

SURFACE TRANSPORTATION BOARD

UPDATED DECISION* – PUBLIC VERSION

Docket No. NOR 42142

CONSUMERS ENERGY COMPANY

v.

CSX TRANSPORTATION, INC.

Digest:¹ The Board finds that the complaining shipper does not have a feasible shipping alternative to the defendant railroad for the transportation at issue, and that the rate challenged by the complaining shipper has been demonstrated to be unreasonably high under the stand-alone cost constraint. Therefore, the Board prescribes maximum reasonable rates for future at-issue shipments and orders the defendant railroad to pay reparations for past, excessive charges. The Board also finds that the complaining shipper has not shown that the defendant railroad is revenue adequate under the revenue adequacy constraint.

Decided: January 11, 2018

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* This updated decision reflects the notice issued March 14, 2018, which added a public version of the Market Dominance appendix (Appendix E). The January 11, 2018 decision previously available on the Board's website remains unchanged in all other respects.

¹ The digest constitutes no part of the decision of the Board but has been prepared for the convenience of the reader. It may not be cited to or relied upon as precedent. Policy Statement on Plain Language Digests in Decisions, EP 696 (STB served Sept. 2, 2010).

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ACRONYMS

AAR	Association of American Railroads
AREMA	American Railway Engineering and Maintenance-of-Way Association
ATC	Average Total Cost
B&B	Bridge and Building
BRC	Belt Railway Company
BNSF	BNSF Railway Company
CAGR	Compound Annual Growth Rate
C&S	Communications & Signals
CERR	Consumers Energy Railroad
CMP	Constrained Market Pricing
COC	Cost of Capital
CTC	Centralized Traffic Control
DCF	Discounted Cash Flow
EIA	Energy Information Administration
FRA	Federal Railroad Administration
G&A	General and Administrative
IHB	Indiana Harbor Belt Railway
ICC	Interstate Commerce Commission
MMM	Maximum Markup Methodology
MOW	Maintenance-of-Way
NSR	Norfolk Southern Railway Company
PTC	Positive Train Control
R-1	Annual Report Form R-1
RCAF	Rail Cost Adjustment Factor
ROI	Return on Investment
ROW	Right-of-Way
RPI	Road Property Investment
RTC	Rail Traffic Controller
R/VC	Revenue-to-Variable Cost
SAC	Stand-Alone Cost
SARR	Stand-Alone Railroad
STCC	Standard Transportation Commodity Code
T&E	Train and Engine
URCS	Uniform Railroad Costing System
UP	Union Pacific Railroad Company
WP	Workpaper

OVERVIEW

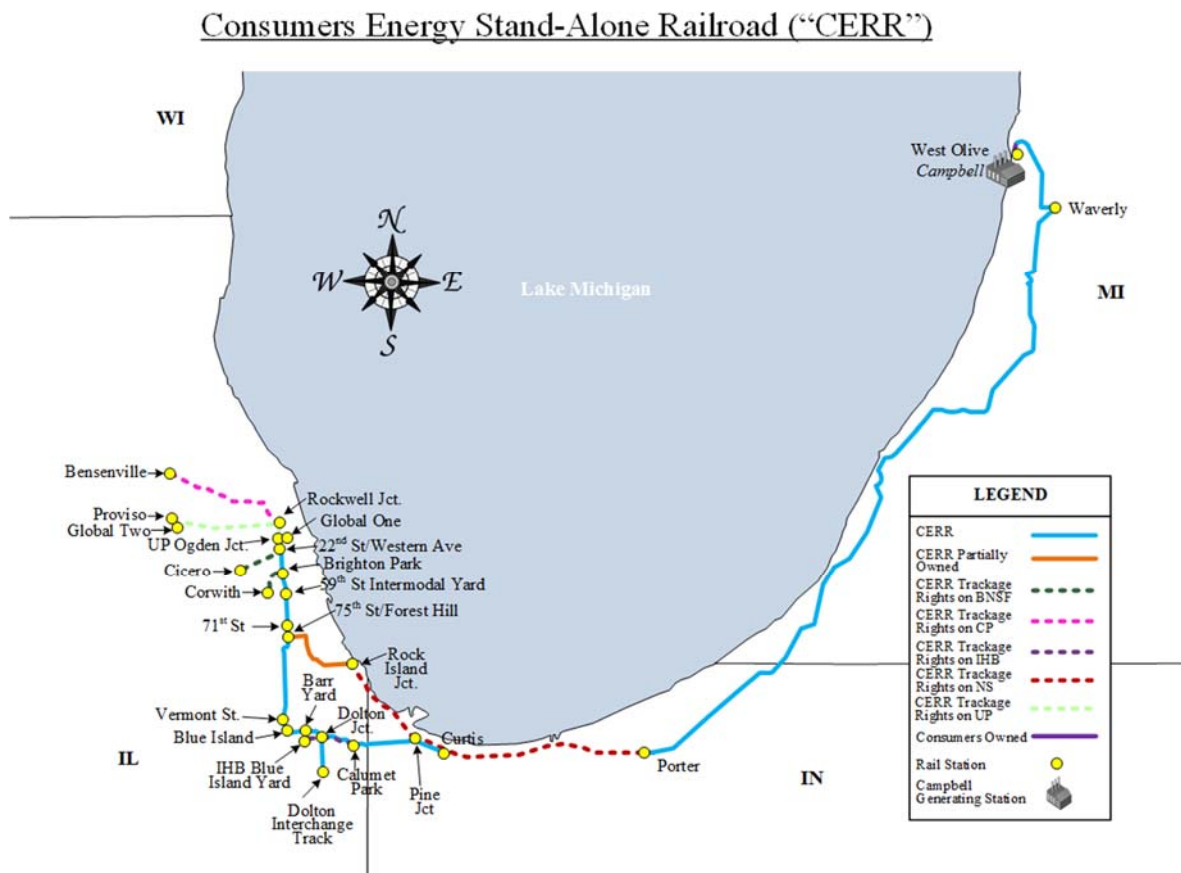
On January 13, 2015, Consumers Energy Company (Consumers) filed a complaint pursuant to 49 U.S.C. § 11701 challenging the reasonableness of the rate being charged by CSX Transportation, Inc. (CSXT)² to ship coal in unit train service, using Consumers-supplied rail cars, from an interchange with BNSF near Chicago, Ill., to Consumers' generating station near West Olive, Mich.³ Consumers requests that the Surface Transportation Board (Board or STB) prescribe reasonable rates and order reparations for past overcharges.

Consumers seeks relief under both the agency's revenue adequacy constraint and the agency's SAC test. Under the revenue adequacy constraint, the Board first determines whether the carrier has achieved long-term revenue adequacy, and if so, whether the complainant is unreasonably paying more than is necessary for the carrier to achieve and maintain revenue adequacy. Under the SAC test, the parties must hypothesize a SARR that could serve the traffic at issue if the rail industry were free of entry barriers. Under this test, the challenged rates cannot be higher than what the SARR would need to charge to serve the complaining shipper while fully covering all of its costs and earning a reasonable ROI. This SAC analysis produces simulated competitive rates against which the challenged rates are judged.

For its SAC case, Consumers created the hypothetical CERR, a 234.95-mile SARR. In addition to the issue traffic, CERR would carry carload traffic in unit train or trainload service, as well as intermodal container shipments in trainload service.

² The parties designated certain information in this decision as confidential or highly confidential. While attempting to avoid references to confidential or highly confidential information in Board decisions, the Board reserves the right to rely upon and disclose such information in decisions when necessary. In this case, the Board determined that it could not present its findings with respect to the issues without disclosing certain information.

³ Consumers' coal traffic originates in the Powder River Basin in Wyoming and Montana, where it is shipped by rail by BNSF to the interchange with CSXT. The BNSF portion of the move is subject to a contract between BNSF and Consumers, and thus not subject to challenge. 49 U.S.C. § 10709(c)(1).



In this case, Consumers has not demonstrated that CSXT is revenue adequate. Consumers has demonstrated, however, that the challenged rate is unreasonable under the SAC test. Accordingly, the Board will order CSXT to pay reparations to Consumers (with interest) for prior shipments, and will prescribe the maximum lawful rate that CSXT can charge through 2024.

PROCEDURAL BACKGROUND

On March 24, 2015, CSXT filed a motion to dismiss Consumers' revenue adequacy claim, arguing that the claim should be dismissed because: (1) Consumers had provided no reasonable grounds to investigate the claim; (2) dismissal would simplify the dispute; and (3) the Board is considering revenue adequacy issues in Railroad Revenue Adequacy, Docket No. EP 722. The Board denied CSXT's motion in a decision served on June 11, 2015. Specifically, the Board found that: (1) Consumers had stated a claim under the revenue adequacy constraint although the annual determinations suggest that CSXT is not revenue adequate; (2) while dismissal of this claim might simplify the dispute, that alone is not a compelling reason to preclude Consumers from advancing its claim; and (3) CSXT failed to present compelling

arguments as to why the agency's exploration of revenue adequacy issues in Docket No. EP 722 should prevent Consumers from advancing a claim under the revenue adequacy constraint.

After the parties submitted their rate reasonableness evidence, the Board issued a decision in which it found, among other things, that Consumers' treatment of merchandise traffic exceeded a complainant's allowable discretion in creating its traffic group and was inconsistent with the realities of real-world railroading. Consumers Energy Co. v. CSX Transportation, Inc. (December 2016 Decision), NOR 42142, slip op. at 19 (STB served Dec. 9, 2016). Accordingly, the Board directed Consumers to supplement its SAC presentation to remedy its traffic group selection. December 2016 Decision, slip op. at 20. The Board also addressed CSXT's June 24, 2016 motion to strike certain portions of Consumers' rebuttal evidence, granting the motion in part and denying the motion in part. In the same decision, the Board also addressed Consumers' petition to supplement the record with respect to equity flotation costs, denying the motion on the ground sought by Consumers but directing the parties to submit supplemental evidence in the interest of fairness. The Board established a procedural schedule under which Consumers would submit opening supplemental evidence, CSXT would submit reply supplemental evidence, and Consumers would submit rebuttal supplemental evidence. December 2016 Decision, slip op. at 24.

MARKET DOMINANCE

The Board concludes that CSXT possesses market dominance over the challenged transportation. The Board's full market dominance analysis is addressed in Appendix E.⁴

RATE REASONABLENESS STANDARDS

A. CMP

The Board's general standards for judging the reasonableness of rail freight rates are set forth in Coal Rate Guidelines, Nationwide, 1 I.C.C.2d 520 (1985), aff'd sub nom. Consolidated Rail Corp v. United States, 812 F.2d 1444 (3d Cir. 1987), as modified in Major Issues in Rail Rate Cases (Major Issues), EP 657 (Sub-No. 1) (STB served Oct. 30, 2006), aff'd sub nom. BNSF Railway v. STB, 526 F.3d 770 (D.C. Cir. 2008), and Rate Regulation Reforms, EP 715 (STB served July 18, 2013), petition granted in part sub nom. CSX Transportation, Inc. v. STB, 754 F.3d 1056 (D.C. Cir. 2014). These guidelines adopt a set of pricing principles known as CMP. The objectives of CMP are three-fold. A captive shipper should not be required to pay

⁴ Appendix E is currently designated as highly confidential and will be initially released only to the parties' outside counsel in conjunction with this decision. No later than February 12, 2018, Consumers and CSXT shall prepare and submit a joint version of Appendix E that specifically identifies proposed redactions of any confidential and highly confidential information contained therein. Should the parties be unable to reach agreement on any of the proposed redactions, the parties may submit individual pleadings explaining the disagreements and supporting their positions.

more than is necessary for the carrier involved to earn adequate revenues. Nor should it pay more than is necessary for efficient service. And a captive shipper should not bear the cost of any facilities or services from which it derives no benefit. Coal Rate Guidelines, 1 I.C.C.2d at 523-24.

The three objectives of CMP serve as constraints on the extent to which a railroad may charge differentially higher rates on captive traffic. The revenue adequacy constraint is intended to ensure that a captive shipper will “not be required to continue to pay differentially higher rates than other shippers when some or all of that differential is no longer necessary to ensure a financially sound carrier capable of meeting its current and future service needs.” Id. at 535-36. The management efficiency constraint is intended to protect captive shippers from paying for avoidable inefficiencies (whether short-run or long-run) that are shown to increase a railroad’s revenue need to a point where the shipper’s rate is affected. Id. at 537-42. The SAC constraint is intended to protect a captive shipper from bearing costs of inefficiencies or from cross-subsidizing other traffic by paying more than the revenue needed to replicate rail service to a select subset of the carrier’s traffic base. Id. at 542-46. As stated above, Consumers seeks relief under the revenue adequacy and SAC constraints.

B. REVENUE ADEQUACY ANALYSIS

On March 24, 2015, CSXT filed a motion to dismiss Consumers’ claim that the rates in question are unreasonable under the revenue adequacy constraint. In the decision denying CSXT’s motion, the Board explained that while its annual revenue adequacy determinations over the past 28 years “suggest that CSXT is revenue inadequate,” its precedent establishes that such determinations are not necessarily conclusive evidence of a railroad’s revenue adequacy in rate reasonableness proceedings, which may include other competent and probative evidence relevant to that issue. Consumers Energy Co. v. CSX Transp., Inc. (June 2015 Decision), NOR 42142, slip op. at 2 (STB served June 15, 2015) (citing R.R. Revenue Adequacy—1987 Determination, 4 I.C.C.2d 731, 734 (1988); Bituminous Coal—Hiawatha, Utah, to Moapa, Nev. (Nev. Power I), 6 I.C.C.2d 1, 7 n.24 (1989)). Thus, although the Board noted that its annual determinations consistently suggest that CSXT is revenue inadequate, the Board concluded that Consumers could present other competent and probative evidence to make its case. Id.

Consumers submitted a substantial amount of evidence attempting to show that, notwithstanding the Board’s annual revenue adequacy determinations, CSXT is actually revenue adequate under 49 U.S.C. § 10704. But while Consumers’ evidence—consistent with the Board’s annual determinations—shows that CSXT’s financial health is improving, and that CSXT is approaching revenue adequacy, it does not demonstrate that CSXT has in fact achieved long-term revenue adequacy under § 10704.

Section 1 below sets forth the statutory and regulatory background of the revenue adequacy constraint. Section 2 summarizes the parties’ arguments. Section 3 sets out the Board’s conclusions.

1. Statutory and Regulatory Background

In Section 205 of the Railroad Revitalization and Regulatory Reform Act of 1976 (4-R Act), Pub. L. No. 94-210, § 205, 90 Stat. 31 (1976), Congress mandated that the ICC promulgate standards and procedures for establishing railroad revenue adequacy and directed the ICC to “make an adequate and continuing effort to assist...rail carriers in attaining such revenue levels.” The 4-R Act described revenue adequacy as “revenue levels adequate under honest, economical, and efficient management to cover total operating expenses, including depreciation and obsolescence, plus a fair, reasonable, and economic profit or return (or both) on capital employed in the business.” *Id.* The Staggers Rail Act of 1980 revised the agency’s rail transportation policy to include “promot[ing] a safe and efficient rail transportation system by allowing rail carriers to earn adequate revenues, as determined by the [agency].” Pub. L. No. 96-448, § 101, 94 Stat. 1895 (1980). It also required the agency to determine annually which rail carriers are earning adequate revenues.

Cognizant of these statutory requirements, the ICC stated that “the logical first constraint on a carrier’s pricing is that its rates not be designed to earn greater revenues than needed to achieve and maintain this ‘revenue adequacy’ level.” Coal Rate Guidelines, Nationwide, 1 I.C.C.2d 520, 535 (1985), *aff’d sub nom. Consol. Rail Corp. v. United States*, 812 F.2d 1444 (3d Cir. 1987). The ICC explained that the revenue adequacy constraint is intended to ensure that a captive shipper will “not be required to continue to pay differentially higher rates than other shippers when some or all of that differential is no longer necessary to ensure a financially sound carrier capable of meeting its current and future service needs.” *Id.* at 535-36. The ICC further explained that “revenue adequacy is a long-term concept that calls for a company, *over time*, to average [a] return on investment equal to its cost of capital. In any industry there are business cycles producing years during which earnings exceed projections and years when they fall short of the target. Our concept is simply that a railroad not use differential pricing to consistently earn, over time, a return on investment[]t above the cost of capital.” *Id.* at 536. See also CF Indus., Inc. v. Koch Pipeline Co., 4 S.T.B. 637, 656 (2000).

Pursuant to these principles and the current revenue adequacy statutory provision (49 U.S.C. § 10704(a)), the Board makes an annual revenue adequacy determination for each Class I rail carrier. For purposes of the annual determination, the agency deems a railroad revenue adequate if it achieves an ROI equal to at least the current COC for the railroad industry (ROI=COC Test).⁵ Standards for R.R. Revenue Adequacy (Standards I), 364 I.C.C. 803 (1981); Standards for R.R. Revenue Adequacy (Standards II), 3 I.C.C.2d 261 (1986); Supplemental Reporting of Consol. Info. for Revenue Adequacy Purposes, 5 I.C.C.2d 65 (1988). In assessing whether a railroad is revenue adequate in any individual rate proceeding, however, agency

⁵ A revenue-adequate carrier can justify a rate increase on a captive shipper under 49 U.S.C. § 10701(d)(1) if it can prove (1) a need for higher revenues, (2) the harm it would suffer if it could not collect them, and (3) why the complainant should provide them at this time. See CF Indus., 4 S.T.B. at 661 (citing Coal Rate Guidelines, 1 I.C.C.2d at 536 n.36).

precedent establishes that evidence other than the annual determination may be introduced. See, e.g., Nev. Power I, 6 I.C.C.2d at 7 n.24 & 9 (explaining that “other competent and probative evidence relative to the carrier’s revenue adequacy may be submitted in individual rate reasonableness proceedings” but concluding that the shipper in that case had “failed to satisfactorily rebut the railroads’ prima facie showing that they have not achieved revenue adequacy”). Under that precedent, the Board “accept[s] all competent and probative evidence relative to the carrier’s revenue adequacy,” including financial data, when assessing revenue adequacy in rate reasonableness cases. R.R. Revenue Adequacy—1987 Determination, 4 I.C.C.2d at 734.

2. Parties’ Arguments

As discussed in more detail below, Consumers argues that CSXT has been revenue adequate since 2010 and therefore its January 2015 rate increase was unlawful under § 10704(a) and Coal Rate Guidelines. CSXT responds that it is not revenue adequate and therefore its rates cannot be judged under the revenue adequacy constraint.⁶

a. CSXT’s Status Based on the Annual Determination of Railroad Revenue Adequacy Under 49 U.S.C. § 10704(a)(3)

Consumers asserts that CSXT has been revenue adequate since at least 2010 and can be expected to remain so for the foreseeable future. Consumers explains that under the Board’s annual determination, the amount by which CSXT’s ROI fell below its COC from 2010 through 2014 was within a statistical margin of error, and that while CSXT’s ROI is “slightly less than the railroad industry COC,” the actual statistical difference between these two values is zero with a 95% confidence. (Consumers Opening IV-4.)

CSXT responds that for 29 consecutive years, the ICC and the Board have found that CSXT’s ROI is below the industry’s COC and that CSXT therefore has not earned adequate revenues. (CSXT Reply IV-30, Mar. 7, 2016.) According to CSXT, these findings are dispositive of Consumers’ revenue adequacy claim. (*Id.*) CSXT further argues that the “unbroken string of annual agency determinations of CSXT’s revenue inadequacy is particularly significant because flaws in those annual calculations overestimate a railroad’s actual progress toward revenue adequacy,” and that these annual determinations understate CSXT’s revenue needs to maintain and replace its existing network because the determinations are based on

⁶ CSXT also argues that the Board should abandon a revenue adequacy constraint based on CSXT’s system-wide revenue needs because (1) its application would create a cross-subsidy if used to seek rate levels lower than those shown by the SAC constraint and (2) the constraint ignores the current replacement value of railroad assets. (CSXT Reply IV-3 to IV-29, Mar. 7, 2016.) In addition, CSXT argues that the revenue adequacy constraint should only be applied when there is evidence demonstrating a consistent pattern of returns that is substantially greater than a carrier’s revenue needs. (*Id.* at IV-61 to IV-64.) Because the Board concludes that CSXT is not revenue adequate, the Board need not address CSXT’s secondary arguments.

depreciated historic costs instead of the current value of CSXT's network. (Id. at IV-35 to IV-36.)

CSXT provides a sample 16-year analysis that it claims illustrates its revenues have fallen more than \$33.5 billion short of revenue adequacy (on a present value basis) since 1999. (Id. at IV-36.) CSXT acknowledges that revenue adequacy is a "long-term concept" that is largely undefined but argues that the Board need not resolve the time frame issue in this case because CSXT falls below the agency's measurement of revenue adequacy under any proposed time frame. (Id. at IV-37 to IV-38.)

Consumers argues on rebuttal that there is no \$33.5 billion shortfall and that CSXT's analysis, at most, shows "the compounded sum of a set of artificial annual shortfalls of measured revenues as compared to an industry COC calculation, which by the end of the period disappears within the statistical range of accuracy." (Consumers Rebuttal IV-40, May 20, 2016.) Consumers argues that, had CSXT really experienced an escalating deficit of such magnitude, "it would have careened into a death-spiral ending in bankruptcy or at least stagnated, neither of which has occurred." (Id. at IV-41.) According to Consumers, any firm that had an actual shortfall of \$33 billion in funding needed for its long-term survival would not have seen its market capitalization grow by almost 300% (from \$9 billion in 1998 to \$36 billion in 2014) or its share price grow by almost 425% (from \$6.91 in 1998 to \$36.23 in 2014). (Id. at IV-41.)

b. COC

Consumers also argues that the Board's annual revenue adequacy test is flawed and proposes changes "that should be adopted by the Board to correct flaws in its current approach to estimating the equity portion of the COC." (Consumers Opening IV-6.) Specifically, Consumers argues that the cost of equity (COE) should: (a) be determined utilizing only the Capital Asset Pricing Model (CAPM) and not the average of CAPM and the Multi-Stage Discounted Cash Flow (MSDCF) model now used in the Board's annual determinations; (b) use a 50-year historical market risk premium in the CAPM; and (c) apply a Blume adjustment to the observed beta in the CAPM.⁷ (Id.; see also id., Ex. IV-1 at 37-41 (Hennigan Report).) Consumers argues that making these changes would lead to a more accurate COC, which would also affect the outcome of the comparison of ROI and COC as applied to CSXT. (Id. at IV-7.) Consumers further asserts that CSXT's own internal COC calculations demonstrate that CSXT is revenue adequate by a substantial margin for each year from 2010-2014. (Id. at IV-8 to IV-11.)

CSXT counters that Consumers cannot rely on COC estimates other than the Board's annual determination to prove its case. First, CSXT argues that the Board cannot depart in this

⁷ Consumers incorporates by reference and summarizes the position of the Western Coal Traffic League (WCTL), which also made these arguments, in Docket No. EP 664 (Sub-No. 2). (See Consumers Opening IV-6.) As noted later in this decision, the Board rejected these arguments in that docket on several occasions. See infra n.16.

proceeding from its current methodology for estimating the COE, which is a binding legislative rule. (CSXT Reply IV-40, Mar. 7, 2016.) Second, CSXT asserts that there is ample evidence to support the Board's current COE methodology. (Id. (incorporating by reference evidence submitted in Docket No. EP 664 (Sub-No. 2) by AAR).) Third, CSXT states that the ICC and STB have long used an industry-wide, rather than a carrier-specific, COC to determine whether a carrier is revenue adequate. (Id.) Finally, CSXT claims that the arguments Consumers presents to the Board regarding the use of multiple models, CAPM, and market risk premium are inconsistent with the arguments it presented to its own regulators in a recent proceeding involving Consumers' proposal to increase its rates for the generation and distribution of electricity. (Id. at IV-40 to IV-41.)

On rebuttal, Consumers disputes that the COE constitutes a legislative rule. (Consumers Rebuttal IV-39, May 20, 2016.) Consumers also contends that if the ROI=COC Test and other probative evidence yield disparate results, an effort should be made to reconcile the two and consider whether the COC input is flawed—especially if it utilizes values substantially higher than those utilized by the investment community. (Id. at IV-40.) Consumers asserts that competent and probative evidence can include a showing that the Board's COC estimate is inaccurate, and that just as the Board allows parties to argue that a different COC should apply for SAC purposes, it follows that parties should be allowed to show that a different COC should apply for revenue adequacy purposes. (Id. at IV-40, IV-44 to IV-45.) Consumers further points to a 2016 Morgan Stanley report that purportedly confirms that the Board's COC figures are substantially overstated, and have been since at least 2005. (Id. at IV-46.) According to Consumers, that report concludes that the midpoint of the railroad industry COC range is 7.5%, more than 300 basis points below the Board's 2014 COC and 211 basis points below the 9.61% AAR calculates as the 2015 COC. (Id. at IV-46 to IV-47.)

While conceding CSXT's point that a wider COC data set with more similar railroads theoretically is more desirable from a statistical standpoint, Consumers suggests that the Board's already narrow sample is not superior to a CSXT-specific value. (Id. at IV-47 to IV-48.) Consumers further explains that it takes a different position with respect to the use of multiple models, CAPM, and market risk premium before its own regulators than it does here due to the major differences between railroads and utilities and their regulatory environments, which support the use of different methods for calculating COC. (Id. at IV-48 to IV-54.)

c. Other Competent and Probative Evidence

Consumers argues that the statutory criteria in 49 U.S.C. § 10704(a)(2) provides a logical starting point to examine potential gauges of revenue adequacy beyond the ROI=COC Test, and that consideration of the statutory criteria compels a conclusion that CSXT earns adequate revenues. (Consumers Opening IV-12.) Consumers claims that CSXT's own financial data shows that it maintains revenue levels to cover operating expenses, including depreciation and obsolescence, plus a reasonable economic profit or return on capital employed in the business. According to Consumers, this data demonstrates that CSXT has met the 49 U.S.C. § 10704(a)(2) revenue adequacy standard since at least 2010. (Id.)

Citing the first part of the revenue adequacy requirement—49 U.S.C. § 10704(a)(2)(A)—Consumers argues that CSXT’s revenues are more than sufficient to “provide a flow of net income plus depreciation adequate to support prudent capital outlays, assure the repayment of a reasonable level of debt, permit the raising of needed equity capital, and cover the effects of inflation.” (Id. at IV-16.) Consumers asserts that CSXT’s net capital outlays have averaged a substantial \$2.248 billion annually during 2010-2014, and claims that CSXT has the ability to devote even more of its resources to capital expenditures if necessary. (Id. at IV-18.) Consumers also argues that CSXT has devoted substantial resources to buying back its own stock, which, according to Consumers, clearly indicates that CSXT does not suffer from a capital shortfall. (Id. at IV-19.) In addition, Consumers asserts that CSXT had no difficulty repaying its debt from 2010-2014, and that CSXT increased its level of borrowing voluntarily and has maintained and improved its favorable credit rating. (Id. at IV-20.) Consumers further states that CSXT has had no difficulty raising needed equity capital, and that neither CSXT nor any other Class I railroad has had new offerings of stock to the public since 1991. (Id. at IV-21.) Finally, Consumers claims that CSXT increased its earnings by 23% and its earnings per share by 41% during 2010-2014, revenues that are more than adequate to cover the costs of inflation. (Id. at IV-22 to IV-23.)

Consumers argues that CSXT also satisfies the second part of the revenue adequacy requirement in 49 U.S.C. § 10704(a)(2)(B) that carriers be allowed revenues that “attract and retain capital in amounts adequate to provide a sound transportation system in the United States.” (Id. at IV-23 to IV-24.) Consumers claims that CSXT has not needed to raise outside equity capital in at least 25 years, and reiterates that CSXT has (1) repurchased a large portion of its outstanding shares since 2006 and (2) been able to devote approximately 19% of its revenues over the past years to capital expenditures so as to maintain and expand its operations. (Id. at IV-24.)

Consumers further argues that analyses by the financial and investment communities provide an independent and informed assessment of CSXT’s financial health and viability, and its suitability or desirability as an investment. (Id. at IV-37.) Consumers asserts that analyses from ValueLine, Standard & Poor’s, and Morningstar—firms that Consumers characterizes as independent, well-respected, and commonly utilized and relied upon by retail investors—conclude that CSXT is a desirable investment and give no suggestion that the company is revenue inadequate. (Id. at IV-37 to IV-42.)⁸

CSXT responds that Consumers bears a heavy burden to overcome the fact that CSXT has fallen \$33.5 billion short of revenue adequacy over the last 16 years and that the evidence presented by Consumers is insufficient to meet this burden. (CSXT Reply IV-38 to IV-39, Mar. 7, 2016.) CSXT claims that even if the Board’s annual findings are not dispositive, none of the financial data, analysts’ reports, or financial ratios show that CSXT has earned or will earn

⁸ For a detailed description of these reports, see Hennigan Report at 66-72.

the competitive ROI that is necessary to attract capital. As a result, according to CSXT, Consumers’ “other probative evidence” fails to demonstrate that CSXT is revenue adequate. (Id. at IV-39.)

CSXT also disputes Consumers’ claim that it must be revenue adequate because it can make significant capital expenditures yet still pay dividends and repurchase stock rather than immediately reinvesting in rail operations. (Id. at IV-57 to IV-58.) CSXT asserts that such arguments are not only unsound, but also fundamentally inconsistent with evidence from other competitive markets. (Id. at IV-60.) CSXT claims that stock buybacks and dividend payments are not evidence of excessive revenues; rather, they reflect a company’s decision about how to allocate capital and remain competitive in capital markets. (Id. at IV-61.)

CSXT argues that the financial data provided by Consumers is misleading because it fails to address CSXT’s ability to attract capital in the long term. Specifically, CSXT claims that the ValueLine, Standard & Poor’s, and Morningstar analyses reflect only current and predicted short-term changes in financial condition and provide no indication of whether the railroad will earn a competitive ROI over the long term. (Id. at IV-39.) CSXT also points out that in Standards II, the ICC recognized that security analysts’ reports are an unreliable indicator of revenue adequacy because the values and perspective of the agency are different from those of Wall Street analysts, citing the ICC’s statement that “sometimes the potential to make a short-term profit may far outweigh [analysts’] interest in the long-term health and earnings capacity of the railroad.” (Id. at IV-40 (quoting Standards II, 3 I.C.C.2d at 267-68).) Thus, CSXT concludes, the financial analyses provided by Consumers are neither relevant nor competent evidence of revenue adequacy. (Id.)

On rebuttal, Consumers reiterates its opening argument that CSXT’s alleged cumulative shortfall has not prevented it from meeting the revenue adequacy criteria specified in 49 U.S.C. § 10704(a)(2). (Consumers Rebuttal IV-41, May 20, 2016.) Consumers asserts CSXT made no attempt in its reply to show that it does not satisfy these statutory criteria, and thus the Board should deem CSXT to have admitted that it indeed fulfills the criteria. (Id. at IV-63.)

Consumers further argues that CSXT’s characterization of the ValueLine, Standard & Poor’s, and Morningstar analyses as “short term” in nature is incorrect, and that Consumers properly focused on the long-term, fundamental aspects of those independent analyses to make its case on opening. (Id. at IV-42.) According to Consumers, CSXT’s criticism of those analyses for their short-term focus is disingenuous, given that CSXT insists on retaining as part of the Board’s COC determination the MSDCF component, which relies on relatively short-term projections of those same analysts. (Id. at IV-43.) Consumers also points out that the Board calculates the Revenue Shortfall Allocation Method (RSAM) and measures railroad productivity over similarly short periods of time. (Id.)

In support of its argument that CSXT meets the elements for revenue adequacy under 49 U.S.C. § 10704(a)(2), Consumers also argues that it is appropriate to consider CSXT's revenue adequacy under various ratios that are commonly used in financial analysis to assess a firm's economic health. (*Id.* at IV-25.) Specifically, Consumers points to the following: market to book value ratio, debt to capital ratio, operating ratio, return on equity, cash flow return on shareholder equity, and dividend payout ratio (dividend yield). (*Id.* at IV-26.)

CSXT responds that Consumers cannot rely on these financial ratios to prove revenue adequacy because such ratios are inappropriate indicators of long-term revenue adequacy. (CSXT Reply IV-51, March 7, 2016.) CSXT points out that the ICC specifically abandoned consideration of such ratios in Standards I, in which the agency explained that because funds-flow analysis and similar ratios are indicators only of the railroads' existing financial health, they are "inappropriate as indicators of long-term revenue adequacy," especially "as measures to measure limit rail pricing flexibility." (*Id.* (quoting Standards I, 364 I.C.C. at 808).) CSXT also states that five years later, in Standards II, the ICC again rejected the multi-indicator approach (i.e., the use of several ratios) because there was no objective way for it to be designed and implemented. (*Id.* at IV-52 (citing Standards II, 3 I.C.C.2d at 266).) Similarly, CSXT claims that in Nevada Power I, 6 I.C.C.2d at 8, the ICC reiterated its rejection of the multi-indicator approach, again finding it difficult to allocate weights to particular indicators. (*Id.*) According to CSXT, Consumers fails to describe how its approach should be applied and how much weight should be accorded to each factor, which are the very flaws that led the ICC to reject the ratios more than 25 years ago. (*Id.* at IV-53.)

On rebuttal, Consumers notes that it presented data over multiple years (2010-2014) rather than single-year financial ratios. (Consumers Rebuttal IV-54 to IV-55, May 20, 2016.) Consumers explains that it is not proposing to (1) use such ratios as the sole evidence of long-term revenue adequacy or (2) replace the ROI=COC Test under 49 U.S.C. § 10704(a)(3) with financial ratio data, but that the data should be used as "other competent and probative evidence" that simply confirms CSXT's long-term revenue adequacy. (*Id.* at IV-55.) Consumers argues that the ratios clearly provide more than a short-term indication, and that there is no need to weigh factors against each other because the data uniformly show that CSXT is healthy, sustainable, and viable on a long-term basis. (*Id.*) Consumers also points out that CSXT has admitted "that the ratios are 'indicators . . . of the railroads' financial health'" and that CSXT's own actions demonstrate that multiple financial ratios are a valuable measure of long-term financial health, given that CSXT itself uses operating ratio and return on assets (ROA)—measured over a period of less than three years—to incentivize its executives to drive shareholder value over a multi-year period. (*Id.* at IV-55 to IV-56 (quoting CSXT Reply IV-51, Mar. 7, 2016).) In short, Consumers contends that the financial ratios further confirm that CSXT has achieved long-term revenue adequacy and is likely to remain revenue adequate, and that the ROI=COC Test used with the Board's COC does not accurately depict CSXT's financial condition. (*Id.* at IV-60.)

i. Market to Book Value Ratio

Consumers states that CSXT's market to book value ratios⁹ are well in excess of 1.0 and have generally increased from 2010-2014. (Consumers Opening IV-26 to IV-27.) According to Consumers, these ratios represent a strong vote of confidence by investors and a belief that the assets have a going concern value in excess of their book value, which implies that investors believe that it is worth reinvesting in the company to enable it to continue functioning and expanding. (Id. at IV-27.) Thus, Consumers concludes, the ratio "is a confirmation that the company's revenues are adequate to provide 'a reasonable and economic profit or return (or both) on capital employed in the business,' and to 'attract and retain capital in amounts adequate to provide a sound transportation system in the United States.'" (Id. (quoting 49 U.S.C. § 10704(a)(2).)

CSXT, however, argues that the market to book value ratio is fatally flawed because book values based on historical, depreciated purchase costs are inadequate to assess a firm's financial performance. (CSXT Reply IV-54, Mar. 7, 2016.) CSXT asserts that the market regards replacement costs, not book values, as the proper basis for assessing financial performance. (Id.) According to CSXT, the ratio is flawed because the book value estimates are outdated and do not reflect the market value of the assets-in-place at the firm. (Id.)

On rebuttal, Consumers disputes CSXT's contention that the market prices CSXT above book value because of its high replacement costs. Rather, Consumers reiterates its opening argument that the market prices CSXT assets above market value because CSXT has a favorable going concern value. (Consumers Rebuttal IV-56, May 20, 2016.) Consumers argues that market valuation cannot depend on replacement costs because there is no readily accessible and frequently utilized source for such costs, and that CSXT does not maintain such data. (Id.)

ii. Debt to Capital Ratio

Consumers argues that CSXT's debt to capital ratios¹⁰ demonstrate that CSXT has been able to maintain a relatively conservative level of debt throughout 2010-2014 and is further confirmation of CSXT's revenue adequacy. (Consumers Opening IV-28 to IV-29.)

CSXT counters that although Consumers describes the debt to capital ratio as an "important metric," such ratios reflect only CSXT's choice about how much debt and equity capital to employ. (CSXT Reply IV-54, Mar. 7, 2016 (quoting Consumers Opening IV-28).) CSXT further claims that this choice depends upon a number of factors, such as the current level

⁹ The market to book value ratio represents the ratio of the market value of the common stock of a company to the net book value of the company's assets.

¹⁰ The debt to capital ratio represents the average market value of long-term debt as a percentage of long-term debt against current average market value of stock.

of interest rates and changes in the price-earnings ratio. Thus, CSXT concludes that debt to capital ratios provide no indication of the adequacy of a railroad's ROI. (Id. at IV-54 to IV-55.)

Consumers responds that CSXT's debt to capital ratios reflect the fact that the railroad has not achieved its success through excessive leverage, that CSXT's present financial condition is both stable and sustainable, and that—when combined with CSXT's favorable debt ratings—the ratios confirm that CSXT has adequate access to capital (one of the elements of revenue adequacy under 49 U.S.C. § 10704(a)(2)). (Consumers Rebuttal IV-57, May 20, 2016.)

iii. Operating Ratio

Consumers states that the operating ratio¹¹ is a “key metric for railroads as it serves to help identify the margin or dollars that are available for capital expenditures, dividends, and buybacks.” (Consumers Opening IV-30.) Consumers argues that CSXT's operating ratios improved substantially in recent years (2010-2014) and served as the exclusive measure for CSXT's executive long-term compensation plan from 2007-2013. (Id. at IV-30 to IV-31.) CSXT measured a record low operating ratio of 66.8% in the second quarter of 2015, and Consumers argues that a current (as of the time of Consumers' opening evidence filing in November 2015) CSXT annual operating ratio in the low 70s and a stated expectation to drive the ratio to the mid-60s provides further confirmation of CSXT's long-term financial soundness. (Id. at IV-32.)

CSXT responds that operating ratios provide no information about a firm's long-term financial viability. (CSXT Reply IV-55, Mar. 7, 2016.) CSXT claims that an improved operating ratio shows at most that CSXT has been more successful recently in managing operating expenses, and further claims that relatively low operating ratios flow from the relatively high required capital intensity of the railroad industry. (Id.) Finally, CSXT notes that Consumers ignores the fact that in Standards I, the ICC rejected the use of operating ratios as an indicator of revenue adequacy because they are intended to provide only summary information, which can be misleading. (Id.)

Consumers responds that CSXT's operating ratios have been relatively low over a sustained period, and have been more than sufficient to fund the capital expenditures, dividends, and buybacks without a significant increase in debt to capital ratios. (Consumers Rebuttal IV-56 to IV-57, May 20, 2016.) Consumers further notes that CSXT has stated it expects the low operating ratios to persist for the long-term and improve even further, and that CSXT itself views

¹¹ The operating ratio represents the ratio of operating expenses, including depreciation, as a percentage of operating revenues. The agency has considered operating ratios a measure of carrier efficiency. See, e.g., Burlington N. Inc.—Control & Merger—Santa Fe Pac. Corp., 10 I.C.C.2d 661, 789 (1995).

operating ratios as sufficiently important to assign half of its long-term incentive compensation for executives to them (as measured over a period of less than three years). (Id. at IV-57.)

iv. Return on Equity

Consumers argues that CSXT's return on equity¹² has been "consistently high" over the 2010-2014 period and that such returns are more than sufficient to enable CSXT to attract and/or retain whatever equity capital is needed. (Consumers Opening IV-32 to IV-33.) Consumers further claims that this "attractive return on equity," along with CSXT's dividends, buybacks, and operating ratios, logically contributes to the substantial appreciation in CSXT's stock price over this period, providing further confirmation of CSXT's revenue adequacy. (Id. at IV-33 to IV-34.)

CSXT responds that its allegedly "consistently high" returns on equity "should not be 'considered more than sufficient to enable CSXT to attract and/or retain whatever equity capital is needed.'" (CSXT Reply IV-55, Mar. 7, 2016 (quoting Consumers Opening IV-33).) CSXT argues that the "ROI at best provides only a partial measure of railroad returns because it can also be directly affected by other factors that have nothing to do with a firm's overall ability to earn its weighted average cost of capital, which reflects both equity and debt." (Id. at IV-56.)

Consumers argues on rebuttal that CSXT is vague as to the "other factors" that would affect returns, and suggests that CSXT's concern appears to be that a high return on equity would mean little if achieved through excessive leverage. (Consumers Rebuttal IV-58, May 20, 2016.) Consumers responds that CSXT does not actually claim to have excessive leverage, and that Consumers' other evidence shows that CSXT does not in fact have excessive leverage. (Id.)

v. Cash Flow to Equity

Consumers also cites to the ratio of cash flow to equity, arguing that cash flow as a measure is particularly significant for firms, such as railroads, that are very capital intensive. (Consumers Opening IV-34.) Consumers asserts that CSXT's average cash flow to equity ratio¹³ of 35% over the 2010-2014 period "reflects both the substantial measure and the components of cash flow." (Id. at IV-35.) According to Consumers, CSXT has substantial cash available for corporate purposes, including dividends, stock repurchases, and cash expenditures, and Consumers concludes that CSXT's high cash flow simultaneously makes the railroad less dependent on outside financing while remaining very attractive as a recipient of equity and debt financing. (Id.)

¹² Return on equity represents net income as a percentage of shareholders' average book value of stock.

¹³ Cash flow to equity, or cash flow return on shareholders' equity, depicts cash flow as a percentage of the shareholder's average book value of stock.

CSXT counters that a funds flow analysis and cash flow return on shareholders' equity provide only a short-term analysis of a railroad's ability to raise capital. (CSXT Reply IV-56, Mar. 7, 2016 (citing Standards I, 364 I.C.C. at 808).) CSXT claims that, like a railroad's ROI, a cash-flow-to-equity ratio focuses solely on the equity components of capital and is directly affected by other factors that have nothing to do with a railroad's ability to earn its weighted average COC. (Id.) Furthermore, CSXT argues that the cash flow return on equity ignores the need for capital expenditures by capital-intensive firms, such as railroads, which generally have high cash flows in order to fund capital expenditures. (Id.)

Consumers responds that the ratios are not short-term, as they cover five years of data. Consumers also states that the value of this ratio as an indicator of revenue adequacy is supported by the significant appreciation in stock price and market value during the period that CSXT purportedly was generating a massive revenue shortfall. (Consumers Rebuttal IV-59, May 20, 2016.) Consumers further argues that CSXT's cash flows have been sufficient to cover its capital expenditures (including ongoing replacement and expansion of assets as needed) as well as dividends and share buybacks while maintaining leverage. (Id.)

vi. Dividend Payout Ratio (Dividend Yield)

Consumers states that CSXT's dividend payout ratios¹⁴ have remained "relatively stable" over the period from 2010-2014. (Consumers Opening IV-36.) Consumers also notes that CSXT announced a dividend increase, as well as a stock buyback plan, in conjunction with its earnings release for the first quarter of 2015. (Id.) This, along with the fact that CSXT's dividend yield also compared favorably to those on five-year U.S. Treasuries over the same period, demonstrates that CSXT is a preferred investment. (Id. at IV-37.)

According to CSXT, Consumers' claim that it is a preferred investment is incorrect because dividend payout rates similar to those on five-year U.S. Treasury bonds do not indicate that railroad stock will be attractive to investors. (CSXT Reply IV-56 to IV-57, Mar. 7, 2016.) Additionally, CSXT states that while Treasury bonds are generally regarded by investors as risk-free investments, equities are not because equity investors expect to be compensated for the higher risks involved in investing in stocks, as evidenced by the inclusion of a risk premium. (Id. at IV-57.)

In response to CSXT's claim that investors expect to be more highly compensated for purchasing stock than Treasury bonds, Consumers argues that CSXT's equity investors have in fact received more from their investment than they would expect to receive from Treasury bonds. In particular, Consumers notes that CSXT's dividend yields have been accompanied by sustained

¹⁴ The dividend payout ratio, or dividend yield, represents the ratio of the annual dividends paid per share to the average market value of a share of stock.

appreciation in stock prices during the very period CSXT claims it experienced a revenue shortfall. (Consumers Rebuttal IV-60, May 20, 2016.) Consumers further argues that the dividend yield over this time period could easily have been higher had CSXT not devoted so much of its funds to buybacks. (Id.)

3. Board Determination

As noted in the Board's decision denying CSXT's motion to dismiss Consumers' revenue adequacy claim, the ICC and the Board have consistently found that CSXT's ROI has fallen below the industry's COC, "suggest[ing] that CSXT is revenue inadequate." June 2015 Decision, slip op. at 2. See also Nev. Power I, 6 I.C.C.2d at 6-9 (declining to apply the revenue adequacy constraint where the defendant railroads' "return on investment has consistently been less than our current cost of capital determination for the rail industry"). In its effort to demonstrate that CSXT is a revenue adequate carrier, despite the 29 years of annual agency determinations indicating this not to be the case, Consumers has presented arguments as to why it believes the Board's annual determination is distorted and evidence of alternative indicators of CSXT's strong financial health. The Board concludes, however, that the arguments and evidence provided by Consumers do not establish that CSXT is revenue adequate.

Consumers raises a number of arguments regarding the reliability of the Board's annual revenue adequacy determinations. Those arguments will be addressed first and then Consumers' other probative evidence, which consists primarily of financial ratio evidence, will be discussed.

As an initial matter, the Board disagrees with Consumers' assertion that CSXT should be deemed revenue adequate, even using the Board's annual determinations, because CSXT's ROI has been within a statistical margin of error of the industry COC since 2010. Consumers is essentially arguing that the Board should apply the revenue adequacy constraint here *unless* CSXT's ROI is "clearly less than" the COC, "with clearly less than" taken to mean statistically different at the 5% level of significance. But the bright line requirement that a carrier's ROI must be "equal to at least the current cost of capital for the railroad industry" in order for a carrier to be deemed revenue adequate is a consistent feature of the Board's revenue adequacy determinations. R.R. Revenue Adequacy—2016 Determination (2016 Determination), EP 552 (Sub-No. 21), slip op. at 1 (STB served Sept. 6, 2017).¹⁵ While CSXT's profitability has increased and its ROI has repeatedly approached the Board's industry COC determination in recent years (rendering Consumers' revenue adequacy claim colorable)—Consumers has not convinced the Board that it would be appropriate to condition the revenue adequacy

¹⁵ Moreover, Consumers fails to adequately explain why such a rule would be any more appropriate than its logical opposite, where the Board would decline to apply the revenue adequacy constraint *unless* a railroad's ROI is "much greater than" the industry COC, where "much greater than" means statistically different at the 5% level of significance.

determination in this case on whether a railroad's ROI falls within some margin of error of the industry's COC.

The Board also rejects the argument that the Board should alter the agency's COC methodology in the manner proposed by Consumers. Consumers' COC methodological arguments incorporate by reference and summarize those of WCTL in Docket No. EP 664 (Sub-No. 2). (Consumers Opening IV-6.)¹⁶ First, while Consumers argues that the COE component (the expected returns that equity investors require) of the Board's annual railroad industry COC estimate should be calculated using only CAPM, the Board continues to believe that a simple average of the estimates produced by the CAPM and MSDCF models is more appropriate. This hybrid approach allows the Board to take advantage of each model's respective strengths while simultaneously minimizing each model's weaknesses. Multi-Stage DCF, slip op. at 12 (noting that because the models are based on different perspectives and rely on different inputs, an anomaly that might affect one model is less likely to affect the other, thus leading to a more accurate and stable overall result). While there is no single, correct way to calculate the railroad industry's COE (because the true COE is never revealed), using an average of CAPM and MSDCF produces a more appropriate estimate for the Board's regulatory purposes than reliance on CAPM alone. Id. at 2. Although CAPM is more prevalent among the industry today, both models are objective, commercially accepted, and unbiased tools and, when averaged together, produce results that are more robust, precise, and stable than those produced by a single model. Id. at 11.

The Board likewise rejects the argument that CAPM should be altered to use a 50-year historical market risk premium (MRP) rather than a period with a base year of 1926. Like determining the overall COE, there is no single correct method for determining MRP. Using all of the years of relevant data to determine the MRP figure (from 1926 to the present) yields an MRP result that is less likely to be subject to high variances. Id. at 17-18. While Consumers proposes a rolling 50-year period, it provides no valid justification for why that period is better than another, such as 40 years or 60 years. Rather than picking an arbitrary range of years, the Board continues to believe the better course of action is to incorporate data for all years for which there is data. Id.¹⁷

¹⁶ The Board previously rejected the arguments made by WCTL in Petition of the Western Coal Traffic League to Institute a Rulemaking Proceeding to Abolish the Use of the Multi-Stage Discounted Cash Flow Model in Determining the Railroad Industry's Cost of Equity Capital (Multi-Stage DCF), EP 664 (Sub-No. 2) (STB served Oct. 31, 2016), reconsideration denied (STB served Apr. 28, 2017), reconsideration denied yet again (STB served Aug. 14, 2017).

¹⁷ While Multi-Stage DCF, slip op. at 18, allowed for the possibility of using a different MRP if a party could demonstrate that another approach had become the industry norm, here Consumers has not shown this to be the case.

The Board also rejects Consumers' argument that a Blume adjustment to the observed beta in CAPM¹⁸ should be applied. The Board continues to believe that no correlation between an increase in beta and the exercise of market power has been demonstrated, and that the beta as currently implemented by the Board has not been shown to be artificially increased by the industry's strong market power. To the contrary, there are indications that as market power increases, the riskiness of such firms may decrease. *Id.* at 16. In addition, betas can change for other reasons, such as productivity improvements or structural shifts in market supply or demand. *Id.* Furthermore, the Board has previously observed that there is no apparent consensus of expert opinion or industry best practice regarding the most appropriate way of treating beta in CAPM. *Id.* For all of these reasons, the Board declines to adopt Consumers' proposed COE methodology changes for this case.

Consumers also argues that if the Board's annual revenue adequacy test were conducted using CSXT's own "internal" COC calculations, with certain adjustments proposed by Consumers' expert, it would "produce[] results that clearly are consistent with long-term CSXT revenue adequacy." (Consumers Opening IV-10.)¹⁹ The Board notes that what Consumers describes as CSXT's "internal" COC figures were not produced by CSXT itself; instead, Consumers points to slides showing COC figures for CSXT (and other Class I carriers as well) from Wall Street analysts which were included in CSXT Board of Directors' presentations in four non-consecutive years. (Consumers Opening WP "RA-CSXT-FinChron.pdf."). The Board also notes that use of an industry-wide COC for the annual revenue determinations has been the agency's consistent practice. See, e.g., Methodology to be Employed in Determining the R.R. Indus.'s Cost of Capital, EP 664, slip op. at 17-18 (STB served Jan. 17, 2008) (use of industry-wide average more reliable than individual figures given the margin of error associated with railroad estimates). Although the Board might consider a rigorously developed internal COC to be probative evidence under certain circumstances, the evidence presented here is not so persuasive as to cause the Board to find CSXT revenue adequate, particularly in light of the Board's annual revenue adequacy determinations and its findings regarding the other evidence proffered by Consumers, as discussed below.

The Board also is not persuaded by Consumers' argument that CSXT's use of earnings to pay dividends or repurchase stock is necessarily indicative of revenue adequacy. As a general matter, in the long run, even companies that are revenue inadequate or financially unhealthy

¹⁸ "Beta" is used to measure the amount of non-diversifiable risk in the industry. As a measuring stick for risk, a beta of 1.0 indicates that a security's price will move with the market as a whole. A beta exceeding 1.0 indicates that a security's return is expected to be more volatile than the market rate of return. A beta of less than 1.0 indicates that a security's return is expected to be less volatile than the market's rate of return. The Blume adjustment theoretically would reflect a trend in beta to revert to 1.0 over time. See Multi-Stage DCE, slip op. at 15.

¹⁹ According to Consumers, CSXT's (adjusted) "internal" COC would be 8.5% in 2014, 8.0% in 2013, and 8.4% in 2012, compared with the Board's industry-wide COC of 10.65%, 11.32%, and 11.12% for those years. (Consumers Opening IV-4, IV-11.)

return money to their shareholders to minimize principal-agent problems and to attract capital.²⁰ The amounts and methods for the return of money to shareholders reflect a company's decision regarding the allocation of capital so as to remain competitive in the capital markets and maintain investor confidence in the railroad as an enterprise, rather than long-term revenue adequacy. Thus, it cannot be the case that a railroad's decision to buy back stock, pay dividends, or engage in other similar activities designed to boost confidence automatically indicates that the carrier is revenue adequate. Here, Consumers does not attempt to compare CSXT's decisions in this regard to similarly-situated firms (e.g., large industrials listed in the Standard & Poor's 500) as a gauge of relative financial health.

Consumers also argues that analyses from Wall Street firms like ValueLine, Standard & Poor's, and Morningstar give no suggestion that CSXT is revenue inadequate. (Consumers Opening IV-37 to IV-42.) However, these analyses generally are more indicative of current and predicted short-term profit potential as compared to the agency's longer-term revenue adequacy analysis. See Standards II, 3 I.C.C.2d at 267-68 (explaining that the agency's revenue adequacy inquiry focuses on long-term viability whereas security analysts also consider short-term profit potential). To the extent that Consumers argues that some aspects of its Wall Street evidence are long-term in nature (see, e.g., Consumers Reb. IV-42 to IV-43, May 20, 2016), the use of such forecasts to demonstrate that a carrier will *exceed* the COC or attract capital *in the future* is unconvincing.²¹

Finally, the Board concludes that the various financial ratios that Consumers cites in support of its argument that CSXT is revenue adequate are not strong or convincing enough to overcome the conclusion from the Board's annual calculations that CSXT has not achieved revenue adequacy. There are many financial ratios used by the railroad industry and Wall Street to examine various aspects of a company's financial picture. However, many of the financial ratios that Consumers relies on are not particularly relevant, as presented here, to the question of CSXT's revenue adequacy. For example, market-to-book-value ratios are not relevant to revenue adequacy for railroads due to the capital-intensive nature of the industry and the long-term nature of the railroads' capital assets, which inevitably result in the understatement of book values as compared to market values (i.e., the effects of depreciation and inflation on these assets will always skew the ratio's denominator). Likewise, debt-to-capital ratios are not relevant to the question of CSXT's revenue adequacy because the mix of debt and equity is a choice entirely

²⁰ See, e.g., Frank H. Easterbrook, Two Agency-Cost Explanations of Dividends, The American Economic Review, Vol. 74, Sept. 1984, at 650-59. Principal-agent problems can arise when one party (e.g., a Board of Directors) acts on behalf of another party (e.g., investors) under circumstances in which the interests of the two are not fully aligned.

²¹ The Board's rejection here of Consumers' Wall Street analyses as indicative of CSXT's revenue adequacy is not inconsistent with the use of analyst earning and growth projections in the Board's annual COE estimates. Analyst estimates are but one component of the MSDCF, which is itself but one component of the Board's COC methodology. Thus, use of analyst data within the MSDCF is fundamentally different than wholesale reliance on analyst COC calculations.

within the discretion of the railroad's capital managers, a choice that can be informed by many factors (such as the current level of interest rates) that have nothing to do with the long-term adequacy of CSXT's ROI. Thus, maintenance of what might be considered a "conservative" level of debt is not a reliable signal of revenue adequacy. While cash-flow-to-equity could be relevant if compared to other railroads, it is not relevant as presented here because cash flows in the railroad industry are always fairly high, given the high fixed costs and the low marginal costs associated with railroad capital expenditures. Likewise, while dividend-payout ratio could be relevant to a financial health analysis if used as a basis for comparison to similarly-situated firms, because all firms (even revenue inadequate ones) must return money to their shareholders to minimize principal-agent problems and maintain investor confidence, *see supra* n.20, the dividend-payout ratio does not provide information relevant to revenue adequacy in isolation, as presented by Consumers. At the same time, however, Consumers did not include other financial ratios (such as price-earnings ratio²²) that could be relevant to a revenue adequacy analysis.

And while Consumers did present some evidence about operating ratio and return on equity that might bear on revenue adequacy,²³ the nature of the evidence presented in this case is lacking. In Coal Rate Guidelines, 1 I.C.C.2d at 536, the agency noted the importance of using data spanning the course of a business cycle, given that "revenue adequacy is a long-term concept that calls for a company, *over time*, to average [a] return on investment equal to its cost of capital." Here, Consumers has not demonstrated that its selection of a five-year period (2010 to 2014), but exclusion of the recent recession years (2008 to 2009), is an appropriate period over which to demonstrate long-term revenue adequacy under § 10704. Although Consumers argues that its ratio evidence is a multi-year demonstration of CSXT's financial health, the Board's annual revenue adequacy determinations for CSXT show a marked deterioration during the recession and a significant improvement during the subsequent recovery, and thus, Consumers' reliance here on only the 2010-2014 period does not provide a full picture of CSXT's financial health over time.²⁴

²² The price-earnings (P/E) ratio measures a company's current share price relative to its per-share earnings. In general, a high P/E ratio suggests that investors are expecting higher earnings growth in the future compared to companies with a lower P/E ratio.

²³ The Board notes that agency precedent raises concerns about these ratios as well. Nevada Power I noted that reliance on certain financial ratios, including return on equity, would be particularly inappropriate because such ratios "can be affected by non-rail operations," which are outside the agency's purview. 6 I.C.C.2d at 8-9 (citing Standards II, 3 I.C.C.2d at 267). In addition, Standards II specifically questioned the use of operating ratios given the inherent subjectivity in determining "what level of operating ratio or current ratio [should be considered] adequate." 3 I.C.C.2d at 266.

²⁴ Consumers argues that CSXT itself relies on certain financial ratios over a period of less than three years to incentivize its executives. But that fact is not dispositive as to whether CSXT has achieved long-term revenue adequacy under § 10704 and the Board does not dispute the general principle that some financial ratios can be relevant to financial health.

After carefully evaluating the evidence, the Board concludes that CSXT has not been shown to be revenue adequate. The ICC and the Board have determined that CSXT's ROI has been consistently below the industry's COC, resulting in CSXT having been found revenue inadequate under the Board's annual determinations.²⁵ This fact clearly suggests that CSXT is not revenue adequate. See June 2015 Decision, slip op. at 2; see also 2016 Determination, slip op. at 1, 3 (finding CSXT revenue inadequate as of 2016). While there is a greater likelihood that a carrier that has consistently fallen just short of the line in the Board's annual revenue adequacy determinations could nonetheless be found to be revenue adequate, and while a shipper may submit other probative evidence to make its case, the other evidence submitted by Consumers here was not persuasive enough to outweigh the conclusion drawn from the Board's annual determinations. Although Consumers' evidence certainly indicates that CSXT was not a distressed business over the period of time analyzed by Consumers, this does not equate to having achieved long-term revenue adequacy under § 10704. In short, the Board concludes that the evidence presented by Consumers does not satisfactorily rebut the railroad's prima facie showing—based on the Board's consistent annual determinations—that it has not achieved revenue adequacy. See Nev. Power I, 6 I.C.C.2d at 9.²⁶ The Board therefore will not apply the revenue adequacy constraint here.

As a final note, any carrier's revenue adequacy status can change based on a variety of factors and CSXT appears to be quite close to achieving revenue adequacy on an annual basis. See 2016 Determination, slip op. at 1, 3 (showing CSXT's ROI to be just 0.26 below the industry COC). Moreover, CSXT has recently made profound alterations to its operations, and presumably its cost structure, over the past year in an attempt to increase profitability. See infra n.46. Consumers' evidence does not cover that period. Accordingly, despite the Board's finding that CSXT is not revenue adequate *based on this record*, that does not preclude the Board from reaching a different conclusion in the future.²⁷

²⁵ The agency's annual determination was specifically developed to try to best incorporate the elements of the statutory definition of revenue adequacy in § 10704 through an objective methodology. See Standards I, 364 I.C.C. at 804-08.

²⁶ The Board rejects Consumers' argument that CSXT should be deemed to have admitted that it fulfills the § 10704 revenue adequacy criteria because CSXT on reply failed to demonstrate that it does not satisfy the criteria. CSXT is permitted to rely on the Board's revenue adequacy annual determinations, which are generated by a methodology that is specifically designed to incorporate the § 10704 factors. See Nev. Power I, 6 I.C.C.2d at 9; Standards I, 364 I.C.C. at 804-08.

²⁷ The Board need not decide at this time when Consumers could bring a new rate case under the revenue adequacy constraint or whether the Board's doctrine regarding unsuccessful litigants in SAC cases should be applied differently, if at all, to revenue adequacy claims. See Intermountain Power Agency v. Union Pac. R.R., NOR 42127, slip op. at 3 n.11 (STB served Nov. 2, 2012).

C. SAC TEST

A SAC analysis seeks to determine whether a complainant is bearing the cost of any inefficiencies or the cost of any facilities or services from which it derives no benefit; it does this by simulating the competitive rate that would exist in a “contestable market,” i.e., a market that is free from barriers to entry. Under the SAC constraint, the rate at issue cannot be higher than what the SARR would need to charge to serve the complaining shipper while fully covering all of its costs and earning a reasonable ROI. This analysis produces a simulated competitive rate against which the challenged rate is judged. Coal Rate Guidelines, Nationwide, 1 I.C.C.2d 520, 542 (1985), aff’d sub nom. Consol. Rail Corp. v. United States, 812 F.2d 1444 (3d Cir. 1987).

To make a SAC presentation, a shipper designs a SARR specifically tailored to serve an identified traffic group. Using information on the types and amounts of traffic moving over the defendant’s rail system, the complainant selects a subset of that traffic (including its own traffic to which the challenged rate applies) that the SARR would serve.

Based on the traffic to be served, the level of services to be provided, and the terrain to be traversed, a detailed operating plan must be developed for the SARR. Once an operating plan is developed that would accommodate the traffic group selected by the complainant, the system-wide investment requirements and operating expense requirements (including such expenses as locomotive and car leasing, personnel, material and supplies, and administrative and overhead costs) must be estimated. The parties must provide appropriate documentation to support their estimates.

It is assumed that investments normally would be made prior to the start of service, that the SARR would continue to operate into the indefinite future, and that recovery of the investment costs would occur over the economic life of the assets. The Board’s SAC analyses, however, are limited to a finite period of time and examine the revenue requirements for the SARR based on the operating expenses that would be incurred over that period and the portion of capital costs that would need to be recovered during that period. A computerized DCF model simulates how the SARR would likely recover its capital investments. The annual revenues required to recover the SARR’s capital costs (and taxes) are combined with the annual operating costs to calculate the SARR’s total annual revenue requirements.

The revenue requirements of the SARR are then compared to the revenues that the defendant railroad is expected to earn from the traffic group, presuming that the revenue contributions from non-issue traffic are based on the revenues produced by the current rates. Traffic and rate level trends for that traffic group are forecast into the future to determine the future revenue contributions from that traffic.

The Board then compares the revenue requirements of the SARR against the total revenues being generated by the traffic group over the SAC analysis period. If the present value

of the revenues that would be generated by the traffic group is less than the present value of the SARR's revenue requirements, then the complainant has failed to demonstrate that the challenged rate levels violate the SAC constraint. If the present value of the revenues from the traffic group exceeds the present value of the revenue requirements of the SARR, then the Board must decide what relief to provide to the complainant by allocating the revenue requirements of the SARR among the traffic group.

CSXT'S MOTION TO STRIKE

On May 3, 2017, CSXT filed a motion to strike certain portions of Consumers' supplemental rebuttal evidence as improper. Consumers filed a reply to CSXT's motion on May 23, 2017.

CSXT argues that the Board should strike Consumers' supplemental rebuttal evidence on locomotive repositioning. (CSXT Mot. to Strike 2, May 3, 2017.) According to CSXT, both Consumers and CSXT used the same approach throughout the initial round of evidence to calculate the additional locomotives and locomotive-unit miles required to reposition units to address traffic imbalances across the CERR network. (*Id.*) CSXT asserts that Consumers altered that approach in its supplemental opening workpapers, however, without any narrative explanation for the change. (*Id.*) CSXT argues that Consumers improperly waited until supplemental rebuttal to explain the change in its approach. (*Id.*)

In its reply to the motion to strike, Consumers argues that it did not change the agreed-upon methodology, but rather, when certain merchandise trains were removed in response to the December 2016 Decision, the imbalance disappeared, leaving no need for repositioned locomotives. (Consumers Reply 6, May 23, 2017.)

The Board need not reach the merits of CSXT's motion to strike because it finds that Consumers changed its locomotive repositioning methodology in its supplemental opening evidence, and that the change exceeded the scope of the December 2016 Decision. In the December 2016 Decision, slip op. at 20, the Board permitted Consumers to submit evidence on those issues directly affected by Consumers' modification of its traffic group, but prohibited Consumers from modifying unaffected issues or costs (e.g., while certain quantities could change, unit costs should remain the same). While it is reasonable to expect that the locomotive imbalance would change as a result of Consumers' modification of its traffic group, the record belies Consumers' claim that the imbalance simply disappeared. Rather, it is evident from Consumers' workpapers that Consumers changed its locomotive repositioning methodology between the initial round of evidence and the supplemental round of evidence in a manner that eliminated an imbalance that would have occurred under Consumers' prior methodology. (Compare Consumers Opening WP "Base Unit Merch Trains v6_Statistics.xlsx," Tab "Crew and Loco balancing," Cell X37 with Consumers Suppl. Evid. WP "Base Unit Merch Trains

v6_Statistics_Supplemental.xlsx,” Tab “Crew and Loco balancing,” Cell X38.)²⁸ Accordingly, the Board will accept the methodology used by both parties in the initial round of evidence, and will deny CSXT’s motion to strike as moot.

SAC ANALYSIS

Set forth below is the Board’s analysis of the SAC evidence presented in this case. The evidence demonstrates that the challenged rates exceed the level permitted by the SAC test. Certain significant issues are discussed in the body of this decision, while the remaining issues are discussed in the attached appendices.

A. TRAFFIC GROUP AND REVENUES

A complainant creates a traffic group by using information on the types and amounts of traffic moving over the defendant’s rail system, and selecting a subset of that traffic (including its own traffic to which the challenged rate applies) that the SARR would serve. Ariz. Elec. Power Coop. v. BNSF Ry., NOR 42113, slip op. at 16 (STB served Nov. 22, 2011), pet. for review denied sub nom. BNSF Ry. v. STB, 748 F.3d 1295 (D.C. Cir. 2014). The selected traffic group is representative of that which would move on the SARR in the future. Ariz. Elec., NOR 42113, slip op. at 16. The Board’s predecessor, the ICC, laid out the principles of the SAC constraint in Coal Rate Guidelines, Nationwide, 1 I.C.C.2d 520 (1985), aff’d sub nom. Consolidated Rail Corp. v. United States, 812 F.2d 1444 (3d Cir. 1987). With respect to traffic group selection, the agency noted that “[t]he ability to group traffic of different shippers is essential to [the] theory of contestability.” Id. at 544. It further articulated that, notwithstanding debate over what traffic should be included in a stand-alone system, it saw

no need for any restrictions on the traffic that may potentially be included in a stand-alone group. But the potential traffic draw and attendant costs and revenues that the hypothetical stand-alone provider could expect are open to scrutiny in

²⁸ In the initial round of evidence, the parties coded westward imbalances (i.e., trains that had more westward movements than eastward movements) with a positive (+) sign, and eastward imbalances with a negative (-) sign. On opening, Consumers calculated a net imbalance of +241 trains. (Consumers Opening WP “Base Unit Merch Trains v6_Statistics.xlsx,” Tab “Crew and Loco balancing,” cell X30.) CSXT alleges that Consumers calculated a net imbalance of -178 trains on supplemental opening, but modified its formulae to treat its calculation of a “negative” overall imbalance as zero in its supplemental evidence. (CSXT Mot. to Strike 3, May 3, 2017; Consumers Suppl. Evid. WP “Base Unit Merch Trains v6_Statistics_Supplemental.xlsx,” Tab “Crew and Loco balancing,” Cells X31, and X38.) The Board agrees with CSXT that, despite Consumers’ assertion that the imbalance disappeared in its supplemental evidence, Consumers changed its calculation to zero-out any “negative” imbalances and, therefore, the Board need not reach the merits of CSXT’s motion to strike Consumers’ supplemental rebuttal evidence.

individual cases. The proponent of a particular stand-alone model must identify, and be prepared to defend, the assumptions and selections it has made.

Id.

Subsequently, in Texas Municipal Power Agency v. Burlington Northern & Santa Fe Railway, 6 S.T.B. 573, 589 (2003), the Board held that, “[w]hile a complainant has considerable flexibility in designing and locating the SARR and grouping traffic to take advantage of the traffic densities, it does not have unbridled discretion.” Moreover, the composition of the traffic group, as with all assumptions used in the SAC analysis, must be realistic, i.e., consistent with the underlying realities of real-world railroading. See Ariz. Elec., NOR 42113, slip op. at 16; see also W. Fuels Ass’n v. BNSF Ry., NOR 42088, slip op. at 15 (STB served Feb. 18, 2009).

1. Consumers’ Traffic Group Selection

The Board permitted Consumers to submit supplemental evidence on its traffic group after finding that Consumers’ initial treatment of merchandise traffic exceeded a complainant’s allowable discretion and was inconsistent with the realities of real-world railroading. Consumers Energy Co. v. CSXT, Inc. (December 2016 Decision), NOR 42142, slip op. at 19-20 (STB served Dec. 9, 2016). The Board found that, under Consumers’ traffic selection, CERR would accept a merchandise customer’s railcar on one day, but reject it the next if that railcar arrived on a train including toxic-by-inhalation hazardous (TIH) traffic or required switching in Chicago. Id. at 19. The Board agreed with CSXT that “[n]o real world customer would contract with a railroad on such restrictive terms.” Id. (citing CSXT Reply III-A-8, Mar. 7, 2016). And, even in the unlikely event that a customer were to agree, the Board stated that it would be extremely difficult, if not impossible, for the CERR to operate in such a manner. Id.

The Board also found that Consumers’ selection of merchandise traffic took the goals of the SAC test—of maximizing efficiency and minimizing costs—beyond what was possible in real-world railroading. December 2016 Decision, slip op. at 19. The Board reasoned that Consumer’s traffic selection appeared to reflect an attempt to exclude the costs of adding PTC and on-SARR blocking and classification. Id. The Board stated that, while a shipper is certainly permitted to design a maximally efficient, low-cost SARR, if the Board were to accept Consumers’ vision of unfettered traffic selection, SAC complainants could submit traffic groups composed of only the most profitable trains while rejecting less profitable trains of the same sort without any realistic basis for doing so. Id. Thus, the Board determined that once a SARR elected to serve a certain subset of traffic—by customer, commodity, route, service type, or some combination thereof—the SARR must serve all of that subset of traffic consistently and without regard to how it was tendered. Id. Because Consumers chose to include merchandise traffic, but did not serve all that merchandise traffic consistently, the Board determined that Consumers’ traffic group selection was inappropriate. Id.

The Board, therefore, directed Consumers to supplement its SAC presentation so that the Board could complete its regulatory review. December 2016 Decision, slip op. at 20. In revising its traffic group, Consumers was directed to either exclude all merchandise traffic, or accept merchandise traffic pursuant to the standard stated in December 2016 Decision and include the necessary costs to handle that traffic (e.g., PTC costs). Id.

2. Compliance with December 2016 Decision

In its supplemental opening evidence, Consumers submits that the Board's ruling on the merchandise traffic group is in error, and unfairly restricts the "broad flexibility" to which Consumers is entitled under Coal Rate Guidelines. (Consumers Suppl. Evid. 4-5, III-A-1 to III-A-5.) Nevertheless, Consumers states that it has complied with the Board's directive by choosing to exclude the merchandise traffic at issue. Accordingly, it modified its traffic group selection, resulting in the removal of 897 trains during the 2014 base year, 210 trains during the first quarter of 2015, and 24 trains during the peak period (March 24 to March 30, 2024), and made commensurate modifications to CERR's traffic volumes, revenues, operating statistics, operating expenses, and RPI. (Consumers Opening I-38; Consumers Suppl. Evid. III-A-5 to III-A-13.) In selecting which merchandise traffic to exclude, Consumers states that its modified traffic group was determined by route and service type, with the latter defined by reference to the same (identification numbers used by CSXT . . . to denote specific train service as recorded in . . . 2014/1Q 2015 train event data . . .), and that it used internal CSXT data to determine whether any trains contained TIH traffic, or required intermediate switching. (Consumers Suppl. Evid. III-A-11 to III-A-12; Consumers Rebuttal I-5, Apr. 13, 2017.)

In its supplemental reply, CSXT argues that, while Consumers removed 897 merchandise trains, the revised traffic group still suffers from many of the same problems as the original traffic group, albeit on a smaller scale. (CSXT Reply I-4, Mar. 6, 2017.) Specifically, CSXT states that there are 75 merchandise trains in Consumers' traffic group where CERR would serve a merchandise customer if its traffic arrived on trains that require no switching in Chicago and carries no TIH traffic, but not serve that customer if its traffic arrived on a train that does require switching in Chicago or does contain TIH traffic. (Id. at I-4 to I-9.) CSXT states that, despite Consumers' non-compliance with the Board's directive in the December 2016 Decision, it will not contest Consumers' merchandise traffic selection any further, as removal of the 75 problematic merchandise trains would not likely be material to the outcome of this case. (Id. at I-8.)²⁹

On supplemental rebuttal, Consumers only briefly addresses CSXT's claim that some merchandise traffic is improperly included in the traffic. (Consumers Rebuttal I-5 to I-6,

²⁹ CSXT further argues that Consumers failed to service its own issue traffic. According to CSXT, Consumers failed to account for the train service required to deliver bad-ordered issue traffic cars from BNSF to CERR and simply ignores such cars. (CSXT Reply I-7 to I-8, Mar. 6, 2017.) This issue is addressed in the Operating Plan section of this decision.

Apr. 13, 2017.) Consumers then acknowledges CSXT's acceptance of the merchandise traffic and continues to include it in its traffic group. (Id. at I-6, III-A-1.)

The Board finds that although there are some issues regarding Consumers' full compliance with December 2016 Decision, the case can nonetheless proceed on the submitted evidence. The Board is persuaded by the fact that CSXT is not contesting Consumers' merchandise traffic selection any further, as well as CSXT's assertion that removal of the 75 problematic merchandise trains would unlikely be material to the outcome of this case. (See CSXT Reply I-8, Mar. 6, 2017.)³⁰

3. Traffic Group Selection

The issue of merchandise traffic aside, CSXT challenges Consumers' inclusion of: (1) K300 Series coke trains; and (2) certain ethanol and automotive trains traversing a 9.9-mile segment of the IHB replicated by CERR, between Calumet Park, Ind., and Curtis, Ind. However, to ensure that the Board has a SAC presentation from CSXT that comports with any potential traffic group the Board might ultimately select, CSXT submitted three alternative SAC analyses in its electronic workpapers:

Base Case: Matches the traffic selection submitted by Consumers in its supplemental opening evidence, except it excludes certain merchandise trains (including 19 peak period trains) between Calumet Park and Curtis that Consumers' supplemental opening RTC model purportedly indicates would fail to meet CSXT historical service standards over those segments;

³⁰ Although Consumers removed 897 merchandise trains from its traffic group and the Board accepts the parties' agreement to no longer litigate this compliance issue, the Board agrees with CSXT that Consumers' revised traffic group still contains 75 merchandise trains that are served inconsistently, leading to CERR moving some customers' freight on certain days but not on others. (CSXT Reply I-7, Mar. 6, 2017.) Consumers based its inconsistent selection of merchandise traffic on whether a train moved under a CSXT train symbol that indicated that the train required switching or contained TIH traffic. However, that selection did not take into account whether an *individual customer's* traffic moved under multiple train symbols—some of which required switching or contained TIH, and some which did not. This sort of inconsistent service of a customer's traffic is what the Board sought to avoid. Indeed, Consumers' decision to equate train symbol and service type is a misinterpretation of the December 2016 Decision. In that decision, the Board stated that once a SARR elects to serve a subset of traffic (based on "customer, commodity, route, *service type*, or some combination thereof"), it cannot do so inconsistently. December 2016 Decision, slip op. at 19 (emphasis added). The Board then indicated that Consumers' decision to serve one such subset—merchandise traffic—inconsistently was problematic. The Board's decision thus clarified that all traffic of a specific customer, for the same commodity, moving over the same route in the same fashion, should be treated consistently by the SARR.

and 114 petroleum coke trains (including two peak period trains) that purportedly did not traverse the lines replicated by CERR (K300 Series or coke trains);

Alternative 1: Matches the traffic group submitted by Consumers in its supplemental opening evidence, except that it excludes coke trains; and

Alternative 2: Matches the traffic group submitted by Consumers in its supplemental opening evidence.

CSXT asserts that its Base Case is the appropriate traffic group to use in this proceeding. (CSXT Reply I-9 to I-10, Mar. 6, 2017.) In its supplemental rebuttal, Consumers' argues that CSXT's additional traffic adjustments are without merit. (Consumers Rebuttal III-A-2, Apr. 13, 2017.)

After reviewing the parties' supplemental evidence, the Board finds that the parties agree on the basic parameters of the CERR traffic group with only three exceptions: bad-ordered coal cars that are part of the issue traffic, K300 Series or coke trains, and merchandise trains that traverse the CERR between Calumet Park, Ind., and Curtis, Ind. (Consumers Rebuttal I-7, Apr. 13, 2017; CSXT Reply I-8, Mar. 6, 2017.) The Board will accept Consumers' traffic group selection, with the exception of K300 Series trains, where the Board finds that Consumers has not supported its position and that CSXT has provided appropriate corrective evidence, as discussed below.³¹ Additionally, as discussed in the Operating Plan section of this decision, bad-ordered cars represent issue traffic and will be included in the CERR traffic group selection.

a. Exclusion of K300 Series Trains

In its original reply and supplemental reply, CSXT argues that the K300 Series coke trains should be excluded from the traffic group and therefore removes this traffic in both its proposed Base Case scenario and Alternative 1. (CSXT Reply III-A-11, Mar. 7, 2016; see also CSXT Reply III-A-2, Mar. 6, 2017.) Specifically, CSXT argues that, in the real world, these 114 base-year coke trains do not move over any lines replicated by CERR. (CSXT Reply III-A-2, Mar. 6, 2017; CSXT Reply WP "CERR Car Traffic Forecast_Supp_Reply.xlsx," Mar. 6, 2017.) According to CSXT, Consumers erroneously assumes that the K300 Series coke trains (i.e. trains K310-313 and K370-371) traverse the Barr Subdivision (which is replicated on the CERR

³¹ On reply, CSXT takes exception to Consumers' process of selecting CERR traffic from the CSXT files produced in discovery at a "waybill level." (CSXT Reply III-A-15, Mar. 7, 2016.) CSXT states that Consumers' waybill level traffic selection approach improperly assumes that all traffic on a waybill will stay together throughout an entire movement. (*Id.*) However, the parties do not address this issue in their supplemental evidence and the Board has confirmed that the parties' supplemental carload traffic data are now consistent. Accordingly, this issue is moot and need not be addressed.

system) when traveling to and from East Chicago, when in fact, the train sheet data produced in discovery shows that the trains do not move on the line replicated by CERR beyond the Curtis interchange tracks. (CSXT Reply III-A-11, Mar. 7, 2016.)

In its original and supplement rebuttal, Consumers argues that CSXT's criticisms of Consumers' evidence are based on defects in the data that CSXT itself provided, which CSXT then failed to disclose. Specifically, Consumers explains that it relied on train sheet data provided by CSXT to identify the routes that CSXT trains take in the real world, which CSXT confirmed as being a reliable source of information for this purpose. (Consumers Rebuttal III-A-15 to III-A-16, May 20, 2016.) Consumers claims though that there is a disconnect between the destinations and the intermediate stations in CSXT's train event data. In particular, Consumers argues that CSXT data shows that coke trains terminate at either designation "CHICBO" or milepost DD 2, which it asserts is the equivalent to Barr Yard (located on the Barr Subdivision), and thus located on CERR. (*Id.* at III-A-19 to III-A-20, III-A-24 to III-A-25.) However, Consumers claims that the intermediate station data shows the trains as being on the Lake Subdivision or Blue Island Subdivision. (*Id.* at III-A-20 to III-A-23.) Consumers states that CSXT argues that the Board should decide the routing issue based on the event data for the intermediate stations (i.e., the Lake Subdivision), while ignoring the event data for the destination (the Barr Yard), but that CSXT provides no explanation as to why the intermediate stations should override the destination. (*Id.* at III-A-23 to III-A-24.)

Consumers further argues that CSXT's intermediate station data is unreliable. It provides, as an example, train event data for a coke train that it claims shows the train passing stations on both the Blue Island Subdivision and the Lake Subdivision, even though there is no connection between the two lines in that area. (Consumers Rebuttal III-A-21 to III-A-22, May 20, 2016.) It also notes that, in this example, for all of the events indicating the train passed a station on the Lake Subdivision, there is a "NULL" timestamp. Consumers argues that CSXT relied exclusively on the intermediate train events with NULL timestamps in support of its claim that the trains move over the Lake Subdivision, while ignoring both the terminal event reported by the train sheets at Barr Yard, and the train profile data which also identify Barr Yard as the terminal station. (Consumers Rebuttal III-A-32 to III-A-33, May 20, 2016; Consumers Rebuttal III-A-3, Apr. 13, 2017.)³² Finally, Consumers argues that additional evidence shows that CSXT's data is unreliable, including records of CSXT trackage rights payments to NSR, waybill data for the coke trains, and CSXT's contracts. (Consumers Rebuttal III-A-27 to III-A-33, May 20, 2016.)

For these reasons, Consumers rejects CSXT's removal of the K300 Series trains and continues to include this traffic in the CERR traffic group, along with any associated revenues and operating expenses. (Consumers Rebuttal III-A-32 to III-A-33, May 20, 2016; Consumers Rebuttal III-A-3, Apr. 13, 2017.)

³² Consumers also takes issue with CSXT's attempt to backfill the NULL timestamps. (Consumers Rebuttal III-A-26, May 20, 2016.)

The Board finds that, although Consumers argues that there are defects in CSXT's discovery data, Consumers' argument is misplaced. Consumers' confusion stems from its own misinterpretation of the data. In particular, Consumers continuously states that CSXT's evidence shows that trains terminate at Barr Yard, as indicated by either milepost DD 2 or designation CHICBO. However, neither milepost DD 2 nor designation CHICBO can be confirmed as Barr Yard from the workpapers relied upon by Consumers. Rather, according to Consumers' rebuttal workpaper, "Train_Profiles.acc database," Table FE6DAP, May 20, 2016, milepost DD 2 and designation CHICBO appear to be associated with Standard Point Location Code (SPLC)³³ 380000, which is the generic SPLC for the Chicago area. Conversely, the specific milepost for the designation of Chicago Barr Yard is identified as JJJ 36 and the applicable SPLC listed for this location is 380681. (See Consumers Rebuttal WP "Train_Profiles.acc database," Table FE6DAP, May 20, 2016.) Thus, while Consumers' train sheet evidence confirms that CHICBO and DD 2 are located in the Chicago region, the evidence does not confirm that they are the same as Barr Yard.

The fact that Consumers has assumed that CHICBO and DD 2 represent the location for Barr Yard appears to explain Consumers' alleged disconnect in the train event data between the intermediate station routing and the destination—not errors in the evidence provided by CSXT on discovery. Indeed, once Consumers' assumption that the trains terminate in Barr Yard is removed, most of the inconsistencies that Consumers details in its rebuttal become moot. In the example that Consumers discussed in its rebuttal purportedly showing the inconsistency in train event data, Consumers states that "[t]here is no way to explain how the train could have moved from the reported penultimate location, Whiting, IN, [on the Lake Subdivision] to the reported destination of Chicago, IL (*Barr Yard*)."

(Consumers Rebuttal III-A-23, May 20, 2016, emphasis added.) Consumers is correct, but for the wrong reason: it is not that there is an inconsistency between the CSXT train data for the intermediate stations and the destination, but rather, an inconsistency between the intermediate station data and Consumers' assumption that the destination is Barr Yard.³⁴

³³ The SPLC, assigned by the National Motor Freight Traffic Association, is designed to provide each point originating freight and each point receiving freight in North America with a unique code number to identify the point with its geographic location, using two digits to identify State, County and City and additional digits to identify Sub-Code.

³⁴ It appears that Consumers' claim that the trains pass through stations on both the Blue Island Subdivision and Lake Subdivision is also incorrect, based on a misreading of the train event data. Consumers appears to arrive at this notion by interpreting milepost designations starting with "BI" as indicating the Blue Island Subdivision and those starting with "BIA" as indicating the Lake Subdivision. (Consumers Rebuttal III-A-22, May 20, 2016.) However, that is incorrect. Mileposts with "BIA" are located on the Lake Subdivision. The Blue Island Subdivision, however, has milepost designations starting with "DC." The movements reflected in Consumers' Table III-A-2 (see Consumers Rebuttal III-A-21, May 20, 2016), with a "BI" designation appear on the Barr Subdivision in Indiana, off-SARR. Given this fact, Consumers'

Consumers' incorrect assumption appears to also undermine the other evidence it cites in support of its claim. In particular, Consumers claims that there is an inconsistency in the waybill data, in that one field indicates the destination as DD 2 and another field indicates the ultimate destination as Indiana Harbor, Ind. (Consumers Rebuttal III-A-29 to III-A-30, May 20, 2016.) Consumers also claims that the waybill data shows the coke trains as having a CSXT network milepost destination that matches 100th Street in Chicago, which Consumers acknowledges is located on the Lake Subdivision. (*Id.*)³⁵ Consumers claims that this data thus demonstrates that CSXT's evidence is flawed, as the trains are in fact terminating at Barr Yard. However, it appears that the opposite is true: the waybill data is correct, and it is Consumers' assumption that the trains terminate at Barr Yard that is incorrect.

Regarding Consumers' argument that records of trackage rights payments to NSR contradict CSXT's claims about the routing of the K300 traffic, the Board also finds Consumers' argument to be unfounded. Specifically, a review of the invoices for NSR's trackage rights payments reflect that there are no references to Barr Yard—thereby negating Consumers' argument that NSR trackage rights payments show that K300 Series traffic moves over the CERR portion of the Barr Subdivision. (Consumers Rebuttal WP "Rebuttal-JFA Invoices_K300 series Comparison.xlsx," May 20, 2016.)

Finally, the parties' traffic and revenue workpapers and CSXT's contract governing this traffic support CSXT's claim that trains do not in fact move over the SARR on the Barr Subdivision. The 114 coke trains dropped from CSXT's traffic group selection can be identified from CSXT's supplemental reply workpapers. (See CSXT Reply WPs "CERR Car Traffic Forecast_Supp_Reply_Alt1.xlsx" & "CERR Car Traffic Forecast_Supp_Reply_Alt2.xlsx," Mar. 6, 2017.) Based on the workpapers, the 114 trains can be grouped into eight different traffic movements.³⁶ The Board notes that all eight of these traffic movements originate in

concern over the NULL timestamps for certain train event data becomes immaterial. Although it is unclear why some train events contain such timestamps, it supports CSXT's claim that the trains do not travel over the SARR.

³⁵ Although not explained by Consumers, the discrepancy for the "ultimate" destination being Indiana Harbor and the "CSXT network" destination being 100th Street in Chicago is likely due to the fact that at 100th Street, CSXT hands off the cars to a shortline carrier for transport to Indiana Harbor. (See Consumers Rebuttal WP "SCIH 8000," May 20, 2016.)

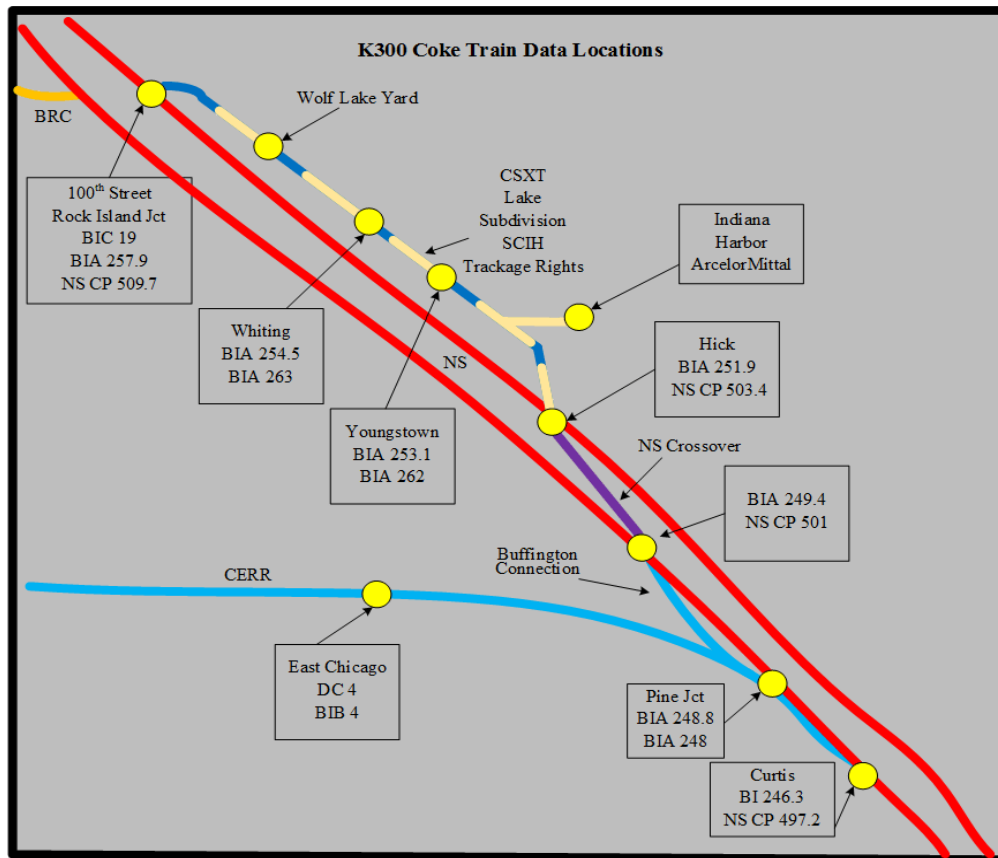
³⁶ (See Consumers Rebuttal WPs "Analysis Of K300 Train Removal V01 20160324.xlsx," "Analysis Of K310 Train Removal V01 20160325.xlsx," "Analysis Of K311 Train Removal V01 20160324.xlsx," "Analysis Of K312 Train Removal V01 20160325.xlsx," "Analysis Of K313 Train Removal V01 20160325.xlsx," "Analysis Of K370 Train Removal V01 20160325.xlsx," & "Analysis Of K371 Train Removal V01 20160325.xlsx" Apr. 13, 2017.)

Bessemer, Pa., and terminate in one of three destinations: Indiana Harbor, Ind., Gary, Ind., or Fairfield, Ala.³⁷

Based on these origin-destination pairs, it is unlikely that trains would travel through Barr Yard. Gary, Ind., is located between Bessemer and the CSXT interchange at Curtis. Thus, to pass through Barr Yard, a train would have to travel past the destination of Gary, Ind., only to then be routed back. Similarly, Fairfield, Ala., is located farther south, so neither Barr Yard nor any portion of CERR would likely be part of the route for that traffic. Finally, a diagram that Consumers itself includes on rebuttal (Consumers Rebuttal III-A-18, May 20, 2016) demonstrates that the coke traffic headed to Indiana Harbor would not travel on CERR either. Rather, the diagram shows that Indiana Harbor is located on the CSXT Lake Subdivision and can be reached from NSR's track via the NSR Crossover. It does not seem probable or likely that rail traffic would switch from NSR's track to CERR at Curtis to travel two stops before accessing the NSR Crossover when the rail traffic could stay on NSR track to reach its ultimate destination—Indiana Harbor.

See Consumers' Figure III-A-1 below where the portion labeled CERR leads west to Barr Yard, and the Indiana Harbor destination is located on the Lake Subdivision, which is not part of CERR.

³⁷ Consumers states in its rebuttal that the contracts indicate that both East Chicago, Ind. and Indiana Harbor are identified as terminal stations, and that East Chicago is located on CERR. (Consumers Rebuttal III-A-33, May 20, 2016; see Consumers Rebuttal WP "Contract CSXT 85377.pdf," May 20, 2016.) However, none of the movements that terminate in East Chicago are included in Consumers' traffic group.



CSXT's supplemental reply evidence undermines Consumers' argument that the coke trains traverse CERR, as the eight movements dropped from CSXT's evidence indicate that the trains originate in Bessemer, Pa., and terminate in Indiana Harbor or Gary, Ind., or Fairfield, Ala., not East Chicago, Ind.³⁸ The Board finds CSXT's position that these trains would not travel on CERR to be feasible, supported, and realistic. Thus, the Board will accept CSXT's exclusion of the 114 K300 Series trains.

b. Inclusion of IHB Railway Trains

In its original reply and supplemental reply, CSXT rejects Consumers' inclusion of certain trains traversing a 9.9-mile segment of the IHB replicated by CERR, between Calumet Park, Ind., and Curtis, Ind. (CSXT Reply III-A-2 to III-A-3, Mar. 6, 2017; see CSXT Reply III-A-12, Mar. 7, 2016.) CSXT argues that Consumers' calculation of transit times for this traffic is flawed, but that once corrected, the transit times show that CERR's service is not equal to or better than CSXT's service. See Tex. Mun. Power, 6 S.T.B. at 589 ("[t]he SARR must meet the

³⁸ With respect to Consumers' argument that CSXT's timestamp adjustment is inappropriate, the Board need not address that issue. It is the route of the K300 Series traffic, and not the timing of the trains, that is relevant here.

transportation needs of the traffic in the group by providing service that is equal to (or better than) the existing service for that traffic.”). Accordingly, CSXT excludes this traffic (mostly ethanol and automotive traffic) from its Base Case traffic group.

CSXT argues that Consumers’ transit-time comparison is flawed for several reasons. According to CSXT, Consumers’ transit-time comparison between CERR and CSXT for trains moving westbound—from Curtis to Calumet Park—indicates that Consumers used an incorrect timestamp. (CSXT Reply III-A-12, Mar. 7, 2016.) CSXT alleges that Consumers used a timestamp for a point located beyond Calumet Park that is off the CERR. (*Id.*) When the correct timestamp records for transit between Curtis and Calumet Park are used, CSXT argues that Consumers’ RTC model indicates that transit times average 15%³⁹ slower than CSXT on this segment. (*Id.*) Thus, CSXT argues that the merchandise trains moving westbound over this segment must be excluded due to the inferior level of service provided. (*Id.* at III-A-12 to III-A-13.)

CSXT also argues that the eastbound trains traversing CERR between Calumet Park and Curtis must be omitted. (CSXT Reply III-A-13, Mar. 7, 2016.) CSXT states that Consumers, in applying its service-standard test, concluded that CERR would provide service that was 3% faster than the service provided by CSXT. (*Id.*) CSXT, however, asserts that Consumers’ analysis is flawed in three respects. First, CSXT argues that Consumers’ transit time comparison used a different mix of CSXT trains than the trains in the RTC model. (*Id.*) CSXT states that, when corrected to compare the RTC trains to the historical performance of the same trains on CSXT, CERR would only provide service that was 1.5% faster. (*Id.*) Second, CSXT argues that Consumers’ modeling of CERR failed to reflect any delays at the grade crossings at Republic and State Line, which CSXT does not control. (*Id.*) According to CSXT, in the real world, the CSXT trains, when delayed at either of these crossings, would incur an average delay time of just over 33 minutes. (*Id.*) CSXT states that, to calculate the average delay per train, the total delay should be spread over all comparable CSXT eastbound trains. (*Id.*) CSXT submits that Consumers, in comparing CERR transit times to the historical CSXT transit times, should either model these crossing delays or remove the delays from the CSXT transit times. Under the latter approach, CSXT states that Consumers’ RTC trains run 13%⁴⁰ slower than the CSXT trains. (CSXT Reply III-A-13 to III-A-14, Mar. 7, 2016.)

Finally, CSXT argues that Consumers’ transit-time calculations for eastbound traffic are skewed by one outlier. (*Id.* at III-A-14.) According to CSXT, a single historical eastbound train moving between Calumet Park and Curtis experienced an atypical delay of 2:44 hours at Pine

³⁹ On supplemental reply, while not articulated in its narrative evidence, CSXT’s updated workpapers reflect transit times moving 12% slower than CSXT on this segment of CERR. (CSXT Reply WP “RTC CSXT Actual Calumet Park_Supp_Reply.xlsx,” Mar. 6, 2017.)

⁴⁰ On supplemental reply, while not articulated in its narrative evidence, CSXT’s updated workpapers reflect transit times moving 12% slower than CSXT on this segment of CERR. (CSXT Reply WP “RTC CSXT Actual Calumet Park_Supp_Reply.xlsx,” Mar. 6, 2017.)

Junction. (Id.) When the outlier is removed from CSXT's transit times, and the grade crossing delays at Republic and State Line that Consumers did not model are excluded, CSXT argues that CERR would provide 40% slower service than CSXT's historical service for these eastbound trains. (Id.)

On supplemental reply, CSXT reaffirms its position stated in its reply evidence. Accordingly, it eliminates the 535 base year trains traversing the IHB segment replicated by CERR, and their associated traffic from its Base Case traffic group selection. (CSXT Reply III-A-2 to III-A-3, Mar. 6, 2017.)

In its rebuttal and supplemental rebuttal evidence, Consumers asserts that it properly included the rail traffic moving between Calumet Park and Curtis. (Consumers Rebuttal III-A-36, May 20, 2016; Consumers Rebuttal III-A-3, Apr. 13, 2017.) Consumers submits that the "inferiority" alleged by CSXT consists solely of a de minimis difference in average transit times between CERR's operating plan and CSXT's historic record. (Consumers Rebuttal III-A-3, Apr. 13, 2017.) According to Consumers, the differential for westbound RTC trains is insignificant—only 7 minutes and 55 seconds—particularly when considering that on average the total historical transit time from CSXT origin to CSXT destination for these trains was 39.5 hours, over an average distance of 442 miles (with one train even showing a historical transit time over 107 hours). (Consumers Rebuttal III-A-39, May 20, 2016.) Consumers further argues that the time differential would disappear entirely, but for the mandated "dwell time" of 30 minutes for interchange that takes place between CERR and CSXT. (Id. at III-A-40.)

With respect to CSXT's arguments regarding the eastbound traffic between Calumet Park and Curtis, Consumers states that it accepts CSXT's adjustments to the mix of trains included in the comparison group. (Consumers Rebuttal III-A-41 to III-A-42, May 20, 2016.) Consumers, however, rejects CSXT's approach for accounting for the delays resulting from at-grade crossings. (Id. at III-A-43 to III-A-50.) First, Consumers argues that, despite CSXT's assertion that it removed the delays from the CSXT transit times, CSXT did not do so. (Id. at III-A-43.) Consumers states that CSXT instead developed an average per-train at-grade crossing delay for the historical trains in the comparison, and then added that amount of delay to Consumers' average RTC transit time. (Id. at III-A-43; see CSXT Reply WP "RTC CSXT Actual Calumet Park.xlsx," Tab "time comparison," Cell "D38," Mar. 7, 2016.) Consumers argues that there are several problems with CSXT's methodology, including the fact that it fails to acknowledge that, as a hypothetical railroad, RTC trains encounter different traffic and incur different delays than their historical counterparts. (Consumers Rebuttal III-A-43, May 20, 2016.) In other words, the fact that the CSXT train incurred a delay does not mean that a CERR train would also incur the delay.

Second, Consumers states that average transit times only provide one characteristic of the rail service provided—mainly the central mean tendency of the service. (Id. at III-A-54.) Consumers states that CSXT's methodology fails to recognize the value of service predictability and reliability as an indicator of service quality. (Id. at III-A-50 to III-A-55; Consumers Rebuttal

III-A-3, Apr. 13, 2017.) Consumers claims that CERR trains would provide service on a more reliable, consistent basis, with only a de minimis increase in transit times. (Consumers Rebuttal, III-A-54 to III-A-55, May 20, 2016.)

In sum, Consumers disagrees with CSXT's conclusion that CSXT historically provided a superior level of service over the 9.9-mile segment because of CERR's slightly longer transit time. (Id. at III-A-54.) Specifically, Consumers argues that Table III-A-3 of its rebuttal evidence indicates that, on an average basis, CSXT's historical transit times are 52 seconds shorter than CERR's, and that, on a whole, a 52 second increase in transit times is de minimis. (Id. at III-A-53 to III-A-54.) Consumers concludes that a de minimis time difference, coupled with an arbitrary 30-minute "dwell time," does not equate to an inferior level of service. (Id. at III-A-51.)

The Board accepts Consumers' inclusion in its selected traffic group of the 535 base year trains, traversing the replicated IHB line between Calumet Park and Curtis. Consumers has demonstrated that its evidence is feasible and supported. As noted above, the Board's overall service standard requires that "the SARR must meet the transportation needs of the traffic in the group by providing service that is equal to (or better than) the existing service for that traffic." Tex. Mun. Power, 6 S.T.B. at 589. However, the Board articulated in Total Petrochemicals & Refining USA, Inc. v. CSX Transportation, Inc., NOR 42121, slip op. at 40 (STB served Sept. 14, 2016), that there is no bright-line, exclusively transit time-based service standard. Rather, in applying this service standard, the Board considers a variety of factors—such as SARR cycle times, contract-based requirements, and efficiency of the SARR routing—to determine if the transportation needs of the traffic group customers are being met. See Pub. Serv. Co. of Colo. v. Burlington N. & Santa Fe Ry., 7 S.T.B. 589, 608 (2004); Tex. Mun. Power, 6 S.T.B. at 590-91, 595. Here, the Board finds that CSXT has failed to provide evidence that its customers' service needs (e.g., service delivery windows, performance benchmarks, or the presence/absence of penalties for not meeting performance goals) should be measured solely in terms of transit times. In the absence of this or other evidence establishing that real-world transit times are the sole metric by which to measure on-time performance and service quality, and given the relatively minor differences in transit times,⁴¹ CSXT has not supported its argument that the transportation needs of the customers at issue are not being met by CERR due to inferior service.

⁴¹ Consumers demonstrates in its rebuttal evidence that the "inferiority" alleged by CSXT consists solely of a de minimis difference in average transit times between the CERR operating plan and CSXT's historic record. Indeed, even CSXT's Figure III-C-12 in CSXT's supplemental reply shows that Consumers' Supplemental RTC provided transit times that were between 14% faster and 9% slower than CSXT's historical times, with the average being 5% faster. (CSXT Reply III-C-11, Mar. 6, 2017; CSXT Reply WP "RTC Output Time Comparisons_Supp_Reply.xlsx," Mar. 6, 2017.)

Because the Board accepts Consumer's traffic group selection, with the exception of the K300 Series trains, the Board will make adjustments to Consumers' traffic grouping consistent with CSXT's proposed Alternative 1 traffic grouping.

4. Divisions—Cross-Over Traffic

a. Merchandise Traffic

A recent issue in SAC cases has been how to allocate the revenues from "cross-over traffic" between the facilities replicated by the SARR and the residual network of the railroad needed to serve that traffic.⁴² Here, the parties dispute what percentage of cross-over traffic revenues CERR should be able to claim as its own.

CSXT argues that the handling of merchandise traffic Consumers includes in the traffic group raises a "significant concern" that the Board discussed in Docket No. EP 715, Rate Regulation Reforms. (CSXT Reply III-A-32, Mar. 7, 2016.) In a notice of proposed rulemaking in Rate Regulation Reforms (Rate Regulation Reforms NPRM), EP 715, slip op. at 16-17 (STB served July 25, 2012), the Board noted a concern that a disconnect existed between the hypothetical cost of providing service to carload and multi-carload traffic over the SARR portion of the movement, and the revenue allocation the SARR receives. The Board noted that in recent cases, complainants had proposed SARRs that carried such traffic in a manner more akin to trainload movements, and that the costs of originating, terminating, and gathering the single cars into a train were borne by the residual railroad. Id. Despite this, the SARR still received revenues as though it were handling single- and multi-car movements and, therefore, the SAC analysis appeared to allocate more revenue to the SARR facilities than was warranted. Id. To address this issue, the Board in Rate Regulation Reforms NPRM proposed to place restrictions in SAC cases on the complainants' inclusion of such traffic in their traffic groups. Although the Board ultimately declined to adopt a cross-over traffic limitation in the final rule, it indicated that parties in rate cases were "free to advocate in their individual proceedings ways to address this issue." Rate Regulation Reforms, EP 715, slip op. at 28 (STB served July 18, 2013), pet. granted in part sub nom. CSX Transp., Inc. v. STB, 754 F.3d 1056 (D.C. Cir. 2014), remanded to Rate Regulation Reforms, EP 715 (STB served Dec. 3, 2014).

Here, CSXT argues that CERR only accepts trains with run-through service, hauls them across CERR without breaking any train apart, and then delivers the entire train back to the residual CSXT or one of CSXT's interchange partners. (CSXT Reply III-A-33, Mar. 7, 2016.) CSXT claims that CERR therefore avoids the costs of originating, terminating, gathering, and blocking the cars into trains and that Consumers makes no effort to account for the bias created

⁴² Cross-over traffic refers to those movements included in the traffic group that would be routed over the SARR for only a part of their trip from origin to destination. In such circumstances, the SARR would not replicate all of the defendant railroad's service, but would instead interchange the traffic with the residual portion of that railroad's system.

in the revenue allocation for these lower costs. Accordingly, CSXT argues that an adjustment to the ATC distribution is warranted per the guidance in Rate Regulation Reforms. (CSXT Reply III-A-33 to III-A-34, III-A-37 to III-A-38, Mar. 7, 2016.) Specifically, CSXT proposes adjustments to the variable costs and fixed cost components of the ATC methodology used to determine the revenue allocation.⁴³

Consumers makes several arguments for why the adjustment proposed by CSXT is unwarranted, most notably that the residual CSXT does not itself incur all of the originating, terminating, or gathering costs claimed by CSXT.⁴⁴ (Consumers Rebuttal III-A-81 to III-A-82, May 20, 2016.) Consumers argues that, where CERR receives or delivers carload merchandise traffic with carriers other than the residual CSXT, CERR steps directly into the shoes of CSXT and receives or delivers those trains pre-blocked just as CSXT does. Thus, it argues that CERR handles a significant portion of the traffic group in the same manner that the real-world CSXT moves the traffic. (Id. at III-A-82.)

The Board finds that Consumers' evidence with respect to merchandise traffic is feasible and supported. Although the Board indicated in Rate Regulation Reforms NPRM that parties may propose adjustments to deal with cross-over traffic issues, the party seeking an adjustment still must show that the revenue adjustment is designed to reflect the differences between how the incumbent and SARR handle the traffic. See Rate Regulation Reforms NPRM, EP 715, slip op. at 16 (the Board noted a concern that "the costs of . . . originating, terminating, and gathering the single cars into a single train . . . would be borne by the residual railroad"). CSXT, the residual railroad here, has not supported its argument that CERR handles this traffic differently from CSXT. Although CSXT would apply its ATC adjustment to all merchandise traffic, Consumers asserts that it handles a significant portion of the merchandise traffic in the same manner as CSXT. CSXT argues that Consumers specifically selected certain traffic that moves

⁴³ CSXT's adjustment to the variable cost component involves treating the merchandise traffic as trainload traffic in URCS, rather than single-car or multi-car traffic. (CSXT Reply III-A-35, Mar. 7, 2016.) CSXT also proposes a novel adjustment to the fixed cost component of the ATC revenue allocation. (Id. at III-A-36 to III-A-37.) CSXT argues that such an adjustment is warranted because there is no switching on CERR, and therefore CERR does not replicate the entire functionality of the incumbent. (Id.) Consumers responds that even were such an adjustment allowed, which it does not concede, fixed costs cannot be separated out from the system as a whole and the adjustment that CSXT proposes removes costs that CERR incurs. (Consumers Rebuttal III-A-91 to III-A-93, May 20, 2016.) As discussed below, the Board rejects the need for any adjustment to the revenue allocation and therefore does not need to address this proposed adjustment.

⁴⁴ Consumers also argues that the Board's ATC methodology compensates the residual CSXT and CERR at proper levels, and that CSXT's modifications are unwarranted movement-specific adjustments counter to Board precedent under Major Issues in Rail Rate Cases, EP 657 (Sub-No. 1) (STB served Oct. 30, 2006), aff'd sub nom. BNSF Railway v. STB, 526 F.3d 770 (D.C. Cir. 2008). (Consumers Rebuttal III-A-82 to III-A-93, May 20, 2016.) The Board need not reach the merits of these arguments as the Board is otherwise rejecting the adjustment.

over CERR intact, (CSXT Br. 15, June 24, 2017), but it does not dispute Consumers' claim that CSXT does not handle the traffic any differently for many of the movements. Therefore, because CSXT has not shown that CERR's handling of the traffic is any different, no adjustment to the revenue allocation is needed.

b. Empty Unit Trains

On opening, Consumers uses an empty/loaded ratio of 100% for all unit train movements when developing its URCS Phase III variable costs for its ATC calculations. (See Consumers Rebuttal III-A-93, May 20, 2016.) The empty/loaded ratio is a measure of empty cars that pass back over the system in reverse for every loaded car. On reply, CSXT argues that there is a disconnect between the empty/loaded ratio in the ATC revenue allocation for crossover traffic and the actual ratio for unit trains for the non-issue traffic handled by CERR. (CSXT Reply III-A-38, III-A-41 n.60, Mar. 7, 2016.) CSXT argues that while URCS, as a default, considers the empty/loaded ratio to be 100% for unit trains, including those in the traffic group, the actual ratio handled by CSXT's real-world system replicated by CERR is 85%. (*Id.* at III-A-38.) CSXT states that this is the case because it routes lower-priority empty unit trains around the busy Chicago gateway, rather than back through Chicago. (*Id.* at III-A-38 to III-A-39.)

Because of this disconnect, CSXT argues that CERR receives more revenue than it is entitled to in the ATC distribution, where revenues are allocated based on costs. (CSXT Reply III-A-39, Mar. 7, 2016.) CSXT proposes a fix for the alleged problem by developing variable cost estimates for the on-SARR portion of the unit train movement by replacing the default 100% empty/loaded ratio with an 85% ratio. (*Id.* at III-A-39 to III-A-40, Mar. 7, 2016.) CSXT then calculates the off-SARR variable costs by calculating the total variable cost for the unit trains over the entire move and subtracting out the on-SARR variable cost estimate using the 85% empty/loaded ratio. (*Id.*) CSXT argues that this calculation properly assigns the revenue for the empty unit trains that do not traverse CERR to the residual CSXT. (*Id.* at III-A-40.)

Consumers argues that the Board must reject CSXT's empty/loaded ratio adjustment as it is based on a misinterpretation of the data. (Consumers Rebuttal III-A-94, May 20, 2016.) Consumers states that implicit in CSXT's methodology is the assumption that the empty/return ratio for the incumbent off-SARR segment is itself 100%. (*Id.*) Consumers notes, however, that unit trains do not always return empty to the same origin or interchange point. According to Consumers, CSXT thus has not shown that the off-SARR portion of the traffic that is accounted for by the incumbent is entitled to revenues associated with a 100% empty/loaded ratio. (*Id.* at III-A-94 to III-A-95.)

The Board finds that Consumers' empty/loaded ratio methodology is feasible and supported, and that CSXT's critiques do not undermine Consumers' evidence. Because CSXT's proposed approach would be a departure from the empty/loaded ratio methodology utilized by the Board in prior SAC cases, CSXT must sufficiently demonstrate the need for this departure. See Ariz. Elec. Power Coop. v. BNSF Ry., NOR 42113, slip op. at 33 (STB served Nov. 22,

2011), pet. for review denied sub nom. BNSF Ry. v. STB, 748 F.3d 1295 (D.C. Cir. 2014) (finding that the defendants in that proceeding had not justified a departure from the established approach to calculating the peaking factor). Although the basis for CSXT's proposed adjustment has some merit, the manner in which CSXT applies the adjustment is defective. The adjustment rests on the foundation that the empty/loaded ratio for unit trains in the traffic group handled by the incumbent off-SARR is such that the incumbent is entitled to a 100% empty/return ratio. CSXT has not shown that here. The Board disagrees with CSXT's argument that it is reasonable here to rely on the empty/loaded ratio assumption in URCS in one instance but not in another. (See CSXT Br. 20, June 24, 2017.) Because CSXT proposes to use specific data based on its own experience for the SARR segment while also relying on the general URCS assumption for the compared incumbent network, its approach is internally inconsistent. Essentially, CSXT is arguing for the use of two different assumptions in the same calculation. Therefore, the Board will not accept CSXT's proposed adjustment.⁴⁵

The remaining traffic and revenue disputes are discussed and resolved in Appendix A.

B. OPERATING EXPENSES

1. Operating Plan

How a SARR would operate influences both its configuration and annual operating expenses. Ariz. Elec. Power Coop. v. BNSF Ry., NOR 42113, slip op. at 28 (STB served Nov. 22, 2011), petition for review denied sub nom. BNSF Ry. v. STB, 748 F.3d 1295 (D.C. Cir. 2014). Although the operating plan must be able to meet the transportation needs of the traffic to be served, it need not match the existing practices of the defendant railroad, as the objective of the SAC test is to determine what it would cost to provide the service with optimal efficiency. The assumptions used in the SAC analysis, including the operating plan, nonetheless must be realistic, i.e., consistent with the underlying realities of real-world transportation. Ariz. Elec., NOR 42113, slip op. at 28.

Here, Consumers submitted an operating plan that details how the SARR would handle the traffic group. On reply, CSXT disputes a number of aspects of Consumers' operating plan, and therefore modified Consumers' plan in a number of key areas where CSXT disagreed with Consumers' approach. Both parties use the RTC model to determine the feasibility of CERR's operating plan and develop key operating statistics of the SARR. The RTC model simulates the movement of trains through a rail network, and provides essential evidence to support a SARR's

⁴⁵ In addition, Consumers argues that the adjustment requested by CSXT is a movement-specific adjustment, and therefore is not allowed under Major Issues in Rail Rate Cases, EP 657 (Sub-No. 1) (STB served Oct. 30, 2006), aff'd sub nom. BNSF Railway v. STB, 526 F.3d 770 (D.C. Cir. 2008). (Consumers Rebuttal III-A-95 to III-A-96, May 20, 2016.) The Board need not reach the merits of this argument as the Board is otherwise rejecting the adjustment.

configuration and certain broader operating statistics. Total Petrochems. & Refining USA, Inc. v. CSX Transp., Inc., NOR 42121, slip op. at 7 (STB served Sept. 4, 2015); see also W. Fuels Ass'n v. BNSF Ry. (W. Fuels 2007), NOR 42088, slip op. at 15 (STB served Sept. 10, 2007).

The Board will adopt CSXT's modifications to Consumers' operating plan, some portions of which are agreed to by Consumers, along with minor modifications made by the Board.

Generally, the SARR in this case is a hook-and-haul carrier, accepting or delivering intact traffic to and from other rail carriers that directly serve the customer. Accordingly, CERR is not replicating CSXT's service to individual customers;⁴⁶ rather, CERR serves primarily as a bridge carrier. Moreover, this is not a case in which the defendant railroad has submitted an entirely original operating plan. See, e.g., E.I. DuPont de Nemours & Co. v. Norfolk S. Ry., NOR 42125, slip op. at 41 (STB served Mar. 24, 2014), corrected and updated, NOR 42125 (STB served Oct. 3, 2014), reconsideration denied, NOR 42125 (STB served Dec. 23, 2015). In developing its operating plan, CSXT adopted the operating plan submitted by Consumers and modified that operating plan as detailed below.

Four key issues influenced the Board's decision regarding the operating plan, all of which impact the operation of the RTC model. These issues, which are contested by the parties, are (1) foreign railroad crossing delays, (2) the distribution of growth traffic, (3) bad-ordered issue traffic, and (4) dwell times. As discussed below, the Board finds that Consumers' evidence in these four areas is flawed and resolves these issues in CSXT's favor. The Board also addresses other contested issues below, including CERR interchange points, track and yard facilities, and locomotives. The adoption of CSXT's operating plan modifications necessarily incorporates CSXT's RTC model and configuration, discussed more fully below.

a. Foreign Railroad Crossing Delays

Both parties claim to account for the real-world delays incurred by CSXT trains moving through Chicago at locations where its lines cross the lines of foreign railroads at interlockings not controlled by CSXT (diamond crossings). Each party selects specific delays to input into their respective RTC models, identifying the time, location, and trains affected by each delay. Those delays impact the transit times experienced by the trains as they run through the model. CSXT argues that foreign railroad crossing delays are the most substantial delays incurred by CSXT trains, that the lines replicated by CERR cross those same foreign-controlled interlockings at seven locations, and that CERR trains would experience the same delays at those locations as

⁴⁶ During 2017, CSXT implemented many significant changes to its real-world operations while this case has been under consideration. See Pub. Listening Session Regarding CSX Transp., Inc.'s Rail Serv. Issues, EP 742 et al. (STB served Aug. 24, 2017.) The Board's decision here, however, is based on its consideration of the evidence presented by the parties with respect to the operations of the hypothetical SARR, not CSXT.

CSXT. (CSXT Reply III-C-9, Mar. 7, 2016.) However, CSXT argues that Consumers has not adequately accounted for these delays. (E.g., id. at III-C-10 to III-C-11.) Consumers argues that its method of accounting for the delays is appropriate, particularly given the materials CSXT produced in discovery, (e.g., Consumers Rebuttal III-C-37 to III-C-38, May 20, 2016), and that CSXT has not established that the delays it includes in its operating plan are all foreign railroad crossing delays. (Consumers Rebuttal III-C-39 to III-C-40, May 20, 2016.) As explained below, the Board concludes that Consumers’ approach to foreign railroad crossing delays is infeasible and that CSXT has provided the best evidence of record on this issue.⁴⁷

On opening, Consumers includes the seven diamond crossings on the CERR system that exist on the real-world CSXT lines being replicated. (Consumers Opening III-C-73.) Consumers asserts that its experts analyzed the data provided by CSXT in discovery and included delays corresponding to the peak week being analyzed in the RTC model. (Id. at III-C-73 to III-C-74.) Consumers asserts that its RTC model also accounts for potential foreign line delays associated with Metra commuter trains crossing the CERR’s mainline at 75th Street, as well as the “lockout” or “curfew” periods that occur twice each weekday during the morning and evening rush hours. (Id. at III-C-74.)

CSXT accepts Consumers’ methodology for accounting for interference from Metra train operations. (CSXT Reply III-C-68, Mar. 7, 2016.) CSXT disagrees, however, with Consumers’ methodology for accounting for other foreign crossing delays. CSXT alleges that Consumers identifies 42 delays out of hundreds of “Foreign Line Delays” listed in Consumers’ workpaper “Foreign Line Delays WORK.xlsx,” and that Consumers ignores hundreds of additional foreign crossing delays that appear elsewhere in Consumers’ own workpapers. (CSXT Reply III-C-10 to

⁴⁷ The Board’s general standard for resolving disputed issues is set forth in Duke Energy Corp. v. Norfolk Southern Railway (Duke/NS), 7 S.T.B. 89, 100-01 (2003) (footnotes omitted):

As to disputed issues, whether the shipper’s opening evidence is feasible and supported, it is used in the Board’s SAC analysis. However, where on reply the railroad both (a) demonstrates that what the shipper has presented is infeasible and/or unsupported and (b) offers feasible, realistic alternative evidence that avoids the infirmities in the shipper’s evidence and that is itself supported, the Board will use the reply evidence for its SAC analysis.

On rebuttal, as to those issues challenged by the railroad, the shipper may demonstrate that its opening evidence was feasible and supported, it may adopt the railroad’s evidence, or in certain circumstances it may offer to refine its evidence to address issues raised by the railroad regarding its opening evidence. Where the railroad has identified flaws in the shipper’s evidence but has not provided evidence that can be used in the Board’s SAC analysis, or where the shipper shows that the railroad’s reply evidence is itself unsupported, infeasible or unrealistic, the shipper may supply corrective evidence.

III-C-11, Mar. 7, 2016.) CSXT then alleges that Consumers selected 22 of those delays to input into its RTC model, and that Consumers' workpaper suggests that those 22 delays were assigned "randomly" to trains in Consumers' RTC model. (Id. at III-C-11.) CSXT argues that Consumers' methodology for modeling the impact of foreign line crossing delays on CERR's peak period trains is flawed for several reasons. First, according to CSXT, the 22 delays Consumers input into its RTC model represent a fraction of the delays that the real-world CSXT trains selected by Consumers for its SARR actually experienced during the base year. (Id. at III-C-12.) CSXT alleges that the delays set forth in Consumers' Foreign Line Delays workpaper include only those delay events that were reported specifically by the CSXT train crew as a "Foreign Line Delay," when the Train Sheet data produced by CSXT in discovery—which Consumers used for a variety of purposes—identified hundreds of additional instances during the peak period in which trains selected by Consumers for its SARR reported an "Enroute Train Delay" at or near a foreign-controlled interlocking. (Id.) CSXT argues that Consumers' failure to account for these delays that appear in Consumers' own workpapers renders the transit times generated by its RTC simulation unreliable. (Id. at III-C-13.)

Second, CSXT argues that Consumers compounded its failure by improperly dropping nearly half of the 42 delay incidents identified in Consumers' Foreign Line Delays workpaper. (CSXT Reply III-C-13 to III-C-14, Mar. 7, 2016.) CSXT asserts that a note in Consumers' workpaper explains that 20 of the 42 delays were dropped because CERR would operate only 54% of the road trains operated by CSXT on the lines replicated by the SARR during the base year, and therefore CERR trains would encounter delays at foreign crossings only 54% as frequently as CSXT trains during the base year. (Id. at III-C-14.) CSXT argues that this premise is incorrect because the number of instances in which a CERR train would encounter a delay at a foreign-controlled interlocking would not be directly proportional to the total number of trains that CERR would operate. (Id.) CSXT asserts that foreign delays are influenced by a variety of factors, including the traffic volume on the foreign carrier's line and the time of day, and that one delay can have a cascading impact on trains moving behind the stopped train. (Id. at III-C-14 to III-C-15.)

Third, CSXT argues that although Consumers claims to apply the foreign line delays it did include "randomly," the "manner in which those delays were modeled was anything but random." (Id. at III-C-17.) CSXT asserts that because the data source Consumers used did not identify the specific trains that experienced specific delays, Consumers' RTC experts chose the trains, dates, and times at which those delays would occur in the RTC simulation, which obscured the impact of those delays on the fluidity of the CERR network. (Id.) CSXT asserts that 15 of the 22 foreign crossing delays in Consumers' RTC simulation were modeled as taking place at CERR's Barr Yard, rather than at the foreign interlockings at which the subject trains were actually held. (Id.) According to CSXT, these modeling decisions eliminate the cascading effect that a blocked crossing or other unplanned track outage would have on following CERR trains because, with this modeling, following CERR trains could "pass" the stopped train on an adjacent track. (Id. at III-C-10.)

CSXT argues that, because of these flaws with Consumers' operating plan, it adjusted the RTC simulation to more accurately capture the impact of foreign line crossing delays. (CSXT Reply III-C-23, Mar. 7, 2016.) CSXT states that, for those CSXT trains that Consumers includes in CERR's traffic group, CSXT utilized the Train Sheet data that it produced to Consumers on discovery (and that Consumers relied on for other issues) to identify foreign line crossing delay events. (Id. at III-C-24.) CSXT states that it then identified events designated as "Foreign Line Delays" or "Enroute Train Delays" and which occurred at a milepost at or in close proximity to a foreign-controlled crossing or interlocking. (Id.)⁴⁸ Based on this analysis, CSXT states that it identified 77 foreign line crossing delays longer than 15 minutes that occurred during the peak period modeled in CSXT's RTC simulation. (Id.) CSXT asserts that it applied those delays to the trains, and at the locations, where they were incurred in CSXT's real-world operations. (Id. at III-C-25.)

On rebuttal, Consumers argues that in developing its foreign crossing delay evidence, it reasonably relied upon on the materials provided by CSXT in discovery. Consumers asserts that CSXT provided a file titled "Foreign Line Delays.xlsx" in response to a discovery request, which by its very title purported to contain the foreign line delays incurred by CSXT during various periods, including the period covered by Consumers' RTC model. (Consumers Rebuttal III-C-37 to III-C-38, May 20, 2016.) Consumers states that CSXT did not suggest that there was another source of data for these delays that was more reliable or complete. (Id. at III-C-38.) Consumers argues that it is well-established that a complainant may reasonably rely on data produced by the defendant in discovery and that the defendant is generally not permitted to impeach its own data. (Id.)

Consumers contests CSXT's claim that the Train Sheet data should have been used to develop foreign crossing delay evidence. Consumers argues that CSXT's Train Sheet data are vague in that the events marked as "enroute delays" do not specifically or necessarily refer to delays at foreign crossings. (Id. at III-C-39 to III-C-40.) Consumers alleges that enroute delays could also occur near an interlocking for reasons unrelated to a foreign line delay. (Id. at III-C-40.)

Finally, Consumers defends its methodology of accounting for delays. In response to CSXT's argument that Consumers did not apply all 42 foreign line delays from the foreign line delay spreadsheet, Consumers argues that CSXT ignores the fact that its foreign line delay spreadsheet is not detailed or clear (e.g., the data do not contain train symbols or train IDs to which the delays applied). (Consumers Rebuttal III-C-41, May 20, 2016.) Consumers also reiterates that its decision to apply only 22 out of 42 delays from the "Foreign Line Delays.xlsx" workpaper was proper because CERR only carries 54% of CSXT's actual, real-world traffic. Consumers claims that, without the presence of a train, there can be no delay, therefore a

⁴⁸ CSXT's evidence shows that it included delays within one to 1.5 miles of a foreign-controlled crossing or interlocking. (See CSXT Reply WP "Trainsheet Delays for RTC_RR Crossings.xlsx," Tab "Trainsheet Timestamps," Cells AE1:AE4 & AG1:AG4, Mar. 7, 2016.)

reduction in the number of trains operated over a given territory should result in a proportionate reduction in the number of delays within that same territory. (*Id.* at III-C-44 n.34.) As for the location of delays, Consumers argues that, instead of changing the delay locations of trains, Consumers' experts had to determine the location at which each train was held because it was not provided in the CSXT data. (*Id.* at III-C-46 to III-C-47.)

The Board finds that both parties provide flawed evidence on the number of foreign line crossing delays. Consumers' reasoning that the trains in its traffic group would experience only 54% of the delays that CSXT's real-world trains experience because Consumers' traffic group includes only 54% of CSXT's real-world traffic is inappropriate. Delays of this type are caused by the activity of the railroad that controls the crossing, not the number of trains of the non-controlling railroad that are on the system. While it stands to reason that fewer trains traversing the system would result in fewer trains running into delays at foreign crossings, there is no evidence to suggest that there is a one-to-one ratio of trains to delays. The fact that there are fewer CERR trains on the system than real-world CSXT trains does not mean that the other factors that cause the delay cease to exist. As such, Consumers' decision to input only 54% of the delays to its RTC model means that some trains will move through the model more quickly than they ought, leading to erroneous results. In addition, Consumers' approach is flawed because it improperly moved the location where the foreign line delays took place, which (as CSXT notes) significantly minimizes the effect of the delays. Accordingly, the Board finds that Consumers' methodology of randomly selecting a portion of foreign line crossing delays to be neither feasible nor supported by the evidence.⁴⁹

As to CSXT's evidence, its selection of delays based on its evaluation of Train Sheet data is a more realistic representation of foreign line delays across the CERR system. However, the Train Sheet data are not a perfect source of information. As Consumers demonstrates, the "enroute delays" identified in the Train Sheet data and included by CSXT as foreign line delays are not explicitly identified as such, even though they occur within one to 1.5 miles of foreign crossings. Nevertheless, the Board finds CSXT's approach to be the better evidence of record because CSXT took the trains Consumers selected for its traffic group and used the Train Sheet

⁴⁹ Consumers' argument that it was entitled to rely upon CSXT's "Foreign Line Delays.xlsx" workpaper as a comprehensive list of all foreign line delays has some merit. Parties are entitled to reasonably rely on evidence the other side produced in discovery. See *Ariz. Elec.*, NOR 42113, slip op at 103; *W. Fuels 2007*, NOR 42088, slip op. at 102. The fact that the workpaper is titled "Foreign Line Delays.xlsx," certainly suggests that it would contain the eponymous information. At the same time, however, Consumers' use of CSXT's Train Sheet data in calculating other elements of this case suggests that Consumers should have understood that the "Foreign Line Delays.xlsx" workpaper was not sufficient for calculating foreign line delays. Ultimately, the Board need not resolve this issue. The Board's finding that Consumers' foreign line delay methodology is not feasible and supported is based on Consumers' random selection of 54% of the 42 delays in that workpaper, and not Consumers' reliance on that particular workpaper.

data to identify the date, time, and location of each delay, which more accurately reflects the impact of foreign line delays on the CERR system than Consumers' random selection of delays. Accordingly, the Board will accept CSXT's foreign line delays⁵⁰ as the best evidence of record.⁵¹

b. Growth Traffic

CSXT also disputes the manner in which Consumers' RTC model treats "growth traffic." Growth traffic consists of the cars and trains that parties must add to their peak-week RTC simulation to ensure that the SARR will be able to handle any projected increase in traffic in the peak year. On opening, Consumers states that its RTC model incorporates growth traffic into the peak period train list by adding cars to existing consists (up to the maximum train length for that type) or by adding growth trains as necessary. (Consumers Opening III-C-90.) According to Consumers, this procedure is consistent with cases where the shipper is handling largely unit trains and merchandise trains are handled on a through basis as Consumers is doing here. (Id.)

CSXT argues that Consumers' growth train estimates are based on several assumptions that are inconsistent with the realities of real-world railroading. (CSXT Reply III-C-29 to III-C-30, Mar. 7, 2016.) First, CSXT argues that Consumers' operating plan is premised on the notion that CSXT and other connecting carriers would expand every peak year train delivered to CERR to its maximum length in the base year, but that such an assumption is inconsistent with the operating practices of the carriers with which the CERR would interchange traffic in Chicago. (Id. at III-C-29.) CSXT states that, according to Consumers, CERR would only operate "intact" trains received in interchange with BNSF, UP, IHB, BRC, and CSXT. (Id. at III-C-30; see Consumers Opening III-C-28.) CSXT argues that the length of those trains would be determined by those carriers, not CERR. (CSXT Reply III-C-30, Mar. 7, 2016.)⁵²

⁵⁰ In their supplemental evidence submissions, both Consumers and CSXT present a reduced number of foreign line delays based on the reduction in traffic. Consumers reduces its proposed foreign line delays from 22 to 21 (Consumers Rebuttal III-C-3, Apr. 13, 2017), and CSXT reduces its proposed foreign line delays from 77 to 66. (CSXT Reply III-C-3, Mar. 6, 2017; see CSXT Reply WPs "Trainsheet Delays for RTC22ndOffSARR_Supp_Reply.xlsx," Tab "input to CSXT Reply RTC," "Trainsheet Delays for RTC_RR Crossings_Supp_Reply.xlsx," Tab "input to CSXT Reply RTC," Mar. 6, 2017.)

⁵¹ It should be noted that, because of the nature of the RTC simulation, the Board does not mix and match parts of Consumers' and CSXT's RTC simulations, as one change could have unforeseen impacts on other parts of the simulation that the parties would not have had an opportunity to brief, which would require the Board to make judgments about inputs to the RTC simulations not proposed by the parties.

⁵² CSXT also argues that it and other carriers serving Chicago have entered "Interline Service Agreements" (ISAs) that determine the maximum length of trains that are handled on an interline basis through the Chicago terminal area, and that Consumers' methodology ignores the maximum train length determined by the ISAs. (CSXT Reply III-C-30 to III-C-33, Mar. 7, 2016.) However, as Consumers notes, CSXT, both in the real world and in its operating plan

Second, CSXT argues that Consumers did not accurately reflect peak year traffic patterns, including seasonality, customer production schedules,⁵³ and fluctuations in demand. (CSXT Reply III-C-34, Mar. 7, 2016.) CSXT argues that Consumers added a growth train only when its projected growth traffic could not be accommodated by trains of that symbol with excess capacity in the base year. (*Id.* at III-C-35.) According to CSXT, it is likely that peak year traffic patterns would be similar to those that existed in the base year. (*Id.* at III-C-34.) CSXT alleges that Consumers' methodology treats additional peak year volumes as fungible cars that could be assigned to any train with excess capacity on any date throughout the peak year, an approach CSXT argues is infeasible. (*Id.* at III-C-34 to III-C-35.)

CSXT argues that its methodology corrects the flaws in Consumers' treatment of growth traffic by first establishing maximum lengths for CERR peak year trains based on the "real-world" practices of the railroads serving Chicago. (CSXT Reply III-C-38, Mar. 7, 2016.) Then, CSXT explains that it assigns peak year cars to base year trains by applying CSXT's adjusted peak year growth factors (23% for merchandise traffic and 29% for intermodal traffic) uniformly across all base year merchandise trains (i.e., increasing the number of cars on each merchandise train on its RTC model train list by 23% and the number of units on each intermodal train by 29%). (*Id.*) CSXT states that it then provides for trains to grow to the same length as the longest train that operated under the applicable train symbol during the base year. (*Id.*) CSXT argues that by applying growth on a train-by-train basis, CSXT avoids Consumers' unrealistic assumption that growth volumes can be re-distributed on any day throughout the year. (*Id.* at III-C-38 to III-C-39.) Next, CSXT states that, for each train symbol and date, if the resulting train length exceeds the maximum length for that train symbol, CSXT adds an additional train operating under that symbol on that date. (*Id.* at III-C-39.) CSXT argues that its approach reflects the premise that customer shipment patterns during the peak year would likely be similar to those that CSXT experienced during the base year. (*Id.*)

On rebuttal, Consumers makes several arguments in response to CSXT's claims. (Consumers Rebuttal III-C-52, May 20, 2016.) First, Consumers argues that, contrary to CSXT's assertion, Consumers maintains daily and seasonal variation in its development of peak year train consists. Consumers explains that under its approach, it starts by adding growth carloads to the historical consists of the corresponding base year trains that moved on the same

here, accepts trains that exceed those maximum lengths. (Consumers Rebuttal III-C-59 to III-C-60, May 20, 2016.) Consumers notes that CSXT adopted Consumers' maximum peak year train lengths (based on historical maximum train lengths) for all but two train symbols. (*Id.* at III-C-60.) In rebuttal, Consumers accepts CSXT's adjusted maximum train length for these two train symbols. (*Id.*) Accordingly, the Board rejects CSXT's ISA-based argument.

⁵³ The Board recognizes that shippers have raised concerns that CSXT has not taken customer production schedules into account during the implementation of its new real-world operating plan.

calendar date in the base year. (Id. at III-C-72.) Next, when Consumers determined that additional growth trains were required, it added them to the peak period train list based on the historical peak period distribution.⁵⁴ (Id.) Consumers states that it then developed a historical peaking factor (1.1318) based on the number of daily trains operating during the peak nine-day modeling period (31.9) relative to the number of daily trains operating during the full base year (28.2). (Id. at III-C-72 to III-C-73.) According to Consumers, because more trains operated in the nine-day peak modeling period than in an average nine-day period in the base year, Consumers applied the observed historical peak period distribution to determine that 2.651 Q029 growth trains would need to operate in the peak modeling period of the peak year. (Id. at III-C-73.) Consumers alleges that, if it had not accounted for seasonality, it would only have added 2.342 growth trains during the peak modeling period. (Id.) Consumers states that it rounded up its seasonally adjusted 2.651 peak period growth trains and added three full growth trains to its peak period train list. (Id.) Accordingly, Consumers argues that it preserved the relative seasonal demand observed in the historical base year in the peak period. (Id. at III-C-75.)

Consumers also criticizes CSXT's methodology. Consumers asserts that, rather than developing a peak year operating plan, CSXT developed 365 peak day operating plans, then combined the results to develop its operating statistics. (Consumers Rebuttal III-C-76, May 20, 2016.) Consumers argues that, as a result of this methodology, if a peak period train exceeded its maximum length by less than the length of a single carload, CSXT would add a same-day peak week train even if that train were to have excess capacity the very next day. (Id. at III-C-76 to III-C-77.) Consumers argues that this model imposes unnecessary and unrealistic operational inefficiencies on CERR, and assumes that CERR and its interline partners would be required to clear their entire inventory of traffic every day. (Id. at III-C-78.)

Consumers also argues that, although CSXT adds growth trains based on its specific daily projected volume requirements for a given train symbol, CSXT abandons its projected daily volume once it determines a growth train is required. According to Consumers, upon a determination that a growth train is required, CSXT operates two trains with combined car load statistics that far exceed CSXT's own determination of the daily volume requirement. (Consumers Rebuttal III-C-78, May 20, 2016.) Consumers argues that, instead of adding a growth train solely consisting of growth traffic, CSXT operates a growth train that mirrors the length of the average base year consist for that train symbol. (Id. at III-C-79.) Consumers argues that CSXT's methodology results in a 43% overstatement of CSXT's projected volume requirement for its 28 growth trains. (Id. at III-C-80.) Additionally, Consumers argues that, by using base year average statistics as a surrogate for peak period growth trains, CSXT itself fails to reflect daily and seasonal volume fluctuations. (Id. at III-C-82.)

⁵⁴ While Consumers states that it added growth trains to the peak period train list based on the "historically observed peaking factor," it appears from Consumers' subsequent discussion that it means "historical peak period distribution" in this context.

Consumers argues that any rational real-world railroad would recognize that it had sufficient capacity for a given train symbol across the peak period, and would not operate any growth trains to move all of the projected traffic. (Consumers Rebuttal III-C-83 to III-C-84, May 20, 2016.) Consumers asserts that, to identify the need for a growth train, CSXT relies on its projection of daily required volumes, which it derives based on shipping patterns experienced during the base year; however, the growth trains CSXT adds have consists that reflect average base year train statistics. (*Id.* at III-C-84 to III-C-85.) According to Consumers, by adding this average consist to the consist of the corresponding daily historical train, CSXT expressly discarded its projection of daily required volumes that was used to trigger the need for the growth train. (*Id.* at III-C-85.) Consumers argues that, as a result, CSXT grossly overstates CERR volumes on each day it claims a growth train is required and vastly overstates operating expenses.

The Board finds that Consumers' growth train evidence is infeasible. The method by which Consumers determines annual excess train capacity on a train ID basis ignores traffic seasonality. Consumers further fails to account for seasonality when it calculates the peak year train requirement for each train ID by dividing the peak year annual cars by the maximum cars per train. The problem with this method is that it treats cars as fungible, with no regard for the timing of the movements. This flaw is apparent from Consumers' first growth train calculation, which subtracts the adjusted base year annual trains from the peak year train requirement for the corresponding train ID, with the difference being the growth train quantity. Consumers' second growth train calculation flaw occurs when Consumers attempts to introduce seasonality. Specifically, Consumers calculates a train peaking factor based on the ratio of the average trains per day in the base year to the peak week trains per day in the base year, and this peaking factor is multiplied by Consumers' first growth train calculation, which results in a number that always includes fractional trains. Consumers states that it rounds up if this calculation yields a fractional train of 0.5 or above, but Consumers neglects to explain that it rounds down if the fractional train is less than 0.5, so a growth of 0.35 trains would not be reflected in the peak week. While attempting to account for seasonality, this calculation does not correct for the misguided fungible treatment of cars earlier in Consumers' methodology. The Board finds that this process spreads out growth traffic such that it would move based on when space exists, instead of near the time when the traffic is tendered. Therefore, the Board finds that Consumers' evidence is not feasible and supported.

In contrast, CSXT's method of accommodating growth traffic by adding cars to existing trains, and then adding growth trains on the same day once the existing trains hit their maximum length, is feasible and supported. Consumers' critiques do not effectively undermine CSXT's methodology, especially Consumers' argument that any rational railroad would assess its availability across the whole peak period before assigning a single growth train. This demonstrates the key deficiency in Consumers' treatment of growth traffic—that Consumers treats cars as fungible with no regard for the timing of their movement. CSXT effectively demonstrates that peak year traffic patterns would be similar to those during the base year, accounting for seasonality, and CSXT's peak period traffic would look nearly identical to the base year traffic, increased almost uniformly by the traffic growth rate. CSXT's adjustment to Consumers' operating plan does not result in traffic being held on the chance that there is excess

capacity on the next day's train. Accordingly, the Board accepts CSXT's growth train methodology.⁵⁵

c. Bad-Ordered Issue Traffic

On opening, Consumers does not address the handling of bad-ordered traffic CERR receives from BNSF in Chicago, which consists of cars that must be removed from trains for repairs before continuing to the destination. On reply, CSXT alleges that Consumers failed to account for the train service required to deliver loaded cars of issue traffic that become bad-ordered (meaning they must be removed from trains for repairs before continuing to the destination) on the lines of BNSF between the Powder River Basin and Chicago. (CSXT Reply III-C-40, Mar. 7, 2016.) CSXT asserts that the Car Event data it produced in discovery indicate that, during the base year, a total of 82 loaded Consumers' coal cars were bad-ordered on BNSF's lines between the mine in Wyoming and the BNSF-CSXT interchange point in Chicago. (*Id.* at III-C-40 to III-C-41.) It also asserts that 57 different CSXT merchandise trains participated in the movement of Consumers' repaired bad-ordered cars from Barr Yard. (*Id.* at III-C-41 to III-C-42; *see* CSXT Reply WP "BadOrdered Carloads in NonUnit Trains.xlsx," Mar. 7, 2016.) CSXT argues that while Consumers' revenue calculations include the CSXT revenues associated with the 82 cars of bad-ordered issue traffic during the base year, Consumers' operating plan makes no provision for the transportation of those cars from Chicago to West Olive. (CSXT Reply III-C-42, Mar. 7, 2016.)

CSXT explains the process used when it receives a bad-ordered car to deliver it to the Campbell facility: (1) the cars are removed from the unit train and repaired, and, once repaired, placed in a BNSF merchandise train for movement to BRC's Clearing Yard in Chicago; (2) the cars are then transferred from BRC's Clearing Yard to CSXT's Barr Yard by one of two local train assignments (Trains Y130 and Y132) that CSXT operates between those yard facilities; (3) at Barr Yard, the cars are placed into a merchandise road train (typically Train Q326) that originates at Barr Yard and operates east via CSXT's Grand Rapids Subdivision along the route replicated by CERR; (4) merchandise trains carrying loaded Consumers coal cars move to Grand Rapids, Mich., where the cars are switched into a westbound train (Train Q327), which makes an intermediate stop at Holland, Mich., to set off those cars; and finally (5) the cars are delivered to the Consumers plant by a CSXT local train assignment operating out of Holland. (CSXT Reply III-C-41, Mar. 7, 2016.)

CSXT argues that, in contrast to its own operations, Consumers does not include any route by which CERR could replicate CSXT's transfer service between Clearing Yard and Barr

⁵⁵ The Board is accepting a combination of the parties' initial traffic and growth forecasts, and thus neither party's RTC model completely reflects the growth traffic accepted here. While the impact of this approach on the RTC models' output—transit times—is not known, the Board notes that transit times have remained largely stable throughout the case, even between the initial round of evidence and the parties' supplemental evidence, where there was a significant change in the traffic group.

Yard, nor does Consumers' operating plan include any of the merchandise trains in which CSXT transports Consumers' bad-ordered cars to Holland because Consumers excluded trains that CERR would have to build, or trains that CERR would have to classify or block any cars on the train. (Id. at III-C-42.) CSXT acknowledges that the data it produced in discovery did not make clear how the bad-ordered cars arriving at Clearing Yard were delivered to Barr Yard, and so that it does not propose to require Consumers to construct those facilities here. (Id. at III-C-43 n.82.) Instead, CSXT argues that Consumers must account for the road train service required to move the bad-ordered cars because the data CSXT produced did associate the road trains that transported the bad-ordered shipments from Barr Yard to Grand Rapids to Holland. (Id.)

To correct for Consumers' purported omission, CSXT adjusts Consumers' operating plan to provide for one CERR coal unit train per week to stop at Barr Yard (after being received from BNSF at 71st Street), where bad-ordered cars can be added to the train prior to the movement to West Olive. (CSXT Reply III-C-43, Mar. 7, 2016.) CSXT states that its witness, Wheeler, applied a 45-minute dwell at Barr Yard in its RTC simulation for those trains to accomplish the necessary switching. (Id.) CSXT also adds an additional yard track at Barr Yard to accommodate the bad-ordered cars, (CSXT Reply III-C-47, Mar. 7, 2016), an additional SD40-2 (SD40) locomotive at Barr Yard in part to facilitate the switching required to transfer bad-ordered issue coal cars onto unit trains (id. at III-C-53 to III-C-54), and an additional crew member at Barr Yard in part to assist in setting out bad-ordered cars (id. at III-C-78).

On rebuttal, Consumers argues that no railroad has ever taken the position that a SARR operating plan must separately track and transport such a trivial number of cars. (Consumers Rebuttal III-C-85 to III-C-86, May 20, 2016.) Consumers claims that such a standard would suggest that SAC is broken beyond repair and that CSXT's position must be rejected as a matter of policy. (Id.)

Consumers also argues that CSXT acknowledges that the data CSXT produced in discovery did not make clear how bad-ordered cars arriving at Clearing Yard were delivered to Barr Yard. (Id. at III-C-86; see CSXT Reply III-C-43 n.82, Mar. 7, 2016.) Consumers further argues that, in discovery, CSXT never mentioned the alleged movement of cars to Clearing Yard by BNSF or the local CSXT move from Clearing Yard to Barr Yard. (Consumers Rebuttal III-C-86, May 20, 2016; see Consumers Opening WP "Consumers INT 3 & 4 Response (CSX-CNSMR-C-19328 to 19336).pdf.")

Lastly, Consumers argues that CSXT offers no proof that these cars were actually bad-ordered, nor any evidence that BNSF handles the Campbell-bound bad-ordered cars in the manner CSXT describes. (Consumers Rebuttal III-C-86, May 20, 2016.) In particular, Consumers argues that there is nothing in the Car Event data to indicate that the 82 carloads were bad-ordered and that CSXT's data do not show the complete movement of the 82 carloads as identified by CSXT on reply (Id. at III-C-89 to III-C-90.) In addition, Consumers asserts that the Car Event data contain major holes in CSXT's claims regarding the purported operations for handling bad-ordered cars—specifically, of the 82 bad-ordered cars identified by CSXT on reply,

none reported movement from Clearing Yard to Barr Yard on train Y130 or on train Y132 despite CSXT's claims that those trains typically move bad-ordered cars. Instead, Consumers claims that the data show that only 53 cars were moved to Barr Yard during the base year and none were bad-ordered cars identified by CSXT (Id. at III-C-90 to III-C-92.) Consumers also claims that CSXT's methodology skips the logical starting point for evaluation of these shipments—the delivery to Clearing Yard by BNSF and movement from Clearing to Barr on CSXT's yard trains—and instead, CSXT claims to identify the bad-ordered cars by looking to four specific merchandise trains, which neither the Board nor Consumers would know normally carry bad-ordered cars from Barr Yard to Grand Rapids. (Id. at III-C-92.)

Consumers' treatment of the 82 disputed carloads is neither feasible nor supported. Despite the fact that Consumers dismisses the 82 carloads as "trivial," Consumers does not dispute the fact that the 82 carloads are issue traffic. A SARR's operating plan must account for the movement of all issue traffic from origin to destination. See DuPont, NOR 42125, slip op. at 36. Therefore, the Board rejects Consumers' argument that a SARR operating plan is not expected to separately track and transport such a small number of bad-ordered cars when those cars represent issue traffic, particularly given that CERR accepts the revenue for this traffic. (See CSXT Reply III-C-42, Mar. 7, 2016, citing Consumers Opening WP "2014 – 1Q 2015 Car And Container Waybills_Trains.xlsx," Tab "SQL," Cells A170:A258.) Accordingly, Consumers must also account for the costs of moving this traffic.

The Board agrees with Consumers that CSXT's data production does not definitively identify the 82 carloads as bad-ordered, or explicitly corroborate CSXT's account of how bad-ordered cars are transferred from BNSF to CSXT and transported to Campbell in the real world. While CSXT should have attempted to identify these cars as bad-ordered and describe their movement more clearly, it also should have been clear that these were bad-ordered cars of issue traffic to be delivered to Campbell, given the fact that they were tendered to CSXT as individual cars rather than unit trains. (See CSXT Reply WP "BadOrdered Carloads in NonUnit Trains.xlsx," Tab "Dataset_Access," Mar. 7, 2016.) Moreover, Consumers accepted the revenue from these 82 carloads, further indicating that Consumers acknowledged this traffic, and therefore should have known the particulars of its traffic. (CSXT Reply III-C-42, Mar. 7, 2016.) Nevertheless, CSXT's evidence demonstrates that these 82 carloads originate in the Powder River Basin and are tendered to CSXT for delivery to Campbell. Under these circumstances, the Board also finds it reasonable to conclude that these are bad-ordered cars for which Consumers should have accounted.

In contrast, CSXT's plan to route one CERR unit coal train per week to Barr Yard to pick up bad-ordered cars, along with the addition of a yard track to hold the bad-ordered cars, 45 minutes of dwell time, and an additional SD40 locomotive and crew member is feasible and supported. Even though CSXT does not include the full cost of moving the bad-ordered cars over CERR, including neglecting the movement from Clearing Yard to Barr Yard, CSXT nevertheless accounts for the movement of all issue traffic to Campbell.

d. Interchange Points

On opening, Consumers establishes seven interchange locations and provides track configurations for each location. (Consumers Opening III-B-7 to III-B-8; Consumers Opening Exhibit III-B-1.) On reply, CSXT states that it makes modifications to the track layout at three of CERR's interchange points to reflect the physical characteristics of the proposed interchange locations and to provide for operations that are consistent with real-world operating practice. (CSXT Reply III-C-46, Mar. 7, 2016.) These three interchange locations where CSXT proposes modifications are discussed below.

i. Dolton

On reply, CSXT proposes to relocate the CERR's 2.89-mile interchange track to the east side of the Yard Center facility, so that CERR does not "commandeer" the center of a ROW for which CSXT has only a 50% ownership interest. (CSXT Reply III-C-46, Mar. 7, 2016.) According to CSXT, this would enable CERR to hold trains during interchange without obstructing other traffic movements to and from Yard Center. (*Id.*) Additionally, CSXT proposes that CERR construct a highway overpass over CERR's double main and interchange tracks at Cottage Grove Avenue, in order to avoid blocking the intersection for at least 30 minutes every time a train is interchanged between CERR and CSXT. (*Id.*) Consumers opposes both the relocation of the interchange track and the construction of the highway overpass at Cottage Grove Avenue. (Consumers Rebuttal III-B-7 to III-B-10, May 20, 2016.) On supplemental reply, CSXT acknowledges that the Cottage Grove overpass is no longer necessary because the revised traffic group does not contain the trains whose length necessitated the overpass in the original traffic group. (CSXT Reply III-B-1, Mar. 6, 2017.)

The Board notes that, despite the parties' disagreement over the location of the 2.89-mile interchange track, the Dolton interchange is modeled in the same manner in both Consumers' and CSXT's RTC simulations. Thus, the location of the interchange track does not affect the Board's operating plan selection. The parties' arguments with respect to the location of the interchange track are addressed in the RPI appendix.

ii. Pine Junction

On reply, CSXT alleges that Consumers' configuration failed to account for CSXT's Buffington Connection at Pine Junction, which provides access to the NSR line north to Rock Island Junction. (CSXT Reply III-C-47, Mar. 7, 2016.) CSXT states that it includes this connection because certain CERR trains moving to the BRC via NSR trackage rights would need to use this connection. (*Id.*)

Consumers accepts CSXT's modification on rebuttal and incorporates the 0.6 miles of connecting track. (Consumers Rebuttal III-B-6, May 20, 2016.) The Board accepts the parties' agreement on the layout of the Pine Junction interchange.

iii. Curtis

On reply, CSXT proposes that CERR construct a flyover to carry CERR's 2.4-mile long interchange track over Clark Road, in order to ensure a clear track to conduct CERR's 30-minute interchanges without impeding vehicular traffic several times per day. (CSXT Reply III-C-46 to III-C-47, Mar. 7, 2016.)

On rebuttal, Consumers rejects CSXT's proposal for a flyover. First, Consumers argues that a flyover would not work due to elevation problems with nearby turnouts, stating it would need to instead be a highway overpass. (Consumers Rebuttal III-F-108, May 20, 2016.) Second, Consumers argues that this is merely a "back entrance," as the main access to the site is via Buchanan Street, where there are currently no at-grade crossings. (Id.) Consumers says that this back-entrance route has over a dozen pre-existing at-grade crossings that are frequently obstructed by passing trains, and that therefore it makes the most sense to keep the at-grade crossings. (Id.)

The Board finds that Consumers' evidence is the best evidence of record. While neither Consumers nor CSXT has fully supported its evidence with respect to the flyover, CSXT has not demonstrated that construction of the flyover is warranted here. It is not uncommon for real-world trains to block crossings and the evidence in the record does not suggest that the blockages caused by CERR trains would be inordinate, especially here, where only a handful of intermodal trains pass each day. Given that CSXT has not demonstrated that the extent of the blockages warrant a grade separation, the Board will not include CSXT's proposed flyover.

e. Track and Yard Facilities

On opening, Consumers describes CERR's track and yard facilities. (Consumers Opening III-B-1 to III-B-15.) Below the Board addresses issues that the parties dispute.

i. Barr Yard (Turntable)

On reply, CSXT states in a footnote that, in addition to adding a locomotive to support the CERR's yard switching service, CSXT also included a locomotive turntable at Barr Yard. (CSXT Reply III-C-54 n.97, Mar. 7, 2016.) CSXT asserts that Consumers' traffic selection process contributes additional uncertainty regarding the timing and flow of trains, because CERR will have to exchange information with connecting carriers with little time to determine whether and when it is receiving a train. (Id.) CSXT argues that a turntable at Barr Yard will facilitate locomotive movements in the yard with less disruption to the other yard or mainline operations. (Id.) Moreover, CSXT states that it has a turntable in the existing Barr Yard. (Id. at III-F-132.)

On rebuttal, Consumers asserts that CSXT's arguments for a turntable are irrational. (Consumers Rebuttal III-C-106, May 20, 2016.) First, Consumers argues that, in contrast to CSXT's apparent argument, Consumers will know what trains it is handling—Consumers' traffic selection will not leave CERR with little or no notice of when trains will arrive in Barr Yard for interchange. (Id.) Second, Consumers argues that CERR already has a wye track at the Dolton interchange. The wye track, which is 0.56 miles from the shop where CERR services locomotives, would enable CERR to make turns if needed, rendering a turntable unnecessary. (Id. at III-C-106 to III-C-107.) Third, Consumers argues that no freight railroad installs turntables today, and that CSXT last installed a turntable at Clifton Forge in the 1990s because it was not possible to construct a wye track. (Id. at III-C-107.) For these reasons, Consumers states that it has not included a turntable on rebuttal. (Id.)

The Board will accept CSXT's addition of a turntable at Barr Yard. Despite Consumers' argument that CERR will know what trains it is handling, Consumers does not dispute the fact that some method of turning locomotives is necessary. However, Consumers' plan for doing so—using the wye track at Dolton—is not feasible. To access the wye track at Dolton from Barr Yard, locomotives would have to enter the main line and traverse multiple foreign crossings, make the turn, and traverse those foreign crossings on the return to Barr Yard. Given the resulting traffic interference that would be caused by running the locomotives back and forth from the wye track, CSXT has undermined the feasibility of Consumers' design. Furthermore, the Board observes that Consumers does not run any locomotives between Barr Yard and Dolton in its RTC modeling to account for the turning of locomotives in the manner Consumers proposes. Although turntables are not typically newly installed in current practice, they are still in use, including in the real-world Barr Yard. Furthermore, a turntable is the most appropriate method of turning locomotives given that neither party's design of Barr Yard leaves room for a wye track. The Board therefore accepts CSXT's inclusion of a turntable as feasible and supported.

ii. Barr Yard (Track for Bad-Ordered Cars)

The parties disagree over the need to include a track for bad-ordered cars at Barr Yard. On reply, CSXT states that, in order to account for the need to hold and switch bad-ordered cars at Barr Yard, CSXT included an additional yard track at Barr Yard to accommodate those cars. (CSXT Reply III-C-47, Mar. 7, 2016.) Consumers rejects this addition on rebuttal. (Consumers Rebuttal III-C-100, May 20, 2016.) Because the Board is accepting CSXT's proposal to assign one Consumers unit coal train per week to pick up bad-ordered cars at Barr Yard, the Board will accept CSXT's addition of this track to accommodate those bad-ordered cars.

iii. Barr Yard (Other Track)

Due to the reduced volume of CERR traffic in supplemental evidence, the parties agree to the removal of a 2.22-mile yard track at Barr Yard. (Consumers Suppl. Evid. III-B-1; CSXT Reply III-B-1, Mar. 6, 2017.) The Board accepts the parties' agreement on this track removal.

iv. Wells Siding

The parties disagree over the need to include a siding outside of the Campbell plant (Wells Siding). Consumers does not include such a siding on opening, and CSXT argues that, in failing to do so, Consumers failed to account for the fact that more than half of all Consumers' issue traffic trains must be held outside the Campbell plant prior to delivery because Consumers is not ready to receive them. (CSXT Reply III-C-47, Mar. 7, 2016.) CSXT states that those trains are most often stored on passing sidings on the Grand Rapids Subdivision at Grand Junction, Kirk, or Wells. (Id. at III-C-66.) Accordingly, CSXT states that its reply configuration provides an additional 2.0-mile long siding on the CERR line between West Olive and Porter to provide the necessary capacity for CERR to hold loaded trains until Consumers is ready to receive them. (Id. at III-C-48.)

Consumers argues on rebuttal that both Consumers' and CSXT's RTC models indicate there is no need for the additional siding near Campbell. (Consumers Rebuttal III-C-100, May 20, 2016.) Consumers asserts that, even though CSXT put this additional track in its reply RTC model, the trains did not use it. (Id.) Consumers argues that its RTC model demonstrates that its trains can operate efficiently between Porter and West Olive using the two sidings (at Grand Junction and Kirk) that Consumers provided on opening and rebuttal. (Id.)

Consumers' reliance on the parties' respective RTC models as proof that the Wells Siding is unnecessary is misplaced. RTC modeling does not account for the conditions within the Campbell plant that would prevent trains from entering immediately upon arrival, and CSXT has demonstrated that more than half of loaded Consumers' trains must be held outside the Campbell plant for 24 to 36 hours or longer, and that 31% of loaded Consumers' trains are held at the Wells Siding. (See CSXT Reply III-C-48 & III-C-66, Mar. 7, 2016.) Therefore, the Board accepts CSXT's addition of the Wells Siding as feasible and supported, whereas Consumers' position is not.

f. Air Supply Facilities at the Wells, Grand Junction, and Kirk Sidings

On reply, CSXT states that it has provided air supply facilities, which are used to charge the braking system of freight cars, on both sides of the roads crossing the Wells, Grand Junction, and Kirk sidings because the trains held on these sidings would require air to maintain their air brakes. (CSXT Reply III-C-48, Mar. 7, 2016.) Consumers rejects the addition of air supply facilities at the three sidings. Consumers argues that installing air supply is not necessary because, under its operating plan, CERR does not remove road locomotives when stopping a train on a siding. Consumers also claims that CSXT's installation of air at other sidings represents inefficiencies in CSXT's own operation. (Consumers Rebuttal III-C-100 to III-C-101, May 20, 2016.) Consumers' witness observes that coal train car brakes are automatically in a "brake is on" mode when there is no air on the train. (Id. at III-C-101.) Consumers alleges that CSXT has installed air at a siding to keep the "brakes pumped off," which poses a potential safety issue if someone "bottles the air" and releases the hand brakes. (Id.)

The Board finds that CSXT has failed to support its installation of air at the Wells, Grand Junction, and Kirk sidings. CSXT offers no evidence that air is necessary for brakes at these locations or that air is installed at the real-world Wells, Grand Junction, or Kirk sidings. CSXT also fails to include any costs for the installation of air at either Grand Junction or Kirk. Accordingly, the Board rejects CSXT's installation of air at these sidings.

g. Locomotives

The parties agree that CERR will use ES44AC (ES44) road locomotives and SD40 locomotives for yard switching, helper, and MOW service. (Consumers Opening III-C-30; CSXT Reply III-C-49, Mar. 7, 2016.) However, the parties disagree on the number of road and switching locomotives that CERR would need.⁵⁶

On opening, Consumers states that CERR requires a total of 12 ES44 road locomotives and one SD40 switch locomotive that operates in Barr Yard. (Consumers Opening III-C-30.) Consumers asserts that the switch locomotive will aid in the removal of bad order cars identified in inspections occurring in Barr Yard, will provide movement of cars to and from the Barr Yard car shop area, and will be used for work train assignments as needed. (*Id.*)

On reply, CSXT argues that Consumers understates the number of locomotives CERR would require. (CSXT Reply III-C-49, Mar. 7, 2016.) CSXT argues that Consumers' locomotive requirements are based on the faulty operating statistics generated by Consumers' RTC simulation, which itself suffers from numerous flaws, including Consumers' failure to account for delay events that affect train transit time on a daily basis. (*Id.* at III-C-50.) CSXT states that, in order to account for all of the power that would be needed to support CERR's train operations, CSXT's operating plan provides for a fleet of 18 ES44 road locomotives. (*Id.* at III-C-52.)

CSXT further argues that Consumers' position that a single SD40 unit assigned to Barr Yard would be sufficient is unrealistic. (CSXT Reply III-C-53, Mar. 7, 2016.) First, as described above, CSXT provided for one CERR coal unit train per week to make an intermediate stop at Barr Yard to pick up bad-ordered cars. (*Id.*) CSXT points out that the switching required to transfer bad-ordered issue coal cars into unit trains at Barr Yard further increases the workload that CERR would assign to its only SD40 unit. (*Id.*) Second, if the one SD40 unit broke down or needed to visit an off-site maintenance facility, operations at Barr Yard could come to a halt, also impacting train operations across the CERR network. (*Id.*) Accordingly, CSXT states that it provides for an additional SD40 locomotive at Barr Yard. (*Id.* at III-C-54.)

⁵⁶ The parties agree to include two dedicated SD40 locomotives to perform helper service at Saugatuck Hill. (CSXT Reply III-C-54, Mar. 7, 2016; Consumers Rebuttal III-C-106, May 20, 2016.) The Board will accept the parties' agreement.

On rebuttal, Consumers argues that CSXT's additional SD40 unit for Barr Yard is unnecessary. (Consumers Rebuttal III-C-105, May 20, 2016.) Consumers argues, among other things, that CSXT ignores the fact that in many cases it is easier and more efficient for road locomotives to switch out bad-ordered cars, and the fact that Barr Yard has a locomotive repair shop. (*Id.*)

In its supplemental evidence, Consumers argues that, as a result of the reduction in the number of trains transported by CERR, CERR requires 13 road locomotives. (Consumers Suppl. Evid. III-C-2; Consumers Rebuttal III-C-5, Apr. 12, 2017.) On supplemental reply, CSXT reduces CERR's requirements to include 15 road locomotives. (CSXT Reply III-C-8, Table III-C-10, Mar. 6, 2017.)

The parties' disagreement over other locomotive requirements is primarily due to their disagreements over the operating plan, system configuration, and RTC model. Because the Board is accepting CSXT's adjustments to Consumers' operating plan, and accordingly CSXT's system configuration and RTC model (which generates the operating statistics to calculate locomotive unit hours), the Board will also accept CSXT's projected locomotive requirements with minor adjustments, as detailed below.

TABLE 1

Locomotive Requirements			
Type	Consumers Supplemental Rebuttal	CSXT Alternative 1	STB
ES44AC	13	15	15
SD40-2	3	4	4
Total	16	19	19

i. Run-Through Power

Consumers states that all of CERR's interline trains move in run-through service, meaning that the locomotives generally are not removed from a train by either railroad at the interchange point, and instead stay with the train (despite being on another carrier's line). (Consumers Opening III-C-31.) Consumers asserts that run-through power is used routinely by all Class I railroads for interline unit and other trainload movements. (*Id.*) Specifically, Consumers states that, under the run-through concept, the number of locomotives that each railroad provides for a particular joint movement is allocated on the basis of the amount of time the locomotives spend on each railroad as a percentage of the total movement time, adjusted for any differences in locomotive horsepower. (*Id.* at III-C-31 to III-C-32.) Consumers asserts that each railroad provides the required number of locomotives, which are put into a pool for the specific movements in question. (*Id.* at III-C-32.)

Consumers states that, as modeled in its RTC simulation, all CERR trains have two locomotives. (Consumers Opening III-C-32.) According to Consumers, if trains received by CERR in interchange have additional locomotives, the configuration is not changed when the trains enter the CERR system, and any additional locomotives are idled. (Id.) In other words, Consumers limits the cost for run-through power to two locomotives on any train it receives, even if the train contains more than two locomotives.

CSXT argues that Consumers cannot avoid the cost of additional locomotives by claiming that CERR would idle their engines and not rely on them to power the trains on the CERR system. (CSXT Reply III-C-51, Mar. 7, 2016.) CSXT argues that, whether or not CERR actually uses all of the locomotives, the connecting carrier has no ability to use those locomotives while they are on the CERR system. (Id.) CSXT asserts that, under any run-through locomotive arrangement, a connecting carrier will therefore require CERR to compensate that carrier for the time during which its locomotives are located on CERR's lines. (Id.) CSXT states that 22% of the base year trains that CERR selected arrive at an on-SARR interchange with at least three locomotives, and that the average number of locomotives for all CERR base year trains exceeds two. (Id. at III-C-52.)

On rebuttal, Consumers argues that CERR does not need these additional locomotives, and while it could remove them from the trains when received in interchange, this would be pointlessly inefficient. (Consumers Rebuttal III-C-103 to III-C-104, May 20, 2016.) Consumers also argues that CERR's interchange partners could remove these locomotives if desired. (Id. at III-C-104.) According to Consumers, interchange partners have no expectation of compensation, and accordingly Consumers continues to exclude costs associated with these additional locomotives. (Id.)

The Board finds that Consumers' proposal to accept trains with additional locomotives at no cost is not feasible and supported. Consumers provides no evidence that interchange partners would not expect compensation for the time their locomotives spent on CERR, even if those locomotives are not in use. CSXT is correct that CERR's interchange partners would be unable to use those locomotives while they are idled on CERR trains, and should be compensated for that loss of use. Consumers also claims that removing these locomotives at the point of interchange would be inefficient, however, avoiding that inefficiency is the trade-off that Consumers made when it developed its operating plan. Consumers cannot on the one hand seek to take advantage of the efficiency of receiving only trains moving in run-through service, but then ignore the full costs associated with that decision. Consumers also points out that its interchange partners could remove these locomotives, but again, if the carriers were to do so, CERR would not be able to simply receive these trains intact in run-through service. For these reasons, CSXT's proposal that CERR compensate its interchange partners for the time their locomotives spend on CERR and are unavailable to the interchange partners is feasible, supported, and realistic. Accordingly, the Board will accept CSXT's evidence as to the costs for the additional locomotives.

ii. Peaking Factor and Spare Margin

Locomotive requirements are affected by both a “peaking factor” and a “spare margin.” These issues are discussed in turn below.

Peaking factor. To ensure that CERR will have sufficient locomotives to handle the peak demands of its traffic group, the Board requires the parties to estimate a peaking factor. The need for a peaking factor to assure that a SARR would have sufficient locomotives to handle its peak year’s peak demands was established in Texas Municipal Power Agency v. Burlington Northern & Santa Fe Railway, 6 S.T.B. 573, 660-61 (2003), and clarified in Public Service Co. of Colorado v. Burlington Northern & Santa Fe Railway, NOR 42057, slip op. at 13 (STB served Jan. 19, 2005). In recent SAC cases, the peaking factor has been calculated by forecasting the average number of train starts during the peak week of the peak year for traffic volume. This number is divided by the average number of weekly train starts during the forecasted peak year to yield the peaking factor. See Ariz. Elec., NOR 42113, slip op. at 32.

The parties agree to the use of this methodology, but CSXT makes an adjustment based on its argument that certain trains should be eliminated from the traffic group (specifically, the off-SARR coke trains and the Calumet Park trains, which are discussed in the Traffic Group and Revenues appendix). After removing these trains, CSXT states that the peaking factor would be 19.5%. (CSXT Reply III-C-56, Mar. 7, 2016.) On rebuttal, Consumers continues to include the trains that CSXT argues should be removed from the traffic group, and as such, proposes a peaking factor of 22.6%. (Consumers Rebuttal III-C-109 to III-C-110, May 20, 2016.) The parties each update their proposed peaking factor in their supplemental filings: Consumers updates its peaking factor to 23.8% (Consumers Suppl. Evid. WP “CERR Operating Statistics_Supplemental.xlsx”); and CSXT updates its peaking factor to 21.7% (CSXT Reply III-D-4, Mar. 6, 2017).

Because the Board accepts CSXT’s operating plan and CSXT’s train counts, discussed more fully above in the Traffic Group and Revenues section, the Board also accepts CSXT’s peaking factor, provided in CSXT’s Alternative 1 scenario, as train counts are the basis of the peaking factor calculation. The Board notes that the parties use the same methodology to calculate their peaking factors, however, they have a different starting point with their respective train counts.

Spare Margin. Because individual locomotives cannot be guaranteed to be available at all times, spare locomotives are necessary. The spare margin is the ratio of the incumbent railroad’s time that locomotives are unavailable for revenue service (numerator) to the total time locomotives are either in revenue service, available for revenue service, or unavailable while being maintained and repaired (denominator). The ratio is then applied to the SARR’s locomotive count, as measured by the total hours spent in revenue service or available for revenue service.

On opening, Consumers states that its total number of locomotives required includes the application of a spare margin, based on information provided by CSXT in response to Consumers' discovery requests. Consumers states that locomotive hours spent on CERR were developed from the analysis of CERR's operations using the RTC model, and that its locomotive spare margin was developed and applied separately for coal and other unit trains, merchandise, and intermodal trains. (Consumers Opening III-C-33.)

On reply, CSXT disagrees with how Consumers used CSXT's data—in which locomotive hours are broken out into different time categories, such as Active, Stored, Unknown, and Out of Service—to develop its locomotive spare margin. CSXT argues that Consumers' spare margin is understated for three reasons. First, CSXT points out that Consumers divided the total Out of Service time by the sum of the time reported to the following three categories: Active, Stored, and Unknown. (CSXT Reply III-D-20, Mar. 7, 2016.) CSXT argues that this is incorrect because its locomotive hours data already include time out of service in the definition of Active time. Further, CSXT argues that because Consumers applies its spare margin to an estimate of CERR locomotive time that does not include Out of Service time, the Out of Service amount should have been removed from the total locomotive time used as the denominator of the calculation. (Id.)

Second, CSXT argues that Consumers included Unknown time in the total locomotive hours, which is improper because there is no Unknown time in Consumers' RTC simulation or estimate of CERR locomotive hours. By including Unknown time in the total locomotive time (the denominator) used to calculate spare margin, CSXT argues that Consumers improperly suppresses the proportion of available time that a CERR locomotive would be out of service. (CSXT Reply III-D-21, Mar. 7, 2016.)

Third, CSXT states that Consumers' fails to account for the entire time that locomotives are out of service for repairs. (CSXT Reply III-D-20, Mar. 7, 2016.) Specifically, CSXT states that its materials define Out of Service time only as "Time out of service (in the shop being repaired)," but Fallout time ("Time spent from locomotive failure until it is 'shopped' at a repair location") and Repair time ("Time spent from 'shopping' until assigned to next train") must be included as well. (Id. at III-D-21 to III-D-22.) CSXT states that, to remedy these deficiencies, it replaces Out of Service time with the total of Fallout and Repair time to properly calculate spare margin. (Id. at III-D-22.)

On rebuttal, Consumers agrees to exclude Out of Service time and Unknown time from the denominator of the spare margin calculations. (Consumers Rebuttal III-C-108, May 20, 2016.) However, Consumers argues that, based on CSXT's own definitions, both Fallout time and Repair time overlap Available time and Out of Service time, and as a result, should not be

included in the spare margin calculation in place of Out of Service time.⁵⁷ (Id. at III-C-108 to III-C-109.) Consumers argues that CSXT's use of Fallout and Repair time in the numerator of the spare margin calculation results in some Available time being included in what should be "unavailable" time, and that Out of Service time is the correct way to reflect unavailable time in the spare margin calculation. (Id. at III-C-109.) Accordingly, Consumers calculates spare margins for ES44 locomotives and SD40 locomotives by dividing Out of Service time by the sum of Available time and Stored time.⁵⁸ (Id.)

The Board finds that Consumers' methodology, as refined on rebuttal to exclude Out of Service and Unknown time from the denominator of the spare margin calculation, is feasible and supported. CSXT has not undermined Consumers' calculation. Rather, Consumers has demonstrated that Fallout and Repair time overlap with Available Time and Out of Service time, and therefore should not be included in the numerator of the calculation. The Board accepts Consumers' spare margin for both ES44 and SD40 locomotives.

h. Dwell Times

The parties agree to allot 30 minutes of dwell time at each of CERR's on-SARR interchange locations. (Consumers Opening III-C-68; CSXT Reply III-C-60, Mar. 7, 2016.) The Board accepts the parties' agreed-upon dwell time for on-SARR interchanges.

With respect to off-SARR interchanges (i.e., trains moving to BNSF at Cicero and Corwith, and trains moving to UP at Proviso), Consumers explains on opening that because CERR moves trains to those yards without stopping on the CERR's tracks, Consumers did not include any dwell time for those trains. (Consumers Opening III-C-68.) Instead, Consumers states that, to determine the off-SARR operating costs attributable to CERR, Consumers includes the additional costs associated with moving to these yards, including fuel and additional crew costs, based on the average number of miles from the CERR connection point to the particular yard. (Id.)

On reply, CSXT argues that Consumers' analysis ignores the realities of railroading in the Chicago terminal area because it assumes that every time CERR wishes to tender a train to UP or BNSF, that carrier will immediately be ready and able to accept that train. (CSXT Reply

⁵⁷ Consumers points out that in CSXT's definitions of Fallout time and Repair time, both "will typically overlap—to some degree—with Out of Service (shop) time," and therefore "will overlap with both Available Time and Out of Service Time." (Consumers Rebuttal III-C-108, May 20, 2016; see Consumers Rebuttal WP "Locomotive Utilization Rebuttal.xlsx," Tab "Data Dictionary," Cells B15 & B17, May 20, 2016.)

⁵⁸ While Consumers proposed a spare margin for its SD40 locomotive count, neither party actually applied a spare margin to its SD40 locomotive count, an approach that the Board accepts.

III-C-60, Mar. 7, 2016.) CSXT argues that its Train Sheet records show that, in reality, 80% of the real-world CSXT peak period trains that operate off-SARR to BNSF or UP in Consumers' RTC simulation experienced delays prior to exiting the CSXT system. (*Id.* at III-C-60 to III-C-61.) According to CSXT, those delays ranged from 10 minutes to several hours. (*Id.* at III-C-61.) CSXT therefore incorporates these delays into its version of the RTC model as follows: (1) for trains delayed less than 15 minutes, CSXT did not include any additional dwell time; (2) for trains delayed between 15-29 minutes, CSXT included 15 minutes of dwell time; (3) for trains delayed between 30-44 minutes, CSXT included 30 minutes of dwell time; (4) for trains delayed between 45-59 minutes, CSXT included 45 minutes of dwell time; and (5) for trains delayed an hour or more, CSXT included 60 minutes of dwell time. (*Id.*)

On rebuttal, Consumers rejects CSXT's argument for the inclusion of these delays as unsupported. (Consumers Rebuttal III-C-117, May 20, 2016.) Consistent with its argument with respect to foreign line delays, here Consumers asserts that these alleged delays are simply enroute delays that occurred in the general vicinity of the BNSF and UP connection points, without any suggestion that they were foreign line delays. (*Id.*)

The Board finds that Consumers' exclusion of any dwell times for CERR trains to move off-SARR is not feasible and supported. It is unrealistic to expect that such trains would never encounter delays when moving off-SARR, and is contrary to Board precedent. In Arizona Electric, NOR 42113, slip op. at 29, the Board stated that a "SARR must account for the amount of time that a train on its system is not moving. Routinely there are dwell times at the origin and destination and in yards at which various activities may occur: crew changes, interchanges to another carrier, inspections, fueling, swapping of blocked cars, and car set-out and pick-up." As addressed in the above discussion on foreign line delays, while the Train Sheet data are not a perfect source of information, CSXT's use of the Train Sheet data enabled it to identify the train, date, time, and location of delays, which more accurately reflects the delays trains encounter when moving off-SARR. The Board finds that CSXT's identification and inclusion of dwell times is feasible, supported, and realistic.

2. Configuration

Having accepted CSXT's adjustments to Consumers' operating plan as feasible and supported, the Board also accepts CSXT's overall configuration because the system configuration is developed in an iterative process with the operating plan and RTC model. *See, e.g., Total Petrochems. & Refining USA, Inc. v. CSX Transp., Inc.*, NOR 42121, slip op. at 38 (STB served Sept. 14, 2016) (Board Member Begeman dissenting in part); DuPont, NOR 42125, slip op. at 36. Moreover, the system configuration sets the foundation for what is modeled in the RTC model, and the Board is adopting CSXT's RTC model. However, as discussed above, the Board makes minor adjustments to CSXT's proposed configuration to reflect the Board's changes to CSXT's version of the operating plan.

Tables 2 & 3 summarize the Board's conclusions on the route miles and constructed track miles of CERR.

TABLE 2

CERR Constructed Track Miles			
	Consumers Supplemental Rebuttal	CSXT Alternative 1	STB
Main line track – Single first main track ^{1/}	168.65	175.65	168.65
– Other main track ^{2/}	41.38	43.38	43.38
Total main line track	210.03	219.03	212.03
Interchange tracks	10.66	11.26	10.66
Setout tracks	2.00	2.00	2.00
Yard tracks ^{3/}	9.07	9.21	9.21
Total CERR track miles	231.76	241.50	233.90
^{1/} Single first main track miles equal total constructed route miles, including the lead track to the Consumers Plant and the Dolton Interchange track. This also includes 8.13 route miles of the BRC (and 6.4 route miles of IHB in reply).			
^{2/} Equals total miles for constructed second main tracks/passing sidings, including the BRC and IHB segments.			
^{3/} Includes all tracks in the Barr Yard.			

TABLE 3

CERR Route Miles			
	Consumers Supplemental Rebuttal	CSXT Alternative 1	STB
<u>Fully Owned Main Line Miles</u>			
22nd St/Ogden Jct. to Curtis	32.70	32.70	32.70
Porter to West Olive	122.20	122.20	122.20
<u>Fully Owned Interchange Miles</u>			
Dolton Interchange Track	3.24	3.24	3.24
Campbell Plant Lead Track	2.38	2.38	2.38
Buffington Connection	0.00	0.60	0.60
<i>Subtotal (Fully Owned)</i>	<i>160.52</i>	<i>161.12</i>	<i>161.12</i>
<u>Partially Owned Main Line Miles</u>			
BRC (75 th St. to Rock Island Jct.)	8.13	8.13	8.13
(IHB) Calumet Park to IHB Blue Island Yard	n/a	6.40	n/a
<i>Subtotal (Partially Owned)</i>	<i>8.13</i>	<i>14.53</i>	<i>8.13</i>
Total CERR Constructed Route Miles	168.65	175.65	169.25
<u>Trackage Rights Operating Miles</u>			
(NS) Rock Island Jct. to Curtis/Pine Jct.	12.50	12.50	12.50
(NS) Curtis/Pine Jct. to Porter, IN	12.60	12.60	12.60
(BNSF) 22nd St. to Cicero	3.30	3.30	3.30
(UP) Ogden Jct. to Proviso/Global 2	12.40	12.40	12.40
(BNSF) Brighton Park to Corwith	3.50	3.50	3.50
(IHB) Calumet Park to IHB Blue Island Yard	6.40	na	6.40
(UP) Ogden Jct. to Global 1	0.40	0.40	0.40
(UP/CP) Ogden Jct. to Bensenville	14.60	14.60	14.60
<i>Subtotal (Trackage Rights)</i>	<i>65.70</i>	<i>59.30</i>	<i>65.70</i>
Total CERR Operating Miles	234.35	234.95	234.95

a. Investment in IHB Facilities

On opening, Consumers states that CERR's trackage rights route miles include several joint facilities. In particular, CERR operates over the IHB to handle eastbound trains directly from the IHB's Blue Island yard to the connection point with the CERR system at Calumet Park. (Consumers Opening III-B-16 to III-B-17.)

On reply, CSXT rejects Consumers' assumption that CERR will operate over the IHB between Calumet Park and Blue Island Yard using the same trackage rights that CSXT uses in the real world. CSXT argues that, because CSXT maintains a 21.42% interest in the IHB, CERR can only step into CSXT's shoes if CERR accounts for 21.42% of the necessary investment for the segment utilized on the IHB between Calumet Park and Blue Island Yard. (CSXT Reply III-B-2, Mar. 7, 2016.) CSXT states that it has included in its workpapers the costs for the necessary CERR infrastructure, including 6.4 miles of double mainline track and a 1.9-mile-long interchange track at Blue Island Yard where CERR trains will hold during crew changes that would be needed.⁵⁹ (Id.)

CSXT further argues that CSXT's operating rights on the IHB are part and parcel of the ownership interest that CSXT's parent company, CSX Corporation (CSX), holds in the IHB. (Id. at III-B-13, III-B-18.) According to CSXT, its rights are that of an owner—not the rights of a mere trackage rights user—and as such, the SAC analysis must account for that partial ownership interest. (Id. at III-B-13 to III-B-14.) CSXT argues that it acquired its trackage rights in the same Consolidated Rail Corporation (Conrail) transaction in which CSX paid for a share of Conrail's ownership interest in the IHB, thus CSXT's rights were not acquired in an arms-length transaction between unaffiliated carriers. (Id. at III-B-14.) See also CSX Corp.—Control & Operating Leases/Agreements—Conrail, Inc., 7 S.T.B. 205 (2003).

CSXT also claims that Board precedent precludes a complainant from avoiding construction costs by assuming that the SARR would use trackage rights over a defendant carrier's facilities. (CSXT Reply III-B-15 to III-B-16, Mar. 7, 2016, citing Potomac Elec. Power Co. v. Consol. Rail Corp., 367 I.C.C. 532, 552-53 (1983) (trackage rights must be valued in a way that fully accounts for all fixed costs); Ariz. Elec., NOR 42113, slip op. at 8-11.⁶⁰) CSXT states that, in Arizona Electric, the Board rejected the complainant's assumption that its SARR could use the existing facilities of one of the two defendants and account for the costs of those facilities by paying a trackage rights fee, and found that the complainant failed to show that the trackage rights fee would cover the full costs of the facilities and therefore that the complainant had failed to satisfy the purpose of the SAC test. (CSXT Reply III-B-16, Mar. 7, 2016, citing Ariz. Elec., NOR 42113, slip op. at 8-11.) CSXT recognizes, however, that in DuPont the Board did not require the complainant to account for construction costs of the IHB when the complainant argued that the applicable assets were not owned by defendant but by the parent

⁵⁹ CSXT argues that the traffic moving over the IHB facilities should not be included in the CERR's traffic group in the first place because that traffic fails to meet CSXT's transit time service standard. As addressed in detail in the Traffic and Revenues section, the Board rejects CSXT's argument and retains this traffic.

⁶⁰ It appears that, instead of Arizona Electric, NOR 42113, slip op. at 8-11, CSXT was referring to Arizona Electric Power Cooperative v. Burlington Northern & Santa Fe Railway, NOR 42058, slip op. at 8-11 (STB served Mar. 15, 2005).

company of NSR and were not listed in NSR's R-1 data. (CSXT Reply III-B-16, Mar. 7, 2016, citing DuPont, NOR 42125, slip op. at 27-28.⁶¹)

CSXT also argues that CERR is only allowed to assume CSXT rights under the “stepping into the shoes” construct if CERR's rights are subject to the same terms and conditions that apply to CSXT's rights. (CSXT Reply III-B-18, Mar. 7, 2016.) CSXT argues that Consumers is proposing that a third-party railroad with no ownership in IHB should pay the same rate as a co-owner of IHB—even though the owners' rate that CSX pays would not include an interest rental component. (*Id.*) CSXT asserts that owning carriers are entitled to charge trackage rights fees that recover both costs and rent, and that rent is based on an allocated share of return on the value of property. (*Id.*, citing St. Louis Sw. Ry. Comp.—Trackage Rights, 4 I.C.C.2d 668, 668-70 (1987).) CSXT argues that, because its rights to operate on the IHB are part and parcel of its simultaneously-acquired ownership interests in the IHB, the fees that CSXT pays to the IHB do not include any interest rental component. (CSXT Reply III-B-18 to III-B-19, Mar. 7, 2016, citing St. Louis Sw. Ry.—Trackage Rights Comp., 1 I.C.C.2d 776, 779-780 (1984) (adopting methodology for computing compensation designed to account for “an interest rental component representing return on investment”).) CSXT claims there is no reason for the IHB to charge a rental fee to its owners. (CSXT Reply III-B-19, Mar. 7, 2016.) According to CSXT, a hypothetical SARR could not enter the marketplace and use the IHB facilities without paying a rental fee for the use of the property. (*Id.*)

Finally, CSXT argues that the fact that the partial ownership interest in IHB is held by CSX and not CSXT is irrelevant to whether Consumers must account for the full stand-alone costs of operations over the IHB. (*Id.*) CSXT disagrees with the Board's reasoning in DuPont, arguing that that decision does not accord with the realities of real-world railroading, because it would result in a SAC analysis that determines the reasonableness of rates without accounting for the full costs of serving the traffic at issue. (*Id.* at III-B-19 to III-B-20.) CSXT points out that it is a wholly-owned subsidiary of CSX, and that CSXT receives a variety of services from CSX, as well as from its sister subsidiaries. (*Id.* at III-B-20.) According to CSXT, CSXT compensates CSX for certain services in the areas of strategic management, human resources, finance, legal, tax, and marketing, and CSXT also compensates sister subsidiaries for services including those related to technology and insurance. (*Id.*) CSXT recognizes that CERR is not required to replicate this corporate structure, but argues that CERR cannot simply ignore the necessary functions performed by other entities. (*Id.*)

On rebuttal, Consumers points to the Board's decision in DuPont for the proposition that CSXT has the burden of proof to demonstrate that CERR should incur the investment costs for the IHB, and argues that CSXT has not met that burden. Consumers addresses each of CSXT's arguments in turn, as discussed below.

⁶¹ It appears that CSXT was referring to that decision at 39-41.

First, as to CSXT's argument that Consumers must account for a share of the IHB's construction costs if CERR is to use CSXT's operating rights on the IHB, Consumers alleges that CSXT's arguments were all rejected by the Board in DuPont. (Consumers Rebuttal III-B-21, May 20, 2016.) Consumers also argues that CSXT ignores two facts: (1) that CSXT and IHB have a history of cooperating in this area that predates the Conrail acquisition; and (2) that CSXT has never been a part owner of the IHB's Blue Island facilities used by CERR. (Id. at III-B-21.) Consumers notes that, in contrast, CSXT is a joint owner with the IHB of the facilities immediately west of Blue Island, where CSXT provides capital contributions and other services. (Id. at III-B-22.) Finally, Consumers argues that CSXT does not suggest that the IHB's costs, currently or prior to the Conrail acquisition, are not met by the fees that CSXT and other carriers pay to utilize, nor that CSXT is compensating CSX or Conrail separately for other costs associated with the IHB's Blue Island facilities. (Id.)

Second, as to CSXT's argument that assuming that a SARR can use trackage rights over joint facilities without replicating a defendant's ownership interest violates SAC principles and Board precedent, Consumers again argues that CSXT fails to raise any arguments not rejected by the Board in DuPont. (Consumers Rebuttal III-B-23, May 20, 2016.) Specifically, Consumers argues that CSXT's position that there is no meaningful distinction between CSX and CSXT strains credulity. Consumers further argues that CSXT's position was rejected in DuPont and that, in many other circumstances, CSXT would steadfastly refuse to blur the lines between the two entities. (Id. at III-B-24 to III-B-25.)

Third, as to CSXT's argument that because CERR can only step into CSXT's shoes on the same terms applicable to CSXT, it cannot use CSXT operating rights on the IHB without replicating CSXT's ownership interest in those facilities, Consumers once again asserts that CSXT does not own any portion of the IHB and is instead a trackage rights tenant. (Id. at III-B-26.) Thus, Consumers argues, what CSXT pays in trackage rights fees is obviously reflective of what a non-affiliate railroad would pay—if a rental interest component were necessary to make all of the IHB owners whole, then CSXT, as a non-owner would be paying it. (Id.) Consumers also questions CSXT's assertion that it must pay CSX for services such as technology and administrative activities, in contrast to CSXT's assertion that the fees it pays indirectly to CSX via the IHB do not cover all costs. (Id. at III-B-26 to III-B-27.) Consumers further alleges that CSXT offers no actual support for its assertion that CSXT's payments are insufficient. (Id. at III-B-27.)

Fourth, as to CSXT's argument that the fact that the partial ownership interest in IHB is held by CSX rather than CSXT is irrelevant to whether Consumers must account for the full stand-alone costs of operations over the IHB, Consumers reiterates its arguments discussed above. (Consumers Rebuttal III-B-27 to III-B-28, May 20, 2016.)

The Board accepts Consumers' inclusion of the IHB facilities in its trackage rights use miles as feasible, supported, and consistent with the Board's decision in DuPont. In that case, the Board did not require the complainant to account for the construction costs of the IHB

because those partially owned facilities were subsidiaries of Norfolk Southern Corporation and not of defendant NSR. DuPont, NOR 42125, slip op. at 48-49. There the Board stated that the burden is on the railroad to demonstrate the relationship of the joint facility entity and the costs and revenue realized by the railroad as a result of that relationship. DuPont, NOR 42125, slip op. at 49. Here, CSXT has failed to meet this burden. CSXT argues that the trackage rights fee it pays are not the result of an arms-length transaction, but rather the result of CSX's concurrent purchase of a share of Conrail's interest in the IHB; however, CSXT offers no evidence that its fee does not cover both costs and rent. In fact, evidence on the record seems to indicate that a rental component has been included as part of CSXT's trackage rights agreement with the IHB. (See CSXT Reply WP "IHB101X.pdf" at 2, Mar. 7, 2016.)

CSXT may be correct that there is no reason for the IHB to charge a rental fee to its owners, even though it would surely charge a rental fee to a non-owner, but the evidence here demonstrates that CSXT itself is a non-owner. (See CSXT Reply III-B-19, Mar. 7, 2016.) In addition, CSXT has offered no evidence that its trackage rights fee is insufficient. While CSXT has noted that its parent corporation has provided other services to the defendant, it acknowledges that the parent is compensated for those services, and CSXT has provided no evidence that suggests the railroad is not fully compensated. Accordingly, the Board finds that CSXT has not undermined Consumers' evidence, and accepts Consumers' use of trackage rights to access the IHB as feasible and supported.

3. 59th Street Intermodal Terminal

The 59th Street Intermodal Terminal is an intermodal terminal owned by CSX Intermodal Terminals Inc. (CSXIT). CSXT owns the land underlying the terminal. Pursuant to an agreement between CSXT and CSXIT, CSXT pays CSXIT "lift fees" equal to 110% of all CSXIT's operating costs, less any revenues from third parties, for providing intermodal terminal services (i.e., transferring a container to a railcar at origin and transferring a container from a railcar to a chassis at destination). (Consumers Rebuttal III-D-162, May 20, 2016; CSXT Final Br. 16.)

Under Consumers' proposal, CERR would originate intermodal trains at the 59th Street Intermodal Terminal where the trains would be loaded and built by CSXIT. (Consumers Opening III-C-8.) Consumers states that CERR would also interchange intermodal trains bound for the 59th Street Intermodal Terminal with residual CSXT. (Id.) Consumers acknowledges that, "since line-haul revenues for this traffic includes the cost of lifting containers onto railcars," it must account for the CERR's cost of lifts charged by CSXIT. (Id. at III-D-142.) To do so, Consumers develops a per-lift cost based on CSXT's actual costs associated with lifting containers onto railcars. (Id. at III-D-143.) Consumers then develops the overall costs of CERR's intermodal container lifts by applying the per-lift cost to the 173,848 containers carried by CERR out of the 59th Street facility. (Id. at III-D-142 to III-D-143; Consumers Opening WP "CERR CSXIT Lift Charge_Open.xlsx.")

As for the land costs associated with CSXT's ownership of the 59th Street Intermodal Terminal, Consumers assumes that CSXIT makes lease payments to CSXT for the underlying land that are equal to or greater than CSXT land costs, on the theory that CSXT would not purchase and lease an asset for less than its costs. (Consumers Opening III-F-3 n.3.) Accordingly, Consumers does not account for the land costs.

On reply, CSXT argues that Consumers' lift costs fail to account for all the expenses of providing intermodal terminal services and that CERR is therefore not entitled to the full ATC revenue allocation for originating and terminating the intermodal traffic. CSXT argues that all expenses of providing intermodal terminal services are either incurred directly by CSXT or indirectly through payment to CSXIT for all its operating costs. (CSXT Reply III-A-43, Mar. 7, 2016.) CSXT asserts that Consumers excludes expense items that it deemed not directly linked to intermodal trains that would be handled by CERR. (Id. at III-A-44 to III-A-45, Table III-A-3.) CSXT argues that Consumers' proposed lift costs also exclude the cost of the real estate owned by CSXT within the intermodal terminal. (Id. at III-A-45, III-A-47.) The net result, it argues, is that CERR would pay only one-third of the operating expenses incurred by CSXIT (e.g., clerical labor and utilities), but none of the operating expenses directly incurred by CSXT (e.g., inspection employees and switch crews), and none of the RPI. (Id. at III-A-45, III-D-160.)

According to CSXT, Consumers then "rewards itself with the full originating and terminating ATC revenue allocation credit for the 173,848 intermodal shipments that originate or terminate at the 59th Street intermodal terminal," which results in a gross overallocation of revenues under the ATC methodology. (CSXT Reply III-A-45 to III-A-46, Mar. 7, 2016.) CSXT states that Consumers will likely argue that payment of the lift costs entitles CERR to the full revenue allocation for originating and terminating the intermodal traffic. (Id. at III-A-47.) CSXT argues though that such an argument fails because, as it notes, Consumers' lift cost does not account for all of the costs associated with originating and terminating shipments at the 59th Street Intermodal Terminal. (Id.)

Accordingly, CSXT argues that Consumers is not entitled to the full revenue allocation for originating and terminating the intermodal traffic at the 59th Street Intermodal Terminal Facility. (CSXT Reply III-A-45 to III-A-48, Mar. 7, 2016.) Rather, CSXT asserts that CERR should receive a revenue allocation based only on the services it would provide. CSXT therefore adjusts the revenue allocation to match the services that CERR would perform, i.e., line-haul service, and excludes all costs associated with originating and terminating traffic, i.e., the lift costs. (Id. at III-A-50, III-D-160 to III-D-161.)

On rebuttal, Consumers rejects CSXT's arguments. Consumers asserts that CERR originates or terminates traffic at the 59th Street Intermodal Terminal in the same fashion as CSXT and is therefore entitled to the same revenues that CSXT receives. (Consumers Rebuttal III-A-98, May 20, 2016.) Consumers rejects CSXT's claim that Consumers has failed to account for all of the costs for originating and terminating trains. On the issue of whether Consumers properly accounts for indirect costs incurred by CSXT, Consumers argues that CSXIT is not an

affiliate of CSXT but a third-party service provider to CSXT and other customers. (Id. at III-A-99 to III-A-102, III-D-161.) Consumers states that CERR would thus be obligated to compensate CSXIT for lift services being provided to CERR but not other terminal services provided to other customers. (Id. at III-D-162 to III-D-163; see also Consumers Br. 25.)

The Board finds Consumers' general approach to calculating the lift fees for the 59th Street Intermodal Facility, based on CSXIT's 2014 lift costs, to be feasible. However, the Board finds that Consumers' calculation of lift costs excludes several operating expenses, including clerical support and utilities, that the Board has recognized as properly included to support intermodal operations. See Total Petrochems. & Refining USA, Inc. v. CSX Transp., Inc., NOR 42121, slip op. at 128-129 (STB served Sept. 14, 2016) (Board Member Begeman dissenting in part). The Board will therefore modify Consumers' lift fee calculation to account for CERR's proportional share of the excluded operating expenses incurred by CSXIT identified in CSXT's reply at Table III-A-3. (See CSXT Reply III-A-45, Mar. 7, 2016).

As for CSXT's arguments that Consumers also excluded the costs associated with purchasing the terminal property, the Board finds Consumers' argument that CSXIT lease payments cover CSXT's land ownership to be reasonable. In its reply, CSXT fails to address Consumers' assertion on opening that these lease payments are sufficient to cover the investment in land, nor has CSXT provided evidence of the lease payments it has received from CSXIT. Therefore, the Board finds it reasonable to assume that CSXT does not incur a cost for land ownership because it is covered by CSXIT's lease payments, and it is thus reasonable that CERR not assume the costs for land ownership, as well.

Given these findings and our adjusted lift costs, the Board finds CSXT's proposal to completely eliminate all costs and revenues associated with terminating and originating intermodal traffic at the 59th Street Intermodal Terminal to be unsupported. As discussed above, the Board will factor in these costs when allocating CERR revenues for crossover traffic.

The remaining operating expenses issues are discussed and resolved in Appendix B.

C. RPI

In the RPI section of the SAC analysis, the Board determines the investment that would be required to build the SARR's physical facilities. The numerous issues involved in determining what it would cost to build CERR are addressed in Appendix C.

D. DCF ANALYSIS AND MMM

A DCF analysis is used to distribute the total capital costs (in current year dollars) of CERR over the SAC analysis period (10 years). Operating expenses are calculated for a base year and forecasted into other years by indexing for inflation and forecasted changes in tonnage.

CERR's total revenue requirements (capital and operating expenses) are then compared against the stream of revenues CSXT is expected to earn from the revised traffic group, discounted to the starting year (2015).

To adjust the base-year operating expenses for inflation over the analysis period, the parties use projections of the RCAF, which is an index of railroad costs that the Board publishes quarterly. There are two versions of the RCAF that are relevant to SAC proceedings: one that does not take into account changes in the rail industry's productivity (the unadjusted RCAF, or RCAF-U); and one that does (the adjusted RCAF, or RCAF-A). See 49 U.S.C. § 10708 (requiring quarterly publication by the Board of both versions). In Major Issues, EP 657 (Sub-No. 1), slip op. at 40-42, the Board decided to phase in the productivity gains projected in RCAF-A incrementally over the analysis period. That approach is applied here.

The MMM must then be applied to the excess revenues to determine the relief, if any, that the complainant receives. The Board employs the MMM analysis to determine how much differential pricing the railroad must be permitted in order to recover its total SAC costs and thereby earn a reasonable return on its capital investments. Major Issues, EP 657 (Sub-No. 1), slip op. at 14-15. The MMM begins with the actual distribution of R/VC ratios in the traffic group, which reflects the ability (or inability) of the railroad to recover its costs from this traffic due to the presence of competitive alternatives and real market forces. Id. The MMM rank-orders these R/VC ratios and then, starting with the highest R/VC ratio, reduces the maximum R/VC ratio to the R/VC ratio of the next highest shipper, and repeats this process until it reaches the point at which the SARR recovers its costs and earns an adequate return on the capital investments required to serve the traffic group.

The parties dispute aspects of the DCF and MMM. The Board's resolution of these disputes is set forth in Appendix D, which demonstrates that the challenged rate is unreasonably high.

Under MMM, the maximum lawful rate is expressed as an R/VC ratio. The Board's calculation of the maximum R/VC ratios CSXT may charge the issue movement pursuant to MMM is set forth in Table 4 below.

TABLE 4

CERR MMM RESULTS	
Year	MMM Revenue to Variable Cost Ratios
2015	N/A
2016	N/A
2017	460.6%
2018	488.3
2019	484.3
2020	457.2
2021	458.2
2022	436.1
2023	449.9
2024	409.0

CSXT is ordered to reimburse Consumers for amounts previously collected above these prescribed levels, together with interest to be calculated in accordance with 49 C.F.R. pt. 1141. CSXT is also ordered to establish and maintain a rate for movement of the issue traffic that does not exceed the maximum reasonable R/VC ratios prescribed in this decision. For purposes of calculating reparations and setting the maximum rate for future movements, the variable cost of the issue movement must be calculated pursuant to unadjusted URCS, with indexing as appropriate, as further discussed in Appendix D. If the parties cannot agree on the amount of reparations due, or if there is a dispute over how to calculate the variable cost of the movement at issue, Consumers should bring those disputes to the Board's attention.

It is ordered:

1. CSXT's May 3, 2017 motion to strike is denied as moot as discussed above.
2. No later than February 12, 2018, Consumers and CSXT shall prepare and submit a joint version of the highly confidential Market Dominance appendix that specifically identifies proposed redactions of any confidential and highly confidential information contained therein. Should the parties be unable to reach agreement on any of the proposed redactions, the parties may submit individual pleadings explaining the disagreements and supporting their positions.
3. CSXT is ordered to pay reparations to Consumers in accordance with this decision and to establish and maintain a rate for movement of the issue traffic that does not exceed the maximum reasonable R/VC cost levels described in this decision.

4. This decision is effective on the date of service.

By the Board, Board Members Begeman and Miller. Board Members Begeman and Miller commented with separate expressions.

BOARD MEMBER BEGEMAN, commenting:

During my service at the Board, I have often voiced my concerns about the Board's rate review processes, and in particular SAC, which is costly, time consuming, and unpredictable. The Board has taken several recent actions to help expedite the SAC process for future cases, as directed by the Surface Transportation Board Reauthorization Act of 2015. But with every SAC case, it seems that more and more issues are raised for the Board to resolve pertaining to the hypothetical railroad, which increases the burden on the parties and makes meeting the new expedited deadlines all the more difficult. That the Board was even called upon in this case to resolve arguments over details of the imaginary restrooms needed for the imaginary crew for the imaginary railroad affirms my belief that the Board must establish an alternative to SAC.

That is why, as I announced last month, the Board will establish an internal Rate Reform Task Force following completion of this case. The goal of this committee will be to develop recommendations to reform and streamline our rate review process for large cases, and to determine how to best provide a rate review process for smaller cases. Public input will be invited and needed in this very important undertaking. We must develop a new approach and provide a better rate review process for all stakeholders.

BOARD MEMBER MILLER, commenting:

I concur in today's decision. Although there are a handful of calls throughout the decision where I had some skepticism, I believe that the Board's determinations properly are grounded in the record of this case.

My greater concern remains with the application of the SAC test. The concept of the SAC test may be sound, but as I have noted in the past, I have several concerns about how SAC cases are litigated. Anyone who has tracked the evolution of SAC cases since Coal Rate Guidelines was adopted in 1985 can see that each case brings more granularity in the issues disputed by the parties. Parties are now arguing over matters as trivial as the type of wiring needed for yard lighting. (See Appendix D, Section F-11-d.) These disputes over minutiae often force the Board to make determinations that, while based on evidence and expertise, seem far removed from the core question at issue – the reasonableness of a rate. That is particularly so when we review the feasibility of a complainant's evidence in hundreds of categories to determine if it passes muster under the agency's longstanding Duke/NS evidentiary standard. The fact that the ultimate outcome of a SAC case, in which millions of dollars are at stake, hinges on a staggering number of individual determinations is concerning. Even if the economic theory behind the SAC test is fundamentally sound, I think there must be a better way to assess the reasonableness of a railroad's rate.

These concerns add to my existing unease with the SAC test. Recent Board Members have also indicated skepticism about the efficiency of the SAC test, while Congress seems to have shown openness to a new methodology, as evidenced by its ordering the Board to conduct a report on SAC alternativesⁱ and commissioning the Transportation Research Board (TRB) of the National Academy of Sciences to study the issue.ⁱⁱ It is my hope that the Board will undertake a serious effort to find an alternative rate reasonableness methodology. Acting Chairman Begeman took a step in that direction when she recently indicated an intention to establish an internal Rate Reform Task Force.ⁱⁱⁱ Still, I am disappointed that in my nearly four years at the Board so little progress has been made on this front.

If the Board were to consider alternatives to the SAC test, I believe there are a number of ideas that are worth further exploration. These include (though certainly are not limited to) the following:

Further exploration of a competitive market-rate benchmarking approach. The committee assigned by the TRB to conduct the Congressionally-mandated report concluded that “[a] wealth of information on unregulated, market-based rail prices now exists in STB’s annual [Carload Waybill Sample], along with detailed information on important characteristics of individual shipments.” (TRB Report at 141.) The TRB committee suggests that this information be used to develop a model of a predicted, or “benchmark,” rate, and that only those rates that are above a certain, defined percentage of the benchmark should be subject to challenge. If a rate is above that cut-off, it would then be subject to final offer arbitration. (*Id.* at 141-143.)

Obviously, the Board cannot adopt the TRB committee’s recommendation in full, as aspects of it are beyond what the law currently allows. In particular, the Board cannot mandate parties engage in binding, final offer arbitration. However, instead of arbitration, the Board

ⁱ See The Surface Transportation Board Reauthorization Act of 2015, Pub. L. No. 114-110, Section 15 (2015). The Board issued its report—generally referred to as the InterVISTAS Report, after the consultant that prepared it—in September 2016. Although the InterVISTAS Report technically satisfied Congress’ directive, in my view, it did not fully comport with the spirit of the requirement, as I believe that Congress’ goal was to obtain input from the Board itself. Soon after the InterVISTAS Report was issued, the Board did hold a follow-up roundtable discussion with some of the nation’s top transportation economists in October 2016, which generated further discussion of how to reform the agency’s rate reasonableness methodologies. But since then, little action has been taken, including the planned follow-up hearing to get stakeholder reaction to the report and roundtable discussion.

ⁱⁱ See Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users of 2005, Public Law 109-59, Section 9007. The TRB issued its report, “Modernizing Freight Rail Regulation,” in June 2015.

ⁱⁱⁱ See Letter from Ann Begeman, Acting Chairman, Surface Transportation Board, to Senator John Thune, Chairman, Committee on Commerce, Science, and Transportation, *et al.*, (Jan. 2, 2018).

could allow for rates at the high-end of the spectrum for similar traffic to qualify for a streamlined review process. The Board has, in fact, already begun exploring such a concept in Expanded Access to Rate Relief, EP 665 (Sub-No. 2). Some may question the trade-off of limiting those shipments that qualify for a reasonableness challenge in exchange for a simpler process. However, given that so many shippers already believe that they are unable to seek relief because of the time and expense of bringing a case, I think it is an idea worth exploring.

Expanded use of the Three Benchmark methodology. Although some have questioned expanding use of this methodology, the Three Benchmark test shares some of the characteristics endorsed by the TRB committee in its report, particularly the notion of benchmarking rates.^{iv} The InterVISTAS Report noted that its analysis suggested that the outcomes of Three Benchmark cases are consistent with the outcomes in full SAC cases, and suggested further testing to confirm these results. (*Id.*) While there has been some question about the precision of the Three Benchmark test (including from the Board itself),^v I question whether that is in fact a fair assessment.

Eliminating replacement cost for certain assets. Even if the Board continues to rely on some version of the SAC test, I have concerns about the fact that the complainant must account for the replacement cost of certain assets in its SARR that the real-world railroad put in place over many years and will to continue to maintain but likely never replace. The Board could consider initiating a proceeding to explore whether continuing the existing policy of requiring the shipper to incorporate the replacement costs for such assets in its design of the SARR makes sense.

^{iv} The TRB committee did not endorse continued use of the Three Benchmark methodology because of its reliance on the Board's Uniform Rail Costing System. TRB Report at 135-135.

^v See Simplified Standards at 73 (calling the Three Benchmark methodology a "crude approach.")

APPENDIX A—TRAFFIC VOLUMES AND REVENUES

In this appendix, the Board examines the amount of traffic that CERR would transport and the revenues that traffic group would be expected to generate over the 10-year SAC analysis period (2015-2024). As discussed in the body of this decision, the parties agree on the basic parameters of the CERR traffic group with only three exceptions: bad-ordered coal cars that are part of the issue traffic, K300 Series or coke trains, and merchandise trains that traverse the CERR between Calumet Park, Ind., and Curtis, Ind. (Consumers Rebuttal I-7, Apr. 13, 2017; CSXT Reply I-8, Mar. 6, 2017.) Noted above, the Board has accepted Consumers' traffic group selection, with the exception of K300 Series trains; the Board has also determined that bad-ordered cars represent issue traffic and will be included in the CERR traffic group selection. Also discussed in the body are certain adjustments that CSXT makes to the ATC methodology to allocate revenues from cross-over traffic.

For purposes of determining traffic volumes and revenues, the parties agree on certain aspects of CERR's traffic group, but disagree on the following: (1) the appropriate forecast or methodology to determine tonnage volumes for CERR traffic; (2) the appropriate price of crude oil for use in crude oil volume forecasts; (3) the methodology to be used to calculate fuel surcharge revenues; and (4) whether technical adjustments are needed for Consumers' ATC revenue division calculations. These remaining issues are discussed below.

A. STAND-ALONE TRAFFIC GROUP

On opening, Consumers states that CERR's traffic group was designed using CSXT traffic, revenue, and car/train event data covering a 15-month period ending with 1Q2015. (Consumers Opening I-29.) In addition to the Campbell coal traffic, Consumers notes that a portion of CERR's base year ton-miles are comprised of carload traffic (including non-issue coal traffic) that is handled by CERR solely in unit train or trainload service. (Id.) Consumers states that the balance of CERR traffic is comprised of intermodal container shipments, which also are handled in trainloads while traversing CERR. (Id.)

1. Volumes (Historical and Projected)

a. Coal Traffic to Campbell

On opening, Consumers states that CERR's issue coal volumes are based on Consumers' internal forecast, which reflects information regarding Consumers' coal supply, and covers the period from January 1, 2015, through December 31, 2024, i.e., the DCF period. (Consumers Opening III-A-5 to III-A-6.)

On reply, CSXT argues that Consumers is attempting to mislead the Board, based on the fact that two months before Consumers filed its opening evidence with the Board, Consumers submitted completely different (and materially lower) forecasts for the period of 2015 to 2020 to its state regulator, the Michigan Public Service Commission (MPSC), to support its request to

raise its rates. (CSXT Reply III-A-17, Mar. 7, 2016.) CSXT states that it therefore rejects Consumers' projected volumes based on the January 2015 forecasts submitted in discovery and instead uses projected volumes from Consumers' more recent submission to the MPSC for the years 2015 to 2020. (*Id.*) Because Consumers did not provide its state regulator a forecast for 2021 through 2024, for those four years, CSXT assumes the same growth rates as shown in Consumers' 2015 through 2020 forecasts in its MPSC filing. (*Id.*) CSXT argues that, while Consumers may cast the differences between the forecasts as immaterial, they are not. Rather, CSXT states that the cumulative difference between the forecasts, over the 10-year SAC analysis period, is 4,124,600 tons (or 7.6%). (*Id.* at III-A-18.) And, using the challenged rate of \$14.95 (before adjusting for inflation), CSXT alleges that Consumers overestimated the revenue CSXT would earn under the challenged rate by \$55.3 million. (*Id.*)

On rebuttal, Consumers disagrees with CSXT's assertion that Consumers is attempting to "mislead" the Board by not relying on the September 2015 filing to the MPSC. (Consumers Rebuttal III-A-56, May 20, 2016.) Consumers states that CSXT is aware that the forecast model data submitted to the MPSC was influenced in large measure by eight months of Consumers' experience paying the CSXT rates at issue in this proceeding—rates that have a negative impact on the level at which Campbell is dispatched by the Mid-Continent Independent System Operator, the entity that controls generation dispatch within the region that includes Consumers' service territory. (*Id.* at III-A-57.)⁶² Consumers thus implies that the coal volumes would have been higher, were it not for CSXT's high rate.

Consumers also argues that its opening evidence reflected an appropriate use of two forecast models with different strengths, in contrast to its MPSC filing, which relied on only one forecast. For 2015 and 2016, Consumers states that it used the volumes from the PROMOD model, which is an hourly unit commitment and production dispatch model used to assess near-term operations and generating unit reliability. (Consumers Rebuttal III-A-58, May 20, 2016.) For the years 2017 through 2024, Consumers explains that it switched to the Ventyx Strategist (Strategist) model, which Consumers states is a resource planning tool that provides coal use forecasts many years into the future. (*Id.*)

⁶² Consumers also argues that both parties agreed in writing that, with a few exceptions not relevant here, neither would be required to produce any data or documents that were created after December 31, 2014. (Consumers Rebuttal III-A-56 to III-A-57, May 20, 2016.) According to Consumers, this stipulation was fully consistent with standard practice before the Board, which allows parties to set temporal limits on data to be used so that they can prepare and present evidence based on a common set of parameters. (*Id.* at III-A-57.) Consumers is correct that for discovery purposes parties may set temporal limits on the data to be produced. That does not, however, limit the data that a party may rely on as part of its evidentiary submission. Particularly for traffic revenue forecasts, the Board has been willing to consider more recent forecasts when that data becomes available during the course of the proceeding. *See infra* at 88 (Updated EIA Forecasts). Consumers' MPSC filing falls into this category of more recently available traffic revenue forecasts.

In contrast, Consumers states that it used only PROMOD in its September 2015 filing before the MPSC. Consumer claims that it did so because of PROMOD’s hourly dispatch features, “which more closely track the retail utility rate profile, and to have a consistent baseline for the annual updating of costs, fuel prices, electric demand and other calculations that go into the MPSC rate review process.” (Consumers Rebuttal III-A-57, May 20, 2016.) However, due to the “granularity” of the PROMOD analysis and the large number of different dispatch-related variables that must be assumed, Consumers states that a typical PROMOD run only covers the months remaining in the then-current year and the 12 subsequent months. (Id. at III-A-58 to III-A-59.) Consumers states that its opening evidence “respected this limitation” of the PROMOD model and, thus, properly relied on the Strategist model—which is favored for long-term planning—for the years 2017 to 2024. (Id. at III-A-59.)

Consumers states, however, that the rate schedules at issue before the MPSC encompassed only five years. (Id.) So, for purposes of that proceeding (and the September 2015 filing), Consumers asserts that it ran the PROMOD model out over five years in a single iteration. (Id.) According to Consumers, “this provided the full array of output data needed for the [MPSC] rate evaluation process, but carried an increased risk of inaccuracy over time with respect to an output such as forecasted coal volumes, given the large number of variables that have to be assumed to run PROMOD.” (Id.)

Consumers further argues that the coal volumes advanced by CSXT on reply are flawed because the volumes are based on an inappropriate apples-and-oranges mix of PROMOD and Strategist. (Consumers Rebuttal III-A-58, May 20, 2016.) Specifically, Consumers argues that rather than relying on the PROMOD model for the entire 2015 to 2024 period, CSXT could have used the PROMOD data from the MPSC filing up to 2020 and then switched to the Strategist forecast for the remaining four years. Instead, Consumers states that to calculate the 2020 to 2024 growth rates using data from the PROMOD model, CSXT applied the rate of change from the Strategist model to the nominal volumes reflected in the last year of the PROMOD model run. (Id. at III-A-60.) According to Consumers, this approach is flawed because the rate of change is not a program input in Strategist, but rather an observed feature of the outputs. (Id.) Consumers, therefore, asserts that using models with very different structures and purposes—one of which is for the projection of coal volumes over a longer period of time—inevitably leads to unreliable results. (Id.)

The Board finds Consumers’ opening evidence to be unsupported. Consumers’ rationale for its use of the PROMOD/Strategist models is undercut by its own actions. Consumers asserts that it used PROMOD only for its 2015-2016 forecast before the Board because Consumers prefers to utilize PROMOD for no more than two years. In particular, Consumers explains that it used the PROMOD model to forecast only the first two years of the DCF period in order to “respect[] this limitation” of the model. However, as Consumers itself states, its September 2015 filing with the MPSC employed the PROMOD model to forecast *five* years in a single iteration. Consumers claims that using PROMOD to forecast beyond two years was acceptable in its

MPSC filing because PROMOD offered the “full array of output data needed for the [MPSC] rate evaluation process, but also carried an increased risk of inaccuracy over time, given the number of variables that must be assumed to run PROMOD.” The Board finds this explanation by Consumers to be lacking, as it fails to adequately state why the risk of inaccurate projections is appropriate for one regulatory body, and not another. Because Consumers appears to have cherry-picked the number of years it used PROMOD in this proceeding to produce a more favorable forecast than it recently submitted in the ordinary course of business, the purported methodological support for Consumers’ forecast is significantly undermined. While CSXT’s method of indexing years beyond the available PROMOD forecasts with rates of change established in the Strategist model is not ideal, it is nonetheless the best evidence of record, given that Consumers failed to meet its burden of proof.⁶³

b. General Freight and Non-Issue Coal Traffic

i. 2015 Traffic Volumes

Consumers developed its 1Q2015 traffic volumes for general freight and coal traffic not destined to its Campbell plant based on CSXT’s actual traffic shipments. (Consumers Opening I-30.) For 2Q2015, Consumers indexed 1Q2015 volumes by the reported change in the CSXT Form 10-Q reports⁶⁴ between 1Q and 2Q of 2015. (See Consumers Opening WP “2015_CSXT Volume Growth Forecast.xlsx.”) On reply, CSXT states that it accepts Consumers’ approach for developing 1Q and 2Q 2015 CERR traffic volumes. (CSX Reply III-A-20, Mar. 7, 2016.) However, CSXT takes issue with Consumers’ traffic volumes for 3Q and 4Q of 2015, arguing that Consumers uses dated projections rather than real traffic volumes. (*Id.*) On rebuttal, Consumers accepts CSXT’s reply approach. (Consumers Rebuttal III-A-66, May 20, 2016.) The Board, therefore, accepts the parties’ agreed-upon 2015 traffic volumes.⁶⁵

⁶³ The Board also finds that Consumers has failed to support its circular argument that its lower forecasts for coal shipped to the Campbell plant and submitted to the MPSC are a result of the higher rates being charged by CSXT that are currently being challenged in this case. Consumers fails to demonstrate that this conclusion is substantiated in the record and that other factors were not also at work. (See, e.g., CSXT Br. 9-11.)

⁶⁴ The U.S. Securities and Exchange Commission (SEC) requires all public companies to quarterly file Form 10-Q—a comprehensive report detailing a company’s performance.

⁶⁵ Despite Consumer and CSXT’s agreement on traffic volumes for 2015, the Board notes that the parties’ submitted and accepted evidence, specifically, WP “2015_CSXT Volume Growth Forecast_Reply.xlsx,” included incorrectly keyed cells. The Board has edited this workpaper to accurately reflect the 2015 volumes for Chemicals, Automotive, and Metals.

ii. 2016 to 2019 Traffic Volumes

With the exception of crude oil volumes discussed below, CSXT states that it accepts Consumers' use of the CSXT internal forecast to estimate CERR volumes through 2019. (CSXT Reply III-A-22, Mar. 7, 2016.) The Board accepts the parties' agreed-upon volumes.

iii. 2020 to 2024 Traffic Volumes

In its reply, CSXT states that Consumers forecasts CERR volumes for 2020 to 2024 by calculating and applying the CAGR from the CSXT internal forecast of volumes to 2019. (CSXT Reply III-A-22, Mar. 7, 2016.) CSXT states that it rejects Consumers' approach because: (1) Consumers' 2020 through 2024 forecasts are premised on internal CSXT forecasts that are now dated; and (2) the approach is a departure from agency precedent, which uses internal forecasts where available and reliable, but then turns to published government forecasts thereafter. (*Id.* at III-A-22 to III-A-23.) CSXT cites Texas Municipal Power Agency v. Burlington Northern & Santa Fe Railway, 7 S.T.B. 803, 822 (2004), for the proposition that "the Board regards the forecasts developed by [the EIA], a neutral governmental source, as more reliable than forecasts developed by private parties for litigation, which are inherently subject to manipulation." (CSXT Reply III-A-23, Mar. 7, 2016.) CSXT states that it adheres to the Board's stated preference for the use of published forecasts and uses EIA, which produces industry-level forecasts that align closely to two-digit STCC commodities, as the basis for CERR volume forecasts developed for the 2020 to 2024 period. (*Id.*)

On rebuttal, Consumers continues to utilize a CAGR approach, arguing that it is superior to CSXT's approach for several reasons. (Consumers Rebuttal III-A-67, May 20, 2016.) First, Consumers argues that the use of a CAGR approach to forecast traffic beyond the end of an internal forecast is supported by long-standing STB precedent. (*Id.* at III-A-68 (citing FMC Wyo. Corp. v. Union Pac. R.R., 4 S.T.B. 699, 730 (2000), Sunbelt Chlor Alkali P'ship v. Norfolk S. Ry., NOR 42130, slip op. at 173 (STB served June 20, 2014), pet. for reconsideration granted in part and denied in part (Sunbelt 2016) (STB served June 30, 2016) (with Board Member Begeman dissenting in both), appeal docketed sub nom. Sunbelt Chlor Alkali P'ship v. STB, No. 16-15701 (11th Cir. Aug. 26, 2016), and E.I. DuPont de Nemours & Co. v. Norfolk S. Ry., NOR 42125, slip op. at 261 (STB served Mar. 24, 2014), corrected and updated, (STB served Oct. 3, 2014), reconsideration denied, (STB served Dec. 23, 2015) (with Board Member Begeman dissenting on the reconsideration decision)).) Second, Consumers claims that the "[b]enefit of a CAGR based approach is that the potential highs and lows over the forecast horizon are reflected in the CAGR." (Consumers Rebuttal III-A-68, May 20, 2016.) Third, Consumers argues that CSXT's use of EIA data to forecast non-issue coal and merchandise traffic is unprecedented, and prone to manipulation. (*Id.*) Finally, Consumers asserts that the EIA industrial-level forecast CSXT relied upon does not measure either generic growth in rail volumes or the specific growth in CSXT rail volumes, but instead are economy-wide forecasts that are not specific to the traffic moving over CERR. (*Id.* at III-A-69 to III-A-70.) Consumers states that the better, and more accurate, course is to rely upon the CAGR approach used by Consumers. (*Id.* at III-A-70.)

The Board finds Consumers' approach to be feasible and supported by the evidence. Therefore, the Board will adopt Consumers' CAGR approach developed from CSXT's internal forecast to forecast growth in non-issue coal and merchandise traffic volumes for the period of 2020 through 2024. Although CSXT asserts that the use of EIA data is more reliable than forecasts developed by private parties for litigation, in more recent cases, the Board has determined that CAGR is an acceptable forecasting method in SAC cases unless the internal forecasts upon which it is based are unreliable. See, e.g., Total Petrochems. & Ref. USA, Inc. v. CSX Transp., Inc., NOR 42121, slip op. at 207 (STB served Sept. 14, 2016) (noting that, "in the past, the Board has predominantly utilized a CAGR approach which relies, in part, on internal railroad forecasts to project growth."). Here, Consumers' methodology is consistent with recent Board precedent, and neither party has made a claim that CSXT's forecasts are unreliable. In addition, although the Board has indicated that it disfavors using forecasts developed by private parties for litigation, here CSXT does not contend that its own internal forecasts were made for litigation. Accordingly, CSXT has failed to persuade the Board that its well-established acceptance of a CAGR methodology is inappropriate. See, e.g., Ariz. Elec. Power Coop. v. BNSF Ry., NOR 42113, slip op. at 33 (STB served Nov. 22, 2011), pet. for review denied sub nom. BNSF Ry. v. STB, 748 F.3d 1295 (D.C. Cir. 1984) (where a complainant has followed established agency precedent, the burden shifts to the defendant to justify departing from that methodology). For these reasons, the Board will use Consumers' CAGR methodology.

c. Intermodal Traffic

CSXT and Consumers generally make the same arguments for intermodal traffic volumes that they did for general freight and non-issue coal traffic. In particular, the parties agree on the volumes for 2015 and the projected volumes for 2016 to 2019, but disagree on the projected volumes for 2020 to 2024, with CSXT arguing the Board should use the EIA forecast and Consumers arguing for use of its CAGR approach. (CSXT Reply III-A-23 to 24, Mar. 7, 2016; Consumers Rebuttal III-A-70 to III-A-71, May 20, 2016.) The Board accepts the parties' agreed-upon intermodal traffic volumes for 2015 to 2019. In addition, consistent with the discussion above, the Board also finds that Consumers' CAGR approach is feasible and supported. Accordingly, the Board will accept Consumers' proposed methodology for determining 2020 to 2024 intermodal traffic volume.

d. Crude Oil Traffic

On reply, CSXT argues that Consumers' forecast for crude oil shipments was based on prior internal CSXT forecasts that are outdated and have now become "wildly and inaccurately optimistic." (CSXT Reply III-A-25, Mar. 7, 2016.) According to CSXT, the internal forecast provided to Consumers in discovery was prepared in early 2015 and was downloaded from CSXT's system for production to Consumers in April of 2015. (Id.) CSXT asserts that, at that time, the price for West Texas Intermediate crude—the bellwether of crude oil prices—was \$56.25 and on the rise. (Id.) However, CSXT notes that (at the time of its reply) the price for oil had since declined to \$32.74, which caused crude-by-rail shipments to plummet, with no forecast of a rebound in the foreseeable future. (Id.) Because of this transformational change in the marketplace, CSXT asserts that it replaced the dated crude oil volume forecasts used by

Consumers with updated internal forecasts that better reflect the new state of the world. (Id. at III-A-26.)

On rebuttal, Consumers asserts that the Board should reject CSXT's use of its new internal traffic forecast for crude oil shipments. (Consumers Rebuttal III-A-72, May 20, 2016.) Consumers argues, among other things, that the Board has historically rejected non-public forecasts introduced by railroads in their reply presentations. (Id.) Thus, Consumers continues to rely upon CSXT's internal traffic forecast provided in discovery to project future CERR crude oil volumes. (Id. at III-A-74.)

In its final brief, CSXT acknowledges that the price of crude oil had rebounded to \$50 a barrel, but it continues to express pessimism regarding the future crude oil market. (CSXT Br. 12.)

As the Board noted in Sunbelt 2016, NOR 42130, slip op. at 24, "the updating of indices and forecasts is an area that has received varying treatment in past Board decisions. Compare Ariz. Elec., NOR 42113, slip op. at 22 (updating EIA rate and volume forecasts for coal shipments that changed significantly), with AEP Texas North Co. v. BNSF Railway, NOR 41191 (Sub-No. 1), slip op. at 32 n.57 (STB served Sept. 10, 2007) (declining to update EIA data with more recent forecasts that did not change significantly)." In Sunbelt 2016, NOR 42130, slip op. at 24, the Board articulated that because forecasts are continually shifting, implementing changes late in the process could create moving and confusing targets. Thus, the Board reaffirmed its general practice of not updating forecasts after the close of the record unless more recent forecasts demonstrate a "markedly" different trend than the earlier forecasts in the record. See Sunbelt 2016, NOR 42130, slip op. at 24; see also Ariz. Elec., NOR 42113, slip op. at 22.

While the change in crude oil prices from \$56 a barrel to less than \$33 a barrel between opening and reply could potentially have supported an argument that there has been a "markedly" different trend in crude oil prices if the change persisted, the record indicates, and CSXT acknowledges in its final brief, that crude oil has since rebounded to \$50 a barrel, only slightly lower than that which was submitted in Consumers' opening evidence. (CSXT Br. 12.) Accordingly, Consumer's reliance on CSXT's own internal forecasts is a realistic approach, and CSXT has not convinced the Board that those forecasts are now dated. Therefore, the Board will accept Consumers' evidence as it is feasible and supported.

2. Revenues

a. Historical

On opening, Consumers states that CERR revenues attributable to the issue traffic, which the CERR handles from the BNSF interchange near Cicero, Ill. to the Campbell Station, are determined according to the terms of Tariff CSXT-13952. (Consumers Opening I-31.) For the

rest of CERR's base year traffic, i.e., cross-over traffic,⁶⁶ Consumers states that it applied the ATC methodology to allocate cross-over traffic revenues to CERR. (*Id.* at I-31 to I-32.) On reply, CSXT states that it does not object to Consumers' approach of utilizing historical revenues as a baseline to calculate the revenue divisions for cross-over traffic. CSXT, however, asserts that it corrects an error in Consumers' calculations that actually understates CERR's revenues. (CSXT Reply III-A-27, Mar. 7, 2016.) Specifically, CSXT states that Consumers, when calculating revenues per car for the base year, understates revenues by dividing 1Q 2015 revenues by 2Q 2015 forecasted carloads. (*Id.*) CSXT states that, because the 2Q carloads reflect Consumers' calculated increase in volumes over those reported in 1Q of 2015, the denominator used by Consumers is overstated. (*Id.*) Similarly, CSXT states that Consumers calculates 3Q and 4Q 2015 revenues per carload by dividing by carloads that have been forecasted to the 3Q and 4Q 2015 levels. (*Id.*) CSXT notes that it corrects Consumers' calculations by dividing 1Q 2015 revenues by 1Q 2015 carloads, and 3Q and 4Q 2014 revenues by 3Q and 4Q 2014 carloads. (*Id.* at III-A-27 to III-A-28.) CSXT argues that this correction increases Consumers' baseline CERR per carload revenues. (*Id.* at III-A-28.)

On rebuttal, Consumers acknowledges that it should have divided 3Q 2014 and 4Q 2014 revenues by the historic 3Q 2014 and 4Q 2014 carloads, respectively. (Consumers Rebuttal III-A-74, May 20, 2016.) Consumers states that it made a corresponding error in dividing historic 1Q 2015 revenues by the forecasted 2Q 2015 carloads, instead of dividing the 1Q 2015 revenues by 1Q 2015 carloads, to develop the average 1Q 2015 revenues per carload. Consumers states that it has adjusted its rebuttal carload calculations and workpapers accordingly. (*Id.*) The Board accepts the parties' agreed upon methodology used to calculate the revenue divisions for cross-over traffic, and acknowledges Consumers' adjustments made in its rebuttal carload calculations.

b. Projected

To project future CERR revenues, Consumers states that it utilized data produced by CSXT in discovery and/or recognized public information sources. (Consumers Opening I-32.) Specifically, Consumers states that the issue traffic is governed by the terms of Tariff CSXT-13952, which specifies quarterly adjustments based on changes in the All-Inclusive Less Fuel Index (AII-LF), subject to a floor set at the January 1, 2015 base rate of \$14.95 per ton. (*Id.*) Consumers further asserts that the future revenues (2018-2024) from the Campbell coal traffic are calculated using IHS Economics' published forecast of quarterly changes in the AII-LF through 4Q 2024. (Consumers Opening I-32; Consumers Opening WP "CERR Car Traffic Forecast.xlsx.") According to Consumers, the same methodology was applied to calculate future revenues for non-issue Eastern coal traffic moving to Campbell—which is also subject to Tariff CSXT-13952. (Consumers Opening I-32 n.37.)

⁶⁶ Cross-over traffic refers to those movements included in the traffic group that would be routed over the SARR for only a part of their trip from origin to destination. In such circumstances, the SARR would not replicate all of the defendant railroad's service, but would instead interchange the traffic with the residual portion of that railroad's system.

For non-issue traffic (including intermodal traffic) that moved under contracts to which CSXT is a party, Consumers states that projected CERR revenues are based on the adjustment provisions of the contracts, and established published forecasts of changes in specific indices. (Id. at I-33.) Consumers states that revenues from traffic subject to common carrier pricing authorities that contain rate adjustment provisions are projected in the same manner. (Id.) For traffic moving under contracts that expire prior to 2020 and/or traffic not moving under pricing authorities that specify rate adjustments, Consumers asserts that CERR revenues through 2019 are based on CSXT's internal carload and container forecasts that were produced in discovery. (Id.) For the period 2020-2024, Consumers asserts that revenues for each year are determined by adjusting the prior year's revenues by the CAGR developed using the CSXT data for 2015-2019. (Id.)

Consumers states that the issue traffic moving under Tariff CSXT-13952, as well as other traffic handled by CERR, are subject to CSXT fuel surcharges, including the mileage-based surcharge described in Fuel Surcharge Publication 8662 (which specifically applies to the issue traffic and other Consumers' coal traffic), and the percentage-of-rate surcharge described in CSX Intermodal Service Directory 1. (Consumers Opening I-33.)

In its reply, CSXT states that it does not challenge Consumers' methodology for projecting CERR's revenues. (CSXT Reply III-A-28, Mar. 7, 2016.) The only dispute between the parties regarding revenues concerns fuel surcharges.

c. Fuel Surcharges

On opening, Consumers states that CSXT imposes a car-mile-based fuel surcharge on coal (including issue traffic) and general freight traffic. According to Consumers, the CSXT fuel surcharge is based on the price of On-Highway Diesel Fuel (HDF) two months prior to the movement and applies whenever the HDF price exceeds \$3.749 per gallon. (Consumers Opening III-A-27.) Consumers states that it calculates the CERR's fuel surcharge revenue using the same program and formula that CSXT applies on each carload, based on the on-SARR movement miles. (Id.)

For intermodal traffic, Consumers states that it applies the same fuel surcharge formula as CSXT does (which is set forth in CSX Intermodal Service Directory 1) and allocates a share of the total fuel-surcharge revenue to CERR using the revenue division percentage calculated under the ATC methodology for allocating cross-over traffic revenues. (Id. at III-A-27 to III-A-28.)

For traffic handled by CERR that moves under contract, Consumers states that it calculated fuel surcharge revenue for the base year in accordance with the terms of each CSXT contract, and allocated the revenue to CERR in the manner described above, depending upon the surcharge methodology. (Consumers Opening III-A-28.) Subsequent to the base year, for all

traffic subject to an HDF-based surcharge, Consumers states that it applied the EIA forecast of HDF prices set forth in the most recent available editions of the Short-Term Energy Outlook (STEO) and Early Release Annual Energy Outlook (AEO). (*Id.*) Where a contract specified a fuel surcharge based on West Texas Intermediate Crude Oil (WTI) prices, Consumers states that it used the WTI price forecasts in the EIA STEO and AEO. (*Id.*) For traffic moving under contracts that expire prior to 2024, Consumers states that it assumed that traffic would become subject to CSXT's HDF-based mileage or percent-of-rate surcharges, depending on the commodity. (*Id.*) According to Consumers, its approach to determine fuel surcharge revenues for CERR is done in the same manner in which CSXT assesses them in the real world. (*Id.*)

i. 3Q and 4Q 2015 Fuel Surcharges

On opening, Consumers developed both 3Q and 4Q 2015 net line-haul revenues and fuel surcharge revenues by calculating the 3Q and 4Q 2014 line-haul and fuel surcharge revenues, and adjusting 2014 values by the expected growth in volumes between 2014 and 2015. (Consumers Opening WPs "CERR Car Traffic Forecast.xlsx" & "2015_CSXT Volume Growth Forecast.xlsx.")

On reply, CSXT asserts that Consumers' approach of using 3Q and 4Q 2014 fuel surcharge revenues as a proxy for 3Q and 4Q 2015 CERR fuel surcharge revenues assumes, incorrectly, that the same fuel surcharges collected by CSXT in 2014 would also be collected in 2015. (CSXT Reply III-A-54, Mar. 7, 2016.)⁶⁷ According to CSXT, because of the decline in fuel prices, Consumers' assumption is incorrect and overstates CERR revenues. (*Id.*) Thus, CSXT asserts that it calculates fuel surcharges for 2015 based on the parameters of the applicable tariffs. (*Id.* at III-A-54 to III-A-55.)

On rebuttal, Consumers states that CSXT's reply approach should be rejected because it selectively updates only fuel surcharge revenues and not line-haul revenues. (Consumers Rebuttal III-A-114, May 20, 2016.) Citing Texas Municipal Power Agency v. Burlington Northern & Santa Fe Railway, 6 S.T.B. 573, 603 (2003) and Public Service Co. of Colorado v. Burlington Northern & Santa Fe Railway, 7 S.T.B. 589, 639 (2004), Consumers states that its approach aligns the economic factors underlying the line-haul revenues and fuel surcharge revenues in accordance with the Board's preference for maintaining consistency between the various inputs to SARR traffic and revenue forecasts. (Consumers Rebuttal III-A-114, May 20, 2016.) In sum, Consumers argues that, while CSXT accepts Consumers' approach for purposes of determining 2015 net line-haul revenues, CSXT's proposed methodology for the calculation of fuel surcharge revenues results in inconsistent data. (*Id.* at III-A-114 to III-A-115.) Accordingly, Consumers states that it continues to rely upon its opening approach. (*Id.* at III-A-115.)

⁶⁷ A review of Consumers' workpapers shows that it indeed did not project 3Q and 4Q 2015 fuel surcharge revenue based on 3Q and 4Q 2014 data, but instead, simply used the same figures from 2014 for 2015. (See Consumers Opening WP "CERR Car Traffic Forecast.xlsx.")

CSXT has sufficiently undermined the support for Consumers' revenue forecast methodology with respect to its 3Q and 4Q 2015 fuel surcharge. Although Consumers claims that CSXT's adjustment to the fuel surcharge revenue calculation with respect to fuel price without updating its calculations for linehaul revenue leads to an inconsistency between the two, the parties have already agreed to update the carload volumes to reflect actual 2015 data, as opposed to projected values (as noted above). The Board notes that carload volumes are a part of the calculation for linehaul revenues in both parties' workpapers; because the parties have agreed to update carload volumes, the linehaul revenue figures, in turn, have also been updated to reflect actual 2015 data. As such, the Board finds that updating the fuel surcharge revenue calculations, as CSXT proposes, is feasible and supported. Furthermore, the Board agrees with CSXT's argument that failing to update the fuel surcharge calculation in this circumstance would result in an overstatement of fuel surcharge revenues. The Board, therefore, accepts CSXT's adjustment to the fuel surcharge revenue calculation with respect to the 3Q and 4Q 2015 fuel surcharge.

ii. Tariff 8661 Versus Tariff 8662

On reply, CSXT argues that a review of Consumers' workpapers reveals that, for certain types of traffic, including traffic movements that occurred after the expiration of a contract, Consumers inappropriately developed fuel surcharges using Tariff 8661 and its strike price of \$1.999 per gallon. (CSXT Reply III-A-55, Mar. 7, 2016.) CSXT states that it has corrected Consumers' fuel surcharge calculations to use Tariff 8662 and its strike price of \$3.749 per gallon. (*Id.*)

On rebuttal and in its final brief, Consumers argues that the application of Tariff 8662 fuel surcharges to shipments moving under freight rates that were developed prior to January 1, 2015, is improper. (Consumers Rebuttal III-A-116, May 20, 2016; Consumers Br.27.) Consumers states that CSXT's methodology creates a disconnect between the base rate component and the fuel surcharge component of the revenues for all affected shipments. (Consumers Rebuttal III-A-116, May 20, 2016.) Consumers states that, in the real world, when railroads apply new fuel surcharge programs (with an updated fuel strike price), corresponding adjustments to the base rates on current traffic are made to ensure that the total revenues collected remain the same before and after the update. (*Id.* at III-A-116 to III-A-117.) Consumers argues that, in its opening evidence, CERR line-haul revenues were not increased in this manner on January 1, 2015, and that CSXT's reply does not implement a base revenue increase for all shipments that were previously subject to Tariff 8661—which would be necessary to maintain revenue neutrality. (*Id.* at III-A-117.) In other words, Consumers claims that if Tariff 8662 is applied to this traffic (as CSXT proposes), then a corresponding adjustment must be made to the base rate, which CSXT did not do. Accordingly, for all pre-2015 shipments, Consumers continues to utilize the Tariff 8661 methodology, and the corresponding \$1.999

strike price, to calculate forecasted fuel surcharge amounts after the expiration of the relevant contract or tariff. (*Id.*)⁶⁸

The Board finds the tariff methodology that Consumers explains on rebuttal to be feasible and supported. The Board agrees with Consumers' argument that a change in the fuel surcharge program might also be accompanied by a corresponding change in the base rate to ensure consistency with common practices in real-world railroading, which CSXT did not do. Regarding CSXT's blanket proposition that Tariff 8662 should apply to the rest of the expiring contracts/tariffs governing the shipment of merchandise traffic in the CERR traffic group as well, the Board finds that CSXT has not provided adequate evidence to undermine Consumers' argument that Tariff 8661 should apply to those contracts/tariffs. Further, CSXT failed to provide evidence that all expiring contracts would default to Tariff 8662. Therefore, the Board finds Consumers' rebuttal evidence regarding the selection of tariffs to be feasible and supported.

iii. Updated EIA Forecasts

In its reply evidence, CSXT states that it updated Consumers' fuel surcharge calculations based on an updated EIA fuel forecast. (CSXT Reply III-A-55, Mar. 7, 2016.)

In its rebuttal evidence, Consumers states that, since the time of CSXT's reply, a more recent EIA fuel price forecast has been issued. (Consumers Rebuttal III-A-118, May 20, 2016.) Consumers, therefore, asserts that its rebuttal evidence reflects this more recent forecast. (*Id.*)

The Board notes that the parties' evidence,⁶⁹ submitted in response to Consumers Energy Co. v. CSX Transportation, Inc. (December 2016 Decision), NOR 42142, slip op. at 19 (STB served Dec. 9, 2016), reflects the same EIA forecast that Consumers' supplied on rebuttal. Thus, it appears that the parties now agree to use the same updated EIA fuel price forecast. The Board will accept the parties' agreed-upon fuel price forecast.

⁶⁸ Consumers agrees with CSXT that, for approximately 2% of merchandise shipments, it incorrectly applied the terms of Tariff 8661 to traffic that moved over the CERR *after* the start of 2015 when calculating fuel surcharge revenues after the expiration of the tariff. (Consumers Rebuttal III-A-116, May 20, 2016.) The Board accepts the parties' agreement that Tariff 8662 should have been applied to this 2% of merchandise shipments.

⁶⁹ (See CSXT Reply WP "CERR_TRAFFIC_CONTRACTS_RATEADJ_FSC_Supp_Reply.xlsx," Mar. 6, 2017; see also Consumers Rebuttal WP "CERR_TRAFFIC_CONTRACTS_RATEADJ_FSC-Rebuttal.xlsx," Apr. 13, 2017.)

3. Divisions—Cross-Over Traffic

a. Other ATC Adjustments

i. Density Figures

Consumers developed the route densities for each movement included in CERR’s traffic group by using density data produced in discovery. (Consumers Opening III-A-19.) According to Consumers, CSXT initially provided gross tonnage density statistics developed in the normal course of business, however, CSXT later performed its own special study to develop net tonnage statistics for each segment after indicating that the use of its original data could lead to overstatements of the gross tonnage. (Id. at III-A-19 to III-A-20.) Consumers states that it relied on CSXT’s study for density statistics because CSXT represented that the study produced more accurate results than its normal course of business density data. (Id. at III-A-20.)

On reply, CSXT argues that Consumers uses incorrect densities for two segments in its ATC calculations, one on-SARR segment between milepost DC 15.0 and DC 15.35, and one off-SARR segment that is a portion of a longer segment between milepost CGE 0 and CGE 47.1. (CSXT Reply III-A-51 to III-A-54, Mar. 7, 2016.) To correct for these supposed errors, CSXT adjusts the density for the on-SARR segment based on the actual train data and eliminates the fixed costs for the off-SARR segment. (Id. at III-A-52, III-A-54.)

Consumers states on rebuttal that there was no error on its part, as it calculated the densities for these two segments the same way it did for all other segments—using the special study provided by CSXT in discovery. (Consumers Rebuttal III-A-105, May 20, 2016.) Consumers argues that CSXT’s actual objection is to the results produced by the special study. (Id.)

On brief, CSXT acknowledges that it believes its study contains an error, and argues that the density in the study is clearly incorrect. However, CSXT equates the error to “minor” technical errors in spreadsheets in other cases that the Board has allowed to be corrected. (CSXT Br. 24.)

The Board finds that Consumers’ density figures are feasible and supported, and that CSXT’s critiques do not undermine Consumers’ evidence. CSXT produced the special study specifically to provide accurate traffic densities and indicated to Consumers that the study contained the best information available. Complainants should be able to rely on information provided in discovery, especially here, where the information provided was specifically attested to as the best information available. See Ariz. Elec., NOR 42113, slip op at 103 (“parties are entitled to reasonably rely on evidence the other side supplied in discovery”); W. Fuels Ass’n v. BNSF Ry. (W. Fuels 2007), NOR 42088, slip op. at 102 (“[i]n prior cases, we have rejected a railroad’s attempts to discredit evidence that comes from the railroad itself”), 111 (railroad “likely provided [complainant] with incorrect data on discovery, and it is therefore incorrect in

its claim that [complainant] neglected certain unit costs”) (STB served Sept. 10, 2007). In addition, CSXT does not propose to correct the error in its special study, but instead proposes to use the actual train movements that it indicated to Consumers were less reliable. (See CSXT Reply III-A-52, Mar. 7, 2016.) For these reasons, Consumers’ evidence on traffic densities is accepted.

ii. Length of Campbell Plant Segment

CSXT argues that Consumers overstates the length of the segment leading to the Campbell plant. (CSXT Reply III-A-53, Mar. 7, 2016.) CSXT states that it fixes this problem by reducing the length of the segment from over 30 miles to the proper 9.4 miles over which the volumes to the Campbell plant move. (*Id.*) Consumers responds that it relied on CSXT’s density special study—which defined the length of segments—and that CSXT’s attempts to now undermine portions of its own special study are inappropriate. It contends that CSXT’s change is an attempt to cut the costs associated with the densities provided in the special study, and that the adjustment is unnecessary as Consumers’ fixed cost calculations already take into account that the traffic moving to and from the Campbell plant moves over only a portion of the line segment in the study. (Consumers Rebuttal III-A-107, May 20, 2016.)

The Board finds that Consumers’ evidence with respect to the length of the Campbell plant segment is feasible and supported. As noted above, Consumers was entitled to rely on the special study provided by CSXT in discovery. Additionally, the Board finds that Consumers’ calculations correctly account for the proper portion utilized by CERR of the segment in question.

iii. Bi-Directional Density Segments

CSXT argues that Consumers’ fixed cost segmentation file includes two records each for 17 segments, reporting separately by direction the eastbound and westbound densities, but that Consumers uses only the density in one direction, resulting in overstated fixed costs per ton on those segments. (CSXT Reply III-A-52 to III-A-53, Mar. 7, 2016.) Consumers agrees that 17 of the 1,674 segments included in CSXT’s special study report eastbound and westbound densities, and incorporated CSXT’s adjustment into its fixed cost calculations. (Consumers Rebuttal III-A-109, May 20, 2016.) However, Consumers alleges that CSXT’s corrective calculations developed incorrect costs on three of these segments because CSXT transposed the milepost in the segment names. (*Id.*) Consumers states that it corrected CSXT’s error in its fixed cost calculations for these segments. (*Id.*)

The Board accepts the parties’ agreement on the 17 bi-directional density segments, and accepts Consumers’ corrective evidence with respect to the fixed cost calculations for the three segments affected by the transposed mileposts.

iv. Buffington Connection Traffic Densities

CSXT recategorized 0.6 miles of the Buffington Connection from trackage rights miles to miles owned by CERR and adjusted the fixed costs calculations accordingly. (CSXT Reply III-A-54, Mar. 7, 2016.) Consumers agrees and adjusts its workpapers to reflect the change. (Consumers Rebuttal III-A-110, May 20, 2016.) The Board accepts the parties' agreement.

v. 22nd Street to Curtis Fixed Costs

CSXT alleges that, on opening, Consumers overstated the segment miles from 22nd Street to Curtis via the Belt Route because it did not prorate the miles for this CSXT segment that is only partially traversed. (CSXT Reply III-A-53, Mar. 7, 2016.) On rebuttal, Consumers agrees that it overstated the CERR miles and adjusts its workpapers to reflect the change. (Consumers Rebuttal III-A-110, May 20, 2016.) The Board accepts the parties' agreement.

vi. Average Fixed Cost per Mile

Consumers argues that both it and CSXT used the system miles from CSXT's special density study to develop the average fixed cost per mile. Consumers claims that CSXT erred, however, by including only off-CERR miles in the calculation when developing this cost. (Consumers Rebuttal III-A-111 to III-A-112, May 20, 2016.) Consumers gives a general overview of how it developed its fixed costs per route mile. (Consumers Opening III-A-20 to III-A-22). CSXT does not describe in its narrative the calculation it used in arriving at its proposed average fixed cost per mile. As Consumers is the only party supporting its calculation on this issue, the Board will accept Consumers' average fixed cost per mile.

TABLE A-1

CERR Revenues			
Year	Consumers Supplemental Rebuttal	CSXT Alternative 1	STB
2015	\$136,504,338	\$103,676,137	\$131,562,256
2016	118,690,165	87,808,812	118,027,619
2017	152,653,854	105,578,998	145,463,226
2018	153,251,152	101,650,422	145,170,462
2019	158,047,079	105,611,593	152,504,449
2020	173,440,366	114,967,794	166,041,245
2021	179,867,338	116,638,264	172,397,879
2022	193,734,521	124,583,612	185,741,544
2023	194,698,444	120,141,522	187,090,226
2024	215,159,182	132,930,232	206,671,383
Total CERR Revenues	1,676,046,438	1,113,587,387	1,610,670,289

TABLE A-2

CERR Carloads/Units			
Year	Consumers Supplemental Rebuttal	CSXT Alternative 1	STB
2015	758,805	750,933	749,912
2016	762,010	716,840	754,790
2017	839,925	733,116	828,681
2018	867,109	745,568	855,521
2019	902,976	781,057	892,776
2020	951,131	800,065	940,009
2021	998,282	813,406	987,132
2022	1,052,569	831,897	1,041,179
2023	1,105,231	845,625	1,094,010
2024	1,170,953	867,465	1,159,338
Total CERR Carloads/Units	9,408,991	7,885,974	9,303,349

APPENDIX B—OPERATING EXPENSES

This appendix addresses the annual operating expenses that would be incurred by CERR, the SARR in this proceeding. The manner in which a railroad operates, and the amount of traffic it handles, are major determinants of the expenses a railroad incurs in its day-to-day operations. As discussed in the body of this decision, the Board accepts CSXT's modifications to Consumers' operating plan (with minor adjustments) for CERR. Accordingly, except as specifically discussed and indicated below, the Board uses CSXT's operating assumptions to determine the level of resources CERR would need for a given level of traffic.

TABLE B-1

CERR Operating Costs			
Item	Consumers Supplemental Rebuttal	CSXT Alternative 1	STB
Train & Engine Personnel	\$6,418,548	\$8,990,415	\$6,093,708
Locomotive Lease Expense	1,440,235	1,717,312	1,681,464
Locomotive Maintenance Expense	1,933,500	2,394,639	2,213,750
Locomotive Operating Expense	4,195,042	4,134,521	3,955,732
Railcar Lease Expense	4,953,013	4,664,069	4,929,444
Material & Supply Operating	620,778	642,550	619,202
Ad Valorem Tax	1,961,180	1,179,468	2,991,422
Operating Managers	5,067,703	6,332,757	5,067,703
General & Administration	7,016,537	10,552,184	7,191,997
Loss and Damage	108,623	108,603	108,592
Trackage Rights	1,731,726	4,466,331	1,973,957
Intermodal Lift and Ramp Cost	5,933,928	0	10,810,371
Insurance	1,976,211	2,326,285	2,263,857
Maintenance of Way	8,803,297	13,532,731	10,213,592
Startup and Training	2,520,533	3,325,367	2,525,092
Total Annual Costs	54,680,853	64,367,232	62,639,882

A. LOCOMOTIVES

1. Locomotive Leasing

On opening Consumers proposes that CERR lease all of its locomotives. For the ES44 road locomotives, Consumers proposes an annual lease cost of \$102,364 per locomotive, based on public information available from Arizona Electric Power Cooperative v. BNSF Railway, NOR 42113, slip op. at 40-41 (STB served Nov. 22, 2011), pet. for review denied sub nom. BNSF Railway v. STB, 748 F.3d 1295 (D.C. Cir. 2014). Consumers then indexes the Arizona Electric-derived lease costs to present levels using the AAR's Equipment Rents index for Eastern railroads. (Consumers Opening III-D-8, WP "ES44AC Loco Lease Cost.xlsx.") Consumers develops the lease cost for CERR's one SD40 locomotive from materials provided by CSXT in discovery. (Consumers Opening III-D-9; Consumers Opening WP "Locomotives_Leases_List.xlsx," Tab "Long Term.")

On reply, CSXT argues that Consumers understates the cost of leasing ES44 locomotives by developing a figure based on materials from Arizona Electric, which involved a lease of over 400 locomotives, while this case involves a lease of less than two dozen locomotives. CSXT

claims that Consumers does not explain how CERR would be able to negotiate similarly favorable terms to lease fewer than two dozen locomotives. (CSXT Reply III-D-24, Mar. 7, 2016.) If lease costs from Arizona Electric are to be used, CSXT argues that the lease costs should be inflated to current cost levels using AAR's Equipment Rents index for Western railroads, rather than Eastern railroads (as used by Consumers), because Arizona Electric reflected costs incurred by Western railroads. (CSXT Reply III-D-25, Mar. 7, 2016.) CSXT accepts Consumers' use of CSXT's lease costs for CERR's SD40 yard power. (Id.)

On rebuttal, Consumers notes that, while CSXT argues Arizona Electric should not be used in this case to develop ES44 lease costs, CSXT "ultimately accepts the base lease costs" proposed by Consumers on opening. (Consumers Rebuttal III-D-8, May 20, 2016.) Consumers continues to use AAR's Equipment Rents index for Eastern railroads to adjust the Arizona Electric lease rates to current levels, arguing that this case involves an Eastern railroad. (Id. at III-D-9.)

The Board finds Consumers' proposed base lease cost for ES44 locomotives to be feasible and supported, and consistent with recent SAC cases. See Total Petrochems. & Refining USA, Inc. v. CSX Transp., Inc., NOR 42121, slip op. at 55 (STB served Sept. 14, 2016) (with Board Member Begeman dissenting in part); Sunbelt Chlor Alkali P'ship v. Norfolk S. Ry., NOR 42130, slip op. at 36-37 (STB served June 20, 2014), pet. for reconsideration granted in part & denied in part (STB served June 30, 2016) (with Board Member Begeman dissenting in both), appeal docketed sub nom. Sunbelt Chlor Alkali P'ship v. STB, No. 16-15701 (11th Cir. Aug. 26, 2016).⁷⁰ Although CSXT argues that Consumers' costs are too low, it does not propose an alternative base lease cost (see CSXT Reply WP "ES44AC Loco Lease Cost_Reply.xlsx," Tab "Sheet1," Cell E15, Mar. 7, 2016), making Consumers' cost the only evidence of record. Consumers' application of AAR's Equipment Rents index for Eastern railroads is likewise feasible and supported. CSXT does not provide convincing evidence as to why an index for Western railroads should be applied in this case, which involves an Eastern railroad, simply because the underlying market-based lease rate is sourced from a case involving Western railroads. The Board concludes it is appropriate to use a locomotive lease index that is more consistent with the other cost indices used in this case, which are AAR indices for the Eastern region, and thus adopts Consumers' proposed ES44 locomotive lease rate.

2. Maintenance

On opening, Consumers proposes that CERR's locomotives would be inspected and maintained at Barr Yard, where CERR has provided a locomotive maintenance facility to be used by its locomotive maintenance contractor. (Consumers Opening III-D-9 to III-D-10.) Consumers bases the maintenance cost for the ES44 locomotives on a maintenance service

⁷⁰ The parties disagree as to the number of locomotives required for CERR operations. As discussed in the Operating Plan section, the Board has determined that CERR requires 19 locomotives to support its operations.

agreement that CSXT produced in discovery. (Id. at III-D-10.) Consumers develops the maintenance costs for the SD40 yard locomotive from CSXT's 2014 R-1. (Id. at III-D-11.)

On reply, CSXT argues that Consumers failed to account for several components of the ES44 locomotive maintenance cost under the service agreement. (CSXT Reply III-D-26 to III-D-28, Mar. 7, 2016.) CSXT generally accepts Consumers' approach for estimating the SD40 locomotive maintenance cost but includes its fringe benefit ratio of 41.6%. (Id. at III-D-29.)

On rebuttal, Consumers agrees that additional components of the ES44 locomotive maintenance cost should be included, including a management fee, labor costs, and repairs from accidents, but asserts that CSXT's calculation of management fees excludes a fixed monthly credit that CSXT receives in its billing in accordance with the terms of the service agreement. Consumers therefore includes this credit in its revised calculation of ES44 maintenance costs. (Consumers Rebuttal III-D-10 to III-D-11, May 20, 2016.) Consumers also agrees that fringe benefits should be included in the SD40 maintenance costs and applies the fringe benefit developed on opening. (Id. at III-D-12, May 20, 2016; Consumers Rebuttal WP "Locomotive Maintenance_Rebuttal.xlsx," Tab "Rebuttal LocoMaint," May 20, 2016.)

The Board finds Consumers' ES44 maintenance costs (as amended on rebuttal) to be feasible and supported. The parties agree that maintenance costs should be based on CSXT's own service agreement, and Consumers' calculation of maintenance costs on rebuttal, including the fixed monthly management fee credit that CSXT receives, is fully consistent with the terms of that agreement. Further, the Board adopts the parties' agreed-upon cost of maintenance for the SD40 locomotive and will apply the fringe benefit ratio adopted below in this section.

3. Fuel Service, Cost, and Consumption

On opening, Consumers proposes that CERR would fuel its locomotives at the existing pad location inside the Campbell plant grounds using Direct-to-Locomotive (DTL) trucks. (Consumers Opening III-D-11.) Consumers states that CERR would also fuel certain trains at Barr Yard using DTL trucks. (Id.) The Barr Yard locomotive shop would perform sanding, lubrication, or other quick turnaround servicing requirements as needed. (Id. at III-D-12.) CSXT does not challenge these proposals, and the Board therefore accepts them.

The parties also agree to a fuel cost for 2014 for locomotives at West Olive and Barr Yard. (Consumers Opening III-D-12 to III-D-14; Consumers Opening WP "CERR Fuel Pricing_Open.xlsx"; CSXT Reply III-D-29 to III-D-30, Mar. 7, 2016; Consumers Rebuttal III-D-13, May 20, 2016.) The Board therefore accepts this cost.

The parties, however, disagree on the rate of fuel consumption. Consumers determined the average fuel consumption for ES44 locomotives based on fuel consumed and miles traveled

by CSXT's ES44 locomotives for 2014, based on a document provided by CSXT on discovery. Consumers then applied the average fuel consumption to CERR's locomotive unit-mile data derived from the RTC model. (Consumers Opening III-D-14.) For the SD40 locomotive, Consumers developed fuel consumption data from CSXT's 2014 R-1. (Id.)

On reply, CSXT argues that Consumers' calculation for ES44 fuel consumption understates the fuel that CERR locomotives would consume. CSXT argues that Consumers uses CSXT's overall system-wide average consumption data, which reflects all the trains that CSXT operates, but that Consumers proposes a traffic group consisting primarily of unit trains, which consume more fuel per mile than non-unit trains. (CSXT Reply III-D-30, Mar. 7, 2016.) Accordingly, CSXT tailors the consumption rate based on the share of unit-miles by train type and commodity (i.e., Unit Train-Coal, Unit Train-Other, General Freight, and Intermodal) across the CERR network, rather than the total-unit miles for all CSXT trains. (Id. at III-D-30 to III-D-31; CSXT Reply WP "ERAD 2014_Reply.xlsx," Mar. 7, 2016.) CSXT accepts Consumers' method for calculating fuel consumption for the SD40 yard engine. (CSXT Reply III-D-31, Mar. 7, 2016.)

On rebuttal, Consumers argues that calculating fuel consumption by train type and commodity is disproportionately affected by the varying terrains and commodities across the CSXT system. (Consumer Rebuttal III-D-13, May 20, 2016.) Namely, coal unit trains on CSXT's system are disproportionately affected by grades in the Appalachian Mountains and foothills, whereas the terrain across the CERR system is relatively flat. (Id. at III-D-14.) Consumers thus maintains its use of CSXT system average ES44 fuel consumption rates. (Id.)

The Board finds Consumers' calculation of fuel consumption for ES44 road locomotives to be feasible and supported. Basing fuel consumption on a historic system-wide average is consistent with recent SAC cases. See E.I. DuPont de Nemours & Co. v. Norfolk S. Ry., NOR 42125, slip op. at 74 (STB served Mar. 24, 2014), corrected and updated, NOR 42125 (STB served Oct. 3, 2014), reconsideration denied, NOR 42125 (STB served Dec. 23, 2015); Sunbelt 2014, NOR 42130, slip op. at 37-38. CSXT does not effectively undermine the system-wide approach previously accepted by the Board. CSXT's train-type-and-commodity approach would cause disproportionate consumption rates due to trains carrying certain commodities across certain terrains, namely coal unit trains traversing mountainous terrain. Thus, the Board finds the system-wide average approach to approximate the fuel consumption of CERR road locomotives appropriately, and will accept this approach.

4. Locomotive Servicing Expenses

Consumers develops the costs for locomotive servicing at Barr Yard from CSXT's 2014 R-1. (Consumers Opening III-D-15; Consumers Opening WP "CERR Loco Servicing Cost_Open.xlsx.") On reply, CSXT accepts Consumers' proposed locomotive servicing cost but applies its own proposed CERR fringe benefit ratio to Consumers' proposed locomotive servicing costs. (CSXT Reply III-D-32, Mar. 7, 2016; CSXT Reply WP "CERR Loco Servicing

Cost_Reply.xlsx,” Mar. 7, 2016.) On rebuttal, Consumers relies on the fringe benefit ratio it developed on opening. (Consumers Rebuttal III-D-14, May 20, 2016.)

The Board will adopt the parties’ agreed-upon method for calculating the costs of sand and lubrication necessities and will apply the fringe benefit ratio adopted below in this section.

B. RAILCARS

1. Leasing

On opening, Consumers proposes that CERR use a mixture of CERR-provided cars, foreign cars, and private cars.

Consumers bases the number of leased cars that CERR would need on car-hour requirements, railcar peaking factor, and spare margin. The car-hour requirements for CERR-provided and foreign cars are based on RTC transit times, plus free time at shipper origin and destination. (Consumers Opening III-D-16 to III-D-17.) Based on its RTC model, Consumers applies a railcar peaking factor of 14.3% and a spare margin of 5% for CERR cars. (*Id.* at III-D-17 to III-D-18.)

For traffic moving in foreign cars, Consumers bases the car costs on time and mileage by car type, using data from CSXT’s 2014 R-1. (*Id.* at III-D-15 to III-D-16; Consumers Opening WP “CERR Car Costs_Open.xlsx.”) For non-coal traffic moving in CSXT equipment, Consumers developed annual full-service lease costs for each car type based on information provided by CSXT in discovery or from publicly available sources. (Consumers Opening III-D-16.)

On reply, CSXT generally accepts Consumers’ approach to determining CERR’s freight-car requirements⁷¹ with one exception. (CSXT Reply III-D-32 to III-D-33, Mar. 7, 2016.) CSXT asserts that Consumers erred in calculating the average CSXT cost per mile and per hour by spreading the CSXT payments for car-hire, which apply to foreign equipment, across the system equipment. CSXT claims that by doing so, Consumers diluted the unit costs that it applied to CERR’s foreign equipment quantities to estimate CERR’s costs for using other railroads’ cars. (*Id.* at III-D-33.) CSXT thus assigns CSXT car-hire payables only to foreign-car shipments. (*Id.*; CSXT Reply WP “Miles_by_CarType.xlsx,” Mar. 7, 2016.)

On rebuttal, Consumers asserts that it did not make a percentage of foreign car adjustment in calculating foreign car unit costs, because CSXT did not provide foreign car

⁷¹ CSXT substitutes the data generated by its own RTC simulation and the peaking factor it proposes on reply.

statistics in discovery and because Consumers developed car costs on a system-wide basis. (Consumers Rebuttal III-D-15, May 20, 2016.) Consumers also takes issue with CSXT's proposed adjustment. Consumers states that CSXT calculated the percentage of foreign car-miles by car type for cars traversing Illinois, Indiana, and Michigan. Consumers argues that CSXT inappropriately applies system-wide costs to the percentage of traffic mix of foreign car-miles by car type for cars traversing Illinois, Indiana, and Michigan. (Id.)

With respect to unit costs, the Board concludes that neither parties' proposed lease costs for railcars are feasible and supported. As CSXT argues, and Consumers itself acknowledges, an adjustment to car miles and car hours to account for foreign car percentages is generally appropriate in developing car costs. (Id.) However, CSXT has not fully explained how its adjustments are appropriate or executed correctly. For example, it is unclear as to whether CSXT's foreign percentage adjustment accounts for the percentage of foreign cars on CSXT's entire system or whether it is the percentage of foreign cars that only move through Illinois, Indiana, and Michigan. Nor has CSXT explained why it is appropriate to adjust car hours and days by a foreign car percentage based on mileage. Consumers' evidence does not suffer from such ambiguities.

Therefore, the Board will accept Consumers' approach to developing foreign car costs as the best evidence of record. While Consumers' approach may result in some dilution of foreign equipment costs, that dilution is likely to be relatively insignificant.⁷² As a result, the Board will accept Consumers' railcar lease cost calculations.

2. Maintenance

On opening, Consumers states that, because CERR uses full-service car leases for the railcars it provides and these full-service lease payments include maintenance costs, no other maintenance costs are included. (Consumers Opening III-D-18.) Consumers states that shippers who supply railcars for coal movements would make their own separate arrangements for maintenance. (Id.) For foreign private cars, Consumers states that CERR makes running repairs as necessary and calculates the costs of these repairs using URCS repair costs applied to private-car miles. (Id.) On reply, CSXT accepts this approach and adjusts the calculations based on its reply traffic group. (CSXT Reply III-D-33 to III-D-34, Mar. 7, 2016.)

The Board will adopt the parties' agreed upon approach and will apply it to the traffic group adopted in the Traffic and Revenue section.

⁷² According to both parties, foreign cars account for less than 9% of CERR's total mileage. (Consumers Opening WP "CERR Car Costs_Open.xlsx," Tab "General Freight"; CSXT Reply WP "CERR Car Costs_Reply.xlsx," Tab "General Freight," Mar. 7, 2016.)

3. Private Car Allowance

The parties agree to Consumers' approach to calculating the cost that CERR would incur for the use of private cars. (Consumers Opening III-D-19; CSXT Reply III-D-34, Mar. 7, 2016.) For coal movements in private cars, CERR would pay no mileage allowances in accordance with relevant CSXT transportation contracts and pricing authorities for the traffic moving over their system. (Consumers Opening III-D-19.) For private cars used for non-coal traffic, Consumers develops a private car mileage charge by car type based on data in CSXT's 2014 R-1. (*Id.*) On reply, CSXT accepts this approach and adjusts the calculations based on its reply traffic group. (CSXT Reply III-D-34, Mar. 7, 2016).

The Board will adopt the approach agreed upon by the parties and apply it to the traffic group selected by the Board in the Traffic and Revenue section.

C. OPERATING PERSONNEL

1. T&E Personnel

On supplemental opening, Consumers states that CERR requires 47 T&E crew members (41 road crew, three yard crew, and three helper crew) to perform its train operations. (Consumers Suppl. Evid. III-D-4.)⁷³ Consumers determined CERR's crew requirements using the total number of trains moving in the base year (indexed to traffic volumes in the first year of the DCF model), as well as crew districts, yard crew assignments, and traffic levels. (Consumers Opening III-D-21.) Consumers used the RTC model to confirm that train crews operating in each crew district could complete their tours of duty within 12 hours, as required by federal law. (*Id.* at III-D-20.) Consumers asserts that recrewng is not required on CERR, as the delay report generated by its RTC modeling indicates no expiring crews. (*Id.* at III-D-21; Consumers Opening WP "CERR Opening.DELAY.")

On supplemental reply, CSXT agrees to three helper crews, but argues that Consumers understates the number of road and yard crews required, contending that CERR would require 61 road crews and four yard crews. Thus, CSXT argues that CERR would need a total of 68 T&E crew members. (CSXT Reply WP "CERR Operating Statistics_Supp_Reply_Alt1.xlsx," Mar. 6, 2017.)⁷⁴ On supplemental rebuttal, Consumers continues to refute CSXT's arguments regarding T&E crew. (Consumers Rebuttal III-D-6, Apr. 13, 2017.) The parties agree to the need for three helper crews, and the Board will accept that agreement. As discussed below, the parties disagree as to CERR's T&E requirements for

⁷³ The parties submitted supplemental evidence, which affected their proposed number of T&E crew but generally did not affect their underlying arguments. For this reason, this section cites to both the initial and supplemental evidence in describing the parties' arguments.

⁷⁴ CSXT's train crew counts are based on its Alternative 1 scenario, which the Board has adopted, as discussed in the Operating Plan section.

Chicago road crews, West Olive road crews, road crews during the peak period, and yard crews at Barr Yard.

Chicago Road Crews. CSXT asserts that Consumers wrongly assumes that every crew in Chicago would work in turnaround service (meaning that crews would service one train and then another train back to the on-duty location in one shift), thus ignoring variation in train flows throughout the year, congestion into and out of terminals, and delays associated with repositioning crews to other CERR interchange locations. (CSXT Reply III-D-35 to III-D-36, Mar. 7, 2016.) CSXT further argues that, in determining crew requirements, Consumers wrongly assumes that no crews would reach their hours-of-service limit and would require a relief crew. (*Id.* at III-D-37.) CSXT also asserts that Consumers wrongly assumes that every interchange CERR has with foreign railroads could be completed within 30 minutes, thus requiring train crews to have reported for duty and checked in before the train arrives. (*Id.* at III-D-37 to III-D-38.) CSXT asserts that its RTC model demonstrates that nearly one quarter of Chicago-based crews would be in their sixth hour on-duty before they could board a second train, making it “more likely” that those crews would expire on the job if they accepted a second assignment. (*Id.* at III-D-38.) To account for these factors, CSXT calculates CERR’s crew requirements based on the assumption that only 75% of crews in Chicago would be able to accomplish a complete turn operating two trains. (*Id.* at III-D-38 to III-D-39.)

Consumers claims that CSXT’s analysis of Chicago road crews fails to account for the fact that crews starting from more distant points could take a different, shorter second turn. In fact, Consumers claims that some road crews could handle up to four trips a day over some of the shorter moves. (Consumers Rebuttal III-D-20 to III-D-21, May 20, 2016.) Consumers argues that CSXT provides no “crewing credits” for these times that CERR road crews could make more than two movements in a day. (*Id.* at III-D-21 to III-D-23.) To be conservative, however, Consumers assumes that each road crew would make only two turns per day. (*Id.* at III-D-22.) Consumers also submits evidence demonstrating that total Chicago road crew times would conform to hours-of-service requirements even assuming substantial taxi travel time, time spent coming on and off duty, and time spent at interchanges. (Consumers Rebuttal III-D-23, Rebuttal Table III-D-2, May 20, 2016.)

The Board finds Consumers’ evidence concerning road crew needs in Chicago to be feasible and supported. Consumers’ evidence demonstrates that train crews would be able to handle two trains within a 12-hour shift, even accounting for three one-hour taxi rides to shuttle between stations for each shift, two hours for crews to come on and off duty, and one hour for interchanging. (Consumers Opening III-D-20; Consumers Rebuttal III-D-22 to III-D-23, May 20, 2016; Consumers Rebuttal III-D-23, Rebuttal Table III-D-2, May 20, 2016; Consumers Rebuttal WP “Crews Handling 2 Trains_Rebuttal.xlsx,” May 20, 2016.) Moreover, CSXT’s RTC model, which the Board is adopting, supports Consumers’ crewing methodology, calculations, and resulting conclusion. (See STB WP “CERR Base Year Trains_Supp_Reply_Alt1 with Table III-D-2 - STB.xlsx,” applying Consumers’ methodology to CSXT’s RTC model.) Thus, CSXT fails to provide evidence that sufficiently undermines

Consumers' arguments regarding the turnaround service provided by Chicago road crews and the fact that no recrews would be necessary.

West Olive Road Crews. CSXT also disputes Consumers' assumption that CERR trains to the Campbell facility at West Olive would require zero re-crews. In support of its argument, CSXT points to the fact that Consumers regularly instructs CSXT that it is unable to receive a loaded train enroute to the Campbell Plant at West Olive, forcing CSXT to hold Consumers' trains on CSXT's sidings on the Grand Rapids Subdivision and to incur additional crew costs if a train crew reaches its hours-of-service limit before the train reaches the Campbell Plant. (CSXT Reply III-D-39, Mar. 7, 2016.) Thus, CSXT includes the cost of a second crew for 58% of the loaded West Olive trains. (Id. at III-D-40.)

Consumers claims that the RTC model is the proper tool for determining the feasibility of the SARR, and that CSXT's 58% recrew rate for West Olive-bound trains has no basis in the RTC model or data. (Consumers Rebuttal III-D-24 to III-D-25, May 20, 2016.) Consumers also asserts that CSXT incorrectly assumes that CERR would be subject to the same problems of delay in this area as faced by CSXT in the real world, and that CERR is under no obligation to duplicate inefficiencies incurred by CSXT where such inefficiencies are avoidable. (Id.) Furthermore, Consumers asserts that merely holding on a siding does not mean that a recrew is necessarily required, and that CSXT made no calculation of actual, real-world recrews that resulted from its "analysis" of holds. (Id. at III-D-25.) Based on its RTC model, Consumers does include a 1% recrew rate for all trains, including West Olive trains. (Consumers Rebuttal WP "Base Unit Merch Trains v6_Statistics_Supplemental.xlsx," Tab "2014 Full Base Year Unit Merch," Apr. 13, 2017.)

The Board finds that Consumers' evidence is not feasible or supported. Consumers argues that the need for recrews (other than the 1% it adds on rebuttal) is not needed based on the RTC model. However, the RTC model does not capture the loaded and empty trains outside the Campbell Plant at West Olive and thus, Consumers' argument is not in fact supported by its RTC model. CSXT, on the other hand, has submitted evidence indicating that Consumers frequently is unable to accept trains, thus requiring these trains to be staged at locations on the Grand Rapids Subdivision awaiting permission to enter the plant. It has demonstrated that more than half of its loaded Consumers' trains must be held outside the Campbell Plant for 24 to 36 hours or longer, and that recrewing would be required for the CERR to handle this traffic. (See CSXT Reply WP "Description of Consumers Train Movements.pdf," Mar. 7, 2016.) While Consumers is correct that it is under no requirement to duplicate real-world CSXT inefficiencies, there is no indication that these are inefficiencies resulting from CSXT's service (and Consumers has provided no evidence to that effect). Because real-world trains regularly hold at West Olive on request from Consumers, Consumers cannot assume away the costs of this routine practice when designing CERR's operations. Therefore, the Board will adopt the 58% West Olive recrew rate proposed by CSXT.⁷⁵

⁷⁵ This 58% recrew rate applies only to loaded trains bound for West Olive.

Peak Period Road Crews. CSXT asserts that Consumers does not provide a sufficient number of crews to operate trains during the peak period and comply with federal hours-of-service law. (CSXT Reply III-D-40 to III-D-41, Mar. 7, 2016.) Based on CSXT's series of calculations for each day of the peak period, CSXT estimates that Consumers would need a total of 58 road crew members. (Id. at III-D-40 to III-D-44; CSXT Reply III-D-8, Mar. 6, 2017.)

Consumers rejects the crew peaking factor CSXT used to calculate crews during the peak period because CSXT failed to adequately describe and support its calculation. (Consumers Rebuttal III-D-25 to III-D-29, May 20, 2016.)

The Board finds Consumers' evidence concerning crew requirements during the peak period to be feasible and supported. CSXT argues that its crew peaking analysis shows that Consumers' proposed operating crews would not be able to handle peak period trains without violating hours-of-service rules, but Consumers' evidence demonstrates otherwise. Consumers shows that its proposed crew numbers are sufficient to operate trains during the peak period while complying with hours-of-service requirements. (Consumers Opening III-D-20; Consumers Rebuttal III-D-22 to III-D-23, May 20, 2016; Consumers Rebuttal WPs "Crews Handling 2 Trains_Rebuttal.xlsx" & "Base Unit Merch Trains v6_Statistics_Rebuttal.xlsx," Tab "Crew Peaking," May 20, 2016.) CSXT's evidence does not undermine this conclusion. Rather, CSXT bases its crew peaking analysis on unsupported calculations and assumptions, such as inexplicably requiring groups of employees to work six consecutive shifts during the peak period. (See Consumers Rebuttal III-D-25 to III-D-29, May 20, 2016.)

Yard Crews at Barr Yard. CSXT adds an additional yard crew member at Barr Yard for a total of four yard crew to assist in setting out bad-ordered cars, transferring cars to and from the car shop, and inspecting trains as necessary. (CSXT Reply III-C-78, Mar. 7, 2016.) CSXT argues that by staffing Barr Yard with only three crew members, each working 12-hour shifts year round, Consumers proposes a staffing level that is unsafe and infeasible, leaving no time for training or leave. (Id. at III-D-44.)

Consumers asserts that a fourth crew is unnecessary, given that additional managers are available to assist and that the yard crew is a light duty crew primarily used for refueling and inspection of a small number of trains per year. (Consumers Rebuttal III-D-29, May 20, 2016.)

The Board finds Consumers' proposed crew numbers for Barr Yard to be infeasible. CSXT's evidence demonstrates that four crew members would be necessary to handle and perform the duties and responsibilities required at Barr Yard, while complying with hours-of-service requirements and having adequate time for training. Consumers has not sufficiently demonstrated the ability to handle Barr Yard duties and responsibilities without a fourth yard crew member. Therefore, the Board will adopt four yard crew members at Barr Yard.

For the total number of T&E personnel adopted by the Board, see Table B-2 below.

TABLE B-2

T&E Personnel			
	Consumers Supplemental Rebuttal	CSXT Alternative 1	STB
Road	41	61	39
Helper	3	3	3
Yard	3	4	4
Total	47	68	46

2. T&E Personnel Compensation

a. Salary

Consumers bases salaries for T&E personnel and non-train operating personnel (besides the Vice President-Operations) on data contained in CSXT's 2014 Wage Form A & B Reports. (Consumers Opening III-D-30.)⁷⁶

On reply, CSXT notes that, for T&E employees, Consumers relied on the salaries associated with the very small number of CSXT train crew personnel who worked 260 or more shifts in 2014. For reasons discussed above, CSXT claims that CERR would need to hire additional crew members, and as a result, the average number of shifts worked by those employees would be lower than 260. CSXT states that this "lower utilization permits the use of correspondingly lower CSXT salaries." (CSXT Reply III-D-45 to III-D-46, Mar. 7, 2016.) However, were the Board to accept Consumers' crew utilization assumptions (i.e., Consumers' proposed number of crew members), CSXT concedes that "Consumers' higher salaries would be the appropriate basis for estimating CERR's crew wage costs." (*Id.* at III-D-46 n.110.)

On rebuttal, Consumers maintains its compensation amounts for T&E employees that reflect 270 shifts per year, noting that CSXT uses 270 shifts per year in its workpapers on reply.

⁷⁶ Consumers' proposed salary for the Vice President-Operations of \$275,940 is based on the average salaries paid to senior executives employed by the Providence & Worcester Railroad Co. (P&W), a publicly held regional railroad. (Consumers Opening III-D-30.) Consumers argues that the salaries paid to P&W executives are more in line with what executives at the smaller Class II CERR would earn than are the salaries paid by CSXT to its executives. (*Id.* at III-D-30.) CSXT is silent on this point on reply. The Board accepts Consumers' un rebutted salary proposal for this position.

(Consumers Rebuttal III-D-30, May 20, 2016, citing CSXT Reply WP “CERR Base Year Trains.xlsx,” Tab “Trains,” Cells AP10306-10310, Mar. 7, 2016.)

The Board finds Consumers’ proposed salaries for T&E personnel and non-train operating personnel to be feasible and supported. Based on the crew levels adopted here, it is reasonable to base T&E salaries on those of CSXT employees working an average of 270 shifts per year.

b. Fringe Benefit Ratio

Consumers uses a fringe benefit ratio for all CERR employees of 37.6%. (Consumers Opening III-D-31.) Consumers bases this fringe benefit ratio on the average fringe benefit ratio for all Class I railroad employees in the United States in 2014, as reported in R-1’s, as each Class I carrier has a presence in the vicinity of CERR. (Id.; Consumers Opening WP “CERR Fringe Benefits.xlsx.”)

On reply, CSXT argues that Consumers’ fringe benefit calculation fails to follow the Board’s established practices in two ways. First, CSXT asserts that Consumers’ use of a nationwide average, rather than an average tailored to the railroads operating in the region in which the SARR operates, is not consistent with Board preference for a geographic-specific average. (CSXT Reply III-D-46 to III-D-47, Mar. 7, 2016.) In particular, CSXT objects to including Kansas City Southern Railway (KCS) in calculating the average fringe benefit ratio, because KCS does not have tracks or facilities in the vicinity of Chicago, northern Indiana, Michigan, or anywhere near CERR. (Id. at III-D-47.) Second, CSXT objects to Consumers’ use of a single year of fringe benefit data rather than a multi-year average. (Id. at III-D-46.) Thus, CSXT proposes a 41.6% fringe benefit, based on a three-year average (2012-2014) of the six Class I carriers operating in Chicago. (Id. at III-D-48.)

On rebuttal, Consumers argues that a 2012 through 2014 average is not appropriate for calculating fringe benefits, as fringe benefit expenses for Class I railroads have consistently declined from 2012 through 2014, thus indicating a trend toward more efficient management of fringe benefit expenses by all Class I railroads. (Consumers Rebuttal III-D-42 to III-D-43, May 20, 2016.) Consumers further argues that including KCS in the average for fringe benefits is appropriate, as KCS’s headquarters is closer to Chicago than the headquarters for any of the other Class I carriers (whose majority of employees work nowhere near Chicago), and because KCS is closer in size to the CERR than any other Class I railroad. (Id. at III-D-43.) Consumers also argues that by including all Class I carrier ratios (including inefficient carrier ratios such as CSXT’s) rather than focusing only on the most efficient carriers, its approach of using the overall Class I average of 37.6% is conservative. (Id.)

The Board finds Consumers’ fringe benefit ratio to be feasible and supported. The use of an average ratio of fringe benefits for all Class I railroads in a single, recent year is consistent

with the methodology used in recent SAC cases. See, e.g., Total Petrochems. & Refining USA, Inc. v. CSX Transp., Inc. (Total Petrochems. 2016), NOR 42121, slip op. at 65-66 (STB served Sept. 14, 2016) (with Board Member Begeman dissenting in part). Including KCS's ratio is also appropriate given that the size of KCS is closer to the size of CERR than any of the other Class I carriers.

To calculate fringe benefit costs, the Board will apply the fringe benefit ratio to the average wages of T&E personnel found in the workpapers submitted by the parties (see Consumers Opening WP "T&E_Dispatchers_Inspectors_Salary_Open.xlsx"), rather than the wages derived from the utilization rates of the crews calculated by both parties. (See Consumers Opening WPs "III-D-3 Fringe Benefit.pdf" & "CERR Fringe Benefits.xlsx.") Neither party has provided evidence as to why, and the Board sees no reason as to why, fringe benefits would be based on a compensation rate for the employees that work a higher number of shifts, as fringe benefits for those employees would not be higher than the fringe benefits for the average employee. Consequently, the Board will apply Consumers' 37.6% fringe benefit ratio to the average wage to calculate the total cost of fringe benefits for CERR T&E personnel.

c. Taxi & Hotel Expenses

Consumers includes taxi and hotel expenses for train crews in its opening workpapers. (Consumers Opening WP "CERR Operating Expense_Open.xlsx," Tab "Summary," Cells D22-23.) On reply, CSXT faults Consumers' calculation of CERR's taxi expense in Chicago, again pointing to the fact that Consumers unrealistically assumes that every crew in Chicago would be able to operate two trains daily. (CSXT Reply III-D-49, Mar. 7, 2016.) CSXT asserts that, because many crews would work in one-way service, the number of taxi trips would likewise be greater than Consumers' estimate. Thus, CSXT doubles Consumers' opening estimate of the taxi expense in Chicago to reflect that more crews would be working and requiring taxis. (Id. at III-D-49 to III-D-50.) However, CSXT accepts Consumers' estimate for the lodging and taxi expense for crews that operate in straight-away service from West Olive and overnight in Chicago before returning to West Olive. (Id. at III-D-50.) On rebuttal, Consumers maintains its taxi expenses for crews working within Chicago, stating that CSXT fails to critique Consumers' approach to developing taxi counts and costs and does not support its position for doubling Consumers' costs. (Consumer Rebuttal III-D-31, May 20, 2016.)

The Board finds Consumers' taxi and hotel expenses to be feasible and supported. As discussed above, the Board finds Consumers' proposed turn crews in Chicago to be sufficient for CERR's operations, even when accounting for three one-hour taxi rides to shuttle between stations for each shift. Given the rejection of the premise underlying CSXT's evidence regarding taxi expenses for Chicago-area crews, the Board concludes that CSXT has failed to undermine the taxi expenses put forth by Consumers.

D. NON-TRAIN OPERATING PERSONNEL

1. Headquarters Transportation Management

On opening, Consumers proposes that CERR's Vice President-Operations would head the Operating Department and would be responsible for the transportation, customer service, engineering, and mechanical functions. (Consumers Opening III-D-23.) A Director of Operations Control would report to the Vice President-Operations and would supervise all train operations and CERR's field operating managers, as well as CERR's Crew Callers and Dispatchers. (Id.) The Director of Operations Control would also be the primary representative to the Chicago Transportation Coordination Office (CTCO). (Id.) Consumers proposes a Crew Caller position, requiring five employees, to augment an automated crew-calling system. (Id.) Consumers proposes two dispatching desks to be manned 24/7/365, thereby requiring nine employees to cover the two desks. (Id. at III-D-24.) Consumers states that a Manager of Operating Rules, Safety & Training would interface with the FRA in matters pertaining to rules and operating practice and would be responsible for CERR's operating timetable, operating rules, operating bulletins, and related instructions. (Id.) Lastly, Consumers proposes two Customer Service Managers who monitor train locations, maintain contact with CERR's operating personnel and interchange partners, and answer customers' questions concerning the locations of specific trains on the CERR system. (Id. at III-D-25.)

On reply,⁷⁷ CSXT adds a Manager-Crew & Dispatch position that would require five employees, to ensure 24/7 coverage. (CSXT Reply III-D-58, Mar. 7, 2016.) These employees would interact with connecting carriers to identify what trains would be tendered to CERR and when, to ensure that CERR receives only trains that it can handle; that is, the train must "not include TIH traffic or shipments to be switched in Chicago" (per Consumers' operating plan). (Id. at III-D-58 to III-D-60.) They would design new service plans every shift for trains moving through Chicago and would also monitor crew activity, particularly turn crew assignments, in addition to handling staff functions, such as Service Design and Measurement, CTCO, and joint facilities management. (Id. at III-D-60 to III-D-62.)

⁷⁷ On reply, CSXT also proposes two changes to the employee reporting structure. First, CSXT would have the "Chief Marketing Officer" report directly to the President. (CSXT Reply III-D-54, Mar. 7, 2016; CSXT Reply WP "Organizational Chart.pptx," Mar. 7, 2016 (showing "Director Marketing" reporting directly to the President).) As discussed in the G&A Expenses section below, the Board adopts Consumers' proposed structure of the Executive Department, which means that the Director of Marketing remains in the Marketing Department and reports to the Vice President-Operations. Second, CSXT states that, to address the need for increased support staff for the Headquarters Transportation Management team, it reassigns the Director of Operations Control, Manager of Operating Rules, Safety & Training, Chief Engineer, and Manager of Mechanical Operations to report directly to the Vice President-Operations. (Id. at III-D-54; CSXT Reply WP "Organization Chart.pptx," Mar. 7, 2016.) However, it appears that Consumers already has these four employees reporting directly to the Vice President-Operations on opening. (See Consumers Opening III-D-23 to III-D-24, III-D-28.)

On rebuttal, Consumers declines to adopt the Manager-Crew & Dispatch position. (Consumers Rebuttal III-D-35, May 20, 2016.) Consumers states that such positions are unnecessary, as CSXT wrongly assumes that CERR would not know, in advance, which trains it would be handling. (Id.) Consumers argues that all trains handled by CERR have known operation plans, dictated in large part by CERR's interchange partners, thereby further reducing the need for a new service plan every shift. (Id. at III-D-36.) Consumers further asserts there is no need for a position to manage crew assignments, given that crew calling is automated and the Manager of Train Operations would be responsible for overseeing crews in the field and assuring that assignments are properly handed out during the shift. (Id.)

The Board finds Consumers' proposed Headquarters Transportation Management staffing to be feasible and supported, given the size and needs of CERR. CSXT has not demonstrated the need for a Manager-Crew & Dispatch position. The responsibilities of the Manager-Crew & Dispatch appear duplicative of existing staff, including dispatchers who monitor the trains that CERR handles; the Director of Operations Control and Vice President-Operations, who design and manage operation plans; and the Manager of Train Operations (MTO), who oversees train crews.

2. Field Transportation Management

Consumers proposes an MTO position that would be stationed at Barr Yard. This would be a 24/7 position, worked in 12-hour shifts, and thus would require three employees. (Consumers Opening III-D-26.) The MTO would be responsible for managing train operations, supervising train crews, and performing FRA-mandated and other appropriate testing. (Id.) The MTO would also respond to and investigate accidents and day-to-day operational issues. (Id.) Three Assistant MTOs would report to the MTO and serve functions similar to the MTO, but would spend the majority of time in the field. (Id. at III-D-27.) They would also assist with other functions, such as inspections, on an as-needed basis. (Id.) Lastly, Consumers proposes a Manager of Locomotive Operations (MLO) responsible for the safe and efficient handling of locomotives and trains by CERR's locomotive engineers. The MLO would perform FRA-mandated testing and observation of engineers in train handling, efficiency testing, and other assistance as needed. (Id.)

On reply, CSXT adds an additional MTO and an additional Assistant MTO to allow for a "more realistic" average of hours worked per employee. (CSXT Reply III-D-55, Mar. 7, 2016.) CSXT also adds an Assistant MLO who, with the MLO, would manage and monitor locomotive operations, perform qualifying rides with new personnel, conduct regular reviews of existing personnel, and oversee any required requalifications. (Id.) CSXT proposes that the MLO and Assistant MLO would also inspect BNSF locomotives at West Olive. (Id. at III-D-55 to III-D-56.)

On rebuttal, Consumers argues that the additional MTO and Assistant MTO are unwarranted, noting that the MTO and Assistant MTO do not have to be on duty at the same

time and that Consumers' six positions (three MTOs, three Assistant MTOs) can cross-support each other during vacations and sick days. (Consumers Rebuttal III-D-38, May 20, 2016.) Consumers also declines to adopt CSXT's Assistant MLO, arguing that CSXT offers no support for this additional position. (Id. at III-D-39.)

The Board finds Consumers' proposed staffing for Field Transportation Management to be feasible and supported, given CERR's operational needs. CSXT has not adequately demonstrated the need for an additional MTO and Assistant MTO. The Board finds that Consumers has provided sufficient coverage for the MTO and Assistant MTO positions by proposing six employees, each working 12-hour shifts. Nor has CSXT shown the need for an Assistant MLO. The proposed Assistant MLO's duties appear to largely duplicate those of the MLO and equipment inspectors. CSXT does not provide a sufficient explanation as to why an additional employee is necessary or why the MLO would be unable to perform the duties required for this position.

3. Engineering & Mechanical Management

The parties agree to having CERR's engineering and mechanical functions overseen by a Chief Engineer and a Manager of Mechanical Operations. (Consumers Opening III-D-28 to III-D-29; CSXT Reply III-D-53, III-D-56, Mar. 7, 2016.)

The parties also agree to station nine equipment inspectors at Barr Yard and one equipment inspector at West Olive. (Consumers Rebuttal III-D-41, May 20, 2016; Consumers Suppl. Evid. WP "CERR Operating Expense_Supplemental.xlsx"; CSXT Reply III-D-12, Mar. 6, 2017.)

TABLE B-3

Non-Train Operating Personnel			
Department	Consumers Supplemental Rebuttal	CSXT Alternative 1	STB
<u>Operations</u>			
Vice President Operations	1	1	1
Director of Operations Control	1	1	1
Manager of Operating Rules, Safety and Training	1	1	1
Customer Service Managers	2	2	2
Subtotal Operations	5	5	5
<u>Transportation</u>			
Manager - Train Operations	3	4	3
Assistant Manager - Train Operations	3	4	3
Manager - Locomotive Operations	1	1	1
Manager Crew and Dispatch	0	5	0
Crew Callers	5	5	5
Dispatchers	9	9	9
Assistant Manager - Locomotive Operations	0	1	0
Subtotal Transportation	21	29	21
<u>Mechanical</u>			
Chief Engineer	1	1	1
Manager of Mechanical Operation	1	1	1
Inspectors	10	10	10
Subtotal Mechanical	12	12	12
Total	38	46	38

E. G&A EXPENSES

1. Overview

TABLE B-4

G&A Personnel			
Department	Consumers Supplemental Rebuttal	CSXT Alternative 1	STB
Outside Directors	3	3	3
Executive	2	3	2
Sales & Marketing	5	7	5
Finance & Accounting	8	11	8
Law	8	20	8
IT	6	9	6
Total	32	53	32

The parties differ on their G&A staffing requirements. Consumers develops staffing levels for CERR based on staffing benchmark standards developed in prior SAC decisions, third-party sources, and/or CSXT's evidence submitted in Total Petrochemicals & Refining USA, Inc. v. CSX Transportation, Inc., Docket No. NOR 42121. (Consumers Opening III-D-32.) Consumers asserts that the CERR's revenues are substantially lower than the revenues of SARRs in prior Board decisions and, as such, the staffing of the CERR's G&A function should not remotely approach the staffing required for the much larger railroads that have been the subject of these recent SAC cases. Accordingly, Consumers claims that the CERR would not incur the many costs associated with the operation of a Class I carrier, including for example, G&A expenses associated with SEC filings, Class I annual reporting to the Board, etc. (*Id.* at III-D-34.) Consumers notes that its proposed G&A staffing levels are consistent with benchmarking figures used by CSXT in Total Petrochemicals, Docket No. NOR 42121, (Consumers Opening III-D-35) and reasonable when compared to G&A expenses in Western Fuels Ass'n, Inc. v. BNSF Railway, NOR 42088 (STB served Sept. 10, 2007) and Western Fuels Ass'n, Inc. v. BNSF Railway, NOR 42088 (STB served Feb. 18, 2009), despite CERR having less revenue than the SARR in Western Fuels, Docket No. NOR 42088. (Consumers Opening III-D-42 to III-D-44.)

CSXT argues that CERR's G&A levels fail to reflect the complexities of real-world railroading in Chicago. (CSXT Reply III-D-68 to III-D-70, Mar. 7, 2016.) CSXT asserts that a smaller railroad may require larger staff because the scale and scope of the railroad do not permit any economies of scale. (*Id.* at III-D-70 to III-D-71.) Further, CSXT states that there is no Class II railroad that is exactly comparable to CERR to serve as an overall benchmark, but that potentially useful comparisons in individual areas of G&A staffing may be drawn from Class II

railroads such as the New York, Susquehanna & Western Railway, the Indiana Rail Road Company, and the Paducah & Louisville Railroad. (Id. at III-D-71.)

As discussed below, the Board finds benchmark standards to be a useful reference in determining whether the parties' proposals are feasible and supported. However, the Board also considers specific evidence presented by the parties to support proposed staffing needs in individual areas. See, e.g., Total Petrochems. & Refining USA, Inc. v. CSX Transp., Inc. (Total Petrochems. 2016), NOR 42121, slip op. at 73 (STB served Sept. 14, 2016) (with Board Member Begeman dissenting in part) ("[A]s long as the SARR meets the needs of the traffic group, the SARR can be designed in a manner that is different from, and more efficient than, the incumbent carrier's service Thus, merely benchmarking proposed additional costs against the defendant carrier's own costs is not enough to automatically justify those costs.") (internal quotation marks omitted). Below, the Board addresses the parties' evidence in the disputed G&A categories.

2. Executive

On opening, Consumers proposes an Executive Department consisting of five people: a President, an Administrative Assistant, and Vice Presidents of Operations, Finance and Accounting, and Law and Administration, who would each report directly to the President. (Consumers Opening III-D-46.) In addition, Consumers proposes a five-person Board of Directors, consisting of the President, the Vice President-Operations, and three outside Directors chosen from representatives of CERR's customer group and its lenders. Consumers proposes that, consistent with Board precedent, the outside Directors would not receive compensation other than expenses incurred to attend board meetings. (Id. at III-D-47 to III-D-48.)

On reply, CSXT asserts that the proposed staffing for the Executive Department is not adequate to carry out the functions necessary for a company with over \$100 million in revenue and proposes a "slightly modified organization[al]" structure to address this. (CSXT Reply III-D-72 to III-D-73, Mar. 7, 2016.) First, CSXT proposes that Marketing and Information Technology have direct reports to CERR's president through a Director of Marketing and a Director of Information Technology. (Id. at III-D-73.) Second, CSXT adds a Communications Manager to the Executive Department who would assist the President with various communication functions that the President must carry out. (Id. at III-D-73 to III-D-74.)

Additionally, CSXT agrees with Consumers' proposal to have a five-person Board of Directors with three outside Directors. (Id. at III-D-75.) However, CSXT disagrees with Consumers' proposal that the three outside Directors would have "a direct and substantial interest in the CERR's affairs" and would come from "the CERR's customer group" and lenders. (Id. at III-D-75, quoting Consumers Opening III-D-47.) CSXT instead proposes that the three outside Directors be independent from CERR's affairs so that they can adequately "serve as a potential check on the CERR's management" and be paid a reasonable, market-based compensation, as "independent directors cannot be expected to serve for free." (Id. at III-D-75.)

On rebuttal, Consumers asserts that CSXT's proposal to have the Directors of Marketing and Information Technology directly report to the President is unsupported, in addition to being inconsistent with CSXT's own claim that the President's responsibilities, as proposed by Consumers on opening, are already too great and not realistic. (Consumers Rebuttal III-D-56 to III-D-59, May 20, 2016.) Consumers also declines to adopt the proposed Communications Manager, arguing that CSXT has not shown why such a position is essential to CERR's operations. (*Id.* at III-D-59 to III-D-60.) Consumers argues that CSXT provides no basis for its inference that the outside Directors proposed by Consumers would not be independent and that CSXT fails to address the Board's precedent accepting the assumption that SARR Directors would serve without compensation other than reimbursement of expenses. (*Id.* at III-D-60 to III-D-61.)

The Board will accept Consumers' staffing proposal for CERR's Executive Department and the Board of Directors. First, the Board finds Consumers' proposed Executive staffing to be feasible and supported, given the size and needs of CERR. CSXT has not provided adequate evidence to support its argument that the Marketing and Information Technology Departments must directly report to the President. CSXT argues that Marketing and Information Technology are "mission critical functions" that warrant direct oversight. However, CSXT fails to show why the reporting structure proposed by Consumers, under which the Directors of Marketing and Information Technology would each report to a separate Vice President, is not adequate, particularly given the size of CERR, where direct communications with the President could be facilitated easily when necessary.

Likewise, the Board finds that CSXT has not adequately supported the need for its proposed Communications Manager. The proposed duties of the Communications Manager, namely the managing of various community, government, and investor relations, duplicate those of the President, who is responsible for CERR's external relations, including community and government relations and investor communications. (See Consumers Opening III-D-46.) CSXT states that a Communications Manager is needed to manage CERR's social media platforms, but, as Consumers notes, CSXT's own evidence shows the limited social media presence of railroads that are of comparable size to CERR, with only seven of sixteen identified Class II carriers having a social media presence. (See Consumers Rebuttal III-D-59, May 20, 2016.) Thus, CSXT has not demonstrated the need for a Communications Manager for CERR.

Lastly, the Board finds Consumers' proposal to have three outside, uncompensated Directors to be consistent with past SAC cases, where the Board has found it to be feasible for a SARR to have outside Directors who have direct and substantial interests in the SARR's affairs but receive no compensation other than travel expenses. See, e.g., Total Petrochems. 2016, NOR 42121, slip op. at 94; Sunbelt Chlor Alkali P'ship v. Norfolk S. Ry. (Sunbelt 2014), NOR 42130, slip op. at 62 (STB served June 20, 2014), pet. for reconsideration granted in part & denied in part (STB served June 30, 2016) (with Board Member Begeman dissenting in both), appeal docketed sub nom. Sunbelt Chlor Alkali P'ship v. STB, No. 16-15701 (11th Cir. Aug. 26,

2016); AEP Tex. N. Co. v. BNSF Ry., NOR 41191 (Sub-No. 1), slip op. at 60 (STB served Sept. 10, 2007), reconsideration denied (STB served May 15, 2009), vacated on other grounds & remanded sub nom. AEP Tex. N. Co. v. STB, 609 F.3d 432 (D.C. Cir. 2010). While CSXT asserts that Consumers' outside Directors would not be sufficiently independent, CSXT does not provide evidence or analysis to substantiate its assertion or address the Board's precedent.

3. Marketing

The parties agree to a Marketing Department headed by a Vice President-Operations, who reports to the President. The Marketing Department would also include a Director of Marketing,⁷⁸ as well as four Marketing Managers aligned by commodities. The parties disagree as to the need for two additional positions proposed by CSXT.

CSXT argues that Consumers' proposed Marketing Department is not consistent with real-world railroading. CSXT proposes to add a Manager-Accounts who would handle customer contact regarding rates, rules, accessorial charges, and maintenance programs that might alter service. (CSXT Reply III-D-79, Mar. 7, 2016.) CSXT also proposes a Manager of Marketing Service to coordinate the Marketing Managers' responsibilities with other functions within the larger CERR organization and within the Marketing Department, including service design, interline agreements, forecasting, and customer service. (Id.)

Consumers states that the size of its proposed Marketing staff is consistent with the revenue-to-marketing staff ratios relied upon by CSXT in Total Petrochemicals 2016, NOR 42121, and applied in Sunbelt 2014, NOR 42130. (Consumers Rebuttal III-D-63, May 20, 2016.) Consumers asserts that, given these previously accepted ratios, CSXT's proposed staffing level is overstated. (Id. at III-D-63 to III-D-64.) Furthermore, Consumers asserts that the Manager-Accounts duplicates the functions of Consumers' proposed Marketing staff. (Id. at III-D-66.) Consumers argues that the need for the Manager of Marketing Services is also unsupported, given that CSXT has not shown that marketing functions require coordination with non-marketing functions within CERR or that Consumers' proposed marketing staff would be insufficient to perform the work. (Id. at III-D-67.)

The Board finds Consumers' proposed staffing for CERR's Marketing Department to be feasible and supported, given the size and marketing needs of CERR. CSXT fails to provide adequate evidence to show that Consumers' proposed Marketing staffing level is not feasible or supported. While CSXT asserts that Consumers erred in failing to include specific staff to

⁷⁸ Consumers proposes that the Director of Marketing report to the Vice President-Operations. (Consumers Opening III-D-48.) CSXT asserts that the Director of Marketing should report directly to the President. (CSXT Reply III-D-73, III-D-76, Mar. 7, 2016.) As discussed above, the Board adopts Consumers' proposed structure of the Executive Department, which means that the Director of Marketing remains in the Marketing Department and reports to the Vice President-Operations.

handle customer communications regarding rates, rules, accessorial charges, and maintenance programs that might alter service, CSXT has not shown that Consumers' proposed Marketing staff is insufficient to perform customer contact duties. Indeed, the responsibilities of the Manager-Accounts appear to overlap with those of the Marketing Managers proposed by Consumers, whose responsibilities primarily involve working with customers in setting, managing, and maintaining rates and surcharges. (See Consumers Opening III-D-53.) Likewise, CSXT fails to demonstrate the need for its proposed Manager of Marketing Services, who CSXT argues is necessary to coordinate the functions of the Marketing Department with other functions within CERR, as well as to coordinate functions within the Marketing Department. (CSXT Reply III-D-79, Mar. 7, 2016.) CSXT does not explain why Consumers' proposed Marketing staff would be insufficient to handle these tasks. Therefore, the Board will adopt Consumers' proposed Marketing Department staff.

4. Finance and Accounting

The parties agree to a Finance & Accounting Department headed by a Vice President-Finance & Accounting and staffed by a Treasurer, a Controller, an Assistant Controller,⁷⁹ two Revenue Accounting Managers, a Manager of Budgets and Purchasing, and an Administrative Assistant. (Consumers Opening III-D-54.) The parties disagree as to the need for three additional positions proposed by CSXT.

a. Treasurer Functions

CSXT asserts that the Treasurer alone cannot manage all the responsibilities assigned by Consumers, including dealing with the Interline Settlement System (ISS),⁸⁰ managing CERR's cash flows and balances for short and long-term investments, and handling retirement funds. (CSXT Reply III-D-81, Mar. 7, 2016.) Accordingly, CSXT proposes a Cash Manager to assist with day-to-day responsibilities, such as credit checks, short-term cash management, and monitoring of bank accounts so that the Treasurer can focus on long-term functions, such as investment planning and overall cash flow. (*Id.* at III-D-80 to III-D-82.)

Consumers declines to add the Cash Manager position, noting that the Treasurer would handle short-term cash management and that the Vice President-Finance & Accounting would

⁷⁹ Consumers notes that CSXT's stance with respect to the Assistant Controller position is ambiguous because CSXT, without discussion, appears to have eliminated the Assistant Controller in its workpapers and replaced it with an equivalent "Manager Revenue." (See Consumers Rebuttal III-D-70, May 20, 2016.) A possible interpretation of CSXT's evidence is that CSXT merely renamed the position. In any case, because CSXT has not offered any argument related to the Assistant Controller position, the Board will accept it as uncontested and will disregard the "Manager Revenue" position.

⁸⁰ ISS is the accepted industry-standard method by which the rail industry settles interline freight revenues.

handle more of the strategic finance issues. (Consumers Rebuttal III-D-71, May 20, 2016.) Consumers argues that there is no basis for assuming that the Treasurer cannot perform the designated tasks. (Id.)

The Board finds Consumers' assignment of responsibilities to the Treasurer, Vice President-Finance & Accounting, and Controller to be feasible and supported. As Consumers has explained, CERR's revenues and the traffic volumes and traffic flows would be less substantial compared to SARRs in other cases, and the Board therefore finds it feasible for the Treasurer to manage the responsibilities described in Consumers' opening evidence. In addition, Consumers has sufficiently shown that the Vice President-Finance & Accounting can handle the long-term investment planning, while the Controller can monitor ISS revenue determinations. Accordingly, the Board finds that CSXT has not adequately established the need for additional staff to assist the Treasurer.

b. Controller Functions

As part of the Controller staff, Consumers includes a Manager of Budgets & Purchasing who would handle the preparation of the annual company budget, monitor monthly performance against plan, and prepare forecasts and cost and revenue analyses as required. (Consumers Opening III-D-60.) To assist with these responsibilities, CSXT proposes two additional employees: a Director of Planning & Support and a Manager of Tax & Financial Reporting. The Director of Planning & Support would report directly to the Vice President and be assisted by the Manager of Budgets & Purchasing and Manager of Tax & Financial Reporting. (CSXT Reply III-D-84, Mar. 7, 2016.) The Manager of Tax and Financial Reporting would be responsible for managing and collecting required information for outsourced providers of tax work (such as tax preparers and auditors), verifying that all property tax bills received are valid, and assembling and filing reports to be used for financial accounting software. (Id. at III-D-84 to III-D-85.)

Consumers declines to accept either of these positions, arguing that the same basic responsibilities are already handled by CERR's proposed Controller staff. (Consumers Rebuttal III-D-73, May 20, 2016.) Additionally, Consumers asserts that, given the small size of CERR, the financial reporting requirements are minimal and that it would use financial accounting software to track all of its physical assets and asset replacements. (Id. at III-D-73 to III-D-74.)

The Board finds Consumers' proposed Controller staff to be feasible and supported, given the size of CERR and the limited traffic group. CSXT has not demonstrated the need for additional Controller staff. CSXT provides only vague justification for its Director of Planning & Support, merely stating that an additional employee is necessary "to address the volume of responsibility" of the Manager of Budgets & Purchasing. (See CSXT Reply III-D-84, Mar. 7, 2016.) But CSXT does not specify the actual responsibilities of the Director or show why the Manager of Budgets & Purchasing needs assistance. Likewise, CSXT does not establish the need for a Manager of Tax & Financial Reporting, whose responsibilities appear to duplicate

those of other Controller staff tasked with interacting with outside audit and tax personnel and preparing necessary data and documentation for the audit firm, as well as managing the financial accounting program. (See Consumers Opening III-D-59.)

5. Law & Administration

a. Legal/Claims Function

i. Calculation of Legal Expense

In calculating internal legal staffing and outside counsel budget, Consumers first calculates the total legal expense for CERR as a percent of revenue based on published benchmarks, specifically a 2012 Law Department Metrics Benchmarking Study by Corporate Counsel and ALM Legal Intelligence (ALM Study). (Consumers Opening III-D-62 to III-D-63.) Consumers then allocates the total legal expense between an internal legal staff expense and outside legal expense. The internal legal staff would consist of the Vice President-Law & Administration and a full-time General Attorney, while the remainder of the legal expense would be devoted to outside legal costs. (Id. at III-D-64 to III-D-65.)

CSXT accepts that the CERR could operate with an in-house Vice-President-Law & Administration and a General Attorney, with the remainder of legal expenses outsourced. (CSXT Reply III-D-86, Mar. 7, 2016.) CSXT also accepts the general framework of calculating outsourced legal expenses by subtracting internal legal spending from a benchmark legal cost. (Id.) CSXT argues, however, that, because the Vice President would have administrative responsibilities apart from legal work, namely overseeing Human Resources and Training and Security, as well as Information Technology, only half of the Vice President's salary should be accounted for in the internal legal budget. (Id. at III-D-87.) Accordingly, CSXT assigns half of the cost of the Vice President's salary to the legal spending figure and the other half to the nonlegal G&A staffing budget. (Id.; CSXT Reply WP "CERR G&A Outsourcing_Reply.xlsx," Mar. 7, 2016.)

On rebuttal, Consumers disputes CSXT's allocation of only half of the Vice President's salary to the total legal expense (which, in turn, would result in an increase of CERR's outside legal expense, as the parties agree that the outside legal expense is the total legal expense minus internal expense). It argues that the Vice President would devote a substantial amount of time to legal work, in addition to overseeing other departments, and so the full amount of salary should be allocated to the legal expense. (Consumers Rebuttal III-D-76 to III-D-77, May 20, 2016.) Consumers further contends that the ALM Study applied a broad definition of internal legal expenses when developing its revenue metric, which included expenses associated with technology, occupancy, and an allocation of general corporate overhead, and thus, the Vice President's administrative functions are properly included under legal expenses. (Id. at III-D-77.)

Consumers also asserts that CSXT's legal expense calculations contain errors and inconsistencies. First, Consumers notes that, despite CSXT's claim that it allocated half of the Vice President's salary to internal legal expenses, CSXT actually fails to include *any* of the costs for the Vice President in its internal legal expense calculations, resulting in a substantial overstatement in CSXT's calculation of outside legal expenses. (Id. at III-D-79.) Second, Consumers states that CSXT's workpaper misstates the salary, benefits, and travel expenses for the General Attorney. Third, Consumers states that CSXT's workpaper applies the ALM Study revenue metric to the \$139.4 million in CERR revenues calculated by Consumers on opening, rather than the \$109.4 million in CERR first-year revenues calculated by CSXT on reply. Consumers argues that it is inconsistent and improper for CSXT to advance the latter figure for CERR revenue purposes while accepting the former figure for purposes of calculating legal expense. (Id. at III-D-79 to III-D-80.)

The Board will accept the calculation of legal expenses submitted by Consumers as feasible and supported.⁸¹ While CSXT raises questions concerning the proportion of legal work performed by the Vice President, Consumers explains on rebuttal that the survey upon which it relied uses a broad definition of internal legal expenses that would cover other managerial functions performed by the Vice President. Moreover, Consumers is correct that CSXT's workpapers are not consistent with its narrative. CSXT states that it would assign half the cost of the Vice President's salary to legal spending, but, as Consumers notes, CSXT failed to include any expenses for the Vice President's position in its workpaper calculations, resulting in a substantial overstatement of the cost of outside legal expenses. Thus, the Board finds that CSXT has not undermined the legal expense submitted by Consumers.

ii. Claims Processing

Consumers places the claims function in the legal group. Specifically, it proposes that CERR's in-house attorneys would supervise an outsourced risk and claims management contractor and would assist in investigating claims, with the Chief of Security available to provide on-the-ground support for initial claims investigations. (Consumers Opening III-D-61.) On reply, CSXT asserts that Consumers failed to demonstrate that the benchmark that it used to calculate its legal expense (i.e., the ALM Study) encompassed an internal claims function as part of the outsourced share of legal spending. Accordingly, CSXT proposes the addition of an Administrative Assistant in the Law & Administration Department to manage the claims processing responsibility, as well as provide administrative support for the Department. (CSXT Reply III-D-87 to III-D-88, Mar. 7, 2016). On rebuttal, Consumers declines to add the Administrative Assistant position, noting that its existing staff, in addition to the Assistant Chief of Police position it added on rebuttal, would be adequate to handle the claims function. (Consumers Rebuttal III-D-97, May 20, 2016.) Consumers compares its proposed claims staffing to CSXT evidence from another proceeding, arguing that CERR would require only

⁸¹ On rebuttal, Consumers updates its total legal spending figure calculation and associated outside legal spending figure calculation to reflect CERR's updated rebuttal first-year revenues of \$139.6 million. (Consumers Rebuttal III-D-81, May 20, 2016.)

0.348 claims personnel based on CERR's route miles. (Consumers Opening III-D-61 to III-D-62; Consumers Rebuttal III-D-97, May 20, 2016.)

The Board finds Consumers' proposed staffing for the claims function to be supported and feasible, given the size of CERR. Consumers has shown how claims processing would be handled adequately by existing staff, including the Vice President-Law & Administration, a General Attorney, a Chief of Security, as well as an Assistant Chief of Security. Accordingly, the Board finds that CSXT has not established a need for its proposed Administrative Assistant.

b. Human Resources

On opening, Consumers proposes Human Resources/Training functions that are largely outsourced to support a small in-house human resources staff whose primary responsibility would be to interface with the outside contractor and ensure that CERR has a pool of employees that enables it to engage in ongoing operations. Consumers proposes that CERR employ a Director of Human Resources to manage training, recruiting, compliance, compensation and benefits, employee relations and training. (Consumers Opening III-D-65.) Additionally, Consumers states that two additional staff, a Manager of Operating Rules, Safety, and Training (Non-Train Operating Staff) and an Engineer of Programs, Budgets, Safety, and Training (MOW Staff), would be responsible for interacting with the outside training vendor and with the Director of Human Resources.

On reply, CSXT asserts that Consumers' plan to outsource only reflects costs for start-up expenses, such as training and recruitment, and that Consumers fails to account for other Human Resources functions, such as investigating and resolving employee complaints, administering disciplinary procedures, and setting and managing compensation and benefits. (CSXT Reply III-D-88 to III-D-89, Mar. 7, 2016.) As a result, CSXT argues that Consumers' proposed annual outsourcing budget is not sufficient. Accordingly, CSXT proposes the addition of a Manager of Human Resources to assist the Director with "employee contacts...including such issues as payroll or benefit questions, clearing employees to return to work after injuries, and handling Federal Medical Leave Act requests." (*Id.* at III-D-90.)

On rebuttal, Consumers declines to adopt the Manager of Human Resources position, asserting that the functions listed by CSXT on reply would either be outsourced, covered by the Director of Human Resources, or performed by other CERR staff members. (Consumers Rebuttal III-D-83, May 20, 2016.) Consumers further argues that its outsourcing budget is sufficient. (*Id.* at III-D-83 to III-D-84.)

The Board finds Consumers' proposed Human Resources staffing plan to be feasible and supported. CSXT has not shown why Consumers' proposed Human Resources staff and outsourced services would be unable to perform the functions described by CSXT on reply. As Consumers notes, the Director of Human Resources would have the primary function of

interacting with outside vendors, investigating employee complaints, and administering discipline, and the outsourced vendors would manage compliance with federal laws as part of the outsourced recruitment and hiring services. Additionally, compensation and benefits would be handled by the Director, as well as departmental supervisors. Thus, CSXT has not demonstrated the need for a Manager of Human Resources.

c. Asset Protection

On opening, Consumers proposes a Chief of Security who would both oversee three Security Agents and provide additional security coverage as needed. (Consumers Opening III-D-70.) Each Security Agent would be responsible for a portion of the CERR system: one in Michigan, one in Indiana, and one from the Indiana/Illinois border to the northwestern terminus of the CERR system at 22nd Street. (*Id.*) Consumers asserts that this staffing is consistent with Arizona Electric Power Cooperative v. BNSF Railway, NOR 42113, slip op. at 62 (STB served Nov. 22, 2011), petition for review denied sub nom. BNSF Railway v. STB, 748 F.3d 1295 (D.C. Cir. 2014), where the Board approved a staffing level of one officer for every state in which the SARR operated and one chief responsible for oversight. (Consumers Opening III-D-71.) Consumers also asserts that its staffing is double the level that CSXT proposed in Total Petrochemicals 2016, NOR 42121, on either a route-mile or revenue basis. (*Id.* at III-D-71 to III-D-72.) Consumers also proposes outsourced front desk security for CERR's West Olive headquarters. (*Id.* at III-D-72 to III-D-73.)

On reply, CSXT agrees that one Security Agent in Michigan and one Security Agent in Indiana is adequate but argues that, given high crime levels in the Chicago area, additional staff is necessary to protect the major intermodal facility and interchange tracks in Chicago. CSXT thus proposes that there be an Assistant Chief of Police and nine⁸² Security Agents (i.e., "police"), in addition to the two Security Agents in other states, to provide 24/7 police coverage. (CSXT Reply III-D-90 to III-D-93, III-D-95, Mar. 7, 2016.) CSXT states that all CERR police officers should be equipped with radios and therefore includes a cost for radios. (*Id.* at III-D-95 to III-D-96.) CSXT also proposes outsourced security at Barr Yard. (*Id.* at III-D-93.) Additionally, CSXT proposes a Director of Asset Protection who would oversee police, security, and environmental functions, as well as overseeing the outsourced security contracts. (*Id.* at III-D-94.) Lastly, CSXT proposes a Manager of Environmental Control who would be available for any hazardous material or other releases, in addition to assisting with necessary industrial hygiene functions, such as obtaining necessary pollution discharge permits, providing necessary training and environmental regulatory compliance, and disposing of waste. (*Id.* at III-D-94 to III-D-95.)

On rebuttal, Consumers accepts CSXT's addition of an Assistant Chief of Police in Chicago, but otherwise declines to modify its existing police and security staff. (Consumers Rebuttal III-D-86, May 20, 2016.) Consumers asserts that CSXT's evidence pertaining to crime

⁸² In its supplemental reply, CSXT removes one Security Agent due to the reduction in merchandise traffic. (CSXT Reply III-D-14 to III-D-15, Mar. 6, 2017.)

and rail police statistics in the Chicago area is unsupported and does not demonstrate the need for increased security at Barr Yard. (Id. at III-D-86 to III-D-93.) Consumers contends that the proposed Director of Asset Protection is redundant, given the responsibilities of the Chief of Security and the Assistant Chief of Police. (Id. at III-D-94 to III-D-95.) Likewise, Consumers argues that the responsibilities of the proposed Manager of Environmental Control are covered by existing staff, namely CERR's legal staff and MOW Engineer. (Id. at III-D-95 to III-D-96.)

The Board will adopt Consumers' proposed Security staffing plan, with the agreed-upon addition of the Assistant Chief of Police. While CSXT raises general questions as to whether security around Barr Yard is adequate, it fails to support the need for eight Security Agents, in addition to outsourced security, at Barr Yard. CSXT offers general statistics concerning crime in the Chicago area, as well as police staffing figures of railroads in the Chicago area, but provides no evidence as to the specific security needs of Barr Yard, CERR's only yard in the Chicago area. Therefore, the Board finds that CSXT has not supported its additional staff proposals nor undermined Consumers' proposed Security staffing for the Chicago area. The Board finds that Consumers, however, did not include radios for its Security function and will adopt CSXT's proposed radios for the Chief of Security, the Assistant Chief of Police, and three Security Agents.

The Board also finds that CSXT has not demonstrated the need for a Director of Asset Protection, whose responsibilities appear to duplicate those of the Chief of Security, who would oversee the police and security functions, and those of the Assistant Chief, who would coordinate police activities and provide additional coverage. Nor has CSXT shown that a Manager of Environmental Control is necessary, given the duties and responsibilities of other CERR staff. Legal staff would be available to address environmental issues, as would the MOW Engineer tasked with handling administrative matters involving environmental issues.

d. Information Technology

On opening, Consumers proposes to have CERR's Information Technology (IT) systems administered by a Director-IT and five IT specialists. (Consumers Opening III-D-67.) Consumers states that approximately 90% of the IT computer requirements (train movement, revenue accounting, car accounting, etc.) would be outsourced to CERR's principal software vendor/contractor—RMI. (Id. at III-D-67 and III-D-69.) Consumers states that the six-person IT staff would allow for at least one person on duty during normal business hours seven days a week, and each technician would be on call periodically for evening duty, thereby providing 24/7 coverage. (Id. at III-D-68.) The five IT specialists (Lead RMI Technician, Help Desk PC Technician, Network Engineer, Programmer/Development, and IT Security/Server/Programmer) would each be cross-trained to provide basic IT support when serving as the on-call technician. (Id. at III-D-69 to III-D-70.)

On reply, CSXT largely accepts Consumers' proposed staffing, but with some additions.⁸³ First, CSXT argues that additional staffing is necessary to develop, implement, and maintain a variety of internal systems to tie disparate software systems together in an internal CERR interface. (CSXT Reply III-D-97, Mar. 7, 2016.) CSXT further argues that one Help Desk technician is not sufficient and that additional IT staff is therefore necessary to support employees and facilities, particularly in the Chicago area. (*Id.* at III-D-97 to III-D-98.) CSXT thus proposes an IT Help Desk technician to work at Barr Yard, as well as two additional Help Desk employees. (*Id.* at III-D-98.)⁸⁴

The Board finds Consumers' proposed IT staffing to be feasible and supported. CSXT has not shown why the proposed six-person IT department would be unable to provide adequate support to the CERR system. CSXT premises its argument for a Barr Yard technician on an expanded Chicago office presence, including three crew on-duty facilities in Chicago, but as discussed in the RPI section, the Board has determined that the need for an expanded presence in Chicago is unsupported. CSXT has not demonstrated the need for physical IT support for Barr Yard or shown why 24/7 remote support would be inadequate. Nor has CSXT provided a persuasive argument or support for two additional Help Desk employees. CSXT asserts that a single Help Desk PC Technician is not enough, adding that, "[i]f an employee is not available 24/7 at the West Olive headquarters and there is an IT problem, the CERR's business would halt." (CSXT Reply III-D-97, Mar. 7, 2016.) This argument, however, does not account for Consumers' proposal to have the six-person IT staff rotate on call to provide 24/7 coverage, described above.

6. Compensation

The parties agree that the annual salaries for CERR's non-executive and general administrative personnel would be based on data contained in CSXT's Wage Form A and B Reports. (Consumers Opening III-D-73; CSXT Reply III-D-100, Mar. 7, 2016.) The parties also agree that annual salaries for CERR's executive personnel would be based on salaries and bonuses paid to officers in comparable positions at the Providence & Worcester Railroad

⁸³ Consumers proposes that the Director of IT report to the Vice President-Law & Administration. (Consumers Opening III-D-60.) CSXT asserts that the Director of IT should report directly to the President. (CSXT Reply III-D-73, III-D-97, Mar. 7, 2016.) As discussed above, the Board adopts Consumers' proposed structure of the Executive Department, which entails only the three Vice Presidents reporting directly to the President.

⁸⁴ The Board granted CSXT's request to strike Consumers' rebuttal evidence on Information Technology Staffing. December 2016 Decision, slip op. at 10-11.

Company (P&W), a publicly traded Class II railroad.⁸⁵ (Consumers Opening III-D-73; CSXT Reply III-D-100, Mar. 7, 2016.)⁸⁶ The Board will accept the parties' agreement on this issue.

7. Materials, Supplies, and Equipment

On opening, Consumers calculates the costs for materials, supplies, and equipment used to support operating personnel (other than MOW personnel) and G&A personnel, including the costs for motor vehicles, office furniture, supplies and equipment, building utilities, personal safety equipment, end-of-train devices, motorized carts, tools and car part inventories. (Consumers Opening III-D-76; WPs "CERR Operating Expense_Open.xlsx" & "CERR Materials and Supplies_Open.xlsx.") CSXT accepts most of these submissions with some exceptions, as discussed below.

a. Vehicles

Consumers proposes that CERR would lease a pool of 15 Ford F150s to support its Security staff in the field, as well as the 11 members of the non-train operating staff who would need to be able to drive to various points along the CERR system. (Consumers Opening III-D-76.) On reply, CSXT proposes to provide vehicles specifically matched to the functional needs of the employees and assigns them either individually, by department pool, or by location pool. (CSXT Reply III-D-64, III-D-102, Mar. 7, 2016). Accordingly, CSXT proposes 11 vehicles with an average cost of \$9,781 (compared to \$11,018 to own and operate Ford F150s) for Operating staff and an additional 15 cars for G&A staff, with an average cost of \$9,273. (*Id.* at III-D-102.) CSXT asserts that the increase in vehicles is necessary to accommodate the increases in staff, particularly for the security function. (*Id.* at III-D-102.) On rebuttal, Consumers maintains that 15 vehicles are appropriate for the staffing size it proposes. (Consumers Rebuttal III-D-103, May 20, 2016.) Consumers further argues that having one standardized truck that can accommodate multiple passengers enables CERR to move people and small equipment across the system in any weather and terrain. (*Id.* at III-D-103 to III-D-104.)

With one modification, the Board finds Consumers' proposed vehicle fleet of F150s to be feasible and supported, given the size and needs of CERR's staff. The Board will adopt one additional truck (16 total) to account for the addition of the Assistant Chief of Police. Consumers agreed to the addition of this position but did not provide for an associated vehicle, despite providing vehicles for each of the CERR's other security agents. CSXT argues that a larger vehicle fleet is necessary to accommodate a larger staff, particularly its proposed increase

⁸⁵ The Board has since noted that P&W is a Class III railroad. See Genesee & Wyo. Inc.—Acquis. of Control Exemption—Providence & Worcester R.R., FD 36064, slip op. at 1 (STB served Dec. 16, 2016).

⁸⁶ On reply, CSXT proposes compensation for three outside directors. (CSXT Reply III-D-100 to III-D-101, Mar. 7, 2016.) As discussed above, the Board accepts Consumers' proposed Board of Directors that would include three outside, uncompensated directors.

in the number of security agents. However, as discussed in the Law & Administration section, the Board declines to adopt the additional security agents proposed by CSXT. CSXT also fails to demonstrate that use of a standardized vehicle would be infeasible. The Board finds that CSXT has not provided adequate evidence to undermine Consumers' proposal and that the vehicle fleet proposed by Consumers, with the additional truck included, is reasonable.

b. Office Supplies

Consumers accounts for the cost of office supplies on opening. (Consumers Opening WP "CERR Materials and Supplies_Open.xlsx.") CSXT agrees to the cost of office supplies but scales the purchases to meet the needs of the CERR staff it has proposed. (CSXT Reply III-D-65, III-D-102, Mar. 7, 2016.) CSXT also increases the number of desks for Dispatchers and Call Crews to allow each employee to have two desks to perform both primary and ancillary business functions. (*Id.* at III-D-65.) On rebuttal, Consumers rejects the additional desks, asserting that one desk set-up can easily facilitate additional functions, such as car tracing and email. (Consumers Rebuttal III-D-104, May 20, 2016.)

The Board will apply Consumers' proposed cost of office supplies to meet the needs of staff adopted by the Board herein. The Board finds that CSXT has not provided sufficient justification for additional desks for Dispatchers and Call Crews, and concludes that each employee can easily perform both primary and ancillary business functions with a single desk.

c. Utilities

The parties agree to the methodology used to derive utility costs, at \$2.06 per square foot. (Consumers Opening WP "CERR Utility Cost_Open.xlsx"; CSXT Reply III-D-65, III-D-102, Mar. 7, 2016.) The Board will apply this utility cost to CERR's square footage adopted herein.

d. Personal Safety Equipment

The parties agree to Consumers' proposed cost per employee for safety equipment for T&E employees, Equipment Inspectors, and Operating Department management employees. (CSXT Reply III-D-66, Mar. 7, 2016; Consumers Rebuttal III-D-105, May 20, 2016.) The Board will apply the personal safety equipment cost to the staff adopted herein.

e. End-of-Train Units

The parties agree to Consumers' proposed cost of each End-of-Train unit and agree that the number of devices should equal the number of locomotives. (CSXT Reply III-D-66, Mar. 7, 2016; Consumers Rebuttal III-D-105, May 20, 2016.) The Board will adopt the cost and apply it to the number of locomotives adopted herein.

f. Travel Budget

The parties agree to Consumers' proposed cost per traveler and agree to extend those costs to the Manager-Operating Rules, Safety & Training and the MLO. (CSXT Reply III-D-67, Mar. 7, 2016; Consumers Rebuttal III-D-105, May 20, 2016; CSXT Reply III-D-13, Mar. 6, 2017.) The Board will adopt the cost and apply it to the staff adopted herein.

g. Car Inspector Equipment

Consumers provides four motorized carts for inspectors at Barr Yard, with a cost of \$4,625 per cart. (Consumers Opening III-D-77; Consumers Suppl. Evid. WP "CERR Operating Expense_Supplemental.xlsx.") On supplemental reply, CSXT provides two carts at Barr Yard and one cart at West Olive. (CSXT Reply III-D-12, Mar. 6, 2017.) CSXT also asserts that Consumers fails to account for fuel costs for carts. (CSXT Reply III-D-67, Mar. 7, 2016.) On rebuttal, Consumers argues that a cart at West Olive is not necessary, because the car inspector is not under time pressure to complete the inspection of an empty train, and there are no paved roads for the cart. (Consumers Rebuttal III-D-106, May 20, 2016.) Consumers also notes that, contrary to CSXT's claim, fuel costs are included in the cost for carts. (Id. at III-D-106.)

The Board finds Consumers' proposal to not have a cart at West Olive to be infeasible, given the parts, tools, and supplies that would be handled there. Thus, the Board will include an additional cart for West Olive, as proposed by CSXT. The Board will also adopt CSXT's proposal of two carts at Barr Yard. CSXT explains that an inspection team requires two carts, (CSXT Reply III-D-57, Mar. 7, 2016), a point that Consumers does not appear to contest. Because the parties agree to have one two-person team of inspectors stationed at Barr Yard on a 24/7 basis (CSXT Reply III-D-12, Mar. 6, 2017; Consumers Rebuttal III-D-7, Apr. 13, 2017), CERR only needs two carts at Barr Yard. The Board also finds that Consumers' evidence shows that the unit cost for carts includes fuel; as such, the Board will not include an additional cost for fuel as proposed by CSXT. (See Consumers Opening WP "CERR Materials and Supplies_Open.xls," Tab "Insp Tool Carts.")

Accordingly, the Board will adopt Consumers' proposed unit costs of carts and tool kits and apply it to two carts at Barr Yard and one cart at West Olive.

8. Other**a. Information Technology Systems**

Consumers proposes a Windows NT/PC-based Information Technology (IT) system, which entails a Transportation Management System (TMS), an integrated system for managing day-to-day rail operations, that is outsourced to RMI in Atlanta, Ga. (Consumers Opening III-D-31, III-D-78.) For CERR's crew management system, Consumers proposes that CERR would purchase a license from PS Technology for the SCAT Client Server system and related equipment and software (Oracle Data Base). (Id. at III-D-79.) For the CERR Dispatching

System, CERR would purchase and implement a PC-based version of the Alstom CTC Dispatching system, which would be assisted by two dispatchers on a 24/7 basis. (*Id.*) Consumers proposes that CERR use RMI Revenue Management Services to handle interline settlements for all trainload transactions and multiple-car transactions. (*Id.* at III-D-80.) For car accounting, Consumers proposes an RMI car hire system for receipts and payables. *Id.* CERR would use the Oracle Solutions package for its general accounting system. (*Id.* at III-D-81.) The Oracle Solutions package includes “PeopleSoft,” which CERR would use for its Human Resources (HR) system. (*Id.* at III-D-81 to III-D-82.) Consumers accounts for networking and router equipment, as well as personal computers, laptops, and printers for CERR employees and workstations. (*Id.* at III-D-82 to III-D-83.) Consumers proposes a telephone system and telephone service to handle external and internal telephone activity, as well as mobile phones, pagers, and email service for employees. (*Id.* at III-D-84.) Consumers states that AT&T would provide data telecommunications to support TMS. (*Id.*) Lastly, Consumers accounts for the cost of software maintenance products and security software. (*Id.* at III-D-85.)

CSXT makes several adjustments to Consumers’ IT systems. First, CSXT increases the total amount of computer equipment (desktop computers, laptop computers, and printers) to accommodate the larger workforce it proposes. (CSXT Reply III-D-103, Mar. 7, 2016.) Second, CSXT asserts that three additional Oracle modules are necessary: (1) Asset Tracking, to track and depreciate assets; (2) Inventory Management, to track purchasing inventory; and (3) Project Procurement, to manage project activities for purchasing and expenditure. (*Id.*) Third, CSXT states that an additional T1 back-up line is necessary to ensure communication between CERR and RMI. (*Id.* at III-D-103 to III-D-104.) Lastly, CSXT challenges Consumers’ proposed implementation cost for Oracle as inadequate, asserting that a “conservative” cost would be the \$10,000 implementation cost for the HR module (as proposed by Consumers on opening), plus four times the cost of the software to implement the Accounting modules, an approach it asserts that the Board approved in *E.I. DuPont de Nemours & Co. v. Norfolk Southern Railway*, NOR 42125, slip op. at 96 (STB served Mar. 24, 2014), corrected & updated, NOR 42125 (STB served Oct. 3, 2014), reconsideration denied, NOR 42125 (STB served Dec. 23, 2015). (CSXT Reply III-D-104, Mar. 7, 2016.)⁸⁷

On rebuttal, Consumers maintains its proposed number of computer systems and accessories, with the addition of one computer set-up for the one additional employee it accepts on rebuttal. (Consumers Rebuttal III-D-107, May 20, 2016.) Consumers asserts that the additional Oracle modules proposed by CSXT are not necessary, given that: CERR has few assets that require regular tracking; its inventory of materials is not extensive; and it is not involved in projects that require specialized procurement packages. (*Id.* at III-D-108.) Consumers accepts the proposed T1 back-up line but applies the cost for the T1 line used in opening. (*Id.* at III-D-108 to III-D-109.) Lastly, Consumers retains its opening implementation costs for the Accounting and HR modules, asserting that CSXT offers no explanation why the

⁸⁷ Although CSXT’s evidence includes a third-party estimate for Oracle implementation costs, CSXT does not argue that the Board should adopt that estimate instead of using the “four times the cost” approach CSXT advocates. (CSXT Reply III-D-104, Mar. 7, 2016.)

“four times” software cost calculation used in DuPont, NOR 42125, should apply here. (Id. at III-D-109.)

The Board finds Consumers’ proposed IT Systems to be feasible and supported given CERR’s size and G&A requirements. The Board will apply the costs of computer systems and accessories to the staff adopted in this decision. The Board finds that CSXT has not adequately demonstrated the need for the three additional Oracle modules or why the Oracle Solutions package is inadequate, given the size and needs of CERR. Regarding the cost of the T1 back-up line, CSXT does not explain the discrepancy between the cost of the primary T1 line (used by Consumers on opening) and the back-up T1 line that it proposes on reply. Therefore, the Board will use the cost of the T1 line presented by Consumers on opening for both the primary and back-up T1 lines. Lastly, the Board finds that CSXT’s implementation cost for Oracle is unsupported. CSXT is correct that the Board approved a “four times software implementation cost” in DuPont, NOR 42125, but acceptance of that cost was based on specific deficiencies in DuPont’s evidence in that case. See DuPont, NOR 42125, slip op. at 96 (“NS provided adequate supporting evidence for its Oracle implementation costs and DuPont did not”). Here, in contrast, Consumers has proposed appropriate information technology costs, and CSXT has failed to undermine Consumers’ evidence.

b. Other Outsourced Functions

Consumers proposes that CERR outsource several services and estimates the annual costs for outsourcing payroll processing, financial audit, internal audit, tax preparation, outside legal, and headquarters security in West Olive, Mich. (Consumers Opening III-D-86; Consumers Opening WP “CERR G&A Outsourcing_Open.xlsx,” Tab, “Outside Services.”)

CSXT accepts most of the outsourced costs but argues that Consumers’ outsourcing cost for financial audit of \$32,903 is too low. (CSXT Reply III-D-104, Mar. 7, 2016.) CSXT states that Consumers based its figure on CSXT’s real-world percentage of revenue financial audit costs and argues that CERR would not have the economies of scale that the much larger CSXT organization has. (Id. at III-D-104 to III-D-105.) CSXT argues that a more comparable figure for financial audit cost would be the \$120,000 audit cost of P&W. (Id. at III-D-104, Mar. 7, 2016.) On reply, CSXT also includes in its outsourcing calculation the costs of security for a Chicago headquarters, as well as hazardous materials cleanup. (CSXT Reply WP “CERR G&A Outsourcing_Reply.xlsx,” Mar. 7, 2016.)

On rebuttal, Consumers argues that its approach to developing the financial audit cost is consistent with the approach that the Board accepted in Sunbelt 2014, NOR 42130, which involved a small SARR. (Consumers Rebuttal III-D-110 to III-D-111, May 20, 2016.) Consumers also excludes the costs of security expenses for a Chicago building, because it rejects the addition of a Chicago headquarters. (Id. at III-D-111.) Lastly, Consumers agrees to include a cost for hazardous materials expenses, though places it within its MOW costs on rebuttal. (Id.

at III-D-111 to III-D-112; Consumers Rebuttal WP “Rebuttal CERR MOW Costs.xlsx,” May 20, 2016.)⁸⁸

The Board finds Consumers’ outsourcing costs to be feasible and supported. Consumers’ calculation of audit costs, which uses “CSXT’s actual cost as a percentage of revenues over a three-year period” (Id. at III-D-111), is consistent with the approach used in Sunbelt 2014, NOR 42130. See Sunbelt 2014, NOR 42130, slip op. at 63-64. CSXT has not sufficiently undermined Consumers’ proposal or demonstrated why the audit costs for the publicly traded P&W would be an appropriate measure for the CERR. As discussed in the MOW section, because the Board is not adopting an additional CERR headquarters in Chicago, it will not accept the additional outsourced security costs proposed by CSXT.

c. Start-up and Training Costs

On opening, Consumers treats CERR’s start-up and recruitment costs as an operating expense in CERR’s first year of operations. (Consumers Opening III-D-87.) Training costs include both training costs (based on CSXT’s Railroad Education & Development Institute) and employee compensation while in training. (Id. at III-D-87 to III-D-88.) Consumers calculates recruiting costs for Executives as a percentage of salaries, based on fees provided by CSXT in discovery and includes a \$1,000 cost per employee. (Id. at III-D-88 to III-D-89.) Consumers bases CERR’s subsequent annual recruitment and training expenses on a 4.35% average annual attrition rate. (Id. at III-D-89.)

On reply, CSXT generally accepts Consumers’ proposed start-up and training costs but applies its own attrition figure. (CSXT Reply III-D-105, Mar. 7, 2016.) CSXT argues that Consumers’ attrition figure is flawed because, in constructing its attrition rate, Consumers only used the attrition data for employees who were terminated, omitting attrition data for employees who left for other reasons, such as deaths and retirements. (Id. at III-D-106 to III-D-107.) CSXT also faults Consumers for using a system-wide average attrition rate that does not account for differences by category of employee. (Id.)

On rebuttal, Consumers agrees to calculate the attrition rates by job category. (Consumers Rebuttal III-D-113, May 20, 2016.)

The Board will adopt Consumers’ method for calculating start-up and training costs. However, the Board finds that Consumers’ attrition rate is not supported or feasible. Consumers does not explain why it would be appropriate to account for only terminated employees in calculating its attrition rate. Including attrition data that accounts for other forms of separation,

⁸⁸ Consumers also asserts that CSXT incorrectly calculates outside legal expenses (Consumers Rebuttal III-D-110, May 20, 2016), which the Board addresses in the Law & Administration section above.

such as deaths or retirements, is consistent with Board precedent. See Sunbelt 2014, NOR 42130, slip op. at 64-65. Accordingly, the Board will adopt CSXT's attrition rates and apply them by job category.

d. Travel Expense

Consumers includes travel expenses for all CERR employees at the Director level and higher, for CERR's Marketing Managers, its Security Staff, and the three outside members of CERR's Board of Directors. (Consumers Opening III-D-89.) On reply, CSXT agrees to include travel costs for employees at the Director level and higher and accepts the proposed benchmark. CSXT also adds 14 travelers, all of whom are at the Director level and higher. (CSXT Reply III-D-106, Mar. 7, 2016.)

The Board will adopt Consumers' inclusion of travel costs for all CERR employees at the Director level and higher and accepts the proposed benchmark. Because the Board is rejecting CSXT's proposed employees, as discussed above, the Board will not adopt CSXT's travel expenses for those employees.

F. MOW

A summary of the MOW expenses is set forth in the table below. Disputed components of these expenses are then discussed.

TABLE B-5

MOW Expenses			
MOW Expense Categories	Consumers Supplemental Rebuttal	CSXT Alternative 1	STB
MOW Staff	\$6,218,635	\$8,738,992	\$7,291,845
Vegetation Control	50,538	54,363	50,388
Track Geometry Testing	24,397	26,244	24,325
Joint Bar Testing	16,000	17,262	16,000
Ultrasonic Rail Testing	25,683	28,520	25,881
Yard Cleaning	17,000	17,000	17,000
Annualized Equipment Cost ⁸⁹	1,529,584	2,725,652	1,875,311
Contract Snow Removal	160,000	160,000	160,000
Storm Debris Removal	25,000	25,000	25,000
Derailments and Clearing Wrecks	154,794	154,794	154,794
Washouts	30,000	30,000	30,000
Bridge Repair Costs	8,000	8,000	8,000
Building Maintenance	121,122	355,150	141,031
Communications Equipment Maintenance	215,327	241,746	217,234
Crossing Repaving	329,236	1,097,047	299,936
Payment from Michigan for At-Grade Crossing Signal Maintenance	(202,582)	(202,582)	(202,582)
Rail Grinding	55,911	55,543	55,543
Rail Grinding of Switches and Crossings	14,653	13,886	13,886
Environmental Cleanup	10,000	10,000	10,000
Total MOW Expenses	8,803,297	13,532,731⁹⁰	10,213,592

⁸⁹ This expense includes equipment purchase, maintenance, and fuel.

⁹⁰ CSXT failed to include the expenses for Rail Grinding of Switches and Crossings and Environmental Cleanup in its total annual MOW expenses. (See CSXT Reply WP “CERR

1. Personnel/Staffing

a. Headquarters General Office and Supervisory Staff

The parties agree on four general office staff members: Track Engineer; C&S Engineer; Bridge Engineer; and Engineer of Programs, Budgets, Safety, and Training. (Consumers Opening III-D-94, Table III-D-15; CSXT Reply III-D-117, Mar. 7, 2016.) The Board accepts these agreed-upon general office staff positions.

Below, the Board addresses the parties' disputes regarding the MOW headquarters location, CSXT's addition of a Public Projects Engineer, and CSXT's addition of an Administrative Assistant at Barr Yard.

i. MOW Headquarters Location

On opening, Consumers locates CERR's MOW headquarters at West Olive. (Consumers Opening III-D-94, Table III-D-15.) On reply, CSXT proposes to locate CERR's MOW headquarters at Barr Yard in Chicago. CSXT argues that it would be inefficient to locate the MOW headquarters at West Olive because the majority of CERR's maintenance needs will be on the urban segment of the line. (CSXT Reply III-D-116 to III-D-117, Mar. 7, 2016.) On rebuttal, Consumers argues CSXT's proposal is unnecessary because the MOW supervisory staff are not field staff⁹¹ and do not need to be located at Barr Yard to do their jobs. (Consumers Rebuttal III-D-123, May 20, 2016.) Consumers further argues that it is necessary for the MOW supervisory staff to be located at West Olive, where the rest of CERR's supervisory staff are located, and that having the MOW supervisory staff located elsewhere would unnecessarily complicate inter-departmental coordination. (Id. at III-D-123 to III-D-124.) Finally, Consumers argues that this relocation of the MOW headquarters is not necessary because even real-world CSXT's MOW management staff are not located "proximate to the key areas being maintained"; rather, CSXT's headquarters is located hundreds of miles from critical maintenance areas like Chicago and New Jersey. (Id. at III-D-124.)

Consumers' proposal to locate CERR's MOW headquarters and supervisory staff at West Olive with the rest of CERR's supervisory and administrative staff is feasible and supported. The reasons Consumers gives for locating the MOW supervisory staff at CERR headquarters, including that the MOW supervisory staff are not field staff and having the MOW supervisory staff located elsewhere would complicate inter-departmental coordination, are persuasive, and CSXT does not effectively undermine the feasibility of Consumers' proposal. The Board,

MOW Costs_Supp_Reply_Alt1.xlsx," Tab "Reply Annual MOW Expense," Cell G26, Mar. 6, 2017.)

⁹¹ Field staff are CERR staff responsible for day-to-day inspection and maintenance activities on the line. (See Consumers Opening III-D-91.)

therefore, will accept Consumers' proposal to locate the MOW supervisory staff at West Olive with the rest of the headquarters supervisory staff.

ii. Public Projects Engineer

On opening, Consumers does not propose a Public Projects Engineer. On reply, CSXT proposes a Public Projects Engineer, which it argues is necessary due to CERR's location "in a dense metropolitan area where large and frequent public projects occur on a regular basis." (CSXT Reply III-D-118, Mar. 7, 2016.) CSXT states the Public Projects Engineer would be responsible for interfacing with government agencies and other entities for various types of public projects, including rail/highway grade separations, new grade crossings, utility projects, and ROW encroachments; negotiating agreements and monitoring their implementation; and coordinating with in-house engineering staff as needed. (*Id.* at III-D-117.) CSXT also argues Board precedent supports the need for a Public Projects Engineer. (*Id.* at III-D-117 to III-D-118 (citing Sunbelt Chlor Alkali P'ship v. Norfolk S. Ry. (Sunbelt 2014), NOR 42130, slip op. at 85 (STB served June 20, 2014), petition for reconsideration granted in part and denied in part (STB served June 30, 2016) (with Board Member Begeman dissenting in both), appeal docketed sub nom. Sunbelt Chlor Alkali P'ship v. STB, No. 16-15701 (11th Cir. Aug. 26, 2016).) On rebuttal, Consumers argues that the Board should reject the addition of this position. Consumers claims that most of CERR's route miles are on the lightly used segment of the line, thus limiting the number of public projects that would affect CERR. (Consumers Rebuttal III-D-124, May 20, 2016.) Consumers also argues that the work CSXT claims must be performed by the Public Projects Engineer can be handled by the Chief Engineer, Track Engineer, and Bridge Engineer. (*Id.* at III-D-125.)

Consumers has not shown that its proposal to have the work of a Public Projects Engineer performed by other employees is feasible and supported. For example, Consumers did not show that a railroad of comparable size operating in a similar environment would not have a Public Projects Engineer, and CSXT's argument that CERR would likely have large and frequent public projects undermined Consumers' position. In contrast, CSXT has sufficiently demonstrated that there are additional responsibilities involving public projects that Consumers did not account for opening. As CSXT notes, a portion of CERR is in a dense metropolitan area where large and frequent public projects occur on a regular basis. The urban portion of CERR, where most of the public projects could be expected to occur, accounts for almost half of the total CERR track miles. CSXT has also sufficiently supported its proposal to have these responsibilities performed by a Public Project Engineer. Consumers' general assertions on rebuttal that various engineers could handle this function does not effectively undermine CSXT's position. The Board, therefore, will accept CSXT's inclusion of a Public Projects Engineer.

iii. Administrative Assistant

On opening, Consumers states the MOW department will share administrative staff with the G&A department, as needed. (Consumers Opening III-D-110.) On reply, CSXT proposes one MOW-specific Administrative Assistant to be located with the MOW supervisory staff,

which, as discussed above, CSXT proposes to locate at Barr Yard. (CSXT Reply III-D-118, Mar. 7, 2016.) CSXT argues this position is necessary because the G&A department's administrative needs will fully occupy the G&A administrative personnel. Additionally, CSXT proposes to locate CERR's MOW headquarters at Barr Yard, away from the rest of the supervisory and office staff at West Olive. (*Id.*) On rebuttal, Consumers argues that the addition of this position is unnecessary because CERR is a small railroad and, as a result, employees would be cross-trained to handle tasks from multiple departments, while senior employees could also take on more administrative responsibilities than they would at a larger organization. (Consumers Rebuttal III-D-125, May 20, 2016.) Consumers also argues that the addition of this position is premised on CSXT's proposal to locate the MOW supervisory staff at Barr Yard and, because Consumers rejects that relocation, this position should also be rejected. (*Id.* at III-D-125 to III-D-126.)

Consumers' proposal for handling the administrative needs of CERR's MOW department without a MOW-specific administrative assistant is feasible and supported, especially in light of CERR's small size. CSXT argues that the other G&A administrative personnel would be too busy to handle the MOW department's administrative work, but has not sufficiently supported that argument. CSXT therefore has not undermined the feasibility of Consumers' proposal. Furthermore, as discussed above, the Board has rejected CSXT's proposal to relocate the MOW headquarters, including MOW supervisory staff, to Barr Yard. The Board will therefore accept Consumers' proposal not to include an administrative assistant in the MOW staff.

TABLE B-6

MOW Staff: HQ Office & Supervisory Employees			
MOW Staff Categories	Consumers Supplemental Rebuttal	CSXT Alternative 1	STB
Administrative Assistant	0	1	0
Public Projects Engineer	0	1	1
Engineer of Programs, Budgets, Safety, and Training	1	1	1
Total MOW HQ Office & Supervisory Employees	1	3	2

b. Field Staff

i. Track Department

The parties agree on the need for one Roadway Equipment Mechanic and one Smoothing Crew consisting of one Foreman and two Crew Members/Machine Operators. (Consumers Opening III-D-102 to III-D-103; CSXT Reply III-D-126 to III-D-127, Mar. 7, 2016.) The Board

accepts these agreed-upon positions. However, the parties disagree on the number of Track Supervisors and Assistant Track Supervisors, and the number and composition of Track Crews. The parties also disagree on the number of Roadway Machine Operators and Welder/Helper/Grinder Crews.

Track Supervisors and Assistant Track Supervisors. On opening, Consumers proposes one Track Supervisor (equivalent to a Class I railroad's Roadmaster) and three Assistant Track Supervisors. (Consumers Opening III-D-96, III-D-97.) Consumers argues CERR requires only one Track Supervisor district because of its size.⁹² (*Id.* at III-D-97.) While Consumers admits its proposed Track Supervisor covers more territory than the Board has accepted in recent cases, it argues a second Track Supervisor is unnecessary because the rural segment of CERR is light density. (*Id.*) Consumers proposes three Assistant Track Supervisors to assist the Track Supervisor. (*Id.* at III-D-97 to III-D-98.) Consumers states that two of these Assistant Track Supervisors are primarily responsible for conducting routine and special track inspections under FRA regulations, with one responsible for the more rural Porter to West Olive segment (rural segment), and the other responsible for the more urban 22nd Street to Curtis segment (urban segment). Consumers proposes that both assist in routine field supervision of the Track Crews. Consumers states the third Assistant Track Supervisor is primarily responsible for assisting the Track Supervisor with other MOW activities including: routine switch inspections; vehicle maintenance coordination; scheduling the work of track and other field crews; checking quality behind track crews and other light maintenance; additional track inspections dictated by temperature, weather conditions, or emergency situations; and assisting with routine track inspections when one of the other two Assistant Track Supervisors is unavailable. (*Id.* at III-D-98.)

On reply, CSXT argues Consumers' proposal for one Track Supervisor is inadequate, as it results in the sole Track Supervisor having to cover a territory larger than the Board has accepted in past cases and fails to consider the intensive maintenance needs of the urban segment of the line. (CSXT Reply III-D-120 to III-D-121, Mar. 7, 2016 (citing Sunbelt 2014, NOR 42130, slip op. at 72-73; Ariz. Elec. Power Coop. v. BNSF Ry., NOR 42113, slip op. at 67 (STB served Nov. 22, 2011), pet. for review denied sub nom. BNSF Ry. v. STB, 748 F.3d 1295 (D.C. Cir. 2014)).) CSXT further argues Consumers fails to consider that, while CERR does not maintain the 15 miles of rail line between Pine Junction and Porter connecting CERR's urban and rural segments, a Track Supervisor would still be required to travel this distance between the two segments of CERR's line, and thus the Track Supervisor would actually be required to cover 175 route miles of territory. (CSXT Reply III-D-121, Mar. 7, 2016.) CSXT notes that, by comparison, Track Supervisors are usually located at the midpoint of 100-route mile territories, and thus are only usually required to travel a maximum of 50 miles from their headquarters. (*Id.*)

⁹² Consumers calculates the size of CERR as 160.52 route miles and 215 track miles. (Consumers Opening III-D-97.) As discussed in the Operating Plan section of this decision, the Board is accepting CSXT's operating plan, and therefore CSXT's mileage for CERR: 161.12 route miles and 233.9 track miles.

Accordingly, CSXT proposes that CERR have two Track Supervisors and two Assistant Track Supervisors: one Supervisor and Assistant pair to be located at West Olive with responsibility for the rural segment, and a second pair to be located at Barr Yard with responsibility for the urban segment, with both Assistant Track Supervisors dedicated to inspections. (Id. at III-D-122.) CSXT states that, under its proposal, the Supervisor and Assistant assigned to the urban segment would be responsible for 36 route miles and 86 track miles of territory,⁹³ which would include 57 switches and 43 crossings. (Id.) CSXT argues that, while its proposal creates a smaller territory for the urban segment in terms of route miles than the Board typically accepts, the urban segment's track miles are 50% curved track and have high tonnage and many switches, resulting in a high workload per mile in an urban setting, not to mention that the segment is in an urban area with congestion and low travel speeds. (Id.) CSXT also states that the Supervisor and Assistant assigned to the rural segment would maintain a larger territory that has 122 route miles but low traffic density and tonnage, fewer switches and crossings, and limited curvature. (Id.)

On rebuttal, Consumers argues that the precedent on which CSXT relies in support of its proposal is distinguishable, as those cases involved SARRs that did not include longer, light density segments like CERR has. Consumers thus claims the addition of a second Track Supervisor is excessive and wasteful. (Consumers Rebuttal III-D-127, May 20, 2016.) Consumers further argues CSXT's proposal to allot 50% of the Track Supervisors to the rural segment could place unnecessary and excessive strain on the Supervisor and Assistant located at Barr Yard, should multiple track issues occur on the urban segment simultaneously. (Id.) Consumers argues its proposal for one Track Supervisor and three Assistant Track Supervisors (with one Assistant Track Supervisor located at Grand Junction with responsibility for the rural segment, and two Assistant Track Supervisors located at Barr Yard, one to handle the urban segment and one to assist the Track Supervisor) more appropriately accounts for the unique characteristics of both the urban and rural segments of CERR because it allows for three supervisory-level track personnel to handle the Chicago area but also provides flexibility for the rural segment of the line. (Id. at III-D-127 to III-D-128.)

Consumers' proposal for one Track Supervisor and three Assistant Track Supervisors is feasible and supported. As CSXT notes, the average Track Supervisor district size accepted by the Board in other cases is less than the single (236-mile) district Consumers proposes here. But here, Consumers justifies a departure from the average district size.⁹⁴ As Consumers notes, district size depends on many factors, the most important of which is anticipated workload,

⁹³ CSXT updated the length of the urban segment on supplemental evidence to 37 route miles and 84 track miles. (CSXT Reply III-D-20, Table III-D-25, Mar. 6, 2017.)

⁹⁴ The Board also notes that, although CSXT cites prior cases in an attempt to undermine Consumers' proposal for its single territory, the figures it references in those cases are *average* territory sizes. Individual Track Supervisor territories in those cases were both below and above those cited figures.

which, in turn, depends on other factors such as gross tonnage. Ariz. Elec., NOR 42113, slip op. at 67-68. CERR presents an unusual situation, with a significant portion of the line being comprised of a rural segment with very light density, i.e., low gross tonnage. In addition, the flexibility provided by Consumers' three Assistant Track Supervisors still ensures adequate coverage for the line, despite having only one Track Supervisor, because it provides the potential for three supervisory-level track personnel (one Track Supervisor and two Assistant Track Supervisors) to work on any one segment of the line at the same time. Though CSXT presents an alternative approach, CSXT's evidence has not undermined the feasibility of Consumers' proposal. The Board therefore accepts Consumers' proposal of one Track Supervisor and three Assistant Track Supervisors.

Track Crews. On opening, Consumers proposes three field track crews to perform routine and periodic maintenance, each comprised of three individuals: one Foreman and two Crew Members. (Consumers Opening III-D-98 to III-D-100.) Consumers also proposes to assign to each track crew one Roadway Machine Operator, who operates a backhoe and is "effectively is a third track crew member." (Id. at III-D-98, III-D-100.) Consumers proposes to locate one crew near Grand Junction, to be responsible for maintenance of the line between West Olive and the Michigan-Indiana state line, and the other two crews at Barr Yard, to share responsibility for maintenance of the line between the Michigan-Indiana state line and 22nd Street. (Id. at III-D-98 to III-D-99.) Consumers argues having two crews responsible for maintenance between the Michigan-Indiana state line and 22nd Street enables quick response to multiple problems, as the area between Barr Yard and Curtis is double track with multiple crossovers, a significant number of interchange tracks, and diamond crossings. (Id. at III-D-99.) Consumers also argues locating two crews at Barr Yard enables the crews to assist each other, if necessary, and reduces travel times in possibly heavy Chicago traffic. (Id.) In support of its proposal, Consumers argues the territory assigned to each track crew and the crew size are "consistent with modern practice on Class I and particularly regional/short line railroads (many of which use 2-person track crews)." (Id. at III-D-100.) Consumers also argues that the territory sizes reflect the fact that some track work is contracted out, thus further reducing the need for in-house staff. (Id.) Consumers further argues the Track Supervisors have available an excavator with dump truck and lowboy trailer and a Prentice Loader, with operators, which further limits the need for additional track personnel. (Id.)

On reply, CSXT disputes both Consumers' proposed number of employees per crew and the number of crews. First, CSXT argues Consumers' proposed three-person track crews (one Foreman and two Crew Members) are an unsupported departure from standard industry practice and Board precedent of accepting four-person track crews. (CSXT Reply III-D-123 to III-D-124, Mar. 7, 2016 (citing Sunbelt 2014, NOR 42130, slip op. at 73; E.I. DuPont de Nemours & Co. v. Norfolk S. Ry., NOR 42125, slip op. at 103-04 (STB served Mar. 24, 2014), corrected and updated, NOR 42125 (STB served Oct. 3, 2014), reconsideration denied, NOR 42125 (STB served Dec. 23, 2015); Ariz. Elec., NOR 42113, slip op. at 68; W. Fuels Ass'n, Inc. v. BNSF Ry. (W. Fuels 2007) NOR 42088, slip op. at 58 (STB served Sept. 10, 2007)).) CSXT argues that if Consumers wanted to depart from this precedent, it needed to demonstrate why three-person crews would be feasible for CERR, but it failed to do so. (CSXT Reply III-D-124, Mar. 7, 2016.) In particular, CSXT argues three-person track crews are neither safe nor productive, as it

would require the foreman—who is supposed to be in a position to monitor the safety of the crew—to instead be performing the work of the crew. (*Id.* at III-D-123.) CSXT also objects to Consumers’ proposal to have the backhoe operator also serve as an additional crew member. CSXT argues that it “is not feasible and indeed is potentially hazardous for the backhoe operator to continuously mount and dismount the backhoe to lend a hand with ground work.” (*Id.* at III-D-123 to III-D-124.) CSXT therefore argues CERR should have four-person track crews, made up of one Foreman and three Crew Members, in line with past Board precedent. (*Id.* at III-D-124.)

Second, CSXT argues that Consumers’ proposal to have three track crews is likewise inadequate and inconsistent with Board precedent. (*Id.*) CSXT argues Consumers’ proposal results in track crew districts averaging over 70 track miles per crew, which are larger than the 54- to 59-track mile average districts the Board has accepted in two of its recent cases. (*Id.* at III-D-125 (citing *Sunbelt 2014*, NOR 42130, slip op. at 73; *DuPont*, NOR 42125, slip op. at 103-04).) CSXT argues the intensive maintenance needs of the urban segment, including the large number of switches and high percentage of curved track, do not support CERR having larger-than-average track crew districts. (CSXT Reply III-D-125, Mar. 7, 2016.) Therefore, CSXT proposes to add a fourth track crew, resulting in average track crew districts of 53 track miles. CSXT proposes to locate two of the track crews at Barr Yard to cover the urban segment of the line, a third track crew at Barr Yard to cover the southern portion of the rural segment, and a fourth track crew at West Olive to cover the northern portion of the rural segment. (*Id.* at III-D-125.)

On rebuttal, Consumers argues that its proposal is consistent with *Intermountain Power Agency v. Union Pacific Railroad*, Docket No. NOR 42136, in which the parties agreed to use three-person track crews, with a fourth member who also operated the assigned roadway equipment. (Consumers Rebuttal III-D-129, May 20, 2016.) Consumers further argues CSXT’s proposal of a fourth track crew member ignores the fact that the crews are supported by welders, smoothing gangs, and other personnel, so there is no need to add additional track crew members without reducing the numbers of those other personnel. (*Id.*) Consumers also argues it would be “excessive and unrealistic” to expect that a backhoe operator would not assist the track crew in conducting maintenance, and would not be cross-trained and able to provide that assistance safely. (*Id.* at III-D-129 to III-D-130.) Regarding the number of track crews, Consumers also rejects CSXT’s addition of a fourth crew, arguing that CSXT has assigned this additional crew to the rural segment, which is unnecessary considering the low maintenance needs of that segment. (*Id.* at III-D-130.)

Consumers has not supported its argument that three-person track crews, consisting of one Foreman and two Crew Members each, are adequate for CERR’s track maintenance needs. While the parties in *Intermountain Power Agency*, Docket No. NOR 42136, agreed to three-person track crews with a fourth track crew member performing other duties, acceptance of that arrangement by the Board (which did not occur because the parties reached a voluntary settlement) would have made that case an outlier compared to other Board precedent, in which the parties agreed to, and the Board accepted, four-person track crews. See *Sunbelt 2014*,

NOR 42130, slip op. at 73; DuPont, NOR 42125, slip op. at 103-04; Ariz. Elec., NOR 42113, slip op. at 68; Total Petrochems. & Refining USA, Inc. v. CSX Transp., Inc. (Total Petrochems. 2016), NOR 42121, slip op. at 107-08 (STB served Sept. 14, 2016) (with Board Member Begeman dissenting in part). Consumers did not address why it believes this precedent is not relevant to CERR. Furthermore, Consumers' assertion that many regional and short line railroads have two-person track crews is not supported with evidence or any demonstration that these railroads are similar to CERR in mileage, traffic levels, number of signals, or number of crossings. Nor has Consumers shown that relying on other personnel, such as backhoe operators, to serve as the fourth track-crew member would be feasible.

In contrast, CSXT's proposal for four-person track crews, consisting of one Foreman and three Crew Members, is more consistent with the track crew sizes the Board has accepted in past cases. See Sunbelt 2014, NOR 42130, slip op. at 73 (accepting agreed-upon four-member crews); DuPont, NOR 42125, slip op. at 103-04 (accepting agreed-upon four-member crews), Ariz. Elec., NOR 42113, slip op. at 68 (accepting agreed-upon four-member crews); Total Petrochems. 2016, NOR 42121, slip op. at 107-08 (accepting agreed-upon four-member crews). The Board also finds compelling CSXT's arguments that a third track crew member is necessary because it is infeasible to have the backhoe operator act as a third crew member (while still performing backhoe operator duties), as Consumers proposes to do. CSXT's proposal is thus feasible and supported, based on both Board precedent and the evidence CSXT submitted, and the Board will accept four-person track crews.

With regard to the number of track crews, the Board finds that Consumers' proposal for three track crews, covering an average of 70 track miles per crew, is feasible and supported. As noted above, district size depends on many factors, the most important of which is anticipated workload, which, in turn, depends on factors including the density of the line. Consumers' proposal for three track crews is justified based on the light density, and thus less intensive maintenance needs, of the rural segment of CERR. CSXT argues that the more intensive maintenance needs of the urban segment require smaller-than-average track crew districts, but the Board does not find this compelling when considering the overall maintenance needs of CERR. The Board therefore accepts Consumers' proposal for three track crews.⁹⁵ Because the Board is accepting three track crews, each consisting of four members (one Foreman and three

⁹⁵ To the extent this is a departure from precedent, it is justified based on CERR's density and maintenance needs, as discussed above. Moreover, the 70-mile district size that results from Consumers' number of track crews is only slightly larger than the average track crew district size that the Board has accepted in some cases, and actually less than the average district size accepted by the Board in Total Petrochemicals 2016. See Sunbelt 2014, NOR 42130, slip op. at 73 (accepting districts averaging 54 track miles per crew); DuPont, NOR 42125, slip op. at 103-04 (accepting districts averaging 59 track miles per crew), Ariz. Elec., NOR 42113, slip op. at 68 (accepting 60 track miles per crew); Total Petrochems. 2016, NOR 42121, slip op. at 107-08 (accepting crews responsible for territories averaging 72 track miles on main lines and 100 track miles on branch lines).

Crew Members), CERR has a total of twelve track crew employees: three Foremen and nine Crew Members.

Roadway Machine Operators. On opening, Consumers proposes five Roadway Machine Operators: one Operator assigned to each of Consumers' proposed three track crews as a Backhoe Operator; one Operator assigned to a Prentice Loader, available system-wide; and one Operator assigned to an excavator, available system-wide. (Consumers Opening III-D-100.) The excavator operator is also assigned a hi-rail, three-way rotary dump truck and lowboy trailer used to move the excavator. (*Id.*) On reply, CSXT accepts Consumers' proposal for Roadway Machine Operators, (CSXT Reply III-D-126, Mar. 7, 2016), but because CSXT proposes that CERR have one additional track crew, it also adds one Roadway Machine Operator to be assigned to its fourth track crew as a Backhoe Operator. (*Id.*) On rebuttal Consumers rejects this additional Roadway Machine Operator because it rejects CSXT's proposed fourth track crew. (Consumers Rebuttal III-D-130 to III-D-131, May 20, 2016.) As discussed above, the Board is accepting Consumers' proposed three track crews. Because the parties agree to assign one Roadway Machine Operator to each track crew, the Board will, therefore, accept Consumers' proposal for five Roadway Machine Operators.

Welder/Helper Crews. On opening, Consumers proposes one, two-person welding crew, comprised of one Welder and one Helper, corresponding to Consumers' proposed single Track Supervisor territory. (Consumers Opening III-D-101.)⁹⁶ Consumers argues CERR has few turnouts and joints to maintain, so there will not be much need for welding repair on the newly-constructed CERR and, thus, welding crew members will be trained to do various relevant jobs, including assisting the B&B Department with welding on steel bridges and providing backup support on larger maintenance jobs. (*Id.* at III-D-101 to III-D-102.)

On reply, CSXT proposes two, two-person welding crews, coinciding with CSXT's proposed two Track Supervisor territories. (CSXT Reply III-D-126, Mar. 7, 2016.) In response to Consumers' claim that CERR has few turnouts and joints to maintain, CSXT argues that CERR has 83 switches, or one switch every 2.1 route miles, which it argues is on par with other SARRs. CSXT locates both welding crews at Barr Yard because two thirds of CERR's switches are on the urban segment, though it states that both crews can work anywhere on the line. (*Id.*) CSXT also argues having two welding crews is consistent with past precedent, in which the Board "recognized that the work load of each Track Supervisor normally justifies one welding crew." (*Id.* (citing Sunbelt 2014, NOR 42130, slip op. at 75; DuPont, NOR 42125, slip op. at 105).)

⁹⁶ Both parties title this section of their narratives "Welders/Helpers/Grinders." The Board has titled this section Welder/Helper Crews, and refers only to the job titles used by the parties in this section, Welder and Helper, for clarity, though the Board also notes that both parties assign the welding crew(s) grinding equipment (Consumers Opening III-D-131 to III-D-132; CSXT Reply III-D-137, Mar. 7, 2016 (accepting Consumers' proposed equipment types for MOW equipment used by field workers)), and therefore the welding crew also does grinding.

On rebuttal, Consumers argues CSXT's switch count is overstated because there are only 39 main line switches. (Consumers Rebuttal III-D-131, May 20, 2016.) Consumers also argues that CSXT has not suggested that no other crews can handle simple welding work. (Id.) Consumers further argues that only one welding crew is necessary to cover the critical territory and that a second crew is not warranted given the small number of switches on the rural segment of CERR. (Id.)

Because the Board is accepting Consumers' proposal of one Track Supervisor territory, as discussed above, the Board will also accept Consumers' proposal for one welding crew. CSXT's argument in favor of two welding crews is premised upon its proposal for two Track Supervisor districts, but it does not dispute that only one welding crew is needed for each Track Supervisor district. (CSXT Reply III-D-126, Mar. 7, 2016.) Moreover, Board precedent supports assigning one welding crew per Track Supervisor district. See Ariz. Elec., NOR 42113, slip op. at 69 (accepting complainant's proposed one, two-person Welder/Helper crew per Roadmaster territory, instead of defendant's proposed two welding crews per Roadmaster territory); see also Sunbelt 2014, NOR 42130, slip op. at 75 (accepting parties' agreed-upon one, two-person Welder/Helper crew per Roadmaster territory); DuPont, NOR 42125, slip op. at 105 (accepting parties' agreed-upon one, two-person Welder/Helper/Grinder crew per Roadmaster territory). Accordingly, in light of the Board's adoption of one Track Supervisor district, the Board also accepts Consumers' proposal for one, two-person welding crew, comprised of one Welder and one Helper.

TABLE B-7

MOW Staff: Track Employees			
MOW Staff Categories	Consumers Supplemental Rebuttal	CSXT Alternative 1	STB
Track Engineer	1	1	1
Track Supervisor	1	2	1
Assistant Track Supervisor	3	2	3
Track Crew Foremen	3	4	3
Track Crew Member	6	12	9
Roadway Machine Operators	5	6	5
Welders/Helpers/Grinders	2	4	2
Roadway Equipment Mechanic	1	1	1
Smoothing Crew Foreman	1	1	1
Smoothing Crew Member	2	2	2
Total Track Employees	25	35	28

ii. C&S Department

The parties agree on the need for one C&S Engineer overseeing the C&S Department, one C&S Supervisor, one Communications Technician, and one Communications Maintainer. (Consumers Opening III-D-104 to III-D-108; CSXT Reply III-D-128, III-D-132, Mar. 7, 2016.) The Board accepts these agreed-upon positions. The parties disagree on the number of Signal Maintainers and the need for a Signal Inspector/Technician.

Signal Maintainers. Signal Maintainers are responsible for scheduled inspections and routine testing and maintenance of the CERR signal system. On opening, Consumers proposes seven Signal Maintainers to maintain a total of 9,618 signal units: three Maintainers for the more rural Porter to West Olive segment of CERR and four Maintainers for the more urban 22nd Street to Curtis segment. (Consumers Opening III-D-106 to III-D-107.) Consumers justifies its proposal based on the number of AREMA signal units⁹⁷ that each maintainer would be

⁹⁷ Consumers refers variously to “AAR units,” “AREMA signal units” and “AREMA (AAR) units.” These terms refer to the same measure of signal units, and the Board will use the term “AREMA signal units” in this decision. As Consumers explains, an AREMA signal unit

responsible for maintaining. (*Id.*) On reply, CSXT proposes 12 Signal Maintainers: six for the rural segment, five for the urban segment, and one “relief” Signal Maintainer. (CSXT Reply III-D-130, Mar. 7, 2016.) CSXT bases its proposal on its calculation that CERR’s rural segment has 4,515 AREMA signal units and the urban segment has 5,995 AREMA signal units, an increase of 892 signal units from the count proposed by Consumers on opening. On rebuttal, Consumers adopts CSXT’s increased signal count in its workpapers (Consumers Rebuttal WP “CERR C-S Costs_Rebuttal.xlsx,” Tab “Rebuttal Summary,” Cell H19, May 20, 2016), but maintains its proposal for seven Signal Maintainers.⁹⁸

Rural segment. In arguing that only three Signal Maintainers are needed on the rural segment of CERR, Consumers acknowledges that these three Maintainers would be responsible for a greater-than-average number of AREMA signal units each, as Consumers proposes to have approximately 1,998 AREMA signal units per Signal Maintainer,⁹⁹ while the Board has in recent cases accepted figures between 1,100 and 1,250 AREMA signal units per Signal Maintainer. (Consumers Opening III-D-106 (citing Sunbelt 2014, NOR 42130, slip op. at 79; W. Fuels 2007, NOR 42088, slip op. at 61).¹⁰⁰) See also Ariz. Elec., NOR 42113, slip op. at 73 (accepting 1,250 AREMA signal units per Maintainer). Consumers argues, relying on its expert’s opinion, the Board should accept a higher ratio of AREMA signal units to Maintainers than it has accepted in the past because CERR’s rural segment is low density and largely made up of at-grade signal crossings, and, thus, immediate repair of any signal outage is not necessary because trains can simply operate at lower speeds or, if necessary, crews can manually flag intersections. (Consumers Opening III-D-107.)

“is a measure of the difficulty of maintaining a particular signal device. There are normally more [AREMA] signal units than there are individual signals.” (Consumers Opening III-D-106.)

⁹⁸ There is a 318-signal unit discrepancy between the CSXT’s workpapers, which calculate a total of 10,828 AREMA signal units for the entire CERR, and CSXT’s reply narrative, which states there are 5,995 AREMA signal units on the rural segment, and 4,515 AREMA signal units on the urban segment, for a total of 10,510 AREMA signal units across CERR. On rebuttal, Consumers uses the 10,828 signal unit count in its workpapers. (Compare CSXT Reply WP “CERR C-S Costs_Reply.xlsx,” Tab “Reply Summary,” Cell G19, Mar. 7, 2016, and Consumers Rebuttal WP “CERR C-S Costs_Rebuttal.xlsx,” Tab “Rebuttal Summary,” Cell H19, May 20, 2016, with CSXT Reply III-D-130, Mar. 7, 2016.) This discrepancy would not change the Board’s decision on the number of Signal Maintainers required, even if the entire 318-signal unit discrepancy were allotted to either the rural or urban segments when calculating the AREMA signal units per Maintainer ratios on which the Board relies.

⁹⁹ If all of the 318-signal unit discrepancy were allotted to the rural segment, this ratio would be approximately 2,104 AREMA signal units per Maintainer (5,995 AREMA signal units plus 318 AREMA signal units equals 6,313 AREMA signal units, divided by three Maintainers).

¹⁰⁰ Although Consumers cites page 61, the conclusion for which Consumers is citing this case is found on page 63 of that decision.

On reply, CSXT challenges Consumers' proposal for three Maintainers, arguing that while Consumers is essentially proposing to allow additional signal outages on the rural segment, Consumers has not accounted for those additional signal outages or for additional delay due to those outages in its Operating Plan or RTC model. (CSXT Reply III-D-128 to III-D-129, Mar. 7, 2016.) CSXT also argues that Consumers' proposal is infeasible because by effectively proposing to undermaintain CERR's rural segment, Consumers places the safety burden during signal outages on the communities in which CERR operates. (*Id.*) Accordingly, CSXT instead proposes six Signal Maintainers for the rural segment for an average of 999 AREMA units per Maintainer.¹⁰¹ (*Id.* at III-D-130.) CSXT bases its proposed staffing for the rural segment on a study conducted by its expert. (*Id.* at III-D-129 to III-D-130.)

On rebuttal, Consumers maintains its opening proposal of three Signal Maintainers for the rural segment. Consumers argues that it is not proposing to undermaintain this segment, but instead that signal outages at crossings would not significantly impact CERR operations or community safety because CERR's rural segment has so few train traversals and CERR has adequate procedures in place to handle signal outages. (Consumers Rebuttal III-D-133, May 20, 2016.) Consumers also attempts to undermine the study on which CSXT relies, calling it "flawed." (*Id.* at III-D-135.) Consumers argues that CSXT's study is "devoid of any details or proof of the alleged [AREMA] Signal Units per maintainer," claiming that it lacks information such as: "(i) the carrier(s); (ii) the territory being covered by the two maintainers; (iii) the types and counts of signals/crossings maintained [by] that person; or (iv) details of how the [AREMA] signal unit counts in either territory counts [sic] were determined." (*Id.*) Finally, Consumers questions the utility of basing the number of maintainers on AREMA signal unit counts at all, saying, "MOW presentations on signals in SAC cases have become mired in nearly incomprehensible explanation of [AREMA] Signal Units . . . [N]ot one defendant railroad has ever suggested that it assigns signal maintainers on this basis or described a policy that suggested X Signal Units = 1 Signal Maintainer." (*Id.* at III-D-134.)

The Board finds that CSXT has undermined Consumers' proposal for three Signal Maintainers on CERR's rural segment. Consumers relies on its expert's opinion that the Board should depart from its prior precedent on the appropriate ratio of AREMA signal units to Maintainers and accept a ratio of 1,998 AREMA signal units per Maintainer because only a few trains traverse this segment per day. CSXT effectively undermines this argument in two ways. First, as CSXT notes, although Consumers accounted for random outages in its Operating Plan and RTC model, it does not appear to have accounted for either an increased number of random signal outages or increased delay due to those outages that would result from having only three Signal Maintainers. (See Consumers Opening III-C-75 to III-C-76.) Thus, Consumers has not shown that its proposed level of staffing would allow for adequate service. Second, CSXT correctly points out that Consumers' proposal would impose unreasonable burdens on the

¹⁰¹ If all of the 318-signal unit discrepancy were allotted to the rural segment, this ratio would be approximately 1,052 AREMA signal units per Maintainer (5,995 AREMA signal units plus 318 AREMA signal units equals 6,313 AREMA signal units, divided by six Maintainers).

communities through which it operates, as there are many at-grade crossings on the rural segment. Signal outages can result in blocked crossings. Though Consumers argues on rebuttal that it has procedures in place to ensure community safety in the event of signal outages, it does not detail those procedures or otherwise sufficiently address why the particular number of Maintainers it proposes does not cause unreasonable community interference. Three Signal Maintainers for this segment is therefore an insufficient proposal, and Consumers' proposal is not feasible or supported.¹⁰²

In contrast, CSXT's proposed six Signal Maintainers for the rural segment is feasible and supported. Under CSXT's proposal, the rural segment would have one Signal Maintainer per 999 AREMA signal units (or one Maintainer per 1,052 AREMA signal units, taking into account the discrepancy between the workpapers and narrative, as discussed above), which is close to the ratios the Board has accepted in the past. See Total Petrochems. 2016, NOR 42121, slip op. at 118 (accepting 1,100 AREMA signal units per Maintainer); Sunbelt 2014, NOR 42130, slip op. at 79 (accepting 1,100 AREMA signal units per Maintainer); DuPont, NOR 42125, slip op. at 111 (accepting 1,100 AREMA signal units per Maintainer); Ariz. Elec., NOR 42113, slip op. at 73 (accepting 1,250 AREMA signal units per Maintainer); W. Fuels 2007, NOR 42088 slip op. at 63 (accepting 1,239 AREMA signal units per Maintainer). In addition, the Board has previously accepted the type of study on which CSXT relies. DuPont, NOR 42125, slip op. at 111 ("NS also performed an in-depth study at four locations to attempt to accurately represent the needs of the DRR signaling network incorporating productivity, territory length, and train frequency.").¹⁰³ CSXT's proposal for six Signal Maintainers on CERR's rural segment is therefore feasible and supported, and the Board will accept this proposal.

Urban segment. On CERR's urban segment, Consumers proposes four Signal Maintainers, for a ratio of approximately 1,129 AREMA signal units per Maintainer,¹⁰⁴ arguing

¹⁰² Additionally, having tried to justify its proposal on opening based on the average number of AREMA signal units that each Maintainer would be responsible for maintaining, (Consumers Opening III-D-106 to III-D-107), Consumers may not on rebuttal question the appropriateness of relying on that metric to evaluate the parties' proposals.

¹⁰³ Although formatted differently than the study in DuPont, CSXT's study contains the same data and virtually the same analysis. Consumers challenges CSXT's study on various grounds. (Consumers Rebuttal III-D-135, May 20, 2016.) And, although the Board accepted the study in DuPont, Consumers here has raised more extensive objections to the study than the shipper in that case. The Board need not rule on the merits of CSXT's study. Even if Consumers had undermined the study and demonstrated that it is flawed, the Board nevertheless finds that CSXT's proposal is feasible and supported, as it is closer to the 1,100-1,250 AREMA signal units per Maintainer range that the Board has accepted in the past, while Consumers' proposal is, as noted, not feasible and supported.

¹⁰⁴ CSXT's reply narrative states there are 4,515 AREMA signal units on the urban segment. If all of the 318-signal unit discrepancy were allotted to the urban segment, this ratio

this ratio is consistent with Board precedent. (Consumers Opening III-D-107 (citing Sunbelt 2014, NOR 42130, slip op. at 79).) Unlike the rural segment, CSXT has not demonstrated that Consumers' proposal for the urban segment is infeasible. CSXT relies on its own expert's study to propose an alternative of five Signal Maintainers for the urban segment, for a ratio of 903 AREMA signal units per Maintainer, but it gives no reason why Consumers' AREMA units per maintainer ratio is infeasible.¹⁰⁵ (CSXT Reply III-D-129 to III-D-130, Mar. 7, 2016.) The Board will therefore accept Consumers' proposal because it is feasible and supported by Board precedent.

Relief Signal Maintainer. CSXT also proposes one additional "relief" Signal Maintainer. (Id. at III-D-130 to III-D-131.) CSXT argues this relief Maintainer is necessary to replace regular Signal Maintainers who are on vacation or otherwise off duty for more than one or two days and to ensure FRA-mandated tests and regular maintenance are completed in a timely manner. (Id.) On rebuttal, Consumers argues that CSXT's proposal for 11 regular maintainers would result in overstaffing and that these maintainers and their managers would be able to cover this work in case of vacations or other absences. (Id. at III-D-135.)

The Board rejects CSXT's proposal for one additional "relief" Signal Maintainer, as CSXT has not adequately supported its argument that this additional position is necessary given the number of regular Signal Maintainers the Board is accepting. Although the Board accepted relief signal maintainers in Total Petrochems. 2016, NOR 42121, slip op. at 118, in that case the Board accepted one Signal Maintainer for every 1,048 AREMA signal units (taking into account the relief maintainers). Here, with 10 regular Signal Maintainers, CERR has one Signal Maintainer for every 1,051 AREMA signal units (or one for every 1,082 signal units, taking into account the additional 318 signal units in the parties' workpapers). Both figures are similar to what the Board accepted in Total Petrochems. 2016 and earlier cases. Thus, even without a relief Signal Maintainer, CERR has sufficient staffing to handle longer absences.

Because the Board accepts CSXT's proposal for six Signal Maintainers on CERR's rural segment, and Consumers' proposal for four Signal Maintainers on CERR's urban segment, and rejects CSXT's proposal for one additional relief Signal Maintainer, the total number of Signal Maintainers employed by CERR is 10.

Signal Inspector/Technician. On opening, Consumers does not propose a separate Signal Inspector/Technician position, instead calling its C&S Supervisor a "C&S Supervisor/Inspector/Technician" and proposing the C&S Supervisor also be "the lead signal

would be approximately 1,208 AREMA signal units per Maintainer (4,515 AREMA signal units plus 318 AREMA signal units equals 4,833 AREMA signal units, divided by four Maintainers).

¹⁰⁵ If all of the 318-signal unit discrepancy were allotted to the urban segment, this ratio would be approximately 967 AREMA signal units per Maintainer (4,515 AREMA signal units plus 318 AREMA signal units equals 4,833 AREMA signal units, divided by five Maintainers).

technician and inspector.” (Consumers Opening III-D-94, Table III-D-15; III-D-104, Table III-D-17; III-D-105.) CSXT adds a separate Signal Inspector/Technician position on reply, arguing the Signal Inspector/Technician is a necessary supplement to the Signal Maintainers in order to provide specialized support for FRA tests and complex troubleshooting of the signals system. (CSXT Reply III-D-131, Mar. 7, 2016.) CSXT argues the required FRA tests are beyond the qualifications of a Signal Maintainer and frequently require two people: a Signal Maintainer and an Inspector. (*Id.*) CSXT further argues a specialized Signal Technician is also needed to perform complex maintenance, troubleshooting, and repairs on the electronic signal equipment. (*Id.*) CSXT proposes to provide for these two needs, an Inspector and a specialized Signal Technician, with one position: Signal Inspector/Technician. (*Id.*)

On rebuttal, Consumers argues this position is not required because the work allotted to this position could be handled by the C&S Supervisor, as the required FRA signal tests are infrequent and the number of signals on CERR is relatively small. (Consumers Rebuttal III-D-136, May 20, 2016.) Consumers also argues that, to the extent any maintenance or troubleshooting duties interfere with FRA testing, or to the extent the C&S Supervisor requires any assistance, the C&S Engineer can assist with inspections and testing. (*Id.*) Consumers argues CSXT did not address this allocation of work proposed in Consumers’ opening.

The Board finds that Consumers’ proposal to have the C&S Supervisor perform the functions CSXT allots to this separate position is feasible and supported. Consumers effectively argues the required FRA tests are infrequent and the number of signals throughout CERR is relatively small and, thus, the inspector function can be done by the C&S Supervisor in addition to the Supervisor’s other duties with the assistance of the C&S Engineer when needed. CSXT has not effectively undermined the feasibility and support of Consumers’ proposal. Indeed, CSXT argues only that these duties “are beyond the qualifications of a typical signal maintainer and frequently require two people,” (CSXT Reply III-D-131, Mar. 7, 2016), thereby ignoring Consumers’ proposal to have the C&S Supervisor perform these duties with the assistance of the C&S Engineer.

The Board’s decision here is consistent with precedent. In Sunbelt 2014 and Arizona Electric, the complainants had simply asserted that the Signal Maintainers could perform the inspection/technician function, without any further explanation or justification. The Board rejected, for lack of support, the claims that the Signal Maintainers could perform the inspection/technician function without the need for separate Signal Inspectors/Technicians. Sunbelt 2014, NOR 42130, slip op. at 80; Ariz. Elec., NOR 42113, slip op. at 73. Here, in contrast, Consumers proposes to have a more senior employee, the C&S Supervisor, be responsible for the inspection function. Moreover, Consumers has explained why, in terms of the frequency of the FRA tests and the number of CERR signals, these duties can be handled in this way. The Board, therefore, rejects CSXT’s proposal for a separate, specialized Signal Inspector/Technician, and accepts Consumers’ proposal to have other C&S staff carry out the duties CSXT allots to this position.

TABLE B-8

MOW Staff: C&S Employees			
MOW Staff Categories	Consumers Supplemental Rebuttal	CSXT Alternative 1	STB
C&S Engineer	1	1	1
C&S Supervisor	1	1	1
C&S Inspector/Technician	0	1	0
Signal Maintainers	7	12	10
Communications Technician	1	1	1
Communications Maintainer	1	1	1
Total C&S Employees	11	17	14

iii. B&B Department

The parties agree on one four-person B&B Department of one Bridge Engineer/Inspector, one B&B Machine Operator, and one B&B crew consisting of one B&B Foreman and one B&B Carpenter/Helper. (Consumers Opening III-D-108 to III-D-109; CSXT Reply III-D-132, Mar. 7, 2016.) The Board accepts the agreed-upon staffing for the B&B Department.

TABLE B-9

MOW Staff: B&B Employees			
MOW Staff Categories	Consumers Supplemental Rebuttal	CSXT Alternative 1	STB
Bridge Engineer/Inspector	1	1	1
B&B Machine Operator	1	1	1
B&B Foreman	1	1	1
B&B Helper	1	1	1
Total B&B Employees	4	4	4

2. Compensation of MOW Employees

The parties agree on the compensation per employee for Track Department employees and C&S Department employees. (Consumers Opening III-D-96, Table III-D-16; III-D-104, Table III-D-17; CSXT Reply III-D-120, Table III-D-31; III-D-127, Table III-D-33, Mar. 7, 2016.) The total compensation for the Track and C&S Departments differ because of the parties' disagreement on the number of employees. The parties agree on the compensation and makeup of the B&B Department. (Consumers Opening III-D-108, Table III-D-18; CSXT Reply III-D-132, Mar. 7, 2016.)

The Board will accept the agreed-upon compensation per employee for the Track Department and C&S Department, and adjusts the compensation totals for those departments based on the staffing numbers accepted above. The Board also will accept the agreed-upon compensation totals and makeup of the B&B Department. Additionally, as discussed in Operating Expenses section of this appendix, the Board is also accepting Consumers' fringe benefit ratio.

3. Non-Program MOW Work Performed by Contractors

a. Planned Contract Maintenance

The parties agree on many of CERR's planned contract maintenance costs. The parties agree on the total annual costs for yard cleaning and bridge inspections¹⁰⁶ (Consumers Opening III-D-114 to III-D-115, III-D-120; CSXT Reply III-D-133, III-D-134, Mar. 7, 2016), and the Board will accept these agreed-upon costs.

For five other types of costs—track geometry testing, ultrasonic rail testing, joint bar testing, vegetation control, and crossing repaving—whether the parties agree is somewhat less clear. For those costs, CSXT states in its reply narrative that it accepts the total cost figures set forth in or derived from Consumers' opening workpapers, even though CSXT's workpapers reflect different total costs.¹⁰⁷ In these cases, consistent with Board precedent, the Board treats

¹⁰⁶ On opening, Consumers proposes \$0 for bridge inspections. (Consumers Opening III-D-120.) On reply, CSXT does not discuss costs for bridge inspections in its narrative, though it discusses the cost of bridge repairs under the heading "bridge inspections." (CSXT Reply III-D-134, Mar. 7, 2016.) CSXT does not include a cost for bridge inspections in its workpapers. The Board therefore accepts the agreed-upon cost of \$0 for bridge inspections.

¹⁰⁷ For track geometry testing, joint bar testing, ultrasonic rail testing in Illinois, and vegetation control, CSXT in its workpapers applied Consumers' proposed unit cost to CSXT's own mileage calculation, thus resulting in a different total expense. For crossing repaving, CSXT in its workpapers used its own initial cost for at-grade, highway-rail crossings, thus resulting in a different total expense.

CSXT’s narrative, rather than its conflicting workpapers, as representing CSXT’s position. See Consumers Energy Co. v. CSX Transp., Inc. (December 2016 Decision), NOR 42142, slip op. at 11 (STB served Dec. 9, 2016). Thus, on these five cost categories, the Board accepts the parties’ agreed-upon costs as follows: \$24,325 for track geometry testing; a confidential amount for ultrasonic rail testing in Michigan, Indiana, and Illinois¹⁰⁸; a confidential amount for joint bar testing¹⁰⁹; \$50,388 for vegetation control; and \$299,936 for crossing repaving.¹¹⁰ (Consumers Opening III-D-112 to III-D-113, III-D-116 to III-D-117; Consumers Opening WP “CERR Opening MOW Costs.xlsx,” Tab “Annual MOW Expenses,” Cells A6:G6, A7:G7, A8:G8; A9:G9; A10:G10; A11:G11; G21; CSXT Reply III-D-132 to III-D-133, Mar. 7, 2016.)

For five other categories of costs—rail grinding, shoulder ballast cleaning, equipment maintenance, communication system inspection and repair, and building maintenance—the parties do not agree on the total cost. The Board’s discussion of those costs is set forth below.

i. Rail Grinding

On opening, Consumers calculates a cost for general rail grinding, which CSXT accepts on reply. On rebuttal, Consumers notes the parties’ agreement. (CSXT Reply III-D-132 to III-D-133, Mar. 7, 2016; Consumers Rebuttal III-D-138, May 20, 2016.) However, on supplemental evidence, the parties adjust their total general rail grinding costs to reflect a decrease in tonnage due to the removal of certain traffic, (Consumers Suppl. Evid. III-D-6; CSXT Suppl. Reply III-D-19, Mar. 6, 2017), and as such, each party applies the agreed-upon per-mile unit cost, (Consumers Suppl. Evid. WP “CERR MOW Costs_Supplemental.xlsx,” Tab “Rail Grinding Costs,” Cell N23; CSXT Reply WP “CERR MOW Costs_Supp_Reply.xlsx,” Tab “Rail Grinding Costs,” Cell N23, Mar. 6, 2017), to its own adjusted ton-miles to calculate different total general

¹⁰⁸ Both parties present hardcoded annual expenses for ultrasonic rail testing in Michigan and Indiana that cannot be calculated from the associated mileages and unit costs shown in the workpapers. (See Consumers Opening WP “CERR Opening MOW Costs.xlsx,” Tab “Annual MOW Expenses,” Cells A9:G9 and A10:G10; CSXT Reply WP “CERR MOW Costs_Reply.xlsx,” Tab “Reply Annual MOW Expense,” Cells A9:G9 and A10:G10, Mar. 6, 2017.) The Board will accept the parties’ agreement in their narratives on the total costs for ultrasonic rail testing.

¹⁰⁹ In its supplemental rebuttal workpapers, Consumers revises its unit cost for joint bar testing so that when the revised unit cost is applied to Consumers’ revised mileage, the total expense remains the same as the confidential amount proposed on opening. (Consumers Rebuttal WP “CERR MOW Costs_Supplemental_Rebuttal.xlsx,” Tab “Annual MOW Expenses,” Cells A8:G8, Apr. 13, 2017.)

¹¹⁰ In its reply narrative section on crossing repaving, CSXT states that it accepts Consumers’ total cost for “track geometry testing.” (CSXT Reply III-D-133, Mar. 7, 2016.) However, the total cost cited by CSXT in that section is Consumers’ proposed annual crossing repaving cost, and the Board understands CSXT’s reference to “track geometry testing” here to be a scrivener’s error.

rail grinding costs. (Compare Consumers Suppl. Evid. WP “CERR MOW Costs_Supplemental.xlsx,” Tab “Annual MOW Expenses,” Cell G23, with CSXT Reply WP “CERR MOW Costs_Supp_Reply.xlsx,” Tab “Annual MOW Expenses,” Cell G23, Mar. 6, 2017.) The Board will therefore apply the agreed-upon per-mile rail grinding unit cost to the Board’s total ton-miles to calculate CERR’s total general rail grinding costs.

On reply, CSXT also includes an additional cost for grinding of switches and crossings using a specialized grinding train. CSXT calculates this cost to be 25% of the cost for rail grinding that is not for switches and crossings. (CSXT Reply III-D-132 to III-D-133, Mar. 7, 2016; CSXT Reply WP “CERR MOW Costs_Reply.xlsx,” Tab “Reply Annual MOW Expense,” Cell G24, Mar. 7, 2016.) On rebuttal, Consumers accepts CSXT’s calculated cost for specialized grinding.¹¹¹ (Consumers Rebuttal III-D-138, May 20, 2016.) Because the Board is calculating the cost for general, non-specialized, rail grinding (as noted above), the Board will also calculate the cost for specialized rail grinding based on the agreed-upon 25%.

ii. Shoulder Ballast Cleaning

On opening, Consumers proposes to not include any contract maintenance cost for shoulder ballast cleaning. (Consumers Opening III-D-114.) On reply, CSXT does not address Consumers’ proposal, nor does it include any cost for shoulder ballast cleaning in its workpapers. Because CSXT does not object to Consumers’ proposal or propose an alternative, the Board will accept Consumers’ proposal to not include any annual contract maintenance cost for shoulder ballast cleaning.

iii. Equipment Maintenance

Consumers and CSXT agree on the methodology for calculating annual vehicle and equipment maintenance and fuel costs. (Id. at III-D-117 to III-D-119; CSXT Reply III-D-133, Mar. 7, 2016.)

The parties are unclear as to whether they agree on the useful life for vehicle equipment. In its opening workpapers Consumers uses a six-year useful life for vehicle equipment. (Consumers Opening WP “CERR Opening MOW Costs.xlsx,” Tab “Annual MOW Equipment Cost,” Cell Y43.) On reply, CSXT states it accepts Consumers’ “assumed vehicle equipment life of four [sic] years” and uses a four-year vehicle equipment useful life in its workpapers. (CSXT Reply III-D-133, Mar. 7, 2016; CSXT Reply WP “CERR MOW Costs_Reply.xlsx,” Tab “Reply

¹¹¹ In its supplemental workpapers, Consumers continues to use CSXT’s calculated cost (rather than its own calculated cost) based on 25% of general, non-specialized, rail grinding, stating it is “25% of Base Rail Grinding Cost.” (See, e.g., Consumers Rebuttal WP “CERR MOW Costs_Supplemental_Rebuttal.xlsx,” Tab “Annual MOW Expenses,” Cells G24:I24, Apr. 13, 2017.) The Board understands Consumers’ continued use of CSXT’s initial calculated cost to be a scrivener’s error.

Annual MOW Eqpt Cost,” Cell P46, Mar. 7, 2016.) The six-year vehicle equipment useful life presented by Consumers is feasible, and CSXT, in purporting to agree with Consumers’ approach (albeit using incorrect information) does not undermine Consumers’ proposal. The Board will therefore accept Consumers’ six-year useful life for vehicle equipment.

The parties also disagree on the useful life for track machinery. On opening, Consumers does not discuss the useful life for track machinery, though it does refer to a 20-year “Amortization Period Machines” in its workpapers. (See Consumers Opening WP “CERR Opening MOW Costs.xlsx,” Tab “Annual MOW Equipment Cost,” Cell Y44.)

On reply, CSXT argues that a 10-year useful life for track machinery is appropriate because modern track machinery is equipped with electronic sensors and has a higher annual utilization rate than other equipment. (CSXT Reply III-D-133 to III-D-134, Mar. 7, 2016.) CSXT additionally cites a study from the U.S. Department of Commerce, Bureau of Economic Analysis (BEA), which sets the depreciable life of construction machinery at 8 to 10 years. (Id. at III-D-134.) CSXT notes that the BEA study it cites does not have a category for railroad maintenance equipment, but railroad maintenance machines are similar to construction machinery. (Id. at III-D-134.)

On rebuttal, Consumers confirms that it assumed on opening a 20-year useful life for track machinery. (Consumers Rebuttal III-D-138 to III-D-139, May 20, 2016.) Consumers argues CSXT’s evidence does not support a 10-year life because the BEA document on which CSXT relies also sets the useful life of railroad equipment at 28 years. (Id. at III-D-139.) Consumers further argues that data produced by CSXT in discovery shows CSXT track machinery still in service well beyond CSXT’s proposed 10-year useful life. (Id.)

Neither party supports its proposal. Consumers assumes a 20-year useful life in its workpapers but does not provide any supporting argument or evidence.¹¹² On reply, CSXT presents alternative evidence, arguing that a 10-year useful life for track machinery is more appropriate. Although CSXT cites BEA data discussing the useful life of construction machinery, which CSXT argues is similar to modern track machinery, Consumers effectively undermines this evidence by pointing out that both the BEA document on which CSXT relies and real-world CSXT data support a longer useful life for track machinery than CSXT proposes.

Because neither party’s proposal is feasible and supported, the Board must determine which party has presented the best evidence of record on the useful life for track machinery.

¹¹² On December 9, 2016, the Board granted in part and denied in part CSXT’s motion to strike portions of Consumers’ rebuttal evidence. In that decision, the Board stated that Consumers would be permitted to utilize CSXT’s reply evidence to critique CSXT’s proposal on the useful life of track machinery but would not be permitted to utilize that evidence to support Consumers’ opening position. December 2016 Decision, NOR 42142, slip op. at 12.

Here, the Board finds that Consumers' proposed 20-year useful life for track machinery is the best evidence of record. First, the BEA data provided by the parties establishes the useful life of railroad equipment at 28 years, well beyond CSXT's 10-year useful life proposal. Second, the useful life of CSXT's own equipment, as discussed in Consumers' rebuttal, (Consumers Rebuttal III-D-139, May 20, 2016), is closer to Consumers' proposed 20-year useful life than to CSXT's proposed 10-year useful life. The Board therefore will apply a 20-year useful life to the track machinery the Board accepts below.

iv. Communications System Inspection and Repair

The parties agree to calculate annual maintenance expense for the communications system using 2% of the total communications system equipment cost, but disagree on the total cost of that equipment, as discussed in the RPI appendix. (Consumers Opening III-D-119; CSXT Reply III-D-134, Mar. 7, 2016.) The Board will accept the agreed-upon method for calculating the annual communications system maintenance expense and apply that method to the Board's calculation of the total communications system equipment cost.

v. Building Maintenance

The parties agree to calculate annual building maintenance cost using 2% of the total building construction cost, but disagree on the total building construction cost, as discussed in the RPI appendix. (Consumers Opening III-D-120; CSXT Reply III-D-135, Mar. 7, 2016.)¹¹³ The Board will accept the agreed-upon method for calculating annual building maintenance cost and apply that method to the Board's calculation of the total building construction cost.

b. Unplanned Contract Maintenance

The parties agree on the annual cost of storm debris removal, (Consumers Opening III-D-121 to III-D-122; CSXT Reply III-D-136, Mar. 7, 2016), and contract snow removal, (CSXT Reply III-D-135 to III-D-136, Mar. 7, 2016; Consumers Rebuttal III-D-140, May 20, 2016). The Board will accept these agreed-upon costs.

¹¹³ In its reply, CSXT states that its annual building maintenance cost is \$115,464. (CSXT Reply III-D-135, Mar. 7, 2016.) This number is actually Consumers' proposed annual building maintenance cost, not CSXT's. (Consumers Opening III-D-120.) However, CSXT's reply workpapers calculate its proposed annual building maintenance cost based on its own calculated total building construction cost. (CSXT Reply WP "CERR MOW Costs_Reply.xlsx," Tab "Reply Annual MOW Expense," Cell G19, Mar. 7, 2016.)

c. Large Magnitude, Unplanned Maintenance

The parties agree on the annual cost incurred from derailments and clearing wrecks, and washouts. (Consumers Opening III-D-122 to III-D-124; CSXT Reply III-D-136, Mar. 7, 2016.) The Board will accept these agreed-upon costs.

On opening, Consumers states that it includes an annual cost of \$10,000 for environmental cleanups, (Consumers Opening III-D-124), although Consumers does not include this cost in its opening workpapers. On reply, CSXT states that it agrees with Consumers' proposed annual cost of \$10,000, (CSXT Reply III-D-136, Mar. 7, 2016), but it too does not include this cost in its workpapers. On rebuttal, Consumers notes the parties' agreement on this cost and includes it in its rebuttal workpapers. (See Consumers Rebuttal III-D-141, May 20, 2016; Consumers Rebuttal WP "Rebuttal CERR MOW Costs.xlsx," Tab "Annual MOW Expenses," Cell G25, May 20, 2016.) As noted above, where there is a conflict between a party's narrative and its workpapers, the Board will generally treat the party's narrative as reflecting the party's position. December 2016 Decision, NOR 42142, slip op. at 11. Because both parties state in their narratives that they agree on an annual cost of \$10,000 for environmental cleanups, the Board will accept that agreed-upon cost.

4. Contract Maintenance

The parties agree to have one field smoothing crew perform day-to-day track surfacing, to have heavy-tonnage track surfaced on a regular basis by a contractor, and to capitalize the annual cost of that contract surfacing in the DCF model. (Consumers Opening III-D-125; CSXT Reply III-D-136, Mar. 7, 2016.) The Board will accept this agreed-upon proposal. The parties also agree on the annual cost of bridge substructure and superstructure repair. (Consumers Opening III-D-125 to III-D-126; CSXT Reply III-D-136, Mar. 7, 2016.) The Board will accept this agreed-upon cost.

5. Equipment

a. Hi-Rail Vehicles

The parties agree on the types and costs of hi-rail vehicles to be used by CERR MOW employees. (Consumers Opening III-D-126 to III-D-129; CSXT Reply III-D-137, Mar. 7, 2016.) However, the parties disagree on the number of hi-rail vehicles that are necessary, based on differences in their proposed MOW staffing. (Consumers Rebuttal III-D-142, May 20, 2016.) The Board will accept the agreed-upon vehicle types and costs and calculate the final quantities and total costs based on the Board's determination of MOW staffing levels in this appendix, with the Roadway Machine Operator adjustment described below.

b. Equipment for Track and Related Work

The parties agree on the unit prices and equipment types for use by MOW employees. (Consumers Opening III-D-129 to III-D-134; CSXT Reply III-D-137, Mar. 7, 2016.) On reply, CSXT adjusts Consumers' opening quantities of these items to match its MOW staffing levels and adjusts the useful lifespan for track machinery, as discussed in the Equipment Maintenance section above. (CSXT Reply III-D-137, Mar. 7, 2016.)

Because the Board is largely accepting Consumers' MOW staffing numbers, the Board will accept Consumers' agreed-upon equipment unit prices and equipment types except in the few instances where CSXT's staffing is accepted, as discussed above. The Board will also make an adjustment to the Roadway Machine Operator equipment costs, described below. Additionally, as discussed above, the Board will accept Consumers' proposed 20-year useful life for track machinery.

With regard to vehicles for Roadway Machine Operators, Consumers provides incomplete information in its workpapers. Consumers provides one hi-rail truck and two standard pickups for use by its proposed five Roadway Machine Operators, (see Consumers Rebuttal WP "CERR MOW Costs_Supplemental_Rebuttal.xlsx," Tab "MOW Staff Salaries," Cells E15 & G15, Apr. 13, 2017), but does not assign any vehicle costs to this staff, (see Consumers Rebuttal WP "CERR MOW Costs_Supplemental_Rebuttal.xlsx," Tab "Annual MOW Equipment Cost," Apr. 13, 2017)

CSXT also provides conflicting information in its workpapers. Specifically, CSXT provides its six Roadway Machine Operators with *two* hi-rail trucks and *four* standard pickups, (CSXT Reply WP "CERR MOW Costs_Supp_Reply_Alt1.xlsx," Tab "Reply MOW Staff Salaries," Cells E15 & G15, Mar. 6, 2017), but includes costs for *six* standard pickups (with hand tool sets), (CSXT Reply WP "CERR MOW Costs_Supp_Reply_Alt1.xlsx," Tab "Reply Annual MOW Eqpt Cost," Cells E28 & G28, Mar. 6, 2017).

Because the Board is accepting Consumers' count of five Roadway Machine Operators, the Board will use Consumers' count of three vehicles. The Board will use the per-vehicle cost provided by CSXT because it is the only vehicle cost for Roadway Machine Operators on the record.

Other than as described here, the Board will calculate the final equipment quantities and total costs consistent with the Board's determination of MOW staffing levels elsewhere in this appendix.

c. Work Trains

On opening, Consumers states that CERR would have spare locomotives available for occasional contractor work-train use and therefore would not require any separate work train equipment. (Consumers Opening III-D-134.) On reply, CSXT does not address this proposal, though in its Locomotives section of Operating Expenses, CSXT argues that an additional switch locomotive at Barr Yard is necessary to handle the amount of traffic Consumers proposes, in addition to work-train assignments. (CSXT Reply III-D-17, Mar. 7, 2016.) The Board addresses these arguments in the Locomotives section of the Operating Plan discussion.

d. Snow Removal Equipment

The parties disagree on the necessary amount of in-house snow removal equipment. Consumers proposes one snow blower, mounted on the ballast regulator, to be used to blow out snow-laden switches and trackage, and CERR's existing in-house backhoes, to be used by contractors to clear heavy snow from parking areas. (Consumers Opening III-D-121.) Consumers argues the main track switches are equipped with switch heaters, and snow removal from roadways and parking lots, primarily at West Olive and Barr Yard, will be contracted out. (Id.) Consumers proposes to have existing MOW field personnel perform snow removal activity that is not contracted out, as those employees are "not normally as busy in the winter." (Id. at III-D-120 to III-D-121.)

On reply, CSXT argues that Consumers' proposed snow removal equipment is inadequate. (CSXT Reply III-D-137, Mar. 7, 2016.) CSXT presents data regarding the average number of snow events in the Great Lakes region and argues that, in blizzard conditions, the same location may need to be cleared multiple times, and snow may need to be trucked away so it does not occupy space otherwise needed for operations. (Id. at III-D-137 to III-D-138.) According to CSXT, the backhoes Consumers proposes to use will only be useful in minor storms because of their small bucket capacity, low power, and light weight, and significant snow events will require mid-sized bucket loaders. (Id. at III-D-138.) CSXT therefore proposes, in addition to the equipment Consumers proposes, four jet snow blowers and one cold air blower truck. CSXT determined the amount and type of additional equipment required based on the equipment that it uses in its own operations in its Chicago and Great Lakes Divisions, adjusted for the size of CERR. (Id. at III-D-138 to III-D-139.) CSXT argues that this equipment is the minimum required for CERR operations and that, while some winters may have below-average snowfall or no major snow events, "no operationally dense railroad like CERR could run the risk of having operations shut down for days at a time for a snow event, even if the event did not occur every year." (Id. at III-D-139.)

On rebuttal, Consumers argues CSXT drastically overstates the required amount of snow removal equipment CERR would need. (Consumers Rebuttal III-D-142, May 20, 2016.) Consumers argues CSXT's Chicago and Great Lakes Division is not an apt comparison point for CERR, as it is much larger than CERR and constitutes the core of CSXT's Midwest operations, while CERR has fewer than 250 track miles and only one small yard. (Id. at III-D-143.)

Consumers notes that, under CSXT's approach, CSXT proposes that CERR have one third the number of jet snow blowers and the same number of cold air blower trucks as CSXT has for its entire Chicago and Great Lakes Divisions. (Id.) Consumers further argues that CSXT's proposed jet snow blowers are unnecessary, as they are primarily used for clearing yard track and yard switches, and CERR has only a single yard, Barr Yard, with only a small number of switches. (Id. at III-D-143 to III-D-144.) Consumers argues that its proposed snow blower-equipped ballast regulator could effectively clear all switches and tracks in the yard in a timely fashion, and that, as mentioned on opening, all mainline switches in the 22nd Street to Curtis segment are equipped with switch heaters and, thus, require minimal snow clearing operations. (Id.) Consumers also argues that snow fighting crews equipped with backhoes can easily clear the switches at the two sidings on the rural segment due to the low traffic volumes. (Id. at III-D-144.)

Consumers has not presented a feasible and supported proposal for snow removal equipment on CERR. In its opening and rebuttal, Consumers explains how its switches and yard track would be cleared, noting that jet snow blowers are primarily used for clearing yard track and yard switches, while switches on the main lines would be equipped with switch heaters. (Id. at III-D-143 to III-D-144.) However, Consumers fails to explain how CERR could effectively clear snow from the rest of its over 200-mile system (instead of just from the areas near the heated switches) with just one snow blower (which would also be needed to clear Barr Yard).

In addition, CSXT has effectively undermined Consumers' proposal by providing data regarding annual snowfall amounts in the Chicago area and pointing out that the same locations on CERR may need to be cleared multiple times during a blizzard. Consumers' snow removal equipment proposal is inadequate for the amount of snow CERR is likely to receive in any given year, considering its location, and is therefore not feasible and supported.

CSXT's alternative proposal to provide CERR with four jet snow blowers and one cold air blower truck, in addition to the equipment Consumers proposes, is not realistic or supported. CSXT states that its proposal is based on its own snow clearing fleet, scaled down by one third to match CERR's size, but, as Consumers points out, CSXT's Chicago and Great Lakes Divisions includes "several thousand miles of track," while CERR is less than 250 track miles long. (Id. at III-D-143.) CSXT has not explained why one third is the appropriate scale for CERR.

Because both parties' evidence is flawed, the Board must determine which party has provided the best evidence of record on the necessary amount of in-house snow removal equipment. Here, the Board finds that CSXT's proposal is the best evidence of record. The snow removal equipment Consumers proposes is not sufficient to handle the amount of snow CERR is likely to receive annually. CSXT's alternative proposal does provide for adequate snow removal equipment, and, therefore, the Board will accept it.

6. Contributions from Michigan Department of Transportation

The parties agree to set the compensation received from Michigan Department of Transportation (MDOT) for the maintenance of road crossings at \$202,582. (Consumers Opening III-D-137; CSXT Reply III-D-139, Mar. 7, 2016.) The Board will accept this agreed-upon level of compensation.

G. LEASED FACILITIES

On opening, Consumers states that CERR would make payments to BRC, NSR, and IHB through four joint facilities agreements. (Consumers Opening III-D-137 to III-D-138.) Consumers develops the charges for these agreements using data from joint facilities invoices provided by CSXT in discovery and applying the data to CERR operating statistics. (Id. at III-D-138.) The parties agree to the joint facilities expenses¹¹⁴ with the exception of the inclusion of expenses for the Dolton Interlocker, NSR trackage rights fees, and IHB trackage rights fees.

1. Dolton Interlocker

On reply, CSXT states that Consumers omits the expense that CSXT pays IHB to operate and maintain the interlocker at Dolton, pursuant to a joint facilities agreement. (CSXT Reply III-D-140, Mar. 7, 2016.) CSXT asserts that the Dolton Interlocker is critical to CERR's operations and is used by three separate groups of CERR trains. (Id. at III-D-142.) CSXT asserts that CSXT pays IHB for the maintenance and operation of the interlocker and includes this cost on reply. (Id.)

Consumers rejects CSXT's inclusion of the IHB Dolton Interlocker expense, asserting that none of IHB's services are required by CERR. (Consumers Rebuttal III-D-148, May 20, 2016.) Consumers states that it has accounted for the investment in communications and signaling equipment needed to manage train operations at the Dolton Interlocker, including dispatch desks at West Olive, maintenance of equipment, and maintenance personnel. Consumers therefore asserts that the costs paid to IHB for the Dolton Interlocker should not be included in CERR's operating expenses. (Id. at III-D-148 to III-D-149.) Consumers further notes that it is unclear what portion of CSXT payments to IHB would be assumed by CERR under CSXT's theory, given that CSXT does not identify what interlockers are covered by the agreement and that CERR does not move all of the traffic that CSXT does through Dolton. (Id. at III-D-149.)

The Board finds Consumers' evidence to be feasible and supported. Consumers accounts for CERR's operating expenses to manage train operations at the Dolton Interlocker through the

¹¹⁴ On reply, CSXT notes three calculation errors in Consumers' opening evidence, which Consumers corrects on rebuttal. (See CSXT Reply III-D-140 to III-D-141, Mar. 7, 2016; Consumers Rebuttal III-D-146 to III-D-147, May 20, 2016.)

investment in signals and communication equipment (including dispatch desks at West Olive and related maintenance and personnel). CSXT also has not supported its argument that CERR would be responsible for costs under the IHB interlocker agreement or that the agreement covers CERR's tracks. (See CSXT Reply WP "IHB 201X.pdf," Mar. 7, 2016.) In particular, CSXT does not adequately explain which CERR trains, if any, would use the precise facilities at this location that are covered by the IHB agreement, much less why CERR would be responsible for the full amount CSXT pays to IHB under the agreement, as CERR presumably would not move all the traffic that CSXT moves through Dolton.

2. NSR Trackage Rights Fee

On opening, Consumers proposes a trackage rights fee of \$0.35 per car mile for CERR's use of the NSR line, from Rock Island Jct., Ill., to Porter, Ind. (Consumers Opening WP "Open_ConsumersJointFacCharges2014.xlsx," Tab "NS_RockPorter.")

On reply, CSXT states that the \$0.35 trackage rights fee is a reciprocal rate with NSR that is part of a broader master agreement reached by the parties as a result of the Conrail acquisition in 1999, under which CSXT provides NSR access to the same rate for operations over nearly 800 miles of CSXT's system. (CSXT Reply III-D-140, III-D-143 to III-D-146, Mar. 7, 2016.) CSXT states that the "rate reflects the fact that each railroad has an extensive system with broad reach and that there are benefits to each carrier in having the right to operate over the other system in a variety of geographic areas." (*Id.* at III-D-145.) Accordingly, that fee does not represent the cost that would be agreed upon in an arms-length transaction or the sort that CERR (with its limited geographic scope) would be required to negotiate with a third-party carrier such as NSR because CERR cannot provide that same reciprocity. (*Id.* at III-D-145 to III-D-146, III-D-148 to III-D-150.) As such, CSXT argues that Consumers has inappropriately assumed that CERR would be entitled to this reciprocal trackage rights rate to move its issue traffic over NSR's line. (*Id.* at III-D-143.)

Instead, CSXT states that the methodology (SSW Compensation Methodology) used in St. Louis Southwestern Railway—Trackage Rights over Missouri Pacific Railroad—Kansas City to St. Louis, 4 I.C.C.2d 668 (1987), should be used in this case to determine the rate that Consumers would have to pay to use the NS trackage rights. (CSXT Reply III-D-150 to III-D-154, Mar. 7, 2016.) CSXT states that the SSW Compensation Methodology would result in a trackage rights fee of \$1.47 per car mile. (*Id.* at III-D-154.) CSXT argues that, alternatively, the Board should apply an earlier, arms-length negotiated trackage rights fee of \$0.67 per car mile that the parties had negotiated on the basis of 1974 traffic levels. (*Id.* at III-D-155 to III-D-156.)

On rebuttal, Consumers maintains that the Board should accept its opening trackage rights fee proposal. (Consumers Rebuttal III-D-152, May 20, 2016.) Consumers acknowledges that its proposed rate for NSR trackage rights is a reciprocal trackage rights rate but asserts that CSXT failed to produce evidence of the CSXT-NSR trackage rights agreement in response to discovery requests pertaining to NSR's Rock Island-Porter agreements. (*Id.* at III-D-150 to III-

D-152.) Accordingly, Consumers claims its opening evidence based on CSXT's trackage rights fee is the best evidence of record. (Id. at III-D-152.)

Consumers further argues that it is not necessary to use the SSW Compensation Methodology to develop a rate for NSR trackage rights, given the existence of historical trackage rights rates that CSXT itself identified on reply. (Id. at III-D-153.) With regard to those historical rates, Consumers argues that the 1974 rate covers only a portion of the NSR segments used by CERR and is not supported by CSXT's workpapers. (Id. at III-D-154.) Consumers argues that, based on documents provided by CSXT in discovery and workpapers submitted on reply, this 1974 rate was replaced by more recent rates (established in 1999 and 2002 for Rock Island-to-Pine and Pine-to-Porter, respectively) that were in place immediately prior to the establishment of the reciprocal trackage rights rate. (Id. at III-D-155.) Consumers therefore argues that, should the Board decide to use historical rates, it should apply a trackage rights fee of \$0.52 per car mile based on the 1999 and 2002 agreements, rather than the 1974 fee. (Id. at III-D-156.)

The Board finds Consumers' rebuttal trackage rights rate of \$0.52 per car mile to be feasible and supported.¹¹⁵ As CSXT notes, Consumers would not be entitled to the reciprocal trackage rights rate used between CSXT and NSR, as the rate is part of a broader agreement where CSXT provided NSR access to the same rate for operations over nearly 800 miles of CSXT's system; CERR cannot provide that same reciprocity given its limited geographical scope.¹¹⁶ While CSXT proposed to use the SSW Compensation Methodology as a substitute,¹¹⁷ which would be an estimate of the trackage rights rate based on system-wide averages rather

¹¹⁵ For the historical trackage rights fee based on the 1999 and 2002 agreements, Consumers uses \$0.52 in its narrative but \$0.51 in its workpapers. (See Consumers Rebuttal WP "ConsumersJointFacCharges2014_Supplemental.xlsx," Tab "NS Rate," Apr. 13, 2017.) The Board will use \$0.52, consistent with past SAC cases, where a party's position in its narrative controls over a contrary position in its workpapers. See Sunbelt Chlor Alkali P'ship v. Norfolk S. Ry., NOR 42130, slip op. at 18 (STB served June 30, 2016) (with Board Member Begeman dissenting), appeal docketed sub nom. Sunbelt Chlor Alkali P'ship v. STB, No. 16-15701 (11th Cir. Aug. 26, 2016).

¹¹⁶ While Consumers argues that CSXT failed to produce evidence of the reciprocal trackage rights agreement in discovery productions related to CSXT/NSR's Rock Island-Porter agreements, Consumers acknowledges that CSXT did in fact produce this evidence as part of its production of joint facilities materials. (See Consumers Rebuttal III-D-151 to III-D-152, May 20, 2016.)

¹¹⁷ The Board may consider using SSW Compensation Methodology to determine trackage rights rates in SAC cases when historical rates are not readily available. While the SSW Compensation Methodology has not been used in SAC cases, the Board has used the methodology in trackage rights cases. See, e.g., Ark. & Mo. R.R. v. Mo. Pac. R.R., 6 I.C.C.2d 619 (1990).

than the line segment in question, the Board finds no support for using the SSW Compensation Methodology, given the availability of a historical rate, which serves as a better proxy. See, e.g., Total Petrochems. & Refining USA, Inc. v. CSX Transp. Inc. (Total Petrochems. 2016), NOR 42121, slip op. at 62 (STB served Sept. 14, 2016) (accepting historical data as best evidence of record). But the historical rate that CSXT advocates the Board use (which it submitted as an alternative to using the SSW Compensation Methodology) is not the most recently available trackage rights rate prior to the reciprocal agreement. Therefore, the Board will adopt the \$0.52 per car-mile rate in Consumers' rebuttal, which is based on the rates that were in place in 2002. Those rates replaced the original 1974 rate and were in place before NSR and CSXT entered into the reciprocal trackage rights agreement.

3. IHB Trackage Rights

On opening, Consumers includes payments for trackage rights over IHB's line between Calumet Park, Ill., and Blue Island Yard, Ill. (Consumers Opening III-D-138.) On reply, CSXT eliminates these trains from its traffic group on the asserted basis that the trains do not match CSXT's existing level of real-world service, and thus eliminates all costs related to the IHB trackage rights agreement. (CSXT Reply III-D-141 to III-D-142, Mar. 7, 2016.) On rebuttal, Consumers retains these trains, and thus, the trackage rights payments.¹¹⁸ (Consumers Rebuttal III-D-156 to III-D-157, May 20, 2016.)

As discussed in the System Configuration and Traffic Group sections, the Board is including the Calumet Park/Curtis trains in CERR's traffic group. Accordingly, the Board will adopt the trackage rights expenses that CERR pays for use of IHB's segment between Calumet Park and Curtis, as modified by Consumers on rebuttal.

H. LOSS & DAMAGE

The parties agree to the methodology for calculating CERR's loss and damage costs used by Consumers on opening, which is based on CSXT's actual 2014 loss and damage costs by commodity. (Consumers Opening III-D-138 to III-D-139; CSXT Reply III-D-157, Mar. 7, 2016.) The Board will adopt this methodology and apply it to the traffic group adopted herein.

¹¹⁸ On rebuttal, Consumers notes that CSXT correctly asserted that traffic traveling over the IHB trackage rights segment moves between Calumet Park and Curtis, not Blue Island Yard. (Consumers Rebuttal III-D-157, May 20, 2016.) Consumers corrects its opening evidence, using traffic traveling between Calumet Park and Curtis, rather than traffic to and from the Blue Island IHB connector, to calculate trackage rights expenses under the IHB trackage rights agreement. Id.

I. INSURANCE

The parties agree to an insurance ratio for CERR of 3.75% of operating expenses, based on the 2010-2014 experience of Providence & Worcester Railroad Company, a publicly traded regional railroad. (Consumers Opening III-D-139; CSXT Reply III-D-157 to III-D-158, Mar. 7, 2016.) The Board will adopt this insurance ratio and apply it to the operating expenses adopted herein.

J. AD VALOREM TAX

The parties agree regarding Consumers' calculations of ad valorem taxes for Indiana and Michigan but disagree regarding Consumers' calculations of ad valorem taxes for Illinois, specifically, how Consumers allocates CERR's "unit value" to Illinois. (Consumers Opening III-D-139 to III-D-141; CSXT Reply III-D-158 to III-D-159, Mar. 7, 2016.)

On opening, Consumers uses CERR route miles to determine the CERR value attributable to Illinois, which Consumers states is 18.2% of total CERR value. (Consumers Opening WP "CERR Ad Valorem Taxes_Open.xlsx," Tab "IL Income Calc," Line 15.) On reply, CSXT faults Consumers for basing CERR's unit value solely on CERR route mileage in Illinois. (CSXT Reply III-D-158, Mar. 7, 2016.) CSXT asserts that, to calculate ad valorem taxes, Illinois employs an allocation factor that incorporates a "use factor" that looks at percentage of traffic units, revenue, and tons originated and terminated, and averages the "use factor" with a "property factor" that incorporates a percentage of all track mileage. (*Id.* at III-D-158 to III-D-159.) Accordingly, CSXT uses an allocation factor for Illinois ad valorem taxes that averages a property factor (the percentage of route miles in Illinois) with a usage factor (the percentage of trains originated and terminated in Illinois). (*Id.* at III-D-159.) On rebuttal, Consumers appears to agree that the calculation of ad valorem taxes for Illinois should include a component for revenues, but argues that CSXT's approach is inconsistent with the Illinois property tax code, which calls for track miles, revenues, and operating property to be used to allocate CERR value attributable to Illinois. (Consumers Rebuttal III-D-159 to III-D-160, May 20, 2016 (citing 35 Ill. Comp. Stat. 200/11-100).) Consumers asserts that route miles, rather than train counts (as proposed by CSXT), should be used to reflect revenues as well as operating property. (*Id.* at III-D-160.)

The Board finds that Consumers has not shown its proposed methodology for calculating Illinois ad valorem taxes to be feasible or supported. Consumers allocates unit value to Illinois based solely on CERR route miles, but as CSXT demonstrates, the actual methodology used by the state of Illinois to determine a railroad's value attributable to the state incorporates both a property factor and a use factor. (See CSXT Reply III-D-159, Mar. 7, 2016, citing Consumers Opening WP "Ad Valorem State Workpapers (CSX-CNSMR-HC-19172 to 19323).pdf.") As evidenced by Illinois' tax assessment for CSXT, CSXT's approach to calculating ad valorem tax is consistent with how the tax is actually developed by the state. As CSXT notes, the tax code

cited by Consumers allows the use of different methodologies to allocate unit value.¹¹⁹ (CSXT Br. 38-39.) Therefore, the Board will adopt CSXT's methodology for calculating CERR's ad valorem taxes for Illinois. The Board will accept the parties' agreement regarding the methodology for calculating ad valorem taxes for Indiana and Michigan.

K. INTERMODAL LIFT & RAMP COST

As discussed in the body of this decision, the Board finds Consumers' expense for the intermodal container lifts charged by CSX Intermodal Terminals Inc. to be feasible and supported and will adopt these costs, with modifications.

¹¹⁹ See 35 Ill. Comp. Stat. 200/11-100 ("Nothing in this section shall be construed to preclude the use or substitution of other factors or methods as may appear reasonable and necessary in determining the proportion of a railroad's operating property within this State.").

APPENDIX C—RPI

This appendix addresses the evidence and arguments of the parties concerning what it would cost to build CERR. The below table summarizes the parties' cost estimates associated with that construction, as well as the numbers used in the Board's analysis.

TABLE C-1

Construction Costs			
Construction Item Categories	Consumers Supplemental Rebuttal	CSXT Alternative 1	STB
Land	\$120,633,781	\$132,592,291	\$120,752,482
Roadbed Preparation	35,549,371	78,561,183	36,509,199
Culverts	1,178,674	2,724,802	3,092,965
Track	208,270,502	257,791,644	227,636,672
Bridges	72,475,470	165,431,925	108,147,811
Signals & Communications	41,974,905	46,924,007	45,841,079
Building & Facilities	11,743,447	25,869,533	12,797,557
Public Improvements	3,384,306	11,062,417	11,062,417
Mobilization	10,113,570	36,704,053	12,017,368
Engineering	37,457,667	58,836,551	44,508,770
Contingencies	42,214,791	68,390,611	50,161,384
TOTAL	584,996,484	884,889,018	672,527,704

A. REAL ESTATE

TABLE C-2

Real Estate Acreage			
	Consumers Supplemental Rebuttal	CSXT Alternative 1	STB
Main Line	1,725	1,736	1,725
BRC Alternative	74	77	74
Dolton Interchange	29	30	29
IHB Interchange	0	61	0
Buffington Connection	7	7	7
Total of corridors	1,836	1,911	1,836
Microwave sites	9	9	9
Barr Yard	63	63	63
Total of all areas	1,908	1,984	1,908

TABLE C-3

Real Estate Costs			
	Consumers Supplemental Rebuttal	CSXT Alternative 1	STB
Main Line	\$102,922,710	\$118,019,904	\$102,922,710
BRC Alternative	6,138,347	3,027,025	6,138,347
Dolton Interchange	3,846,646	3,222,536	3,846,646
IHB Interchange	0	1,024,844	0
Buffington Connection	455,217	455,217	455,217
Total of corridors	113,362,920	125,749,525	113,362,920
Microwave sites	356,103	334,560	356,103
Barr Yard	7,033,459	6,619,726	7,033,459
Total of all areas	120,752,482	132,703,811	120,752,482

1. Acreage

On opening, Consumers calculates acreage for the CERR ROW, the CERR's ownership stake related to the BRC, Dolton Interchange, Barr Yard, and microwave tower sites near the ROW. (Consumers Opening III-F-4 to III-F-5; Consumers Opening WP "CERR Opening Land Valuation.xlsx," Tab "Overall Pricing.")¹²⁰ In its reply narrative, CSXT does not specifically address Consumers' acreage for the ROW, BRC, Dolton Interchange, or Barr Yard. The Board thus will accept these acreages. However, CSXT includes additional acreage for microwave towers, for the Buffington Connection, and for IHB track.

With respect to the microwave towers, CSXT adds, and Consumers accepts, three additional towers for a total of nine microwave towers. (CSXT Reply III-F-17 n.34, Mar. 7, 2016; Consumers Rebuttal WP "CERR C-S Costs_Rebuttal.xlsx," Tab "Rebuttal Totals," May 20, 2016.) However, neither party adds the required acreage in their workpapers for these three additional towers. (See Consumers Rebuttal WP "Land Valuation Worksheet_Rebuttal.xlsx," Tab "Overall Pricing," May 20, 2016; CSXT Reply WP "CERR Land Valuation_Reply.xlsx," Tabs "Summary" & "Microwave Sites," Mar. 7, 2016.) Because both parties use one acre per microwave tower site for the initial six microwave towers, the Board will add three acres for the agreed-upon three additional microwave towers.

Additionally, CSXT adds 0.6 route miles for the Buffington Connection, which Consumers accepts on rebuttal. (CSXT Reply III-B-6 to III-B-7 Mar. 7, 2016; Consumers Rebuttal III-F-1 & n.1, May 20, 2016.) The Board will use the agreed-upon mileage from the parties' narratives to calculate the resulting acreage based on the width of the Buffington Connection ROW.¹²¹

Finally, as discussed in the Operating Plan section, although CSXT includes additional acreage for IHB track, the Board concludes that CERR would not be responsible for constructing the IHB track and therefore will not include acreage for the IHB track.

2. Appraisal

On opening, Consumers estimates that the total property for CERR—the ROW, the BRC, Dolton Interchange, Barr Yard, and six microwave tower sites—would cost \$120.2 million to acquire. According to Consumers, its appraisers determined property values by evaluating the land adjacent to the ROW being replicated by CERR using across-the-fence land prices.

¹²⁰ The BRC is referred to as "Second Route" in Consumers' land valuation workpapers.

¹²¹ The Board notes the parties use slightly different route miles for the Buffington Connection in their workpapers than in their narratives. (Consumers Rebuttal WP "Land Valuation Worksheet_Rebuttal.xlsx," Tab "Overall Pricing," May 20, 2016; CSXT Reply WP "CERR Land Valuation_Reply.xlsx," Tab "Summary," Mar. 7, 2016.)

(Consumers Opening III-F-6 to III-F-7.) Consumers states that no easements were excluded from its estimated costs because CSXT did not provide the information needed for Consumers to identify easements. (*Id.* at III-F-9.) See Consumers Energy vs. CSX Transp., Inc. (December 2016 Decision), NOR 42142, slip op. at 13 (STB served Dec. 9, 2016) (denying CSXT’s motion to strike Consumers’ rebuttal arguments regarding discovery problems involving land costs). Consumers proposes a construction schedule for acquiring real estate between October 2012 and April 2013, and a real estate valuation date of 2015. (Consumers Opening WP “Construction Schedule—Consumers (with DCF Schedule).xlsx,” Tab “Overall Construction Schedule”; Consumers Opening III-F-8.)

On reply, CSXT estimates the total property for CERR—consisting of the property valued by Consumers on opening, as well as the partially owned IHB line, the Buffington Connection, and three additional microwave tower sites—would cost \$132.6 million, though only \$131.7 million if the IHB line is excluded. (CSXT Reply III-F-4 to III-F-5, Mar. 7, 2016.) As discussed in the Operating Plan section, the Board has determined that CERR does not need to construct the IHB and thus, will treat CSXT’s \$131.7 million as its proposed land valuation cost.¹²² CSXT accepts Consumers’ proposed construction schedule and real estate valuation date, but argues that Consumers’ appraisal analysis is flawed. (CSXT Reply III-F-5 to III-F-6, Mar. 7, 2016.)

On rebuttal, Consumers agrees that CERR would need to acquire property to construct the Buffington Connection and thus adjusts its land valuation to \$120.6 million to account for this additional property.¹²³ However, Consumers argues that CSXT’s criticisms of Consumers’ land valuation are without merit. (Consumers Rebuttal III-F-6, May 20, 2016.) Consumers further claims that CSXT’s methodology for valuing the CERR ROW includes incorrect statistical analyses, as well as other flaws. (*Id.*)

As discussed below, the Board accepts Consumers’ land valuation evidence.¹²⁴

¹²² CSXT’s land valuation workbook shows \$131.6 million, (CSXT Reply WP “CERR Land Valuation_Reply.xlsx,” Tab “Summary,” Mar. 7, 2016), but the Board will use the \$131.7 million value in CSXT’s narrative. (See CSXT Reply III-F-4 to III-F-5, Mar. 7, 2016).

¹²³ See the Operating Plan section for a discussion of the Buffington Connection at the Pine Junction Interchange.

¹²⁴ As discussed in the Acreage section, the Board has added acreage for the parties’ agreed-upon microwave towers. Because Consumers does not provide a value for the three additional microwave tower sites, the Board will use CSXT’s valuation method for these three additional microwave sites. (Cf. CSXT Reply III-F-17 n.34, Mar. 7, 2016.) Additionally, because the Board will otherwise accept Consumers’ land valuation, the Board need not reach the discovery issues raised by Consumers.

a. Number of Land Use Segments

On opening, Consumers states that it physically inspected most of the CERR ROW and surrounding areas to determine the highest and best use of property, and breaks between land use segments. (Consumers Opening III-F-7.) For areas not physically inspected, Consumers used other data such as topographic maps to inspect the land. (Id.) Consumers then subdivided the ROW into seven land use categories: Agricultural/Open Space; Recreational/General Land Use; Mixed Use/Small Town; Residential (urban areas); Commercial (urban areas); Mixed Use/Urban Areas; and Industrial. (Id. at III-F-8.) Consumers then examined comparative sales data for each segment, and assigned a per acre value to the segment. (Id.)

On reply, CSXT criticizes Consumers' reliance on an "across-the-board" methodology¹²⁵ for valuing land. According to CSXT, the across-the-board methodology is traditionally used to "derive a rough estimate of the value of a land segment" and results in a broad and inexact analysis. (CSXT Reply III-F-5, III-F-7, Mar. 7, 2016.) As applied here, CSXT states that the across-the-board methodology resulted in Consumers' failure to properly discern changes in land use classification along CERR's property, thus understating Consumers' total land valuation. (Id. at III-F-5.) CSXT states that, by contrast, its physical inspections of the CERR ROW identified more discrete valuation units than Consumers identified. (Id. at III-F-8.) For example, CSXT states that Consumers identifies all of the ROW in Allegan County, Mich., as only one land use segment, classified as Agricultural/Open Space, whereas CSXT identifies the ROW as having 36 unique land use segments with various classifications, such as Acreage and Wetlands, Agricultural, Rural Residential, Single-Family Residential, and Industrial. (Id. at III-F-8 to III-F-9.) As another example, CSXT states that Consumers classified the entire town of Holland, Mich., as one Agricultural/Open Space land use segment, whereas CSXT identified 17 land use segments for the town, including a Central Business District, Commercial, Single-Family Residential, and Industrial land uses. (Id. at III-F-9.) CSXT claims that, in total, Consumers' methodology resulted in identification of only 54 unique land segments along the ROW, as compared to CSXT's identification of 766 land segments along the ROW.¹²⁶ (Id. at III-F-5.) CSXT argues that Consumers' failure to identify such discrete valuation units contributed to Consumers' understated land valuation. (Id. at III-F-9.)

CSXT further claims that Consumers' across-the-board analysis resulted in misidentified land uses along the ROW. (Id. III-F-10 to III-F-11.) CSXT argues that its higher valuation reflects the "many varied usages" throughout segments, "including residential land uses, which would fetch a much higher valuation" than Consumers' broader identifications. (Id. at III-F-10.)

¹²⁵ CSXT defines an across-the-board methodology as a "broad, preliminary, or rough estimate of the value of the across-the-fence properties." (CSXT Reply III-F-7, Mar. 7, 2016.)

¹²⁶ CSXT adds that Consumers' "appraisal report suggests that values change only 23 times for the segment valuations" and that "the entire corridor would have only 16 unique unit values." (Id. at III-F-7 to III-F-8.)

On rebuttal, Consumers argues that CSXT’s approach of subdividing land into smaller, more specific land use segments does not “yield more accurate results unless there are actually ‘unique’ and different highest and best uses.” (Consumers Rebuttal III-F-7, May 20, 2016.) Consumers states that CSXT divides the ROW into different segments even where “there is no discernable difference” in land use and assigns significantly different values to these contiguous segments. (Id. at III-F-7 to III-F-8, Table III-F-4.) Consumers argues that these unwarranted subdivisions inflate costs.

Consumers further criticizes CSXT’s approach of dividing the land into smaller segments and then making adjustments for parcel size “even where there is limited sales data or the correlation is almost insignificant.” (Id. at III-F-8 to III-F-9, Table III-F-4.) Thus, Consumers argues that CSXT’s practice of dividing the ROW into smaller parcels typically increases land costs. (Id. at III-F-8.) According to Consumers, CSXT’s approach results in neighboring land segments with the same or similar land use being assigned significantly different costs per acre. (Id. at III-F-9.) In contrast, Consumers states that it divides the CERR ROW into segments based on whether “there is an appreciable difference in highest and best use” and that its approach is thus “not contrived.”¹²⁷ (Id. at III-F-9 to III-F-10.)

The Board finds that Consumers’ land use determinations are feasible and supported and are not undermined by CSXT’s criticisms. Although CSXT argues that Consumers identifies too few land use segments, Consumers’ expert correctly states that the across-the-fence methodology “is generally not a parcel-by-parcel valuation but rather one that is focused on the dominant land use.” (Consumers Rebuttal Ex. III-F-1 at 5, May 20, 2016.) CSXT does not show that Consumers’ more broadly defined land use segments are flawed by, for example, showing that Consumers’ land use categories are insufficient or that Consumers’ physical inspections were inadequate. Although CSXT is correct that land can be divided into ever smaller parcels with more distinct uses, CSXT does not show that Consumers’ land use determinations are uncorrelated with appreciable changes in land prices. Moreover, the across-the-fence methodology is reasonable and has been used in prior cases. See, e.g., Total Petrochems. & Refining USA, Inc. v. CSX Transp., Inc. (Total Petrochems. 2016), NOR 42121, slip op. at 134-35 (STB served Sept. 14, 2016) (with Board Member Begeman dissenting in part). The Board thus will accept Consumers’ land use segments.

b. Comparable Sales (Other than Cook County, Ill.)

On opening, Consumers states that it examined land sales near the CERR ROW to develop across-the-fence land prices and then used land sales adjacent to or near CERR to form the basis for Consumers’ total land valuation estimate. (Consumers Opening III-F-7.) Consumers also states that it valued land in its “undeveloped condition, without consideration of adjacent ownership boundaries, abutting ownership, or severance damages.” (Id. at III-F-8.)

¹²⁷ For example, Consumers states that “where there is small patch of agricultural land among residential property, the land is classified as residential instead of agricultural.” (Id.)

On reply, CSXT argues that Consumers' comparable sales data is inadequate to support its land valuation. (CSXT Reply III-F-12, Mar. 7, 2016.) According to CSXT, 69 of the 209 comparable sales identified by Consumers are in "counties well removed" from the CERR ROW. (Id.) CSXT also states that it was not possible to verify Consumers' comparable sales because Consumers' supporting workpapers provide "no recording information." (Id.) CSXT states that "it is only through inference based on the sales identified on the individual maps that it is possible to approximate the sales used in the valuation" and that no individual sales for Michigan or Indiana are discussed. (Id.) Relatedly, CSXT argues that Consumers' comparable sales are not reconcilable with Consumers' unit value determinations, as Consumers' appraisal "provides no rationale or calculations" to explain its conclusions and Consumers' value conclusions "bear no relation . . . to the sales" near the segments being valued.¹²⁸ (Id. at III-F-12 to III-F-13.) CSXT thus concludes that Consumers' lack of analysis of the sales data makes Consumers' comparable sale analysis unreliable. (Id. at III-F-14.) CSXT relies on its own comparable sales, based on a segment by segment valuation. (Id. at III-F-8.)

On rebuttal, Consumers argues that its valuation is more reliable than CSXT's, even though Consumers relies on fewer comparable sales. (Consumers Rebuttal III-F-10, May 20, 2016.) Consumers states that its valuation involved sorting through "a large amount of data" to use sales most similar to the property being valued, whereas CSXT used more sales data, but failed to "sufficiently determine if, in fact, each data point actually represent[ed] a comparable sale." (Id. at III-F-10 to III-F-11.) Consumers states that CSXT's evidence includes "statistical outliers" and "miscategorized sales," which skew its results, whereas Consumers' approach ensures that comparable sales match the land segments and account for dissimilarities in use or location. (Id. at III-F-11.) In other words, Consumers argues that its approach focuses on quality, not quantity, of the comparable sales, even if that means frequently using comparable sales further from CERR's ROW. (Id.)

Consumers also argues that CSXT's statistical analysis of the comparable sales data is flawed and results in neighboring properties being assigned different costs, even when there is no significant change in the underlying land use. (Consumers Rebuttal III-F-13 to III-F-14, May 20, 2016.) According to Consumers, under CSXT's comparable sales analysis, CSXT first applies a best-fit-line¹²⁹ to the comparable sales data and then adjusts the data using an equation generated from the best-fit-line. (Id. at III-F-13.) Consumers states that CSXT then calculates an arithmetic mean based on the adjusted sales price data, applies corrections to the adjusted

¹²⁸ CSXT cites examples of Consumers' value conclusions for various segments as support. (Id. at III-F-12 to III-F-13.) For example, CSXT states that "Consumers' value conclusion for Segment 50 . . . identifies a price of \$0.75 per square foot," but according to the corresponding map, the average sales price per square foot for the different land uses comprising this segment would be \$1.17. (Id. at III-F-13.)

¹²⁹ According to Consumers, the best-fit-line is a simple best-fit regression applied by Excel. (Id. at III-F-17.)

arithmetic mean based on the characteristics of the underlying property, and generates a value for each land segment. (Id. at III-F-13 to III-F-14.)

Consumers raises several issues with CSXT's approach. Consumers argues that CSXT "blindly" applies the best-fit-line to the data, citing as an example the fact that "the residential development land use category for Indiana only had four comparable sales, but [CSXT] still performs the same statistical analysis and 'adjusts' the comparable data for parcel size." (Consumers Rebuttal III-F-13 & n.25, May 20, 2016.) In other words, Consumers claims that CSXT used a relatively small sample size for most of the land categories. (Id. at III-F-13.)

Consumers also claims that CSXT's adjustments to the comparable sales data in the first instance (i.e., the adjustments made after applying the best-fit-line) are "mostly contrived" or "unsupported." (Id. at III-F-14.) For example, Consumers states that CSXT "frequently applies a location adjustment, which would naturally either be based on the proximity to the ROW or at least to the same general location," but instead uses the term "'location' loosely, such that several locations that are geographically disparate would be grouped together." (Id.) According to Consumers, the fact that CSXT's location adjustment is flawed is evidenced by the fact that the data shows there is no correlation between location and price once the outliers are removed. (Id. at III-F-14 to III-F-16.)¹³⁰

Similarly, Consumers argues that CSXT's comparable sales analysis fails to account for "one-offs" along the CERR ROW, whereas Consumers employs a "more fine-grained approach" that involved analysis of the underlying land. (Consumers Rebuttal III-F-17 to III-F-18, May 20, 2016.) Consumers states that CSXT's valuations of individual land segments "are not always credible when the underlying property of the CERR is checked." (Id. at III-F-18 (citing multiple examples to support its claim that CSXT did not perform a careful review of the comparable sales data and included outliers in its analysis invalidating its valuation).)

Finally, in response to CSXT's assertions that Consumers' data was unverifiable, Consumers argues that the relevant calculations, latitude and longitude coordinates, and corresponding sales data were included in the same workpaper as the land valuation. (Consumers Rebuttal III-F-11 to III-F-12, May 20, 2016.) Consumers also asserts that CSXT's workpapers are "incomplete with improperly labeled units and side notes" and include hardcoded

¹³⁰ Consumers argues that CSXT could have correctly used the same statistical analysis if CSXT had removed the outliers or bad data in the first instance and then used correlations based on "logical relationships such as neighborhood or parcel size." (Id. at III-F-16.) Consumers states that CSXT's misapplication of unsupported adjustments resulted in an initial skewing of the comparable sales data, which then resulted in further error when CSXT again adjusted the comparable sales data to generate the values for the land segments. (Id. ("The net effect is that [CSXT's] initial adjustment error is compounded and therefore the values assigned to the individual land segments are not supported by the underlying comparable sales data."))

data and circular spreadsheet references. (Id. at III-F-16.) Consumers states that the Board should reject such a “black-box” model as unreviewable. (Id. at III-F-17.)

The Board finds that neither party’s evidence with respect to comparable sales is fully supported. Consumers’ approach appropriately focuses on using comparable sales that are similar to the property being valued, based on the characteristics of the underlying land, (see, e.g., Consumers Rebuttal III-F-10 to III-F-11, May 20, 2016), and its workpapers provide sufficient detail for the Board to confirm Consumers’ valuation calculations. Consumers’ workpapers fail to show how its unit costs are developed for segments in Indiana and Michigan, thereby preventing full verification of the correlation between Consumers’ comparable sales and its unit value determinations.

CSXT’s comparable sales are also flawed. CSXT’s adjustments to its comparable sales data after applying the best-fit-line are wholly unsupported because CSXT fails to provide information regarding how it developed those adjustments or an explanation of the adjustments’ purposes.

The Board will accept Consumers’ comparable sales analysis as the best evidence of record. Consumers shows in its workpapers how its unit costs are developed for the majority of its land segments. While roughly 40% of Consumers’ comparable sales analysis contain calculations that are not transparent, the correlation between Consumers’ comparable sales and its unit value determinations can be discerned in the other land segments. (See Consumers Rebuttal WP “CERR Land Valuation_Reply_with Rural vs Urban per acre calculations.xlsx,” Apr. 13, 2017.) CSXT’s analysis, however, is almost entirely unsupported, as CSXT provides no explanation or justification for how it developed the comparable sales adjustments that it applies to more than 90% of its total land valuation costs. (See CSXT Reply WP “CERR Land Valuation_Reply.xlsx,” Mar. 6, 2017.)

c. Comparable Sales for Cook County, Ill.

On opening, Consumers states that there were an insufficient number of comparable vacant sales for Chicago, Ill., to value the land. (Consumers Opening III-F-6.) As a result, Consumers states that it augmented “the direct sales comparisons by examining improved sales and allocating a price for the land component.” (Id.) Additionally, Consumers states that a local appraiser with experience working in the Chicago, Ill., area provided land sale data for Consumers’ review. (Id. at III-F-7.)

On reply, CSXT argues that Consumers made inaccurate assumptions regarding the value of residential land in Cook County, Ill (which includes Chicago). (CSXT Reply III-F-5, Mar. 7, 2016.) CSXT claims that Consumers valued Cook County, Ill., differently from other counties, employing a “blended” across-the-board methodology that uses averages of “unidentified commercial and industrial comparable sales for the non-residential uses” and averages of

residential sales for the residential uses. (Id. at III-F-14.) CSXT states that this approach is flawed, as Consumers’ “blend” is “not tied to the actual distribution of land uses” along the CERR ROW. (Id.)

Further to this point, CSXT states Consumers uses “2-4 unit improved sales of which more than 50% of the sales were court ordered, foreclosure, or short sales” and “multiplies the improved sale price by 25% to arrive at a land value.” (Id. at III-F-15.) CSXT argues that “court ordered sales, foreclosure sales, and short sales are not representative of valid *market* transactions” and that Consumers did not show that it investigated such sales to determine whether an adjustment was appropriate. (Id. at III-F-15 to III-F-16.) CSXT thus claims Consumers’ use of “distressed sales as **fifty percent** of the residential sales used in the appraisal resulted in an indicated value significantly lower than the value that results when those sales are removed.” (Id. at III-F-16.)

CSXT also argues that “Consumers’ assumption that 25% of the sales price for improved sales was attributable to the value of the land is unreliable.” (CSXT Reply III-F-16, Mar. 7, 2016.) CSXT states that Consumers’ allocation method “is not favored in the industry,” suggesting instead that such an allocation method should be used only to establish an approximate land value when the number of vacant sales is inadequate. (Id.) CSXT claims that, to properly use the allocation method applied by Consumers, “the land allocation percentage must be market derived from valid sources, preferably similar sales of improved property and sales of vacant sites in the immediate vicinity.” (Id.) CSXT argues that Consumers’ approach, by contrast, simply assumed a 25% land allocation was typical of both the market and property type without providing any supporting evidence. (Id. at III-F-16 to III-F-17.) CSXT thus provides its own valuation based on residential land sales. (Id. at III-F-16.)

On rebuttal, Consumers argues that its use of foreclosures and short sales is appropriate, as “these types of sales are not isolated in nature or character.” (Consumers Rebuttal III-F-12, May 20, 2016.) According to Consumers, an area’s valuation is affected by a significant number of foreclosures or short sales, and CSXT’s own data indicates that Cook County, Ill., has depressed market conditions. (Id.) Consumers, thus, argues that such data is appropriately included in its evidence. (Id. at III-F-13.)

Neither party has submitted entirely feasible and supported evidence of valuation of land in Cook County, Ill. Consumers’ expert allocates 25% of the improved sales to land; however, the only support for this figure is the expert’s statement that 25% is “typical of both the market and property types.” (Consumers Opening WP “CERR Land Valuation Report.pdf” at 49.) On the other hand, as the Board noted in the previous section on comparable sales, CSXT’s statistical analysis (in which it applies a best-fit-line to comparable sales followed by an arithmetic mean) is wholly unsupported. The Board must therefore decide which party has presented the best evidence of record. The Board notes that Consumers’ general approach of calculating land values in Cook County by looking at improved sales and allocating a portion of those improved sales to land to compensate for the lack of vacant land sales is feasible, even

though there is no support for the use of a 25% allocation itself aside from the expert's own opinion. (Consumers Opening III-F-7.) And CSXT does not show that 25% is incorrect or infeasible or provide an alternative percentage. (See CSXT Reply III-F-16, Mar. 7, 2016.)¹³¹ CSXT's evidence, by contrast, is based on a statistical analysis that the Board has found unverifiable and unsupported because CSXT failed to provide information on how it developed those adjustments or an explanation of the adjustments' purposes. Given these options, the Board will accept as the best evidence of record Consumers' valuation of land in Cook County, Ill.

3. Real Estate Transaction Costs

Consumers does not include any real estate transaction costs (also referred to by the parties as real estate acquisition costs) on opening. (See Consumers Opening III-F-2, Table III-F-1.)

On reply, CSXT claims that Consumers fails to provide for \$20.8 million in costs associated with land acquisition, such as title work, surveys, appraisals, negotiations, and closing costs.¹³² (CSXT Reply III-F-18 to III-F-21, Mar. 7, 2016.) CSXT argues that the Board should accept its transaction costs here because the Board previously has recognized that SARRs would incur such costs. (Id. at III-F-19 (citing E.I. DuPont de Nemours & Co. v. Norfolk S. Ry., NOR 42125, slip op. at 141 (STB served Mar. 24, 2014), corrected and updated, NOR 42125 (STB served Oct. 3, 2014), reconsideration denied, NOR 42125 (STB served Dec. 23, 2015); Sunbelt Chlor Alkali P'ship v. Norfolk S. Ry. (Sunbelt 2014), NOR 42130, slip op. at 104 (STB served June 20, 2014), pet. for reconsideration granted in part and denied in part (STB served June 30, 2016) (with Board Member Begeman dissenting in both), appeal docketed sub nom. Sunbelt Chlor Alkali P'ship v. STB, No. 16-15701 (11th Cir. Aug. 26, 2016)).

¹³¹ The Board also finds that CSXT's other criticisms do not undermine Consumers' approach. Although CSXT argues that Consumers' use of foreclosures and short sales is inappropriate, CSXT's evidence supports Consumers' assertion that Cook County, Ill., has depressed market conditions and thus the use of foreclosures and short sales is reasonable. (See Consumers Rebuttal III-F-12, May 20, 2016.) Additionally, the Board disagrees with CSXT's argument that Consumers' "blended" across-the-board methodology for Cook County is flawed because it is not tied to the actual distribution of land uses along the CERR ROW. (CSXT Reply III-F-14, Mar. 7, 2016.) As discussed above, the Board finds that Consumers properly differentiates among land uses along the CERR ROW and appropriately adjusts its valuation of those properties depending on the particular use of a land segment. (See Consumers Opening WP "CERR Land Valuation Report.pdf" at 49.)

¹³² CSXT includes real estate transaction costs as "mobilization." (CSXT Reply III-F-137 to III-F-138, Mar. 7, 2016.)

Additionally, CSXT states that its transaction costs are a conservative estimate of what CERR would pay on a per parcel basis. (CSXT Reply III-F-19, Mar. 7, 2016.) Specifically, CSXT states that, using valuation maps, it counted the number of parcels originally acquired by its predecessor railroads to determine the number of parcels to be acquired along the CERR mainline.¹³³ (*Id.*) CSXT also states that it developed the line-item transaction costs (i.e., title work, surveys, appraisals, negotiations, and closing costs) using “conservative assumptions. . . based upon [CSXT witness] Rex’s extensive knowledge of and research concerning right-of-way acquisition costs.” (*Id.* at III-F-20.) CSXT states that these costs also were confirmed by its expert, Mr. Mathewson, who “acquires property for railroads, the City of Chicago, Illinois Tollway Authority and others.” (*Id.*) Finally, CSXT states that the costs for these tasks are “in line” with those previously accepted by the Board in DuPont and Sunbelt 2014. (*Id.*)

On rebuttal, Consumers argues that CSXT’s transaction costs are unsupported and inconsistent with Board precedent. (Consumers Rebuttal III-F-19, May 20, 2016.) First, Consumers states that CSXT fails to show that it incurred certain costs on a per parcel basis. Consumers also claims that CSXT failed to “properly link the ‘Deed Index.xlsx’ with the ‘Val Map Index IL IN MI.xlsx’” workpapers, thus prohibiting Consumers from performing “an adequate review of the deed records” and “identify[ing] easements and potentially exclud[ing] significant costs from the land valuation.” (*Id.* at III-F-20.)

Second, Consumers claims that CSXT’s transaction costs “do not reflect common sense” because CSXT’s transaction costs “equate to ‘roughly 16% of the total land value assessed for the CERR’ and represent an additional cost per acre of \$10,511.” (*Id.* at III-F-20 to III-F-21, May 20, 2016 (quoting CSXT Reply III-F-21, Mar. 7, 2016).) Consumers contends that CSXT’s excessive per acre cost is the result of its expert’s application of “blanket one-size-fits-all” costs. (Consumers Rebuttal III-F-20 to III-F-21, May 20, 2016.) Stating that much of the right of way passes through residential areas, Consumers contends that “the cost of a house survey is more in the range of \$300 to \$800” rather than the \$2,500 CSXT uses and that “the cost of a house appraisal is in the range of \$300 to \$400” rather than the \$4,500 CSXT uses. (*Id.* at III-F-21.) Consumers also argues that CSXT’s proposed transaction costs for CERR are overstated because settlement fees are split between buyer and seller in many comparable transactions. (*Id.*)

Third, Consumers argues CSXT’s transaction costs “are not on the same scale of acquisition costs previously allowed by the Board.” (Consumers Rebuttal III-F-21, May 20, 2016.) Consumers states that, in Sunbelt 2014, the Board accepted transaction costs that were 3.7% of the total land value assessed with a cost per acre of \$1,187, whereas CSXT is asserting transaction costs that are roughly 16% of CSXT’s total land value assessed for CERR with a cost

¹³³ CSXT notes that for the Dolton interchange, BRC track, and the IHB interchange, a complete set of valuation maps was not available. (*Id.*) CSXT states that, for these lines, it estimated the number of parcels based on the parcels per mile for the mainline in Cook County, Ill. (*Id.*)

per acre of \$10,511. (*Id.* at III-F-20 to III-F-21 (citing Sunbelt 2014, NOR 42130, slip op. at 97, 103-04).) Similarly, Consumers argues that in DuPont the Board accepted transaction costs that were 2.1% of the total land value assessed with a cost per acre of \$1,189. (*Id.* at III-F-21 to III-F-22 (citing DuPont, NOR 42125, slip op. at 145).)

According to Consumers, CSXT's proffered transaction costs are higher than in previous cases likely because its expert divided the land into much smaller parcels than was done in cases like DuPont. Consumers notes that in DuPont, the railroad's expert calculated the average parcel to be ten acres, while here, CSXT's expert calculated it to be 0.9 acres. (*Id.* at III-F-23.) Consumers claims that these smaller parcels mean that the land would be acquired through a higher number of transactions, resulting in a greater overall amount of transaction costs. (*Id.*) Consumers argues that railroads installing track over 100 years ago were likely not dealing with "as many owners or had nearly the number of transactions as contemplated" by CSXT. (*Id.*)

The Board finds that neither party's evidence is feasible, supported, and realistic. See Duke Energy Corp. v. Norfolk S. Ry. (Duke/NS), 7 S.T.B. 89, 101 (2003). Although Consumers argues that CSXT fails to prove that it incurred these real estate transaction costs on a per parcel basis, Consumers' choice to omit these costs altogether is inconsistent with Board precedent holding that such costs are inherent in real estate transactions and are costs that would be incurred by a new rail entrant. See Total Petrochems. 2016, NOR 42121, slip op. at 136 ("These costs are inherent in real estate transactions and would be incurred by a new rail entrant."); Sunbelt 2014, NOR 42130, slip op. at 104 (same). Furthermore, Consumers' argument that CSXT failed to properly link the deed information with the information from the valuation maps, thereby prohibiting Consumers from identifying easements and potentially excluding significant costs from the land valuation, (Consumers Rebuttal III-F-20, May 20, 2016), relates to the valuation of the land, not to the transaction costs associated with acquiring the land.

The Board also finds, however, that CSXT's real estate transaction costs, although supported with some evidence, are wholly unrealistic. In prior cases, the Board has accepted real estate transaction costs that were no more than 3.7% of the total land valuation. See Total Petrochems. 2016, NOR 42121 slip op. at 133, 136 (accepting transaction costs that were 2.4% of total land value assessed); Sunbelt 2014, NOR 42130, slip op. at 97, 103-04 (accepting transaction costs that were 3.7% of total land value assessed); DuPont, NOR 42125, slip op. at 139-41 (accepting transaction costs that were 2.2% of total land value assessed). Here, in contrast, CSXT proposes real estate transaction costs that would constitute 17.3%¹³⁴ of Consumers' total land value for CERR—almost five times greater than the highest figure the Board has ever accepted in a prior case. CSXT fails to explain why a real estate transaction cost percentage so much higher than what the Board has accepted in past cases is warranted.

¹³⁴ CSXT calculates that its transaction costs represent "roughly 16% of [its] total land value assessed" for CERR. (CSXT Reply III-F-21, Mar. 7, 2016.) However, because the Board will accept Consumers' land valuation, the Board calculates that CSXT's transaction costs represent approximately 17.3% of the total land value assessed.

Significantly, in those cases where the Board has accepted real estate transaction costs, the costs were based on an average parcel size of 10 acres. See E.I. DuPont de Nemours & Co. v. Norfolk S. Ry., NOR 42125, NS Reply III-F-287, Nov. 30, 2012; Sunbelt Chlor Alkali P'ship v. Norfolk S. Ry., NOR 42130, NS Reply III-F-270, Jan. 7, 2013; Total Petrochems. & Refining USA, Inc. v. CSX Transp., Inc., NOR 42121, CSXT Reply III-F-13, July 21, 2014. Here, CSXT uses an average parcel size of 0.9 acres, less than 1/10th the average parcel size in those cases. (See Consumers Rebuttal III-F-23, May 20, 2016.) Additionally, although CSXT states generally its transaction costs are “in line” with those accepted by the Board, CSXT fails to explain why its real estate transaction unit costs for such small parcels would be the same as those used in prior cases for significantly larger parcels.

Lacking realistic evidence of real estate transaction costs in the record, the Board will not include any such costs here. Even though the Board disagrees with Consumers’ rationale for omitting transaction costs, its proposed 0% figure is far closer than CSXT’s 17.3% figure to the range of transaction costs accepted in prior cases.

B. ROADBED PREPARATION

TABLE C-4

Roadbed Preparation Costs			
Roadbed Item Categories	Consumers Supplemental Rebuttal	CSXT Alternative 1	STB
Clearing & Grubbing	\$2,358,310	\$2,148,645	\$2,148,645
Earthwork	24,344,590	55,149,282	25,503,465
Finish Grading	1,419,074	1,476,237	1,429,691
Land for waste quantities	0	7,733,273	0
Lateral Drainage	202,834	207,965	202,834
Retaining Walls	6,627,236	11,247,160	6,627,236
Rip Rap	282,510	283,803	282,510
Relocation of Utilities	39,987	39,987	39,987
Topsoil Placement / Seeding	27,230	27,230	27,230
Road Surfacing	199,401	199,401	199,401
Environmental Compliance	48,200	48,200	48,200
Culvert Cost	1,178,674	2,724,802	3,092,965
Total Roadbed Preparation Investment	36,728,045	81,285,985	39,602,164

1. Michigan Department of Transportation Data

Consumers develops costs for CERR roadbed construction, including common excavation, clearing and grubbing, embankment/borrow, and land for waste excavation, based on actual costs reported by contractors to MDOT.¹³⁵ For other components of CERR roadbed construction, Consumers develops costs based on the R.S. Means Handbook (Means). (See Consumers Opening III-F-10.) Consumers argues that, in certain instances, MDOT costs better reflect costs than Means, as Means costs are based on an average of costs for projects of all sizes from all around the country and assume a unionized workforce (which CERR would not have). (Id.) Consumers also argues that there is no way to scale Means unit costs to be commensurate with a project the size of CERR or to accurately estimate the impact of using non-union labor. (Id.) In discussing common earthwork excavation, Consumers also states that the Board accepted common earthwork unit costs based on actual projects instead of Means in two recent decisions. (Id. at III-F-24 (citing Ariz. Elec. Power Coop. v. BNSF Ry., NOR 42113 (STB served Nov. 22, 2011), aff'd sub nom. BNSF Ry. v. STB, 748 F.3d 1295 (D.C. Cir. 2014); Western Fuels Ass'n v. BNSF Ry. (Western Fuels 2007), NOR 42088, slip op. at 86 (STB served Sept. 10, 2007), remanded on other grounds sub nom. BNSF Ry. v. STB, 604 F.3d 602 (D.C. Cir. 2010)).)

On reply, CSXT rejects Consumers' use of MDOT data to derive any CERR costs, stating that Means construction cost data is the most reliable and appropriate evidence to use for clearing and grubbing, earthwork, and borrow costs and has become standard in SAC cases. (CSXT Reply III-F-23 to III-F-26, III-F-37 to III-F-38, III-F-49 to III-F-50 Mar. 7, 2016.) CSXT argues that Consumers' use of MDOT data is as flawed here as the complainants' use of the costs from the Trestle Hollow project was found to be in DuPont and Sunbelt 2014. (Id. at III-F-24 (citing E.I. DuPont de Nemours & Co. v. Norfolk S. Ry., NOR 42125 (STB served Mar. 24, 2014), corrected and updated, NOR 42125 (STB served Oct. 3, 2014), reconsideration denied,

¹³⁵ Based on publicly available information on MDOT construction projects from 2010 to 2015, Consumers identifies those projects that contain costs for clearing and grubbing, for common excavation, and for borrow. Consumers divides these projects into three tiers: (1) Tier I, projects within 30 miles of CERR; (2) Tier II, projects between 30 and 100 miles from CERR; and (3) Tier III, projects more than 100 miles away from CERR. (Consumers Opening III-F-13 to III-F-14.) According to Consumers, to limit its analysis to projects representative of CERR site conditions, it excludes Tier III projects, which it contends are too distant from CERR, but it includes Tier II projects to ensure a sufficient sample size. (Id. at III-F-13 to III-F-14, III-F-26 to III-F-27, & III-F-32 to III-F-33.) As a result, Consumers bases its costs for clearing and grubbing on 26 projects, for common excavation on 21 projects, and for borrow on four projects. (Consumers Opening WPs "MDOT Clearing and Grubbing Unit Costs.xlxs," Tab "Tier Calculations," Cell I26; "MDOT Excavation Unit Costs.xlsx," Tab "Tier Calculations," Cell H17; & "MDOT Borrow Unit Costs.xlxs," Tab "Tier Calculations," Cell I35.) In addition, as explained in more detail in the Land for Waste Excavation section, Consumers maintains that MDOT contract specifications make excavated material the property of the contractor, and thus MDOT costs include disposal of waste excavation. (Consumers Opening III-F-35; Consumers Rebuttal III-F-66, May 20, 2016.)

NOR 42125 (STB served Dec. 23, 2015); Sunbelt Chlor Alkali P'ship v. Norfolk S. Ry. (Sunbelt 2014), NOR 42130 (STB served June 20, 2014), petition for reconsideration granted in part and denied in part (STB served June 30, 2016) (with Board Member Begeman dissenting in both), appeal docketed sub nom. Sunbelt Chlor Alkali P'ship v. STB, No. 16-15701 (11th Cir. Aug. 26, 2016).)

CSXT further argues that Consumers' reliance on Western Fuels 2007 and Arizona Electric is misplaced, as these cases are distinguishable from the facts here. (Id. at III-F-26.) Specifically, CSXT states that, in Western Fuels 2007, the defendant "accepted the use of its own actual costs of the very lines replicated by the SARR for common excavation costs," and, in Arizona Electric, "the complainant based its common excavation unit costs on the average costs of five actual [defendant] capacity expansion projects." (Id.) CSXT argues that, in contrast, the MDOT data is based on highway projects that were not constructed by the defendant, are not part of the defendant's or CERR's system, and vary in size and scope in comparison to CERR. (Id. at III-F-26 to III-F-27.)

Finally, responding to Consumers' argument that there is no way to scale Means costs to be commensurate with a project the size of CERR, CSXT argues that Means unit costs are in fact scalable and reflect economies of scale. (Id. at III-F-27 to III-F-30.) CSXT therefore asserts that Means unit costs best reflect costs that would be incurred by CERR.

With respect to DuPont and Sunbelt 2014, Consumers disagrees with CSXT's characterization of those cases as rejecting Trestle Hollow costs simply because those costs were not Means costs. (Consumers Rebuttal III-F-26, May 20, 2016.) It states that instead the Board rejected Trestle Hollow costs in DuPont because "the size, scope, and geographic and topographic diversity" of the SARR in that case made Means "more appropriate than the extrapolation of costs from a single project." (Id.) Consumers further states that the MDOT unit costs here do not have the problems that the Board found with the Trestle Hollow costs in DuPont because the MDOT unit costs are derived from multiple real-world construction projects in the same geographic region with the same topographic diversity as CERR. (Id. at III-F-27.)

Consumers also disputes CSXT's claim that Western Fuels 2007 and Arizona Electric do not support Consumers' use of MDOT data here, stating that "CSXT fails to acknowledge what is included" in Means costs. (Id. at III-F-28.) Specifically, Consumers argues that Means unit costs "are not specific to Class I railroad system construction" and instead consist of "various types of projects that take place throughout the country." (Id.) Consumers states that, in contrast, MDOT data "relates specifically to the geographical region and topography" of CERR. (Id.) Consumers also cites West Texas as support for its use of MDOT data, arguing that Western Fuels 2007 and Arizona Electric are not the "only cases in which [Means]" was not completely relied upon in determining roadbed preparation unit costs." (Id. (citing W. Tex. Util. Co. v. Burlington N. R.R., 1 S.T.B. 638, 704 (1996) (accepting "WTU's unit costs for earthwork as reasonable, because they are based upon actual quotations obtained from the construction industry and recognized compilation services [including Means]").) Finally, Consumers argues

that Means costs do not actually account for economies of scale as CSXT contends, as Means provides no mechanism for decreasing unit costs for a variation in project size. (Id. at III-F-29 to III-F-34.)

As a general matter, the Board finds that Consumers' reliance on MDOT unit costs for CERR is feasible and supported.¹³⁶ Consumers shows that MDOT unit costs are derived from multiple real-world construction projects in the same geographic region with the same topographic diversity as that of CERR. (See Consumers Opening III-F-10; Consumers Rebuttal III-F-28, May 20, 2016.) In addition, CSXT's comparisons of MDOT data to the Trestle Hollow costs that were rejected in DuPont and Sunbelt 2014 do not undermine the feasibility of Consumers' approach because the MDOT data is more geographically and regionally specific to CERR than the Trestle Hollow project costs were to the SARRs in DuPont or Sunbelt 2014.¹³⁷ CSXT correctly points out that the MDOT data derives from highway projects rather than actual projects constructed by the defendant or on the defendant or on the SARR's system, as was the case in the Western Fuels 2007 and Arizona Electric cases cited as support by Consumers. But neither Western Fuels 2007 nor Arizona Electric established a requirement that costs for roadbed preparation must derive from the defendant itself or from projects on the SARR's footprint. Indeed, such a requirement would be inconsistent with the Board's acceptance in other cases of Means data, which derives from various types of construction projects from all over the country, likely none of which involved work on behalf of the defendant. The Board thus finds as a general matter that CSXT has not undermined the feasibility and support of Consumers' proposed MDOT-based unit costs. Ariz. Elec., NOR 42113, slip op. at 86-87 (accepting unit costs for common earthwork based on an average of defendant's own projects); W. Fuels 2007, NOR 42088, slip op. at 86; W. Tex., 1 S.T.B. at 704 (accepting earthwork unit costs based on actual quotations obtained from the construction industry and recognized compilation services, including Means).

For these reasons, the Board will not reject Consumers' use of MDOT unit costs as a threshold matter. As discussed below, however, CSXT raises specific arguments directed against Consumers' use of MDOT data to derive costs for clearing and grubbing, common

¹³⁶ Given the other findings regarding MDOT unit costs, the Board need not reach the merits of whether Means accounts for economies of scale.

¹³⁷ Cf. DuPont, NOR 42125, slip op. at 148-49 ("DuPont did not demonstrate that the costs realized on a 1.3-mile rail line relocation project in Tennessee were representative of the costs the [SARR] would incur in constructing a 7,300 mile, multi-state railroad. . . . [T]he size, scope, and geographic and topographic diversity of the [SARR] make the use of Means more appropriate than the extrapolation of costs from a single project."); Sunbelt 2014, NOR 42130, slip op. at 107-08 (rejecting use of Trestle Hollow costs because that project and the proposed SARR "involve construction over significantly different topographies with different soil characteristics and different economies of scale . . . and because Sunbelt relies on a single project, rather than supporting its position with multiple data points").

excavation, embankment/borrow, and land for waste excavation. The Board will address these arguments in the relevant sections.

2. Clearing and Grubbing

Clearing is the process of removing brush and trees (leaving roots and stumps), and is the initial step in roadbed preparation. Grubbing is the process of removing roots and stumps. (CSXT Reply III-F-37, Mar. 7, 2016.)

For quantity, Consumers develops the number of acres per track mile needing clearing and grubbing based upon the ICC Engineering Reports (Engineering Reports). (Consumers Opening III-F-12 & n.15.) For unit cost, Consumers identifies 26 MDOT projects that it finds to be representative of the clearing and grubbing work that would be performed in building CERR, then calculates “the weighted average clearing and grubbing unit cost based on total acres for the projects.” (Id. at III-F-14.) Consumers uses this weighted average MDOT unit price both for the acres requiring clearing and the acres requiring grubbing, which it argues is a conservative approach, considering that areas that require only clearing are usually less expensive than areas requiring clearing and grubbing. (Id.) Consumers also argues that this weighted average approach reflects the economies of scale inherent in larger projects, that the Board previously has accepted such an approach, and that numerous state Departments of Transportation utilize a weighted average quantity approach for cost analyses and project estimates. (Id. at III-F-14 to III-F-15.)

In order to ensure that the unit cost it derived from MDOT projects is similar to the costs that CSXT has realized in its normal course of business, Consumers conducts a comparison based on Authority for Expenditure (AFE) data provided by CSXT. Consumers acknowledges that the comparison shows that its proposed clearing and grubbing cost is lower than a weighted average unit cost based on the AFE data, but argues that its proposed unit cost is nonetheless appropriate because it is based on a larger sample size and on projects undertaken near CERR. (Id. at III-F-16 to III-F-17.) Consumers also points to AFE data from Kentucky (Casky Yard AFE data) as an example of the fact that a larger project (such as the construction of CERR) will have greater economies of scale, thus reducing unit costs. Despite this fact, Consumers states that it conservatively included numerous smaller projects when developing its proposed unit cost. (Id. at III-F-17.)

CSXT accepts Consumers’ methodology for determining clearing and grubbing quantities and the resulting quantities, but rejects Consumers’ proposed unit costs. (CSXT Reply III-F-38, Mar. 7, 2016.) CSXT argues that Consumers’ reliance on MDOT estimates instead of Means estimates is incorrect, particularly given DuPont and Sunbelt 2014,¹³⁸ and that, in calculating its unit costs, Consumers fails to distinguish between costs for land that requires

¹³⁸ As noted in the section on MDOT data, the Board finds that use of MDOT data, as a general matter, is not inconsistent with agency precedent.

clearing versus land that requires both clearing and grubbing. (Id. at III-F-37 to III-F-39.) CSXT also argues that Consumers' reliance on the CSXT Casky Yard AFE data as evidence that Means costs are overstated is incorrect, as the clearing and grubbing cost for that project was actually comparable to costs derived from Means. (Id. at III-F-38 to III-F-39.)

CSXT points out that Consumers developed alternative Means-based unit costs—one cost for clearing and grubbing, and one cost for clearing. CSXT proposes that the Board should accept those Means-based costs. (Id. at III-F-39 to III-F-41.)

On rebuttal, Consumers rejects CSXT's proposal. Consumers argues that it calculates separate MDOT unit costs for "clearing," "grubbing," and "clearing and grubbing," thereby differentiating the unit costs for the three categories before utilizing a weighted average to arrive at a total "clearing and grubbing" unit cost. (Consumers Rebuttal III-F-50, May 20, 2016.) With respect to the CSXT Casky Yard AFE data, Consumers responds that CSXT's methodology misstates the clearing and grubbing cost for that project. (Id. at III-F-49.)

The Board finds that Consumers' single, combined "clearing and grubbing" unit cost is not feasible and supported. To arrive at this combined unit cost, Consumers uses a weighted average of the 26 MDOT projects' total acreage, some of which required clearing only and some of which required both clearing and grubbing. (See Consumers Rebuttal WP "MDOT Clearing & Grubbing Unit Costs.xlsx," May 20, 2016.) As CSXT notes, this combined unit cost reflects the ratio of acres cleared to acres cleared and grubbed in those 26 projects. Using this combined unit cost for CERR would produce an accurate result only if the ratio of acres cleared to acres cleared and grubbed is the same for CERR as for the 26 MDOT projects. Here, however, the record shows that, on average, the MDOT projects have a much higher ratio of clearing-only acres to clearing and grubbing acres than CERR, as determined from the Engineering Reports. CERR's ratio of acres cleared to acres cleared and grubbed is 2.64 (514 acres/195 acres), whereas the MDOT data's ratio is 8.67 (273.13 acres/31.5 acres).¹³⁹ (See Consumers Rebuttal WP "MDOT Clearing & Grubbing Unit Costs.xlsx," May 20, 2016.) As a result, Consumers' approach understates CERR's costs because clearing is less costly than clearing and grubbing.

In contrast, CSXT proposes separate Means-based unit costs for clearing and for clearing and grubbing. The Board will accept these unit costs, which are feasible and supported and consistent with Board precedent. See, e.g., Total Petrochems. & Refining USA, Inc. v. CSX Transp., Inc. (Total Petrochems. 2016), NOR 42121, slip op. at 139 (STB served Sept. 14, 2016) (with Board Member Begeman dissenting in part) (accepting Means-based unit costs for clearing and grubbing); Sunbelt 2014, NOR 42130, slip op. at 108 (accepting Means-based unit costs for

¹³⁹ Consumers asserts that its approach is "conservative" because it applies the combined unit cost to acres cleared. (Consumers Opening III-F-14.) But Consumers ignores that its combined unit cost derived from the MDOT projects is, as noted above, based on clearing (i.e., the less expensive activity) occurring at a far higher rate than clearing and grubbing (i.e., the more expensive activity).

clearing and grubbing). Finally, the Board will accept the parties' agreement regarding clearing and grubbing quantities.

3. Earthwork

Consumers uses the Engineering Reports to develop the earthwork quantities for each valuation section covering the line segments of CERR. (Consumers Opening III-F-20.) Consumers adjusts the quantities to reflect current roadbed specifications. (Id.) It then uses the adjusted earthwork quantities to develop the earthwork requirements and the costs for CERR. (Id.) To develop earthwork costs, Consumers uses a combination of actual unit costs from the MDOT (indexed to 1Q15) and the Means average costs. (Id.) CSXT rejects various aspects of Consumers' analysis and argues that adjustments should be made. (See CSXT Reply III-F-31 to III-F-36, III-F-41 to III-F-56, Mar. 7, 2016.)

a. ROW Quantities

Consumers uses the Engineering Reports to develop ROW quantities. (Consumers Opening III-F-20.) CSXT accepts this methodology, but states that Consumers erred in recording the Engineering Reports quantity for the valuation segment CWI-3-IL by including an embankment quantity as common excavation instead of borrow. (CSXT Reply III-F-42, Mar. 7, 2016.) On rebuttal, Consumers accepts CSXT's correction. (Consumers Rebuttal III-F-50 to III-F-51, May 20, 2016.) The Board will accept the parties' agreement on this issue.

b. Yard Quantities

Consumers calculates the yard quantities for CERR's one yard, Barr Yard, based on an assumed average fill height of one foot and 25-foot track centers. (Consumers Opening III-F-23.) On reply, CSXT accepts Consumers' yard earthwork quantities, except for adding quantities required for its proposed addition of a locomotive turntable and bad-order set out track at Barr Yard. (CSXT Reply III-F-43, Mar. 7, 2016.) Consumers opposes the addition of the turntable and set out track, and thus, rejects CSXT's addition of the associated yard quantities. (Consumers Rebuttal III-F-51, May 20, 2016.) Because the Board accepts CSXT's inclusion of the locomotive turntable and bad-order set out track at Barr Yard in the Operating Plan section, the Board also will accept CSXT's inclusion of the additional earthwork quantities required for these additional yard components.

c. Segments with Partial CSXT Ownership

Consumers excludes investment costs for IHB lines in its calculation of earthwork quantities and costs on the ground that CERR trains would operate on these lines pursuant to trackage rights. (Consumers Opening III-B-16 to III-B-17.) On reply, CSXT argues that CERR cannot operate over certain line segments of the IHB, which CSXT partially owns, without

accounting for CSXT's ownership interest.¹⁴⁰ (CSXT Reply III-F-43, Mar. 7, 2016.) On rebuttal, Consumers maintains that CERR would not be responsible for the costs of constructing these lines because it would operate over them using trackage rights. Consumers therefore rejects CSXT's approach and continues to exclude investment costs for IHB lines. (Consumers Rebuttal III-F-51, May 20, 2016.) As discussed in the Traffic Group Selection section, the Board accepts Consumers' traffic using this segment and, for the reasons provided in System Configuration, also accepts Consumers' use of trackage rights over the track. The Board accordingly will exclude investment costs for IHB lines in the calculation of earthwork quantities and costs.

d. Earthwork Unit Costs

i. Common Excavation

Consumers bases its common earthwork excavation costs for CERR on the weighted average of such costs derived from 21 MDOT construction projects located within 100 miles of the CERR line. (Consumers Opening III-F-24 to III-F-27.) Consumers argues that the MDOT costs are appropriate for the reasons discussed in the MDOT Data section. Consumers also argues that the Means unit cost for common excavation is overstated.¹⁴¹ (Id. at III-F-25.)

On reply, CSXT rejects Consumers' use of MDOT costs to derive a weighted average unit cost, arguing that the MDOT costs are flawed because they: (1) omit the cost of building embankment; (2) do not properly account for the cost difference between construction in rural Michigan and construction in more urban Indiana and Illinois, where almost half of the CERR lines would be located; (3) improperly focus on the winning bid, rather than the average bid; (4) ignore mobilization costs; and (5) ignore the efficiencies MDOT contractors enjoyed that would be unavailable to CERR. (CSXT Reply III-F-32 to III-F-36, III-F-44 to III-F-45, Mar. 7, 2016.) CSXT states that, for these reasons and those discussed in the MDOT Data section, Means is a more appropriate method of calculating a common excavation unit cost. (Id. at III-F-45.) CSXT argues that, should the Board reject its proposed substitution of a Means-derived unit cost for Consumers' MDOT-derived unit cost, the Board should correct the flaws in Consumers' analysis of the MDOT data. (Id. at III-F-47.)

¹⁴⁰ As further discussed in the Traffic Group Selection section, CSXT argues on reply that these costs should not be included if the Board agrees that Consumers' traffic using this segment should be dropped. (CSXT Reply III-F-43, Mar. 7, 2016.) However, CSXT states that, should the Board decide to include this traffic, the corresponding investment costs also should be included. (Id.)

¹⁴¹ Consumers bases this argument on its analysis of Authority for Expenditure (AFE) data provided by CSXT during discovery. The Board does not discuss the parties' arguments relating to the AFE data, as the Board is able to make a determination regarding common excavation unit costs without reaching this issue.

On rebuttal, Consumers rejects CSXT's use of Means and continues to argue that common earthwork excavation costs should be based on MDOT data. (Consumers Rebuttal III-F-53 to III-F-55, May 20, 2016.)

As discussed below, the Board rejects all but one of CSXT's criticisms of Consumers' reliance on MDOT-based common earthworks costs. Specifically, the Board agrees with CSXT that Consumers' exclusion of an embankment component is unwarranted. With an appropriate embankment component included, however, the Board finds that Consumers' MDOT-derived weighted average common excavation unit cost is feasible and supported.

Embankment. On opening, Consumers argues that the MDOT specifications for common excavation encompass the necessary functions required by CERR for common excavation and "meet or exceed the CSXT Specifications for excavation projects." (Consumers Opening III-F-26 to III-F-28.) On reply, CSXT disputes this assertion, arguing that Consumers fails to account for the cost of building embankment—which is a necessary component of railroad roadbed construction—in its common excavation unit prices. (CSXT Reply III-F-33 to III-F-34, Mar. 7, 2016.) In support of its argument that Consumers omitted embankment from its common excavation cost, CSXT notes that there are separate line items showing embankment costs in the MDOT data (listed as "Embankment, CIP"). (*Id.*) In its calculations, however, Consumers only includes excavation (listed as "Excavation, Earth") in its common excavation costs. (*Id.*) For this reason, CSXT asks that, if MDOT data is used to calculate common earthwork unit costs, the Board add the cost for building embankment to the cost of excavation so that the common excavation unit costs are comparable to the adjusted common excavation quantities derived from the Engineering Reports. (*Id.* at III-F-34.)

On rebuttal, Consumers asserts that the "inclusion of embankment as part of earth excavation is an incorrect interpretation of MDOT unit costs" because the MDOT specifications provide that the excavated material is the property of the contractors and that "contractors must [c]ompact the subgrade to at least 95 percent of its maximum unit weight and to a depth of at least 10 inches. . . ." (Consumers Rebuttal III-F-40, May 20, 2016 (internal quotation marks omitted, alteration in original).) Consumers argues that "CSXT's own evidence demonstrates that embankment unit costs should not be included in the calculation of the MDOT excavation unit cost," noting that CSXT does not include embankment costs associated with those MDOT records it claims Consumers should have included but did not when determining its excavation unit cost. (*Id.* at III-F-40 to III-F-41.)

Consumers alternatively argues that, if the Board includes embankment as part of the MDOT earth excavation unit costs, the Board should use Consumers' correction to CSXT's calculation of the "Embankment, CIP" cost. (*Id.* at III-F-41.) According to Consumers, CSXT's method of developing common earth excavation and "Embankment, CIP" unit costs separately, and then adding them together, is flawed because it does not account for the respective components' quantities. (*Id.*) To correct this, Consumers calculates a combined "Embankment, CIP"/common earth excavation weighted average unit cost. (*Id.* at III-F-41 to III-F-42.)

The Board will accept Consumers' MDOT costs for common earthwork excavation modified to include the "Embankment, CIP" as calculated by Consumers on rebuttal. As a general matter, discussed in the MDOT Data section, the Board finds that the MDOT costs are feasible and supported for the purpose of establishing RPI costs in this case. With respect to common excavation specifically, the Board finds that the MDOT data includes the necessary components of common excavation, so long as embankment is included in the unit cost for common excavation. (See Consumers Opening III-F-27 to III-F-28.) To justify not including embankment costs in common excavation unit prices, Consumers points to the MDOT specifications, which assign ownership of the excavated material to the contractor and define how the subgrade is to be compacted. But neither the ownership of the excavated material nor the details of how the subgrade is to be compacted has any bearing on the fact that CERR would incur costs for building an embankment. Thus, Consumers does not adequately support its claim that the embankment costs shown in the MDOT projects were not part of the grading work of the projects, or why embankment costs should not be accounted for when computing grading costs.

Regarding calculating the "Embankment, CIP" component of the common excavation unit cost, the Board rejects CSXT's approach of developing separate common earth excavation and embankment unit costs and then adding these two costs together. Consumers' method of a combined unit cost based on a weighted average of the respective embankment and common excavation costs and quantities is more accurate and appropriately accounts for the 70/30 ratio of common earthworks excavation to embankment excavation. (See Consumers Rebuttal III-F-41 to III-F-42, May 20, 2016.)

Rural vs. Urban. CSXT argues that Consumers incorrectly assumes that the MDOT cost for common excavation to build highways in rural Michigan is representative of the cost for common excavation in the more urban areas that CERR traverses in Illinois and Indiana. (CSXT Reply III-F-34 to III-F-35, Mar. 7, 2016.) CSXT notes that Consumers chose to rely on these rural projects, rather than on seven MDOT highway projects that took place in the more urban Wayne County (which encompasses Detroit and the surrounding areas) because these projects were supposedly too distant from where CERR's lines would be built. (*Id.* at III-F-35.) CSXT notes that Consumers' MDOT-derived unit costs for excavation are far below the bid data for these Wayne County projects. (*Id.*) CSXT further states that, although Consumers applies the Means location factors to the MDOT unit costs, that approach compares "apples to oranges by applying the [Means] [l]ocation [f]actors to the MDOT bid cost data for excavation in Illinois and Indiana," and results in lower unit costs than are appropriate for Illinois and Indiana. (*Id.* at III-F-35 n.67.) In the alternative, CSXT argues that, if the Board rejects CSXT's proposed use of Means costs, the Board should use Wayne County costs, instead of Means-adjusted rural Michigan costs, for CERR lines in Indiana and Illinois. (*Id.* at III-F-47.) CSXT claims that the rural MDOT projects selected by Consumers involve easily accessible and uncongested areas and therefore are less relevant here than the urban Wayne County projects. (*Id.* at III-F-35.)

On rebuttal, Consumers states that it adequately accounts for the difference in costs between the rural and urban areas that CERR traverses by applying the Means location factors to the common earthworks excavation unit cost. (Consumer Rebuttal III-F-44, May 20, 2016.) Consumers cites 10 instances in CSXT's reply where CSXT accepts certain other costs from Consumers' opening using the same approach of indexing non-Means unit costs by the Means location factors. (Id. at III-F-45.)

As for CSXT's alternative proposal to use data from the Wayne County projects for CERR lines in Indiana and Illinois, Consumers argues that CSXT offers no explanation for why the Wayne County unit cost is superior to using a location factor adjusted unit cost, other than to say that the Wayne County data encompasses Detroit. (Consumer Rebuttal III-F-46, May 20, 2016.) Consumers asserts that the MDOT data includes projects that "run along the same shore of Lake Michigan as the areas in Illinois and Indiana that . . . CERR is replicating," whereas Wayne County borders on Lake St. Charles, Lake Erie, and Canada and is therefore less relevant to CERR. (Id.) Finally, Consumers argues that CSXT does not show that the topography and excavation needs of the Wayne County projects are more like those in Illinois and Indiana than Consumers' selected projects. (Id. at III-F-46 to III-F-47.)

The Board finds that Consumers has presented a feasible and supported method of accounting for the difference in costs between the rural and urban areas by adjusting the MDOT data for common excavation unit costs by the Means location factors.¹⁴² Although CSXT argues that the average unit cost from the Wayne County data is higher than Consumers' proposed unit costs for Indiana and Illinois, that fact alone does not demonstrate any error in Consumers' Means location factor approach. Indeed, CSXT's argument is undercut by CSXT's own repeated use of the Means location factors to adjust other non-Means unit costs in other places of the SAC analysis. (See Consumers Rebuttal III-F-45, May 20, 2016.)

Winning Bids. CSXT argues that Consumers does not explain why it considers only winning bids from the MDOT projects. (CSXT Reply III-F-35 to III-F-36, Mar. 7, 2016.) According to CSXT, because the MDOT projects are highway construction projects, the "majority of the bid dollars for the bids analyzed by Consumers are for pavement" and structures, as well as foundational bases, which means that excavation comprises a small percentage of any overall bid price. (Id. at III-F-36.) CSXT therefore argues that "the bid price for excavation d[oes] not drive the determination of the successful bidder." (Id.) Accordingly,

¹⁴² Because Consumers' has presented a feasible and supported approach to developing common excavation costs for CERR's more urban Indiana and Illinois segments, the Board need not address CSXT's alternative proposal to use a cost derived from Wayne County data for those segments instead. See Tex. Mun. Power Agency v. Burlington N. & Santa Fe Ry., 7 S.T.B. 803, 824 (2004) ("[U]nder SAC principles, it does not matter whether BNSF's higher-cost evidence may also have been feasible and supported, so long as TMPA's evidence—which represented the least cost for these expenses—was feasible and supported.")

CSXT argues that the average excavation bid price would be just as relevant as the average winning bid price on which Consumers relies. (Id.)

On rebuttal, Consumers argues that winning bid prices are superior to average excavation bid prices because they reflect the costs that “real world contractors charged the state of Michigan.” (Consumer Rebuttal III-F-47 to III-F-48, May 20, 2016.) Consumers argues that because non-winning bids were not accepted by MDOT, they do not reflect the cost of any actual construction and should not be used here. (Id. at III-F-48.)

The Board will accept Consumers’ methodology of using winning bids from MDOT data to calculate the common earthworks unit costs. CSXT states that the average excavation bid price is just “as relevant” as the average winning bid price on which Consumers relies, but CSXT only shows that another selection method would result in a higher unit price, not that there is a flaw in Consumers’ data selection method. CSXT’s argument seems to be that bidders may have underbid on common excavation, while overbidding on other components of their work, in order to be awarded the project, but CSXT does not provide evidence supporting such a claim. Without such evidence, the Board agrees that the winning bids by the party that actually performed the work can be used to represent the costs that CERR would pay. (See id. at III-F-47 to III-F-48.)

Mobilization. On reply, CSXT notes that the MDOT data includes a separate line item for mobilization, averaging 7.6% across the 21 MDOT projects analyzed by Consumers. (CSXT Reply III-F-34, Mar. 7, 2016.) CSXT argues that, if the Board accepts the use of MDOT data, the costs for excavation and embankment should be “increased by the amount by which the [7.6] average project mobilization percentage exceeds the 2.7 mobilization percentage assumed by Consumers, or 4.9 percent.”¹⁴³ (Id.)

On rebuttal, Consumers responds that mobilization should not be included in the common earthwork excavation unit costs, as mobilization is not a unit cost specific item, but rather “a lump sum pay item for preparatory work and operations.” (Consumer Rebuttal III-F-43, May 20, 2016.) Consumers notes that CSXT fails to make this adjustment when developing its own costs for through plate girder bridges, which CSXT sources from a Texas Department of Transportation publication, similar to the MDOT data used by Consumers. (Id.) Consumers also argues that Means supports excluding mobilization from the common earthwork excavation unit costs because Means states that “[w]hen equipment is rented for more than three days, there is often no mobilization charge by the equipment dealer.” (Id. at III-F-44.)

The Board will not include mobilization costs in calculating the unit cost for common excavation. The MDOT specifications define mobilization as “preparatory work and operations

¹⁴³ The 2.7% mobilization cost is based on the total amount of construction costs (excluding land, engineering, and contingency costs).

including, but not limited to . . . [t]he movement of personnel, equipment, supplies, and incidentals to the project site [and] [t]he establishment of the Contractor's offices, buildings, and other facilities to support work on the project." (Consumers Opening WP "MDOT 2012 Standard Specifications for Construction.pdf," at 107.) CSXT does not explain why costs for these types of preparatory tasks should be included in the unit cost for common excavation. Indeed, as Consumers points out, CSXT fails to make a similar adjustment to a unit cost it proposes (for a component of a through plate girder bridge) despite a mobilization line item in the document from which it sources that cost. Under Board precedent, mobilization is generally accounted for as a separate expense category and is "calculated as a percentage of the construction costs (excluding land, engineering, and contingency costs)." Duke Energy Corp. v. CSXT Transp., Inc. (Duke/CSXT), 7 S.T.B. 402, 505 (2004). Here, mobilization is accounted for in the Mobilization section of the Board's decision in accordance with Board precedent. Therefore, the Board finds there is no need to adjust the common earthworks unit cost to properly account for mobilization.

Efficiency-Related Adjustments. CSXT argues that the Board should reject use of MDOT costs because Consumers fails to make necessary efficiency-related adjustments to account for the fact that the MDOT bid data projects average approximately 50,000 cubic yards of excavation per mile, whereas the earthwork quantities for CERR average approximately 30,000 cubic yards per mile. (CSXT Reply III-F-44 to III-F-45, Mar. 7, 2016.) According to CSXT, the "higher concentration of earthwork volumes on MDOT projects allows for increased production from earthmoving equipment and likely results in lower haul distances, resulting in lower MDOT costs per unit." (*Id.* at III-F-45.) On rebuttal, Consumers argues that CSXT fails to support that cubic yards of excavation per mile has an effect on the costs included in the Means projects, and, therefore, provides no support for why Means should be used in favor of MDOT data. (Consumer Rebuttal III-F-54, May 20, 2016.)

CSXT does not show that an increase in volumes of excavation per mile results in increased production from earthmoving equipment or that an increase in volume affects haul distances. Equipment has a production rate that is independent of the amount of work to be performed. Accordingly, the Board finds that no efficiency adjustment to Consumers' MDOT-derived costs is warranted.

ii. Loose Rock Excavation

Consumers calculates a loose rock excavation unit cost based on Means. (Consumers Opening III-F-29 to III-F-30 & n.62.) CSXT accepts Consumers' use of the Means cost for loose rock excavation, but makes two adjustments to how these costs are calculated. (CSXT Reply III-F-48, Mar. 7, 2016.) First, CSXT revises the ratio of sheepsfoot to steel wheel rollers to 80% and 20%, respectively, arguing that Consumers' proposed 50/50 ratio is impractical. (*Id.* at III-F-45, III-F-48.) CSXT argues that an 80/20 split is needed between sheepsfoot rollers and smooth drum vibratory rollers because the terrain is uneven when embankments are initially constructed and steel wheel rollers are impossible to maneuver on such uneven surfaces, given that the smoothness of the steel drum causes them to slide downhill. (*Id.* at III-F-45.) Second, as

discussed further in the Swell and Shrinkage Factor section, CSXT argues that Consumers fails to account for the swell of excavated materials and that, to account for this, the necessary hauling costs should be matched with the adjusted volume of materials that require hauling. (Id. at III-F-48 to III-F-49.)

On rebuttal, Consumers rejects CSXT's modifications to the loose rock excavation unit cost. (Consumers Rebuttal III-F-55, May 20, 2016.) Consumers argues that "nearly every major soil compactor brochure contains language discussing the use of smooth drum rollers on uneven terrain or at significant grades." (Id. at III-F-56 to III-F-60.) Consumers further argues that the Board agreed in a previous case that a 50/50 split of smooth drum rollers and sheepsfoot rollers was appropriate because the defendant railroad had not shown that the mix of equipment would be incapable of compacting the soil. (Id. at III-F-60 (citing AEP Tex. N. Co. v. BNSF Ry., NOR 41191 (Sub-No. 1), slip op. at 81 (STB served Sept. 10, 2007), reconsideration denied (STB served May 15, 2009), vacated on other grounds and remanded sub nom. AEP Tex. N. Co. v. STB, 609 F.3d 432 (D.C. Cir. 2010).) Consumers claims that, as in that case, CSXT provides no evidence supporting its position. (Id.) Consumers also rejects CSXT's assertion that CERR should account for the swell of excavated materials.

The Board will accept Consumers' equipment mix. Although CSXT argues that an 80/20 split between sheepsfoot rollers and smooth drum vibratory rollers is needed due to the unevenness of the terrain and the smoothness of the steel drum, (CSXT Reply III-F-45, III-F-48, Mar. 7, 2016), Consumers provides ample evidence that smooth drum rollers are marketed for use on uneven terrain at significant grades and as being able to operate at-grade without "sliding downhill." (Consumers Rebuttal III-F-56 to III-F-60, May 20, 2016 (providing illustrative excerpts from Volvo's, Caterpillar's, and Dyanapac's brochures to show that drum rollers operate on uneven terrain).) As a result, the Board finds that Consumers' 50/50 split is feasible and supported.

Additionally, the Board accepts CSXT's modifications relating to shrinkage and swell as discussed in the Swell and Shrinkage Factor section. The Board therefore will accept the parties' agreement regarding use of Means data as the source for loose rock excavation unit costs, but will adjust those costs to correctly account for shrinkage and swell.

iii. Solid Rock Excavation

Consumers proposes a Means-based unit cost for solid rock excavation on opening. (Consumers Opening III-F-30 to III-F-31.) CSXT accepts Consumers' use of Means as the source for solid rock excavation unit costs, but, as with loose rock excavation, adjusts the ratio of sheepsfoot and steel wheel rollers to 80% and 20% respectively and adds a swell factor calculation. (CSXT Reply III-F-49, Mar. 7, 2016.) Consumers rejects CSXT's modifications on rebuttal. (Consumers Rebuttal III-F-63, May 20, 2016.)

As explained in the Loose Rock Excavation section, the Board will accept Consumers' equipment mix here because it is feasible and supported and CSXT has not discredited it. Additionally, as explained in the Swell and Shrinkage Factor section, the Board will accept the need for modifications relating to shrinkage and swell. Thus, the Board will accept the parties' agreement regarding use of Means data as the source for solid rock excavation unit costs, but will adjust those costs to correctly account for shrinkage and swell.

iv. Embankment/Borrow

Consumers uses MDOT construction cost data as the basis for its unit costs for borrow. (Consumers Opening III-F-32 to III-F-33.) On reply, CSXT rejects Consumers' use of MDOT data to calculate borrow unit costs. (CSXT Reply III-F-49, Mar. 7, 2016.) CSXT asserts that Consumers' MDOT sample for borrow is not representative of CERR, as it relies on only four MDOT projects located in Michigan, when over 90% of CERR borrow quantities occur in Illinois and Indiana, and involved only 6,370 cubic yards of borrow, when CERR requires over a million cubic yards of borrow. (Id.) CSXT thus argues that Means costs are more appropriate in this case, and likely understated, particularly because the selected Means cost assumes a one-mile haul for borrow, but the borrow for some CERR segments is hauled in from longer distances. (Id. at III-F-50.)

On rebuttal, Consumers rejects CSXT's arguments, stating that there are cost savings associated with purchasing borrow in large quantities and that Consumers' borrow unit cost is conservative based on a Louisiana wetlands conservation and restoration project. (Consumers Rebuttal III-F-64 to III-F-65, May 20, 2016.) Consumers also argues that "[i]t is unrealistic . . . to expect Consumers to find projects the size of CERR for comparison purposes in MDOT or elsewhere." (Id. at III-F-65.) Finally, Consumers argues that it accounts for higher construction costs in Illinois and Indiana by applying the Means location factor to the MDOT borrow unit cost. (Id. at III-F-65 to III-F-66.)

The Board will accept Consumers' MDOT-derived unit cost for borrow as feasible and supported.¹⁴⁴ CSXT does not show that four MDOT projects are insufficient to develop a reasonable unit cost for CERR borrow. Although CSXT argues that these four projects involved only 6,370 cubic yards of borrow, whereas CERR would require over a million cubic yards of borrow, CSXT does not provide a rationale or evidence showing that the unit price of borrow would depend on the amount of borrow purchased. With respect to whether the MDOT data is geographically representative of CERR, Consumers adjusts the MDOT unit cost by the Means location factors, which sufficiently adjusts the unit cost for CERR borrow located in Illinois and Indiana. Finally, CSXT's choice of a conservative Means cost (which assumes a one-mile haul)

¹⁴⁴ Although Means does not support Consumers' claim that there are cost savings associated with purchasing borrow in large quantities, (see id. at III-F-64), the Board nevertheless accepts Consumers' unit costs.

has no bearing on the feasibility of the MDOT data. Therefore, the Board finds that CSXT does not undermine the feasibility of Consumers' MDOT borrow unit costs.

v. Land for Waste Excavation

Consumers determines that additional land to dispose of waste excavation is not needed for CERR because the MDOT specifications relied upon for CERR's unit costs state that excavated material is the property of the contractor. (Consumers Opening III-F-35.) On reply, CSXT rejects Consumers' assumption that CERR would not need additional land on which to dispose of waste excavation, arguing that Consumers' proposal is inconsistent with Board precedent and is irreconcilable with the narrow right of way that Consumers posits for CERR. (CSXT Reply III-F-51 to III-F-52, Mar. 7, 2016 (citing DuPont, NOR 42125, slip op. at 170; Sunbelt 2014, NOR 42130, slip op. at 119).) On rebuttal, Consumers reiterates that because the contractor would own the waste material, the contractor could either sell or use the waste material in other projects; therefore, the size of the right of way does not affect whether land for waste quantities should be purchased. (Consumers Rebuttal III-F-66 to III-F-67, May 20, 2016.) Consumers alternatively argues that if the Board decides to calculate land for waste quantities, it should use Consumers' revised average rural land calculation as provided on rebuttal. (Id.)

The Board will accept as feasible and supported Consumers' position that additional land to dispose of waste excavation is not needed for CERR. Consumers' expert witness confirms that it is normal practice for contractors to include disposing of waste excavation as part of the unit cost for excavation used in bids and invoices. (Consumers Opening III-F-35.) CSXT does not provide evidence to refute or undermine Consumers' expert. (See CSXT Reply III-F-51 to III-F-52, Mar. 7, 2016.) Nor is CSXT's reliance on Board precedent accepting land for waste excavation in cases where the Board accepted Means costs relevant here. Although, as CSXT states, Means costs do not include costs for land for waste excavation, here Consumers is relying on MDOT costs, which Consumers' expert explains do include such costs. Therefore, the Board finds that CERR would not need to purchase additional land for disposal of waste excavation.

vi. Swell and Shrinkage Factor/Adjustment to Material Haulage Quantities

On opening, Consumers does not address cost or volume adjustments to account for changes in soil states that occur in the process of excavating, hauling, and backfilling earth (shrinkage and swell). On reply, CSXT adjusts for these soil changes by applying conversion factors to earthworks unit costs, stating that Means implicitly recognizes their necessity by reporting unit prices for hauling excavated materials in loose cubic yards (LCY) but unit prices for compaction operations in embanked cubic yards (ECY). (CSXT Reply III-F-53, Mar. 7, 2016.) CSXT also states that Means explains in its "Site Preparation" section the need to convert unit costs to match reported quantities to account for differences in material volumes due to swell and shrinkage. (Id. at III-F-53 to III-F-54.)

Consumers argues that the Board previously rejected proposals to include an adjustment to account for shrinkage and swell and that the Board has made clear that no adjustment to Means unit costs is necessary to account for swell, regardless of the compacted state. (Consumers Rebuttal III-F-60 to III-F-62, May 20, 2016.) Consumers claims that in this case, CSXT is making the same argument that was made and rejected in DuPont and Sunbelt 2014, only replacing the use of bank cubic yards (BCY) in those cases with ECY. (Id. (citing Sunbelt 2014, NOR 42130, slip op. at 116; DuPont, NOR 42125, slip op. at 184-85.)

As further support that swell and shrinkage do not need to be accounted for, Consumers cites the Ringwald's Means Heavy Construction Handbook, which states that "BCY is the unit of preference in discussing earthwork of any kind. . . . Nothing extra is paid for the loose or compacted states occupied by the same BCY throughout the course of the job." (Consumers Rebuttal III-F-62 to III-F-63, May 20, 2016.) Consumers argues that "CSXT's workpapers clearly demonstrate that 'nothing extra is paid' for the various states of compaction that occur during an earthwork project" and no adjustment to the Means unit costs is necessary to account for swell. (Id. at III-F-63.)

As the Board explained in Total Petrochemicals 2016, NOR 42121, slip op. at 142-43, shrinkage and swell adjustments are appropriate to account for the three soil phases (i.e., excavation, haulage, and compaction) comprising the development of the earthwork unit costs. Based on the record in this case, the Board finds that such an adjustment also is appropriate here. Both parties develop a composite unit cost for soil that includes, among other things, excavation, haulage, and compaction. While the costs for each of these activities accurately reflect Means costs, it is inappropriate to apply the same volume of soil to each individual activity's unit cost, as the soil is clearly in three different states, and therefore at three different volumes. Sunbelt Chlor Alkali P'ship v. Norfolk S. Ry. (Sunbelt 2016), NOR 42130, slip op. at 34 (STB served June 30, 2016) (with Board Member Begeman dissenting), appeal docketed sub nom. Sunbelt Chlor Alkali P'ship v. STB, No. 16-15701 (11th Cir. Aug. 26, 2016). For these reasons, Consumers' unadjusted earthworks costs are not feasible and supported.

The Board finds that CSXT's proposed methodology to account for shrinkage and swell is acceptable. Although Consumers maintains that "the cubic yard figure for which a contractor is paid a unit price is almost always expressed in BCY [and that] [n]othing extra is paid for the loose or compacted states" that occur during an earthwork project (Consumers Rebuttal III-F-63, May 20, 2016 (quoting CSXT Reply WP "Swell and Shrinkage – Ringwald, Means heavy Construction Handbook.pdf," Mar. 7, 2016)), CSXT sufficiently demonstrates that soil volumes change based on the state of compaction and that Consumers fails to account for that change. Ideally, conversion factors would be applied to the volumes of the soil in its different phases and those volumes would be multiplied by an appropriate unit cost (e.g., a quantity expressed in BCY would be multiplied by a unit cost expressed in dollars/BCY). But the evidence in this case does not permit that calculation. CSXT addresses this problem by applying the conversion factors to the Means unit costs at the different phases within the development of the composite cost. (CSXT Reply WPs "Swell and Shrinkage – Ringwald, Means heavy Construction

Handbook.pdf,” “CERR Grading_Reply.xlsm,” Mar. 7, 2016.) CSXT’s approach of adjusting unit costs, rather than soil volumes, thus accomplishes the same purpose.

However, two adjustments to CSXT’s evidence are needed. First, an adjustment is needed to apply the conversion factors based on an assumption that the Engineering Reports quantities are in BCY. See Sunbelt 2016, NOR 42130, slip op. at 34-35. ECY is the most compact material state, BCY is a less compact state, and LCY is the least compact state. Consumers argues that the Engineering Reports do not specify any more specific unit of measurement than cubic yards. However, as noted in Sunbelt 2016, slip op. at 34-35, it appears that the Engineering Reports reflect quantities measured in both BCY and ECY. CSXT applies its swell conversion factors based on an assumption that all Engineering Reports quantities are in ECY. Because the Engineering Reports indicate that the majority of the quantities likely would be measured in BCY, the Board will instead apply the conversion factors based on the assumption that all Engineering Reports quantities are in BCY. The Board will apply the shrinkage and swell factor to CSXT’s evidence accordingly.

Second, the Board will adjust CSXT’s evidence to apply the swell factor to haulage instead of compaction and to revise the compaction unit cost to exclude the swell factor, consistent with CSXT’s narrative. (Cf. CSXT Reply III-F-55 to III-F-56, Mar. 7, 2016 with CSXT Reply WP “CERR Grading_Reply.xlsm,” Mar. 7, 2016.)

vii. Fine Grading

On opening, Consumers calculates investment costs for fine grading of \$1.15 million. (Consumers Opening III-F-44.) On reply, CSXT accepts Consumers’ fine grading unit cost, but rejects its quantities, stating that Consumers failed to account for fine grading for the Barr Yard tracks and areas where second and third tracks are located. (CSXT Reply III-F-52 to III-F-53, Mar. 7, 2016; CSXT Reply WP “CERR Grading_Reply.xlsm,” Tab “Total Cost Summary,” Cell M32, Mar. 7, 2016.)

On rebuttal, Consumers accepts CSXT’s additional grading quantities, but corrects CSXT’s quantities for the second main track, as CSXT’s calculations for valuation segment CWI-3-IL do not account for CERR’s 25% ownership. (Consumers Rebuttal III-F-76, May 20, 2016 (stating that CSXT’s calculations for CWI-3-IL assume 100% ownership); Consumers Rebuttal WP “CERR Grading_Rebuttal.xlsm,” Tab “Road Grading,” Cell CW18, May 20, 2016.) Consumers also notes in supplemental evidence that CSXT’s calculations continue to assume that CERR will pay 100% of the costs, resulting in an overstatement of approximately \$30,000. (Consumers Rebuttal III-F-3, Apr. 13, 2017.)

The Board will accept Consumers' correction to the evidence to assume 25% ownership of valuation segment CWI-3-IL instead of 100% ownership.¹⁴⁵ That segment is part of the BRC, in which CSXT has 25% ownership interest. (CSXT Reply III-B-1, Mar. 7, 2016, Consumers Rebuttal III-F-3, Apr. 13, 2017.) The Board will accept the parties' agreement regarding the fine grading unit cost.

4. Drainage

a. Lateral Drainage

Consumers uses the Engineering Reports to determine the quantity of pipe needed for lateral drainage, and Means to determine the associated unit costs. (Consumers Opening III-F-36.) CSXT accepts Consumers' lateral drainage costs and quantities. (CSXT Reply III-F-56, Mar. 7, 2016.) The Board will accept the parties' agreed-upon costs and quantities.

b. Yard Drainage

The parties' disagreement regarding yard drainage quantities is discussed below in the Yard Costs section.

5. Culverts

Consumers utilizes corrugated aluminized metal pipe (CMP) culverts for CERR, except where the size of the opening required for the conditions exceeds the maximum CMP diameter, in which case, concrete box culverts are used. (Consumers Opening III-F-37.) Consumers also states that it replaces certain bridges with culverts where suitable. (Id.) CSXT rejects Consumers' culvert unit costs, quantities, and certain bridge conversions. (CSXT Reply III-F-57 to III-F-62, Mar. 7, 2016.)

a. Culvert Unit Costs

On opening, Consumers assumes the open trench placement method would be used to install culverts. (Consumers Opening III-F-38.) Consumers calculates the unit costs for CMP culverts using the linear feet of the culvert and the diameter of the pipe. (Id.) Consumers calculates the unit costs for concrete box culverts using the width and height of the opening and

¹⁴⁵ In reviewing the parties' workpapers, the Board also noted a difference in earthwork quantities for PM-3-MI. CSXT uses 113.25 track miles for this segment, and Consumers shows 111.25 track miles for this segment. (See Consumers Rebuttal WP "CERR Grading_Supplemental.xlsm," Apr. 13, 2017; CSXT Reply WP "CERR Grading_Supp_Reply.xlsm," Mar. 6, 2017.) The Board will accept CSXT's 113.25 track miles for PM-3-MI because this value appears to account for the Wells Siding at the Campbell Station, which the Board includes in CERR for the reasons discussed in the Operating Plan section.

the linear feet through the track cross section. (*Id.*) For both culvert types, Consumers adds unit costs for excavation, furnishing, and placing crushed stone for bedding material, rip rap for slope protection, culvert installation, and backfill. (*Id.*) CSXT claims that Consumers either omits or incorrectly applies certain costs associated with culvert installation and makes unspecified computation errors in its workpapers. (CSXT Reply III-F-57, Mar. 7, 2016.) Specifically, CSXT rejects how Consumers developed bedding costs from Means. CSXT states that Consumers selected a Means unit cost per square yard to provide a certain depth of bedding, but argues that instead, a Means cost per cubic yard should be applied to the actual quantities of bedding being placed. (*Id.*) CSXT also rejects Consumers' method of developing Means costs to excavate trenches based on a generic three cubic yard shovel and 18 cubic yard truck. (*Id.*) CSXT instead applies trenching unit costs from Means particular to the widths of the trenches being excavated. (*Id.* at III-F-57 to III-F-58.)

On rebuttal, Consumers accepts CSXT's revised Means cost for bedding. However, Consumers rejects CSXT's unit costs for trenching excavation, arguing that CSXT's costs are based on the embankment being constructed first, before the area is trenched and the culverts installed. Consumers argues that the open trench placement method that it would use (first excavating the bedding area, then installing culverts, and lastly constructing the embankment) is the "more cost-conscious, logical, and real-world method." (Consumers Rebuttal III-F-69, May 20, 2016.) Consumers also argues that its method is consistent with Board precedent. (*Id.*)

As discussed below, the Board will accept Consumers' installation method of culverts. Accordingly, CSXT's criticisms of Consumers' methodology for developing culvert unit costs are invalid, as Consumers develops those costs appropriately given its installation method. The Board also will accept the parties' agreement regarding the Means cost for bedding.¹⁴⁶ (*Id.* at III-F-68.)

b. Culvert Installation Plans

Consumers states on opening that all culverts would be placed during the early stages of preparation of the roadbed subgrade. The culverts can be installed with a minimum of excavation using the open trench installation method. (Consumers Opening III-F-38.) In particular, culverts are installed after a sufficient depth of compacted roadbed fill has been placed. A trench is excavated to a depth of 12" below the flow line of the culvert and one foot wider than the culvert width on each side of the culvert. (*Id.* at III-F-38 to III-F-39.) The bottom 12" of the excavation is filled with crushed stone bedding material to act as a foundation and cushion for the culvert. The culvert is then laid on the foundation and then backfilled. Finally, rip rap is placed for slope protection. (*Id.* at III-F-39.)

¹⁴⁶ The Board will apply the parties' agreed-upon Means unit costs, adjusted by the delivery-location specific Means location factor adjustment, to all culverts, including those culverts for which Consumers omitted quantities.

On reply, CSXT states that Consumers incorrectly calculates installation quantities by underestimating the amount of bedding material required for construction. (CSXT Reply III-F-58, Mar. 7, 2016.) According to CSXT, Consumers fails to include bedding material between the flow line (bottom) and spring line (mid-height) of the CMP, which is standard industry practice to ensure proper load transfer to the bedding material and underlying soils. (*Id.*) CSXT also states that Consumers fails to include trench backfill costs for the culverts. (*Id.* at III-F-59.) CSXT calculates a total cost of trench backfill based on Means unit costs and a backfill quantity equal to the bedding quantity. (*Id.*)

On rebuttal, Consumers rejects CSXT's additional costs for bedding materials, arguing that its bedding materials and costs are consistent with CSXT's proposed methods. (Consumers Rebuttal III-F-69, May 20, 2016.) Consumers also rejects CSXT's additional trench backfill costs as unnecessary, given that the CMP is installed before constructing the embankment, while backfill from the springline of the CMP to the surface is covered under earthwork costs. (*Id.* at III-F-70.)

The Board will accept Consumers' culvert installation plans. The Board previously has accepted the open trench installation method. See, e.g., Sunbelt 2014, NOR 42130, slip op. at 121-122 (accepting Sunbelt's proposal that culverts would be installed during the early stages of preparation of the roadbed using open trench installation method; PPL Mont., LLC v. Burlington N. & Santa Fe Ry., 6 S.T.B. 286, 306 (2002) (accepting shipper's plan that culverts would be installed during initial grading process rather than later), modified on reconsideration (STB served Mar. 24, 2003), aff'd sub nom. PPL Mont., LLC v. STB, 437 F.3d 1240 (D.C. Cir. 2006). Moreover, Consumers shows that its installation plan is feasible and supported. (See Consumers Rebuttal III-F-69 to III-F-70, May 20, 2016.) Specifically, Consumers shows that it does include bedding between the flow line and spring line of the CMP and, therefore, its bedding materials and costs are consistent with CSXT's proposed pipe design, (see id. at III-F-69 to III-F-70 & nn.181-182 (citing Consumers Opening WPs "CMP bedding detail.pdf," "RCP Bedding Detail.pdf")), and that it accounts for trench backfill costs under earthwork costs, (Consumers Rebuttal III-F-70 & n.183, May 20, 2016) (citing Consumers Opening WP "CMP bedding detail.pdf"); see also Consumers Rebuttal WP "Culvert Cost Worksheets_rebuttal.xlsx," Apr. 13, 2017.) For these reasons, the Board will accept Consumers' culvert installation plan.¹⁴⁷

c. Culvert Quantities

On opening, Consumers states that it develops culvert quantities from the culvert inventory CSXT provided in discovery and adds additional culverts where it substitutes a culvert for a bridge. (Consumers Opening III-F-39.)

¹⁴⁷ Although the Board is generally accepting Consumers' installation plan, as discussed below, the Board is also accepting CSXT's larger pipe design. Application of Consumers' installation plan to the larger pipes results in the Board accepting larger quantities for excavation, rip rap, and bedding to account for the larger design.

On reply, CSXT rejects Consumers' culvert quantities. First, CSXT argues that Consumers substitutes CMP culverts for all culverts from CSXT's inventory provided in discovery, regardless of the existing culvert's material or shape, thereby ignoring whether Consumers' proposed CMP culverts are capable of conveying at least as much flow as the existing culverts. (CSXT Reply III-F-59, Mar. 7, 2016.) To correct this, CSXT states that it uses certain "foundational assumptions," Manning's flow equation, and the existing pipes' physical properties to calculate the existing culverts' flow capabilities, and then determines the equivalent number of CMPs needed for each culvert to achieve the same flow. (Id. at III-F-59 to III-F-61.)

Second, CSXT argues that Consumers improperly converts one bridge (at CG 85.90) to a culvert. (Id. at III-F-57; see Consumers Rebuttal III-F-70, May 20, 2016.)

Lastly, CSXT argues that Consumers fails to include quantities for culverts from the CSXT inventory list that did not have a given length, size, number of barrels, or delivery area. (CSXT Reply III-F-62, Mar. 7, 2016.) To correct this, CSXT states that it assumes that any culvert without a length or size is the average length or size of all culverts of the same type. (Id.) In addition, CSXT assumes that culverts that were not assigned a number of barrels were single-barreled, and assigns the average delivery cost to any culvert that was not assigned a delivery area. (Id.)

On rebuttal, Consumers rejects CSXT's culvert quantities. First, Consumers states that replacing all culverts with CMPs is proper and that, in fact, CSXT uses the wrong formula for calculating flows for CMP, thereby exaggerating the potential results of replacing culverts with CMPs. (Consumers Rebuttal III-F-70 to III-F-71, May 20, 2016.) Second, Consumers states that CSXT's argument regarding Consumers' alleged conversion of a bridge to a culvert is incorrect because "CSXT previously listed this 'bridge' as two 10ft x 10ft box culverts." (Id. at III-F-70.) Lastly, Consumers argues that CSXT may be making "self-serving guesstimates" in assuming certain lengths, sizes, delivery areas, and number of barrels for those culverts for which no such data was produced in discovery. (Id. at III-F-71.)

The Board will accept CSXT's CMP culvert quantities, which are feasible and supported, while Consumers' quantities are not. CSXT has shown that Consumers' design procedure for CMP does not properly account for the flow of the existing culverts whereas CSXT's design procedure is appropriate for the use of CMP. (See CSXT Reply III-F-59 to III-F-62, Mar. 7, 2016.) Therefore, the Board also will accept CSXT's pipe design.¹⁴⁸

¹⁴⁸ The Board adjusts quantities for excavation, rip rap, and bedding required by CSXT's larger pipe design. For bedding, the Board's adjustment results in a quantity greater than that proposed by either Consumers (which based its bedding quantity on smaller pipes rejected by the Board) or CSXT (which calculated cubic yards of bedding incorrectly).

With respect to box culvert structures, the Board will accept Consumers' quantities, which are undisputed by CSXT. Concerning the conversion of a bridge to culverts, (see Consumers Rebuttal III-F-70, May 20, 2016), the Board will accept Consumers' use of box culverts in lieu of a bridge as feasible and supported. Although CSXT argues that this should be a bridge, Consumers shows that this structure currently consists of two 10x10 box culverts. (Consumers Opening WP "Culvert Cost Worksheets.xlsx," Tab "Culvert Cost Summary"; see also Consumers Rebuttal WP "CSX Track Chart MP CG 85 to CG 90.pdf," May 20, 2016.)

For quantities for culverts that did not have lengths, sizes, delivery areas, or number of barrels in discovery, the Board finds that neither party's evidence is feasible and supported. Although Consumers argues that CSXT is making "self-serving guesstimates" in assuming certain lengths, sizes, delivery areas, and number of barrels for those culverts for which no such data was produced in discovery, (Consumers Rebuttal III-F-71, May 20, 2016), Consumers' approach of omitting quantities for such culverts is not feasible because these culverts appear necessary for roadbed stability. (See CSXT Reply III-F-62, Mar. 7, 2016.) Furthermore, CSXT's estimates as to the length, size, delivery area, and number of barrels for these culverts is undermined by Consumers' argument that CSXT failed to produce the necessary data for these culverts so that it could instead rely on "self-serving" estimates for these culverts. (Consumers Rebuttal III-F-71, May 20, 2016.)

Although neither parties' evidence is feasible and supported, the Board concludes that CERR requires these culverts and therefore must include *some* lengths, sizes, delivery areas, and number of barrels for them, as CSXT has done. If CSXT failed to provide the data as Consumers alleges, it could have conferred with CSXT and (if CSXT still refused) filed a motion to compel. Alternatively, Consumers could have proposed its own estimates for the missing data. Under these circumstances, the Board finds that CSXT's method of approximating such information is the best evidence of record. See Wis. Power & Light Co. v. Union Pac. R.R., 5 S.T.B. 955, 1023 (2001) (accepting railroad's use of the average length of its existing culverts to estimate the length of culverts whose lengths were unknown). The Board will accept CSXT's quantities for culverts that did not have lengths, sizes, delivery areas, or number of barrels as produced in discovery.¹⁴⁹

6. Other

a. Sideslopes

The parties agree on an average 1.5:1 sideslope. (Consumers Opening III-F-40; CSXT Reply III-F-62, Mar. 7, 2016.) The Board will use the agreed-upon sideslopes.

¹⁴⁹ The Board also will accept CSXT's corresponding unit costs for these culverts, as Consumers does not propose any unit costs for these culverts.

b. Ditches

Consumers specifies ditches with trapezoidal sections with cuts two feet wide and two feet deep. (Consumers Opening III-F-40.) CSXT accepts these specifications. (CSXT Reply III-F-63, Mar. 7, 2016.) The Board will accept the parties' agreed-upon ditch specifications.

c. Retaining Walls

On opening, Consumers states that it develops the retaining wall quantities from the Engineering Reports and assigns these quantities to the main line miles (route miles) of each valuation section of the Engineering Reports. Then, to calculate retaining wall quantities for CERR line segments, Consumers applies the resulting average quantity per main line mile for each Engineering Reports valuation section to the route miles of CERR within the corresponding valuation section. Rather than construct masonry or timber retaining walls, Consumers uses gabions (galvanized steel mesh boxes filled with rocks). Consumers applies a 1.54:1 conversion ratio of the weight of masonry to the weight of gabions to determine gabion quantities. Consumers derives the cost for the gabions and timber pilings from Means. (Consumers Opening III-F-41.)

On reply, CSXT accepts Consumers' proposed retaining wall unit costs, as well as Consumers' proposal to use a conversion of masonry to gabion quantities. (CSXT Reply III-F-63, Mar. 7, 2016.) However, CSXT states that Consumers' total quantity calculations are in error because Consumers failed to make the necessary conversion. (Id.) In its calculations, CSXT also includes two additional retaining walls: one located along the BRC tracks from mile post 15.41 at 76th Street to mile post 15.78 at 79th Street and one for the flyover of Clark Road. (Id. at III-F-63 to III-F-64.) CSXT estimates the masonry quantities for the retaining wall located along the BRC tracks by assuming a cross-section based on the average dimensions obtained from a report on the Bloomingdale Road track elevation project published in 1914. (See CSXT Reply WP "Bloomingdale Road Track Elevation Project.pdf," Mar. 7, 2016.)

On rebuttal, Consumers corrects its calculation of total costs to account for the conversion of masonry quantities to gabion baskets. (Consumers Rebuttal III-F-72, May 20, 2016.) Consumers also accepts CSXT's inclusion of the retaining wall along the BRC tracks, but uses the Engineering Reports quantities for this retaining wall. Consumers also includes additional costs for this retaining wall in the same manner as it did for other Engineering Reports retaining wall quantities on opening. Consumers rejects CSXT's inclusion of a retaining wall for the Clark Road flyover.

The Board will accept the parties' agreed-upon retaining wall unit costs and the conversion ratio of 1.54 CY of gabion basket per 1 CY of masonry quantities. The Board also will accept the parties' agreed-upon inclusion of the retaining wall along the BRC tracks, and finds Consumers' calculation of costs for the BRC retaining wall to be feasible and supported, as

Consumers' BRC retaining wall quantities are taken from the Engineering Reports. Finally, because the Board does not accept CSXT's inclusion of the Clark Road flyover in the Operating Plan section, the Board also will not accept CSXT's inclusion of retaining walls for the Clark Road flyover.

d. Rip Rap

Consumers develops rip rap quantities from the Engineering Reports and applies the unit cost from Means. (Consumers Opening III-F-42.) CSXT accepts Consumers' unit costs and non-culvert rip rap quantities. However, for rip rap supporting culverts, CSXT adjusts the total amount of rip rap to reflect CSXT's number and size of culverts installed as described in the Culverts section. (CSXT Reply III-F-65, Mar. 7, 2016.) On rebuttal, Consumers rejects CSXT's increase in rip rap quantities because, as explained above, Consumers does not agree that the number and size of the culverts should be increased. (Consumers Rebuttal III-F-74, May 20, 2016.)

The Board will accept the parties' agreed-upon unit costs and quantities for non-culvert rip rap. Because the Board accepts CSXT's culvert quantities for the reasons provided in the Culverts section, the Board will accept CSXT's corresponding quantities for rip rap supporting culverts as the only feasible and supported evidence.

e. Relocating and Protecting Utilities

On opening, Consumers states that the majority of the lines being replicated by CERR were constructed at a time when few, if any, utility lines existed and would have had to be relocated. (Consumers Opening III-F-42.) Citing Coal Rate Guidelines, Nationwide, 1 I.C.C.2d 520 (1985), aff'd sub nom. Consolidated Rail Corp. v. United States, 812 F.2d 1444 (3d Cir. 1987), Consumers does not assume any cost to relocate and protect utilities on these lines, as such costs were not incurred by the incumbent and would constitute a barrier to entry if imposed on CERR. (Consumers Opening III-F-42.) However, Consumers includes a cost of \$39,987 to relocate and protect utilities on Consumers' plant lead track being replicated by CERR, because this section of track was built subsequent to the existence of utility lines. (Id. at III-F-42 to III-F-43.)

CSXT accepts Consumers' costs for relocating and protecting utilities, but adds costs required to elevate two overhead electric lines above the new Cottage Grove Avenue Overpass. (CSXT Reply III-F-65, Mar. 7, 2016.) Consumers rejects CSXT's added overpass at Cottage Grove Avenue on rebuttal. (Consumers Rebuttal III-F-74, May 20, 2016.) However, in supplemental evidence, CSXT removes the Cottage Grove Avenue Overpass from its bridge construction list and the corresponding utility relocation costs for the reasons explained in the Operating Plan section. (CSXT Reply III-F-3, Mar. 6, 2017.) Accordingly, this issue is now moot. The Board will accept the parties' agreed-upon costs for relocating and protecting utilities.

f. Seeding/Topsoil Placement (Embankment Protection)

For recently constructed branch lines, Consumers estimates the acres per mile for seeding/topsoil placement used as embankment protection based on the average acres per mile for the 79-mile Orin Line, constructed by BNSF in Wyoming in the 1970s. (Consumers Opening III-F-43.) For all other lines, it derives embankment protection quantities from the Engineering Reports. (Consumers Opening III-F-43.) To determine unit costs, Consumers relies on the unit cost per acre from Means. (Id.) CSXT accepts Consumers' embankment protection quantities and seeding costs. (CSXT Reply III-F-66, Mar. 7, 2016.) The Board will accept the parties' agreed-upon quantities and costs.

g. Subgrade Preparation (Moisture Conditioning)

Consumers does not include additional costs for subgrade preparation on opening, stating that the MDOT unit costs for both common excavation and borrow upon which it relies already include subgrade preparation costs. (Consumers Opening III-F-44.) Consumers' expert further asserts that it is normal practice for contractors to include subgrade preparation costs, including water for compaction, in their bids and invoices for excavation projects. On reply, CSXT also excludes additional subgrade preparation costs. (CSXT Reply III-F-56, Mar. 7, 2016.) The Board will accept the parties' agreement on this issue.

h. Surfacing for Detour Roads

Consumers does not include costs for any detour roads for CERR's lines that are covered by the Engineering Reports, as there is no evidence that CSXT incurred any costs for this when the lines were originally built. For a segment of track connecting to Consumers' lead track, Consumers estimates \$199,401 for the cost to provide detour roads for the three roads crossed by Consumers' lead track spur during construction. (Consumers Opening III-F-45.) CSXT accepts Consumers' costs for surfacing detour roads. (CSXT Reply III-F-66, Mar. 7, 2016.) The Board will accept the parties' agreed-upon costs.

i. Construction Site Access Road

Consumers does not include any additional costs for site construction access roads because such costs are normally not a separately compensated portion of the grading contractor's requirements, and because most of the CERR ROW is accessible from public roads and highways, allowing construction access without building separate access roads. (Consumers Opening III-F-45 to III-F-46.) On reply, CSXT does not address additional costs for construction site access roads. As a result, the Board will accept Consumers' evidence on this issue.

j. Environmental Compliance

On opening, Consumers does not include any costs for environmental compliance for CERR's lines that are covered by the Engineering Reports because these costs were not incurred when the replicated lines were originally constructed by CSXT or its predecessors. (Consumers Opening III-F-46.) However, Consumers includes a cost of \$48,200 for environmental compliance for the segment that connects to Consumers' lead track, since that track was built after the Engineering Reports were issued. (Id.) CSXT accepts Consumers' costs for environmental compliance. (CSXT Reply III-F-66, Mar. 7, 2016.) The Board will accept the parties' agreed-upon costs.

C. TRACK CONSTRUCTION

TABLE C-5

Track Construction Expenses			
	Consumers Supplemental Rebuttal	CSXT Alternative 1	STB
Rail	\$43,452,083	\$ 50,794,848	\$44,804,165
Ties	50,247,638	53,068,838	52,284,900
Other Track Materials (OTM) ¹⁵⁰	12,630,848	12,957,088	12,786,505
Ballast & Subballast	43,484,880	68,106,902	54,498,400
Track Labor ¹⁵¹	40,635,054	44,455,249	41,778,073
Field & Compromise Welds	522,488	3,549,492	552,801
Geotextile	1,696,275	1,767,350	1,700,928
Turnouts ¹⁵²	12,777,938	16,853,290	14,343,433
Diamonds	684,616	2,778,335	2,177,614
Lubricators ¹⁵³	865,312	947,994	865,312
Switch Heater ¹⁵⁴	1,177,597	1,982,178	1,748,770
Derails	93,265	527,571	93,265
Wheel Stops	2,507	2,507	2,507
TOTAL	208,270,502	257,791,644	227,636,672

Track construction includes the materials, labor, and equipment required to lay track once the subgrade has been completed. This includes acquiring, transporting, and placing all track-related components, including subballast, ballast, ties, rail, other track materials, and other specialized items. (CSXT Reply III-F-66, Mar. 7, 2016.) The various aspects of track construction costs, including areas where the parties disagree, are discussed below.

¹⁵⁰ The OTM category includes spikes, pandrols, clips, screws, rail anchors, propane tank, and additional crossover costs.

¹⁵¹ The track labor category includes tie, ballast, and subballast labor costs.

¹⁵² The turnouts category includes installation cost and switch stand cost.

¹⁵³ The lubricator category includes installation cost.

¹⁵⁴ The switch heater category includes installation cost.

1. Geotextile Fabric

On opening and reply, the parties agree on geotextile specifications and unit costs, and the Board will accept the parties' agreement on these issues. (*Id.* at III-F-67.) The parties, however, disagree on the quantity of geotextile fabric. CSXT proposes a fabric quantity to reflect its crossing diamond and turnout counts. (*Id.*) On rebuttal, Consumers rejects CSXT's revised configuration and therefore does not include additional geotextiles, except for inclusion of the Buffington Connection. (Consumers Rebuttal III-F-77, May 20, 2016.) Here, the parties' fabric quantities differ only based on their respective turnout count and crossing diamond count. The Board will adopt the quantity based on the agency's rulings on turnouts and crossing diamonds below.

2. Ballast

a. Quantities

The parties agree on the method of calculating ballast quantities, (CSXT Reply III-F-68, Mar. 7, 2016; Consumers Rebuttal III-F-78, May 20, 2016), and apply that methodology to their respective versions of the operating plan. The Board will use CSXT's ballast quantity (minus ballast that would be on the IHB trackage) because the agency is generally accepting CSXT's modifications to Consumers' operating plan and configuration.

b. Pricing

Consumers sources ballast for the Porter to West Olive segments from National Lime & Stone Co. (National Lime) in Findlay, Ohio. (Consumers Opening III-F-49.) For the segments between UP/Ogden Junction, Ill. and Curtis, Consumers sources ballast from the Iron Mountain quarry near Ironton, Mo. (*Id.* at III-F-51.) CSXT accepts the material prices, quarry selections, and the respective distances to CERR railheads, but CSXT rejects Consumers' transportation costs. (CSXT Reply III-F-68 to III-F-69, Mar. 7, 2016.)

i. Off-Line Transportation Costs

On opening, Consumers proposes two prices to transport ballast from the quarries to CERR railheads. Based on Consumers' evidence, ballast from the Iron Mountain quarry would be transported by UP, while ballast from National Lime would be transported by other rail carriers (specifically, CSXT and NSR). According to Consumers, when the service is provided by CSXT and NSR the rate is \$0.035 per ton-mile, and when the service is provided by UP, a different rate is charged.

Consumers claims that the UP rate for ballast from Iron Mountain is supported by a discovery document showing what UP charged to deliver ballast and other track materials to a

CREATE¹⁵⁵ project on the CSXT/UP joint facility located near CERR's Dolton Interchange. In support of this rate, Consumers claims that the rate was presumably subject to audit because the project received significant public funding, and that CSXT oversaw and reviewed the invoices charging the rate before they were sent to the Federal Highway Administration. (Consumers Opening III-F-50.)

CSXT counters that the rate is not representative of the cost of third-party off-line transportation, but is based on a special arrangement UP had concerning the CREATE project in Chicago. Accordingly, CSXT states that it obtained a quote for transporting ballast materials based on a quote from an aggregate supplier, Vulcan Materials Company (Vulcan). (CSXT Reply III-F-71 to III-F-72, Mar. 7, 2016.) However, to be "conservative" and to "conform with the Board's preference of using transportation rates based on 'current market conditions,'" CSXT proposes a rate of \$0.068 per ton-mile, which reflects the price in the 2013 Public Use Waybill Sample for transporting crushed stone. (*Id.* at III-F-73.)

On rebuttal, Consumers counters that its UP rate is reasonable because payment of the rate was eligible for reimbursement as part of the CREATE project and therefore, presumably subject to audit and review because of federal funding for the CREATE project. (Consumers Rebuttal III-F-79, May 20, 2016.) Consumers also argues that the rate is better evidence because it is an example of a rate that was actually charged and paid. (*Id.* at III-F-80.) According to Consumers, the quote from Vulcan that CSXT uses in support of its \$0.068 figure represents a made-for-litigation bid that was generated in a non-competitive situation and not based on the economies of scale involved with CERR. (*Id.* at III-F-79 to III-F-80.) Consumers also notes that the CSXT figure is on the high end of the range provided by Vulcan's ballpark estimate. (*Id.* at III-F-80.)

For transportation of ballast from National Lime provided by other carriers, Consumers proposes a rate of \$0.035 per ton-mile, which it claims is a rate long used by shippers to determine transportation "additives" and has been repeatedly approved by the Board, though it fails to cite specific cases. Indeed, Consumers claims that the lower CREATE project rate shows that the \$0.035 rate is conservative and possibly even overstated. (Consumers Opening III-F-50.)

CSXT argues in reply that the \$0.035 rate constitutes only an assumption and that, in fact, the Board rejected its use in E.I. DuPont de Nemours & Co. v. Norfolk Southern Railway (DuPont), NOR 42125, slip op. at 193 (STB served Mar. 24, 2014), corrected and updated, NOR 42125 (STB served Oct. 3, 2014), reconsideration denied, NOR 42125 (STB served Dec. 23, 2015.) Therefore, instead of Consumers' figure, CSXT again proposes \$0.068 per ton-mile based on the 2013 Public Use Waybill Sample, and supported by its quote from Vulcan.

¹⁵⁵ CREATE is a Chicago-area infrastructure improvement plan, which is intended, among other things, to increase rail capacity and reduce delays. (Consumers Rebuttal III-C-12 to III-C-20, May 20, 2016.)

(CSXT Reply III-F-73, Mar. 7, 2016; see CSXT Reply WP “Vulcan Ballast Transportation Quote.pdf,” Mar. 7, 2016.)

Consumers responds that, although the rate was rejected by the Board in DuPont and Sunbelt Chlor Alkalai Partnership v. Norfolk Southern Railway (Sunbelt 2014), NOR 42130, slip op. at 131 (STB served June 20, 2014), petition for reconsideration granted in part and denied in part (STB served June 30, 2016) (with Board Member Begeman dissenting in both), appeal docketed sub nom. Sunbelt Chlor Alkali P’ship v. STB, No. 16-15701 (11th Cir. Aug. 26, 2016), in those instances the carrier was the only party to submit new evidence that was “not simply indexed” from a previous rate case. (Consumers Rebuttal III-F-81, May 20, 2016.) According to Consumers, its proposed rate comes from an authorization for expenditure (AFE) from 2015 related to the CREATE project provided by CSXT and as such is not outdated; rather, Consumers argues that it is the most recent ballast transportation cost evidence in this proceeding. (Consumers Opening III-F-50; Consumers Rebuttal III-F-81, May 20, 2016.)

The Board will accept CSXT’s off-line cost for transporting ballast, modified as described below, and apply it to transportation of ballast from both Iron Mountain (via UP) and National Lime (via other carriers). Consumers’ proposed rate for ballast transportation service over UP track is based on what UP charged CSXT for the movement of construction materials as part an of agreement to reimburse UP for costs related to the CREATE project in Chicago, a project from which UP itself stood to benefit. It is unlikely that a carrier would charge the same rate to a third-party rail carrier not involved in that project. Here, Consumers does not assert that CERR is part of the CREATE project and has not shown that CERR could take advantage of the CREATE-related rate.

As to Consumers’ proposed \$0.035 rate for transportation by carriers other than UP, Consumers failed to support its proposal, only stating that it had been repeatedly approved by the Board. Although the Board accepted this rate in prior cases, the Board notes that those cases are either distinguishable (insofar as they accept the rate for on-line as opposed to off-line transportation costs) or over 10 years old. See Ariz. Elec. Power Coop. v. BNSF Ry. (Ariz. Elec.), NOR 42113, slip op. at 99-101 (STB served Nov. 22, 2011) (accepting \$0.035 as an on-line transportation cost); Pub. Serv. Co. of Colo. v. Burlington N. & Santa Fe Ry. 7 S.T.B. 589, 687 (2004) (accepting \$0.035 for the transportation of materials to SARR construction sites); Tex. Mun. Power Agency v. Burlington N. & Santa Fe Ry., 6 S.T.B. 573, 723-24 (2003) (accepting railroad’s unchallenged cost of \$0.035). Moreover, the Board has more recently explained that, although a prior Board fact determination might suggest reasonableness, it must still make a fact determination based on the evidence in each case, and emphasized that transportation pricing should attempt to reflect market conditions at the time that would be applicable to the SARR’s construction. See Total Petrochems. & Refining USA, Inc. v. CSX Transp., Inc., NOR 42121, slip op. at 150 (STB served Sept. 14, 2016) (rejecting complainant’s reliance on Ariz. Elec. for support of \$0.035, and instead accepting defendant’s use of real-world estimate); Sunbelt 2014, NOR 42130, slip op. at 131 (same); DuPont, NOR 42125, slip op. at 189-193 (same).

Because CSXT's per ton-mile figure is based on the 2013 Public Use Waybill Sample and supported by a current real-world estimate, the Board will accept CSXT's unit costs for off-line transportation, as amended. Specifically, CSXT proposes to base its rate on the Board's 2013 Public Use Waybill Sample on movements of STCC 14219 or Crushed Stone, which includes ballast. (See CSXT Reply III-F-72 to III-F-73, Mar. 7, 2016.) In a note on Table III-F-13, CSXT narrows the sample size down to traffic that only move in railroad-owned cars even though over 50% of the traffic also moves in privately-owned cars. Because the Public Use Waybill Sample revenue data is masked, the Board recalculates the rate using the unmasked 2013 Waybill Sample and includes all movements of STCC 14219 (railroad and privately-owned cars) which results in a rate of \$0.048 per ton-mile. The Board will use this refined number for CERR's off-line transportation rate for ballast.

ii. On-Line Transportation Costs

On opening, Consumers does not include a separate cost for transporting ballast from its construction railheads to the locations along the CERR route where the ballast must be placed. CSXT questions Consumers' assumption that Ohio Track, Inc. (Ohio Track), the track construction contractor, would cover ballast placement along CERR at no additional cost. CSXT asserts that, although the track construction quote from Ohio Track states that material transportation is included from "delivery points," the quote does not refer to where these delivery points are or how far apart they are spaced. CSXT notes that material might have to be moved up to 122 miles on the roadbed before delivery. (Id. at III-F-73 to III-F-74.) CSXT therefore instead calculates a cost for moving ballast on-line using \$0.035 per ton-mile as a reasonable proxy, and applies this to the average on-line ballast haul distances on CERR (61 miles for the Porter to West Olive segments and 11.5 miles for the UP/Ogden Junction to Curtis segments). (Id. at III-F-74 to III-F-75.)

On rebuttal, Consumers responds that the quote from Ohio Track specifies that "[m]aterial transportation from delivery points is included" and that the contractor is aware the work is for construction of rail track. (Consumers Rebuttal III-F-82, May 20, 2016.) Consumers includes a phone log to show that Ohio Track understood that costs would include transportation from the railhead to the point of installation. (Id.)

The Board will accept Consumers' position that CERR would incur no separate on-line transportation cost for ballast. Consumers' position is both feasible and supported by the language of the Ohio Track quote. (Consumers Opening WP "Ohio Track Quote.pdf.") The phone log of Consumers' call to Ohio Track indicates that Ohio Track understood the requirements of the project and the characteristics of the delivery points. (Consumers Rebuttal WP "Ohio Track Phone Log.pdf," May 20, 2016.)

3. Subballast

a. Quantities

The parties agree on the method of calculating subballast quantities, (CSXT Reply III-F-75, Mar. 7, 2016; Consumers Rebuttal III-F-82 to III-F-83, May 20, 2016), and apply that methodology to their respective versions of the operating plan. The Board will use CSXT's subballast quantity (minus subballast that would be on the IHB trackage) because the agency is generally accepting CSXT's modifications to Consumers' operating plan and configuration.

b. Pricing

The parties agree on the material unit costs for subballast, which include transportation costs. (CSXT Reply III-F-76, Mar. 7, 2016.) The Board will use these agreed-to costs.

c. Subballast Material Placement Costs

The parties agree on the costs for placing subballast, and the Board will use these agreed-to costs. (Id.)

4. Ties

The parties agree on the tie specifications, material cost per tie, and tie spacing, (CSXT Reply III-F-76, Mar. 7, 2016), which the Board will accept. They disagree, however, concerning off-line transportation costs. Consumers assumes that ties would be shipped from Galesburg, Ill., to Ogden Junction via UP at a rate based on the CREATE project discussed in the Ballast section, and shipped from Ogden Junction to Porter, Ind., via NSR, at a rate of \$0.035. (Consumers Opening III-F-55; Consumers Opening WP "2015 OTM Worksheet.xlsx"; Consumers Rebuttal III-F-83, May 20, 2016.) CSXT rejects these rates for the same reasons articulated in the Ballast section above. (CSXT Reply III-F-77, Mar. 7, 2016.) Instead, CSXT bases its cost to transport ties on a quote from McCord Tie and Timber (McCord). CSXT also claims to correct computational errors in Consumers' evidence concerning tie weight and the costs for shipping over a missing part of the route needed to supply the ties. (CSXT Reply III-F-77 to III-F-78, Mar. 7, 2016.)

On rebuttal, Consumers accepts CSXT's computation corrections, but maintains its position with respect to transportation costs for the reasons discussed in the Ballast section.¹⁵⁶

¹⁵⁶ Consumers notes on rebuttal that the parties disagree concerning CERR's total mileage and hence the number of ties. (Consumers Rebuttal III-F-84, May 7, 2016.) Because the Board is generally accepting CSXT's modifications to Consumers' operating plan and therefore CSXT's route configuration, the Board will also accept CSXT's mileage and tie count (minus ties that would be on the IHB trackage).

(Consumers Rebuttal III-F-84, May 20, 2016.) Additionally, Consumers challenges CSXT's quote by noting CSXT's supplier is 590 miles from Chicago and that the quote itself contains an acknowledgement that "[t]he \$6000 is a slightly high estimate to cover fuel and surcharges and any miscellaneous charges such as Switch charges." (Id.) Consumers also states that the AFEs for ties that CSXT produced in discovery did not allow Consumers to generate a transportation rate and contends that it is improper for CSXT to rely on a rate that was not available to Consumers on opening. (Id.)

For the reasons articulated in the Ballast section, the Board finds that Consumers has not provided feasible and supported evidence for its off-line tie transportation costs. CSXT has provided a feasible and supported cost based on a quote for this service. Although Consumers argues that the quote is problematic because of the supplier's distance from Chicago, Consumers has not provided any evidence to undermine the quote. As to Consumers' discovery concern, it has not shown that CSXT failed to produce information it was obligated to turn over in discovery. Nor has Consumers shown that it could not have obtained a quote from a tie supplier for use on opening. The Board will therefore accept CSXT's off-line transportation costs for ties.

5. Rail

a. Quantities

Consumers asserts that CERR would need 136-pound Continuous Welded Rail (CWR) for the main line segment from Ogden Junction to Curtis and the BRC track. For all other tracks, including the Porter to West Olive main line segment, yard, interchange, helper pocket tracks, and set-out tracks, CERR would use 115-pound CWR. (Consumers Opening III-F-56 to III-F-57.) On reply, CSXT argues that premium rail, rather than 136-pound CWR, is necessary for curves greater than 1.5 degrees on lines with a density greater than 45 million gross tons (MGT) annually and for other stretches either with sharp curves or curves carrying heavy tonnages. (CSXT Reply III-F-78 to III-F-79, Mar. 7, 2016.) CSXT therefore claims that CERR would require 22.17 miles of premium rail. (Id. at III-F-79.)

On rebuttal, Consumers rejects the use of premium rail on "high density" curves. It asserts that trains on CERR would operate at slower speeds (in the 35 miles-per-hour range) and hence premium rail is not required. Consumers asserts that CSXT's guidelines on when premium rail is necessary are arbitrary and that CSXT's standards differ from standards used by other Class I railroads. (Consumers Rebuttal III-F-86, May 20, 2016.) Consumers further adds that the determination of whether to use premium rail is an economic one (comparing expected maintenance costs versus increase in capital costs) and that a study it has conducted shows that the average lifespan of "non-premium" rail on the lines being replicated is 24 years, thus demonstrating that such rail is sufficient for CERR. (Id. at III-F-85 to III-F-86.)

Consumers' proposal to use "non-premium" rail on high density curves is feasible and supported. Consumers has provided a study of the lines being replicated showing that the "non-premium" rail on these lines lasted on average over 20 years. Moreover, as Consumers notes, the trains on CERR would operate at relatively slower speeds. (Id. at III-F-85.) As such, the Board will reject CSXT's addition of premium rail. The Board will accept Consumers' proposal to use 136-pound CWR for the main line segment from Ogden Junction to Curtis and the BRC track and 115-pound CWR for all other track including the Porter to West Olive segment.

b. Rail Pricing and Mileage

The parties agree on the cost of regular 136-pound rail and regular 115-pound rail. (CSXT Reply III-F-79 to III-F-80, Mar. 7, 2016.) The Board will accept this agreement.

The parties also agree that CERR's rail will be sourced in Steelton, Pa., shipped to Russell, Ky. for welding, and then shipped to CERR railheads. (CSXT Reply III-F-80, Mar. 7, 2016.) Consumers asserts on opening that this routing is approximately 1,000 miles. (Consumers Opening III-F-56 to III-F-57.) CSXT rejects this approximation and, based on PC Miler, asserts that the routing is 1,117 miles. (CSXT Reply III-F-81, Mar. 7, 2016; CSXT Reply WP "Rail Trans Map.png," Mar. 7, 2016.) On rebuttal, Consumers states that the limited information CSXT provided in discovery required that Consumers estimate the total mileage and the fact that less than 100 miles separate these distances militates against requiring a revision upwards. (Consumers Rebuttal III-F-87, May 20, 2016.) Consumers further argues that CSXT has not definitely demonstrated that its mileage is correct. (Id.)

The Board will accept CSXT's distance from Steelton to CERR railheads. As noted by CSXT, Consumers' approach is not feasible in that it does not show the accurate rail distance. Although Consumers argues that it was not given enough information in discovery, Consumers had access to PC Miler as well and could have easily calculated the shipping distance. (See Consumers Opening III-F-50 (stating that PC Miler was used to calculate mileage).) CSXT has provided mileage based on PC Miler routing and mileage software and has therefore provided a feasible and supported distance, which the Board will accept.

c. Rail Transportation Rates

Consumers asserts on opening that the transportation rate for shipping rail would be \$0.035 per ton-mile (the same as in the Ballast and Ties sections, above), but provides no explanation or support for this figure. (Consumers Opening III-F-56; Consumers Opening WPs "Rail Worksheet-2015.xls," "Rail Prices.xls.") CSXT rejects this rate and claims that it is the same unsupported and inapplicable figure discussed in the Ballast and Ties sections. (CSXT Reply III-F-80, Mar. 7, 2016.) Instead, CSXT proposes a transportation rate of \$0.079 per ton-mile for the Steelton to Russell leg based on the Railway Track Materials movements contained in the 2013 Public Use Waybill Sample. (CSXT Reply III-F-81, Mar. 7, 2016.) For the leg from Russell to CERR railheads, CSXT bases the cost on a quote from a rail manufacturer selected by

Consumers, Arcelor Mittal Long Carbon North America. (*Id.*) On rebuttal, Consumers defends its rate and notes that the reasonableness of this rate is supported by the CREATE rate supplied in discovery. (Consumers Rebuttal III-F-88, May 20, 2016; Consumers Opening WP “UP Rail Transportation Costs.pdf.”)

As discussed in the Ballast section, the rate put forward by Consumers is unsupported. CSXT, on the other hand, has provided a feasible approach by basing its numbers on the Board’s 2013 Public Use Waybill Sample and a quote from a rail manufacturer. CSXT has also provided support for these numbers. (CSXT Reply WP “ALCNA_Rail_Quote.pdf,” Mar. 7, 2016.) The Board will therefore accept CSXT’s rates to transport the rail to CERR railheads, as amended.¹⁵⁷

d. Rail Train

The parties agree that CERR’s rail would be welded into 1,400-foot long segments at Russell, Ky., and shipped to CERR railheads on a special rail train.¹⁵⁸ The parties disagree, however, on whether CERR would have to pay a rental fee for the train while it is being unloaded. Both parties received quotes that provide a \$3,000 per-day rental fee for every day after a three-day unload period. (Consumers Opening WP “LB Foster Train Cost – Page 2.pdf”; CSXT Reply III-F-81, Mar. 7, 2016.) According to CSXT, Consumers should have accounted for this additional daily rental fee, as CSXT claims that it would take CERR 17 days to unload the rail. CSXT’s 17-day calculation is based on the assumption that 0.5 track miles may be unloaded each day from a train carrying 40,000 track feet and including one day per week when the crew is not working. (CSXT Reply III-F-81, Mar. 7, 2016.) Consumers responds that fees for days beyond the three-day grace period are not necessary because the rail can be unloaded in under three days using two Pettibone Speed Swings. According to Consumers, a rail train carries 50 rail segments totaling 7.58 miles of rail, and a speed swing could unload a rail segment, move it into place on the right of way, and return for another rail segment on average once every hour. Assuming that the speed swings travel at 20 mph, Consumers calculates that two speed swings could complete the job in 1.5 days. (Consumers Rebuttal III-F-89, May 20, 2016.) CSXT responds in its final brief that Consumers’ approach would not work because Consumers envisions the speed swings dragging rail long distances on the ground, over bridges, and around

¹⁵⁷ As with ballast, the Board adjusts the Steelton-to-Russell component of CSXT’s proposed off-line rail transportation rate to reflect the unmasked 2013 Waybill Sample, which results in a rate of \$0.078 per ton-mile for that component of CERR’s off-line transportation rate.

¹⁵⁸ The parties indicate variously that the rail segments would be 1,400 or 1,600 feet. (Consumers Opening III-F-56 to III-F-57 (referring to “1,400 foot long CWR segments”); CSXT Reply III-F-80, Mar. 7, 2016 (referring to “1,400 foot long CWR ribbons”); Consumers Rebuttal III-F-89 n.257 (indicating 1,600 feet per section); Consumers Opening WP “Rail Prices,” Tab “Summary,” Line 21 (referring to “transportation of approximately 1,400-foot CWR segments”); CSXT Reply WP “LB Foster Train Cost Page 2.pdf,” Mar. 7, 2016 (referring to rail “supplied as approximately 1,600’ strings”).) The Board assumes that the rail segments are 1,400 feet, but notes that its decision here does not depend on the exact length of these rail segments.

curves, in addition to leaving nearly quarter-mile long rail segments to obstruct roadways at-grade crossings until the contractor installs them. (CSXT Br. 47.)

Here, Consumers has put forward a feasible and supported method of unloading the rail segments without exceeding the work train's three-day grace period. Consumers explains how the unloading would take 12.5 hours (or 1.5 work days) and supports this length with a detailed calculation based on how much rail would need to be unloaded and how fast the Pettibone Speed Swings can make a roundtrip. (Consumers Rebuttal III-F-88 to III-F-89, May 20, 2016.) Although using rollers to avoid damage to the rail and transporting the rail segments over bridges and around curves may increase the unloading time beyond the 1.5 days estimated by Consumers, CSXT has not shown that these factors would extend the unloading process beyond three days. As for the grade crossing issue, CSXT has not explained why CERR's contractor could not leave the rail segments along the right of way so as not to block grade crossings.

The Board will accept Consumers' proposal for rail train costs.

6. Field Welds

Field welds are required to connect the 1,400-foot strings of welded rail produced by the manufacturer. On opening, Consumers obtained a quote from Orgo-Thermit for the cost of materials required for the field welds, (Consumers Opening III-F-57), and CSXT accepts the unit material price on reply. (CSXT Reply III-F-82, Mar. 7, 2016.) The Board accepts this agreed-upon cost. The parties, however, disagree on whether Consumers accounts for labor costs and the number of field welds required. (Id.)

a. Labor

On opening, Consumers provides a bid for track installation, including main track and turnouts, from Ohio Track, (Consumers Opening WP "Ohio Track Cost Estimate.pdf"), which it says includes the cost of labor for field welds. (Consumers Opening III-F-58.) On reply, CSXT adds "omitted labor costs" based on a quote from Bankhead Railway Services, Inc., located in Atlanta, Ga., to perform welding in the "Chicago, IL area." (CSXT Reply III-F-82, Mar. 7, 2016; CSXT Reply WP "Weld Labor Quote," Mar. 7, 2016.)

On rebuttal, Consumers rejects this addition and maintains that its quote from Ohio Track includes the cost of labor. (Consumers Rebuttal III-F-90, May 20, 2016.) Consumers states that the quote "is intended to provide a fully completed product." (Consumers Opening WP "Ohio Track Cost Estimate.pdf.") Moreover, Consumers notes that the track construction costs in the Ohio Track quote are listed on a per-mile basis and argues that, because track requires field welds every 1,400 feet, the provision of a "fully completed product" necessarily means that field welds be included in the quote. (Consumers Rebuttal III-F-90 to III-F-91, May 20, 2016.) As for CSXT's proposed unit cost for labor, Consumers argues that CSXT's cost is too high, noting

that CSXT's quote is from a field weld service located hundreds of miles from where the work would be done, and the quote is much higher than the price CSXT paid for one of its projects. (Id. at III-F-91.)

CSXT responds in its final brief that the Ohio Track quote does not explicitly mention providing field-weld labor. Furthermore, even if the contract did intend to weld CWR lengths together every 1,400 feet as part of its quoted price, the majority of the welds are at turnouts. (CSXT Br. 51-52.)

The Board finds that Consumers' costs are feasible and supported because its quote from Ohio Track already includes labor costs. (Consumers Opening WP "Ohio Track Cost Estimate.pdf.") The Ohio Track quote states that "[a]ll prices are for labor and equipment only," and that the quote "is intended to provide a fully completed project." (Id.) Therefore, the Board will reject CSXT's proposed addition for labor costs.

b. Quantities

The parties disagree on the field weld count because they propose different operating plans and configurations. (CSXT Reply WP "2015 OTM Worksheet Supp. Reply.xlsx," Mar. 6, 2017; Consumers Rebuttal WP "2015 OTM Worksheet Supplemental Rebuttal.xlsx," Apr. 13, 2017.) Because the Board is generally accepting CSXT's modifications to Consumers' operating plan and configuration, the Board will also accept CSXT's field weld count (minus field welds that would be on the IHB trackage).

7. Turnouts/Switches

The parties use the same unit costs for #10 and #15 turnouts in their workpapers, (see Consumers Opening WP "2015 OTM Worksheet .xlsx," Tab "Total Cost Summary," Cells E111 to E119; CSXT Reply WP "2015 OTM Worksheet_Reply.xlsx," Tab "Total Cost Summary," Cells E111 to E119, Mar. 7, 2016), and the Board will accept their implicit agreement on that issue. The parties also agree on the proper historical factor for indexing turnout prices, (Consumers Opening III-F-58; CSXT Reply WP "2015 OTM Worksheet_Reply.xlsx," Tab "Total Cost Summary," Cells F111 to F119, Mar. 7, 2016),¹⁵⁹ as well as the mix of hand-throw and power switches, (CSXT Reply III-F-83, Mar. 7, 2016; Consumers Rebuttal III-F-92, May 20, 2016), which the Board will also accept. Although the parties disagree on the quantity and size of some turnouts, because the Board is accepting CSXT's modifications to Consumers' proposed operating plan and configuration, the Board also will accept CSXT's turnout count

¹⁵⁹ The parties agree to indexing to 1Q15, but both fail to apply the factor to the #10 turnouts in calculating costs. The Board will make this technical correction and apply the factor.

(minus turnouts that would be on the IHB trackage) and turnout sizes.¹⁶⁰ Based on the accepted count and sizes, the Board is also accepting CSXT's costs for switch heaters, propane tanks, and crossovers.

8. Rail Lubricators

On opening, Consumers proposes a unit cost for rail lubricators based on a quote from LB Foster. (Consumers Opening III-F-60; Consumers Opening WP "LB Foster Lubricator Quote.pdf.") On reply, CSXT rejects this unit cost, arguing that Consumers' proposal to LB Foster failed to include certain necessary components, such as grease, a grease mat, and shipping and installation costs. (CSXT Reply III-F-84, Mar. 7, 2016.) CSXT submits its own quote from LB Foster with these components and provides a unit cost including lubricators and these other components. (CSXT Reply WP "CSXT_Rail_Lubricator_LB_Foster.pdf," Mar. 7, 2016.)

On rebuttal, Consumers accepts CSXT's additional cost for shipping. It also accepts the additional cost for grease, but instead includes its own (more expensive) cost for biodegradable grease. Consumers rejects the costs for grease mats, however, arguing that the biodegradable greases that are now on the market make CSXT's proposed costs for mats completely unjustified. Consumers also argues that mats would not have been required for the construction of the original CSXT track and are not provided for by AREMA guidelines. Consumers also rejects the costs for installing lubricators because the quote provided by Ohio Track specifically covers installation costs. (Consumers Rebuttal III-F-93, May 20, 2016.)

The Board accepts the agreed-upon costs for shipping. The Board also rejects CSXT's cost for installation because the Ohio Track quote includes those costs. (Consumers Opening WP "Ohio Track Cost Estimate.pdf.") Lastly, the Board rejects CSXT's addition of grease mats. Consumers has put forward a feasible and supported design where the mats are not necessary because the grease is biodegradable. (See Consumers Rebuttal WP "Biocurve Rail Grease Specification.pdf," May 20, 2016.)

9. Plates, Spikes, and Anchors

The parties agree on the basic specifications, unit costs, and method for estimating quantities for other track material including plates, spikes, and anchors. (Consumers Opening III-F-60 to III-F-61; CSXT Reply III-F-84, Mar. 7, 2016.) The Board will accept the agreed-to method and cost.

¹⁶⁰ CSXT's workpapers show it providing different numbers and sizes of turnouts than its narrative. (See CSXT Reply WPs "Track Quantities-2015_Supp_Reply_Alt1_Alt2.xls," Tab "Turnouts, AEI,FED"; "TOTAL-2015_Supp_Reply_Alt1_Alt2.xlsx," Tab "CERR Totals," Mar. 6, 2017.) Because a party's narrative generally controls over a conflicting position in its workpapers, the Board will consider CSXT's narrative to be its position on this issue.

10. Derails

The parties agree on the cost for derails, but CSXT includes the costs for split-point derails, which it claims are necessary when CERR intersects with a PTC-equipped railroad. (CSXT Reply III-F-85, Mar. 7, 2016.) Consumers rejects the addition. (Consumers Rebuttal III-F-94, May 20, 2016.) The Board agrees with Consumers and finds that it has provided a feasible and supported design without split-point derails. As noted by Consumers and CSXT's own workpaper, (CSXT Reply WP "PTC Split Point Derails.pptx," Mar. 7, 2016), pursuant to 49 C.F.R. § 236.1005(a)(1)(i), when a PTC route is intersected by a non-PTC route and the maximum speed is less than or equal to 40 miles per hour, only interlocking signal arrangements are required. Here, because the parties agree to a maximum speed of 40 miles per hour or lower, the Board will reject CSXT's addition. (See Consumers Opening III-C-27; CSXT Reply III-C-59, Mar. 7, 2016.)

11. Wheel Stops

The parties agree on the unit cost and quantity of wheel stops, (Consumers Opening III-F-61 to III-F-62; CSXT Reply III-F-85, Mar. 7, 2016), and the Board will accept this cost and quantity.

12. Crossing Diamonds

a. Quantities

On opening, Consumers claims that CERR only need pay for a crossing diamond at MP DC 28.0, arguing that this is the only location where CSXT and its predecessors would have been the junior railroad¹⁶¹ at the time of construction. (Consumers Opening III-F-59.) CSXT rejects Consumers' assertion and, based on the ICC Engineering Reports (Engineering Reports), claims that CERR must pay for 20 diamonds.¹⁶² (CSXT Reply III-F-86, Mar. 7, 2016.)

¹⁶¹ The first railroad to have a rail line at a location is the senior railroad. If another railroad seeks to cross the senior's track with another rail line, that railroad, the junior railroad, would generally pay for the infrastructure to do so.

¹⁶² In its narrative, CSXT accounts for 100% of the costs for 17 of these diamonds, 50% of the costs for the diamond at the Illinois/Indiana state line, and 25% of the costs for two diamonds at MP 19.50. (CSXT Reply III-F-86, Mar. 7, 2016.) However, the percentages listed in CSXT's workpapers do not match what is stated in the narrative. (CSXT Reply WP "2015 OTM Worksheet_Reply," Mar. 7, 2016.) In cases like this where the workpapers and the narrative conflict, the Board has found that generally the narrative conveys the intent over a contrary position in the workpapers. As such, the Board accepts as CSXT's position the percentages put forward in its narrative.

Consumers' rebuttal position as to quantity is not entirely clear. Consumers states that it "has accepted some of the additional diamond crossings proposed by CSXT and has updated its costs accordingly." (Consumers Rebuttal III-F-95, May 20, 2016.) In a table titled "CERR Diamond Inventory," it lists the total number of CERR diamonds as 16 (four less than CSXT's proposed inventory), but also separately lists diamonds by locations, which total 20. (*Id.* at III-F-96 to III-F-97.) With the exception of the diamond at MP 10.80, Consumers' substantive arguments regarding the diamonds pertain to whether CERR should bear the costs for that diamond. (*Id.*) Thus, the Board construes Consumers' position on rebuttal as being that it concedes that all the diamonds are physically present on CERR (except for the diamond at MP 10.80). To the extent that Consumers did not intend to concede the existence of these diamonds, the Board finds that Consumers has not undermined CSXT's argument that these diamonds do exist.

With respect to the diamond at MP 10.80 (located on the Barr Subdivision at Dolton), Consumers disagrees with CSXT that this diamond is present on CERR. Consumers argues that although NSR does cross CSXT in the real world at Dolton, it is not on the alignment of CERR. (Consumers Rebuttal III-F-96, May 20, 2016.) The Board agrees that a diamond is not necessary at this location. Both supplemental RTC models show no tracks crossing at this location.

b. Cost Responsibility

The parties disagree on who should bear the costs for the following diamonds.

i. MP 6.10

CSXT proposes that CERR must pay for the two diamonds at the Illinois-Indiana state line at MP 6.10. (CSXT Reply WP "2015 OTM Worksheet_Reply.xlsx," Mar. 7, 2016.) Consumers argues that CERR need not pay for these diamonds based on the Joint Facility Agreement (JFA) involving the Hammond & Blue Island Railroad Co. placing diamonds to cross, among others, one of CSXT's predecessors, the Chicago Calumet Terminal Railway Company.¹⁶³ (See Consumers Rebuttal WP "JFA Stateline.pdf," May 20, 2016.) According to

¹⁶³ Consumers' rebuttal narrative states that CERR is responsible for the cost of four diamonds at MP 6.00 and zero diamonds at MP 6.10. (Consumers Rebuttal III-F-96, May 20, 2016.) However, Consumers' rebuttal workpapers show CERR paying for zero diamonds at MP 6.00 and four diamonds at MP 6.10. (Consumers Rebuttal WP "2015 OTM Worksheet Supplemental Rebuttal.xlsx," Apr. 13, 2017.) As noted above, where the workpapers and the narrative conflict, the Board has found that generally the narrative conveys the intent over a contrary position in its workpapers. See *Sunbelt Chlor Alkali P'ship v. Norfolk S. Ry.*, NOR 42130, slip op. at 18 (STB served June 30, 2016) (with Board Member Begeman dissenting), *appeal docketed sub nom. Sunbelt Chlor Alkali P'ship v. STB*, No. 16-15701 (11th Cir. Aug. 26, 2016.) Therefore, the Board will treat Consumers' rebuttal narrative as its position on rebuttal. As such, the Board finds the parties are in agreement that CERR is responsible for

Consumers, because that agreement indicates CSXT's predecessor did not have to pay the costs of the diamonds, CERR need not pay for them either. (Consumers Rebuttal III-F-96, May 20, 2016.) The Board agrees with Consumers' argument. The JFA has an entity other than a CSXT predecessor furnishing diamonds to cross tracks of a CSXT predecessor less than 70 feet from the state line. Although the agreement does not have the milepost markers or a map indicating these are the same state line diamonds that Consumers and CSXT are now disputing, the agreement does favor Consumers' position and represents the best evidence of record.

ii. MP 10.90

CSXT argues that CERR would be responsible for the cost of two diamonds at MP 10.90 at Dolton. (CSXT Reply WP "2015 OTM Worksheet_Reply.xlsx," Mar. 7, 2016.) Consumers rejects these two diamonds because CSXT's predecessor (Chicago Calumet Terminal Railway Company) was the senior railroad at the crossing. (Consumers Rebuttal III-F-96, May 20, 2016.) In support of its claim, Consumers cites to a series of diagrams showing rail construction in Chicago during the latter half of the 19th century. The Board will accept Consumers' rejection of the costs for these diamonds as it has shown that CSXT's predecessor was the senior railroad. (See Consumers Rebuttal WP "1848-1910 Construction of RRs_Chicago.pdf," May 20, 2016.)

iii. MP 19.50

CSXT claims that Consumers did not account for 25% of two diamonds (currently on the BRC line being replicated by CERR) needed to cross NSR at MP 19.50. (CSXT Reply III-F-86, Mar. 7, 2016.) CSXT argues that one of the Engineering Reports lists 40 diamond crossings, of which only these two remain. Consumers claims that CERR need not pay for these two diamonds because BRC was the senior railroad. (Consumers Rebuttal III-F-96, May 20, 2016.) In particular, Consumers claims that the diamonds were constructed when the line was owned by one of BRC's predecessors, Chicago and Western Indiana Railroad (CWI), in 1882.

The Board will accept CSXT's cost for these two diamonds. The diamonds are included in one of the Engineering Reports, and Consumers has not provided any evidence to support its claim that BRC's predecessor was the senior railroad. See Tex. Mun. Power Agency v. Burlington N. & Santa Fe Ry., 7 S.T.B. 803, 825 (2004) ("[I]f an item appears in the [Engineering Reports], the Board includes in the SAC analysis some cost to replicate that facility, albeit only a percentage of that cost if there is reason to conclude that the defendant carrier (or its predecessor) did not bear the full cost of that item").

the cost of four diamonds at MP 6.00 but in disagreement with regard to the diamonds at MP 6.10.

c. Unit Costs

Consumers bases its material and transportation costs for diamonds on a quote from Vossloh. (Consumers Opening WP “Diamond Crossing Quote.pdf.”) CSXT states that it rejects these costs, but provides no explanation. (CSXT Reply III-F-85, III-F-87, Mar. 7, 2016.) Also, CSXT adds a labor cost for the installation of the diamonds, which it bases on the unit cost for #15 turnouts installation. (Id. at III-F-87.) On rebuttal, Consumers accepts CSXT’s addition of the labor costs. It also states that it maintains its position with respect to transportation costs and unit costs for diamonds. (Consumers Rebuttal III-F-95, May 20, 2016.)

The Board finds that Consumers has submitted feasible and supported material and transportation costs for the crossing diamonds. Although CSXT rejects these costs, it does not explain why they are inadequate. The Board therefore accepts Consumers’ material and transportation costs. The Board will also accept the labor costs agreed to by the parties.

13. Material Transportation

The parties agree to address transportation costs for each item in the section discussing the total cost for that item. (Consumers Opening III-F-62; CSXT Reply III-F-87, Mar. 7, 2016.)

14. Track Construction Labor

The parties agree on costs for track construction labor, but CSXT includes additional costs to transport ballast from the railhead to the point of placement along track. (CSXT Reply III-F-87, Mar. 7, 2016.) On rebuttal, Consumers rejects this increase in labor costs associated with the transport of ballast because it was included in its Ohio Track quote. (Consumers Rebuttal III-F-98, May 20, 2016.) As discussed above in the Ballast section, the Board agrees with Consumers’ position.

D. BRIDGES

TABLE C-6

Bridges			
Bridge Category	Consumers Supplemental Rebuttal	CSXT Alternative 1	STB
Railroad Bridges	\$64,340,913	\$154,737,915	\$100,013,254
Highway Overpasses	8,134,557	10,694,010	8,134,557
Total Bridge Investment	72,475,470	165,431,925	108,147,811

Consumers states that for the CERR system, it replicates the bridges at 65 locations along the CSXT track. Consumers asserts that CERR should only be required to pay for 25% of the

construction costs for bridges associated with the 8.3 miles of BRC track at 31 locations. As for bridge design, other than a bascule bridge Consumers includes at St. Joseph/Benton Harbor, Consumers uses three bridge types (Type 1, Type 2, and Type 3) based on bridge lengths in the real world. (Consumers Opening III-F-64.) Type 1 bridges are pre-cast and pre-stressed deck beams that span 24 feet; Type 2 bridges consist of six parallel W24 X 102 steel beams and have timber decks and also span 24 feet; and Type 3 bridges consist of six parallel W36 X 302 steel beams and a timber deck and span up to 50 feet.

The parties disagree on whether CERR would be responsible for paying for two bridges—the Calumet-Sag Channel bridge and the Chicago Sanitary Canal bridge. The parties also disagree on the feasibility of certain bridge designs proposed by Consumers for various locations.

1. Calumet-Sag Channel Bridge

Consumers excludes costs for the Barr Subdivision truss bridge spanning the Calumet-Sag Channel because, according to Consumers, the City of Chicago—specifically, the Sanitary District of Chicago (District)—was responsible for constructing that bridge.¹⁶⁴ (Consumers Opening III-F-63.) CSXT counters that the Railway Age Gazette article upon which Consumers bases its claim does not mention the bridge. (CSXT Reply III-F-88 to III-F-89, Mar. 7, 2016.) CSXT claims that, because Consumers has not supported its assertion, CERR would need to incur the cost of building this bridge.

On rebuttal, Consumers contests CSXT's assertion. Consumers notes that this bridge and several other bridges over the Channel look very much alike even though they were owned by different companies. Consumers therefore asserts that the bridges had to have been constructed as public works projects rather than having been built by the respective railroads with their respective design standards. (Consumers Rebuttal III-F-99, May 20, 2016.) Furthermore, Consumers cites an excerpt from the 1912 edition of the Chicago Daily News Almanac and Year-Book indicating that the District funded this bridge. (*Id.* at III-F-100.)

CSXT responds that the almanac entry indicates that the District did expend some funds, but that the almanac does not specifically tie those funds to this bridge (or the Chicago Sanitary Canal bridge, discussed in the following section). (CSXT Br. 48.) In its supplemental reply,¹⁶⁵ CSXT adds that any bridges constructed with public funds were to replace pre-existing bridges

¹⁶⁴ A complainant may avoid the cost of a bridge by showing that the incumbent did not pay for the bridge. See *Ariz. Pub. Serv. Co. v. Atchison, Topeka & Santa Fe Ry.*, 2 S.T.B. 367, 386 (1997) (“A SAC computation should exclude any sunk costs that were not incurred by the incumbent.”)

¹⁶⁵ In the decision on CSXT's motion to strike issued on December 9, 2016, the Board permitted CSXT to respond to this issue in its supplemental reply.

built by the railroads. (CSXT Reply III-F-6, Mar. 6, 2017.) In support of its argument that its predecessor built the original bridge, CSXT claims that the Calumet-Sag Channel is a modification of the earlier Calumet Feeder Canal that was navigable and in use by 1851. (*Id.* at III-F-9.) Thus, when CSXT's predecessor laid track several decades later in the 1880s, that entity would have been required to pay for the bridge over the pre-existing canal without disturbing canal navigation or other activities. (CSXT Reply III-F-10, Mar. 6, 2017.)

In its supplemental rebuttal, Consumers challenges CSXT's assertion that the bridge over the Calumet-Sag Channel replaced an older bridge over the Feeder Canal. (Consumers Rebuttal III-F-9 to III-F-10, Apr. 13, 2017.) Consumers asserts that the Calumet-Sag Channel and the Feeder Canal had different routes and, while "practically parallel," were distinct waterways. Accordingly, Consumers claims that there were two bridges, and that the District's funding was to construct a new bridge, not to replace an existing, railroad-funded bridge. Consumers also cites an Illinois Supreme Court decision, Sanitary District of Chicago v. Chicago & Alton Railroad, 108 N.E. 312, 313 (Ill. 1915), indicating that the District, rather than one of CSXT's predecessors, was responsible for the costs of any bridge required by the then ongoing Calumet-Sag Channel construction.¹⁶⁶

The Board finds that Consumers has supported its position that CERR would not need to pay for the bridge over the Calumet-Sag Channel. Consumers' evidence supports a conclusion that the District constructed the Calumet-Sag Channel after CSXT's predecessor had built its line in the area, that the Calumet-Sag Channel bridge was not a replacement for an earlier bridge over the Feeder Canal, and that, under Illinois law, the District was required to pay for the predecessor's bridge over the Calumet-Sag Channel.

The record shows that in the 1850s, the Calumet Feeder Canal, a 17-mile long, 40-foot-wide by 4-foot-deep canal, was built to bring water from the Little Calumet River to the Illinois & Michigan Canal, (CSXT Reply WP "Calumet Feeder Information from American Canal Society.pdf," Mar. 6, 2017; Consumers Rebuttal WP "Blue Island History Excerpt No. 2.pdf" at 5, Apr. 13, 2017), and that CSXT's predecessor first built through the area in the 1880s. (CSXT Reply WP "BOCT Predecessor History.pdf" at 1, Mar. 6, 2017.) Accordingly, CSXT's predecessor had to build a bridge over the pre-existing Feeder Canal. The record also shows that the 16-mile Calumet-Sag Channel was built starting in 1911 to replace the Feeder Canal, (Consumers Rebuttal WP "Sanitary District of Chicago_Calumet_Sag Bridge Construction.pdf"

¹⁶⁶ Consumers adds that, even if CERR were required to replicate the original bridge built prior to the Calumet-Sag Channel, its dimensions would be much smaller than the structure CSXT proposes. (Consumers Rebuttal III-F-11, Apr. 13, 2017.) According to Consumers, CSXT's own evidence indicates that the Feeder Canal was only 40 feet wide when in use and even smaller after a dam that allowed the Canal's water to flow was destroyed in 1875. Consumers notes that, in contrast, CSXT proposes a bridge with a 313-foot span. (*Id.* at III-F-11 to III-F-12, Apr. 13, 2017.) Because the Board finds that CERR would not be responsible for paying for the bridge, it need not rule on the appropriate bridge dimensions.

at 3, May 20, 2016), and that the District was required to pay for bridges related to that work, see Sanitary District, 108 N.E. at 315-17.

The central dispute between the parties is whether the Calumet-Sag Channel bridge was a replacement for the bridge over the Feeder Canal, which in turn depends on whether the Calumet-Sag Channel was a replacement for the Feeder Canal. According to CSXT, “the Calumet[-]Sag Channel, which Consumers’ evidence indicates began construction in 1911, is itself a modification to the original Calumet Feeder Canal.” (CSXT Reply III-F-9, Mar. 6, 2017.) CSXT claims that “any bridges constructed with public funds were not newly built for the railroad’s benefit but rather . . . they replaced preexisting railroad bridges built over” the original Feeder Canal. (Id. at III-F-6.) The record does not support this claim. The Calumet-Sag Channel bridge is located west of Ann Street. (See Consumers Rebuttal WP “Barr Blue Island and Kenton Subs Photo Locations.kml,” May 20, 2016.) To the west of Ann Street, however, the Feeder Canal and the Channel diverged, following similar but distinct routes. The route of the channel was “almost identical,”¹⁶⁷ and “practically parallel,” Sanitary District, 108 N.E. at 313, to that of the Feeder Canal. At one point along its route, the Channel was “about 300 feet” from the old canal. Id. Indeed, the two waterways could not have followed the same route because they were significantly different lengths.¹⁶⁸ In addition, the construction of the Channel was expected to “entirely drain” the Feeder Canal, which suggests that the two waterways were distinct. Id. Because the two waterways diverged west of Ann Street, it is apparent that the bridge over the Calumet-Sag Channel—located west of Ann Street—was a new bridge, not a replacement for the bridge over the Feeder Canal.

Under Sanitary District, the District was responsible for the cost of a new bridge over the Channel. This is consistent with the 1912 almanac entries submitted by Consumers showing the District paying certain expenses for “[b]ridge construct’n, Calumet-Sag channel.” (Consumers Rebuttal WP “Sanitary District of Chicago_Calumet_Sag Bridge Construction.pdf,” May 20, 2016.) Consumers has therefore supported its position that CERR would not need to finance the Calumet-Sag bridge, and CSXT has failed to prove otherwise.

2. Chicago Sanitary Canal Bridge

Consumers also excludes costs for the Blue Island Subdivision bridge spanning the Chicago Sanitary Canal because, according to Consumers, the District was responsible for constructing that bridge as well. (Consumers Opening III-F-63; CSXT Reply III-F-90, Mar. 7, 2016.) Again, Consumers relies on the Railway Age Gazette article mentioned above. CSXT admits that the article does reference the District constructing a moveable bridge over the

¹⁶⁷ CSXT Reply WP “Blue Island History Excerpt.pdf,” Mar. 6, 2017.

¹⁶⁸ Compare CSXT Reply WP “Calumet Feeder Information from American Canal Society.pdf,” Mar. 6, 2017 (Feeder Canal was 17 miles long) with Consumers Rebuttal WP “Sanitary District of Chicago_Calumet_Sag Bridge Construction.pdf” at 3, May 20, 2016 (Calumet-Sag Channel expected to be 16 miles long).

Chicago Sanitary Canal, but it contends the bridge replaced a prior railroad-built stationary 1901 bridge pictured in the article. (CSXT Reply III-F-90, Mar. 7, 2016.)

Consumers responds that the same almanac cited above concerning the Calumet-Sag Channel bridge also indicates that the Sanitary Canal bridge was funded by the District rather than the predecessor railroad. (Consumers Rebuttal III-F-100, May 20, 2016.) Consumers adds that CSXT has provided no evidence that CSXT incurred costs for the original spans or any potential replacement spans. (*Id.*)

As with the Calumet-Sag Channel bridge, CSXT claims in its final brief that, while the almanac entry indicates that the Sanitary District did expend some funds for bridges, the almanac does not specifically tie those funds to the bridges at issue in this case. (CSXT Br. 48.) CSXT reiterates its position in its supplemental reply.¹⁶⁹ (CSXT Reply III-F-7, Mar. 6, 2017.)

In its supplemental rebuttal, Consumers quotes language from the Railway Age Gazette article and asserts that the quoted passages demonstrate that District paid for the 1901 bridge over the Sanitary Canal. (Consumers Rebuttal III-F-7 to III-F-9, Apr. 13, 2017.)

There is no dispute that an original fixed-span bridge was built in 1901 over the just-completed Chicago Sanitary Canal or that the District later paid to replace the original bridge with a moveable bridge to permit navigation on the canal. The parties disagree, however, about whether a CSXT predecessor paid for the 1901 bridge (such that CERR must pay for a fixed-span bridge) or the District paid (such that CERR need not pay for any bridge over the canal).

Neither party's position is fully supported. The Railway Age Gazette article mentions that competitive designs for the bridge "were . . . invited in 1898," that construction contracts "were let," and that the bridge "was built and placed in service in 1901." (Consumers Opening WP "Bascule Bridge Over CSSC Railway Gazette indicating that the Sanitary district paid.pdf" at 2.) Phrased in the passive voice, the article's discussion of the original bridge does not identify definitively who paid for it.

In the absence of definitive evidence, however, the Board finds that Consumers has provided the best evidence of record that the District paid for the original 1901 bridge. The timing of the bridge's construction and the nature of its design support Consumers' position. On timing, the Railway Age Gazette article notes that "[c]ompetitive designs for the bridge were first invited in 1898," which was while the canal was being built. This suggests that the building of the bridge was a part of the overall canal public works project, and not a coincidental project initiated by CSXT's predecessor. As for the bridge's design, the article states that "only those

¹⁶⁹ In the decision on CSXT's motion to strike issued on December 9, 2016, the Board permitted CSXT to respond to this issue in its supplemental reply.

portions of the superstructure necessary to carry the moving loads when acting as a fixed span were erected at this time, and the structural parts and machinery required to make the bridge movable were to be furnished later when it was necessary to open the canal to navigation.” (*Id.* at 3.) Designing the original fixed-span bridge so that it could be upgraded to a moveable bridge to accommodate future canal traffic is something the District, and not a private railroad, would be concerned about. Consumers’ position is also consistent with the almanac entries, which indicate that the District paid over \$2.5 million for “[b]ridge construction, main channel.” (Consumers Rebuttal WP “Sanitary District of Chicago_Calumet_Sag Bridge Construction.pdf” at 1, May 20, 2016.) The totality of this evidence supports a conclusion that the District paid for the 1901 bridge, particularly given that CSXT provides no evidence—direct or indirect—that its predecessor paid for the original bridge. Accordingly, CERR would not need to pay for a bridge over the Chicago Sanitary Canal.

3. General Bridge Design Issues

CSXT contends that Consumers’ bridge designs are flawed primarily due to insufficient water flow and blockage of traffic and pedestrians. With certain exceptions discussed below, Consumers has put forward a feasible and supported design for its bridges, and the Board rejects CSXT’s general design alterations at these locations.¹⁷⁰

a. Water Flow

CSXT asserts that, for bridges over water, several of Consumers’ designs would substantially reduce water flow in ways that could threaten the structural integrity of the bridge. (CSXT Reply III-F-91, Mar. 7, 2016.) Specifically, CSXT claims Consumers’ designs employ spill slopes that block water flow at the edges of the bridge or require additional piers in the waterway. (*Id.* at III-F-92.) CSXT notes that in Western Fuels Association v. BNSF Railway (Western Fuels 2007), NOR 42088, slip op. at 108-09 (STB served Sept. 10, 2007), the Board required a complainant to demonstrate that the SARR’s bridges provide adequate flow areas for the streams that exist under the current structure. CSXT asserts that Consumers has failed to meet this burden. (CSXT Reply III-F-92, Mar. 7, 2016.)

CSXT purportedly corrects the spill slope problem, which it claims occurs in five locations, by lengthening the bridges. (*Id.* at III-F-93.) In addition, when Consumers’ designs place piers in the water that are not there now, CSXT revises the bridge layouts so the pier count matches that of the real-world bridges. (*Id.* at III-F-94.) For four of the five bridges, the revised bridge layouts necessitate the use of a span length exceeding any of CERR’s prototype bridge lengths. (*Id.*) In these four instances CSXT uses through-plate girder (TPG) spans and the

¹⁷⁰ The Board made these determinations with data from the record including the Google Earth file (see Consumers Rebuttal WP “Barr Blue Island and Kenton Subs Photo Locations.kml,” May 20, 2016) as well as photos submitted by each party for the various locations. See also STB WP “Bridge Costs_Supp_Reply_Alt1_Alt2_STB.xlsx.”

requisite piers and abutments associated with that superstructure type. (Id. at III-F-94 to III-F-95.)

On rebuttal, Consumers defends its over-water bridge design. It claims that CERR's bridges have the same opening sizes as the CSXT bridges because CERR's bridges can be built with vertical backwalls, which have the same openings as the wall abutments advocated by CSXT. Consumers argues that CSXT has wrongly assumed that CERR's bridges require spill slopes given that Consumers provided for pre-cast wing walls on opening. (Consumers Rebuttal III-F-101, May 20, 2016.) Consumers adds that the lengthened bridges called for by CSXT are "absurd" and notes that for some arch bridges over streams and dirt roads in rural areas, CSXT proposes doubling or even tripling the bridge lengths. (Id. at III-F-103 to III-F-104.) Consumers argues that its proposed bridges allow for greater water flow than CSXT's real-world bridges due to pier size and placement. (Id. at III-F-107.)

The Board finds Consumers' design is feasible and supported and that neither of CSXT's arguments that the bridges provide insufficient water flow is persuasive. First, CSXT assumes that Consumers' design places spill slopes in the water, but neither Consumers' narrative nor its workpapers show that CERR would employ spill slopes. Although Consumers includes costs for rip rap, which is used for spill slopes, rip rap is also used in other ways. Second, CSXT claims that placing additional piers in the water would reduce the water flow, but CSXT has not supported its own argument. Although Consumers' opening workpapers indicate that in some instances more piers are used to replace a central pier, the designs also indicate that these new piers are thinner than the existing pier. (See Consumers Opening WP "Bridge Costs.xlsx," Tab "Bridge Type 1," Line 24 (indicating pier costs taken from Type 2 bridges), Tab "Bridge Type 2," Line 14 (cost for Pile Steel H14x109), & Tab "Bridge Type 3," Line 14 (same); see also Consumers Rebuttal WP "Typical River Bridge.pdf," May 20, 2016 (showing CERR 14" steel H-piles and CSXT 48" concrete piers).) CSXT fails to address these thinner piers on reply.

The Board therefore generally rejects CSXT's adjustments based on its diminished water flow concern. However, CSXT has supported its claim regarding water flow for the bridge at DC 6.70. For that bridge, Consumers places piers in the water even though the record indicates that the existing bridge at this location likely has no piers in the water. (See Consumers Rebuttal WP "Barr Blue Island and Kenton Subs Photo Locations.kml," May 20, 2016) (Google Earth).) Because Consumers has added piers (and not simply substituted thicker piers with a greater number of thinner piers), CSXT's claims that water flow could be impacted are supported. On rebuttal, Consumers does not explain how water flow would not be impacted given the addition of piers. Therefore, the Board will accept CSXT's bridge design for that location. See W. Fuels 2007, NOR 42088, slip op. at 109 (accepting railroad's adjustment to bridge design because complainant failed to carry its burden to refute railroad's assertion that complainant's design resulted in insufficient flow area).

b. Traffic Flow

CSXT asserts that in 68 instances CERR's proposed bridges over roadways would block existing sidewalks and roads either because of extra piers or by using standard pre-cast abutment caps that have a spill slope in front of the abutment. (CSXT Reply III-F-95 to III-F-97, Mar. 7, 2016.)¹⁷¹ To correct the spill slope issue, CSXT adjusts span layouts throughout the bridge inventory and develops a design and costs for wall abutments. (Id. at III-F-96.) To address the problems of extra piers in the roadway, CSXT changes the span configurations for 54 bridges from shorter Type 1 or Type 2 spans to longer Type 3 spans. In 14 other cases, however, CSXT claims that Type 3 spans are still too short to provide the appropriate level of roadway clearance. For these locations, CSXT substitutes a TPG design and includes the designs for the corresponding abutments and piers required to support the loads imposed by these plate-girder spans. (Id. at III-F-97 to III-F-98.)

As with bridges over water, Consumers argues on rebuttal that its design for bridges over land is proper. It asserts that the pre-cast wing walls it provided for on opening make spill slopes unnecessary. (Consumers Rebuttal III-F-102, May 20, 2016.) Consumers adds that CSXT's wall abutments are three times the price of Consumers' wing walls. It further argues that many of the real bridges along the current rail line place columns at the edge of the road, between the road and the sidewalk, and one set in the median. (Id. at III-F-102 to III-F-103.)

Here, as above with bridges over water, CSXT does not support its assumption that Consumers' proposal to use standard pre-cast abutment caps necessarily means that it would use spill slopes, nor is there any indication in Consumers' evidence to indicate that its design includes spill slopes for its over-roadway bridges. However, with respect to piers, the record indicates that in 13 instances Consumers did place additional piers in the roadway beyond those in existing bridges. Because CSXT provided evidence showing that these piers would hinder traffic and Consumers has failed to discuss why these additional piers would not be problematic, the Board will accept CSXT's design modifications for those 13 instances as feasible and supported. Of these 13, two require the use of a TPG design and 11 can be addressed by incorporating a Type 3 span.

4. Specific Bridge Design and Cost Issues

The parties agree on the superstructure and pier design of both the Type 1 and Type 2 bridges. (See CSXT Reply III-F-99, Mar. 7, 2016.) The parties also agree on the unit costs for

¹⁷¹ CSXT's workpapers state that four of these bridges actually span another railroad's line rather than a highway, but CSXT generally argues that the same deficiencies affect these bridges. (See CSXT Reply WP "Bridge Costs_Supp_Reply_Alt1_Alt2.xlxs," Tab "Route Bridges," Cell Q24, Q27, Q29 & Q106, Mar. 6, 2017.) The Board is rejecting CSXT's adjustments with respect to three of these bridges. For the fourth bridge (located at CG 113.2), CSXT argues and the Board agrees that the bridge must be modified to account for horizontal clearance.

standard abutments, piers, and superstructure for both Type 1 and Type 2 bridges. (Id.) For the Type 3 bridges, the parties agree on the superstructure design and the unit costs for standard abutments and superstructure. (Id. at III-F-99 to III-F-101.) The Board will accept these agreed-upon costs.

For the Type 3 bridges, the parties disagree on pier design and pier unit costs. CSXT claims Consumers' use of six piles per frame would be insufficient to accommodate the pile loads on the interior bents of the Type 3 bridges. (Id. at III-F-100.) CSXT increased the number from six to eight, oriented into two rows of piles with four piles per row. CSXT also widened the pier cap to accommodate the enhanced pier design. Consumers responds that, in rejecting Consumers' proposal, CSXT is rejecting a design from one of its own bridges in Kentucky. (Consumers Rebuttal III-F-105 to III-F-106, May 20, 2016.) The Board will accept Consumers' pier design. This design is currently being used in a comparable real-world bridge in Kentucky and therefore it is feasible. The design for the Kentucky bridge is also supported by CSXT's own discovery material. (Consumers Opening WP "AFE 35844 AA - R&B.pdf.") Because the Board is rejecting the additional piles, the Board will likewise reject CSXT's adjusted costs to reflect the additional piles. (See CSXT Reply III-F-101, Mar. 7, 2016.)

CSXT makes an adjustment to some of the bridges based on its claim that these bridges require a wall abutment instead of a standard abutment. (Id. at III-F-99 to III-F-100.) As noted above, the wall abutments are meant to address CSXT's concern about spill slopes, but the Board has found that spill slopes are not in fact being used, so no adjustment is needed.

5. Summary

Table C-7 summarizes the instances where the Board finds that there is a flaw with Consumers' bridge design. In all other instances Consumers has put forward a feasible and supported design.

TABLE C-7

CSXT Criticism of Consumers Design						
	Bridge piers in water	Slopes & piers reduce horizontal clearance	Slopes & piers reduce horizontal clearance	Curtis Interchange track	Additional tracks in Barr Yard	Totals
Occurrences	5	54	14	1	1	75
CSXT proposed design remedy		Type 3	TPG			
Board acceptance of CSXT design	1	11	13	1	1	27
Mile Post						
CG 113.2			X			
CG 113.5			X			
Clark Road				X		
DC 6.7	X					
DC* (crossing Ashland Ave.)					X	
DC 13.23			X			
DC 15.46		X				
DC 21.36		X				
DC 21.65		X				
DC 23.5			X			
DC 24.97			X			
DC 27.45			X			
DC* (crossing S. Archer Ave.)			X			
DC 27.55			X			
DC 27.75			X			
DC 28.2			X			
DC 28.64		X				
DC 29.96		X				
DC 30.19		X				
BRC 13.61			X			
BRC 16.36		X				
BRC 16.9		X				
BRC 16.93		X				
BRC 14.48			X			
BRC 17.72		X				
BRC 18.03		X				
BRC 18.57			X			

*Specific milepost omitted in the evidence.

6. Highway Overpasses and Track at Yard Center

The parties agree on the unit costs and inventories of highway overpasses, as well as the assumption that CERR would pay a 10% cost share for most of the highway overpasses. The Board will accept these agreed-to costs. Due to a disagreement about the location of track at Yard Center, however, the parties dispute the location and cost share for the overpass of Sibley Boulevard.¹⁷² (CSXT Reply III-B-5, III-F-107, Mar. 7, 2016; Consumers Rebuttal III-F-107 to III-F-108, May 20, 2016.)¹⁷³

On opening, Consumers proposes to build an interchange track through the middle of UP/CSXT's Yard Center—a joint facility in which UP and CSXT each have 50% ownership. CSXT argues that CERR may not simply build an interchange track in the middle of this yard, and instead proposes that CERR build a greenfield interchange track around the east side of Yard Center. Because of this modification to CERR's configuration, CSXT relocates the existing highway overpass of Sibley Boulevard slightly eastward to go over the relocated CERR track. (CSXT Reply III-F-107, III-B-3 to III-B-5, Mar. 7, 2016.)

Consumers challenges the need to relocate the track and, as such, the need to construct a new overpass. Consumers claims that it need not route around the Yard Center facility because CERR is not handling any of the UP traffic and can “assume away” UP's operations at the yard as the Board permitted in Arizona Electric Power Cooperative v. BNSF Railway (Ariz. Elec. 2002), NOR 42058, slip op at 7 (STB served Aug. 20, 2002). (Consumers Opening III-C-20; Consumers Rebuttal III-B-7, May 20, 2016.) Consumers likens its proposal to the way prior complainants have treated the Joint Line in the Powder River Basin. According to Consumers, complainants build the necessary Joint Line facilities for the chosen traffic group and then the other railroad and the incumbent are assumed to exist in a “parallel world.” (Consumers Opening III-C-20 to III-C-21.) Consumers therefore does not accept the track relocation.

As an initial matter, the Board must determine if the track must be relocated around the yard, as CSXT argues. Consumers claims that it can assume away UP because it does not interchange traffic with that carrier. However, as Consumers itself points out, the new entrant must accept the realities presented by third parties. (Consumers Rebuttal III-B-7, May 20,

¹⁷² CSXT asserts that it would be infeasible to build an overpass to carry Clark Road over CERR, so instead proposes a flyover. (CSXT Reply III-F-64, Mar. 7, 2016.) The Board discusses CSXT's proposal for a flyover at Clark Road in the section on Operating Plan.

¹⁷³ CSXT originally added a highway overpass carrying Cottage Grove Avenue over CERR's interchange and double main tracks (CSXT Reply III-F-107, Mar. 7, 2016), but it removed this addition in its supplemental reply (CSXT Reply III-F-1, Mar. 6, 2017).

2016.).¹⁷⁴ Furthermore, Consumers misinterprets the Arizona Electric 2002 decision. The Board did not “assume away” the line shared by the defendant carrier and another carrier. Instead, the Board found that, although the new entrant would not need to incur the costs to replicate the line, it would have to step into the shoes of the defendant carrier by paying its trackage rights fees to the non-defendant. See Ariz. Elec. 2002, NOR 42058, slip op. at 7 (explaining that where defendant carrier has cost-sharing arrangements in place with another carrier, complainant may “assume that the SARR would have the benefit of the same opportunities under the same terms as [the defendant carrier] enjoys”); Ariz. Elec. Power Coop. v. BNSF Ry., NOR 42058, slip op at 4-5 (STB served Mar. 15, 2005). Thus, just as the complainant in Arizona Electric 2002 had to model its SARR as though the Joint Line in that case would still be partially owned by another carrier, here Consumers must account for UP’s partial ownership of Yard Center.

Consumers also argues that it is merely treating this segment in the same manner that prior complainants have treated the Joint Line in the Powder River Basin. However, in the cases involving the Powder River Basin, the complainants were replicating lines that exist in the real world. Here, by contrast, CERR would add an interchange track that currently does not exist in the yard. (CSXT Reply III-B-5, Mar. 7, 2016.) In addition to CERR not paying the costs associated with CSXT’s ownership interest in the yard, Consumers has not shown that CSXT would be permitted to build such a track under its joint facilities agreement with UP, nor has it shown that its proposal to add this interchange track would not infringe upon UP’s third-party operations in the yard. Accordingly, Consumers’ design does not properly account for UP’s partial ownership of Yard Center.

Here, as CSXT notes, if Consumers wants CERR to step into CSXT’s shoes by using the yard to interchange, the new entrant would need to assume CSXT’s 50% ownership interest in the yard and pay the associated costs. (CSXT Reply III-B-3 to III-B-5, Mar. 7, 2016; CSXT Br. 51.) Consumers does not have CERR do this, so CERR may not treat the yard as if it is an owner. The Board therefore finds that CERR would need to construct the new track CSXT proposes to circumvent the yard. Accordingly, the Board also finds that the overpass would also need to be relocated.

The parties also dispute how much the new entrant must contribute to the cost of the Sibley Boulevard overpass. Consumers on opening proposed for CERR to pay 10% of the costs for all overpasses, stating that a review of discovery documents indicates that railroads typically contribute 5-10% for overpasses and that application of 10% has been customary in past rate

¹⁷⁴ See Pub. Serv. Co. of Colo. v. Burlington N. & Santa Fe Ry., 7 S.T.B. 589, 674 (2004). (“It is well established that, for purposes of a SAC analysis, it is reasonable to assume that a SARR could replace or replicate existing lines and facilities used by the defendant railroad, at the same location as the existing lines and facilities. Here, however, Xcel [the complainant in that case] improperly assumed that the SARR could locate one of its yards at the same location as the yard of another (non-defendant) railroad without accounting for the other carrier’s presence.”)

cases. (Consumers Opening III-F-69 to III-F-70 (citations omitted).) CSXT agrees to the 10% figure for most overpasses, but includes 100% of the costs for the relocated Sibley Boulevard overpass, stating that because this overpass would be greenfield construction necessitated by CERR, it would not be eligible for public funding. (CSXT Reply III-F-107, Mar. 7, 2016.) Consumers responds that CSXT failed to submit evidence of this greenfield construction or support why this particular location would qualify for 100% cost.

CSXT has not supported its assumption that CERR is responsible for 100% of the costs for the Sibley Boulevard overpass. CSXT provides no evidence to that effect, instead merely asserting that this overpass would not be eligible for public funding. And as Consumers points out, prior Board precedent has accepted 10% for the costs of overpasses. See Otter Tail Power Co. v. BNSF Ry., NOR 42071, slip op. at D-41 (STB served Jan. 27, 2006) (rejecting railroad's inclusion of 100% cost for overpasses as railroad provided no evidence in support and as that would be departure from past precedent), aff'd sub nom. Otter Tail Power Co. v. STB, 484 F.3d 959 (8th Cir. 2007); see also Total Petrochems. & Refining USA, Inc. v. CSXT Transp., Inc., NOR 42121, slip op. at 167 (STB served Sept. 14, 2016) (accepting agreement as to 10% cost share); E.I. DuPont de Nemours & Co. v. Norfolk S. Ry., NOR 42125, slip op. at 212 (STB served Mar. 24, 2014) (same), corrected and updated, NOR 42125 (STB served Oct. 3, 2014), reconsideration denied, NOR 42125 (STB served Dec. 23, 2015); AEP Tex. N. Co. v. BNSF Ry., NOR 41191 (Sub-No. 1), slip op. at 103 (STB served Sept. 10, 2007) (applying 10% where evidence that railroad incurred some costs and applying 0% where no evidence that railroad incurred costs), reconsideration denied, NOR 41191 (Sub-No. 1) (STB served May 15, 2009), vacated on other grounds and remanded sub nom. AEP Tex. N. Co. v. STB, 609 F.3d 432 (D.C. Cir. 2010).

For the above reasons, the Board accepts the parties' agreement on inventory and will apply 10% cost share to all of the highway overpasses.

E. SIGNALS AND COMMUNICATIONS

TABLE C-8

Signals and Communications Costs			
	Consumers Supplemental Rebuttal	CSXT Alternative 1	STB
Signals & Wayside CTC	\$15,693,901	20,071,277	\$19,676,630
Communications	10,766,326	11,338,052	10,861,715
Crossings	12,270,300	12,270,300	12,270,300
AEIs and FEDs	1,130,764	1,130,764	1,130,764
Central CTC	841,950	841,950	841,950
Locomotive PTC	1,271,664	1,271,664	1,059,720
TOTAL	41,974,905	46,924,007	45,841,079

For signals, Consumers proposes on opening to have CERR use a CTC system to govern train movements on CERR's Blue Island and Barr Subdivision main lines between 22nd Street in Chicago, Ill., and Curtis, Ind. (Consumers Opening III-F-70; Consumers Opening WP "Exhibit III-A-1_CERR_Schematic.pdf.") The remainder of the railroad between Porter, Ind., and West Olive, Mich., would be "dark" (non-CTC) territory.¹⁷⁵ (Consumers Opening III-F-70.) Consumers proposes that communication needs for CERR would be met through a combination of fiber optic trunk lines, microwave towers, and land mobile radio (LMR) stations. Consumers assumes that CERR's cost-share for communications at crossings would be 50%, except in the instances where a government agreement provides otherwise. (*Id.*)

On reply, CSXT accepts most of Consumers' proposed signal and communication costs and configurations, but modifies the interlocking configurations, adds some signal components, and adds shipping costs for a significant number of the signal components. (CSXT Reply III-F-108 to III-F-109, Mar. 7, 2016.) On rebuttal, Consumers generally accepts CSXT's additional costs, but rejects the following CSXT modifications: (a) a 15% markup of costs for materials and labor; (b) total track connector costs; (c) total BRC signal bridge costs; (d) foundation costs for the microwave towers; (e) fencing around the microwave towers; (f) changes concerning a site engineer for microwave towers; and (g) foundation costs for the agreed-upon communication shed. (Consumers Rebuttal III-F-109, May 20, 2016.) These matters, as well as the parties' points of agreement, are discussed below.

¹⁷⁵ CTC systems include centralized train dispatcher's office(s) that control railroad signals and traffic flows in CTC territory.

1. 15% Markup of Materials and Labor

On opening, Consumers does not address a labor or materials markup in its narrative but in its workpapers includes a 15% markup for materials and two 15% markups for labor. (See Consumers Opening WPs “CERR Opening C-S Costs.xlsx,” Tab “Signal & Comm Costs,” Column D “Material Factor” (showing materials markup), “CERR Opening C-S Costs.xlsx,” Tab “Signal & Comm Costs,” Column H “Management Overhead,” & Tab “Components,” Cell L2 (showing labor markup).) On reply, CSXT applies the same markups to its labor and materials costs. (CSXT Reply WP “CERR C-S Costs Reply.xlsx,” Tab “CSXT Reply Totals,” Column R & Cell L2, Mar. 7, 2016.) On rebuttal, Consumers does not acknowledge that CSXT merely applied the same markups that Consumers applied on opening but instead objects to CSXT’s application of a 15% markup for both labor and materials costs to various signals and communication components. (Consumers Rebuttal III-F-110, May 20, 2016.) Specifically, Consumers claims the additional 15% markup for labor costs results in a double count because Consumers already included a 15% markup on opening. As to the materials markup, Consumers claims it should be rejected because CSXT has not provided an explanation for the addition. (Id. at III-F-110 to III-F-111.)

a. Materials Markup

The Board will reject Consumers’ argument. Consumers included the 15% markup for materials in its opening workpapers¹⁷⁶—indeed the markup was clearly labeled in its own column (“Material Factor”)—and provided no further information about the markup in its opening narrative. CSXT thus reasonably relied upon the 15% materials markup that Consumers itself used in its opening workpapers. CSXT also had no opportunity to respond to the new position that Consumers took in its rebuttal narrative. Accordingly, it is proper for the Board to reject Consumers’ argument on rebuttal and to accept the 15% markup for material costs. See E.I. DuPont de Nemours & Co. v. Norfolk S. Ry., NOR 42125, slip op. at 84 n.76 (STB served Mar. 24, 2014) (rejecting complainant’s proposed changes on rebuttal to composition of SARR’s Board of Directors, explaining that, “[t]he complainant may not make changes on rebuttal when the defendant has accepted the opening submission and did not have the opportunity to reply to those changes”), corrected and updated NOR 42125 (Oct. 3, 2014), reconsideration denied, NOR 42125 (STB served Dec. 23, 2015); see also Ariz. Elec. Power Coop. v. BNSF Ry., NOR 42113, slip op. at 113 (STB served Nov. 22, 2011), pet. for review denied sub nom. BNSF Ry. v. STB, 748 F.3d 1295 (D.C. Cir. 2014); Duke Energy Corp. v. Norfolk S. Ry. (Duke/NS), 7 S.T.B. 89, 101 (2003).

¹⁷⁶ Consumers Opening WP “CERR Opening C-S Costs.xlsx,” Tab “Signal & Comm Costs,” Column D.

b. Labor Markup

Much the same rationale applies to the additional 15% markup on labor costs. In its opening workpapers, Consumers included two 15% markups for labor. (Consumers Opening WP “CERR Opening C-S Costs.xlsx,” Tab “Signal & Comm Costs,” Column H “Management Overhead,” & Tab “Components,” Cell L2.) On reply, although CSXT did not use Consumers’ opening workpapers on labor costs, CSXT in its own workpapers likewise included two 15% markups on labor. (CSXT Reply WP “CERR C-S Costs Reply.xlsx,” Tab “CSXT Reply Totals,” Column R & Cell L2, Mar. 7, 2016.) On rebuttal, Consumers proposes including just one 15% markup on labor, arguing (inaccurately) that CSXT “add[ed] these costs again on reply,” thus “duplicat[ing] these costs.” (Consumers Rebuttal III-F-110, May 20, 2016; Consumers Rebuttal WP “CERR C-S Costs_Rebuttal.xlsx,” Tab “Rebuttal Totals,” Cell L2, labeled “Management Labor Overhead,” May 20, 2016.) Because Consumers included two 15% markups on labor in its opening workpapers, and CSXT accepted those costs (albeit without explicitly adopting Consumers’ workpapers), Consumers may not change its position on rebuttal. DuPont, NOR 42125, slip op. at 84 n.76; Ariz. Elec., NOR 42113, slip op. at 113; Duke/NS, 7 S.T.B. at 101.¹⁷⁷

2. Signals

CSXT generally accepts Consumers’ signals evidence, with certain exceptions. As explained below, on rebuttal Consumers agrees to CSXT’s changes to its signals evidence, and the Board accepts the parties’ agreement.

a. Interlocking Layouts and Components

Consumers provides on opening vital control equipment, power distribution, cables, switch mechanisms, wayside signals, internal wiring, huts, batteries, power drops and insulated joints. (Consumers Opening III-F-71.) On reply, CSXT modifies Consumers’ layouts and asserts Consumers omitted necessary components. (CSXT Reply III-F-109, Mar. 7, 2016; CSXT Reply WP “CERR Signals Configuration Modifications.pdf,” Mar. 7, 2016.) Specifically, CSXT includes the components discussed below.

¹⁷⁷ The Board “routinely allows the correction of minor technical errors in SAC cases.” Total Petrochems. & Refining USA, Inc. v. CSX Transp., Inc. (Total Petrochems. 2016), NOR 42121, slip op. at 185 (STB served Sept. 14, 2016) (with Board Member Begeman dissenting in part) (permitting complainant to correct errors it notes in its own evidence and that of the respondent). Here, however, Consumers does not argue that the markups were errors, much less minor technical errors. Nor does Consumers otherwise explain why, having introduced these markups on opening, it should nevertheless be allowed to reject them on rebuttal.

i. Grounding Kits

CSXT notes Consumers failed to provide necessary grounding kits for signal equipment shelters. (CSXT Reply III-F-110, Mar. 7, 2016.) On rebuttal, Consumers accepts these additional costs. (See Consumers Rebuttal III-F-109, May 20, 2016, (noting that Consumers accepts CSXT's additional costs except in other areas); Consumers Rebuttal WP "CERR C-S Costs_Rebuttal.xlsx," Tab "Rebuttal Totals," Row 61, May 20, 2016.) The Board will accept these agreed-upon costs.

ii. Track Connections

CSXT notes Consumers did not include certain necessary track connections or connecting wires. (CSXT Reply III-F-110, Mar. 7, 2016.) Consumers agrees that these connectors are necessary, but it notes CSXT has provided a unit cost for a joint bar as opposed to a track connector. (Consumers Rebuttal III-F-113, May 20, 2016; CSXT Reply WPs "CSXT Unit Cost Workpapers.pdf" at 3, "CERR C-S Costs_Reply.xlsx," Tab "CSXT Reply Totals," Cell E62, Mar. 7, 2016.) CSXT has used the incorrect unit cost for track connectors. The Board, therefore, will accept the agreed-to components with the corrected unit cost. See Total Petrochems. 2016, NOR 42121, slip op. at 169.

iii. Fencing for Interlocking Huts

Although Consumers provided for interlocking huts on opening, (Consumers Opening III-F-71), CSXT notes that Consumers did not place fencing around any of these huts. (CSXT Reply III-F-111, Mar. 7, 2016.) On rebuttal, Consumers accepts CSXT's unit cost and quantities for fencing around the huts. (See Consumers Rebuttal III-F-109, May 20, 2016.) The Board will accept the unit cost and quantities agreed to by the parties.

iv. Additional Signal Bridges and Cantilevers

On opening, Consumers includes signals along CERR tracks. (Consumers Opening III-F-71.) On reply, CSXT asserts that Consumers mounts all signals on a signal foundation, but CSXT claims that a bridge or cantilever signal is necessary in locations with more than two tracks, as the clearance between tracks cannot accommodate mast mounted signals. (CSXT Reply III-F-111, Mar. 20, 2016.) As such, CSXT claims that cantilevers are required for signals spanning three tracks and signal bridges are required for signals spanning more than three tracks. (*Id.*) CSXT therefore adds four three-track cantilever signals, one five-track bridge signal, and one six-track bridge signal based on CERR's configuration. (CSXT Reply WPs "CERR C-S Costs Reply.xlsx," Tab "CSXT Reply Totals," Rows 65-67, "CSXT Unit Cost Workpapers.pdf," at 5-9, Mar. 7, 2016.) On rebuttal, Consumers accepts CSXT's costs for the three-track cantilever signals and the six-track bridge signal, but claims the cost for the five-track bridge signal at MP 14.55 is overstated. Consumers asserts CERR should be responsible for only 60% of the cost for this signal because BRC, of which CSXT is a partial owner, owns only three of

the five tracks spanned by this signal. (Consumers Rebuttal III-F-113, May 20, 2016.)¹⁷⁸ The Board will accept these agreed-to costs, as revised by Consumers to reflect CSXT's ownership stake (which Consumers is replicating) in the tracks at issue.

b. Insulated Joints

In the Track Construction section, the parties agree to catalog insulated joints under the Signals and Communication section. (Consumers Opening III-F-58, III-F-72; CSXT Reply III-F-82, Mar. 7, 2016.) In their workpapers, the parties agree on the unit cost and quantity, and the Board will accept these agreed-to costs and counts. (Consumers Opening WP "CERR Opening C-S Costs.xlsx," Tab "Components," Row 36; CSXT Reply WP "CERR C-S Costs Reply.xlsx," Tab "CSXT Reply Totals," Row 36, Mar. 7, 2016.)

c. Detectors

Consumers proposes CERR would have failed equipment detectors (FEDs) along the main lines as required by operations and consistent with the current industry standards. (Consumers Opening III-F-73.) The parties agree on the quantities and costs for these items. (See CSXT Reply III-F-108, Table III-F-15, Mar. 7, 2016; CSXT Reply WP "CERR C-S Costs_Reply.xlsx," Tab "CSXT Reply Totals," Rows 11 & 12, Mar. 7, 2016; Consumers Rebuttal III-F-110, Table III-F-12, May 20, 2016; Consumers Rebuttal WP "CERR C-S Costs_Rebuttal.xlsx," Tab "Rebuttal Totals," Rows 11 & 12, May 20, 2016.) The Board will accept these agreed-to quantities and costs. Consumers also proposes that CERR would have Auto Equipment Identification (AEI) scanners, and the parties agree on the quantities and costs for these items. (See CSXT Reply III-F-108, Table III-F-15, Mar. 7, 2016; Consumers Rebuttal III-F-110, Table III-F-12, May 20, 2016.) The Board will accept these agreed-to quantities and costs.

d. CTC Center

On opening, Consumers states that it bases its costs for a dispatching center at West Olive on costs accepted by the Board in Western Fuels Ass'n v. BNSF Railway, NOR 42088, slip op. at 114 (STB served Sept. 10, 2007). Consumers then adjusts these costs to reflect the smaller level of traffic on this SARR. (Consumers Opening III-F-72 to III-F-73; Consumers Opening WP "CERR Opening C-S Costs.xlsx," Tab "CTC.") In its reply narrative, CSXT does not comment on Consumers' cost for the dispatching center, but, in its workpapers, CSXT uses the cost proposed by Consumers. (CSXT Reply WP "CERR C-S Costs Reply.xlsx," Tab "CTC," Mar. 7, 2016.) The Board will therefore accept the dispatch center proposed by Consumers on opening and used by CSXT on reply.

¹⁷⁸ Indeed, CSXT's own workpapers show that BRC owns only three of the five tracks that would benefit from the signal bridge. (CSXT Reply WP "BRC – Signal Bridge MP 14.55.pdf," Mar. 7, 2016.)

e. Shipping Costs for Signal Components

CSXT states that, on opening, Consumers omitted shipping costs for several signal components and adds such costs where necessary. (CSXT Reply III-F-112, Mar. 7, 2016.) Consumers accepts these costs on rebuttal. (Consumers Rebuttal III-F-109, May 20, 2016.) The Board will accept the agreed-upon shipping costs.

3. Communication System

On opening, Consumers proposes a communication system based on microwave radio, fiber optic, and LMR technology. (Consumers Opening III-F-74 to III-F-76.) CSXT accepts the general system design, except as discussed below.

a. Microwave Towers

The backbone of Consumers' proposed railroad radio system includes microwave towers along CERR's route, which are used to provide coverage for CERR's route between Porter and West Olive. (Id. at III-F-75.) CSXT adjusts the layout of microwave towers to correspond to its proposed route configuration of CERR. (CSXT Reply III-F-112, Mar. 7, 2016.) CSXT also corrects several errors it claims are in Consumers' microwave tower evidence. (Id. at III-F-113 to III-F-115, III-F-117 to III-F-118.) In particular, CSXT: (1) adjusts Consumers' tower-spacing plan and adds three towers; (2) adds costs to make the towers multidirectional (as CSXT argues Consumers had intended); (3) adds a second antenna required to separately receive and transmit data under Consumers' design; (4) corrects the cost for 7/8 Standard Coax (foam) and Standard Waveguide; and (5) corrects the cost for the tower equipment and 200-foot tower structure. On rebuttal, Consumers accepts these adjustments. (Consumers Rebuttal III-F-109, May 20, 2016 (noting that Consumers accepts CSXT's additional costs except in other areas).) The Board will accept these costs agreed to by Consumers and CSXT.

However, CSXT challenges several other aspects of Consumers' microwave towers, to which Consumers objects. These disputes are described below.

i. Microwave Tower Foundation

Although Consumers provides for microwave towers on opening, (Consumers Opening III-F-75), CSXT claims Consumers omitted the cost for a foundation required for a three-leg self-supporting microwave tower structure. CSXT thus adds the cost for an 8' x 8' footing with concrete piers to support the tower. (CSXT Reply III-F-118, Mar. 7, 2016.) Included in CSXT's tower foundation are costs for erecting and striping edge forms, erecting and striping keyways, curing and protecting concrete, and rubbing and patching irregularities on the foundation. (CSXT Reply WP "CSX Communications Tower and Shed Cost Estimate.pdf," Mar. 7, 2016.) On rebuttal, Consumers asserts that CSXT has overstated the costs for a foundation. It notes the

foundations are poured into trenches or pits and buried. (Consumers Rebuttal III-F-111, May 20, 2016.) Therefore, according to Consumers, there is no need to erect and strip edge forms, erect and strip keyways, cure and protect concrete, and rub and patch irregularities on the foundations. Moreover, Consumers claims CSXT's spreadsheet shows many of the concrete items listed twice because CSXT estimated the foundation base and columns separately. (Id.)

The Board notes the parties agree there needs to be a foundation, but they disagree as to the necessary characteristics of the foundation. Neither party, however, provides adequate evidence to support its position. In assessing the best available evidence, the agency agrees with Consumers that rubbing and patching (a step taken to cosmetically improve the foundation) is not necessary for the foundation base because, as Consumers points out, the base is buried. Although edge forms and keyways are useful if there is a complication with the soil or pit, CSXT has not shown these items are necessary for a microwave tower foundation base that is buried. Accordingly, the Board will reject CSXT's inclusion of costs to erect and strip edge forms and keyways and to rub and patch the concrete in the foundation base. With respect to the curing costs, curing makes for a sturdier foundation, which is particularly important for structures as large as these towers, each of which would stand 200 feet high. The Board will therefore accept CSXT's costs for curing and protecting the cement foundation.

As to Consumers' allegation that CSXT includes a double count for these costs, there is in fact no double count. Here, costs are repeated by CSXT to include costs for the base as well as for the piers. (CSXT Reply WP "CSX Communications Tower and Shed Cost Estimate.pdf," Mar. 7, 2016.) Furthermore, Consumers itself includes these supposed duplicate costs in its adjusted cost for the microwave tower foundations. (Consumers Rebuttal WP "CSX Communications Tower and Shed Cost Estimate Revised.pdf," May 20, 2016.)

ii. Microwave Tower and Shed Fencing

On opening, Consumers proposes "tower shed and fence enclosure" costs. (Consumers Opening WP "CERR LMR Cost Development.xls," Tab "Shed," Cell I9.)¹⁷⁹ In its reply, CSXT argues that "Consumers did not provide fencing to secure its microwave sheds" and that it is "standard practice to provide fencing due to the high-value equipment at the site." (CSXT Reply III-F-118, Mar. 7, 2016.) In its workpapers, CSXT accepts Consumers' fence costs around the sheds, but adds a cost for additional fencing around the towers. (CSXT Reply WPs "CERR LMR Cost Development_Reply.xls," Tabs "Per Tower Equipment" & "Shed," "CSX Communications Tower and Shed Cost Estimate.pdf," Mar. 7, 2016.) On rebuttal, Consumers argues that there is already sufficient fencing around the sheds and that CSXT's additional fencing would amount to "constructing a fence inside a fence." Consumers has therefore eliminated the additional fencing. (Consumers Rebuttal III-F-112, May 20, 2016.)

¹⁷⁹ Consumers submitted a corrupt file on opening; CSXT submitted a corrected copy of that file on reply.

Here, neither party has submitted well-supported evidence on the issue of shed and tower fencing. It is not entirely clear from Consumers' evidence if its fencing cost incorporates fencing for both the sheds and towers. On the other hand, CSXT's narrative asserts that Consumers' evidence is flawed because it lacks shed fencing, when in fact Consumers includes shed fencing. Moreover, CSXT's workpaper appears to accept the cost for shed fencing. Faced with two sets of flawed evidence, the Board must decide which party has presented the best evidence of record. The Board will accept Consumers' evidence, as CSXT's arguments fail to undermine Consumers' position and Consumers indicates that its shed fencing encompasses both the sheds and the towers. The Board will therefore reject CSXT's inclusion of additional fencing around the towers.

iii. Microwave Tower Site Engineering Design Costs

In its opening workpapers, Consumers includes \$150 per tower for "site engineering design costs." (Consumers Opening WP "CERR LMR Cost Development.xls," Tab "Per Tower Equipment," Row 13.) On reply, CSXT states that Consumers' \$150 cost "appears to be an hourly rate" and increases the site engineering design costs to provide for 20 hours of work from a senior engineer at \$175 per hour and 40 hours of work from a staff engineer at \$150 per hour. In its workpaper, CSXT notes the source for this increase as "CSXT Public Reply Evidence in TPI vs. CSXT." (CSXT Reply III-F-118, Mar. 7, 2016; CSXT Reply WP "CERR LMR Cost Development_Reply.xls," Tab "Per Tower Equipment," Row 13, Mar. 7, 2016.) On rebuttal, Consumers rejects CSXT's additional costs "given the inclusion of several other engineering tasks including a frequency study, a feasibility study, and a path and contour analysis," which are provided in its workpapers under site preparation. (Consumers Rebuttal III-F-112, May 20, 2016.) Again, neither party's evidence is entirely supported. Consumers provides for one hour of site engineering design costs, alongside other design and preliminary costs such as feasibility study costs and path and contour analysis costs, and its rebuttal position is that these additional engineering tasks render the need for additional site engineering design hours unnecessary. CSXT increases this cost to 60 hours without explanation, except a reference to its public reply evidence in Total Petrochemicals & Refining USA, Inc. v. CSX Transportation, Inc., Docket No. NOR 42121, which likewise proposed 60 hours of site engineering costs. CSXT has not supported its increase or undermined the feasibility of Consumers' proposal. The Board will therefore accept Consumers' site engineering design costs.

iv. Power Drop

On opening, Consumers proposes a cost of \$6,996.57 for power drop at microwave towers. (Consumers Opening WP "CERR LMR Cost Development.xls," Tab "Per Tower Equipment," Cell I30.) CSXT accepts that cost on reply. (CSXT Reply WP "CERR LMR Cost Development_Reply.xls," Tab "Per Tower Equipment," Cell P29, Mar. 7, 2016.) On rebuttal, Consumers changes its proposed cost. (Consumers Rebuttal WP "CERR LMR Cost Development_Rebuttal.xls," Tab "Per Tower Equipment," Cell P29, May 20, 2016.) The Board will use the cost proposed by Consumers on opening because CSXT accepted that cost on reply. Consumers may not change its position on rebuttal. See DuPont, NOR 42125, slip op. at 84 n.76; Ariz. Elec., NOR 42113, slip op. at 113; Duke/NS, 7 S.T.B. at 101.

4. Communications Equipment

a. Microwave Radio

Consumers provides a cost for a microwave base station, but CSXT adjusts the cost to reflect the cost agreed to by CSXT and the complainant in Total Petrochemicals & Refining USA, Inc. v. CSX Transportation, Inc., Docket No. NOR 42121. (CSXT Reply III-F-115 to III-F-116, Mar. 7, 2016.) Consumers accepts this adjusted cost on rebuttal, (Consumers Rebuttal III-F-109, May 20, 2016), and the Board will accept the cost agreed to by CSXT and Consumers.

b. Microwave Antenna

Consumers provides a unit cost for polarized parabola antennas equipped with feed horns. (Consumers Opening WP “CERR LMR Cost Development.xls,” Tab “Communications Equipment;” see also CSXT Reply WP “CERR LMR Cost Development_Reply.xls,” Tab “Communications Equipment,” Mar. 7, 2016.) CSXT adjusts this unit cost on reply and adds a cost for a mount assembly for each antenna. (CSXT Reply III-F-116, Mar. 7, 2016.) On rebuttal, Consumers accepts the adjusted unit cost for polarized parabola antennas equipped with feed horns and the unit cost for mount assemblies. (Consumers Rebuttal III-F-109, May 20, 2016.) The Board will accept the agreed-upon costs.

c. Land Mobile Radio (LMR)

Consumers provides a cost for an LMR base station, which CSXT adjusts on reply. (CSXT Reply III-F-116 to III-F-117, Mar. 7, 2016.) CSXT also includes costs for equipment it states is necessary for LMR operation (an X530, CAI equipment, an antenna relay, Omni antennas, coax connectors, cabinet, and a battery charger.) (Id. at III-F-117.) Consumers accepts the adjusted base station cost and the additional equipment and their respective costs on rebuttal. (Consumers Rebuttal III-F-109, May 20, 2016.) The Board will accept these costs and quantities agreed to by CSXT and Consumers.

d. Fiber Optic Node

On opening, Consumers proposes using fiber optic cable for CERR’s communications backbone where it has been placed by telecommunications providers on the real-world CSXT lines being replicated. Consumers includes fiber optic facilities, such as a wayside control cabinet, that include a fiber modem and related fiber node costs. (Consumers Opening III-F-75.) CSXT claims Consumers’ opening cost for a fiber optic node omits necessary components, including power supply, optical OC-3 tributary, small form-factor pluggable (SFP) module, an alarm system to protect against fire and intrusion, a telephone, and a Programmable Logic Controller (PLC) system to allow remote monitoring of equipment. (CSXT Reply III-F-119, Mar. 7, 2016; CSXT Reply WP “Fiber node costs_Reply.xlsx,” Tab “Fibre [sic] Node Unit Cost,” Rows 17-29, & “CERR C-S Costs_Reply.xlsx,” Tab “CSXT Reply Totals,” Cell E56,

Mar. 7, 2016.) In its workpapers, Consumers agrees to these additional costs. (Consumers Rebuttal WP “CERR C-S Costs_Rebuttal.xlsx,” Tab “Rebuttal Totals,” Cell E56, May 20, 2016.) The Board will accept the agreed-upon costs.

5. Communication Sheds

Consumers does not discuss communication sheds in its opening narrative, although it includes related costs in its workpapers. (Consumers Opening WP “CERR LMR Cost Development.xls,” Tab “Shed.”) CSXT asserts Consumers’ communication sheds cost omits costs for a foundation (comprised of footers), an alarm system to protect against fire and intrusion, an analog industrial indoor IP phone, a PLC system to allow remote monitoring of equipment, and a halo ground to properly ground shed and internal equipment from lightning strikes. (CSXT Reply III-F-117, Mar. 7, 2016.) Consumers accepts all of CSXT’s additional costs except for certain footer costs (reinforcing steel bar (rebar), curing, and rubbing and patching). (See Consumers Rebuttal III-F-109, III-F-111 to III-F-112, May 20, 2016.) Consumers claims the sheds are small enough that it is not necessary to include rebar in the footers. As with microwave towers, Consumers again argues that it is not necessary to include costs to cure or to rub and patch the footers. (*Id.* at III-F-111 to III-F-112.)

Neither party has supported its assertions regarding the required characteristics of the sheds. The Board must therefore look to the best evidence of record. The Board finds that microwave tower communications sheds are likely to require rebar (or some other reinforcing material such as wire mesh or fabric) in the footers to strengthen the concrete. Consumers has provided no such material. Furthermore, Consumers asserts curing is not necessary, but the Board notes curing is used to bond concrete. However, as to rubbing and patching, the Board agrees with Consumers that rubbing and patching is not necessary for shed foundations. The Board will, therefore, accept CSXT’s proposed foundation cost, minus costs for rubbing and patching.

The parties also appear to disagree on whether there should be a markup for shed components. On reply, CSXT provides a markup for the shed components and foundation in its workpapers without explanation. (CSXT Reply WPs “CSX Communications Tower and Shed Cost Estimate.pdf,” “CERR LMR Cost Development_Reply.xlsx,” Tab “Shed,” Column N, Rows 24-28 & Row 35, Mar. 7, 2016.)¹⁸⁰ In its rebuttal workpapers, Consumers accepts the markup for the foundation but rejects the markup for shed components.¹⁸¹ Neither party explains

¹⁸⁰ CSXT includes a 38% markup for most shed components and foundation items, a 39% markup for three items and a 50% markup for one, low-cost item. (CSXT Reply WP “CSX Communications Tower and Shed Cost Estimate.pdf,” Mar. 7, 2016.)

¹⁸¹ Those components are: Fire & Intrusion Alarm Panel; Door Sensor; Alarm Keypad; Smoke Sensor; and Shed Grounding Halo. (Consumers Rebuttal WPs “CSX Communications Tower and Shed Cost Estimate Revised.pdf,” “CERR LMR Cost Development_Rebuttal.xlsx,” Tab “Shed,” Column N, Rows 25-28 & Row 35, May 20, 2016.)

its position in its narrative. The Board will accept the parties' agreement as to the markup for the foundation, but will reject the inclusion of a markup for shed components given that CSXT has not supported its position.

6. PTC

Consumers claims CERR would not need to install PTC on its lines, but acknowledges that its locomotives would need to have PTC interoperability because CERR would often operate in run-through service over railroads that are required to be PTC-equipped. (Consumers Opening I-37 to I-38.) CSXT states that it has concerns about the assumptions underlying Consumers' claim that PTC need not be installed, but it chooses to challenge neither the claim here nor the costs that Consumers puts forward for PTC.¹⁸² (CSXT Reply III-F-108, n.260, Mar. 7, 2016; CSXT Reply WP "CERR C-S Costs_Reply.xlsx," Tabs "PTC GIS" & "CSXT Reply Totals," Mar. 7, 2016.) The Board will therefore accept the PTC costs agreed to by the parties.¹⁸³

¹⁸² CSXT notes that its decision to not dispute Consumers' assumption is not a concession that Consumers' approach is acceptable and does not waive CSXT's right to challenge a similar assumption in a future case. (CSXT Reply III-F-108 n.260, Mar. 7, 2016.)

¹⁸³ CSXT does adjust the PTC costs based on its adjustment to Consumers' locomotive count. As discussed in the Operating Plan section, the Board determines that 15 road locomotives are needed on CERR and adjusts the total PTC costs accordingly.

F. BUILDINGS AND FACILITIES

TABLE C-9

Buildings and Facilities Costs			
	Consumers Supplemental Rebuttal	CSXT Alternative 1	STB
Crew Change (71st Street)	\$196,490	\$222,865	\$196,490
Crew Change (Barr Yard)	173,286	46,160	173,286
Crew Change (Curtis)	187,878	214,517	187,878
Crew Change (West Olive)	180,406	207,274	180,406
MOW Office & Garage (Barr Yard)	322,813	71,841	322,813
MOW Office & Garage (Grand Junction)	365,950	414,794	365,950
Locomotive Shop & Equipment (Barr Yard)	2,486,955	6,308,759	2,548,440
Headquarters (West Olive)	2,142,321	2,724,806	2,143,101
Headquarters Support (Barr Yard)	0	3,468,728	0
Air Compressor Building (Barr Yard)	0	2,738,021	0
Turntable (Barr Yard)	0	1,533,325	933,182
Site Costs for Locomotive Shop & Barr Yard (includes Lights, Paving, Drainage, and Fueling)	5,687,348	7,806,881	5,746,011
Air at Wells Siding	0	111,562	0
TOTAL	11,743,447	25,869,533	12,797,557

Consumers asserts CERR is a geographically limited railroad with a relatively small staff. As such, according to Consumers, CERR only requires a few facilities to serve its needs. (Consumers Opening III-F-76.) The details for the various facilities are discussed below.

1. Headquarters Building

On opening, Consumers places CERR's headquarters building in West Olive and states it was designed to accommodate more than 60 people. Consumers provided the design to Modular Space Corporation, which provided a quote to build, deliver, and install the structure. (*Id.* at III-F-77.) CSXT accepts the headquarters' location and unit costs as a starting point, but adds costs to remedy certain "deficiencies." (CSXT Reply III-F-120, Mar. 7, 2016.) Consumers accepts CSXT's inclusion of some of these costs (specifically, for emergency backup power, exterior stairs, and a handicap accessible ramp), (Consumers Rebuttal III-F-117, May 20, 2016), and the

Board will accept these agreed-upon costs. However, Consumers disputes CSXT's other additional costs as described below.

a. Foundation

On opening, Consumers does not include a foundation for the headquarters building. (See Consumers Opening WP "HQ MOW CREW Modspace Building Proposal.pdf.") CSXT on reply provides a continuous perimeter foundation, stem walls, and footings to a depth of 42 inches in accordance with the Chicago Municipal Code. (CSXT Reply III-F-121, Mar. 7, 2016.) On rebuttal, Consumers accepts that a foundation is necessary but contends that a continuous perimeter foundation and stem walls are unnecessary and that it makes no sense to have the footings conform to the Chicago code when the building would be in Michigan. Instead, referring to the Michigan Building Code, which it states is based on the International Building Code, Consumers proposes an arrangement of 348 concrete piers installed to a depth of 48 inches. (Consumers Rebuttal III-F-115, May 20, 2016.)

The parties thus agree on the need for a foundation but disagree on its design. The Board finds that neither party's design is sufficiently supported. Although the Michigan Building Code would appear to be the proper building standard to apply here, Consumers provides neither workpapers nor citations supporting the requirements of the Michigan Building Code, or the International Building Code. On the other hand, CSXT fails to explain why a continuous perimeter foundation or stem walls are required, and also fails to explain its reliance on the Chicago code for a building located in Michigan. The Board will accept Consumers' design as the best evidence of record, as its 48-inch deep concrete piers appear to exceed the requirements of the Chicago code. (CSXT Reply WP "Municipal Code of Chicago Building Footings.txt," Mar. 7, 2016 (providing that "footings shall be carried to a depth of at least three feet six inches [i.e., 42 inches] below the adjoining ground surface").)

b. Floor Slab

Consumers does not include a floor slab for the headquarters building on opening. CSXT adds a floor slab, (Consumers Rebuttal III-F-115, May 20, 2016), but does not explain why this feature is necessary. On rebuttal, Consumers states its construction technique provides for a flat, compacted earth surface free of debris, which is all that is required for such a building. Consumers notes that while a floor slab makes it convenient to crawl under the building to make repairs, it otherwise serves no useful function and is thus not necessary. (*Id.* at III-F-115 to III-F-116 n.348.) The Board concludes that CSXT has not shown that a floor slab is required and therefore rejects the inclusion of a cost for a floor slab.

Therefore, the Board will accept Consumers' foundation for the headquarters building.

c. Locker Rooms

On reply, CSXT adds costs for locker rooms. (CSXT Reply III-F-122, Mar. 7, 2016.) Consumers rejects these costs because it already includes a locker room in each crew change building. (Consumers Rebuttal III-F-117, May 20, 2016.) CSXT does not explain why the headquarters building would also need locker rooms. Thus, CSXT has not undermined the feasibility of this aspect of Consumers' design for its headquarters building; accordingly, the Board will reject CSXT's locker room costs.

d. Critical Communications Equipment

CSXT claims Consumers did not include costs at CERR's headquarters for critical communications equipment. CSXT states that it thus includes costs for "dispatcher control consoles, display screens on the wall, server racks, and a dedicated AC for the server room."¹⁸⁴ (CSXT Reply III-F-122, Mar. 7, 2016.) Consumers claims it includes these costs, pointing to a cost for the CTC Office System in its opening signals and communications workpapers. (Consumers Opening WP "CERR Opening C-S Costs.xlsx," Tab "CTC.") Consumers' cost is based on a quote that includes "[h]ardware for the servers and workstations," among other things. (Consumers Opening WP "Alstom Dispatching System.pdf.")

The Board will reject CSXT's additions because it has failed to show that the equipment it proposes is not included in Consumers' proposal or is necessary. Consumers' quote specifically refers to hardware for servers and workstations, which the Board concludes also includes control consoles and server racks. Moreover, to the extent that the quote is unclear as to whether it includes the remaining items, CSXT has not shown that this equipment—including a 300 square foot monitor—is necessary for CERR. (CSXT Reply WP "2015 Buildings_Reply.xlsx," Tab "Headquarters," Row 31, Mar. 7, 2016.) Accordingly, the Board will reject CSXT's additional costs.

e. Electrical Room

CSXT asserts that, on opening, Consumers did not provide an electrical room for "the equipment associated with emergency backup power, critical communications, and the server room." (CSXT Reply III-F-122, Mar. 7, 2016.) Consumers rejects the additional cost for this room, arguing that the critical communications equipment can be housed in the mechanical room. (Consumers Rebuttal III-F-116, May 20, 2016.) The Board will reject CSXT's electrical room because CSXT has failed to demonstrate that such a room is necessary or that the equipment cannot fit within the design proposed by Consumers.

¹⁸⁴ CSXT's reply workpapers also include furniture for 60 workstations. (CSXT Reply WP "2015 Buildings_Reply.xlsx," Tab "Headquarters," Row 34, Mar. 7, 2016.) This is an unrealistic proposal for CERR in that there are only two dispatcher stations. (Consumers Opening WP "Alstom Dispatching System.pdf.")

f. Fire Protection

CSXT asserts Consumers has omitted a fire protection system from the headquarters building. (CSXT Reply III-F-122 to III-F-123, Mar. 7, 2016.) The Board will reject CSXT's addition because Consumers includes a fire protection system on opening. (Consumers Rebuttal III-F-117, May 20, 2016; Consumers Opening WP "HQ MOW CREW ModSpace Building Proposal.pdf" at 16, 18.)

g. Pavement Markings

Consumers includes costs for asphalt paving on opening, and its site plan for the headquarters building includes pavement markings. (Consumers Opening WP "HQ Site.pdf.") CSXT argues that Consumers fails to include a cost for pavement markings and adds those costs. (CSXT Reply III-F-122, Mar. 7, 2016.) Consumers claims on rebuttal that it would not need pavement markings because its parking lot would be gravel and that pavement markings are unnecessary because of adequate parking and limited staff. (Consumers Rebuttal III-F-117, May 20, 2016.) This position is inconsistent with Consumers' opening evidence that its lot would be paved, and the complainant may not change its position on rebuttal. The Board will therefore accept CSXT's addition of pavement marking costs for the headquarters building site.¹⁸⁵

2. Headquarters Support Building

Consumers does not provide a headquarters support building on opening. (Consumers Rebuttal III-F-117, May 20, 2016.) CSXT adds such a building on reply. (CSXT Reply III-F-123, Mar. 7, 2016.) CSXT claims its operating plan specifies a total of 23 headquarters support staff and 11 MOW staff requiring offices in Chicago. It notes that an additional 32 MOW staff would be based in Chicago who do not require offices but would need to access facilities such as restrooms and lockers. CSXT proposes consolidating Consumers' MOW building and crew change building at Barr Yard into one headquarters support building, claiming that housing all in one building would be more efficient. Accordingly, CSXT develops the cost of a two-story headquarters support building designed to hold 34 permanent staff as well as provide facilities for an additional 32 staff that would be based in Chicago. (*Id.* at III-F-123.) Consumers objects to the building. It claims the existing crew change facilities and headquarters building would provide adequate space for staff. (Consumers Rebuttal III-F-117 to III-F-118, May 20, 2016.)

The Board will reject CSXT's headquarters support building. Although CSXT claims that its single-building design is more efficient than Consumers' two-building approach, the cost of the single CSXT building far exceeds the costs Consumers puts forward for the two smaller

¹⁸⁵ The Board notes that CSXT failed to include its cost for pavement markings in its total site costs for this building. The Board will make this technical correction.

buildings that it would replace. And while CSXT claims that a headquarters support building at Barr Yard is essential because CERR operations would be centered in Chicago, (CSXT Br. 53), the Board has rejected the need for MOW managerial personnel to be based at Barr Yard. Finally, CSXT does not show that Consumers' approach is infeasible for the number or type of staff at Barr Yard.

3. Locomotive Shop

On opening, Consumers proposes a locomotive shop which it based on CSXT's Barr Yard shop. (Consumers Opening III-F-79 to III-F-80.) Consumers states that, consistent with discovery materials it received from CSXT, it includes 330 feet of embedded track, a 35-ton bridge crane, two jib cranes, three inspection pits, elevated-stair rails, and a wheel pit.¹⁸⁶ (Consumers Opening III-F-81; Consumers Opening WP "Chicago IL Locomotive Shop KCI Proposal.pdf.") Consumers explains, however, that because CERR would have so few locomotives, CERR's locomotive shop would not perform major component repairs such as rebuilding engines. Instead, the shop would remove such components from the locomotive, send them off-site to contractors to be repaired or rebuilt, and reinstall the repaired or replaced part. (Consumers Opening III-F-80.) Therefore, according to Consumers, the shop would not need certain equipment (e.g., engine block washer, traction motor stands, traction motor gearcase racks, or air break test racks) that might be found in a major repair facility. (*Id.* at III-F-81.) Consumers asserts the only key difference between its shop and the existing Barr Yard facility is that the pit for CERR's locomotive shop is a different size and that Consumers' proposed shop has a jib crane in the large work area instead of an overhead crane. To determine the costs of constructing the locomotive shop, Consumers provided a basic floorplan and a one-page list of general specifications to Kessel Construction, Inc. (KCI), which prepared a proposal to construct the 17,050-square foot locomotive shop for a total cost of \$2.5 million. (*Id.* at III-F-80; Consumers Opening WPs "Locomotive Shop specs.docx," "Chicago IL Locomotive Shop KCI Drawing Set.pdf," "Chicago IL Locomotive Shop KCI Proposal.pdf.")

On reply, CSXT argues that Consumers' shop contains numerous errors and flaws. Specifically, CSXT claims that Consumers' shop has insufficient clearance and structural support, and lacks essential equipment including a drop table, exhaust ventilation, fluid service storage and equipment, and emergency backup power. (CSXT Reply III-F-125 to III-F-129, Mar. 7, 2016.) To correct these errors, CSXT designs a new facility from the ground up. (*Id.* at III-F-129.)

On rebuttal, Consumers maintains that its opening locomotive shop proposal, modified with the addition of an H-Frame crane hoist, is sufficient. (Consumers Rebuttal III-F-122, III-F-

¹⁸⁶ This pit is referred to as a "drop pit" in Consumers' locomotive shop specifications supplied to KCI, a "drop table pit" in KCI's Locomotive Shop Proposal, and a "turn-table pit" in the layout for the existing Barr Yard locomotive shop. (Consumers Opening WPs "Locomotive Shop specs.docx," "Chicago IL Locomotive Shop KCI Proposal.pdf" at 7, "Loco Shop Blueprint – Barr Yard (CSX-CNSMR-C-16616 to 16648).pdf" at 16.)

130, May 20, 2016.) Consumers reiterates that its design was based on CSXT's Barr Yard shop. It also disputes certain items added by CSXT and claims others were already included in its design. (Consumers Rebuttal III-F-122 to III-F-134, May 20, 2016.)

Despite CSXT's claims that Consumers' locomotive shop suffers numerous flaws, the Board finds that CSXT has failed to demonstrate that Consumers' shop, overall, is not feasible. As discussed further below, the Board will therefore accept Consumers' locomotive shop but will include exhaust ventilation as proposed by CSXT.

a. Clearance

CSXT asserts that Consumers' proposed layout has "insufficient clearances . . . to accommodate the equipment it specifies." (CSXT Reply III-F-127, Mar. 7, 2016.) CSXT argues that forklifts need four feet of clearance at pinch points and 8.5 feet of clearance for right-angle turns, but that such clearance is not compatible with Consumers' design. (*Id.* at III-F-128.) In addition, CSXT asserts that Consumers' design includes an overhead bridge crane, which requires that structural columns be added and that hose reels be mounted to the floor, which in turn "encroach into necessary clear space around the rail." (*Id.* at III-F-127.)

On rebuttal, Consumers argues that its design does not call for a bridge crane, and as such, the hose reels can be hung from the ceiling rather than having to be floor mounted. Consumers also argues that clearance for a forklift is not necessary given that CSXT's existing Barr Yard shop has a partial wall between the tracks that leaves "no clear path for a forklift to drive between locomotives," as can be seen from a picture from an article in a trade publication (Consumers Rebuttal III-F-129, May 20, 2016 (citing William C. Vantuono, *CSX re-opens Chi. Locomotive Shop*, *Railway Age* (Dec. 18, 2014), <http://www.railwayage.com/index.php/mechanical/locomotives/csx-re-opens-chicago-locomotive-shop.html?channel=>)).

CSXT has not shown that Consumers' design lacks sufficient clearance. Although CSXT states that the locomotive shop lacks sufficient clearance for equipment—specifically, forklifts—neither Consumers nor CSXT actually proposes for CERR to have any forklifts. (See CSXT Reply WP "2015 Buildings_Reply.xlsx," Tab "Locomotive Shop Equipment," Mar. 7, 2016; Consumers Rebuttal WP "2015 Buildings_Rebuttal.xlsx," Tab "Locomotive Shop Equipment," May 20, 2016.) Nor has CSXT supported its position on the required clearance for forklifts. As Consumers points out, Consumers bases its shop design on the existing Barr Yard, which, as shown in a photograph in the record, lacks a clear path for a forklift to drive between the locomotive pits. (Consumers Rebuttal III-F-129, May 20, 2016.) With regard to floor-mounted hose reels and structural columns for the bridge crane, Consumers is incorrect that its design does not call for a bridge crane, as its design includes a 35-ton bridge crane. (Consumers Opening WPs "Chicago IL Locomotive Shop KCI Proposal.pdf" at 17, 22 (shown at top right of each page), "Locomotive Shop specs.docx," "2015 Buildings.xlsx," Tab "Locomotive Shop.") However, the basis for CSXT's critique in this regard is likewise undermined by the fact that its clearance argument is tied to equipment—specifically, forklifts—which neither party has

included. Additionally, CSXT has not shown that these features would cause any clearance problems but instead has merely alleged that there is insufficient clearance.

b. Drop Table

The parties dispute whether the locomotive shop requires a drop table. On opening, Consumers states in its narrative that CERR's locomotive shop includes a wheel pit and "[three] inspection pits which will be used in lieu of drop-tables." (Consumers Opening III-F-81.) One of its workpapers, which includes the specifications for the shop, states that the shop includes a "drop pit," while another workpaper, the actual shop proposal from KCI, provides a 6.5-foot drop pit "for the installation of a Drop Table supplied and installed by others." (Consumers Opening WPs "Locomotive Shop specs.docx," "Chicago IL Locomotive Shop KCI Proposal.pdf" at 7.)

On reply, based on the statement in the KCI proposal, CSXT interprets Consumers' position as requiring a drop table for the drop pit, but notes that Consumers fails to actually include a cost for a drop table. CSXT therefore includes a cost for a drop table that requires a pit depth of 11 feet, stating a 6.5-foot pit is not deep enough to house drop table equipment. (CSXT Reply III-F-126 to III-F-127, Mar. 7, 2016.)¹⁸⁷ On rebuttal, Consumers responds that CSXT misunderstood Consumers' proposal on opening due to confusion about the terms "wheel pit" and "drop pit." Consumers emphasizes that it proposed only a wheel pit and never intended to include a drop table or deeper pit. It states that its specifications never included a drop table, and that the KCI proposal used the incorrect terminology when it stated "drop table pit" instead of "drop pit." Consumers states that the real Barr Yard locomotive shop has a similar, shallower "wheel" pit. (Consumers Rebuttal III-F-125, May 20, 2016.) Consumers also claims that a drop table is not necessary because the shop, while designed for running repairs, is not intended for large-scale maintenance operations. (Consumers Rebuttal III-F-123 to III-F-125, May 20, 2016.) According to Consumers, the 6.5-foot pit would be used to remove a single wheel set while larger repairs would be contracted out off-site. (Consumers Rebuttal III-F-123 to III-F-125, May 20, 2016.)

The Board finds that CSXT has not shown that the lack of a drop table renders Consumers' design infeasible. Consumers provides a wheel pit to permit the removal of a wheel set. Although KCI's proposal mentions a drop table, it is clear from Consumers' opening narrative and its shop specifications that it did not intend to include such a component, as Consumers instead intended for there to be only a wheel pit. Because CSXT has failed to show why a drop table would be required, the Board rejects CSXT's claim that a drop table is necessary in the CERR shop.

¹⁸⁷ Although CSXT states in its narrative that 6.5 feet is not deep enough for the drop table it is proposing, CSXT's costs are based on a shop layout indicating a drop table pit of only 6.5 feet, not 11 feet. (CSXT Reply WP "CERR Loco Shop Layout.pdf," Mar. 7, 2016.)

c. Exhaust Ventilation

CSXT claims that Consumers' design lacks exhaust ventilation in the pits, which CSXT argues is necessary for worker safety. (CSXT Reply III-F-127, Mar. 7, 2016.) Consumers disagrees, stating that the drop (wheel) pit would not have people working in it, and the three 3.5-foot inspection pits would not require full immersion of a worker and hence would not require ventilation under OSHA guidelines. (Consumers Rebuttal III-F-125 to III-F-126, May 20, 2016.) Although Consumers acknowledges that major components would be removed to be sent off-site for repair and specifically acknowledges that the drop pit would be used to remove a wheel set, (*id.* at III-F-125), Consumers does not explain how these tasks could be accomplished without the presence of workers in the pit, which, in turn, would necessitate exhaust ventilation. The Board, therefore, will add the cost for exhaust ventilation to Consumers' design.

d. Emergency Backup Power

CSXT argues that emergency backup power for the locomotive shop is critical to maintain CERR operations in case of utility power outages. (CSXT Reply III-F-129, Mar. 7, 2016.) Consumers rejects the addition of emergency power because CSXT did not submit evidence to suggest that the power outages are frequent or lengthy enough to warrant such a system for a small shop. (Consumers Rebuttal III-F-134, May 20, 2016.)

The Board need not reach a decision on whether emergency backup power is needed because the record contains insufficient cost information related to this item. CSXT's cost for an emergency power system—the only cost in the record—is clearly flawed because it is erroneously tied to the cost for an unrelated item. Specifically, CSXT's reply workpaper "2015 Buildings_Reply.xlsx" lists various items, including an emergency generator and fall protection system, and includes codes that tie those items back to costs found in CSXT reply workpaper "SJRCCLoco Shop Costs.pdf." The generator line item refers to costs for the fall protection system, and no specific cost for an emergency generator could be found in the latter workpaper. (See CSXT Reply WPs "SJRCCLoco Shop Costs.pdf," at 10, "2015 Buildings_Reply.xlsx," Tab "Locomotive Shop," Row 41, Mar. 7, 2016.) As such, the Board has no cost to provide from the record so therefore cannot require CERR to bear a cost for emergency backup power.

e. Fluid Distribution

CSXT also proposes to add fluid service storage and distribution equipment. It argues that, "[t]o minimize the amount of hostling of locomotives within the repair facility," access to fluids is required at each of the service and inspection spots. (CSXT Reply III-F-127, Mar. 7, 2016.) Consumers contends that it is not necessary for each spot to have its own station with fluids, and that there is adequate space in the equipment room and adjacent rooms to store fluids in close proximity to distribution equipment. It also contends that, because CERR's Barr Yard would be servicing significantly fewer locomotives than are serviced at CSXT's Barr Yard, it is not necessary to limit the hostling of locomotives. (Consumers Rebuttal III-F-127 to III-F-128,

May 20, 2016.) As CSXT itself notes, the locomotives can be brought to the fluids. Accordingly, the Board finds that CSXT has not undermined the feasibility of Consumers' lack of a fluid service storage and distribution equipment.

f. Additional Items

CSXT claims that Consumers' shop has insufficiently sized overhead locomotive doors. (CSXT Reply III-F-129, Mar. 7, 2016.) Consumers responds on rebuttal that its shop would have 12-foot x 16-foot doors, and that is adequate for a locomotive that is only 10.5 feet x 15.25 feet. (Consumers Rebuttal III-F-134, May 20, 2016.) CSXT has therefore failed to show that Consumers' proposed overhead locomotive doors are too small.

CSXT also claims that Consumers does not include grinder pumps to ensure reliable removal of spilled liquids. (CSXT Reply III-F-127, Mar. 7, 2016.) The Board will reject the addition of grinder pumps because KCI's locomotive shop proposal included a drainage system for Consumers, (Consumers Rebuttal III-F-126, May 20, 2016), and CSXT has failed to show that that system is not feasible. Regardless, CSXT provides no cost for such pumps.

CSXT also points to a number of other items that it claims are missing, but are actually present. (CSXT Reply III-F-126, III-F-128 to III-F-129, Mar. 7, 2016.) Specifically, CSXT claims that Consumers' CERR shop lacks details or drawings for inspection pits, embedded rail, pedestal rail, stairs into gauge pits, and fall protection, but Consumers' design includes these items. (See Consumers Opening WP "Chicago IL Locomotive Shop KCI Proposal.pdf.") Furthermore, CSXT claims that Consumers fails to include a cost for a shop foundation with inspection pits, but this is also not accurate. (See id.)

g. Conclusion

For the reasons discussed above, the Board finds that—with the exception of exhaust ventilation—none of CSXT's criticisms undermine Consumers' locomotive shop. Accordingly, the Board will accept Consumers' cost for the locomotive shop but will add a cost for exhaust ventilation (which can be added without the need to modify Consumers' locomotive shop design or costs).

4. Crew Change Buildings

Consumers asserts on opening that CERR needs four crew change buildings (at 71st Street, Barr Yard, Curtis, and West Olive). According to Consumers, each location includes a locker room (with showers and lockers), two offices, a breakroom, and restrooms. (Consumers Opening III-F-82.) CSXT accepts the majority of Consumers' sizing and cost assumptions but adds costs for exterior stairs, an accessible ramp, additional paving costs, increased square footage, and the same type of foundation as CSXT proposed for the headquarters building (stem walls, a continuous perimeter foundation, a floor slab, and footings.) (CSXT Reply III-F-130 to

III-F-131, Mar. 7, 2016.)¹⁸⁸ CSXT also adds another restroom “to create separate men’s and women’s restrooms.”¹⁸⁹ (CSXT Reply III-F-131, Mar. 7, 2016.)

Consumers accepts that a foundation would be required and accepts CSXT’s costs for ramps and stairs but challenges CSXT’s other additions. (Consumers Rebuttal III-F-134 to III-F-136, May 20, 2016.) Specifically, Consumers rejects CSXT’s “over-design” requiring a perimeter foundation, stem walls, and a floor slab. To the extent CSXT added these costs in accordance with the Chicago Municipal Code, Consumers rejects the notion that the Chicago code should apply outside of Chicago. (*Id.* at III-F-135.) For the reasons stated in the discussion of the headquarters building, the Board will accept Consumers’ foundation design.

Further, Consumers rejects the costs for an additional restroom because “it included a separate single occupancy accessible restroom” and notes that its configuration satisfies all legal requirements based on the facility’s occupant load. (*Id.* at III-F-136.) Although the Board may question the practicality of Consumers’ design, CSXT has not undermined Consumers’ evidence that a single occupancy restroom satisfies the associated legal requirements based on the facility’s occupant load.

Consumers also rejects CSXT’s additional paving costs for the parking lots, which CSXT claims is necessary to allow for cars to back out of the parking stalls at the dead-end aisles in Consumers’ design. Consumers notes that CSXT’s assertion is “bizarre,” as it is proposing a paved area at the end of a gravel parking area so a car can back out of a space on a gravel lot. (*Id.*) The Board agrees that this additional paving is not necessary and that Consumers’ approach is thus feasible without CSXT’s addition.

5. MOW Buildings

On opening, Consumers proposes a MOW building and MOW garage at both Barr Yard and Grand Junction. The MOW buildings are similar in office space and design to the crew change facilities. (Consumers Opening III-F-83.) CSXT “makes the same adjustments to MOW

¹⁸⁸ CSXT also removes a crew change facility at Barr Yard because it provides for that function at its headquarters support building; however, as discussed above, the Board is rejecting that building. As such, the Board will accept Consumers’ count of four crew change buildings.

¹⁸⁹ In its narrative, CSXT concludes its argument here by adding a restroom, but in its workpapers it adds a locker room. (CSXT Reply WP “2015 Buildings_Reply.xlsx,” Tab “Crew Change,” Mar. 7, 2016.) Where the workpapers and the narrative conflict, the Board has found that the narrative conveys the intent over a contrary position in its workpapers. Even if there is some question as to CSXT’s proposal in its narrative, CSXT has not undermined Consumers’ evidence.

buildings as for the crew [change] buildings.”¹⁹⁰ (CSXT Reply III-F-131 to III-F-132, Mar. 7, 2016.) Consumers raises the same objections to CSXT’s MOW evidence as it did to CSXT’s crew change facility evidence.¹⁹¹ For the reasons discussed in the Crew Change Buildings section, the Board will accept the additional costs¹⁹² for the MOW buildings.¹⁹³

6. Fueling Facilities

CERR would have no fixed fueling facilities. Locomotive fueling would be performed by direct-to-locomotive (DTL) fueling trucks at Barr Yard and at Consumers’ plant. (Consumers Opening III-F-78.) Consumers provides for a separate fueling track to accommodate the fueling of locomotives that have just been serviced at the locomotive shop. It also provides for paved roads on each end of the yard for easy vehicle access and to simplify the fueling operations. Consumers also provides fueling pans (at the inspection tracks and the fueling track) and four oil/water separators. (Consumers Opening III-F-78 to III-F-79, III-F-85; Consumers Opening WPs “2015 Buildings.xlsx,” Tab “Locomotive Shop Equipment,” Row 17, “2015 Building Sites.xlsx,” Tab “Yard,” Rows 18-19.)

CSXT increases the number of oil/water separators to nine, rejects Consumers’ asphalt specifications as inadequate to accommodate the heavier load of DTL fuel trucks, and provides for lighting. (CSXT Reply III-F-124, Mar. 7, 2016.) On rebuttal, Consumers rejects CSXT’s reply count of oil/water separators. (Consumers Rebuttal III-F-118 to III-F-119, May 20, 2016.) Consumers also rejects CSXT’s asphalt specifications, arguing that the opening specifications meet Illinois requirements for the fuel trucks’ weight. (*Id.* at III-F-120.) Consumers accepts the

¹⁹⁰ CSXT also removes a MOW building at Barr Yard because it proposes to provide that function at its headquarters support building; however, as discussed above, the Board is rejecting that building. As such, the Board will accept Consumers’ count of two MOW structures at Barr Yard.

¹⁹¹ The parties agree as to the size and cost of the MOW garages, and the Board will accept this agreed-upon cost. The parties differ as to the foundation for the garages. Because Consumers has put forward a feasible and supported foundation on opening, and CSXT has failed to undermine its feasibility, the Board will accept Consumers’ foundation for the MOW garages.

¹⁹² Specifically, the Board will accept the agreed-upon stairs, accessible ramp, and use of concrete piers as a foundation. However, for reasons discussed above in regard to other buildings and facilities, the Board will reject costs for additional parking paving, a floor slab, stem walls, a continuous perimeter foundation, and increased square footage for an additional restroom.

¹⁹³ The Board will make a technical correction to CSXT’s scrivener’s error in its formula in CSXT Reply WP “2015 Buildings_Supp_Reply_Alt1_Alt2.xlsx,” Tab “MOW,” Cell F8, Mar. 6, 2017, in which CSXT erroneously references the total Crew Change costs instead of the total MOW costs.

lighting addition. (*Id.* at III-F-118.) Additionally, in view of the parties' agreement to remove 2.22 miles of track at Barr Yard, (Consumers Suppl. Evid. III-F-1; CSXT Reply III-F-1, Mar. 6, 2017), Consumers claims to correct a technical error by removing two fueling pads that are no longer needed. (Consumers Rebuttal III-F-12, Apr. 13, 2017.)

The dispute between the parties on the number of oil/water separators appears to be about how to interpret Consumers' opening evidence. (Consumers Opening WP "BARR YARD.pdf.") Consumers states on opening that "[f]or the locomotive shop and each of the eight fueling pads there is an oil/water separator system that is part of the fuel containment system." (Consumers Opening III-F-85.)¹⁹⁴ CSXT interprets Consumers' position to be that each fuel pad requires its own oil/water separator. (CSXT Reply III-F-124, Mar. 7, 2016.) But on rebuttal, Consumers notes that for each fueling pad there would be an oil/water separator "system," not necessarily an individual oil/water separator. (Consumers Rebuttal III-F-118 to III-F-119, May 20, 2016.) The Board finds that Consumers' description of the fuel containment system on opening was not intended to imply that a separator is required at each fueling pad, but rather at each cluster of two fueling pads. Because CSXT has not shown such a configuration to be infeasible, the Board will accept Consumers' configuration of oil/water separators. With the removal of the 2.22 miles of track at Barr Yard, there are six fueling pads clustered in three pairs, (Consumers Opening WP "BARR YARD.pdf"), so only four separators are required—one for each of three fueling pad clusters and one agreed-upon separator for the locomotive shop. (See Consumers Suppl. Evid. WP "2015 Buildings_Supplemental.xlsx," Tab "Locomotive Shop Equipment," Cell I18 ("[T]here are a total of '4 Oil interceptors = 1 for loco shop and 1 for each of 3 fueling points in Yard'"); CSXT Reply WP "2015 Buildings_Supp_Reply_Alt1_Alt2.xlsx," Tab "Locomotive Shop Equipment," Cell I17, Mar. 6, 2017 (same).)

As for the dispute over asphalt specification, the Board finds that Consumers has put forward feasible and supported evidence of its specification. It explains how its specification meets Illinois DOT standards and would be sufficient to accommodate CERR's DTL fuel trucks. (Consumers Rebuttal III-F-120, May 20, 2016.) Although CSXT claims heavier asphalt is necessary to accommodate the DTL trucks, it has not supported that assertion. Accordingly, the Board will reject CSXT's added cost associated with this item.

¹⁹⁴ CSXT shows eight fueling pads in its workpapers. (CSXT Reply WP "2015 Building Sites_Supp Reply_Alt1_Alt2.xlsx," Tab "Yard," Rows 29-30, Mar. 6, 2017.) Consumers omits two of these fueling pads that were associated with the 2.22 miles of yard track that were eliminated. (Consumers Rebuttal WP "2015 Building Sites_Supplemental Rebuttal.xlsx," Tab "Yard," Rows 18-19, Apr. 13, 2017.)

7. Car Repair Shop

The parties agree CERR does not need a car repair shop, and the Board will accept this agreement. (CSXT Reply III-F-129, Mar. 7, 2016; Consumers Rebuttal III-F-134, May 20, 2016.)

8. Turntable

The Board addresses the parties' dispute regarding a turntable at Barr Yard in the operating plan discussion and explains that the agency will accept the proposed turntable. (See CSXT Reply III-F-132, Mar. 7, 2016, Consumers Rebuttal III-F-138, May 20, 2016.)¹⁹⁵

9. Waste Water Treatment

CSXT accepts Consumers' wastewater treatment costs, (CSXT Reply III-F-133, Mar. 7, 2016; Consumers Rebuttal III-F-141, May 20, 2016), and the Board will accept the agreement.

10. Tie to Existing Sewer Costs

In its opening workpapers, Consumers calculates the "tie to existing sewer" cost for each building. (Consumers Opening WP "2015 Buildings.xlsx," Tab "Total Building Cost Summary.") In its reply workpapers, CSXT includes the same "tie to existing sewer" costs as Consumers included on opening. (CSXT Reply WP "2015 Buildings_Reply.xlsx," Tab "Total Building Cost Summary," Mar. 7, 2016.) In its rebuttal workpapers, Consumers calculates higher costs using revised culvert bedding costs, which were proposed by CSXT on reply and accepted by Consumers on rebuttal. (Consumers Rebuttal WP "2015 Buildings_Rebuttal.xlsx," Tab "Total Building Cost Summary," May 20, 2016.) In its supplemental workpapers, CSXT continues to use the tie to existing sewer costs it used on reply and Consumers continues to use the increased costs it used on rebuttal. The Board will accept the "tie to existing sewer" costs used by Consumers on rebuttal to reflect the culvert bedding costs agreed to by the parties and accepted by the Board.

¹⁹⁵ CSXT uses a hardcoded turntable cost of \$1,201,408 that is unsupported; therefore, the Board will use the turntable cost of \$853,000 submitted by CSXT in its reply workpaper "Turntable Cost.pdf," Mar. 6, 2017, and adjusted to current cost in CSXT Reply WP "2015 Buildings_Supp_Reply_Alt1_Alt2.xlsx," Tab "Air and Turntables," Mar. 6, 2017.

CSXT also applies a location factor adjustment that presumes the turntable cost was from Ohio. However, the turntable quote is for a turntable in Cumberland, Md. Therefore, the Board will reject CSXT's location factor adjustment.

11. Yard Costs

a. Air Compressor Building and Yard Air Systems

Consumers argues on opening that a yard air system (for air brakes) at CERR's Barr Yard is not necessary because activity at the yard is light and cars would remain "on air" while in the yard, except briefly for removal of bad-order cars. (Consumers Opening III-F-86.) On reply, CSXT includes a yard air compressor building and associated distribution systems at CERR's Barr Yard akin to those at the existing Barr Yard. (CSXT Reply III-F-133, Mar. 7, 2016.) CSXT asserts an air compressor is necessary to charge the air in the cars' brakes. (*Id.* at III-F-132 to III-F-133.) On rebuttal, Consumers rejects CSXT's addition, claiming that it would be possible for CERR to re-charge the air using the locomotive attached to the cars. (Consumers Rebuttal III-F-139, May 20, 2016.) CSXT responds that using the locomotives is possible in an emergency, but it is not a standard practice. (CSXT Br. 53.)

CSXT has not shown Consumers' omission of an air compressor building at Barr Yard to be infeasible given how CERR would operate. As Consumers notes, activity at Barr Yard would be light and cars would generally remain on air while in the yard. No CERR trains would be assembled at Barr Yard; therefore, cars do not run the risk of having their air depleted while classification activity is completed. The only trains that stop at Barr Yard are interchange trains, and those interchanges (along with 1,000/1,500-mile inspections for some westbound trains) would take place without removal or exchange of locomotives. In these situations, the train's air system would stay charged using the locomotives' air system. Therefore, the Board will reject CSXT's costs for an air compressor building and yard air systems at Barr Yard because Consumers' approach is feasible.¹⁹⁶

b. Yard Paving

On opening, Consumers provides quantities and unit costs for yard paving. (Consumers Opening WP "2015 Building Sites.xlsx," Tab "Locomotive Shop & Yard.") CSXT accepts these, but it increases the quantity of paving to provide more parking for additional headquarters support and MOW personnel at the expanded Barr Yard facility. (CSXT Reply III-F-134, Mar. 7, 2016.) The Board finds Consumers' plan for gravel parking at the Barr Yard is feasible and supported. CSXT has merely added costs for paving the parking lot, but has not explained why a gravel parking lot would be infeasible. Accordingly, the Board will reject CSXT's additional paving.

¹⁹⁶ CSXT also develops a cost for providing air at the sidings nearest the J.H. Campbell generating station where Consumers' CERR coal trains hold. (CSXT Reply III-F-133, Mar. 7, 2016.) As discussed in the Operating Plan section, however, the agency has determined that air equipment is not necessary at these locations.

c. Yard Lighting

On opening, Consumers proposes lighting at Barr Yard every 300 feet along the yard track. (Consumers Opening III-F-85.)¹⁹⁷ CSXT accepts Consumers' general approach of calculating lighting requirements for CERR's yard from existing CSXT facilities. (CSXT Reply III-F-134, Mar. 7, 2016.) The Board will accept the lighting spacing agreed to by the parties.

CSXT does claim, however, that the two-inch conduits provided by Consumers are inadequate. According to CSXT, four-inch conduits housing five electrical wires (#4's and #2's as opposed to Consumers' #10's)¹⁹⁸ are necessary to supply voltage to the lights spaced throughout Barr Yard. (CSXT Reply III-F-134, Mar. 7, 2016.) Consumers responds that the two-inch conduit is sufficient as it would hold 64 #10 wires, or alternatively 16 #4 wires, or eight #2 wires. (Consumers Rebuttal III-F-142, May 20, 2016.)

As an initial matter, the Board notes that CSXT uses wire of different gauges (#2's and #4's) than Consumers (#10's), but CSXT fails to explain why the gauge used by Consumers is not feasible. Therefore, the Board will accept the #10's used by Consumers. Regarding conduits, as Consumers explains on rebuttal, the two-inch conduit is sufficient as it can hold 64 #10's (according to Consumers' workpapers, it uses only three #10's). (Consumers Opening WP "2015 Building Sites.xlsx," Tab "Unit Costs," Row 77.) Therefore, Consumers has shown that the two-inch conduit can feasibly hold the type and number of wires the Board has accepted. The Board thus will reject additional costs for four-inch conduits.

CSXT notes electrical enclosures are necessary in Barr Yard, (CSXT Reply III-F-134, Mar. 7, 2016), and Consumers accepts these enclosures throughout the CERR system on rebuttal, (Consumers Rebuttal III-F-142, May 20, 2016). The Board will accept Consumers' rebuttal cost for this item.

d. Yard Drainage

To handle storm water runoff and to provide adequate drainage, Consumers proposes 126 catch basins at Barr Yard. (Consumers Opening III-F-86.) CSXT claims these basins on their own are only effective in sandy soil, but that the soil around Barr Yard has significant clay. To prevent flooding, CSXT therefore adds a storm sewer network. (CSXT Reply III-F-135, Mar. 7, 2016.) On rebuttal, Consumers argues CSXT has not shown that a storm sewer network is required. (Consumers Rebuttal III-F-143 to III-F-144, May 20, 2016.)

¹⁹⁷ Consumers also included other lights related to facilities at Barr Yard, but those lights are included separately as part of those facilities' costs. (Consumers Opening III-F-85.)

¹⁹⁸ Compare Consumers Opening WP "2015 Building Sites.xlsx," Tab "Unit Costs," Row 77 with CSXT Reply WP "2015 Building Sites_Reply.xlsx," Tab "Unit Costs," Rows 84-85, Mar. 7, 2016.

The Board finds CSXT has failed to demonstrate such a system is necessary. The map CSXT has put into evidence in support of its argument establishes the soil conditions in parcels in the vicinity of the yard, but not in the yard itself. Given that CSXT owns the yard, it presumably could have provided direct evidence of the yard's soil condition but failed to do so. CSXT has thus failed to show directly that the yard has clay soil with poor permeability, and the Board will not draw such an inference based on evidence of soil conditions of nearby parcels. CSXT has thus not successfully undermined the feasibility of Consumers' catch basin design, which Consumers has supported. (Consumers Opening WP "Yard Drainage Cost.pdf"; Consumers Rebuttal WP "Revised Stormwater rebuttal.pdf," May 20, 2016.) The Board therefore accepts Consumers' yard drainage costs.

e. Yard Fencing

On opening, Consumers provided fencing around certain facilities, including the locomotive shop, but did not fence the perimeter of Barr Yard, arguing that the existing Barr Yard does not have a perimeter fence. (Consumers Opening III-F-86 to III-F-87.) CSXT challenges Consumers' assertion that fencing is only necessary around the locomotive shop. CSXT asserts there is a substantial quantity of fencing at Barr Yard, "particularly in areas where non-railroad properties abut the yard." (CSXT Reply III-F-136, Mar. 7, 2016.) CSXT therefore includes costs for Barr Yard fencing where it exists in the real world. On rebuttal, Consumers argues that CSXT does not support additional fencing at Barr Yard. (Consumers Rebuttal III-F-145 to III-F-146, May 20, 2016.)

The Board rejects CSXT's cost for additional fencing at Barr Yard. CSXT has not undermined the feasibility of Consumers' proposal to leave Barr Yard unfenced. Although CSXT states there is a substantial quantity of fencing at the existing Barr Yard, (CSXT Reply III-F-136, Mar. 7, 2016), Consumers rightly points out that CERR's Barr Yard would be significantly smaller in area. CSXT also does not demonstrate that it incurred the costs for all of this fencing; in fact, Consumers presents evidence that at least some of the fencing has been erected by neighboring landowners on their property, not by CSXT. (See Consumers Rebuttal WP "MWRDGC fence sign photo.pdf," May 20, 2016.) In addition, Consumers presents evidence that the fencing on the south side of the existing yard does not prevent access to the yard because it is open at both ends. (See Consumers Rebuttal WP "Barr yard fence south side.pdf," May 20, 2016.) Accordingly, the Board concludes Consumers' proposal not to fence the perimeter of Barr Yard is feasible and supported.

G. PUBLIC IMPROVEMENTS

TABLE C-10

Public Improvements			
Public Improvement Categories	Consumers Supplemental Rebuttal	CSXT Alternative 1	STB
Construct Grade Crossing:			
Public	\$3,059,477	\$3,059,477	\$3,059,477
Private	232,886	232,886	232,886
Ancillary Costs: traffic control, pavement marking, drainage.			
Public	0	6,274,278	6,274,278
Private	0	1,403,834	1,403,834
ROW and Grade Crossing Signs:			
Signs	47,627	47,627	47,627
Sign posts	44,315	44,315	44,315
Total Public Improvements	3,384,306	11,062,417	11,062,417

1. Fences

Consumers provides for fencing around the locomotive shop and all MOW and crew change facilities, as well as the headquarters building. (Consumers Opening III-F-86.) CSXT agrees to that fencing, but adds fencing at Barr Yard and at key signal facilities to provide security. (CSXT Reply III-F-136, Mar. 7, 2016.) Fencing is discussed in the Buildings and Facilities section.

2. Signs

The parties agree on Consumers' inventory and costs for signs. (Consumers Opening III-F-87; CSXT Reply III-F-137, Mar. 7, 2016.) The Board will accept these costs and items.

3. Highway Crossings and Road Crossing Devices**a. Grade Separations**

Grade separated crossings are overpasses and are discussed in the Overpass section.

b. At-Grade Crossings

On opening, Consumers states that it would build all at-grade crossings and pay 100% of the material cost. (Consumers Opening III-F-87.) CSXT accepts Consumers' at-grade crossing inventory, but, based on costs listed in the estimate relied on by Consumers, CSXT adds costs for drainage, traffic control, and pavement striping. (CSXT Reply III-F-137, Mar. 7, 2016.) On rebuttal, Consumers claims CERR does not need to add drainage because it is already included during roadbed preparation. (Consumers Rebuttal, III-F-147 to III-F-148, May 20, 2016.) However, as CSXT notes, (CSXT Br. 52), the drainage provided for in roadbed preparation is separate from the drainage that would be required for grade crossings. Similarly, although Consumers claims CERR's pavement striping would be handled by the municipality and traffic control would be covered under the original permit, (Consumers Rebuttal III-F-148, May 20, 2016), it provides no support for these claims.¹⁹⁹ Therefore, the Board will accept the parties' agreement on inventory and base costs, as well as the costs for drainage, traffic control, and pavement striping.

H. MOBILIZATION

The parties agree on the mobilization cost factor of 2.7%, (CSXT Reply III-F-137, Mar. 7, 2016; Consumers Rebuttal III-F-148, May 20, 2016), and the Board will accept this agreed-to factor.

I. ENGINEERING

The parties agree on an engineering additive of 10%, (CSXT Reply III-F-138, Mar. 7, 2016; Consumers Rebuttal III-F-148, May 20, 2016), and the Board will accept this agreed-to additive.

J. CONTINGENCIES

The parties agree on a contingency factor of 10%, (CSXT Reply III-F-138, Mar. 7, 2016; Consumers Rebuttal III-F-148, May 20, 2016), and the Board will accept the agreed-to factor.

¹⁹⁹ Consumers notes that the estimate was based on "an instance where the crossing was rebuilt and the contractor was disturbing the existing markings," appearing to imply that a municipality bears the cost for pavement striping in the first instance, but not for subsequent applications necessitated by later improvements. (Consumers Rebuttal, III-F-148, May 20, 2016.) However, Consumers has provided no support for this claim.

K. CONSTRUCTION SCHEDULE

The parties agree on a 30-month construction schedule, (CSXT Reply III-F-138, Mar. 7, 2016; Consumers Rebuttal III-F-149, May 20, 2016), and the Board will accept this agreed-to schedule.

APPENDIX D—DCF ANALYSIS

The DCF analysis first estimates the revenue stream that a SARR would need to cover its operating costs and to provide a reasonable return on capital. It then compares these revenue requirements to the revenue the defendant railroad earns to determine if the revenues produced by the traffic in the group (based on existing and projected rate levels) would be greater or less than the amount required by the SARR. See generally Bituminous Coal—Hiawatha, Utah, to Moapa, Nev., 10 I.C.C.2d 259, 274-77 (1994). This procedure is discussed in more detail below.

The estimated revenue requirements of the SARR would need to cover expected operating expenses and provide a reasonable return on the capital investment the SARR would make if it were to enter the marketplace to serve the selected traffic group. Because entry would not be instantaneous, the revenue requirements would need to cover the interest payments incurred during construction.

The need to deal with taxes complicates the estimation of the SARR's revenue requirements because taxes are a function of the flow of revenue over the analysis period, and not just the present value of the revenue. This means that the Board must determine the flow of capital equal to the present value of the initial road-property investment, plus interest during construction, together with the present value of the future replacement cost of the railroad's assets. It is the necessity of dealing with taxes that precludes the use of a simpler model that would directly compute the SAC constraint without reference to the pattern of capital recovery over time.

The DCF model uses an iterative approach to determine the flow of capital recovery that would attract entry in a contestable marketplace. The first step is to assume an amount of capital recovery in the first year. This annual capital recovery is then indexed for inflation over the SAC analysis period (in this case, 10 years). Indexes for the various components of the road-property investment (such as land, grading, and rail) are used in the analysis.

The second step is to determine the value of the SARR at the end of the SAC analysis period. Because the assets the SARR would construct would have a longer useful life than the 10-year DCF period, the SARR would not need to recover the full investment in rail assets in the first 10 years. The Board must therefore estimate the economic value of the assets as of the end of the 10-year analysis period. This "terminal value" of the SARR equals the capital recovery in the tenth year divided by the estimated real COC. This calculation yields the value (at year 10) of a perpetual income stream held constant (in real terms) at the capital return projected for the tenth year. Thus, in effect, the DCF model is an in-perpetuity analysis, although it is referred to here as a 10-year DCF analysis.

The third step is to estimate the taxes the SARR would pay. The starting point is the capital recovery in a particular year, which conceptually is the net revenue (total revenues less

operating expenses) for tax purposes. The parties submit a complex tax analysis that estimates the taxes, which are a function of interest on debt, depreciation of assets, and applicable state and federal taxes. Because the SARR could take advantage of various tax loss provisions, the SARR would often pay no taxes for the first few years of operation.

The DCF model then calculates the present value of the projected capital recovery over the 10-year analysis period, together with the present value of the terminal value, minus the present value of taxes. If this total is less than the initial capital investment, plus interest, adjusted for depreciation and program maintenance, then the projected capital recovery would be too low to provide a reasonable ROI and would not entice a SARR to enter the market. In that case, the initial capital recovery in the first year is adjusted upwards (or downwards if the flow of capital recovery is too low), and the steps described above are repeated.

This iterative process continues until the model finds the point at which the flow of capital recovery would, after taxes, provide a reasonable return on the initial capital investment. Once the necessary amount of capital recovery has been determined using this iterative process, the total revenue requirements of the SARR can be determined by combining the capital recovery with the projected operating expenses.

There are several inputs needed to perform this analysis, and the parties agree as to many of them. The areas of disagreement are discussed below.

A. COC

Capital expenses are estimated by calculating the COC, which includes both the cost of debt and the cost of equity. Although the cost of debt is readily available and observable, the cost of equity (the expected return that equity investors require) can only be estimated using financial models. The parties differ on whether to include a separate cost for “floating” (marketing) the shares that CERR would sell to raise capital (referred to as an equity flotation cost), as well as the method by which to do so.

In the initial round of evidence, Consumers explicitly did not include a separate equity flotation cost, arguing it was unwarranted under Board precedent. (Consumers Opening III-G-5; Consumers Rebuttal III-G-2 to III-G-3, May 20, 2016.) CSXT argued for inclusion of a separate equity flotation cost, and proposed an equity flotation cost of 6% based on a study of hundreds of initial public offerings (IPOs) raising over \$100 million over the course of the previous decade. (CSXT Reply III-G-3 to III-G-4, Mar. 7, 2016.) On rebuttal, Consumers again argued that an equity flotation cost was not necessary, criticized CSXT’s study, and suggested that if a separate cost were required, CERR could raise the necessary capital through a private placement, in which outside investors privately agree to invest in the start-up firm in exchange for a percentage of ownership. (Consumers Rebuttal III-G-3, III-G-6 to III-G-13, May 20, 2016.)

Following the initial round of evidence in this proceeding, the Board issued Sunbelt Chlor Alkali Partnership v. Norfolk Southern Railway (Sunbelt 2016), NOR 42130 (STB served June 30, 2016) (with Board Member Begeman dissenting), appeal docketed sub nom. Sunbelt Chlor Alkali Partnership v. STB, No. 16-15701 (11th Cir. Aug. 26, 2016), a decision granting in part and denying in part petitions for reconsideration of Sunbelt Chlor Alkali Partnership v. Norfolk Southern Railway (Sunbelt 2014), NOR 42130 (STB served June 20, 2014). Among other findings, the Board concluded that it had materially erred by not accepting the railroad's proposed equity flotation evidence in that case. Sunbelt 2016, NOR 42130, slip op. at 29.

Shortly after the issuance of Sunbelt 2016, Consumers filed its petition for leave to file supplemental evidence on equity flotation costs. In Consumers Energy Co. v. CSX Transportation, Inc. (December 2016 Decision), NOR 42142 (STB served Dec. 9, 2016), the Board found that, while Consumers' petition did not meet the Board's standard for permitting supplemental evidence, the Board's decision in Sunbelt 2016, in which the agency accepted contested equity flotation cost evidence for the first time, marked a departure from prior cases. Accordingly, in the interest of fairness, the Board directed Consumers to present supplemental evidence on equity flotation costs. December 2016 Decision, NOR 42142, slip op. at 23.

On supplemental opening, Consumers maintains its argument that a separate equity flotation cost is unwarranted, and that the Board's inclusion of that cost in Sunbelt 2016 and Total Petrochemicals & Refining USA, Inc. v. CSX Transportation, Inc. (Total Petrochemicals 2016), NOR 42121 (STB served Sept. 14, 2016) (with Board Member Begeman dissenting in part), constitutes an impermissible barrier to entry under SAC theory and the theory of contestable markets. (Consumers Suppl. Evid. III-G-1 to III-G-2.) Consumers argues that the approach approved by the Board in Sunbelt 2016 and Total Petrochemicals 2016 effectively assumes that every railroad included in the composite sample (used to determine annually the railroad industry's COC) issues new equity during each year of the construction period. (Consumers Suppl. Evid. III-G-6.) According to Consumers, such an assumption is unrealistic and serves to artificially increase the SARR's costs not only in absolute terms, but also relative to the incumbent's costs. (Id.) Consumers also notes that the Board has provided that separate inclusion of a flotation cost would be inappropriate if the industry average COC reflected flotation costs. However, Consumers asserts that the Board has not justified its conclusion that, because there have been no recent equity issuances by Class I railroads, a flotation cost is no longer included in the industry average cost of equity capital. (Id. at III-G-2.)

Consumers proposes that, if a separate equity flotation cost is required, a private placement for CERR is feasible, and would be accomplished at a cost of 0.95%. (Consumers Suppl. Evid. III-G-11.) Consumers' witness asserts that, as a start-up with no plans for expansion, the profile of CERR is not a typical fit for an IPO. (Id. at III-G-9.) Instead, Consumers' witness Maughan states that, for a private placement, an investment banker can identify the funds that have been willing to invest in railroads and similar businesses without the assistance of a public trading desk, as is done with an IPO. (Id. at III-G-10.) Consumers' witness further notes that Consumers itself, as a principal beneficiary of the project, would be expected to be one of the minority investors in CERR, thus reducing the amount of equity that

must be raised from other outside investors. (*Id.* at III-G-10 to III-G-11.) Consumers argues that principles of fairness and contestable market theory dictate that CERR have access to the lowest cost option for raising equity that would be available in the real world, which is a private placement where Consumers takes a conservative, 10% participation share. (*Id.* at III-G-11.)

Consumers' witness Maughan concludes that a SARR would incur equity flotation costs in a range that corresponds with mergers and acquisitions (M&A) fees. (Consumers Suppl. Evid., V.S. Maughan 1, 18-20.) According to Consumers' witness, the flotation cost for the CERR private placement would be \$4.16 million, or 0.95% of the proceeds, based on a 1% success fee, 0% on the 10% of equity contributed by Consumers, and a \$200,000 retainer to cover the efforts of the investment banker and staff for their work before receiving the success fee. (Consumers Suppl. Evid. III-G-11 to III-G-12.) Consumers argues that the reasonableness of its witness's formula is confirmed by reference to the "Lehman formula," an industry benchmarking tool which provides a \$100,000 premium, relative to a flat 1%, on the first \$4 million of proceeds, and 1% on all amounts above that threshold. (*Id.* at III-G-12.) Consumers asserts that, with 10% participation by Consumers, the Lehman formula (with the \$200,000 retainer noted above) produces a flotation cost for CERR of \$4.26 million, or 0.97%. (*Id.*)

Consumers argues that CSXT's proposal of a 6% equity flotation fee lacks support. (Consumers Suppl. Evid. III-G-13.) First, Consumers argues that the 6% flotation fee is nearly triple the 2.1% that the Board adopted in Sunbelt 2016, and triple the 2% the Board adopted in Total Petrochemicals 2016. (Consumers Suppl. Evid. III-G-14.) Consumers also argues that CSXT's number is based on a simple average of various IPOs, and fails to take into account a wide variety of individual factors including the nature of the business, the firm's expectations regarding expansion and profitability, the age of the firm, and the timing of the use of the IPO proceeds. (*Id.* at III-G-14 to III-G-15.)²⁰⁰ Consumers further argues that a key benefit of an IPO is that the public offering gives the founders, early investors, and key employees of the company the opportunity to monetize their investments following expiration of an often-required lockup period. (*Id.* at III-G-16.) Consumers argues that here, by contrast, CERR has no founders, early investors, or key employees that will be seeking to cash out on any investment or ownership stake, thus making an IPO unnecessary. In addition, Consumers argues that "focusing on the initial or notional value of the IPO for purposes of determining a flotation cost percentage

²⁰⁰ Consumers also appears to maintain its argument from the initial round of evidence that CSXT's study was invalid because it was produced specifically for litigation, a practice Consumers alleged the Board rejected in Texas Municipal Power Agency v. Burlington Northern & Santa Fe Railway, 6 S.T.B. 573, 603 (2003), and Duke Energy Corp. v. Norfolk Southern Railway (Duke/NS), 7 S.T.B. 89, 145 (2003). (Consumers Suppl. Evid. III-G-13; Consumers Rebuttal III-G-3 to III-G-4, May 20, 2016.) Consumers also argued that CSXT's study should be rejected because it was based on data from Standard & Poor's Capital IQ platform, a subscription-based service not readily available to the public at large. (Consumers Rebuttal III-G-4, May 20, 2016.)

presents an incomplete and misleading analysis of the benefits conferred by the IPO, and how that value would translate for a SARR.” (*Id.*)

On supplemental reply, CSXT argues that a separate equity flotation cost is both warranted and required. (CSXT Reply III-G-1 to III-G-2, Mar. 6, 2017.) CSXT asserts that its evidence contains a comprehensive analysis of the equity flotation fees paid in hundreds of IPOs of \$100 million or more that came to market over the prior decade, the average of which was 6.3%, which CSXT’s expert rounded down to 6%. (*Id.* at III-G-4.) In response to Consumers’ criticism that CSXT made no effort to consider the details of the IPOs and that none listed were identified as railroads or transportation companies, CSXT states that the data compiled by its expert Tobias include transactions in a wide variety of industry sections across the economy, including two transactions involving the financing of a railroad, with an average for the entire data set of approximately 6%. (*Id.* at III-G-4 to III-G-5.) CSXT also points out that the two transactions involving railroads raised \$340 million for Fortress Transportation and Infrastructure Investors LLC (Fortress), and \$330 million for RailAmerica, Inc. (RailAmerica), with equity flotation costs of 6.25% and 6.5% respectively. (*Id.* at III-G-5.)

CSXT argues that Consumers’ private placement approach significantly understates CERR’s total cost to raise the necessary capital. In particular, CSXT argues that Consumers’ expert estimates only the direct fees for private securities issuances, but overlooks the fact that the indirect cost—the return that investors in a private placement would demand—is greater for private offerings. (CSXT Reply III-G-6 to III-G-7, Mar. 6, 2017.) CSXT’s expert Cornell asserts that the premium return demanded by private investors is due to illiquidity (in that, compared to public markets wherein investors can easily trade their ownership interest, private investments have high trading costs and often require that investments be held for minimum periods of time) and asymmetric information (in that the gap between what insiders and investors know about a company is usually greater for private placements). (CSXT Reply Ex. III-G-1 at 7-8, Mar. 6, 2017.) CSXT argues that, when both the direct costs of fees to investment bankers and underwriters and the indirect cost in the form of a higher cost of equity are considered, the total costs are roughly equal for public and private markets, and sometimes even greater for private markets. (CSXT Reply III-G-7, Mar. 6, 2017.) Accordingly, CSXT argues that, to remain consistent with the COC used in the SAC analysis, the Board should use equity flotation costs that are based on public markets, which are approximately 6%. (*Id.* at III-G-7 to III-G-8.)

CSXT also argues against Consumers’ assumption that Consumers itself would purchase a 10% share of a hypothetical private placement of securities to finance CERR’s construction. (*Id.* at III-G-8.) CSXT argues that such a purchase violates fundamental SAC theory as it allows Consumers—not CERR—to absorb a recognized cost of the SARR, and by doing so, Consumers would distort the calculation of the stand-alone costs which CERR itself must pay. (*Id.*) CSXT argues that, in an analogous situation, the ICC rejected attempts to attribute tax benefits to be generated by a SARR to its corporate parent. (*Id.* at III-G-9 (citing Bituminous Coal—Hiawatha, Utah, to Moapa, Nev. (Nevada Power I), 6 I.C.C.2d 1, 74 (1989); Coal Trading Corp. v. Balt. & Ohio R.R., 6 I.C.C.2d 361, 433 (1990)).)

On supplemental rebuttal, Consumers maintains its argument that a separate equity flotation cost is unwarranted, arguing that, because a flotation cost is already implicit in the cost of equity, including a separate additive amounts to a double count. (Consumers Rebuttal III-G-1 to III-G-3, Apr. 13, 2017.) To the extent a separate equity flotation cost is required, it argues against CSXT's proposed 6% cost based on an IPO. Consumers asserts that CSXT has not shown that any of the IPOs included in its study involve new railroads or cover 100% of a company's equity needs, and that the Fortress and RailAmerica IPOs fail to provide useful guidance as a result. (*Id.* at III-G-6.) Consumers further argues that CSXT's use of the average flotation cost incurred by various other firms flies in the face of the established rule that a SARR is a least-cost, most-efficient entity. (*Id.*) Therefore, according to Consumers, when there is a range of possible costs, it is appropriate and necessary for the SARR to reflect the least-cost alternative. (*Id.* at III-G-6 to III-G-7 (citing Ariz. Elec. Power Coop. v. BNSF Ry., NOR 42113, slip op. at 46 (STB served Nov. 22, 2011), petition for review denied sub nom. BNSF Ry. v. STB, 748 F.3d 1295 (D.C. Cir. 2014) (“[shipper] correctly asserts that it may choose the lowest feasible cost for each category of expense”))). According to Consumers, assuming that CERR is required to utilize an IPO to raise its equity, CERR should be allowed to utilize the least-cost option based on findings in prior cases, which would be 1.1%.²⁰¹ (Consumers Rebuttal III-G-8, Apr. 13, 2017.) Consumers further argues that CSXT ignores certain inefficiencies and discounting that often accompany public offerings. (*Id.* at III-G-19 to III-G-27.)

Consumers also maintains that, if required, an equity flotation cost should be based on private placement as opposed to an IPO. It continues to advocate for 0.95%. Consumers states that its supplemental opening arguments in support of that figure met the standards articulated by the Board in Total Petrochemicals 2016. (Consumers Rebuttal III-G-9 to III-G-10, Apr. 13, 2017 (citing Total Petrochems. 2016, NOR 42121, slip op. at 218).) Consumers rejects CSXT's argument that investors would demand a premium return on a private equity investment due to illiquidity and asymmetric information. (Consumers Rebuttal III-G-15, Apr. 13, 2017.) Consumers' witness states that the lack of liquidity is actually a benefit for the long-term investors that would purchase equity in CERR in order to cover their long-term liabilities, and that CERR investors will be able to obtain more information than they would with a publicly-traded company. (*Id.*) Finally, in response to CSXT's objection to Consumers' assumption of an ownership share of around 10% of the equity with no equity flotation cost attached, Consumers asserts that CSXT ignores that Consumers will be receiving the same return on its investment—at the railroad industry average cost of equity—as CERR's other investors. (*Id.* at III-G-30.) Consumers alleges that the treatment would thus be identical if there was some other primary customer that was not the complainant. (*Id.*)

²⁰¹ Consumers states that the Board relied on the Facebook IPO for the 2.1% flotation cost adopted in Sunbelt 2016 (based on the parties' evidence), but argues that the correct figure for that IPO's flotation cost is 1.1%. (Consumers Rebuttal III-G-7, Apr. 13, 2017; see Consumers Suppl. Evid. III-G-14 & n.28.)

The Board rejects Consumers' arguments, many of which have been addressed in prior cases, that no separate equity flotation fee is warranted here. The Board has previously stated that it would be unreasonable to assume that the SARR would raise capital without paying some form of equity flotation fee. See E.I. DuPont de Nemours & Co. v. Norfolk S. Ry., NOR 42125, slip op. at 274 (STB served Mar. 24, 2014), corrected and updated, NOR 42125 (STB served Oct. 3, 2014), reconsideration denied, NOR 42125 (STB served Dec. 23, 2015); Sunbelt 2014, NOR 42130, slip op. at 184. In Sunbelt 2014, the Board specifically rejected the argument that equity flotation costs are included in the recent industry-wide cost-of-capital determinations. Sunbelt 2014, NOR 42130, slip op. at 184. As explained in both that decision and the decision in this case allowing supplemental evidence on equity flotation, the Board has recently allowed inclusion of equity flotation costs due to the fact that Class I railroads have not issued new shares of equity in recent years, such that flotation costs have not been included in the industrywide cost-of-capital determinations since 1991. Railroad Cost of Capital 1991, 8 I.C.C.2d 402, 414-415 (1992).

Consumers argues that inclusion of an equity flotation cost is inconsistent with Board precedent because the Railroad Cost of Capital 1985 decision states that "any impact of previously incurred flotation costs would be reflected in current stock prices and current investor return expectations" 3 I.C.C.2d 625, 635 (1992). But Consumers has taken out of context a partial sentence from a much longer discussion addressing the forward-looking nature of the DCF model then used to estimate the cost of equity capital. The ICC observed that its unadjusted DCF model "estimates the cost of equity capital on the basis of current stock prices and current investor return expectations." Id. At the time, the ICC was relying on a dividend-discount model, which estimates the cost of equity by solving for the discount factor that equates the future stream of dividends to the current stock price. In the pages preceding this quote, the ICC discusses the various alternatives and adjustments parties have proposed to the DCF formula and to the COC calculations more generally. The reference to investor expectations was also articulated earlier in the decision, "[w]hen an investor makes a decision regarding the purchase of a stock, he or she is basing that decision on the expected performance of that stock after purchase." Id. at 634. Thus, the ICC was clearly aware of the forward-looking nature of costs and choice, and that those costs which have been expended and cannot be recovered are effectively "sunk."

With respect to equity flotation costs, the ICC in that decision was specifically addressing an argument by AAR that a factor should be included in the annual COC determinations to account for the sunk costs of prior equity flotations which, AAR argued, were recovered over time. The ICC rejected this argument because of the forward-looking nature of the estimates derived from its DCF model. Here, Consumers is effectively making a variation of AAR's argument. By arguing that there is an "implied equity flotation cost" because of the "impact of previously incurred flotation costs," Consumers has all but endorsed the very argument AAR was advancing and which the ICC rejected. (See Consumers Rebuttal III-G-1 to III-G-2, Apr. 13, 2017.)

Because the Board's current cost-of-capital determinations do not include flotation costs, the equity flotation fee in this case will necessarily be a specific cost based on the evidence in the record as to that particular transaction.²⁰² Consumers' argument that an equity flotation fee is a barrier to entry is also incorrect. The flotation cost is a fee that is specific to the hypothetical scenario of having to raise equity capital, and there is no evidence on the record that existing railroads do not pay an equity flotation fee when raising equity. Accordingly, because Consumers has not raised any novel or persuasive arguments that a separate equity flotation cost is unwarranted, the Board will consider the parties' evidence on a specific equity flotation fee.

Having determined that an equity flotation cost must be applied, the Board must consider whether to accept Consumers' proposal of raising capital through a private placement. Consumers' proposal that CERR could raise the necessary capital through a private placement with an equity flotation cost of 0.95% is based on the M&A fee structure as posited by its witness Maughan. To begin, Consumers attempts to support its proposed 0.95% cost by comparing it to the results derived from the "Lehman Formula," which its witness describes as an industry benchmarking tool in the M&A context. But Consumers fails to establish that the Lehman Formula is currently in use in the investment community. In fact, the text cited by Consumers' witness Maughan states that the "so-called Lehman formula was at one time a commonly used fee structure" that is largely ignored today. Donald DePamphilis, Mergers, Acquisitions, and Other Restructuring Activities, 178 n.4 (8th ed. 2015); see also Edwin L. Miller Jr., Mergers and Acquisitions: A Step-by-Step Legal and Practical Guide, 36 (1st ed. 2008) (stating that the Lehman formula is not used very frequently any more).

More importantly, Consumers does not provide real-world costs incurred in private placements or M&A transaction fees as evidence to support its argument that its proposed fee of 0.95% would be appropriately compensatory. While it may be true that "information about flotation costs in private placements is not publicly available," (Consumers Rebuttal III-G-16, Apr. 13, 2017), Consumers does not explain its failure to include fees associated with M&A transactions, some of which are public. Instead, Consumers merely argues that private placements are a more appropriate, lower cost method of raising capital for a startup such as a SARR than are IPOs. While Consumers' core argument—that a private placement could be a feasible method of raising a SARR's necessary capital—may be sound, Consumers has not supported its argument as to what the proper equity flotation fee would be if the sale of equity were to proceed through private placement. See Total Petrochems. 2016, NOR 42121, slip op. at

²⁰² The Board therefore rejects Consumers' additional argument that any equity flotation cost should be adjusted to account for the frequency with which Class I railroads issue new shares. (See Consumers Suppl. Evid. III-G-6 to III-G-7.) Not only is Consumer's proposed adjustment based on industry-wide figures instead of a fee specific to CERR, but the calculation is rooted in Consumers' mistaken belief that equity flotation costs are already accounted for in the Board's industry cost-of-capital calculation in years when no equity is issued.

218.²⁰³ Thus, the Board rejects as unsupported Consumers' proposed equity flotation fee of 0.95%.

In contrast, the Board accepts CSXT's analysis of IPOs to calculate an appropriate equity flotation fee in this case.²⁰⁴ CSXT's evidence, sponsored by its expert Tobias, demonstrates that, for the hundreds of IPOs raising \$100 million or more over the last decade, most of the equity flotation fees ranged between 5% and 7%.²⁰⁵ (CSXT Reply III-G-4 to III-G-5, Mar. 6, 2017.) The Board disagrees, however, with CSXT's conclusion that the appropriate equity flotation fee here should be based on a simple average of those IPOs. Instead, the Board agrees with

²⁰³ In its initial round of evidence, Consumers cited to two academic papers to support its position that the fees associated with private placement would be significantly less than the 6% proposed by CSXT for an IPO. (Consumers Rebuttal III-G-10, May 20, 2016). These papers, however, do not provide support for Consumers' specific proposal of 0.95%. Additionally, one paper involves data from over twenty years ago, while the other raises the issue of discounts being an additional cost associated with private placements. (See Consumers Rebuttal WP "Flotation Costs of Private Placements.pdf," May 20, 2016; Consumers Rebuttal WP "Private Placements and Managerial Entrenchment.pdf," May 20, 2016.) Because the Board concludes that Consumers has not supported its proposed 0.95% fee, the Board need not consider the impact of discounts in this context. Additionally, the Board need not address CSXT's argument that Consumers' contribution of 10% of the necessary capital as part of a private placement is inconsistent with precedent, (see CSXT Reply III-G-9, Mar. 6, 2017 (citing Nevada Power I, 6 I.C.C.2d at 74; Coal Trading Corp., 6 I.C.C.2d at 433)), or other criticisms raised by CSXT.

²⁰⁴ The Board rejects Consumers' argument that CSXT's evidence is invalid because it is a made-for-litigation study derived from data that are not publicly available. In both of the cases on which Consumers relies for this argument, the Board articulated its reluctance to rely on traffic forecasts prepared for litigation. See Tex. Mun., 6 S.T.B. at 603; Duke/NS, 7 S.T.B. at 145. But an expert witness analysis of IPO data derived from third-party sources to develop an equity flotation fee for a hypothetical transaction is not analogous to traffic forecasts used by shippers and carriers in the ordinary course of business. Additionally, contrary to Consumers' claim, the data analyzed are publicly available outside of the subscription service utilized by CSXT's witness. Information regarding such public transactions can be found at the U.S. Securities and Exchange Commission's website, *EDGAR Company filings*, SEC.GOV, <https://www.sec.gov/edgar/searchedgar/companysearch.html>.

²⁰⁵ The Board notes that the equity flotation fee accepted in Sunbelt 2016, NOR 42130, slip op. at 29-32, was "conservative," clearly indicating that the Board was not establishing a ceiling (or a floor) for equity flotation fees. The acceptance of a higher fee here is based on the evidence presented in this case, where Consumers' lower fee is not feasible and supported and a higher fee incurred by an entity of comparable size, based on a study of many transactions, is. Therefore, while the Board agrees that the SARR is entitled to use lower cost options, those lower costs must still be feasible and supported. (See Consumers Rebuttal II-G-8 to III-G-9, Apr. 13, 2017) (arguing that the SARR should be able to use what Consumers alleges is the least-cost option in previous Board decisions.)

Consumers' argument that CERR is a least-cost, most-efficient entity, and thus entitled to "choose the lowest feasible cost" shown for each "category of expense." (Consumers Rebuttal III-G-6 to III-G-7, Apr. 13, 2017 (citing Ariz. Elec., NOR 42113, slip op. at 46).) Accordingly, the Board will apply the lowest equity flotation fee incurred by an entity of comparable size to CERR from CSXT's analysis of IPOs, which is 5%.²⁰⁶ (See CSXT Reply Ex. III-G-2, Attachment A, Mar. 6, 2017.)

For these reasons set forth above, the Board concludes that an equity flotation fee of 5% is feasible and supported.

B. RPI VALUES

For these reasons set forth above, the Board concludes that an equity flotation fee of 5% is feasible and supported.

C. INFLATION INDICES

Parties must account for changes in capital asset value and operating expenses because these values and prices change during the 10 years covered by the DCF analysis. To do so, parties employ forecasts of inflation rates. Consumers and CSXT agree regarding inflation indices for RPI, operating expenses, and land inflation from 1Q 2015 to the end of the 10-year CERR DCF period. (CSXT Reply III-G-11, Mar. 7, 2016; Consumers Rebuttal III-G-22 to III-G-23, May 20, 2016.) Specifically, the parties' agreed-upon forecast predicts that land values will rise an average of 5% annually from 1Q 2015 to the end of the 10-year CERR DCF period. (CSXT Reply III-G-11, Mar. 7, 2016.) This forecast is based on historic rural land values reported by the U.S. Department of Agriculture (USDA) and a combination of indices published by investment reporting firms Moody's and Standard & Poor's. (Consumers Rebuttal III-G-23, May 20, 2016.)

However, they disagree on the methodology for deflating the value of land from the 2015 valuation date back to the time of purchase in 2012 through 2013. (CSXT Reply III-G-12, Mar. 7, 2016; Consumers Rebuttal III-G-23, May 20, 2016.) Consumers uses the same index (based on data from USDA, Moody's, and Standard & Poor's) to value the land from 2012 through 2013 as it did from 2015 through the end of the 10-year CERR DCF period. (Consumers Opening III-G-12 to III-G-13; Consumers Rebuttal WP "CERR Land Appreciation(Rebuttal).xlsx," Apr. 13, 2017.) CSXT criticizes Consumers' deflation index because it assumes a 27% increase in real estate values over a two-year period, which CSXT

²⁰⁶ Although Consumers estimates a total of \$440 million in required CERR equity, based on the evidence presented by the parties, the Board has calculated CERR's required equity to be approximately \$508 million. Accordingly, for purposes of this comparison, the Board considered the cost of IPOs for entities needing to raise between \$400 million and \$600 million in equity.

characterizes as dramatic and unsupported. Therefore, CSXT instead uses comparable sales information to value the land over that two-year period from 2013 to 2015. That valuation results in a 6.3% increase in real estate values during that period. (CSXT Reply III-G-12, Mar. 7, 2016.)

CSXT does not sufficiently explain why it objects to Consumers' use of the same indices to estimate historical land value, particularly given the parties' agreement to use these indices for projecting land value going forward. Moreover, CSXT's land inflation methodology is unsupported, as it is based on the land valuation report rejected by the Board in the RPI appendix. Therefore, the Board accepts Consumers' method of indexing land values from the start of the SARR back to the acquisition of the land.

D. BONUS DEPRECIATION

The parties dispute the applicability of "bonus" depreciation provisions enacted as a part of federal economic stimulus efforts. (Consumers Opening III-H-4; CSXT Reply III-H-3 to III-H-4, Mar. 7, 2016.)

On opening, Consumers asserts that CERR will take advantage of bonus depreciation provisions enacted in 2010, 2012, and 2014. (Consumers Opening III-H-4.) CSXT responds that CERR would be able to take full advantage of the bonus depreciation only because of the stand-alone assumption of unconstrained resources, which allows for all of the CERR construction to occur during the limited bonus depreciation tax window. (CSXT Reply III-H-4, Mar. 7, 2016.) For this reason, CSXT asserts, allowing CERR to use the bonus depreciation fully would result in a reverse barrier to entry that would bestow cost savings to a new hypothetical entrant that were not available to the incumbent. CSXT acknowledges that the Board has allowed full application of bonus depreciation in recent decisions, but argues that the Board erred. CSXT thus proposes to limit CERR to bonus depreciation to the extent CSXT itself was able to use these provisions. (*Id.* at III-H-4 to III-H-6.) On rebuttal, Consumers maintains its opening position regarding bonus depreciation. (Consumers Rebuttal III-H-5 to III-H-11, May 20, 2016.)

The Board has previously rejected claims that allowing full bonus depreciation benefits would distort the SAC analysis, concluding that the Board would not require a SARR to bear the disadvantages of its construction timing while denying it advantages such as bonus depreciation tax benefits. Total Petrochems. 2016, NOR 42121, slip op. at 221; Sunbelt 2016, NOR 42130, slip op. at 40; DuPont, NOR 42125, slip op. at 278-79. The Board reaches the same conclusion here. CSXT argues that in some previous decisions, the Board did not identify any disadvantages of a SARR's construction timing. But the Board has recently explained that the assumption of a short construction period may lead to significant disadvantages, including high interest rates on debt and elevated prices for various inputs such as land, materials, and labor. Total Petrochems. 2016, NOR 42121, slip op. at 221; Sunbelt 2016, NOR 42130, slip op. at 40. The Board has therefore concluded that the full application of bonus depreciation is not a

“reverse barrier to entry.” Rather, CSXT’s “expectation that the SAC model should precisely reflect the conditions experienced by the defendant when it built its system is unrealistic.” Total Petrochems. 2016, NOR 42121, slip op. at 221, quoting Sunbelt 2016, NOR 42130, slip op. at 40. Placing the SARR on equal footing with the incumbent is not feasible in all instances if doing so would undermine the usefulness of SAC as an analytic tool (e.g., a 20-year construction period for a 10-year DCF). The fact that the SARR is a replacement carrier that steps into the shoes of the incumbent does not undermine the Board’s conclusion that a SARR may fully apply bonus depreciation tax benefits. Total Petrochems. 2016, NOR 42121, slip op. at 221-22, quoting Sunbelt 2016, NOR 42130, slip op. at 40. Accordingly, the Board accepts Consumers’ application of bonus depreciation tax benefits.

E. INTEREST SCHEDULE OF ASSETS PURCHASED WITH DEBT CAPITAL

Consumers argues that CERR’s approach to debt capital should mirror the debt actually issued by CSXT and the other U.S. Class I railroads that are included in the Board’s annual COC determination. (Consumers Opening III-G-5 to III-G-6.) Accordingly, Consumers asserts that CERR will make fixed coupon payments of interest on its debt and then re-issue new debt instruments (starting new coupon interest payments) as debt issuances mature, rather than amortizing the debt in mortgage-style payments (that include both principal and interest). (Id. at III-G-6.)

Consumers argues that requiring the SARR to use the “home mortgage” approach taken in other SAC cases creates a mismatch between the source of the debt rate (the railroad COC determinations by the Board) and the debt type (a home-style mortgage that is not used by those same railroads). (Id.) Consumers alleges that, by contrast, allowing the SARR to make interest-only payments allows the SARR to create a stable capital structure that does not change over time, which is consistent with the Board’s DCF model and the real-world railroads’ approach. (Id. at III-G-8.)

Consumers acknowledges that the Board has previously rejected such proposals for two primary reasons. First, the hypothetical nature of a SARR means that its use of interest-only coupons would not be subject to the scrutiny provided by the financial markets for real-world railroads. (Consumers Opening III-G-8 to III-G-9.) However, Consumers claims that because both the CERR’s cost of debt and its approach to debt service are derived from the actual experiences of CSXT and other major railroads, they already have been scrutinized by the financial community, and validated by that community’s willing purchases of railroad notes, bonds, and debentures. (Id. at III-G-9.) Second, Consumers states that the Board has rejected allowing a SARR to roll over debt because that would mean that the SARR would only pay interest and would never pay off the principal, and, consequently, not pay the full costs of constructing, maintaining, and operating its system. (Id.) However, Consumers argues that the Board’s conclusion is erroneous because CERR’s use of the same coupon interest model used by CSXT and other railroads does not result in the non-payment of “principal.” Instead, the repayment of any principal amounts borrowed is accounted for in the levelized stream of capital payments under the DCF model. (Id.) Specifically, Consumers argues that the capital carrying

charges included in the Investment SAC level of the DCF model ensure that the SARR is earning enough to cover not only the interest on its debt, but also the principal amount borrowed (as reflected in the investment costs and interest during construction costs). (Id. at III-G-10.)

CSXT replies that Consumers' approach contradicts Board precedent, and states that CSXT has applied Board precedent for both the amortization of debt on the initial CERR investment and for the debt amortization on the replacement cost of CERR assets as they reach the ends of their useful lives. (CSXT Reply III-G-6 to III-G-11, Mar. 7, 2016.)

On rebuttal, Consumers rejects CSXT's criticisms and argues that the Board should accept Consumer's opening approach to debt capital. (Consumers Rebuttal III-G-13 to III-G-21, May 20, 2016.) As Consumers' acknowledges, its proposal of having CERR make interest-only payments is inconsistent with Board precedent, and the Board finds that Consumers has not demonstrated that a departure from this precedent is warranted. See Total Petrochems. 2016, NOR 42121, slip op. at 222-223.

As the Board has explained, the SARR's debt payments for purposes of calculating the tax shielding effect of those payments contain an interest component and a principal component, with the interest portion decreasing as the debt is amortized over time. See, e.g., Sunbelt 2014, NOR 42130, slip op. at 191. To meet the competing interests of accuracy and practicability, the Board has determined that interest payments on outstanding debt will flow through the Board's DCF analysis at two places in the model. First, the dollar amount of the SARR's quarterly interest payments are calculated based on the SARR's outstanding debt principal amount and incorporated into the Investment SAC spreadsheet's capital carrying charge. In effect, this represents the SARR's quarterly payment to service its debt. Second, because there is some tax benefit to financing with debt as opposed to equity, the tax shielding effects of interest payments are calculated in the Interest SAC spreadsheet's debt amortization schedule, which then flows through the Investment SAC spreadsheet's present value calculation. See Total Petrochems. 2016, NOR 42121, slip op. at 222-223.

However, these interest payment amounts are not calculated in the same fashion because, as the Board has explained, some simplifying assumptions regarding how the interest payments are treated are necessary to make the SAC process manageable. Total Petrochems. 2016, NOR 42121, slip op. at 51; see also BNSF Ry. v. STB (BNSF Ry. 2006), 453 F.3d 473, 482 (D.C. Cir. 2006) ("The pursuit of precision in rate proceedings, as in most things in life, must at some point give way to the constraints of time and expense, and it is the agency's responsibility to mark that point."). In particular, with respect to the repayment of debt, the SARR is allowed to roll over its debt into perpetuity as if it were a mature entity, without any associated risk in a change to its interest rate,²⁰⁷ because it would otherwise be too complex to keep adjusting the

²⁰⁷ This lack of an associated interest rate risk is reduced somewhat by any party's right to petition the Board to reopen a proceeding on the grounds of substantially changed circumstances if interest rates change significantly. Sunbelt 2014, NOR 42130, slip op. at 193.

debt and equity mix for purposes of determining the capital carrying charge in the Investment SAC spreadsheet. Thus, Consumers' argument that the repayment of debt principal is accounted for in the Board's Investment SAC capital carrying charge calculation is incorrect. In fact, in the early years of the Board's DCF analysis, the SARR's capital carrying charge calculation falls short of covering the necessary ROI for equity holders and interest expense on outstanding debt. This shortfall is rarely made up for in the first 10 years of the SAC analysis. Without principal repayment being accounted for in the Interest spreadsheet, the SARR would pay no principal during the amortization period covered by the Interest spreadsheet—meaning that it would not have paid any principal for its assets during this period. Therefore, Consumers is also incorrect that its coupon interest payments would be consistent with the Board's DCF model. (Consumers Opening III-G-8.)

The SAC test asks whether the SARR as a new market entrant can pay the cost of constructing, maintaining, and operating its system. The SARR is evaluated through a regulatory lens whereas the railroad industry is evaluated every day by the financial markets, which assess whether a railroad will be able to pay its debt. Freeing the SARR from this critical evaluation of a new market entrant, by allowing it to pay only interest and no principal on its assets, would insulate its borrowing from any scrutiny at all. Thus, the Board does not accept Consumers' arguments that the SARR's debt structure should mirror CSXT's debt structure, even if that structure has been "scrutinized by the financial community." (*Id.* at III-G-9.) Treating the SARR identically to the railroad industry is not feasible if it would erase the basic outlines of the SAC test. The nature of the SAC test leads to differences in treatment between the SARR and the railroad industry in other instances as well, which can be favorable to the complainant—for example, expedited construction without paying a construction cost premium, with the collateral benefit, in this case, of being able to apply bonus depreciation during the construction period. See Coal Trading Corp., 6 I.C.C.2d at 412-14; McCarty Farms, Inc. v. Burlington N., Inc., 2 S.T.B. 460, 484 n.52 (1997). Accordingly, the Board declines to adopt Consumers' proposed change to the DCF model.

F. TERMINAL VALUE ADJUSTMENT

The terminal value represents the residual value of the SARR's assets minus the future interest payments, and remaining tax liabilities (for both interest and depreciation), and reflects the cash flow required to account for the value of the assets not consumed during the 10-year life of the DCF model. In recent decisions, the Board has found that there was a mismatch between the interest payments associated with the capital carrying charge of the DCF model and the tax-shielding effect of those interest payments into perpetuity.²⁰⁸ See, e.g., Total Petrochems. 2016, NOR 42121, slip op. at 223-225. To account for this mismatch, the Board adjusted the terminal value component of the DCF's capital carrying charge to reflect the cost-of-capital assumption that the SARR's level of debt is held constant into perpetuity, and that interest-tax shields consistent with this level of debt are accounted for in the cash flow calculation.

²⁰⁸ Previously, the Board's DCF model had only taken into account the tax effect of interest payments during the 10-year life of the SARR.

The Board balances the constraints of time and expense with fairness in determining which simplifying assumptions are appropriate for use in its DCF model. See BNSF Ry. 2006, 453 F.3d at 482. In order to balance these competing interests here, interest payments on outstanding debt flow through the DCF model at two places in the underlying spreadsheets: first, the Interest spreadsheet calculates interest payments as if the debt were amortized over 20 years for purposes of determining the tax shielding effect in years 1 to 10; and second, the Investment SAC spreadsheet calculates the dollar amount of quarterly interest payments as if the debt were held into perpetuity for purposes of determining the capital carrying charge. The Board's terminal value modification, rather than creating a new inconsistency in the model, actually solves an existing inconsistency by allowing for the tax-shielding effect of interest payments into perpetuity, consistent with the manner in which the underlying debt is also treated.

Consumers states that it incorporates the adjustment to the terminal value of CERR that the Board set forth in Arizona Electric, NOR 42113, slip op. at 140-141, and Sunbelt 2014, NOR 42130, slip op. at 192-194. (Consumers Opening III-G-16.) Specifically, Consumers states that it adjusts the terminal value in the capital carrying charges to reflect the assumption that CERR's level of debt is held constant into perpetuity, and that interest tax shields consistent with this level of debt are accounted for in the cash flow calculation. (Consumers Rebuttal III-H-12 to III-H-13, May 20, 2016.) Consumers further states that it calculates an interest tax shield in perpetuity by dividing the last full quarterly coupon payment by one plus the quarterly real COC, which aligns the COC assumption of a fixed level of debt forever, with the interest payable on this debt. (Id. at III-H-13.)

CSXT acknowledges that, in Sunbelt 2014, the Board accepted the complainant's argument that some adjustment to the interest tax shield in the terminal value calculation was necessary, and it proposed that the straight line average of the SARR interest payments over the 20-year amortization period should form the basis of the interest related tax shield in the terminal value. (CSXT Reply III-H-8 to III-H-9, Mar. 7, 2016.) In doing so, CSXT argues that the Board erred by applying the adjustment for two reasons. (Id. at III-H-9.) First, CSXT claims that the Board's adjustment would introduce an inconsistency in the DCF "by explicitly applying different financial assumptions to a SARR's initial acquisition of assets and its subsequent replacement of assets as they are assumed to wear out." (Id.) Second, CSXT contends that the adjustment overrides the scheduled interest payments in years 11 to 20 and instead uses an average interest rate over the 20-year debt amortization period. CSXT claims that this in turn leads to an overstatement of tax benefits in years 11 to 20. (Id. at III-H-10 to III-H-11.) Accordingly, CSXT states that it reverts to the terminal value calculations used by the Board in Arizona Electric, NOR 42113, and discounts both the remaining debt interest payments and tax depreciation back to the final quarter of the 10-year DCF to calculate CERR's terminal value. (CSXT Reply III-H-12, Mar. 7, 2016.) CSXT also states that it reinstates the calculation of the interest related tax benefit that occurs when CERR assets are assumed to be replaced, which begins in year 13 of the DCF when assets in Account 26—Communications Systems are assumed to be replaced. (Id.)

Consumers responds that CSXT is incorrect in claiming that the terminal value correction adopted by the Board introduces an inconsistency; rather, it claims that the Board's approach actually removes an inconsistency that was already present in the DCF model. (Consumers Rebuttal III-H-15 to III-H-16, May 20, 2016.) In response to CSXT's other argument, Consumers argues that the use of an average interest payment within the perpetuity calculation takes into consideration both the lower payments that occur in the second half of the amortization period and the higher payments in the first half. (Id. at III-H-16.)

The Board finds that Consumers' calculation of the terminal value adjustment is consistent with precedent and feasible and supported, with a minor adjustment. Specifically, Consumers states that it calculates an interest tax shield in perpetuity by dividing the last full quarterly coupon payment by one plus the quarterly real COC. This marks an unwarranted departure from precedent. The Board will therefore correct Consumers' interest rates to reflect the Board's holding that Consumers must pay down the principal on its capital investments. Consumers' DCF utilizes coupon, interest-only payments and does not include a home mortgage-style payment as the Board requires. Because of the inconsistency between the interest payments in these two scenarios, the Board must adjust the interest value to determine the proper tax benefit. To do so, a straight-line average of the interest payments over the amortization period, here 20 years, is used as the value for determining the tax benefit received in the terminal value calculation. See Sunbelt 2014, NOR 42130, slip op. at 193-94.

CSXT does not undermine the feasibility and support of the terminal value adjustment because the Board rejects its two primary arguments against the adjustment. These arguments were likewise rejected by the Board in Total Petrochemicals 2016, NOR 42121, slip op. at 224-25. There, the Board noted that the defendant (also CSXT) was correct that the DCF model must take into account the financing of both the initial acquisition of assets and the subsequent replacement of assets as they are assumed to wear out over the life of the SARR. Ideally, the Board's SAC analysis would precisely predict the timing of debt payments and their associated financing charges as the SARR strives over its life to achieve its optimal debt level. In practice, however, the complexity of such an effort would make the SAC analysis unworkable as a regulatory tool. Because different assets have different lives, precisely accounting for all of them would be impractical. Accordingly, constantly readjusting the debt and equity mix for purposes of determining the capital carrying charge in the Investment SAC spreadsheet, up to and including year 120, would undermine the usefulness of the DCF model. Thus, the Board must employ the simplifying assumption of calculating the net present value of the replacement assets and including that amount on day one of the DCF model for purposes of determining the total dollar amount of required financing, rather than accounting for the inclusion of replacement assets when they come due. Accordingly, CSXT is incorrect that the DCF model uses different assumptions for the treatment of the initial acquisition of assets and their subsequent replacement—in fact, the DCF model provides that both categories of assets are financed on day one out into perpetuity.

CSXT is similarly mistaken when it argues that application of the terminal value adjustment would override the scheduled interest payments in years 11 to 20 which, CSXT

claims, leads to an overstatement of tax benefits. For purposes of determining the tax-shielding effect in years 1 to 10, the Interest spreadsheet amortizes the outstanding principal balance of the debt as if it were paid off over 20 years. However, that is not the case in the Investment SAC spreadsheet, where the principal balance of the debt remains outstanding into perpetuity. Implicit in CSXT's theory that interest payments in years 11 to 20 are overstated for purposes of determining the tax shielding effect is the assumption that the level of debt is still being amortized during that same time period in the Investment SAC spreadsheet. As discussed, the Board's SAC model makes a simplifying assumption about the repayment of debt that assumes a constant balance into perpetuity in its Investment SAC spreadsheet. Accordingly, CSXT's assumption that the debt is being paid down in years 11 to 20 in the Investment SAC spreadsheet is misplaced. As a result, the Board accepts Consumers' feasible and supported terminal value adjustment, but replaces Consumers' interest-only coupon payments with the established home mortgage-style payments.

G. PRESENT VALUE OF REPLACEMENT COST

On opening, Consumers proposes an additional investment (on a present value basis) required to extend the life of each of CERR's assets (excluding land) indefinitely. (Consumers Opening III-H-2.) Consumers states that the 2012-2014 average COC values are used to calculate replacement value for road property assets. (Id.)

On reply, CSXT asserts that it corrects Consumers' calculation of the replacement cost of CERR assets to reestablish the 20-year debt amortization schedule for future asset replacement instead of Consumers' proposed coupon interest payments. (CSXT Reply III-H-3, Mar. 7, 2016.)

On rebuttal, Consumers argues that CSXT's adjustment to the replacement cost calculations to "reestablish" debt amortization for replacement assets leads to a double count of interest tax shields. (Consumers Rebuttal III-H-4, May 20, 2016.) Consumers asserts that it corrected the DCF model's capital carrying charge determination to reflect the constant capital structure assumed by the Board's DCF model by calculating a terminal interest value, which takes into consideration interest payments incurred for debt issued by CERR in perpetuity, including debt used for future replacement assets. (Id. at III-H-4 to III-H-5.) Consumers alleges that separately including interest payments for future replacement assets double-counts payments, therefore it excludes interest payments for replacement assets in its DCF model. (Id. at III-H-5.)

As discussed above, the Board rejects Consumers' interest-only coupon payment methodology, and must therefore reject Consumers' calculation of the present value of replacement cost based on that methodology. CSXT's proposed use of the 20-year debt

amortization schedule for future asset replacement is feasible and supported, and the Board will adopt that approach with a minor adjustment.²⁰⁹

With respect to Consumers' allegation that CSXT's adjustment to the replacement cost leads to a double count of interest tax shields, the Board finds that there is no double count. The interest tax shields for the initial investment and replacement cost are calculated independently. The interest tax shield in the Investment SAC area of the DCF is based solely on the initial construction. Thus, not calculating the interest tax shield for the replacement cost in the Investment SAC area of the DCF avoids the potential for a double count. Therefore, the Board will include the interest calculation as part of the replacement cost calculation.

H. INDEX FOR MMM URCS COSTS

Consumers uses the Board's standard URCS indexing approach from Oklahoma Gas & Electric v. Union Pacific Railroad, NOR 42111 (STB served July 24, 2009) to adjust variable costs in the MMM analysis, stating that this approach was approved by the Board in recent rate cases. (Consumers Opening III-H-10.)

On reply, CSXT argues that Consumers uses the wrong index, and that the RCAF-A index should have been used instead because it includes the effects of projected productivity in the railroad industry. CSXT argues that the Board's standard URCS indexing approach, which Consumers uses, does not capture any projected productivity benefits in the MMM analysis. CSXT argues that Consumers relies on a strained construction of the Board's decision in Oklahoma Gas & Electric to support of its use of the URCS indexing approach, stating that that case is inapposite because it involved short-term indexing of URCS costs to inflate them only for specific quarters within one year, and not across years. (CSXT Reply III-H-14, Mar. 7, 2016.) CSXT acknowledges that the Board used URCS indexing in E.I. DuPont de Nemours & Co. v. Norfolk Southern Railway, NOR 42125 (STB served Mar. 24, 2014), corrected and updated, (STB served Oct. 3, 2014), reconsideration denied, (STB served Dec. 23, 2015) (with Board Member Begeman dissenting on the reconsideration decision), and Sunbelt Chlor Alkali Partnership v. Norfolk Southern Railway (Sunbelt 2014) NOR 42130 (STB served June 20, 2014) (with Board Member Begeman dissenting). (CSXT Reply III-H-15, Mar. 7, 2016.) However, CSXT claims that the Board's reasoning in DuPont and Sunbelt 2014 failed to consider its directive in Oklahoma Gas & Electric for the defendant carrier to base its calculations on the most recent URCS when those data become available; according to CSXT, doing so would capture changes in productivity (albeit with a two-year lag). (*Id.*) CSXT argues that forecasting URCS costs using only the URCS input price index will, other things being equal, overstate forecasted URCS costs compared with what the actual URCS costs, including

²⁰⁹ The Board has identified an error in CSXT's calculation, and corrects that calculation as follows: the value of replacement cost included in the Investment SAC spreadsheet of the DCF is the post-tax amount, not the actual cost of replacement. Thus, the "Quarterly Levelized Capital Carrying Charge" income stream calculated in the Investment SAC area must be adjusted in order to cover the actual cost of the replacement.

productivity, will be. (*Id.* at III-H-16.) According to CSXT, this will distort any MMM-based rate prescription by calculating the MMM prescribed R/VC on a forecasted variable cost estimate that does not include the effects of railroad productivity and applying that prescribed R/VC to actual URCS costs years down the road that will include the effects of productivity, understating the prescribed rate. (*Id.*)

Accordingly, CSXT argues that the Board should use the RCAF-A approach, as it did in AEP Texas North Co. v. BNSF Railway, NOR 41191 (Sub-No. 1) (STB served May 15, 2009), Western Fuels Association v. BNSF Railway, NOR 42088 (STB served Feb. 18, 2009), and Arizona Electric Power Cooperative v. BNSF Railway, NOR 42113 (STB served Nov. 22, 2011), petition for review denied sub nom. BNSF Ry. v. STB, 748 F.3d 1295 (D.C. Cir. 2014). (CSXT Reply III-H-17, Mar. 7, 2016.) Alternatively, CSXT argues that if the Board still believes that an index weighted with the defendant railroad's costs are more appropriate, it should apply the RCAF-A forecasted productivity to its standard URCS index. (*Id.* at III-H-17 to III-H-18.)

On rebuttal, Consumers argues that the URCS index is superior to RCAF-A for adjusting MMM variable costs, because it takes into consideration the specific weighting of cost components unique to the defendant carrier, while the RCAF-A bases its cost weighting on inputs from all Class I railroads. (Consumers Rebuttal III-H-19 to III-H-20, May 20, 2016.) Consumers points out that, in DuPont and Sunbelt 2014, the Board rejected the use of a “generalized, industry index when a more specific approach is available.” Therefore, Consumers continues to use its CSXT-specific URCS index to adjust the variable costs in the MMM analysis. (*Id.* at III-H-21, quoting DuPont, NOR 42125, slip op. at 286, and Sunbelt 2014, NOR 42130, slip op. at 196.)

The Board accepts Consumers' use of the URCS index as feasible and supported. CSXT argues that using URCS indexing is inconsistent with Board precedent. However, although the Board previously used RCAF-A indexing for MMM purposes in the cases cited here by CSXT, in more recent cases the Board has determined that complainants have presented a stronger case for using URCS indexing. In particular, those complainants demonstrated that, because the goal of indexing is to obtain an accurate forecast of the defendant railroad's variable costs, there was a stronger basis for using URCS indexing (which is a railroad-specific approach) over RCAF-A (which is a generalized, industry index). See DuPont, NOR 42125, slip op. at 286; Sunbelt 2014, NOR 42130, slip op. at 196. Here, CSXT has not presented a sufficient argument for the Board to revert to RCAF-A indexing. In particular, the Board is not persuaded by CSXT's argument that forecasting URCS costs using only the URCS input price index does not account for productivity. The SARR's annual revenue requirement already reflects changes in productivity. The Board accounts for productivity in its forecast of the SARR's operating expenses, and changes in productivity are reflected in the calculated revenue overages or shortfalls, making it unnecessary to separately account for productivity changes by using RCAF-A or another productivity adjustment. Therefore, the Board will apply the standard URCS indexing approach proposed by Consumers to adjust variable costs in the MMM analysis.

I. URCS PHASE III—LOADED MILES

Consumers and CSXT agree with respect to eight of the nine standard traffic and operating inputs for the URCS Phase III program.²¹⁰ They disagree with respect to the loaded miles input. Specifically, Consumers argues that loaded miles “should be based on the actual number of miles that CSXT handles Consumers’ loaded coal trains from the BNSF [Railway] interchange to the Campbell Station.” (Consumers Opening II-4.) Consumers asserts that records produced by CSXT in discovery show that, in 1Q2014 to 1Q2015, loaded trains bound for Campbell were handled by CSXT via two routes: 1) the Belt route, used for 85.8% of the trains, at 163.7 loaded miles; and 2) the Barr Yard route, used for 14.2% of the trains, at 165.6 miles. (*Id.* at II-4 to II-5; Consumers Opening WPs “Consumers Issue Traffic Train Event Loaded Route Miles.xlsm,” Tab “All Routes Summary,” Cells K4 & K5; “Consumers Issue Miles.xlsx,” Tab “Miles for Variable Cost,” Column 6, Line 10.) Consumers weights the mileages based on the 85.8%/14.2% distribution, yielding an average of 164.0 loaded miles, and uses this figure in its variable cost calculations. (*Id.* at II-5; Consumers Opening WP “Consumers Issue Miles.xlsx,” Tab “Miles for Variable Cost,” Column H, Row 33.)

Consumers believes that CSXT did not agree with Consumers’ approach because trains moving in the empty direction from Campbell back to the BNSF interchange frequently are handled by CSXT for a few more miles than in the loaded direction. (*Id.* at II-5.) Consumers understands CSXT’s position to be that the variable cost calculations under URCS should be based on mileages adjusted to include the empty movement miles. (*Id.* at II-5.) Consumers argues that this position was squarely rejected by the Board in Major Issues in Rail Rate Cases (Major Issues), EP 657 (Sub-No. 1), slip op. at 58 (STB served Oct. 30, 2006), aff’d sub nom. BNSF Railway v. STB, 526 F.3d 770 (D.C. Cir. 2008), where the agency adopted unadjusted system-average URCS as the sole standard for variable costs. (Consumers Opening II-5 to II-6.)

On reply, CSXT argues that it is not proposing an URCS adjustment to add empty movement miles; rather, it is adding six miles of CSXT track that are used for loaded movements of issue traffic but for which Consumers did not account. (CSXT Reply II-A-5, Mar. 7, 2016.) CSXT asserts that the parties’ dispute arises from the complex nature of operations required for coal unit train interchanges in the congested Chicago area. Specifically, CSXT states that there are common arrangements for interchanging railroads to reciprocally operate over each other’s track, rather than creating choke points by interchanging at the spot where their tracks meet. (*Id.* at II-A-2.) According to CSXT, BNSF and CSXT have agreed to an arrangement in which BNSF crews operate on CSXT lines to deliver loaded trains at 71st Street, and CSXT crews conversely operate on BNSF lines to deliver empty trains at BNSF’s Cicero Yard. (*Id.*) More

²¹⁰ The parties agree to the following inputs: 1) railroad—CSXT; 2) shipment type—receive and terminate; 3) cars per shipment—129.5; 4) car type—gondola and equipped hopper; 5) owner—private; 6) net tons per car—120.8; 7) commodity (full STCC)—coal (1121290); and 8) movement type—unit train. (Consumers Opening II-3; CSXT Reply II-A-1 to II-A-2, Mar. 7, 2016.)

specifically, BNSF operates loaded issue trains from its Cicero Yard over three miles of BNSF's own track and then continues operating on CSXT tracks for six miles from 22nd Street to 71st Street, where the trains are handed off to CSXT. (*Id.* at II-A-3.) CSXT states that it operates empty trains over the same route in the reverse direction, including moving trains over the three-mile segment of BNSF track between 22nd Street and Cicero. (*Id.*) CSXT argues that this arrangement was explained to Consumers in discovery, but Consumers only counts the loaded miles between 71st Street and West Olive, failing to give CSXT credit for the six miles of CSXT track between 22nd Street and 71st Street over which BNSF crews operate loaded trains and CSXT crews operate empty trains. (*Id.*)

CSXT asserts that the cost of the tracks and infrastructure of that six-mile segment are included in CSXT's R-1, and therefore in its URCS costs. (*Id.* at II-A-4.) Therefore, according to CSXT, failure to account for this segment when calculating CSXT's variable costs means that it would not be able to recover the costs of that infrastructure from the traffic using the segment's facilities. (*Id.*) CSXT argues that it would distort the results of a rate prescription not to include the costs that CSXT incurs for a segment that is necessary for both railroads to provide service to Consumers. (*Id.*)

CSXT argues that its approach is identical to what Consumers itself used in its ATC calculations. (*Id.* at II-A-5.) CSXT alleges that some of the cross-over shipments that Consumers selected for the CERR traffic group are interchanged in the same way as the issue traffic—i.e., BNSF operates trains over CSXT tracks from 22nd Street to 71st Street, where CSXT crews take the train—yet for these shipments Consumers gives CERR credit for the mileage between 22nd Street and 71st Street. (*Id.* (citing Consumers Opening WP “2014 Fixed Costs For ATC (Final).xlsx,” Tab “On-SARR Miles and Fixed Cost”).) According to CSXT, Consumers therefore excluded miles operated by BNSF over CSXT-owned lines from its calculations of CSXT variable costs for Consumers' shipments, but included those same miles when allocating revenues for its SARR. (CSXT Reply II-A-5 to II-A-6, Mar. 7, 2016.) CSXT argues that Consumers cannot have it both ways. Accordingly, CSXT includes these six additional miles in its calculation of the loaded miles input. Specifically, CSXT calculates loaded miles of 169.7 for the Belt route and loaded miles of 171.6 for the Barr route, for a weighted average of 170.0, using the same distribution (85.5%/14.2%) proposed by Consumers. (*Id.* at II-A-6; CSXT Reply WP “CSXT Reply URCS Calculations.xlsx,” Tab “Inputs,” Cell “F18.”)

On rebuttal, Consumers argues that CSXT is, in fact, proposing a movement-specific adjustment. Consumers asserts that the six miles of BNSF track over which CSXT handles Consumers' trains in the empty direction should be “excluded” pursuant to the Major Issues rule against adjustments because they exceed the number of miles that CSXT handles the trains in the loaded direction. (Consumers Rebuttal II-3 to II-4, May 20, 2016.) Consumers also disagrees with CSXT's characterization of Consumers' ATC calculations. Specifically, Consumers asserts that variable costs for jurisdictional threshold purposes focus on the issue traffic, but for ATC, in contrast, the focus is on non-issue traffic, and under Major Issues, EP 657 (Sub-No. 1), slip op. at 20, variable costs are based on the on-SARR and off-SARR segments. (Consumers Rebuttal

II-4, May 20, 2016.) According to Consumers, the 22nd Street to 71st Street segment, which CERR assumes the cost of building and maintaining, is part of the “on-SARR” route, so traffic that enters CERR at 22nd Street has its on-SARR variable costs calculated from that point. (Consumers Rebuttal II-4 to II-5, May 20, 2016.) Consumers asserts that, if that procedure was not followed for ATC purposes, then CSXT would be credited with revenue that it did not earn, and CERR would be denied any revenue allocation to cover that portion of its on-SARR costs. (Consumers Rebuttal II-5, May 20, 2016.)

The Board finds that Consumers has not supported its evidence with respect to loaded miles. CSXT has undermined Consumers’ evidence and has demonstrated that its proposed inclusion of the six-mile segment between 22nd Street and 71st Street is not prohibited under Major Issues. Instead, the evidence shows that the intended interchange point between BNSF and CERR is 22nd Street—CERR starts at 22nd Street, and in fact the tariff applicable to Consumers’ traffic states that the interchange point between BNSF and CSXT is “Chicago at 22nd Street, consistent with current practices.” (See Compl., Ex. A at 1 n.4.) Even though CSXT and BNSF have informally agreed to a different interchange point (at 71st Street) to alleviate congestion, it remains the case that the issue traffic and certain non-issue traffic move over six miles of CSXT’s facilities between 22nd Street and 71st Street. Both the costs and revenues for those movements should be calculated from 22nd Street.

Consumers also fails to adequately address CSXT’s argument that even Consumers allocated revenue for certain non-issue traffic for ATC purposes as if it had been interchanged at 22nd Street, when in practice it was interchanged at 71st Street, just like the issue traffic. (See CSXT Reply II-A-5 to II-A-6, Mar. 7, 2016.) Whether determining variable costs for ATC purposes or for MMM, the traffic (whether issue or non-issue) should be handled consistently in the URCS Phase III program when determining costs for the movements and allocating revenues. Because the Board is costing the traffic as if it enters the SARR at 22nd Street, Consumers’ concern that CSXT is being overcompensated in the ATC calculation for non-issue traffic is without merit. Moreover, under these circumstances, Major Issues is inapplicable. The Board is not dealing with an argument that the loaded miles should be calculated all the way to Cicero where the empty trains are returned to BNSF. Rather, the Board is looking at the empty trains’ return route as a confirmation of the tariff’s designation that the movement starts at 22nd Street. Therefore, the Board will accept CSXT’s proposed loaded miles of 169.7 for the Belt route and loaded miles of 171.6 for the Barr route.

J. DCF RESULTS

The first step of the DCF analysis is to calculate CERR’s total revenue requirements over the 10-year analysis period. The Board finds that the initial RPI of CERR would be \$634,514,555; interest during construction would be \$81,295,054; the present value of roadway property replacement would be \$ 51,820,876; equity flotation fee would be \$25,393,128; and the resulting total RPI would be \$785,396,801. Table D-1 shows the flow of capital recovery that would provide CERR a reasonable return on its capital investment and would therefore be sufficient to attract entry to serve the selected traffic group.

TABLE D-1
(\$ Millions)

Year	SARR Capital Requirement	SARR Operating Costs	SARR Revenue Requirements
2015	\$72.8	\$58.3	\$131.1
2016	73.0	51.9	124.9
2017	75.6	59.2	134.7
2018	78.5	60.9	139.4
2019	81.5	64.2	145.8
2020	84.5	68.8	153.3
2021	87.6	72.0	159.6
2022	90.9	76.1	166.9
2023	94.1	77.7	171.8
2024	97.4	82.8	180.1

The second part of the DCF analysis compares the revenues a defendant is expected to earn from the traffic group against the revenues the SARR would need to serve the same traffic. In general, if the present value of the revenue stream is less than the SARR's revenue requirements, then the analysis has not demonstrated that the challenged rate is unreasonable. If the opposite is true, then the Board must decide what relief to provide to the complainant by allocating the revenue requirements of the SARR among the traffic group and over time. Here, Table D-2 shows that the DCF analysis projects an over-recovery in all but one year of the DCF period. For purposes of netting yearly over-recovery and under-recovery, the Board will apply the netting method established in *Coal Trading Corp. v. Baltimore & Ohio Railroad*, 6 I.C.C.2d 361, 436, 520 (1990). See also *AEP Texas North Co. v. BNSF Railway*, NOR 41191 (Sub-No.1), slip op. at 11-12 (STB served May 15, 2009) reconsideration denied (STB served May 15, 2009), vacated on other grounds and remanded sub nom. AEP Tex. N. Co. v. STB, 609 F.3d 432 (D.C. Cir. 2010).

TABLE D-2
(\$ Millions)

Year	SARR Revenue Requirement	SARR Revenues	Overpayments (Shortfalls)	Present Value
2015	\$131.1	\$131.6	\$0.4	\$0.4
2016	124.9	118.0	(6.9)	(5.9)
2017	134.7	145.5	10.7	8.3
2018	139.4	145.2	5.7	4.0
2019	145.8	152.5	6.8	4.3
2020	153.3	166.0	12.7	7.2
2021	159.6	172.4	12.8	6.6
2022	166.9	185.7	18.8	8.7
2023	171.8	187.1	15.3	6.4
2024	180.1	206.7	26.5	10.0
Cumulative Net Present Value				\$50.0

K. CROSS-SUBSIDY ANALYSIS

CSXT, citing Otter Tail Power Co. v. BNSF Railway, NOR 42071, slip op. at 23-30 (STB served Jan. 27, 2006), aff'd sub nom. Otter Tail Power Co. v. STB, 484 F.3d 959 (8th Cir. 2007) and PPL Montana, LLC v. Burlington Northern & Santa Fe Ry., 6 S.T.B. 286, 297-300 (2002), reconsideration denied in pertinent part, PPL Montana v. Burlington Northern & Santa Fe Ry., NOR 42054 (STB served Mar. 24, 2003), aff'd sub nom. PPL Montana v. STB, 437 F.3d 1240 (D.C. Cir. 2006), argues that if the Board finds SAC revenues exceed SAC costs it is “required to conduct a cross-subsidy analysis along the CERR network to ensure that each segment covers the costs attributable to serving that traffic.” (CSXT Reply III-H-18, Mar. 7, 2016.) In response, Consumers argues that CSXT has failed to present any evidence on this point, in contravention of Board precedent. (Consumers Rebuttal III-H-21, May 20, 2016.)

Board precedent clearly holds that if a defendant railroad believes that relief granted by the Board could result in an impermissible cross-subsidy, the railroad must, at a minimum, submit some analysis to identify the segments of the SARR affected. See Ariz. Elec., NOR 42113, slip op. at 15 (Board declined to test for internal cross-subsidy where “defendants make no effort to perform these analyses themselves”). CSXT is no stranger to this requirement, as it submitted a cross-subsidy analysis in a recent prior case. See CSXT Reply III-H-25 to III-H-26, July 21, 2014, Total Petrochems. 2016, NOR 42121. As in Arizona Electric, the Board will not conduct an internal cross-subsidy analysis in this case because CSXT has made no effort

to demonstrate that any specific segment of CERR may not be self-supporting.²¹¹ Given the complexity of SAC cases, the Board must rely on parties to submit appropriate argument and evidence.²¹²

²¹¹ Although CSXT states that its witness Baranowski “sponsors the cross-subsidy analysis described in this Section,” (CSXT Reply III-H-18 n.20, Mar. 7, 2016), it does not actually describe or submit an analysis.

²¹² This is particularly important going forward given the clear directive from Congress that the Board must expedite its rate review processing.

APPENDIX E—MARKET DOMINANCE

A. INTRODUCTION

The Board's market dominance inquiry seeks to determine whether there is "effective competition from other rail carriers or modes of transportation for the transportation to which a rate applies." 49 U.S.C. § 10707(a). This inquiry comprises two components, the first of which is quantitative. The statute establishes a conclusive presumption that a railroad does not have market dominance if the rate charged produces revenues that are less than 180% of its variable costs²¹³ of providing the service. *Id.* § 10707(d)(1)(A). If this quantitative threshold is met, the Board moves to the second component, a qualitative analysis. E.I. DuPont de Nemours & Co. v. Norfolk S. Ry., NOR 42125, slip op. at 16 (STB served Mar. 24, 2014), corrected and updated, NOR 42125 (STB served Oct. 3, 2014), reconsideration denied, NOR 42125 (STB served Dec. 23, 2015); Wis. Power & Light Co. v. Union Pac. R.R., 5 S.T.B. 955, 961 (2001), aff'd sub nom. Union Pac. R.R. v. STB, 62 F. App'x 354 (D.C. Cir. 2003). In this analysis, the Board determines whether there are any feasible transportation alternatives that are sufficient to constrain the railroad's rates for the issue traffic to competitive levels, considering both intramodal competition—competition from other railroads—and intermodal competition—competition from other modes of transportation, such as trucks, transload arrangements, barges, or pipelines. DuPont, NOR 42125, slip op. at 16-17; M&G Polymers USA, LLC v. CSX Transp., Inc., NOR 42123, slip op. at 11 (STB served Sept. 27, 2012), corrected and updated, (STB served Dec. 7, 2012); E.I. DuPont de Nemours & Co. v. CSX Transp., Inc., NOR 42099, slip op. at 2 (STB served June 30, 2008).

The Board considers many factors in determining feasibility, including, for example, whether and to what extent such alternatives might involve potentially prohibitive transport distances, product integrity concerns, capacity/infrastructure constraints, and the presence of any transportation requirements imposed by the complaining shipper's customers. M&G Polymers USA, NOR 42123, slip op. at 12. If an alternative is not feasible, it cannot bring market discipline to a carrier's pricing adequate to restrain rates effectively. *Id.*

B. QUANTITATIVE EVIDENCE

The parties agree that CSXT's R/VC ratio exceeds the 180% threshold for the challenged rate. (CSXT Reply II-A-1, Mar. 7, 2016; Consumers Rebuttal II-1, May 20, 2016.) Accordingly, the Board finds that the quantitative aspect of the market dominance inquiry is satisfied here.

²¹³ Variable costs are those railroad costs that vary with the level of output. The comparison of revenues to variable costs, reflected as a percentage figure, is known as a R/VC ratio.

C. QUALITATIVE EVIDENCE

In the qualitative market dominance inquiry, the complainant bears the burden of establishing the absence of effective competition from other rail carriers or modes of transportation for the traffic to which the challenged rate applies. See DuPont, NOR 42125, slip op. at 29; see also 49 U.S.C. § 10707. Whether feasible alternatives to CSXT's current service to Consumers' Campbell plant exist is the central market dominance issue in this case.

Consumers argues on opening that, despite undertaking several investigative efforts to identify an effective alternative, no feasible, direct competitive alternatives to CSXT service are available. (Consumers Opening II-11.) The alternatives studied by Consumers include variations of transporting coal by vessel directly to Campbell, which is located on Pigeon Lake (an inlet on the eastern shore of Lake Michigan), and transporting coal by vessel to Consumers' Cobb plant, situated 25 miles north on Muskegon Lake (another inlet on the eastern shore of Lake Michigan), then transporting the coal by rail (via a shortline carrier) to Campbell.

In its reply, CSXT disputes Consumers' claim that these two alternatives are not feasible, arguing that both serve as viable options to receive coal at Consumers' Campbell plant. First, CSXT argues that Consumers could ship coal by water vessel from KCBX, a marine terminal in Chicago, directly to the Campbell plant (the Direct Water Alternative).²¹⁴ (CSXT Reply II-B-6, Mar. 7, 2016.) The Direct Water Alternative would require construction of an unloading dock in Pigeon Lake. (Id.) Second, CSXT argues that Consumers could ship coal by water vessel to Consumers' Cobb plant, which has an existing dock, where the coal could then be transferred to a short line railroad, the Michigan Shore Railroad (MSRR), and then transported by rail to Campbell (the Cobb-Rail Alternative).²¹⁵ (Id.) The Cobb-Rail Alternative would require building additional rail infrastructure. (Id.) Consumers argues that neither of these two alternatives is feasible. For the reasons discussed below, the Board finds that the alternatives are not feasible.

²¹⁴ Consumers refers to this option as the Direct Vessel Option or Alternative.

²¹⁵ Consumers refers to this option generally as the Vessel to Cobb/Rail to Campbell alternative.



1. Direct Water Alternative

It is undisputed that coal commonly moves by vessel across the Great Lakes, and specifically that Consumers has received coal by vessel at its Cobb plant at Muskegon Lake. (See CSXT Reply II-B-17, Mar. 7, 2016 (claiming that 28 coal facilities on the Great Lakes receive coal by vessel); Consumers Opening II-28 (stating that the Cobb plant received coal by vessel).) The question here is whether such a movement is feasible to the Campbell plant at Pigeon Lake. CSXT explains that, under the Direct Water Alternative, inbound coal shipments from the Powder River Basin that are currently interchanged to CSXT in Chicago could instead be delivered to the KCBX marine terminal, where the coal would be loaded into “articulated tug barges.” (CSXT Reply II-B-18 to II-B-19, Mar. 7, 2016.) CSXT describes the articulated tug barges as small vessels that are highly maneuverable and can accommodate a volume of coal similar to that of an average unit train. (*Id.* at II-B-19.) Additionally, Consumers would need to build a dock on Pigeon Lake under this alternative to accommodate the articulated tug barges, though CSXT argues this would entail significantly less dredging and environmental impact than a dock designed for other, larger vessels. (*Id.*) Lastly, under the Direct Water Alternative, CSXT concedes that docking and unloading facilities would need to be constructed at Campbell, but argues that such facilities are similar to the existing facilities at Cobb. (*Id.* at II-B-20.)

a. Positions of the Parties with Respect to Permitting a New Facility at Pigeon Lake

In its opening, Consumers states that, due to the rising price of CSXT rail service, it retained WorleyParsons Resources & Energy (WorleyParsons) and the Spicer Group (Spicer) in 2014 to study hypothetical lake vessel transportation alternatives to CSXT rail service. (Consumers Opening II-21.) Consumers argues that both reports identified numerous permitting and approval issues that could act as “complete barriers” to construction of the necessary unloading facilities in Pigeon Lake for the Direct Water Alternative. (*Id.* at II-22.) One concern is the nature of Pigeon Lake, which Consumers describes as an established recreational and pleasure boat site that is home to numerous private homes and docks. (*Id.* at II-23.) Consumers alleges that, due to the narrow width of Pigeon Lake’s access to Lake Michigan, essentially all recreational boating traffic seeking access to Lake Michigan would be obstructed every time a coal vessel entered or exited Pigeon Lake, approximately twice every three days. (*Id.* at II-23 to II-24.) {

Consumers argues that the “virtual taking” of Pigeon Lake that would result from coal vessel delivery would be opposed strongly by neighboring landowners, environmental groups, Native American tribes, and other adversely affected constituencies. (Consumers Opening II-24, II-39 to II-45.) }

Consumers argues that, in addition to the challenges of the permitting process itself, its consultants noted these legal contingencies and risks without specifically including them in their cost estimates. (Consumers Opening II-25; {

} CONSUMERS-001100” & { } However, Consumers notes that WorleyParsons concluded that legal challenges could entail { } (Consumers Opening II-25; see { } Consumers argues that, as presented by Spicer, other adverse environmental impacts, such as likely erosion caused by any construction and { } associated with coal movements, confirm the infeasibility of permitting the Direct Water Alternative. (Consumers Opening II-25 to II-26; see { } “CONSUMERS-007624.”)

On reply, CSXT argues that the Direct Water Alternative is feasible, stating that it is “a mirror image of the transportation that Consumers used to the Cobb plant for many years.” (CSXT Reply II-B-18, Mar. 7, 2016.) CSXT also alleges that, like Muskegon Lake, Pigeon Lake has been used regularly for commercial water transportation, including several barge deliveries to Campbell. (Id. at II-B-1; CSXT Reply WPs “2011 Environmental Equipment Delivery.pdf,” “2013 Barge Deliveries to Campbell.pdf,” & “2014 Barge Deliveries to Campbell.pdf,” Mar. 7, 2016.)

CSXT also claims that the internal Consumers’ studies establish the environmental and permitting feasibility of the Direct Water Alternative. In particular, CSXT points to several additional studies that Consumers conducted regarding transportation alternatives that CSXT claims demonstrate the feasibility of the Direct Water Alternative. First, CSXT notes that, in 1996, Consumers commissioned a consultant, Fieldston, to study various competitive options for the transportation of coal to Campbell, including vessel or barge transportation from KCBX to a dock on Pigeon Lake, and that the study concluded that {

} On opening, Consumers alleges that the Environmental Resources Management (ERM) study showed no feasible direct vessel alternative for Campbell. (Consumers Opening II-19.) Consumers states that ERM considered alternatives that involved building a new unloading dock facility on the shore of Pigeon Lake, but argues that it was unnecessary to consider the issue any further because subsequent federal regulations were incompatible with the installation of such a dock. (Id. at II-19 to II-20.) {

}

CSXT also includes in its a reply a report prepared by its expert witness, TransSystems, Inc. (TransSystems), in which TransSystems concludes that permitting for a Pigeon Lake dock would be even more manageable if certain design choices were made that would reduce dredging requirements and limit the environmental impacts of the dock. (CSXT Reply Ex. II-B-1, Mar. 7, 2016.)

CSXT claims that not only is the Direct Water Alternative feasible, but that the potential of this option has been a “constant feature” of the parties’ commercial relationship that has served as a constraint on CSXT’s rates. (CSXT Reply II-B-25, Mar. 7, 2016.) {

}

Specifically, {

}

{{

}} CSXT thus asserts that the record demonstrates that Consumers cited its potential competitive options when negotiating with CSXT in 2014 and that “CSXT took those threats seriously.” (CSXT Reply II-B-27, Mar. 7, 2016.)

On rebuttal, Consumers rejects CSXT's arguments that the Direct Water Alternative is feasible. Consumers argues that, despite CSXT's claim that the two are similar, there would in fact be significant differences between the Direct Water Alternative to Campbell and the historical transportation of coal by vessel to the Cobb plant. First, Consumers alleges that the physical characteristics of Pigeon Lake are in fact "radically" different from Muskegon Lake. (Consumers Rebuttal II-31, May 20, 2016.) Consumers notes that, while Muskegon Lake is 6.48 square miles and open to Lake Michigan via a wide channel, Pigeon Lake is less than 0.40 square miles and must be accessed by a narrow channel. (Consumers Rebuttal II-31, May 20, 2016; Consumers Rebuttal Ex. II-2 at 30-31, May 20, 2016.) It also notes that Muskegon Lake has a maximum depth of 79 feet, while Pigeon Lake has a maximum depth of 27 feet. (Consumers Rebuttal Ex. II-2 at 31, May 20, 2016.) Consumers also argues that Pigeon Lake—which is characterized by vacation homes, private docks, and nature parks around its shoreline—has seen only four barge shipments of heavy specialty equipment over four years, and the rest of the time has been exclusively used for recreational purposes. (Consumers Rebuttal II-32, May 20, 2016; see also CSXT Reply WPs "2011 Environmental Equipment Delivery.pdf," "2013 Barge Deliveries to Campbell.pdf," "2014 Barge Deliveries to Campbell.pdf," Mar. 7, 2016.) In contrast, Consumers argues that the Port of Muskegon has been an active commercial and industrial port facility since the early 20th century, handling vessels of all sizes. (Consumers Rebuttal II-34, May 20, 2016; Consumers Rebuttal Ex. II-2 at 31-32, 34-35, May 20, 2016.) Consumers notes that the legal and regulatory hurdles facing the Direct Water Alternative are far more rigorous than those in place when the Port of Muskegon was built in 1949,²¹⁶ making a comparison between the two inapt. (Consumers Rebuttal II-32 to II-33, May 20, 2016; see Consumers Rebuttal Ex. II-2 at 42-46, May 20, 2016.)

Consumers also argues that the Direct Water Alternative does not properly account for the significant permitting challenges at the local, state, federal, and international level. (Consumers Rebuttal II-43 to II-46, May 20, 2016.) In particular, Consumers argues that CSXT ignores permitting challenges with respect to the environmental impacts of dredging to construct the unloading platform, maintenance dredging, and the introduction of regular commercial traffic. (Id. at II-45 to II-46; Consumers Rebuttal Ex. II-2 at 29-34, May 20, 2016.) Consumers points out that the unloading platform in particular would be subject to many federal, state, and international environmental protection statutes and rules that did not exist when the coal dock at Cobb was constructed, most notably section 404 of the Clean Water Act, 33 U.S.C. § 1344, which mandates that any proposal to discharge dredged or fill materials into navigable waters must secure a permit from the U.S. Army Corps of Engineers. (Consumers Rebuttal II-44 to II-

²¹⁶ Consumers identifies several statutes and an Executive Order that a new development at Pigeon Lake would face that were not in effect when the Cobb plant was built: Water Quality Act of 1965, National Historic Preservation Act of 1966, National Environmental Policy Act, Clean Water Act, Federal Water Pollution Control Act Amendments, Great Lakes Water Quality Amendments of 1972, Endangered Species Act, Great Lakes Critical Programs Act, and Executive Order 12,898—Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (1994). (Consumers Rebuttal II-33, May 20, 2016; see Consumers Rebuttal Ex. II-2 at 42-46, May 20, 2016.)

45, May 20, 2016.) Consumers notes that the published guidelines for Section 404(b) state that “no discharge of dredged or fill material shall be permitted if there is a practicable alternative to the proposed discharge which would have less adverse impact on the aquatic ecosystems” (Consumers Rebuttal II-45, May 20, 2016; 40 C.F.R. § 230.10(a).) Consumers argues that the “practicable alternative” in this case is the CSXT rail service on which Campbell currently depends. (Consumers Rebuttal II-45, May 20, 2016.) In addition, Consumers argues that the unloading structure CSXT proposed {

} (Id. at II-44;

{

Consumers also argues that CSXT misrepresents the work performed by Consumers’ consultants, particularly the claim that the WorleyParsons and Spicer analyses concluded that vessel transportation to Campbell was a “feasible option.” (Consumers Rebuttal II-41 to II-42, May 20, 2016.)²¹⁷ Consumers submits the verified statement of Mr. Petro and Mr. Bovitz, authors of the WorleyParsons report, who state that they did not describe any alternative as “permissible” or offer an opinion as to whether any alternative was economically feasible or competitive. (See Consumers Rebuttal Ex. II-2 at 15-18, 25-28, May 20, 2016.) Mr. Petro and Mr. Bovitz state that they did not provide a detailed timetable or cost estimate for the necessary permitting phases, that their report pointed to significant possible barriers to permitting, and that the permitting process could end in denial. (Consumers Rebuttal Ex. II-2 at 27, May 20, 2016.)

Lastly, Consumers rejects CSXT’s claim that the threat of the Direct Water Alternative has acted as a constraint on CSXT’s rates. Specifically, Consumers refutes CSXT’s reliance on the parties’ earlier contract, { } and that none of the agreements that followed {

} (Consumers Rebuttal II-19, May 20, 2016.)

Furthermore, Consumers argues that while CSXT may have considered whether Consumers might pursue some of the actions discussed in negotiations, documents related to negotiations over the past decade show that CSXT never made any meaningful rate concessions in response to the apparent prospect of losing Campbell business to another carrier or mode, and that the

{{

CSXT. (Id. at II-19 to II-20; {{

}} Consumers further asserts that discussions of Consumers’ investigation of possible transport “options” during the parties’ contract negotiations is irrelevant, given that the Board has acknowledged the “significant difference between statements

²¹⁷ Consumers characterizes the work performed in 1996 as a “powerpoint” that { } (Consumers Rebuttal II-42, May 20, 2016; see also CSXT Reply WP “Fieldston Study.pdf,” Mar. 7, 2016.)

made in the course of negotiations and concrete pricing actions taken by a railroad in response to genuine competition.” (Consumers Rebuttal II-20 to II-21, May 20, 2016 (citing FMC Wyo. Corp. v. Union Pac. R.R., 4 S.T.B 699, 718 (2000)).)

b. Board Analysis

On the surface, Consumers’ Cobb and Campbell plants—merely 25 miles apart on Lake Michigan—appear similarly situated. However, the significant physical differences between Pigeon Lake and Muskegon Lake and the serious permitting issues raised in the record establish that the proposed Direct Water Alternative for Campbell is not feasible.

The record establishes that, compared to Pigeon Lake, Muskegon Lake is significantly larger, deeper, and has a wider channel to Lake Michigan, making it a more suitable destination for industrial vessel traffic. (Consumers Rebuttal Ex. II-2 at 30-31, May 20, 2016.) Indeed, while Muskegon Lake has a long history of use by commercial vessels, Pigeon Lake is surrounded by vacation homes and is used almost exclusively by recreation craft and for other non-industrial uses. (*Id.* at 34-35.) Although Pigeon Lake has occasionally hosted barge shipments, the record demonstrates that those have been infrequent and disruptive events. (*Id.* at 35; CSXT Reply WPs “2011 Environmental Equipment Delivery.pdf,” “2013 Barge Deliveries to Campbell.pdf,” “2014 Barge Deliveries to Campbell.pdf,” Mar. 7, 2016.) It appears that the reason that Muskegon Lake has had a long history of commercial vessels while Pigeon Lake has not is due in large part to the different characteristics between the two. For these reasons, the Board finds that delivery of coal to Campbell via Pigeon Lake would be significantly more difficult than delivery of coal to Cobb via Muskegon Lake.

In addition to these substantial physical differences, the permitting issues raised cast doubts as to whether Consumers would be able to obtain the necessary permits to receive coal by water at the Campbell plant. {

} The authors of the report, Mr. Petro and Mr. Bovitz, expressly explain that their “preliminary permit and environmental review was performed without contacting any regulatory agencies,” and that they “advised Consumers that if the project continued beyond the initial phase, additional work would be necessary to determine the requirements for permitting and WorleyParsons would then implement a four-step permitting analysis process.” (Consumers Rebuttal Ex. II-2 at 11, May 20, 2016.) The report concluded that {

} Similarly, the Spicer Study itself identified several permitting and mitigation issues with the Direct Water Alternative (described as Option E in the Spicer Study), and {

}

{

} The record demonstrates that TranSystems agrees with the research conducted by Consumers' consultant relating to the environmental and sociological impacts of the Direct Water Alternative. (See CSXT Reply Ex. II-B-1 at 16, Mar. 7, 2016.) That study details the permits that would be required to proceed with the Direct Water Alternative, but does not conclude that the permitting process would be successful. Furthermore, while CSXT suggests that the TranSystems plan would reduce dredging requirements and limit the environmental impact of a dock at Pigeon Lake, it fails to adequately explain precisely how its plan would render permitting the dock "more manageable." Having found that the Direct Water Alternative faces such significant permitting challenges, the Board is not persuaded that the limited design choices made by TranSystems would overcome those challenges.

Finally, the parties' discussion of Consumers' earlier contract with CSXT is irrelevant to the Board's determination of whether CSXT possesses market dominance today. While the provisions of that contract {

} could have resulted from the competitive options available at that time, the question before the Board here is whether CSXT possesses market dominance under current market conditions. Therefore, the Board need not consider the terms of the earlier contract in determining the implications of the threat of delivery of coal by the Direct Water Alternative. Indeed, the record demonstrates that both parties acknowledge that none of their subsequent agreements contain similar language {

} (Consumers Rebuttal II-19, May 20, 2016.)

Consumers demonstrates such significant differences between Pigeon Lake and Muskegon Lake, and such significant uncertainties about the ability to successfully permit the Direct Water Alternative, that the Board finds that the Direct Water Alternative is infeasible.²¹⁸

2. Cobb-Rail Alternative

Under the Cobb-Rail Alternative, CSXT explains that inbound coal shipments from the Powder River Basin would be delivered to KCBX, loaded onto articulated tug barges or larger vessels, and transported to the existing Cobb dock on Lake Muskegon. (CSXT Reply II-B-38 to II-B-39, Mar. 7, 2016.) At Cobb, the coal would be unloaded and transported via conveyor to the MSRR, a shortline railroad that CSXT describes as within sight of the Cobb plant and 3.7 miles from Campbell. (*Id.* at II-B-39.) CSXT claims that, with a modest buildout to the

²¹⁸ Because the Board has reached this conclusion, it need not reach the parties' additional feasibility arguments.

MSRR at both Cobb and Campbell, rail could be used to transport coal between the two plants. (Id.) It is undisputed that certain build-outs and improvements on the MSRR would be necessary to facilitate the Cobb-Rail Alternative. For the reasons described below, the Board finds that the Cobb-Rail Alternative is infeasible.

a. Positions of the Parties with Respect to CSXT's Relationship to the MSRR

On opening, Consumers argues that the Cobb-Rail Alternative is infeasible in light of the relationship between CSXT and MSRR. Consumers notes that while WorleyParsons examined the feasibility of this alternative, the study assumed {{

}} (Consumers Opening II-30, {{

}} However, as Consumers explains, the

MSRR leases the tracks over which it operates from CSXT, and {{

}} Accordingly, Consumers argues that {{

}} Consumers {{

}} for all capital costs. (Consumers Opening II-30.)

Consumers notes that {{

}}

(Id. at II-31.) Additionally, Consumers argues that because the MSRR is a subsidiary of Genesee & Wyoming, Inc. (GWI)—which controls several shortline and regional railroads that interchange traffic with CSXT and depends on CSXT for much of their revenue streams—it is reasonable to expect that the MSRR would decline “to cooperate in challenging a monopoly held by one of its parent company’s major commercial partners.” (Id.)

In its reply, {

} CSXT also challenges

Consumers’ characterization of the relationship between the MSRR and GWI, arguing that there is no reason to think that the MSRR “would not jump at the opportunity to handle 3.5 million tons of coal annually.” (Id. at II-B-41.) CSXT further argues that Consumers does not specify any business relationship or loss that would cause the MSRR to reject millions of dollars in annual revenue. (Id.)

On rebuttal, Consumers continues to argue that the nature of the terms of the lease between CSXT and MSRR renders the Cobb-Rail Alternative wholly infeasible as an effective competitive alternative to CSXT. (Consumers Rebuttal II-54, May 20, 2016.) First, Consumers reiterates that CSXT’s plan would necessitate {{

}} Consumers {{

}} without having any

control over or ownership interest in the assets. (Id. at II-54 to II-55.) Second, Consumers {{

}} coal traffic. (Id. at II-55 to II-56.) Third, Consumers explains further that the lease {{

}} (Id. at II-56.) Finally, Consumers claims that the nature of the commercial relationships between GWI (MSRR's parent company) and CSXT, and the dependence of many of members of the GWI corporate family on CSXT for traffic and revenue, makes it unlikely that MSRR would be a willing competitor with CSXT for coal traffic to Campbell. (Id.)

b. Board Analysis

The Board concludes that the Cobb-Rail Alternative is infeasible because the terms of the lease between MSRR and CSXT would prevent the necessary improvements to the line in order to handle the movement of coal from Cobb to Campbell. The Board is not persuaded by CSXT's argument that "[t]here is zero reason to think that the [MSRR] would not jump at the opportunity to handle 3.5 million tons of coal annually," particularly when CSXT has not addressed Consumers' arguments that the lease terms are a barrier to the feasibility of the Cobb-Rail Alternative. (CSXT Reply II-B-41, Mar. 7, 2016.)

The record demonstrates that the nature of the lease gives Consumers little incentive to invest in the line, given that Consumers {{ }} As Consumers notes, {{

}} (Consumers Opening II-30; {{ }} The Board is persuaded by Consumers' argument that it is unlikely that either MSRR or Consumers would make such an investment under these conditions. The Board also agrees with Consumers' argument that the lease {{ }} is a legitimate obstacle to the Cobb-Rail Alternative. (Consumers Rebuttal II-55, May 20, 2016; Consumers Rebuttal WP "CSX-CNSMR-HC-018965," May 20, 2016.) As Consumers points out, much of the new trackage and connecting facilities would be built on CSXT property, and all of the fixtures would be permanent installations {{ }} (Consumers Rebuttal II-55, May 20, 2016.) The Board is persuaded that CSXT could exercise its rights under the lease {{ }} (Id. at II-55 to II-56.) {{

}} (Consumers Opening II-30 to II-31, citing {{ }} The Board agrees with Consumers' argument that the Cobb-Rail Alternative would require {{ }} Consumers points out that {{

}} (Consumers Rebuttal II-56, May 20, 2016; CSXT Reply Ex. II-B-1 at 83, Mar. 7, 2016.)

For these reasons, the Board finds that the Cobb-Rail Alternative is not feasible; the terms of the lease between the MSRR and CSXT give Consumers little incentive to invest in the alternative, and give the railroad purportedly subject to potential competitive pressure from that alternative {{ }}.²¹⁹

D. CONCLUSION

Because CSXT's R/VC ratio exceeds the 180% threshold for the challenged rate, and the Board finds that Consumers has shown both the Direct Water and Cobb-Rail Alternatives to be infeasible, the Board concludes that CSXT possesses market dominance over the challenged transportation.

²¹⁹ Given this conclusion, the Board need not reach the parties' additional feasibility arguments.