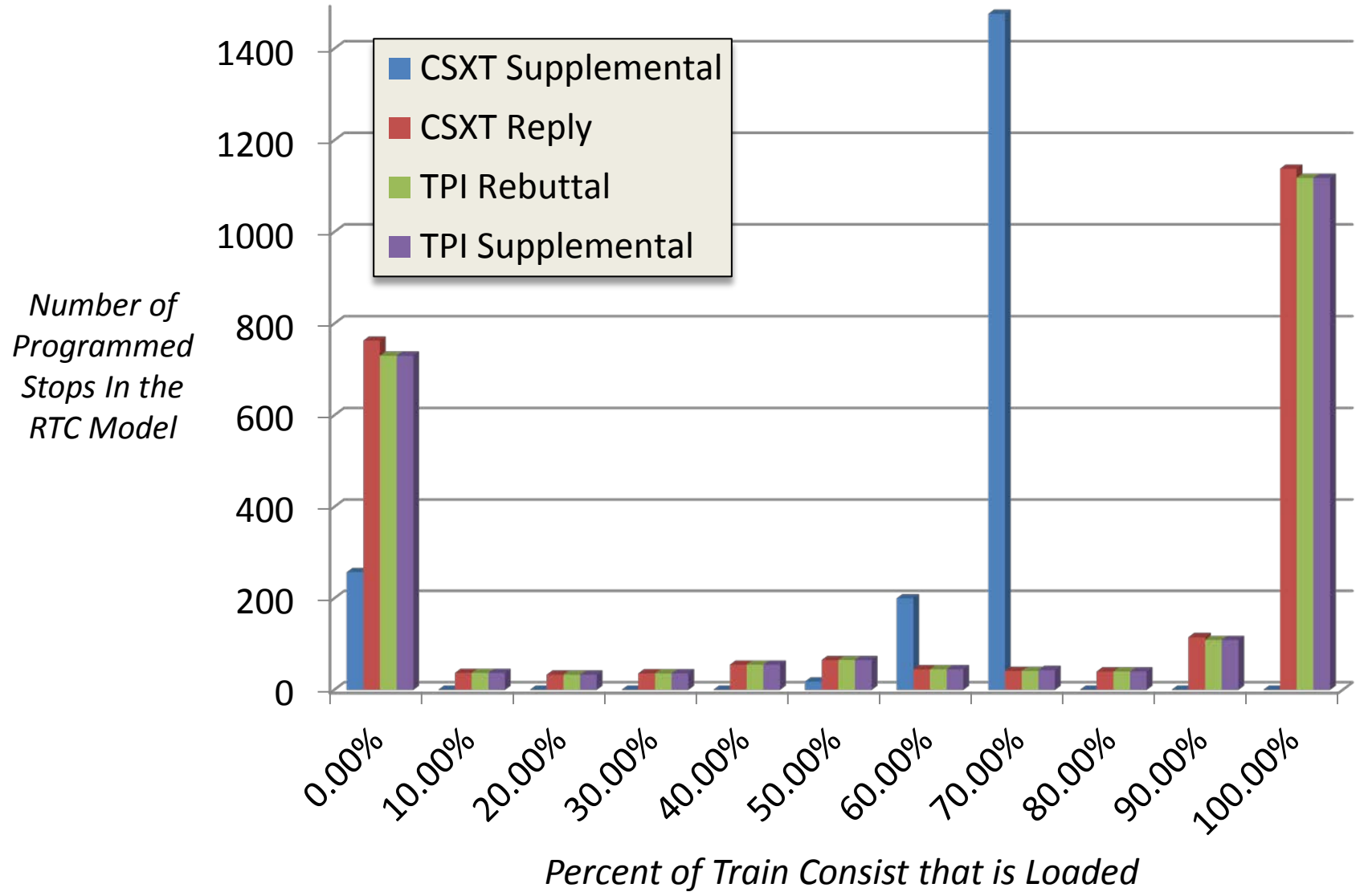
Source: TPI Supplemental Reply Workpaper "RTC Train Consists Comparison.xlsx"

Comparison of Percentage of Loaded Cars in Train Consists at All Stops in the RTC Model (Intermodal Trains)



Source: TPI Supplemental Reply Workpaper "RTC Train Consists Comparison.xlsx"

Comparison of Percentage of Loaded Cars in Train Consists at All Stops in the RTC Model (Vehicle Trains)

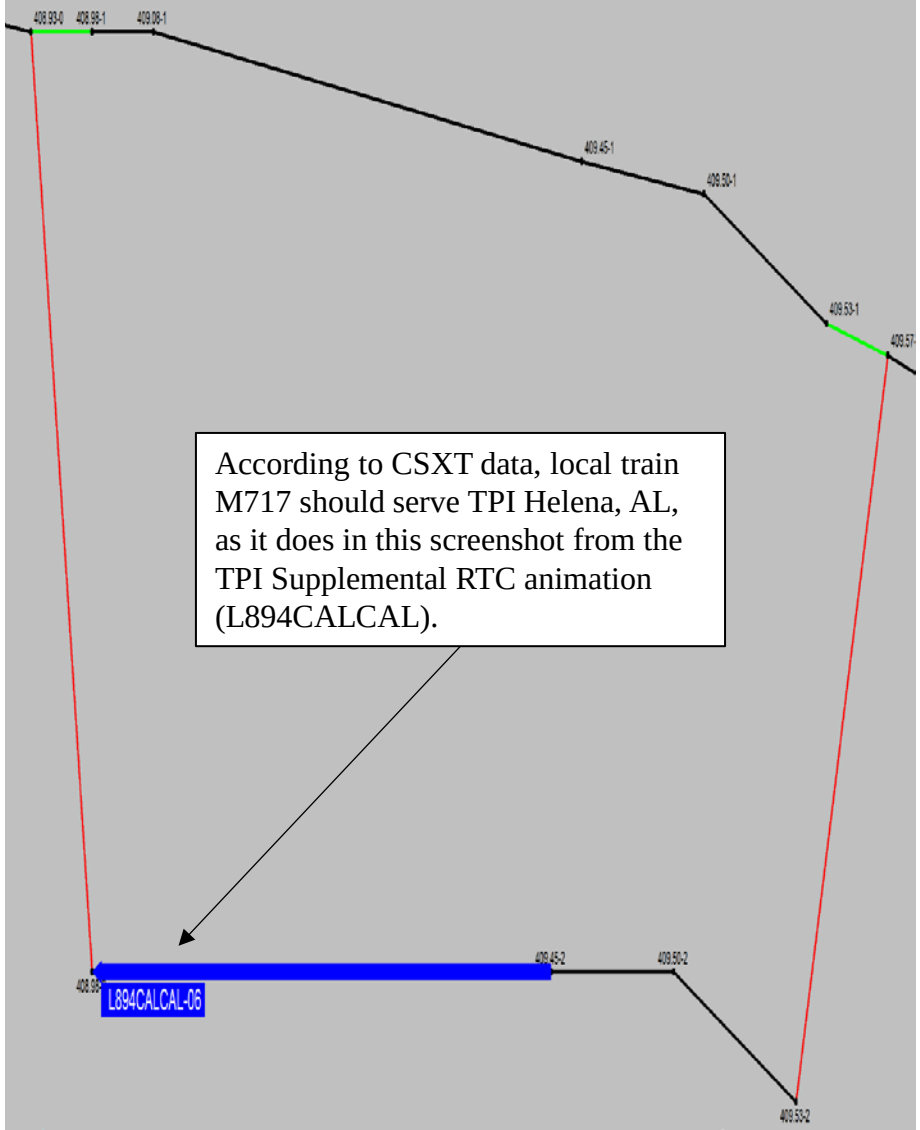


Source: TPI Supplemental Reply Workpaper "RTC Train Consists Comparison.xlsx"

Screenshots of Issue Traffic Locations Not Served in CSXT's Supplemental Opening RTC Model (Helena, AL)

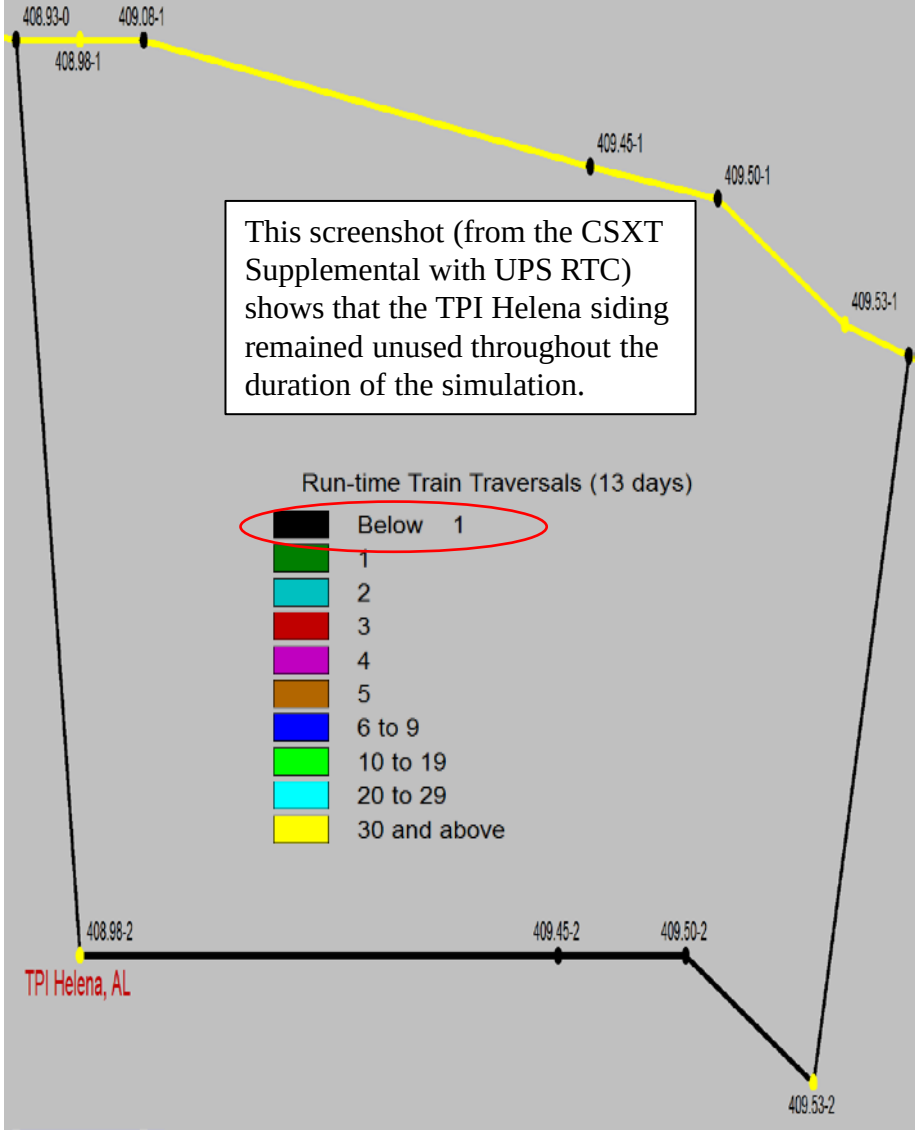
TPI Supplemental Scenario 2

RTC Animation Screenshot



CSXT Supplemental with UPS

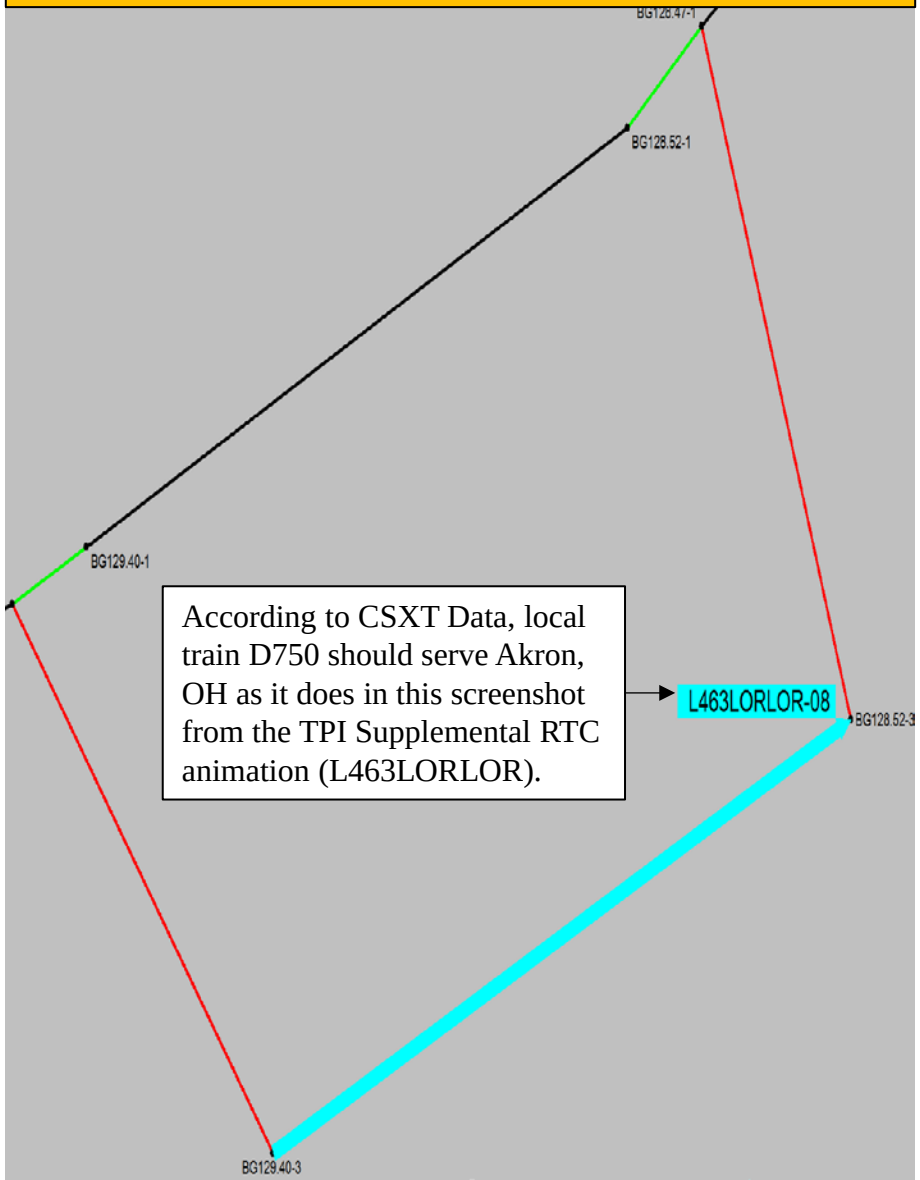
RTC Run-Time Train Traversal Screenshot



Screenshots of Issue Traffic Locations Not Served in CSXT's Supplemental Opening RTC Model
(Akron, OH)

TPI Supplemental Scenario 2

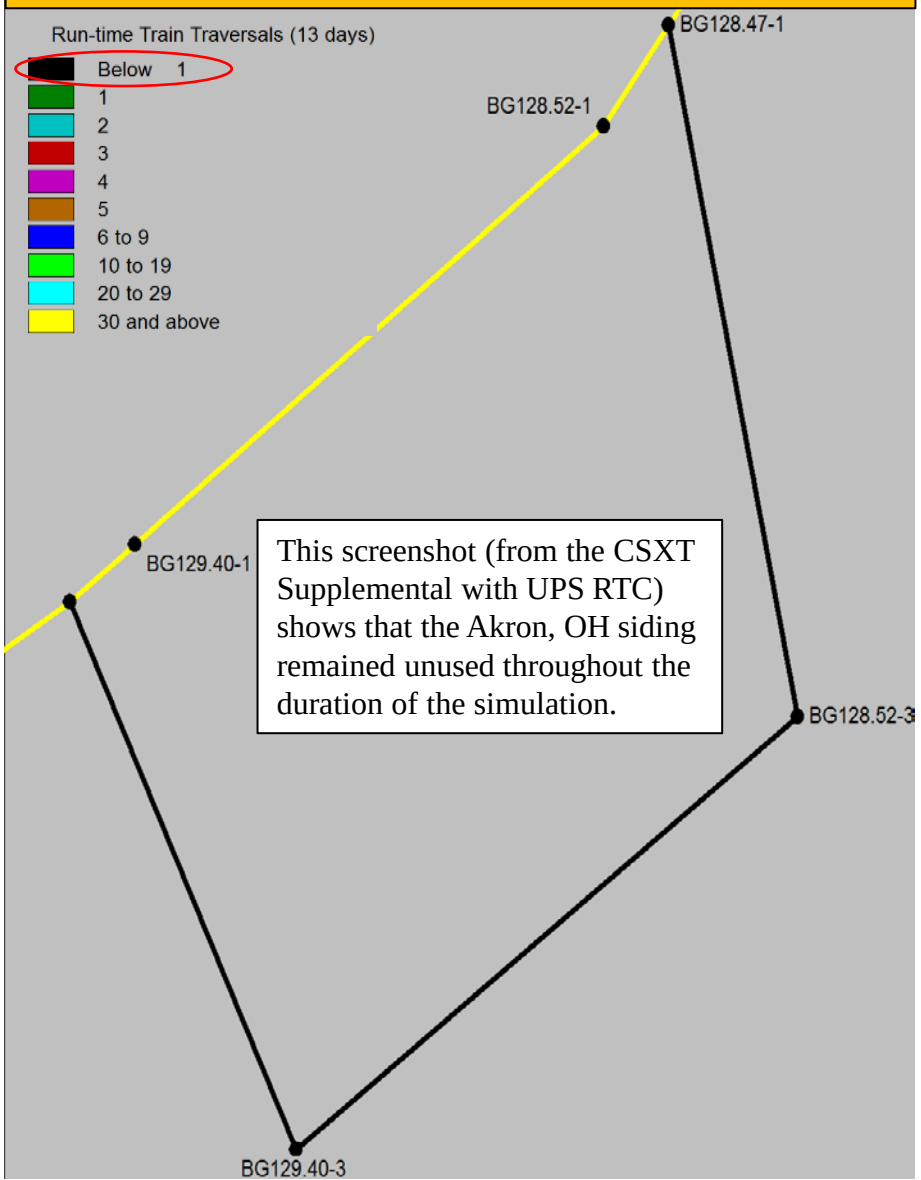
RTC Animation Screenshot



According to CSXT Data, local train D750 should serve Akron, OH as it does in this screenshot from the TPI Supplemental RTC animation (L463LORLOR).

CSXT Supplemental with UPS

RTC Run-Time Train Traversal Screenshot

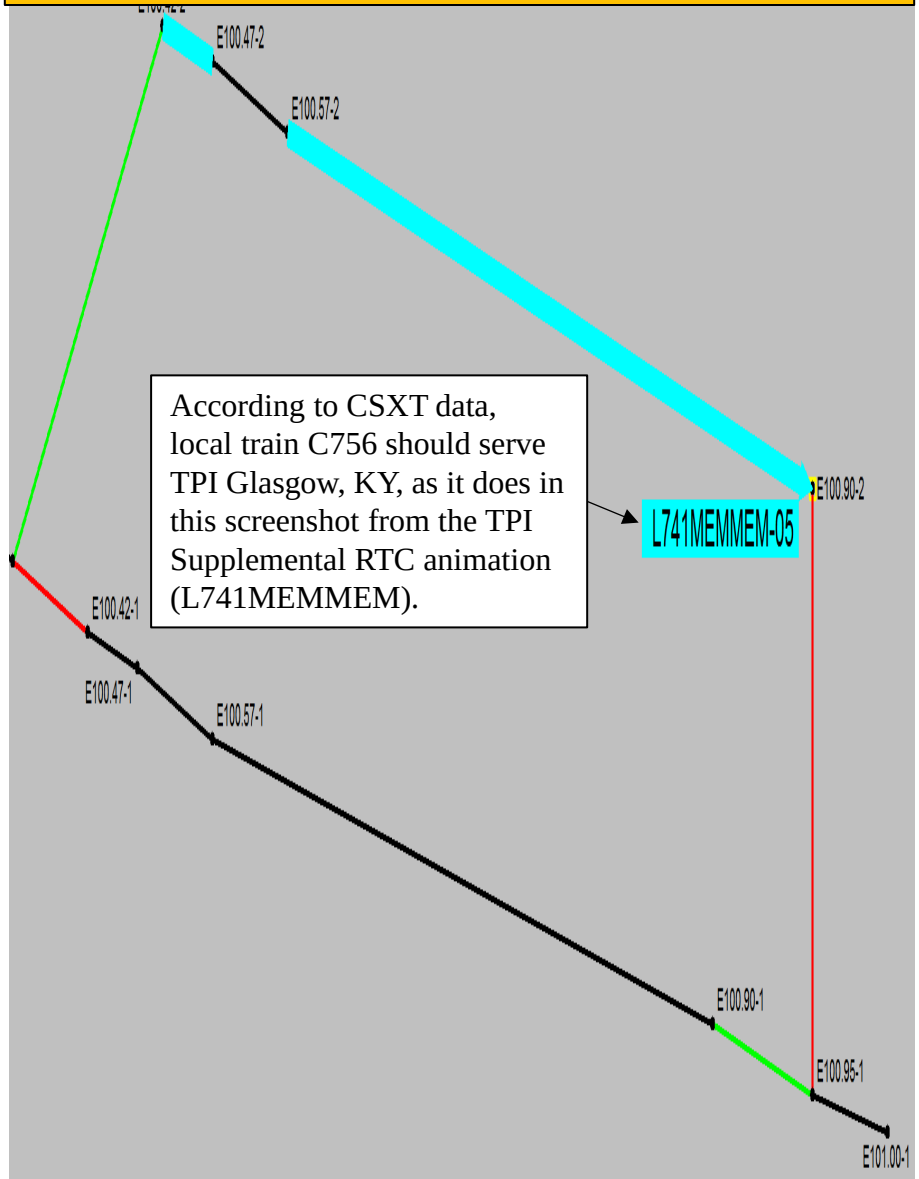


This screenshot (from the CSXT Supplemental with UPS RTC) shows that the Akron, OH siding remained unused throughout the duration of the simulation.

Screenshots of Issue Traffic Locations Not Served in CSXT's Supplemental Opening RTC Model (Glasgow, KY)

TPI Supplemental Scenario 2

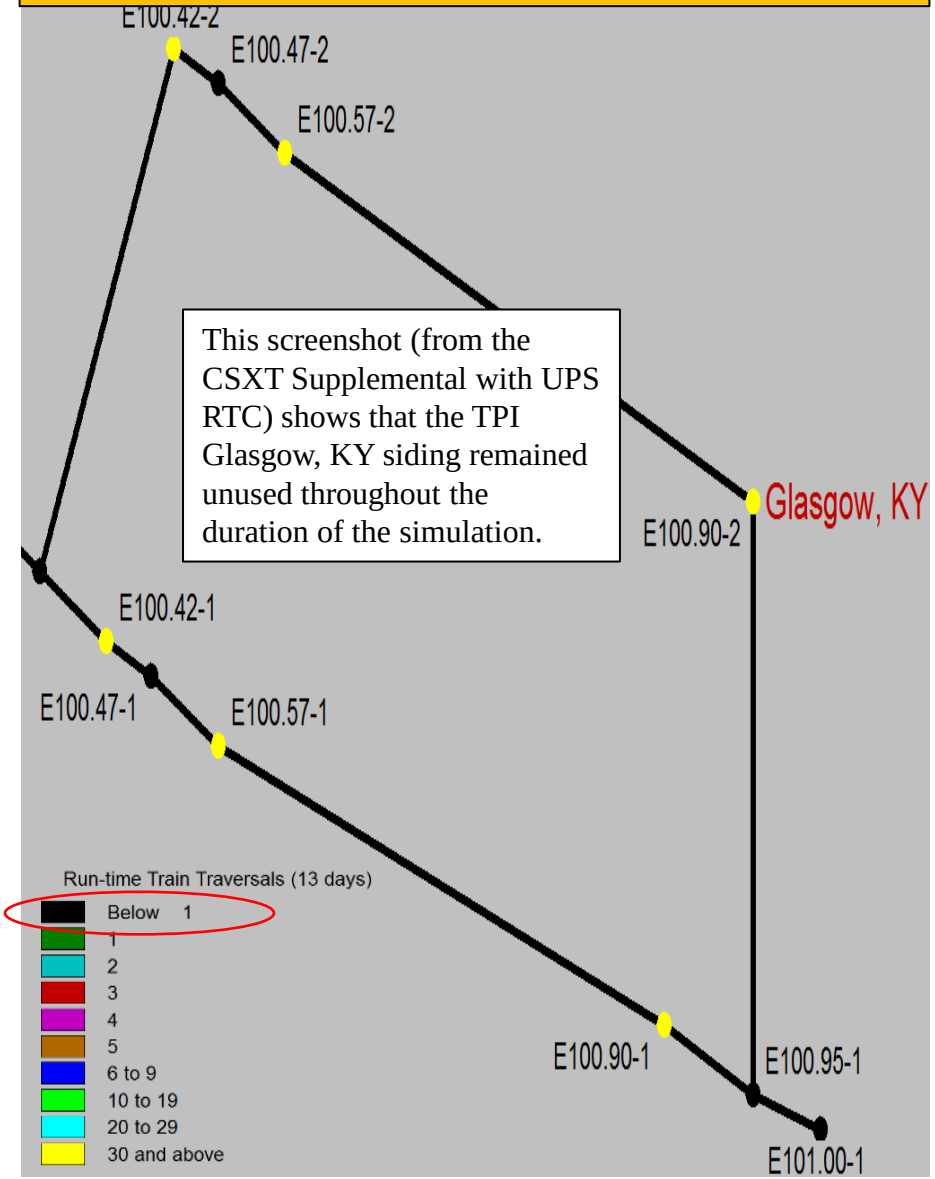
RTC Animation Screenshot



According to CSXT data, local train C756 should serve TPI Glasgow, KY, as it does in this screenshot from the TPI Supplemental RTC animation (L741MEMMEM).

CSXT Supplemental with UPS

RTC Run-Time Train Traversal Screenshot

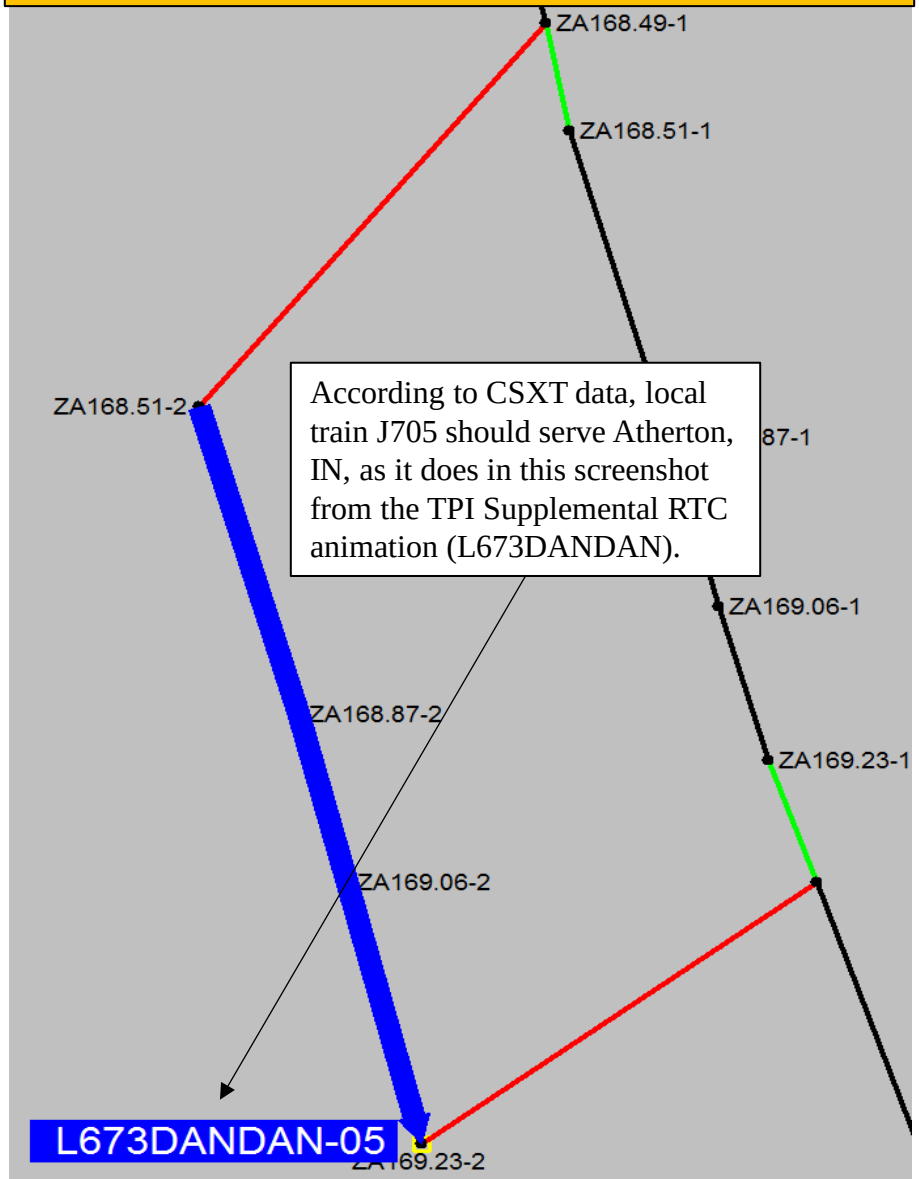


This screenshot (from the CSXT Supplemental with UPS RTC) shows that the TPI Glasgow, KY siding remained unused throughout the duration of the simulation.

Screenshots of Issue Traffic Locations Not Served in CSXT's Supplemental Opening RTC Model
(Atherton, IN)

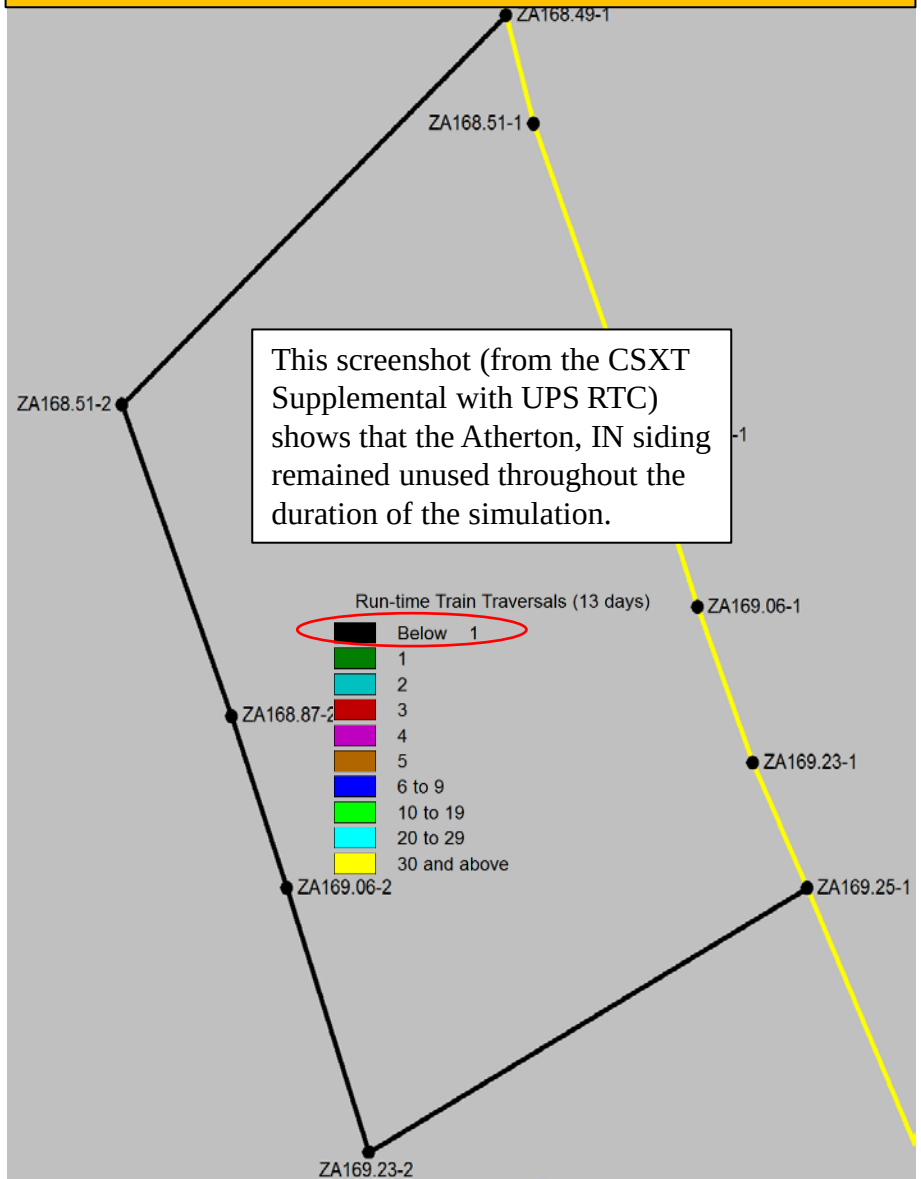
TPI Supplemental Scenario 2

RTC Animation Screenshot



CSXT Supplemental with UPS

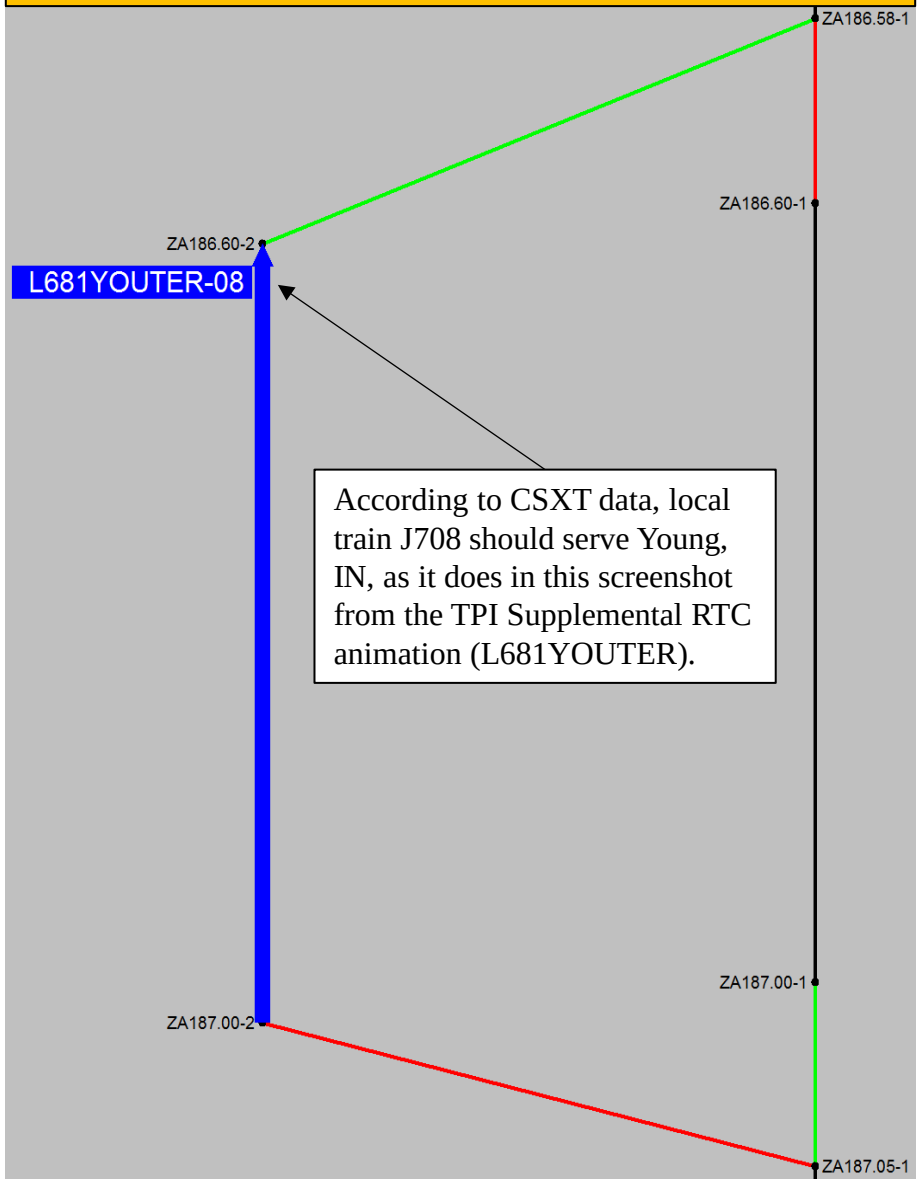
RTC Run-Time Train Traversal Screenshot



Screenshots of Issue Traffic Locations Not Served in CSXT's Supplemental Opening RTC Model (Young, IN)

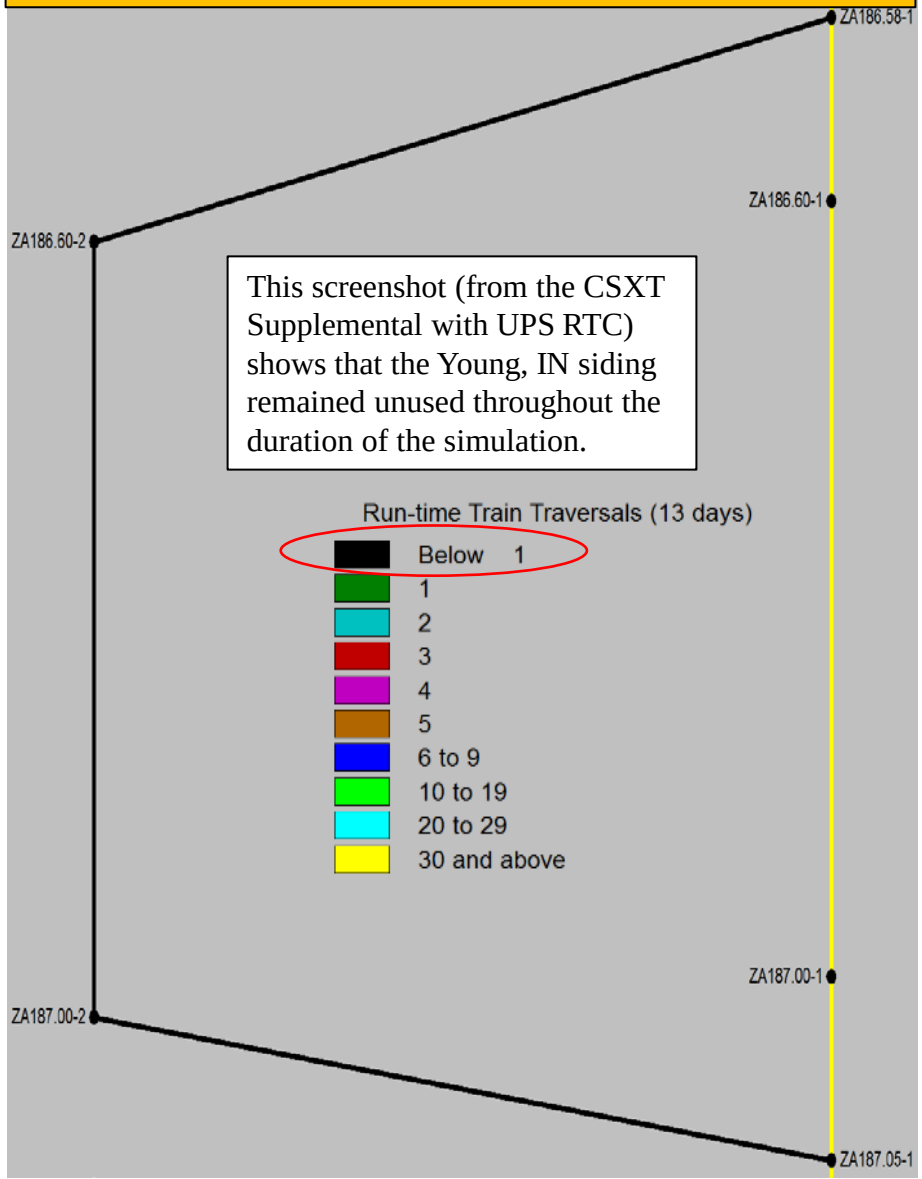
TPI Supplemental Scenario 2

RTC Animation Screenshot



CSXT Supplemental with UPS

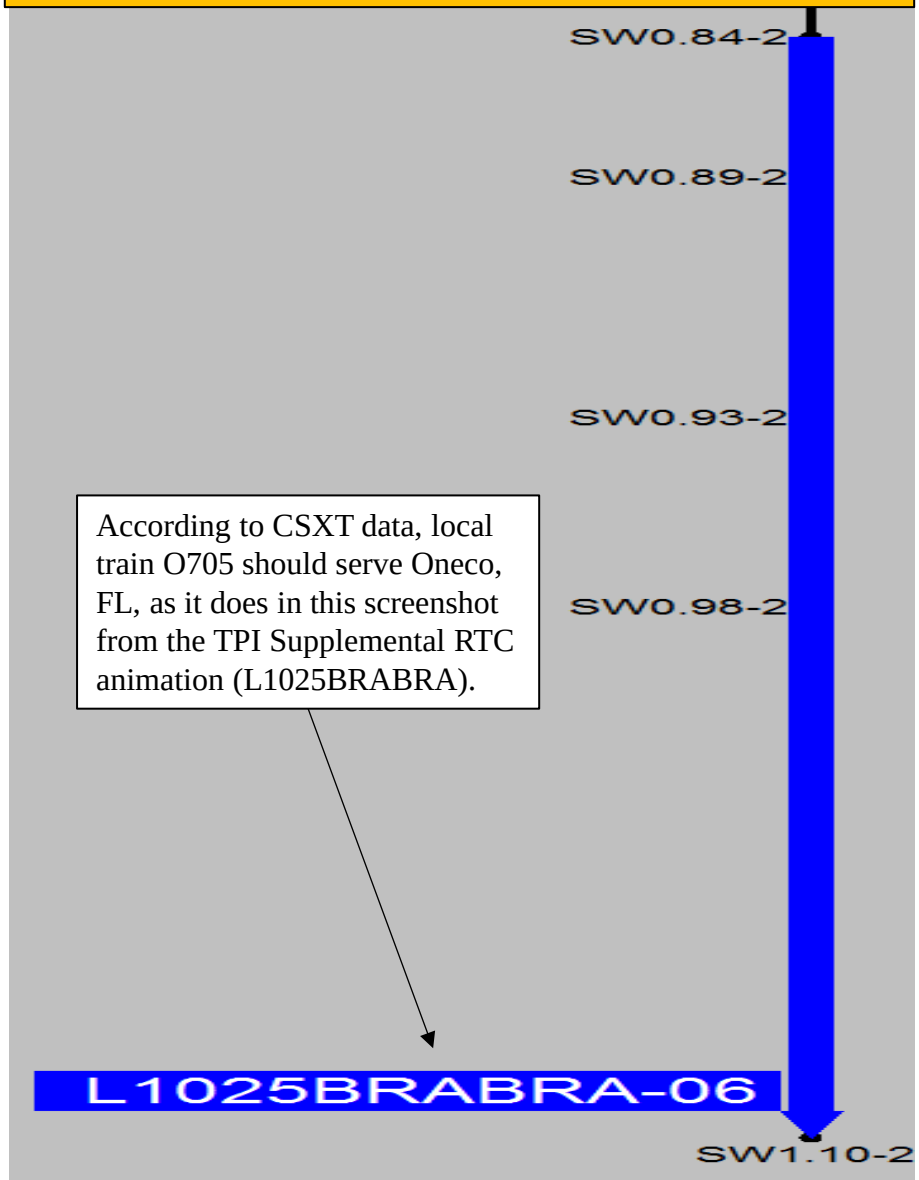
RTC Run-Time Train Traversal Screenshot



Screenshots of Issue Traffic Locations Not Served in CSXT's Supplemental Opening RTC Model
(Oneco, FL)

TPI Supplemental Scenario 2

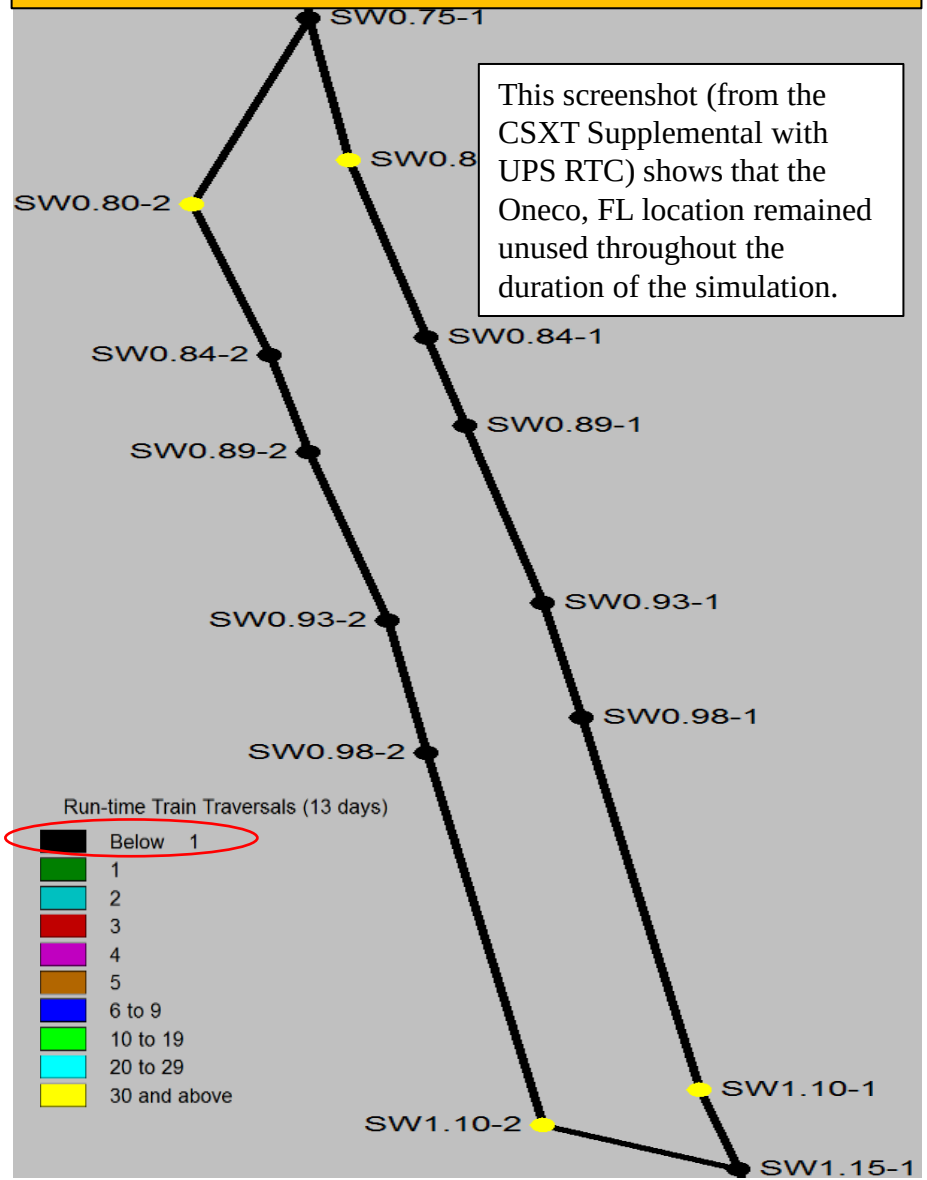
RTC Animation Screenshot



According to CSXT data, local train O705 should serve Oneco, FL, as it does in this screenshot from the TPI Supplemental RTC animation (L1025BRABRA).

CSXT Supplemental with UPS

RTC Run-Time Train Traversal Screenshot

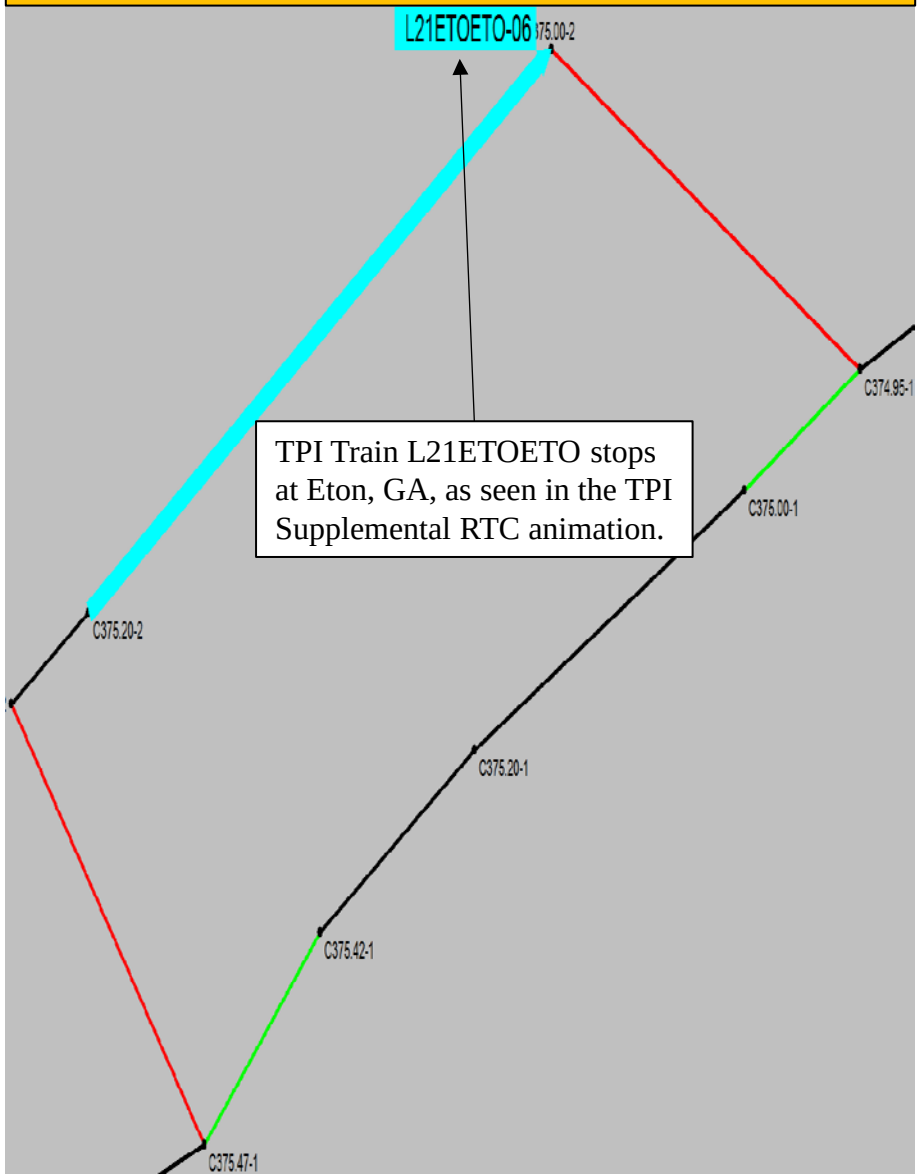


This screenshot (from the CSXT Supplemental with UPS RTC) shows that the Oneco, FL location remained unused throughout the duration of the simulation.

Screenshots of Issue Traffic Locations Not Served in CSXT's Supplemental Opening RTC Model
(Eton, GA)

TPI Supplemental Scenario 2

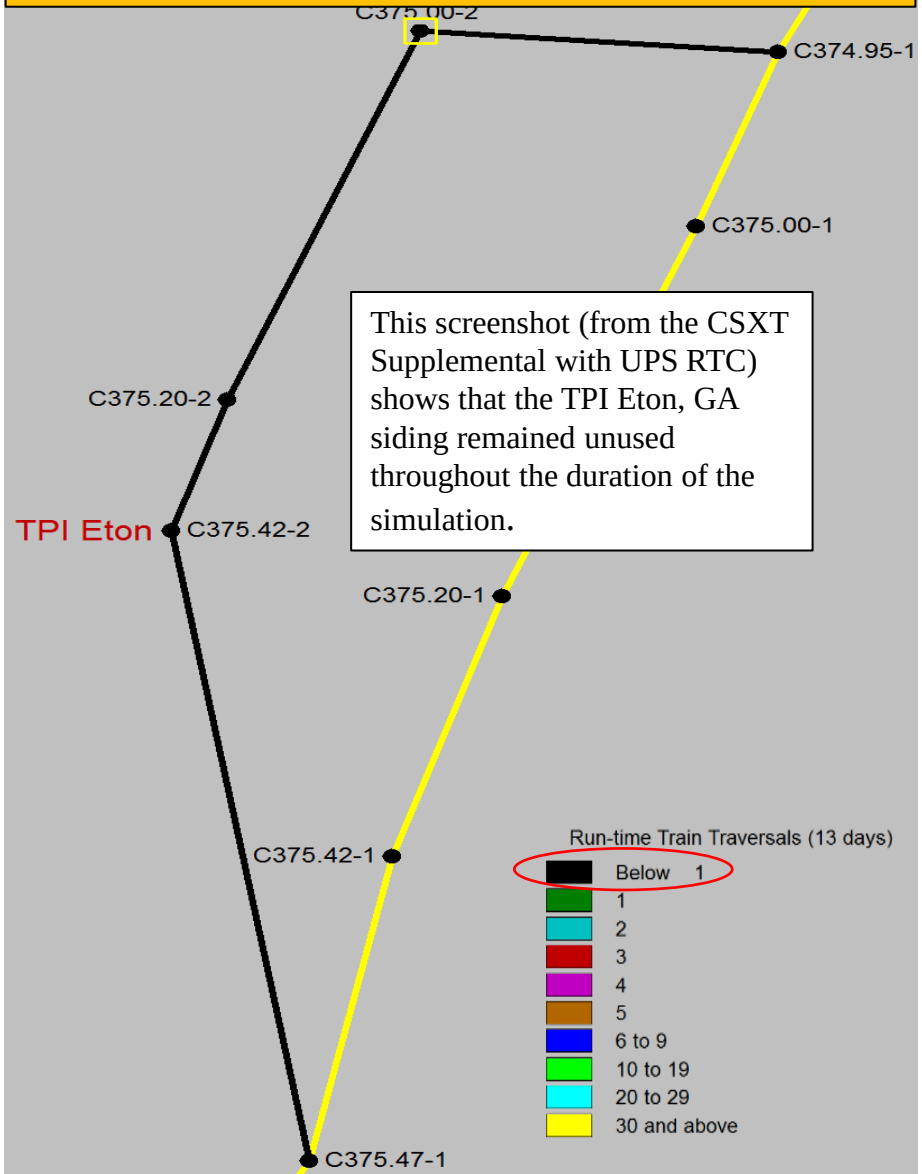
RTC Animation Screenshot



TPI Train L21ETOETO stops at Eton, GA, as seen in the TPI Supplemental RTC animation.

CSXT Supplemental with UPS

RTC Run-Time Train Traversal Screenshot

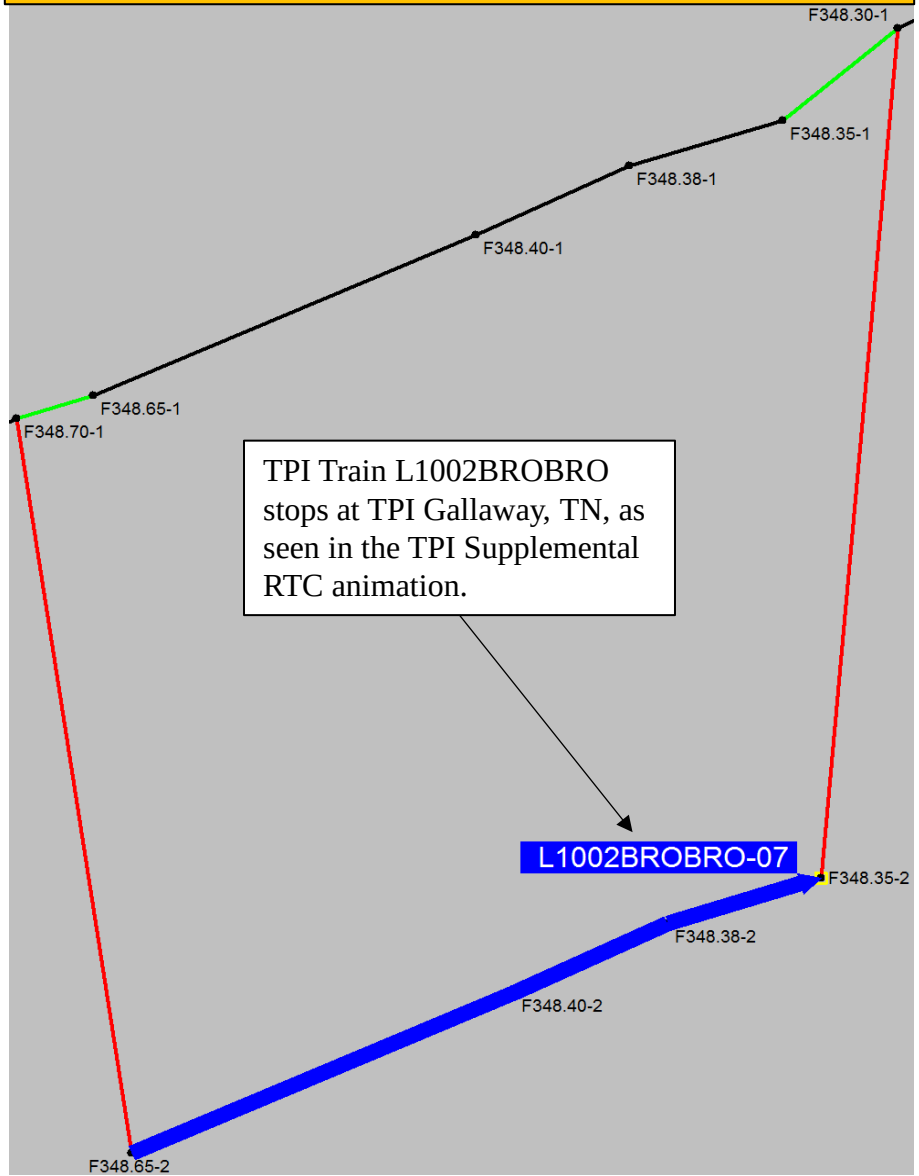


This screenshot (from the CSXT Supplemental with UPS RTC) shows that the TPI Eton, GA siding remained unused throughout the duration of the simulation.

Screenshots of Issue Traffic Locations Not Served in CSXT's Supplemental Opening RTC Model (Gallaway, TN)

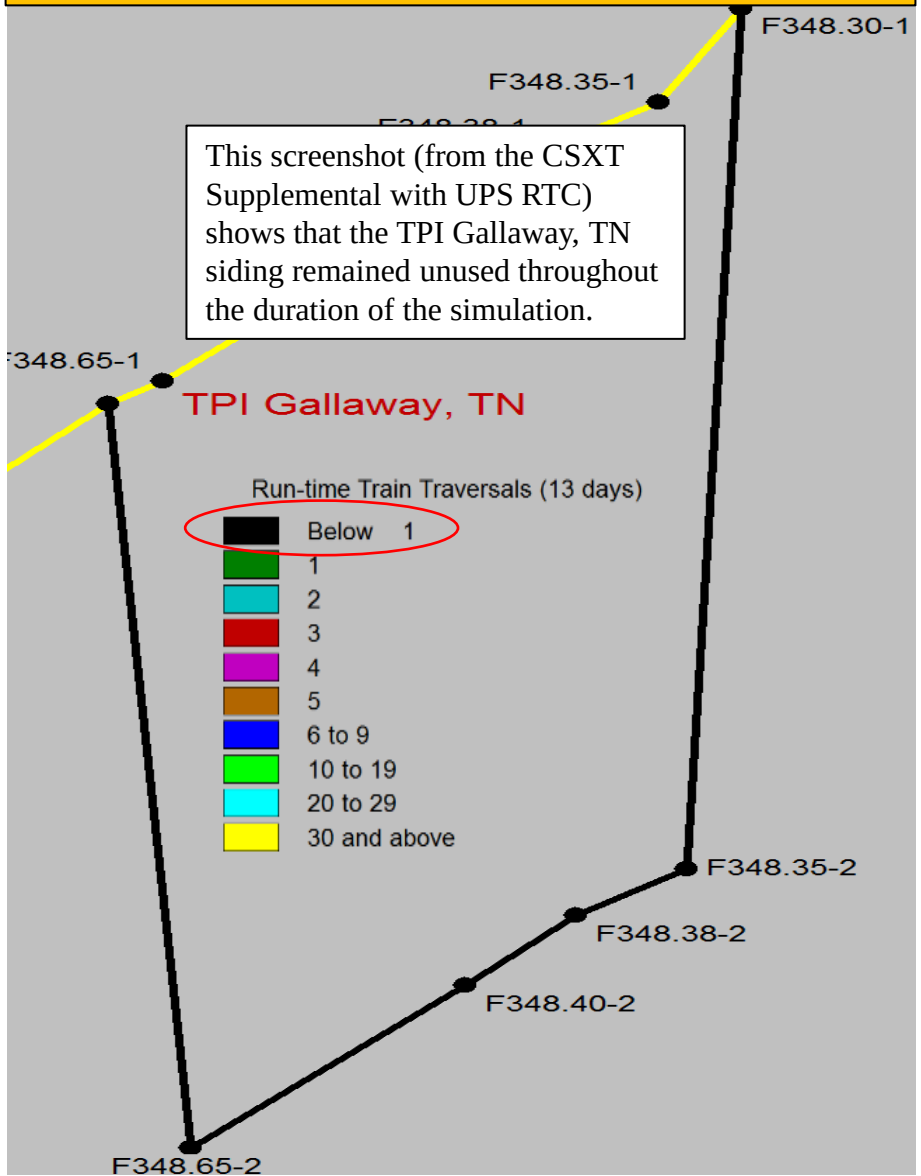
TPI Supplemental Scenario 2

RTC Animation Screenshot



CSXT Supplemental with UPS

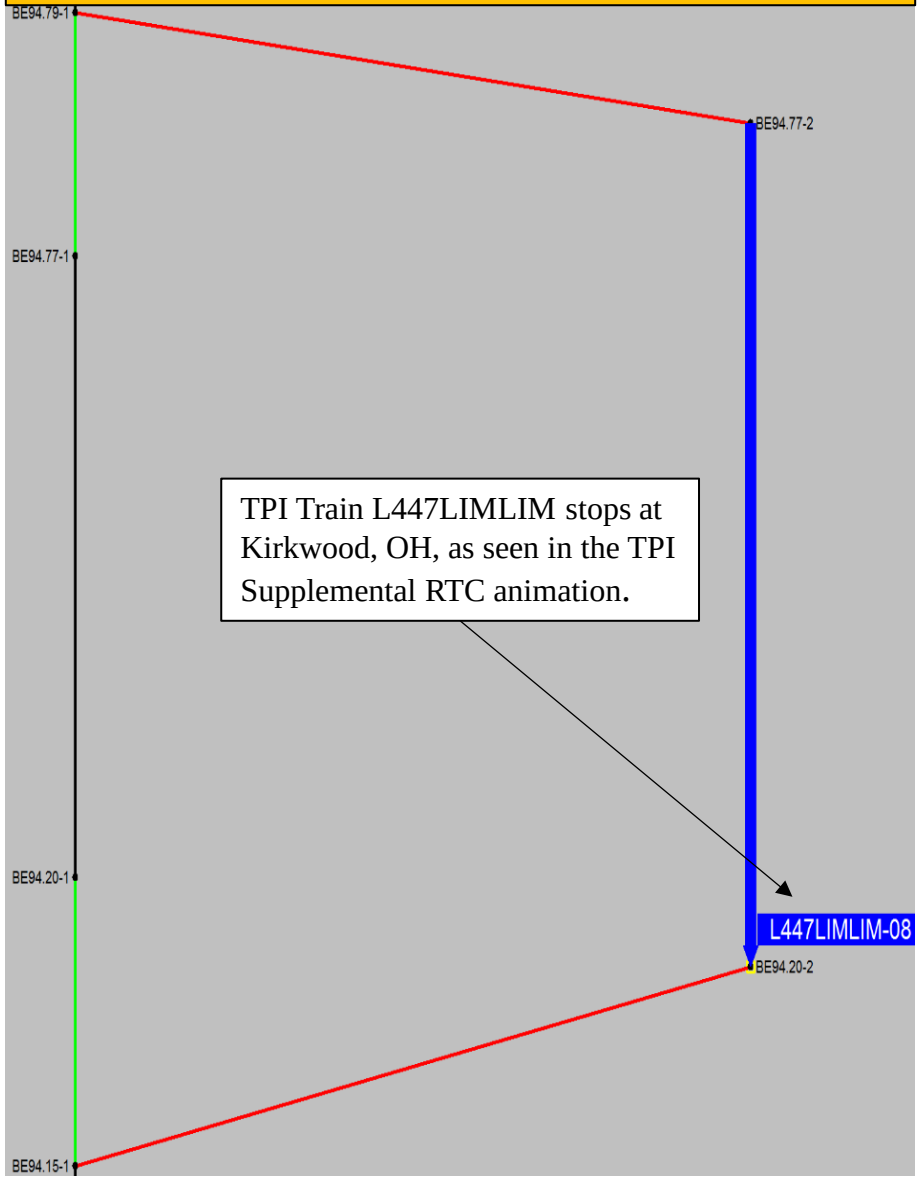
RTC Run-Time Train Traversal Screenshot



Screenshots of Issue Traffic Locations Not Served in CSXT's Supplemental Opening RTC Model (Kirkwood, OH)

TPI Supplemental Scenario 2

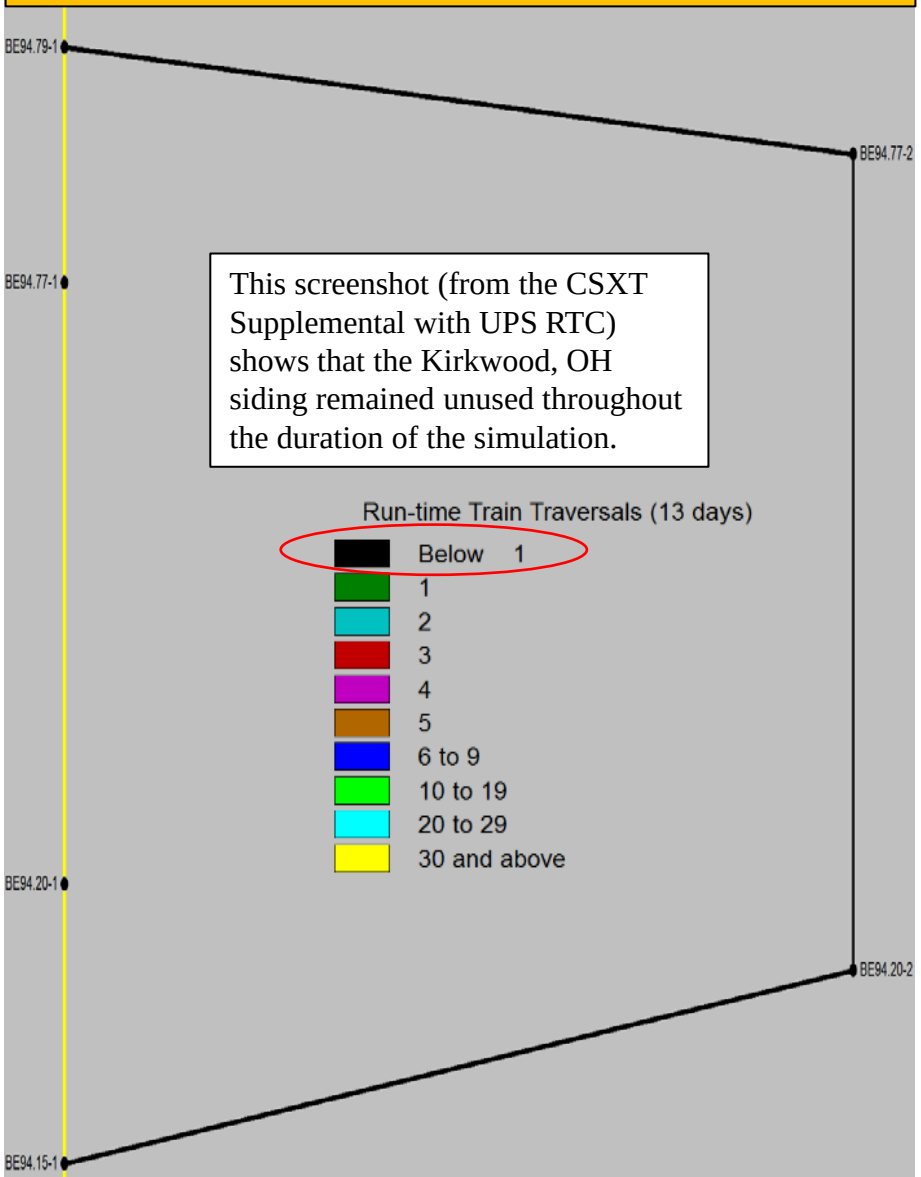
RTC Animation Screenshot



TPI Train L447LIMLIM stops at Kirkwood, OH, as seen in the TPI Supplemental RTC animation.

CSXT Supplemental with UPS

RTC Run-Time Train Traversal Screenshot



This screenshot (from the CSXT Supplemental with UPS RTC) shows that the Kirkwood, OH siding remained unused throughout the duration of the simulation.

Summary of CSXT's Supplemental Opening Underbuilt and Overbuilt Receiving and Departure Yard Track

				CSXT Supplemental Investment		CSXT Supplemental with UPS RTC Results			CSXT Investment vs CSXT RTC Difference	
	City	State	TPIRR Yard Name	Tracks	Miles	Tracks Modeled	Tracks Used	Miles Used	Tracks 1/	Miles 2/
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1.	Chicago	IL	Barr 3/	11	21.66	19	8	16.29	3	5.37
2.	Willard	OH	Willard 4/	14	28.66	22	20	39.76	(6)	(11.10)
3.	Selkirk	NY	Selkirk	14	33.4	12	11	26.50	3	6.90
4.	Cumberland	MD	Cumberland	11	22.1	7	7	14.50	4	7.60
5.	Indianapolis	IN	Avon	15	32	12	12	26.00	3	6.00
6.	Cincinnati	OH	Queensgate	15	33.75	11	11	25.55	4	8.20
7.	Louisville	KY	Osborn	13	31.15	8	8	19.90	5	11.25
8.	Nashville	TN	Radnor	15	35.6	10	10	26.30	5	9.30
9.	Birmingham	AL	Boyles	10	22.1	5	5	11.35	5	10.75
10.	Hamlet	NC	Hamlet	13	28.2	5	5	11.40	8	16.80
11.	Waycross	GA	Rice 5/	18	44.8	12	11	27.65	7	17.15
12.	Chicago	IL	59th Street	4	7.71	5	2	16.29	2	(8.58)
13.	Garrett	IN	Garrett	2	4.34	5	4	10.30	(2)	(5.96)
14.	Cleveland	OH	Collinwood	8	18.78	4	4	9.70	4	9.08
15.	Buffalo	NY	Frontier	11	22.76	13	10	26.30	1	(3.54)
16.	Syracuse	NY	DeWitt	6	12.6	4	3	6.42	3	6.18
17.	Connellsville	PA	Connellsville	7	13.51	7	5	9.48	2	4.03
18.	South Anderson	IN	South Anderson	2	2.6	3	1	3.80	1	(1.20)
19.	Marion	OH	Marion	1	1.2	2	2	3.28	(1)	(2.08)
20.	Crestline / Gallion	OH	Crestline / Gallion	6	13.14	6	5	11.00	1	2.14
21.	Danville	IL	Brewer	3	3.77	3	1	1.29	2	2.48

Source: TPI Supplemental Reply WP "CSXT Yard Size Analysis.xlsx"
1/ Column (4) - Column (7)
2/ Column (5) - Column (8)
3/ See Page 3 for Illustration
4/ See Page 4 for Illustration
5/ See Page 5 for Illustration

Summary of CSXT's Supplemental Opening Underbuilt and Overbuilt Receiving and Departure Yard Track

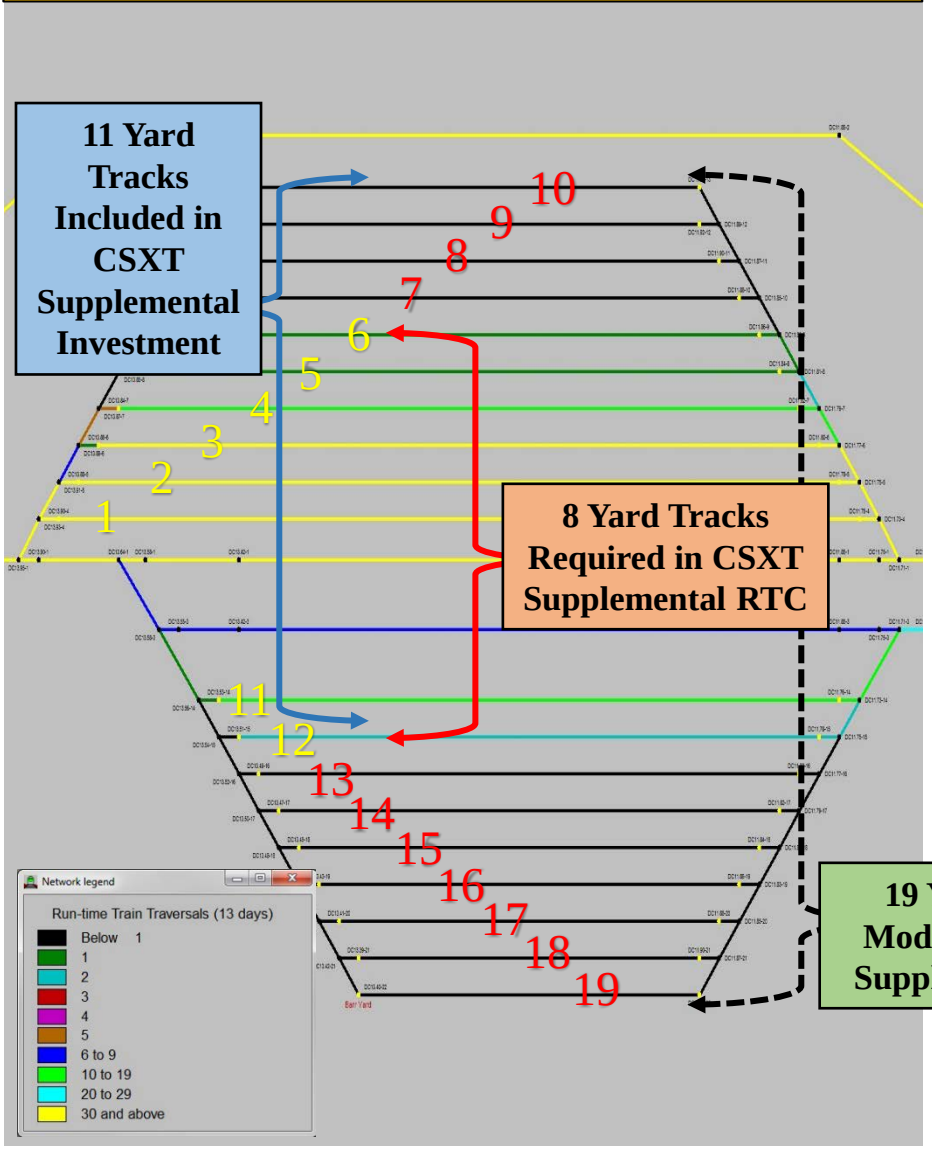
			CSXT Supplemental Investment		CSXT Supplemental with UPS RTC Results			CSXT Investment vs CSXT RTC Difference	
City	State	TPIRR Yard Name	Tracks	Miles	Tracks Modeled	Tracks Used	Miles Used	Tracks 1/	Miles 2/
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
22. Evansville	IN	Howell 3/	3	6.21	6	6	11.64	(3)	(5.43)
23. Atkinson	KY	Atkinson	9	18.66	9	8	16.76	1	1.90
24. Nashville	TN	Kayne Ave.	4	4.77	3	3	3.65	1	1.12
25. Baltimore	MD	Bay View	3	5.29	3	1	1.16	2	4.13
26. Benning	DC	Benning	5	10	5	3	6.30	2	3.70
27. Richmond	VA	Acca	5	11.87	7	6	14.02	(1)	(2.15)
28. Rocky Mount	NC	Rocky Mount	6	12.59	4	4	8.49	2	4.10
29. Pembroke	NC	Pembroke	3	5.94	3	2	3.98	1	1.96
30. Memphis	TN	Leewood	5	4.94	10	2	9.40	3	(4.46)
31. Memphis	TN	Sargent	2	1.5	2	1	0.75	1	0.75
32. Mobile	AL	Siebert	7	10.54	6	6	9.20	1	1.34
33. New Orleans	LA	Gentilly	6	10.72	8	5	9.10	1	1.62
34. Greenwood	SC	Maxwell	7	16.6	10	5	23.00	2	(6.40)
35. Monroe	NC	Monroe	2	4.46	3	3	6.61	(1)	(2.15)
36. Fitzgerald	GA	Fitzgerald	4	8.3	4	3	6.32	1	1.98
37. Baldwin	FL	Baldwin	4	9.4	4	3	7.10	1	2.30
38. Tampa	FL	Yoeman	5	9.48	5	4	7.81	1	1.67
39. Lockport	NY	Lockport	3	4.1	3	1	1.41	2	2.69
40. Grafton	WV	Grafton	2	4.25	3	3	6.30	(1)	(2.05)
41. Augusta	GA	Augusta	4	7.4	5	3	9.00	1	(1.60)
42. W. Black Lane	IL	W. Black Lane Interchange	2	3.9	2	1	4.00	1	(0.10)
43. New River Junction	OH	New River Junction Interchange	3	5.09	3	1	5.28	2	(0.19)
44. Weldon Connection	NC	Weldon Connection Interchange	2	3.8	2	1	1.90	1	1.90
45. **Total**			**299**	**620.24**	**288**	**222**	**519.54**	**77**	**100.70**

Source: TPI Supplemental Reply WP "CSXT Yard Size Analysis.xlsx"
1/ Column (4) - Column (7)
2/ Column (5) - Column (8)
3/ See Page 6 for Illustration

Summary of CSXT's Supplemental Opening Underbuilt and Overbuilt Receiving and Departure Yard Track

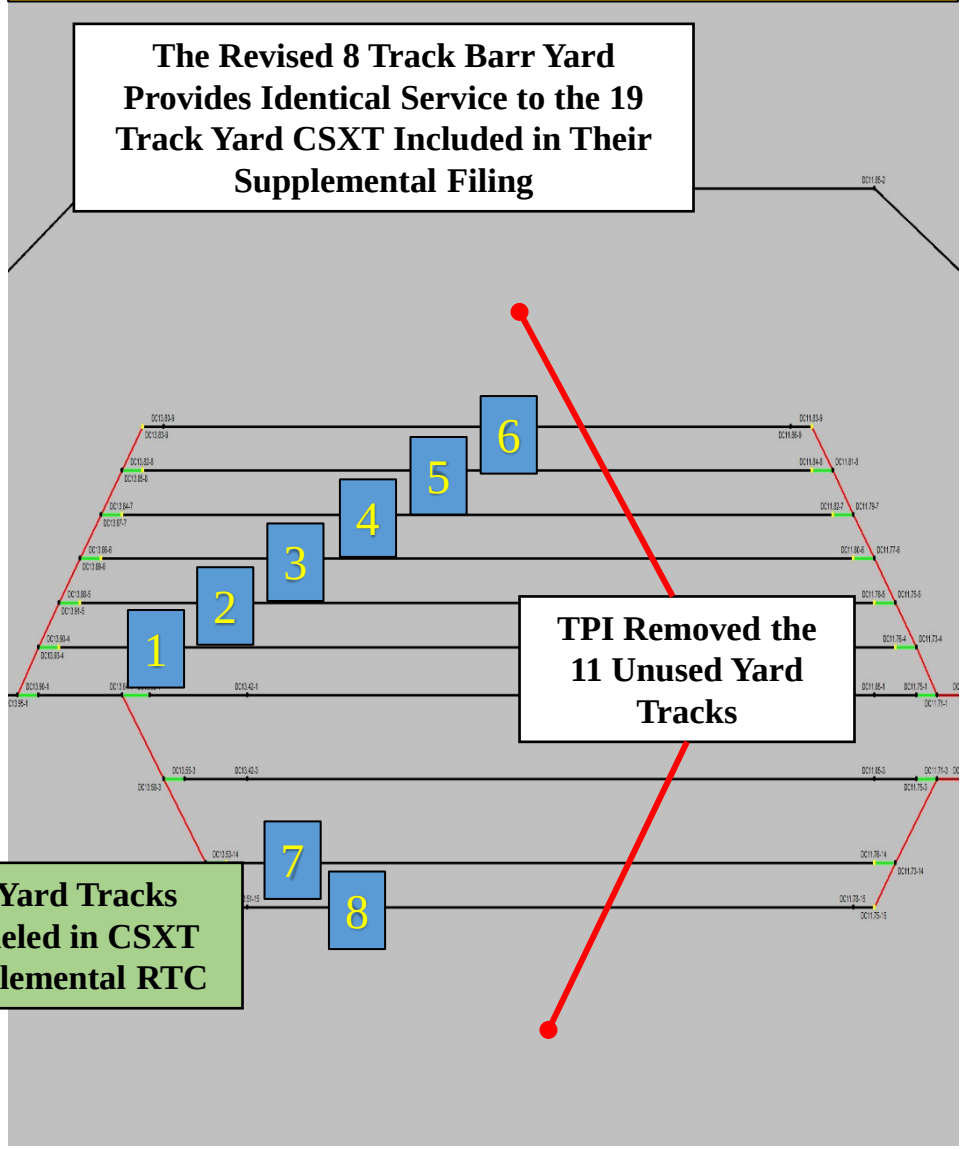
Excessive Investment at Barr Yard, Chicago, IL

CSXT Supplemental with UPS



Source: CSXT RTC Case "CSXT Supplemental with UPS"
Display Mode: Run Time Train Traversals

CSXT Supplemental with UPS Reduced Network

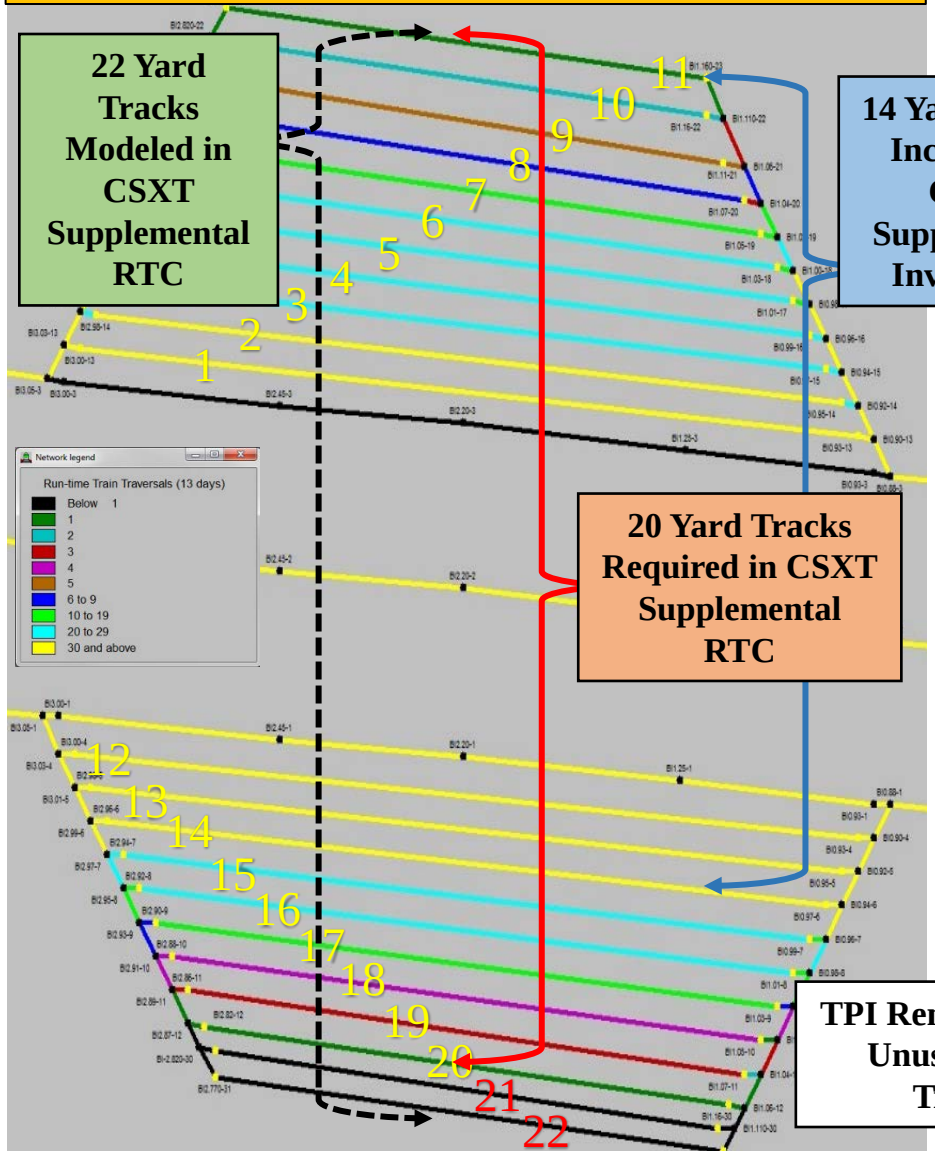


Source: TPI RTC Case "CSXT Supplemental Reduced"
Display Mode: Animation

Summary of CSXT's Supplemental Opening Underbuilt and Overbuilt Receiving and Departure Yard Track

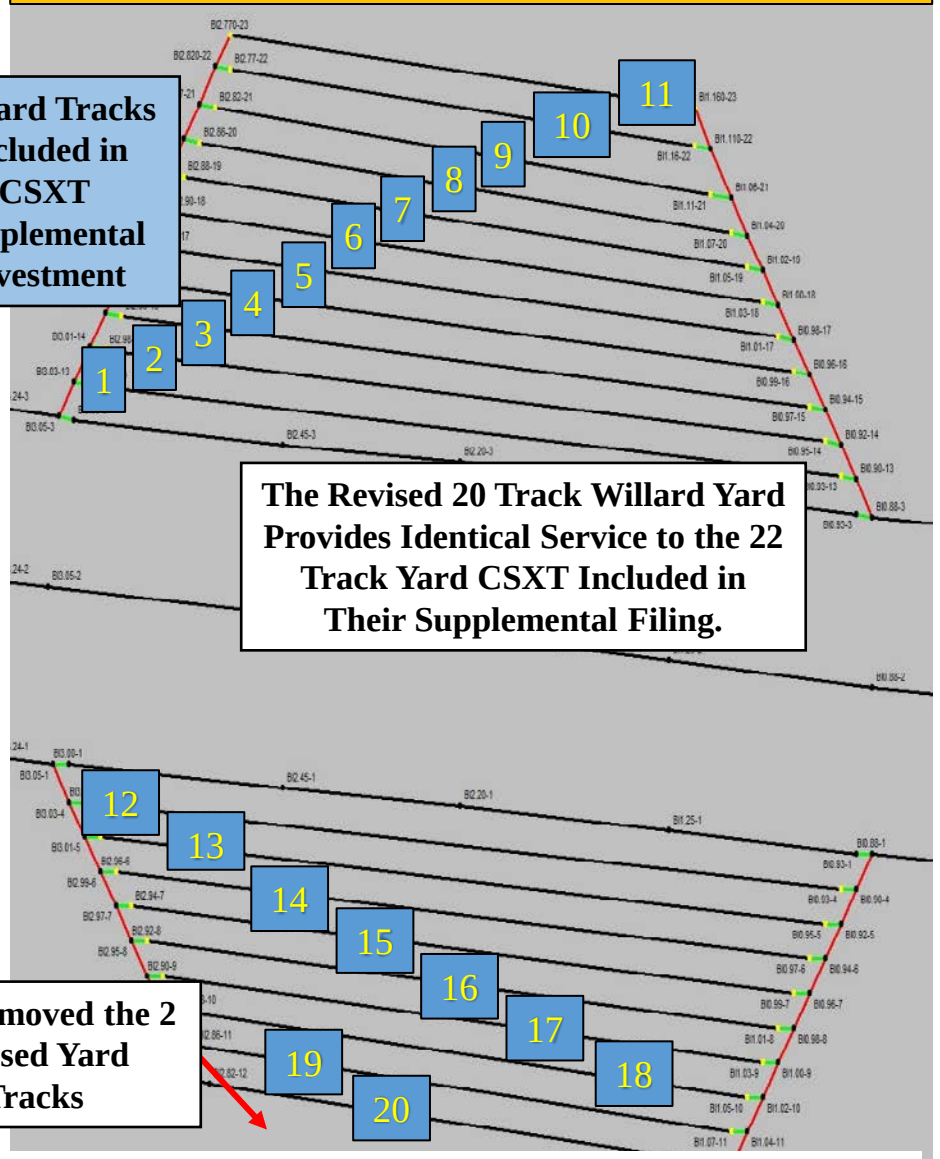
Insufficient Investment at Willard Yard, Willard, OH

CSXT Supplemental with UPS



Source: CSXT RTC Case "CSXT Supplemental with UPS"
Display Mode: Run Time Train Traversals

CSXT Supplemental with UPS Reduced Network

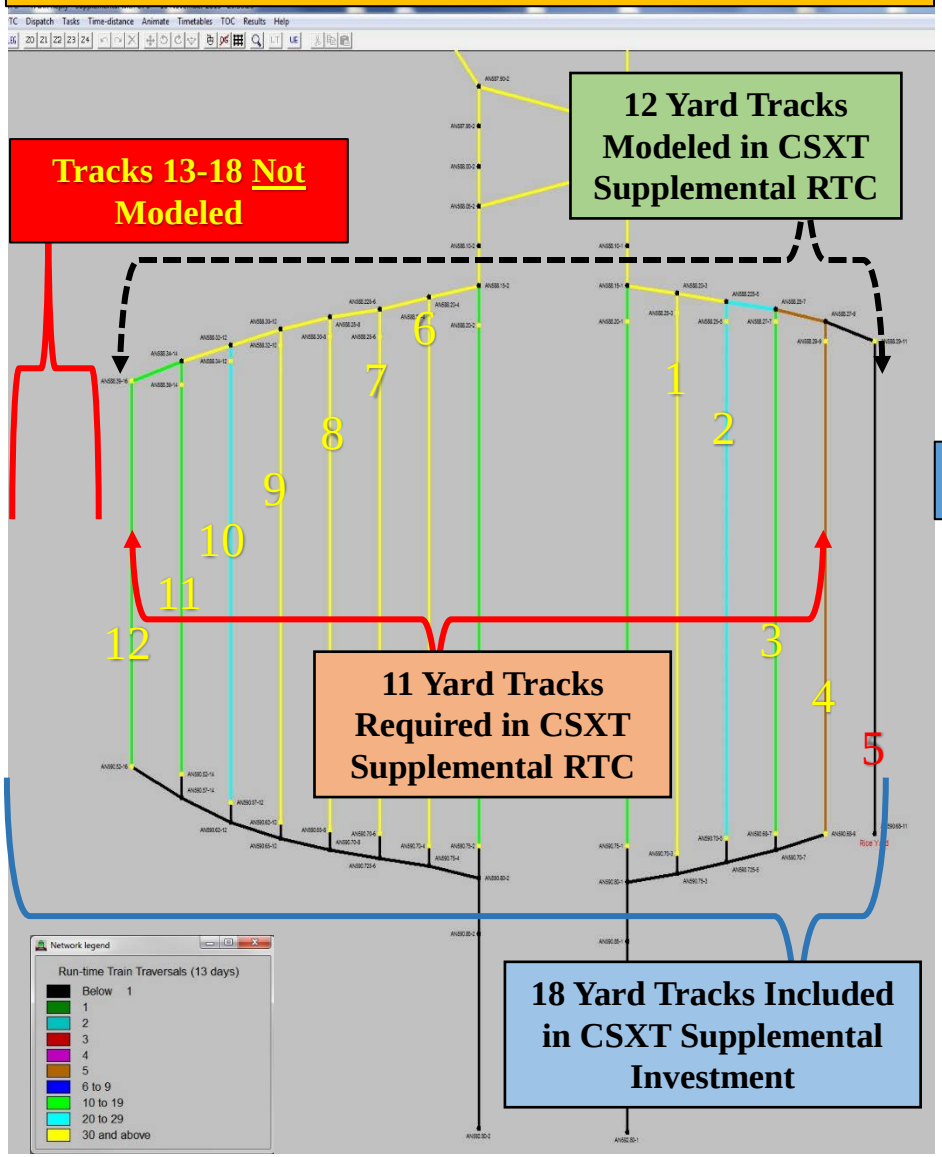


Source: TPI RTC Case "CSXT Supplemental Reduced"
Display Mode: Animation

Summary of CSXT's Supplemental Opening Underbuilt and Overbuilt Receiving and Departure Yard Track

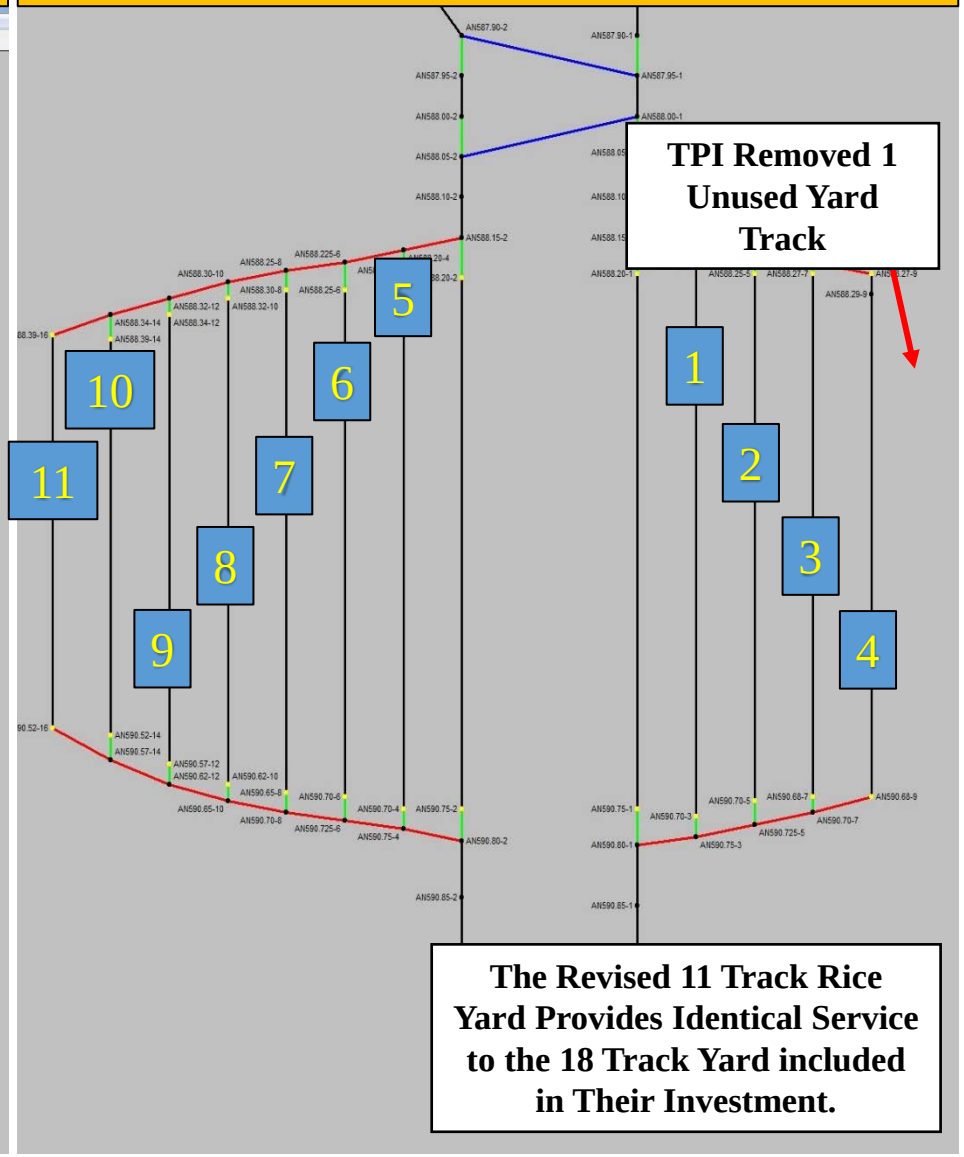
Excessive Investment at Rice Yard, Waycross, GA

CSXT Supplemental with UPS



Source: CSXT RTC Case "CSXT Supplemental with UPS"
Display Mode: Run Time Train Traversals

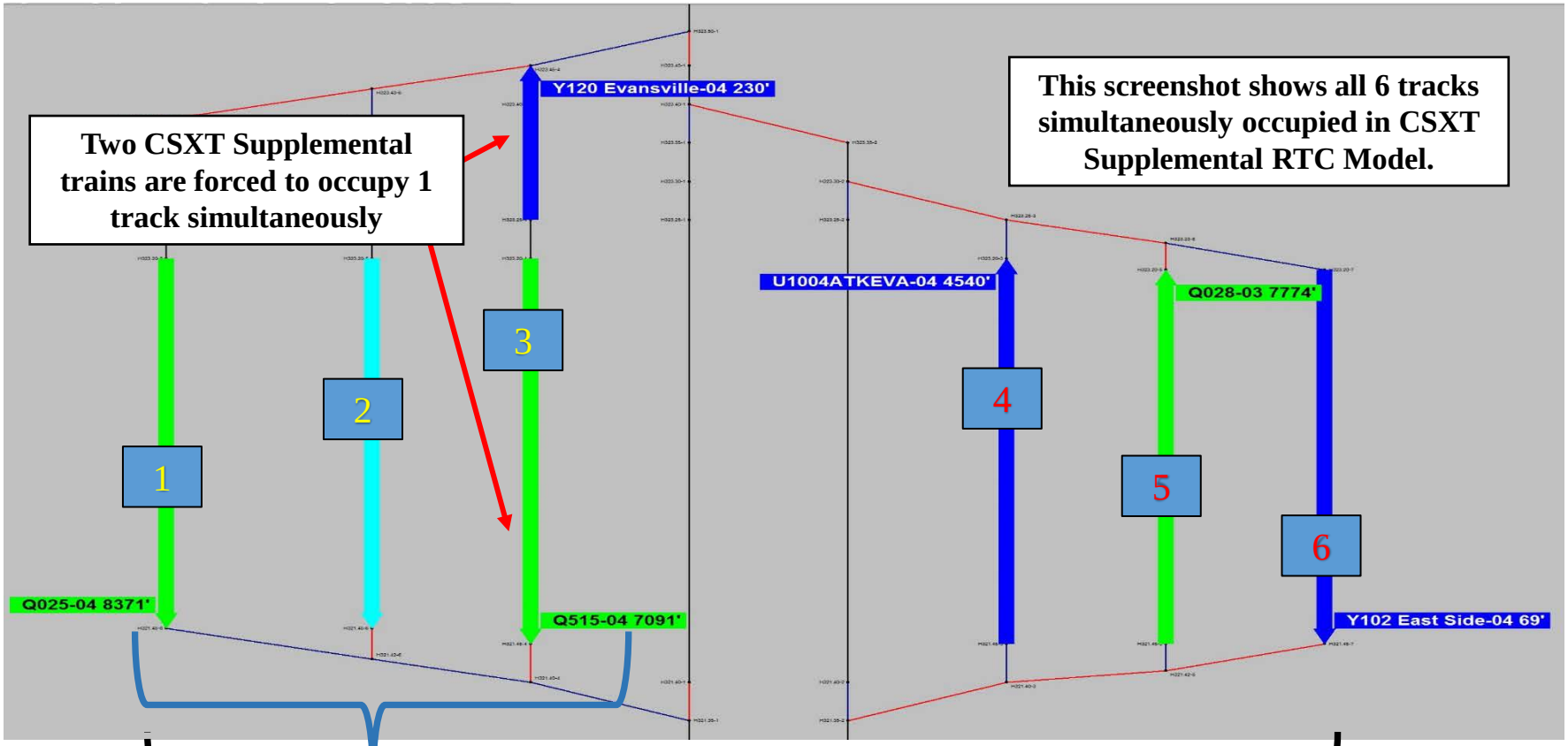
CSXT Supplemental with UPS Reduced Network



Source: TPI RTC Case "CSXT Supplemental Reduced"
Display Mode: Animation

Summary of CSXT's Supplemental Opening Underbuilt and Overbuilt Receiving and Departure Yard Track

Insufficient Investment at Howell Yard, Evansville, IN



NOTE: Did not include a separate image with the Reduced Network as Howell Yard remained unchanged.
Source: CSXT RTC Case "CSXT Supplemental with UPS"
Display Mode: Animation

VERIFICATIONS

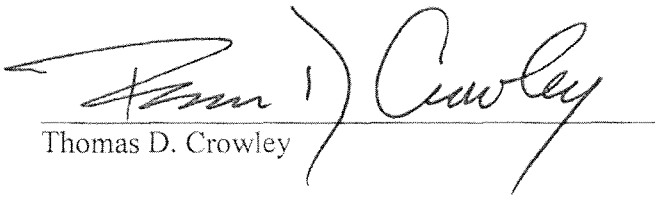
To

SUPPLEMENTAL REPLY EVIDENCE OF

TOTAL PETROCHEMICALS & REFINING USA, INC.

Docket No. NOR 42121

I, Thomas D. Crowley, verify under penalty of perjury that I am the same Thomas D. Crowley whose Statement of Qualifications appears in Part IV of the Narrative portion of TPI's Opening Evidence in this proceeding; that I am co-sponsoring the portions of TPI's Supplemental Reply evidence that relate to the TPIRR train lists, the discounted cash flow model; the calculation of SAC results; and TPI's cross-subsidy calculations; that I know the contents thereof, and that the same are true and correct. Further, I certify that I am qualified and authorized to file this statement.



Thomas D. Crowley

Executed on November 18, 2015

I, Michael E. Lillis, verify under penalty of perjury that I am the same Michael E. Lillis whose Statement of Qualifications appears in Part IV of the Narrative portion of TPI's Opening Evidence in this proceeding; that I am sponsoring the portion of TPI's Supplemental Reply evidence that relates to the identification of certain TPIRR intermodal traffic; that I know the contents thereof, and that the same are true and correct. Further, I certify that I am qualified and authorized to file this statement.

Michael E. Lillis

Executed on November 18, 2015

I, Daniel L. Fapp, verify under penalty of perjury that I am the same Daniel L. Fapp whose Statement of Qualifications appears in Part IV of the Narrative portion of TPI's Opening Evidence in this proceeding; that I am co-sponsoring the portions of TPI's Supplemental Reply evidence that relates to the RTC modeling; the development of the discounted cash flow model; TPI's cross-subsidy calculations and the calculation of SAC results; that I know the contents thereof, and that the same are true and correct. Further, I certify that I am qualified and authorized to file this statement.

Daniel L. Fapp

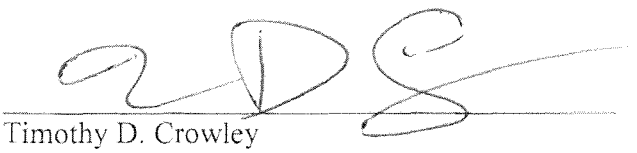
Executed on November 18, 2015

I, Robert D. Mulholland, verify under penalty of perjury that I am the same Robert D. Mulholland whose Statement of Qualifications appears in Part IV of the Narrative portion of TPI's Opening Evidence in this proceeding; that I am co-sponsoring the portions of TPI's Supplemental Reply evidence that relate to the TPIRR train lists; that I know the contents thereof, and that the same are true and correct. Further, I certify that I am qualified and authorized to file this statement.

Robert D. Mulholland

Executed on November 18, 2015

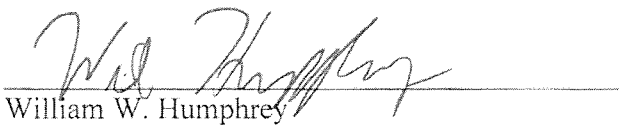
I, Timothy D. Crowley, verify under penalty of perjury that I am the same Timothy D. Crowley whose Statement of Qualifications appears in Part IV of the Narrative portion of TPI's Opening Evidence in this proceeding; that I am sponsoring the portions of TPI's Supplemental Reply evidence that relate to the development of the peak train lists and road property investment evidence; that I know the contents thereof, and that the same are true and correct. Further, I certify that I am qualified and authorized to file this statement.



Timothy D. Crowley

Executed on November 18, 2015

I, William W. Humphrey, verify under penalty of perjury that I am the same William W. Humphrey whose Statement of Qualifications appears in Part IV of the Narrative portion of TPI's Opening Evidence in this proceeding; that I am co-sponsoring the portions of TPI's Supplemental Reply evidence that relate to the Rail Traffic Controller Model; that I know the contents thereof, and that the same are true and correct. Further, I certify that I am qualified and authorized to file this statement.



William W. Humphrey

Executed on November 18, 2015

I, Brian A. Despard, verify under penalty of perjury that I am the same Brian A. Despard whose Statement of Qualifications appears in Part IV of the Narrative portion of TPI's Opening Evidence in this proceeding; that I am sponsoring the portions of TPI's Supplemental Reply evidence that relate to the review of CSXT's Opening Supplemental development of operating statistics, crew requirements, locomotive and freight car requirements, equipment lease/maintenance costs, operating units cost, loss and damage expenses, insurance costs, ad valorem taxes application of unit costs to operating statistics; that I know the contents thereof, and that the same are true and correct. Further, I certify that I am qualified and authorized to file this statement.

Brian A. Despard

Executed on November 18, 2015