

**Estimated Variable Cost, Jurisdictional Threshold and Revenue to Variable Cost Ratio for the
Movement of Chlorine from McIntosh, AL to New Orleans, LA**

<u>Item</u> (1)	<u>3Q2011</u> (2)	<u>4Q2011</u> (3)	<u>1Q2012</u> (4)	<u>2Q2012</u> (5)
A. <u>Movement Parameters</u>				
1. Railroad	NS	NS	NS	NS
2. Miles	585.0	585.0	585.0	585.0
3. Shipment Type	Originated & Delivered	Originated & Delivered	Originated & Delivered	Originated & Delivered
4. Cars per Shipment	1	1	1	1
5. Car Type	Tank Car < 22,000 Gallons			
6. Car Ownership	Private	Private	Private	Private
7. Tons per Car	89.8	89.8	89.8	89.8
8. Commodity	Chlorine (2812815)	Chlorine (2812815)	Chlorine (2812815)	Chlorine (2812815)
9. Movement Type	Single Car	Single Car	Single Car	Single Car
B. <u>Variable Cost and Jurisdictional Threshold</u>				
10. Phase III Cost Base Year 1/	\$1,726	\$1,726	\$1,726	\$1,726
11. Index to Applicable Quarter	1.01092	1.00353	1.00764	1.02226
12. Phase III Cost for Applicable Quarter 2/	\$1,744	\$1,732	\$1,739	\$1,764
13. Jurisdictional Threshold 3/	\$3,140	\$3,117	\$3,130	\$3,175
C. <u>Rate and Rate to Variable Cost Ratio</u>				
14. Rate Per Car 4/	\$8,088	\$8,088	\$8,088	\$8,088
15. Rate To Variable Cost Ratio 5/	4.64	4.67	4.65	4.59

1/ 2011 STB URCS Phase III Released November 28th, 2012.

2/ Line 10 x Line 11.

3/ Line 12 x 1.80.

4/ NSRQ 65912 Effective July 30, 2011 rate of \$8,088 per car and not subject to a fuel surcharge. Rate is for NS only move from McIntosh, AL to New Orleans, LA.

5/ Line 14 ÷ Line 12.

**THE BOARD SHOULD NOT RESTRICT
THE USE OF CROSS-OVER TRAFFIC**

NS has asked the Board to restrict SunBelt's use of cross-over traffic in this case by applying the limitations that the Board has proposed in *Ex Parte* No. 715, *Rate Regulation Reforms*, regardless whether the Board has completed that rulemaking, or whether it ultimately adopts any such measures in that proceeding.¹ The Board should reject NS's arguments on the following four independent grounds:

1. The Board already has decided that it will not apply any cross-over traffic restrictions proposed or adopted in *Ex Parte 715* to pending cases;
2. Retroactive application of the *Ex Parte 715* proposals to SunBelt would be highly prejudicial;
3. The rationale for restricting cross-over traffic in *Ex Parte 715* is flawed; and
4. SunBelt has not abused cross-over traffic.

**A. THE BOARD ALREADY HAS DECIDED
NOT TO APPLY ANY CROSS-OVER
LIMITS PROPOSED OR ADOPTED IN
EX PARTE 715 TO PENDING CASES**

The Board expressly decided not to apply any new restrictions upon cross-over traffic proposed or adopted in *Ex Parte 715* to pending cases. In the *Ex Parte 715* Notice, the Board stated that “[w]e do not propose to apply any new limitation...to any pending rate dispute that was filed with the agency before this decision was served.”² SunBelt filed its Complaint on July 26, 2011, which is a full year to the day before the *Ex Parte 715* Notice was served. NS erroneously attempts to portray this decision merely as a preliminary determination that the

¹ See NS Reply at III-A-35.

² See *Ex Parte 715* at 17, n. 11.

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Board retracted in its decision served in this docket on November 29, 2012, denying NS's "Motion To Hold Case In Abeyance Pending Completion of Rulemaking."³

First, the Board's determination not to apply any proposed or newly-adopted cross-over restrictions to pending cases was not a preliminary determination upon which the Board was merely soliciting public comment. If the Board was only soliciting comments upon whether to apply the proposed cross-over rules to pending cases, it would have stayed those cases until that determination was made, in order to avoid the potentially unnecessary waste of resources. The proposed restrictions could have such an impact on pending cases that any attempt to apply those rules retroactively could require the submission of all new evidence.⁴

In the past, when the Board has solicited comment upon whether to apply a proposed rule to pending cases, it has stayed those cases precisely to avoid this type of unnecessary waste. For example, when the Board first proposed the "Average Total Cost," or "ATC," methodology for allocating cross-over revenue in 2006, it explicitly suspended the procedural schedule in one case and held the schedules of two other proceedings in abeyance, while inviting comment on "whether or to what extent it would be inequitable to apply the changes proposed herein, or parts thereof, to their pending cases."⁵ In addition, the Board explicitly stated its intent to apply whatever new methodology it might adopt to pending cases and invited comment upon that

³ NS Reply at III-A-48, n. 36 and III-A-50.

⁴ See *Consolidated Edison Company v. FERC*, 315 F.3d 316, 323 (D.C. Cir. 2003) ("A new rule may be applied retroactively to the parties in an ongoing adjudication, so long as the parties...are given notice and an opportunity to offer evidence bearing on the new standard...and the affected parties have not detrimentally relied on the established legal regime...") Cf. *WFA/Basin*, slip op. at 20 (served Sept. 10, 2007) (granting complainant opportunity to submit new SAC evidence after denying relief based upon application of new cross-over revenue allocation methodology subsequent to the filing of evidence).

⁵ See *Major Issues*, slip op. at 2 (served Feb. 27, 2006) ("*Major Issues NPRM*").

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proposal.⁶ Finally, the Board declared that “[t]he procedural schedule for this rulemaking proceeding will be expedited in the interest of fairness to the parties in the pending cases.”⁷ In *Ex Parte 715*, the Board has taken none of these actions precisely because it has decided not to apply any newly-adopted cross-over traffic rules to pending cases.

Second, the Board did not retract its decision against retroactive application to pending cases in the November 29, 2012 decision denying NS’s “Motion To Hold Case In Abeyance Pending Completion of Rulemaking.” The Board stated:

We have already clearly stated that ‘[w]e do not propose to apply any new limitation [that may be adopted in *Ex Parte 715*] retroactively to...any pending rate dispute that was filed with the agency before the decision was served.’ We believed there that allowing those cases to continue ‘would be fair to those complainants, who relied on our prior precedent in litigating those cases.’ Hence, it was the Board’s intention that cases pending prior to the service of *Rate Regulation Reforms* should proceed as normal, absent some compelling reason or distinguishing factor that makes it more appropriate to place them in abeyance.⁸

Far from retracting its statements in *Ex Parte 715*, the Board reaffirmed them, and SunBelt has relied upon them.

SunBelt’s “fairness” and “reliance” interests are stronger now even than they were then. SunBelt’s “reliance” interest in particular only grows stronger the further into the process that the case proceeds. Indeed, the Board’s concern with a complainant’s reliance interest only makes sense in the context of retroactive application of new rules to pending cases because SunBelt has relied upon that precedent when deciding to file its Complaint and to develop its evidence.

⁶ Id.

⁷ Id., slip op. at 3.

⁸ See Board’s decision denying NS’s “Motion To Hold Case In Abeyance Pending Completion of Rulemaking” at pp. 4-5.

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There would not be any point to citing a “reliance” interest solely for the purpose of allowing the case to proceed if the Board were to apply new rules retroactively at the end of the case anyway.

NS nevertheless claims that the Board’s statements in the *Ex Parte 715* Notice have been rendered “immaterial” by another statement in the November 29th decision.⁹ Specifically, NS cites to the Board’s statement, on page 5, that it “will address any arguments related to cross-over traffic and cost allocation raised in the pending adjudications, even as it completes its consideration of those issues more broadly in *Rate Regulation Reforms*.”¹⁰ This statement, however, merely acknowledges what would be true even if there were no pending rulemaking proceeding in *Ex Parte 715*. The parties to a rate case have always been free to present arguments related to any matter in an individual adjudication. It would have been inappropriate for the Board to hold that NS could not do so in this case. NS, however, has a heavy burden to overcome the substantial unfairness that would accrue to SunBelt.

**B. APPLICATION OF THE *EX PARTE 715*
PROPOSED CROSS-OVER TRAFFIC
RESTRICTIONS WOULD BE HIGHLY
PREJUDICIAL TO SUNBELT**

The SAC methodology is dauntingly complex, long, and expensive. When the Board’s *Coal Rate Guidelines* decision was affirmed on appeal, these concerns were clearly on the mind of the Court. In a concurring opinion, Judge Becker cautioned:

Although I join the majority in upholding the Commission’s adoption of Stand Alone Cost modeling within its guidelines, I also write separately to identify the serious problems that I see developing if the Commission does not effectively minimize the costs incurred by shippers in challenging the carrier’s rates (either through a Stand Alone Cost model or through any other Constrained Market Pricing constraint) and maximize the discovery

⁹ See NS Reply at III-A-48, n. 36.

¹⁰ Id at III-A-35.

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available to them when doing so. The shippers argue forcefully that rate challenges will be frustrated by the complexity of the Commission's inhospitable rules and procedures. Because I agree that rules and regulation that produce such futility would violate the shipper's statutory right to challenge rates, I write to note my belief that future courts may have to set aside the rules if the Commission does not resolve these problems.¹¹

The SAC process has only become more complex since Judge Becker expressed those concerns. The prejudice from applying the proposed cross-over traffic restrictions to SunBelt, which already has expended substantial time and money to bring this case and submit Opening evidence in substantial reliance upon well-established precedent concerning the use of cross-over traffic, would be incalculable. In recognition of this fact, the Board has justifiably determined not to apply any new cross-over rules adopted in *Ex Parte 715* to SunBelt's pending rate case.

The Board's decision reflects a balancing of the equities. This is precisely the sort of judgment that the Board is designated by Congress to make.¹² The "ill effect" of retroactive application requires the agency to consider whether the affected parties have detrimentally relied on the established legal regime.¹³

¹¹ *Consolidated Rail Corp. v. U.S.*, 812 F.2d 1444, 1457-58 (3rd Cir. 1987) (Becker, J. concurring in part and dissenting in part).

¹² *See, e.g., Alabama Power Co. v. ICC*, 852 F.2d 1361, 1371 (D.C. Cir. 1988) (affirming ICC decision not to apply a correction to the RCAF retroactively after balancing the inequities to shippers and carriers); *Methodist Hospital of Sacramento v. Shalala*, 38 F.3d 1225, 1235 (D.C. Cir. 1994) (affirming HHS refusal to apply wage index revisions retroactively as a reasonable choice between competing values). In balancing the equities, the Board must consider whether "'the ill effect of the retroactive application' of the rule outweighs the 'mischief' of frustrating the interests the rule promotes." *Maxcell Telecon Plus, Inc. v. FCC*, 815 F.2d 1551, 1554-55 (D.C. Cir. 1987), quoting *SEC v. Chenery Corp.* 332 U.S. 194 (1947).

¹³ *See, e.g., Consolidated Edison Company v. FERC*, 315 F.3d 316, 323 (D.C. Cir. 2003); *Retail, Wholesale & Dept. Store Union v. NLRB*, 466 F.2d 380, 390 (D.C. Cir. 1972) (adopting five factor test for deciding whether new rules adopted in an adjudication should not be applied retroactively). The five factor test, which is applied to determine if a new rule adopted in an adjudication should not be applied retroactively, would weigh heavily against retroactive application. Specifically, (1) the use of cross-over traffic is not a case of first impression; (2) limits upon the use of cross-over traffic would constitute an abrupt departure from well-established practice; (3) SunBelt has relied extensively upon the current rule in pursuing its claims and developing its evidence; (4) the burden upon SunBelt in terms of time and expense would be enormous; and (5) there is no compelling statutory

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NS asserts that SunBelt cannot claim any prejudice because it had “more than ample notice that the Board was considering changes to cross-over traffic limits....”¹⁴ That simply is not true.

The use of cross-over traffic in the SAC analysis has been well-established precedent for nearly 20 years. It was founded upon basic SAC principles and the need to ensure effective access to regulatory remedies through a manageable SAC process. The Board first approved the use of cross-over traffic in *Nevada Power II*,¹⁵ because excluding cross-over traffic “would weaken the SAC test” by “depriv[ing] the SARR of the ability to take advantage of the same economies of scale, scope and density that the incumbents enjoy over the identical route of movement.” The SAC analysis attempts to replicate a contestable market rate,¹⁶ which is one of two economic theories that are central to the principle of constrained market pricing that is at the core of the SAC analysis.¹⁷ “A contestable market is one into which entry is absolutely free and exit absolutely costless where the new entrant suffers no disadvantage relative to the incumbent.”¹⁸ If the SARR may not select from the same traffic that is available to the incumbent, including cross-over traffic, then the SAC analysis cannot truly replicate a contestable market because the SARR suffers a disadvantage relative to the incumbent.¹⁹

interest in applying new cross-over traffic limits to this case despite SunBelt’s substantial reliance upon the current standard.

¹⁴ See NS Reply at III-A-41.

¹⁵ See *Nevada Power II* at 265, n. 12.

¹⁶ *Id.* at 266.

¹⁷ See *Coal Rate Guidelines* at 525 and 528-529.

¹⁸ See *Nevada Power II* at 266, citing *Guidelines* at 528.

¹⁹ Because contestable market theory holds that an entrant into a market need not replace the incumbent in its entirety, the SARR may replace a subset of the incumbent’s products or services. That subset of services can take two forms. The SARR may choose to carry any subset of traffic on a particular line segment and it may choose to provide only a portion of the total service for the traffic it selects. In both cases, the SARR is choosing to serve a subset of the incumbent’s relevant market, as contemplated by contestable market theory. The latter

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In 2004, ten years after *Nevada Power II*, the STB observed that “[t]he use of cross-over traffic to simplify the SAC presentation is a well-established practice.”²⁰ The STB identified multiple reasons why cross-over traffic is both necessary and desirable, which remain true today and which would be undermined by the proposed limits on cross-over traffic.

First, the Board observed that “[p]ermitting [the complainant] to use cross-over traffic in its SAC presentation...keeps the SAC analysis properly focused on the core inquiry—whether the defendant railroad is earning adequate revenues on the portion of its rail system that serves the complaining shipper.”²¹ “Creating a SARR to serve the same traffic group without using the cross-over traffic device would dramatically enlarge the geographic scope of a SARR” by requiring a complainant to build a SARR capable of handling the cross-over traffic from its origin to its destination, thus including far more facilities than those needed to handle the issue movement.²² The Board’s proposed limits upon cross-over traffic would completely undermine this benefit by requiring the very expansion of a SARR that the Board previously has determined to be undesirable. Instead of focusing upon the portion of the defendant’s rail system that handles the issue traffic, a SARR would become many multiples larger.²³

Second, the Board correctly observed that expanding the SARR will not eliminate cross-over traffic, but simply create new groups of cross-over traffic.²⁴ Because each extension of the

form specifically includes cross-over traffic. Thus, restricting cross-over traffic would violate the tenants of sustainability required for a contestable market. See Baumol, William J., John C. Panzar, and Robert D. Willig, “*Contestable Markets and the Theory of Industry Structure*,” New York, Harcourt Brace Jovanovich (1982) (“Baumol, Panzar and Willig”) at page 197.

²⁰ See *PSCo/Xcel* at 601 [citations omitted] [underline added].

²¹ Id.

²² Id.

²³ See, e.g., *PSCo/Xcel* at 601 (the 400 mile *PSCo/Xcel* SARR would need to be 10 times larger to serve the destinations); *Nevada Power II* at 263 (the 1,400 mile SARR would double to 2,800 miles).

²⁴ See *PSCo/Xcel* at 602.

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SARR to originate and/or terminate one group of cross-over traffic would create a new group of cross-over traffic over the added line segments, a shipper would have to extend its SARR even further in order “to generate the same economies of density” that the defendant railroad enjoys over the newly-extended SARR. This quickly becomes a “cascading analysis [that] could result eventually in a complainant having to replicate almost all of [the defendant’s] system. The scope and complexity of the proceeding would expand exponentially.”²⁵

This leads to the third and final observation of the Board, which is that:

The use of cross-over traffic thus provides a reasonable measure of simplification that allows SAC presentations to be more manageable. Curtailing the geographic scope of the SARR greatly simplifies the operating plans that must be developed, thus limiting the complexity of what is nevertheless still a dauntingly large and detailed task. Without cross-over traffic, captive shippers might be deprived of a practicable means by which to present their rate complaints to the agency.²⁶

In *PSCo/Xcel*, the Board observed the following consequences from expanding a SARR to originate and/or terminate cross-over traffic:

While the WCC is a relatively small and straight-forward SARR, the parties had to produce, and the Board analyze, dozens of volumes of evidence on the costs associated with acquiring the land, designing, building, and operating this short SARR (approximately 400 route-miles). It is difficult to imagine the amount of materials that would have to be produced and analyzed to put together the evidence needed to design a railroad 10 times larger. The number of disputed issues would also escalate, and the operating plans and computer simulation models would become so complicated as to risk being intractable.²⁷

Based upon these prior Board observations, an inevitable consequence of the Board’s proposed cross-over limits would be to increase SARRs exponentially, or to deny a shipper any regulatory

²⁵ Id.

²⁶ See *PSCo/Xcel* at 603.

²⁷ Id.

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remedy at all because the cost and complexity of the SAC analysis will have become so overwhelming that it would not be practical for a shipper to pursue its remedies.

The Board very recently held that both of these consequences are unacceptable. The Board reaffirmed its rationale for using cross-over traffic as a modeling device:

[T]his device has become an indispensable part of administering a workable test. Without cross-over traffic, the SARR would need to replicate the entire service provided by the defendant railroad for all of the traffic included in the SAC analysis.... Such an expanded SAC analysis, however, could be impracticable and would not allow us to meet our regulatory objectives, and we must guard against the SAC process becoming so complex and expensive as to deny captive shippers meaningful access to the rate review provided for under Guidelines.²⁸

The Board similarly noted that:

Without cross-over traffic, captive shippers might be deprived of a practicable means by which to present their rate complaints to the agency. This would be contrary to the policy directives set by Congress in 49 U.S.C. 10101(2) (to require fair and expeditious regulatory decisions when regulation is required), 10101(6) (to maintain reasonable rates where there is an absence of effective competition), and 10101(15) (to provide for the expeditious handling and resolution of all rail proceedings required or permitted to be brought before the Board).²⁹

This precedent demonstrates that the Board's proposed limits upon cross-over traffic will leave shippers with a choice between two impermissible options that would violate SAC principles and deny captive shippers meaningful access to the regulatory process.

In the face of the foregoing 20 years of precedent holding that the use of cross-over traffic is "well-established" and "indispensable," NS suggests that SunBelt was somehow on notice that all of this was about to change, based upon a single Board decision in *AEPCO 2011*,

²⁸ See *WFA/Basin*, slip op. at 11 [emphasis added] [footnote omitted].

²⁹ See *PSCo/Xcel II* at 16.

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served on June 27, 2011.³⁰ But that decision gave no such hint that the Board was even considering restrictions upon cross-over traffic, much less restrictions as far reaching and drastic as those the Board eventually would propose in *Ex Parte 715*.

The only concern expressed by the Board in *AEPCO 2011* was “with how the parties have developed the variable costs for the traffic movements on the SARR submitted by AEPCO” because “most of AEPCO’s traffic group moves in trainload service, but most of the variable costs calculated for that group are costed assuming it is moved in carload and multi-car service.”³¹ Moreover, this concern was posited solely in the context of the MMM calculation, not the proper use of cross-over traffic, and the Board never suggested that the proper way to address this issue would be to restrict cross-over traffic in any manner. Rather, the Board attempted to address its concern by instructing the parties “to submit revised variable cost calculations, reflecting actual operating characteristics of the movement on the SARR, for the traffic group submitted on rebuttal.”³² Thus, it simply is not credible to suggest that SunBelt could and should have divined that the Board would propose any restrictions upon cross-over traffic from just two sentences in the two-page *AEPCO 2011* decision. The only subject that reasonably could be considered to be in “flux” after this decision was the calculation of variable costs in the MMM methodology.

Nor did the Board’s final decision in *AEPCO 2011* provide any hint of impending cross-over traffic restrictions. Because the Board determined that the revised variable cost calculations submitted by the parties in response to the June 27, 2011 decision was immaterial to the outcome

³⁰ See NS Reply at III-A-41-42.

³¹ See *AEPCO 2011*, slip op. at 2.

³² Id.

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of the case, it declined to resolve the concerns expressed in that decision. The Board, however, declared that “[t]he June 27 decision has properly framed this issue for future rate litigants to consider and brief.”³³ This reference back to the June 27 decision provided no additional guidance or notice beyond that already described in the preceding paragraph.³⁴

The first time SunBelt received any notice that the Board was considering any restrictions upon cross-over traffic was on July 25, 2012, when the Board served the *Ex Parte 715* Notice. This was just one week to the day before SunBelt filed its Opening evidence. SunBelt had been preparing its Opening evidence for over six months prior to actually filing it. The selection of traffic for the SARR, which includes the selection of cross-over traffic, is one of the very first steps in the SAC analysis. SunBelt relied extensively on the Board’s well-established precedent in doing so, and subsequently expended an enormous amount of time and money to construct its entire SARR around that traffic group. Thus, the prejudice to SunBelt if the Board were to apply any cross-over restrictions retroactively to this case is obvious.

³³ *AEPCO 2011*, slip op. at 36 (served Nov. 22, 2011). In response to this statement, SunBelt addressed this issue and provided sensitivity analyses in its Opening Evidence based on the application of the *AEPCO 2011* MMM adjustment to the traffic group. SunBelt Opening at III-H-15-19 and 21 (n. 44). The *AEPCO 2011* decision only hinted that such an adjustment may be required on cross-over traffic in future cases, not that the traffic would be excluded from the analyses.

³⁴ NS disingenuously asserts that SunBelt also received notice that “the Board... would commence a rulemaking to address cross-over traffic rules” six weeks prior to its Opening Evidence in the Board’s decision in *WFA/Basin III*. See NS Reply at III-A-52. The only rulemaking reference in that decision was to the ATC methodology. The Board never suggested that this rulemaking, which eventually became *Ex Parte 715*, would be any broader than that issue and certainly never mentioned restrictions upon the use of cross-over traffic. See *Id.*, slip op. at 12 (“[t]he Board is planning to begin a rulemaking proceeding to consider whether a methodology similar to BNSF’s alternative ATC might be just such an approach”).

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**C. THE EX PARTE 715 PROPOSALS
ARE FUNDAMENTALLY FLAWED**

**1. The Board Has Not Provided A
Cogent Rationale For Departing
From Established Precedent**

The fundamental premise of the Board's proposals to limit cross-over traffic is that there may be a disconnect, when handling a certain type of cross-over traffic, between the cross-over revenue allocation methodology (which the Board also has proposed to modify in *Ex Parte 715*, but for different reasons) and the SARR's costs of handling such cross-over traffic, which allegedly creates a bias in favor of shippers.³⁵ But this perceived "disconnect," even if it were real, which it is not, would not justify the Board's proposed cross-over traffic restrictions because the Board never intended any connection between ATC revenue allocations and the SARR's operations. Rather, ATC revenue allocations are intended to reflect the incumbent railroad's operations over the line segments replicated by the SARR. The Board's attempt to create a connection with the SARR's operations is an unacknowledged and unexplained departure from precedent.

The Board attributes this newly-perceived disconnect to the increased use of carload and multi-carload cross-over traffic in Full-SAC cases.

There is a disconnect between the hypothetical cost of providing service to these movements over the segments replicated by the SARR and the revenue allocated to those facilities. When the proposed SARR includes cross-over traffic of carload and multi-carload traffic, it generally would

³⁵ See *Ex Parte 715* at 16. The alleged "disconnect" is really imprecision caused by differences between the incumbent's actual movement-specific costs and the URCS Phase III program's use of system averages to estimate variable costs for individual movements. This imprecision would exist regardless of the SARR's operations. This is neither inappropriate nor a problem, because such imprecision exists in all aspects of URCS when used in the SAC analysis. Moreover, if it were a problem, there are far less intrusive ways to address it than to restrict a SARR's access to cross-over traffic.

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handle the traffic for only a few hundred miles after the traffic would be combined into a single train. As such, the “cost” to the SARR of handling this traffic would be very low. In recent cases, litigants have proposed SARRs that would simply hook up locomotives to the train, would haul it a few hundred miles without breaking the train apart, and then would deliver the train back to the residual defendant. All of the costs of handling that kind of traffic (meaning the costs of originating, terminating, and gathering the single cars into a single train heading in the same direction) would be borne by the residual railroad. However, when it comes time to allocate revenue to the facilities replicated by the SARR, URCS treats those movements as single-car or multi-car movements, rather than the more efficient, lower cost trainload movements that they would be. As a result, the SAC analysis appears to allocate more revenue to the facilities replicated by the SARR than is warranted.³⁶

By this reasoning, the Board would attribute a purpose to ATC that it never intended and previously disavowed.

Specifically, the Board is using ATC to judge the fairness of cross-over revenue divisions based upon the SARR’s costs, rather than the incumbent railroad’s costs. The Board previously rejected such comparisons in *Major Issues* and *WFA II*. In *Major Issues*, the Board explained that ATC estimates the incumbent’s cost of service over each line segment, and allocates revenues to those segments based on the incumbent’s relative costs for each segment.³⁷ The Board clarified that ATC should use the incumbent’s traffic density over each line segment, not the SARR’s density and that “the objective of ATC is to reflect the defendant carrier’s relative costs of providing service over the relevant segments of its network.”³⁸

Consistent with this precedent, the Board also does not consider the SARR’s costs when the SARR contains internal reroutes of cross-over traffic. For example, assume a cross-over movement of three equidistant 300 mile segments from origin A, to intermediate stations B and

³⁶ See Ex Parte 715 at 16 [underline in original].

³⁷ See Major Issues at 34.

³⁸ See WFA/Basin II, slip op. at 13, [underline added].

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C, and then to destination D. Now, assume that the SARR constructs a different, lower density route between stations B and C that is 350 miles long and reroutes the cross-over traffic over that longer, less dense route. ATC allocates the cross-over revenue based upon the actual high-density 300 mile route rather than the SARR's longer, less dense, and more expensive 350 mile route. Although this is proper because the ATC divisions are intended to reflect the incumbent's costs rather than the SARR's, the Board's new logic would contradict this policy.

The Board's attempt to align the ATC revenue divisions with the SARR's operations also is at odds with the long-held view that the SARR does not need to be another railroad.³⁹ This understanding was one of three explanations that the Board provided in *WFA II* for using the incumbent's densities rather than the SARR's.⁴⁰ Because the SARR does not need to be another railroad, how the SARR runs its operations should be immaterial to the division of cross-over revenue under the ATC methodology.

ATC works as the Board intended. In *Major Issues*, the Board stated that the purpose of ATC is to reflect, to the extent practicable, the incumbent's relative average costs of providing service over the on-SARR and off-SARR segments. If the incumbent performs more costly origin and termination switching of cross-over traffic on the off-SARR segment, URCS assigns additional costs to those segments, which means that ATC assigns additional cross-over revenue to those segments whether the traffic is single car, multi-car, or trainload traffic.⁴¹ Thus, contrary to the Board's assumption in *Ex Parte 715*, ATC does not allocate revenue to the SARR for origin and termination services that the SARR does not perform. Not a single railroad party

³⁹ See *Guidelines* at 543.

⁴⁰ See *WFA/Basin II* at 14.

⁴¹ See *Major Issues* at 31.

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to *Ex Parte 715* challenged this fact in three rounds of comments. Although NS does challenge the sufficiency of the URCS origin and termination credits, NS does not support its assertions with any evidence.⁴²

Although the Board has focused on origin and termination services, its concern actually seems to be with inter and intra-train (“I&I”) switching costs, which URCS assigns on a system average basis in 200 mile increments, rather than to actual movements where such switching occurs, based upon the assumption that I&I switching occurs on average every 200 miles for non-trainload traffic. This was the issue in *AEPCO 2011*, which the Board cites as the basis for its concern.⁴³ While this assumption creates imprecision, it does not create bias, because this imprecision can work equally in favor of the SARR or the residual incumbent. Thus, the Board has no basis to conclude that the ATC methodology fails to allocate sufficient revenue to the residual incumbent for the tasks that it performs.

Rather than demonstrate that ATC allocates insufficient revenue to the residual incumbent line segments, the Board argues that ATC appears to allocate more revenue to the SARR than is warranted for the tasks that the SARR performs.⁴⁴ The Board’s presumption was never explored, much less proven. Even if the Board’s presumption were correct, which it is not, this comparison is not relevant because the proper focus is upon the services that the incumbent performs over the same segments. Moreover, even if it were relevant, the proper remedial action would be to revisit how the URCS Phase III program allocates terminal and switching costs, not to restrict the use of cross-over traffic.

⁴² See NS Reply at III-A-38.

⁴³ See *Ex Parte 715* at 16, n. 10.

⁴⁴ See *Ex Parte 715* at 16.

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The Board's logic for adopting cross-over traffic restrictions is inconsistent with the foregoing precedent, because the ATC methodology for allocating cross-over revenue has nothing to do with the SARR's operations, but is entirely linked to the incumbent's real-world operations. The Board cannot have its logic both ways. If the Board uses the SARR's operations to determine the fairness of cross-over revenue allocations, it must use the SARR's operations (e.g., density) for all other elements of ATC. On the one hand, if there is a connection, the Board must use the SARR's density rather than the incumbent's in the ATC methodology, which it currently does not do. On the other hand, if there is no intended connection, any alleged "disconnect" discussed in the Notice cannot provide the rationale for limiting the use of cross-over traffic.

Inexplicably, the Board now appears to be abandoning this precedent by claiming that there is a problem caused by a "disconnect" between revenue allocations and the SARR's cost of providing service when no such "connection" was ever intended. The Board either must adhere to its precedent, or recognize its reasoning as a departure from precedent and provide a rational justification for its departure.⁴⁵

**2. The Board's Proposals Would
Bias The SAC Analysis**

As demonstrated in the preceding section, there is no bias in the existing cross-over revenue allocation methodology, when applied to carload and multi-carload traffic, to justify the Board's proposed restrictions upon such cross-over traffic. In contrast, the proposed restrictions themselves would create a significant anti-SARR bias.

⁴⁵ *Assoc. of the United States v. State Farm Mutual Automobile Ins. Co.*, 463 U.S. 29, 48 (1983) (An agency that departs from its own precedent must "cogently explain why it has exercised its discretion in a given manner").

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a. The Board's Proposals Are Overbroad

Even if the Board had identified a real bias, there is a tremendous disconnect between the perceived problem that the Board has identified and its two proposals to address that problem. Both proposals would eliminate not only the perceived “problem” traffic, but also a significant amount of traffic that does not possess the problem characteristics.

In *Ex Parte 715*, the Board explains that its newly-expressed concern with cross-over traffic has arisen due to a shift in recent cases from cross-over traffic that is predominantly trainload service to cross-over traffic that includes large amounts of carload and multi-carload movements.⁴⁶ The Board, however, is not concerned with all carload and multi-carload cross-over traffic. Rather, the Board is concerned with SARRs that construct a short segment over a high-density line and primarily serve as a bridge carrier that handles most of its traffic (a significant portion of which is single car and multiple car traffic) in so-called “hook-and-haul” overhead trainload service, leaving the residual incumbent to perform more costly terminal activities.⁴⁷ Therefore, the Board has solicited comments on two options for restricting this type of cross-over traffic. Both options, however, are so broad that they would eliminate significant amounts of cross-over traffic that the Board has not identified as a “problem.”

The first option would exclude all cross-over traffic unless the SARR either originates or terminates that traffic.⁴⁸ The Board's presumption seems to be that a SARR that does not originate or terminate a movement will not perform any “costly” switching and handling

⁴⁶ See *Ex Parte 715* at 16. This shift has primarily arisen due to the Board's creation of internal cross-subsidy analyses, which require the shipper to include sufficient traffic over the investment and operating cost of each SARR segment.

⁴⁷ *Id.* at 16.

⁴⁸ *Id.* at 17.

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services, such as I&I switching. Although such cross-over traffic would not move in the “hook-and-haul” service that concerns the Board, the first proposal nevertheless would exclude all such traffic (including traffic that the SARR re-blocks at intermediate yards).

The substantial over breadth of the first option is exemplified in this proceeding. NS has estimated that the Board’s first proposed restriction would eliminate 38 percent of the SARR’s traffic.⁴⁹ The SunBelt SARR, however, includes significant volumes of overhead cross-over traffic for which the SBRR performs I&I switching, thereby incurring comparable costs to those incurred by NS for intermediate handling. The fact is that the SunBelt cross-over traffic is not predominantly hook-and-haul overhead movements that are originated/terminated by the residual incumbent. In all, less than 1 percent of the SBRR’s traffic constitutes the type of “hook-and-haul trainload” traffic about which the Board has expressed concern.⁵⁰ Yet according to NS, the Board’s first proposal would eliminate 38 percent of the cross-over traffic.

The second option would exclude all cross-over traffic except for trainload movements.⁵¹ In other words, the only cross-over traffic that would be allowed on the SARR would be real-world unit train movements. This would eliminate all carload and multi-carload cross-over traffic, even if the SARR actually originated or terminated that traffic.

The Board may not, and should not, impose any limits upon cross-over traffic. However, even assuming arguendo that the Board has identified a problem with cross-over traffic that

⁴⁹ See NS Reply at III-A-40.

⁵⁰ Only 1,511 carloads in the 1Q-3Q 2011 time period meet the AEPCO criteria. See: “dbo_Sunbelt SRR Main Traffic Group with waybills rebuttal 2011 MiscTests.mdb” at Query “Quantify AEPCO MMM Adj Traffic” See also: “SRR Traffic Selection Methodology v5 rebuttal.docx” at Step 15.5.

⁵¹ See *Ex Parte 715* at 17.

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should be addressed, both of its proposed solutions would eliminate far more than just the alleged “problem” traffic.

b. The Board’s Proposals Would Severely Under-Allocate Cross-Over Revenue To The SARR Using Either Modified-ATC Or Alternate-ATC

The Board’s attempt to avoid the misperception that ATC over-allocates revenue to the SARR would in practice substantially under-allocate revenue to the SARR. This is because, although ATC allocates cross-over revenue to the on-SARR and off-SARR line segments based upon the real-world traffic densities of the incumbent, the proposed restrictions upon cross-over traffic will restrict the SARR from achieving the traffic density of the incumbent. The result would be a significant “disconnect” between the high per-unit fixed costs the SARR would need to recover over those lines and the incumbent’s low per-unit fixed costs reflected in the ATC divisions. This is true for both Modified-ATC and Alternate-ATC, although the under allocation is magnified by Alternate-ATC.

Traffic density is the central tenet of ATC.⁵² “The ATC method calculates the average total cost per ton associated with the segments at issue,”⁵³ which will be higher on light density segments than on high density segments. As a result, ATC will allocate more revenue to lighter-density line segments based on the segments’ relative fixed cost components.⁵⁴

Because the SARR will have much lower traffic density than the incumbent over the same line segment due to the cross-over traffic restrictions, it will have a higher average total cost per ton for that segment. This means that the SARR requires more revenue to cover that

⁵² See *Major Issues* at 33-34.

⁵³ *Id.* at 34.

⁵⁴ *Id.* at 35.

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higher cost. However, because ATC allocates cross-over revenue on the basis of the incumbent's higher real-world traffic density, ATC would not allocate sufficient revenue to the SARR under the Board's proposed cross-over restrictions. Therefore, despite its lower density, the SARR will receive less cross-over revenue even though it in fact needs more revenue to cover its average total cost per ton.

In essence, the Board intends to justify cross-over traffic restrictions based upon a perceived "disconnect" between SARR variable costs and incumbent variable costs, but the restrictions themselves would create an even larger disconnect between SARR average fixed costs and incumbent average fixed costs. Therefore, the Board would also need to use the SARR's traffic density to recalibrate the average fixed cost component for the on-SARR movement segment in the ATC calculation so as to avoid the creation of an even larger "disconnect" between the SARR's fixed cost recovery requirements and the revenue allocated to the SARR.

**D. SUNBELT HAS NOT ABUSED
CROSS-OVER TRAFFIC**

A fundamental predicate to the NS argument, as with the *Ex Parte 715* rulemaking itself, is that there has been an abuse of cross-over traffic that creates a bias in favor of complainants in SAC proceedings. That simply is not the case.

**1. SunBelt Has Used Cross-
Over Traffic Consistent
With STB Precedent**

Cross-over traffic has been an essential tool in making the SAC analysis manageable for nearly 20 years. The Board first approved the use of cross-over traffic in *Nevada Power II*

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because excluding cross-over traffic “would weaken the SAC test” by “depriv[ing] the SARR of the ability to take advantage of the same economies of scale, scope and density that the incumbents enjoy over the identical route of movement.”⁵⁵ SunBelt has used cross-over traffic in its SAC analysis consistent with the long line of STB precedent on this issue.⁵⁶

In 2004, the STB, citing to this long line of precedent, confirmed that “[t]he use of cross-over traffic to simplify the SAC presentation is a well-established practice.”⁵⁷ That was more than nine (9) years ago during which the practice has become even more entrenched. The STB pointed to multiple reasons why cross-over traffic is both necessary and desirable:

Permitting [the complainant] to use cross-over traffic in its SAC presentation... keeps the SAC analysis properly focused on the core inquiry—whether the defendant railroad is earning adequate revenues on the portion of its rail system that serves the complaining shipper.

Creating a SARR to serve the same traffic group without using the cross-over traffic device would dramatically enlarge the geographic scope of a SARR” by requiring a complainant to build a SARR capable of handling the cross-over traffic from its origin to its destination, thus including far more facilities than those needed to handle the issue movement.⁵⁸

Because each such extension of the SARR to handle one group of cross-over traffic from origin to destination would create a new group of cross-over traffic in order “to generate the same economies of density” that the defendant railroad enjoys over the extended SARR, “[t]he cascading analysis could result eventually in a complainant having to replicate

⁵⁵ See *Nevada Power II* at 265, n. 12.

⁵⁶ See, e.g., *Otter Tail*, slip op. at 13. (“Accordingly, we affirm the ability of a complainant to use cross-over traffic, which is now a bedrock feature of the SAC test” [emphasis added]).

⁵⁷ See *PSCo/Xcel* at 601 [citations omitted] [underline added].

⁵⁸ *Id.*

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almost all of [the defendant's] system. The scope and complexity of the proceeding would expand exponentially.⁵⁹

The use of cross-over traffic thus provides a reasonable measure of simplification that allows SAC presentations to be more manageable. Curtailing the geographic scope of the SARR greatly simplifies the operating plans that must be developed, thus limiting the complexity of what is nevertheless still a dauntingly large and detailed task. Without cross-over traffic, captive shippers might be deprived of a practicable means by which to present their rate complaints to the agency.⁶⁰

The SBRR, which is 581 miles long, would be larger and more complex if the Board were to require SunBelt to include more facilities than those needed to handle the issue movements. Moreover, each expansion of the SARR to include the facilities needed to handle one group of cross-over traffic would create a new group of cross-over traffic requiring another expansion, until the SARR has replicated the entire NS network.⁶¹ When the Board described the objective of cross-over traffic as “limiting the complexity of what is nevertheless still a dauntingly large and detailed task,”⁶² it was referring to a SARR that had only 396.2 route miles.⁶³ The SBRR, which is nearly 190 miles longer, presents an even more compelling argument for the use of cross-over traffic.

SunBelt has used cross-over traffic to accomplish the very objectives that underlie the Board's long-established precedent permitting such traffic. SunBelt is trying to limit the complexity of an already “dauntingly large and detailed task.” Without the cross-over traffic

⁵⁹ Id at 602.

⁶⁰ Id at 603.

⁶¹ Id at 602.

⁶² Id at 603.

⁶³ Id at 632.

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device, SunBelt could be deprived of a practicable means by which to present its rate complaint to the Board.

**2. The SBRR Does Not Implicate The
Concerns With Cross-Over Traffic
Expressed in *Ex Parte 715***

In *Ex Parte 715*, the Board explained that its new-found concern with cross-over traffic has arisen due to a shift in recent cases from cross-over traffic that is predominantly trainload service to cross-over traffic that includes large amounts of carload and multi-carload movements.⁶⁴ The Board noted that:

In recent cases, litigants have proposed SARRs that would simply hook up locomotives to the train, would haul it a few hundred miles without breaking the train apart, and then would deliver the train back to the residual defendant. All of the costs of handling that kind of traffic (meaning the costs of originating, terminating, and gathering the single cars into a single train heading in the same direction) would be borne by the residual railroad. However when it comes time to allocate revenue to the facilities replicated by the SARR, URCS treats those movements as single car or multi-car movements, rather than the more efficient, lower cost trainload movements that they would be. As a result, the SAC analysis appears to allocate more revenue to the facilities replicated by the SARR than is warranted.⁶⁵

The Board has proposed new limits upon the use of cross-over traffic, because of this perceived “disconnect between the hypothetical cost of providing service to these movements over the segments replicated by the SARR and the revenue allocated to those facilities.”⁶⁶ According to the Board, “[w]ithout a means of correcting or minimizing the bias..., we need to address the use of cross-over traffic in Full-SAC cases.”⁶⁷

⁶⁴ See *Ex Parte 715*, slip op. at 16 and n. 10

⁶⁵ See *Ex Parte 715*, slip op. at 16 [emphasis added].

⁶⁶ Id.

⁶⁷ Id.

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Because the Board has expressed concern with the nature of cross-over traffic, not the amount, handled by a SARR, NS's focus upon how much cross-over traffic the SBRR handles is irrelevant.⁶⁸ Specifically, the Board is concerned with SARRs that construct a short segment over a high-density line and primarily serve as a bridge carrier that handles most of its traffic (a significant portion of which is single car and multiple car traffic) in hook-and-haul overhead trainload service, leaving the residual incumbent to perform more costly terminal activities. The SBRR handles very little cross-over traffic of this type that underlies the concerns expressed by the Board in *Ex Parte 715*.

Less than 1 percent of the SBRR's traffic constitutes the type of "hook-an-haul overhead trainload service" traffic that concerned the Board in *Ex Parte 715*. This is because the SBRR performs I&I switching on most of its overhead cross-over traffic at Birmingham, AL, and other yards. This means that the SBRR incurs comparable costs to those incurred by NS for intermediate handling. Furthermore, much of the SBRR's cross-over traffic is interchanged to western railroads – not NS – at New Orleans, and therefore is not overhead traffic interchanged to the residual incumbent on both ends.⁶⁹ In other words, the SBRR cross-over traffic is not predominantly hook-and-haul overhead movements. For other cross-over movements where the SBRR acts only as a bridge carrier, NS also is only a bridge carrier, but over a larger geographic footprint, which means that neither the SBRR nor the residual NS provides more costly terminal services. Rather, they are both providing hook-and-haul service.

⁶⁸ See NS Reply at III-A-36-37.

⁶⁹ Id.

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The NS claim that the SBRR does not provide I&I switching is untrue.⁷⁰ Furthermore, NS claims, without offering any support, that even after NS has provided for these services in its operating plan, the ATC methodology still would over-allocate revenue to the SARR.⁷¹ Because NS has not attempted to support or even explain its logic, there is nothing for SunBelt to rebut or the Board to accept.

Assuming, arguendo, that the Board has identified a genuine bias from certain types of cross-over traffic, only a small portion of the SBRR's cross-over traffic is the type that creates this alleged bias. Consequently, there is no purpose in applying cross-over traffic restrictions in this proceeding.

⁷⁰ See NS Reply at III-A-38.

⁷¹ Id.

Comparison Of SunBelt and NS Revenue and Volumes Forecast Procedures

Revenue

<u>Commodity</u>	<u>SunBelt Opening</u>		<u>NS Reply</u>		<u>SunBelt Rebuttal</u>	
	<u>2012-2016¹</u>	<u>2017-2021²</u>	<u>2012-2016⁴</u>	<u>2017-2021²</u>	<u>2012-2016⁴</u>	<u>2017-2021²</u>
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1. 10	NS Internal Forecast	RCAF	NS / St to St Forecast	RCAF	NS / St to St Forecast	RCAF
2. 20	NS Internal Forecast	RCAF	NS / St to St Forecast	RCAF	NS / St to St Forecast	RCAF
3. 25	NS Internal Forecast	RCAF	NS / St to St Forecast	RCAF	NS / St to St Forecast	RCAF
4. 30	NS Internal Forecast	RCAF	NS / St to St Forecast	RCAF	NS / St to St Forecast	RCAF
5. 40	NS Internal Forecast	RCAF	NS / St to St Forecast	RCAF	NS / St to St Forecast	RCAF
6. 60	NS Internal Forecast	RCAF	NS Internal Forecast ¹	RCAF	NS Internal Forecast ¹	RCAF
7. 80	NS Internal Forecast	EIA Escalator ³	NS / St to St Forecast	EIA Escalator ⁵	NS / St to St Forecast	EIA Escalator ⁶
8. IM	NS Internal Forecast	RCAF	NS / St to St Forecast	RCAF	NS / St to St Forecast	RCAF

Volumes

<u>Commodity</u>	<u>SunBelt Opening</u>		<u>NS Reply</u>		<u>SunBelt Rebuttal</u>	
	<u>2012-2016¹</u>	<u>2017-2021⁷</u>	<u>2012-2016⁴</u>	<u>2017-2021⁸</u>	<u>2012-2016⁴</u>	<u>2017-2021¹⁰</u>
(1)	(2)	(3)	(4)	(5)	(6)	(7)
9. 10	NS Internal Forecast	CAGR	NS / St to St Forecast	2016	NS / St to St Forecast	CAGR
10. 20	NS Internal Forecast	CAGR	NS / St to St Forecast	2016	NS / St to St Forecast	CAGR
11. 25	NS Internal Forecast	CAGR	NS / St to St Forecast	2016	NS / St to St Forecast	CAGR
12. 30	NS Internal Forecast	CAGR	NS / St to St Forecast	2016	NS / St to St Forecast	CAGR
13. 40	NS Internal Forecast	CAGR	NS / St to St Forecast	2016	NS / St to St Forecast	CAGR
14. 60	NS Internal Forecast	CAGR	NS / St to St Forecast	2016	NS / St to St Forecast	CAGR
15. 80	NS Internal Forecast	CAGR	NS / St to St Forecast	EIA Demand Regions ⁹	NS / St to St Forecast	EIA Demand Regions ⁹
16. IM	NS Internal Forecast	CAGR	NS / St to St Forecast	2016	NS / St to St Forecast	CAGR

(See, page 2 of 2 for footnotes)

Comparison Of SunBelt and NS Revenue and Volumes Forecast Procedures

FOOTNOTES:

- 1/ Represents NS system internal forecasts provided in discovery.
- 2/ Forecasted change in the Rail Cost Adjustment Factor Indexes.
- 3/ EIA AEO Final Release 2012 Indexed EAST Transportation Escalator from the Annual Energy Outlook 2012, 2011-2035.
- 4/ Represents NS system internal forecasts on a state-to-state basis used by NS in Reply
- 5/ EIA AEO Final Release 2012 Indexed EAST Transportation Escalator from the Annual Energy Outlook 2012, 2011-2035.
- 6/ EIA AEO Final Release 2013 Indexed EAST Transportation Escalator from the Annual Energy Outlook 2013, 2012-2040.
- 7/ Compound annual growth rate ("CAGR") based on NS' system internal forecasts provided in discovery.
- 8/ NS used 2016 change in volumes for all commodities for each year 2017-2021, except coal.
- 9/ EIA AEO 2012 Final Release Coal Demand Region, "Alabama and Mississippi".
10. CAGR based on NS' internal forecasts on a state-to-state basis used by NS in Reply.

DATA SUFFICIENCY REBUTTAL**A. INTRODUCTION**

NS's Exhibit III-C-8 is an attempt to: (1) justify NS's production of deficient data; (2) minimize the significance of the effort SunBelt was forced to expend to develop a workable model from NS's woefully deficient data; and (3) mischaracterize the nature of SunBelt's approach as being simplistic and based on shortcuts. The Board should reject these NS attempts to foist the shortcomings of its own data upon SunBelt.

First, NS's data production was deficient. On the very first page of Reply Exhibit III-C-8, NS states:

SunBelt had all the information it needed, and more, to develop and present a complete and accurate SAC analysis. Despite the availability of that data, SunBelt failed to present a feasible operating plan.¹

NS expounds at pages 7 and 8.

SunBelt... was able to create a database from the NS data that contained all of the information needed for SunBelt to develop a "complete" train service plan—but (inexplicably) chose not to use that database in preparing its operating plan.²

However, this statement is belied by the fact that NS found it necessary to use a computer program called MultiRail to develop an operating plan from the data NS provided to SunBelt. It is also belied by the fact that NS relied on the use of local and through train schedules, and not actual movement data, to develop its operating plan. If the database SunBelt created from the NS traffic data produced in discovery actually contained all the data that was needed to develop a complete train service plan, then NS would not have had to use MultiRail and unsupported train schedules to develop alternate train data in order to develop the operating plan it submitted in Reply.

¹ See NS Reply Exhibit III-C-8 at 1.

² See NS Reply Exhibit III-C-8 at 7, emphasis in original.

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No party in any rate case ever decided by the Board has needed to use MultiRail (or a similar program) to manipulate the traffic data in order to develop a feasible operating plan.³ In all prior cases decided by the Board, the complainants and railroads alike have developed operating plans based strictly on the provided waybill, car event, and train event data. In all cases, the railroads' waybill and car event data have been used to select SARR traffic and calculate revenue divisions. In all cases, the railroads' train event data have been used to model SARR operations and develop SARR operating plans. In this case, SunBelt followed the well-established and mutually accepted practice of modeling described above, made exponentially more difficult than in prior cases for all the reasons explained in its Opening Exhibits III-A-2, III-A-3, and III-C-1.

NS now objects to the use of its data as provided, and instead uses a third party software program (i.e., MultiRail) to morph its provided data into something it contends is more suitable for developing a SARR operating plan. NS's discussion of the subject is intentionally misleading. NS states:

NS did not rely upon any data that was not made available to SunBelt in discovery to ascertain the origins and destinations, customer locations, and classification and switching requirements for the merchandise and intermodal traffic that the SBRR would carry.⁴

While the statement above is technically correct, it misses the point. NS may have nominally used the same data it provided in discovery, but NS relied on an esoteric software package, that costs six figures, to manipulate the data it provided into something several degrees

³ The RTC model, the Rail Dispatch and Capacity Analysis Model ("RDCAM") or the Railway Analysis and Interactive Line Simulator ("RAILS") used by railroads in prior SAC cases test the capacity of a railroad system by flowing trains over the system. Such analyses are different from the analyses developed using MultiRail, which develops the trains that are then input into capacity models.

⁴ See NS Reply Exhibit III-C-8 at 1, emphasis in original.

DATA SUFFICIENCY REBUTTAL

removed from the data it provided. The transformed data then become the foundation of an entirely new operating plan that is completely untethered from NS's real-world operations.

Second, NS strongly implies that, because SunBelt "was able to use the NS data to develop a database that linked all waybills, car event data, and historical NS trains associated with all of the traffic that SunBelt selected for the SBRR,"⁵ and because SunBelt "managed to select a body of traffic and model[] a SARR,"⁶ somehow the obstacles SunBelt was forced to overcome must have been insignificant and are not worthy of discussion. The challenges SunBelt was forced to overcome are well chronicled in the record, and they were numerous and substantial by any measure. NS correctly states that SunBelt was able to overcome most of them, but doing so took great time and effort. NS's argument is akin to saying that constructing the Great Wall of China must not have been difficult, seeing as somebody "managed" to do it.

Third, NS grossly mischaracterizes SunBelt's analyses and models as simplistic and reliant on shortcuts. As "data experts,"⁷ NS witnesses Fisher and Matelis surely recognize that data-intensive modeling frameworks must be structured to ensure the development of repeatable results through documented processes using clearly defined algorithms. However, NS is critical of SunBelt's modeling framework as being misguided because it is designed to be a "simple, repeatable, mechanical [and automated] process."⁸ In addition, NS misstates the goal of SunBelt's methodology—which is to use known, documented, repeatable, mechanical processes to develop its traffic group and operating plan from the provided data—as a desire to reduce the SAC analysis to a "mathematical exercise."⁹ This is simply not the case. By NS's admission,

⁵ See NS Reply Exhibit III-C-8 at 1.

⁶ See NS Reply Exhibit III-C-8 at 4.

⁷ See NS Reply Exhibit III-C-8 at 3.

⁸ See NS Reply Exhibit III-C-8 at 1.

⁹ See NS Reply Exhibit III-C-8 at 5.

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SunBelt “performed a detailed, multi-step analysis using several data sources provided by NS in discovery,”¹⁰ and “was able to compile a complex database from NS data for its traffic and revenue purposes.”¹¹ SunBelt developed a detailed database and used it to identify the SBRR traffic, calculate the NS net revenues, develop the SBRR revenue divisions, and identify the trains moving the SBRR traffic. As was well documented in SunBelt’s Opening Evidence, all of these tasks were “complicated process[es] that requires expert analysis of traffic records and train and car movement data.”¹² To suggest that SunBelt’s Opening Evidence was purely a “mathematical exercise” is ridiculous.

NS takes its critique one step further into the world of make believe through claims that SunBelt’s analysis employs several “shortcuts.” Specifically:

In filing its Opening Evidence, SunBelt took multiple shortcuts, which among the most egregious, include failing to provide local origin train service for 91% of its issue traffic and (incorrectly) eliminating more than 1,600 necessary trains from its Operating Plan.

Those shortcuts are all the more inexcusable given that SunBelt was able to use the very same data it complains about in these exhibits to develop a detailed database for purposes of developing its traffic and revenue expenses.

SunBelt tries to blame NS data for the shortcuts and other failings in its Operating Plan and other components of its SAC presentation.¹³

These allegations are complete fabrications. What NS calls “shortcuts” in the SunBelt process are actually data deficiencies. SunBelt could not model the operations of trains that were not included in the provided data. SunBelt could not model the end-to-end operations of carloads for which select train movement records were omitted from the provided data.

¹⁰ See NS Reply Exhibit III-C-8 at 8.

¹¹ See NS Reply Exhibit III-C-8 at 4.

¹² See NS Reply Exhibit III-C-8 at 5.

¹³ See NS Reply Exhibit III-C-8 at 2.

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Evidently NS believes SunBelt should have divined where data provided by NS was missing or erroneous and developed surrogates to fill the voids. SunBelt's failure to model data it was not provided cannot reasonably be considered a "shortcut." The fact that NS did not base its own operating plan on the databases it states SunBelt should have been able to use speaks volumes. NS developed an alternate universe of car and train movement data (using the MultiRail program) to use as inputs to its operating plan development.

SunBelt's Opening Exhibits III-A-2, III-A-3, and III-C-1 describe the decision tree SunBelt was forced to undertake and the resulting analytical framework SunBelt was forced to develop to utilize NS's deficient data sets, and explain the "significant delays" it encountered in undertaking those tasks.

NS saves its harshest criticism for the SunBelt analyses that support the development of its SBRR operating plan. Amazingly, most of NS's angst is caused not by SunBelt's modeling techniques or underlying programming, but rather by the data SunBelt used as inputs to its models. NS argues that the provided NS Train Event data is not a valid or reasonable input data source for developing an operating plan (largely because it lacks critical information), and that the operating plan should have been developed based on analysis of NS's car event and waybill data. For example:

SunBelt's attempt to rely upon the train event data to develop a 'carload' based railroad is misguided.¹⁴

SunBelt's attempt to rely upon 'train event' data to develop routing data and dwell points and to establish local service requirements, is

¹⁴ See NS Reply Exhibit III-C-8 at 5.

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fundamentally flawed. NS train event data is not maintained at such a granular level.¹⁵

[C]ar event data was the appropriate dataset for purposes of developing an operating plan.¹⁶

One cannot develop an operating plan for a carload network by using only train event data.¹⁷

[C]reating instead a 'trainload' railroad that does not provide all of the required services to its customers.¹⁸

This is yet another example of SunBelt's misplaced reliance on the train event data, which is not designed to provide the sort of detailed analysis SunBelt was seeking to achieve.¹⁹

[T]his issue would have easily been remedied had SunBelt not excluded the car-event data from its analysis.²⁰

This car-specific data could easily have been used to clarify any inconsistencies in the train sheets.²¹

NS openly and repeatedly attempts to discredit the reliability and usefulness of its own train event data, stating that this data is inadequate for the purpose of developing a plan for

¹⁵ See NS Reply Exhibit III-C-8 at 6.

¹⁶ See NS Reply Exhibit III-C-8 at 7.

¹⁷ See NS Reply Exhibit III-C-8 at 16.

¹⁸ Id.

¹⁹ See NS Reply Exhibit III-C-8 at 42.

²⁰ See NS Reply Exhibit III-C-8 at 44.

²¹ See NS Reply Exhibit III-C-8 at 45.

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operating trains over the SARR. As discussed in detail below, this thesis is flawed on both theoretical and mechanical levels. Furthermore, if the train event data are truly as unreliable and inadequate as NS describes them to be, NS's production of the data without disclaiming the deficiencies and errors contained therein is a text book case of sand-bagging.

NS points to an intermediate database SunBelt created as part of its movement routing analysis used in its traffic selection process as proof that errors SunBelt made—not data deficiencies—led to the supposed failure of SunBelt's operating plan. NS states that this intermediate database contained all the data SunBelt needed, and should have been used by SunBelt to develop its operating plan. Specifically:

SunBelt developed a detailed database that linked each NS waybill with the car events (from NS's car event data) that defined the movement of each car over the SBRR system... The SunBelt [] Database also identified the NS trains on which a particular car moved while traversing the SBRR's service territory... The creation of this database required a detailed analysis of NS's car and intermodal event data. SunBelt's ability to manipulate the data to create such a comprehensive database belies its criticisms of the NS data.²²

At the outset, it is important to note that NS fundamentally misunderstands what the database in question (which it incorrectly refers to as the "SunBelt Car/Train Database") contains and how it was developed. NS asserts that the database contains, "linked waybill, train, and car movement data."²³ To the extent NS's statements imply that the database contains train event data, NS is wrong. The database does not contain train event data; it contains train identification data that was pulled from car event data. The database also contains linked waybill, car event, intermodal event, switching, handling line, haulage receivables, and TCS/TDIS data.

²² See NS Reply Exhibit III-C-8 at 8.

²³ See NS Reply Exhibit III-C-8 at 12.

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More importantly, NS fundamentally misunderstands how SunBelt used the database in question to develop the SunBelt operating plan. In fact, NS incorrectly asserts (repeatedly) that the database was not used by SunBelt.

SunBelt... was able to create a database from the NS data that contained all of the information needed for SunBelt to develop a “complete” train service plan—but (inexplicably) chose not to use that database in preparing its operating plan.²⁴

SunBelt failed to use that very same database to develop its Operating Plan.²⁵

SunBelt apparently chose not to take advantage of the linked waybill, train, and car movement data that it compiled for traffic and revenue purposes in developing its operating plan.²⁶

In black and white terms, SunBelt most certainly did use the database in developing its operating plan. Specifically, SunBelt used the database to develop origin station train departure statistics (loaded and empty car counts, train length, train trailing weights) for every train in the peak period RTC analysis and every train in the base period train list from which SBRR operating statistics were developed.²⁷ Furthermore, SunBelt used this database to identify intermediate stop location and car handling activity (pick-ups and set-outs) for all local trains in the peak week and in the base year.²⁸ In fact, elsewhere in Exhibit III-C-8, NS acknowledges this fact. “SunBelt undertook a separate analysis of car event information for local trains.”²⁹

²⁴ See NS Reply Exhibit III-C-8 at 7-8, emphasis in original.

²⁵ See NS Reply Exhibit III-C-8 at 2.

²⁶ See NS Reply Exhibit III-C-8 at 12.

²⁷ See SunBelt Opening workpaper directories \\SunBelt Open\III-C\III-C-2\base stats and \\SunBelt Open\III-C\III-C-2\peak stats.

²⁸ See NS Reply Exhibit III-C-8 at 15.

²⁹ See NS Reply Exhibit III-C-8 at 6-7.

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Nonetheless, NS walks through several examples where it asserts that the database in question could have been used in the development of the SunBelt operating plan. And, to the extent that NS has pointed out a valid adjustment to the modeling of local trains based on expanded use of car event data, SunBelt has incorporated those changes in its Rebuttal RTC simulation and operating plan.

What NS is actually advocating, however, is the outright dismissal of its provided train event data, not the use of its car event data. NS knowingly provided deficient train data that would inhibit SunBelt's development of a seamless operating plan for all selected traffic. NS also knowingly failed to provide a comprehensive database that could have been used in the development of a seamless operating plan for all selected traffic. SunBelt developed a complex database from the hodge-podge of disconnected, disparate databases NS did provide. NS now says that it is this database—one SunBelt created, not one provided by NS—that is the definitive source for data upon which to build a seamless operating plan. Apparently NS has more faith in SunBelt's consultants than it does in its own data management department when it comes to developing reliable databases.³⁰

This lack of confidence by NS in its own data management department at least is consistent with its lack of confidence in its own personnel who devise NS's real-world operating plan. In rejecting SunBelt's operating plan, which adopts the real-world NS operating plan, in favor of the MultiRail-based operating plan, NS is asserting that the MultiRail plan is superior to

³⁰ It should be noted that NS uses a sophisticated data warehousing and business intelligence system in its normal course of business. The system, developed by Teradata, contains a 34 terabyte data warehouse that provides real-time shipment and train information to customers, including gathering detailed information on train arrivals and departures. See SunBelt electronic e-workpaper "Teradata Case On NS Data Warehouse.pdf," which is a case study prepared by Teradata of the data warehouse system it developed for NS.

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the operating plan NS's operations department developed—and actually implemented—using its proprietary planning software for the same traffic group in the real world.

NS argues that SunBelt used the wrong database in developing its operating plan. “If SunBelt had relied upon the [database it created from waybill and car event data], it would have known exactly which cars were on which train at each point along each train's route.”³¹ However, as discussed in detail below and in Part III-C, there are numerous instances (which SunBelt has documented) in which the information in the database SunBelt created from car event and other data conflicts with the information in the train event database upon which SunBelt relied as the primary database for the development of its operating plan. SunBelt did use the car event data to supplement the train data where possible, but when the two data sources contained conflicting information, SunBelt deferred to the train data—the logical primary database for use in modeling train movements in the RTC model. This logic comports with the logic used by all parties in all rate reasonableness cases decided by the Board in the last decade. Notably, the railroad's consultants in all those cases were the same consultants NS is using in this case. Never before in a decided rate case have the railroads—or their consultants—found fault with the train data-based model SunBelt used in this case. In fact, in the last case to be decided—*AEPCO 2011*—the railroads themselves implemented this model on Reply for an alternate SARR configuration they presented.

In addition to its twenty-page argument that a database developed by SunBelt from multiple disparate data sets is a far superior source for NS train movement data than the train event data NS maintains in the normal course of business, NS also uses its Exhibit III-C-8 as a vehicle to respond to SunBelt's chronicling of the data issues it was forced to overcome to

³¹ See NS Reply Exhibit III-C-8 at 17.

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develop and present Opening Evidence. In Opening, SunBelt presented three such Exhibits. Each is discussed separately below.

**B. NS RESPONSE TO SUNBELT
OPENING EXHIBIT III-A-2**

SunBelt Opening Exhibit III-A-2 contained a discussion of ten (10) separate data-related issues that delayed or otherwise complicated SunBelt's data analyses supporting its selection of the SBRR traffic group and its development of movement-specific net revenues. NS addresses each issue separately in part II of its Reply Exhibit III-C-8. NS's overall message is that, because SunBelt was able to overcome the myriad of challenges imposed on it by NS's data production methods, SunBelt should forfeit its right to chronicle the challenges it was forced to overcome. For example:

SunBelt does not allege that it was unable to use the data; rather, it complains only that this exercise was more difficult than it expected. This argument has absolutely no bearing on SunBelt's ability to select a traffic group and present its SAC evidence before the Board.³²

NS's cavalier and flippant dismissal of SunBelt's legitimate documentation of its processes and procedures, including all obstacles to their timely completion, is troubling. The Board must hold NS accountable for its obstructive data production practices. To suggest that NS's production of disjointed and inadequately documented data "has absolutely no bearing on SunBelt's ability" to use the data is absurd. SunBelt stands by its Opening Exhibit III-A-2 as written.

In addition to dismissing SunBelt's process documentation as unworthy of discussion, NS also makes false statements regarding SunBelt's approach. NS incorrectly asserts that SunBelt "sought to reduce the SAC analysis to a purely "mechanical" exercise with as little human input,

³² See NS Reply Exhibit III-C-8 at 29.

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effort, and judgment as possible.”³³ Nowhere did SunBelt state that it sought to avoid human effort, judgment, and decision-making. NS and its consultants are fully aware of the scale and scope of the task SunBelt faced in developing SAC evidence for a SARR of this size. Even with good, reliable data, the sheer volume of data that must be processed through the various analytical models requires that major portions of the analysis be automated. To suggest that the sort of analyses required to be performed should (or could) have been completed without any sort of data processing—i.e., automation—is completely unrealistic. Furthermore, to imply that use of algorithms and automated processes to evaluate the required volumes of data is somehow divorced from the employment of “human input, effort, and judgment” is nonsensical.

For all of NS’s bluster in response to SunBelt’s Opening Exhibit III-A-2, only two small sections contain substantive arguments. Both are addressed fully within the body of SunBelt’s Part III-A Rebuttal evidence. As discussed in Part III-A, SunBelt accepts NS’s adjustments to the methodology SunBelt used to link waybill data records to switching and handling line payments data records. However, NS’s expanded methodology does not exonerate NS for its failure to provide adequate file linking keys and/or instructions. In fact, the linking methodology NS itself developed was admittedly arbitrary and based on the judgment of NS’s consultants, not on any documentation provided by NS in discovery.

Also as discussed at length in Part III-A, NS’s other proposed adjustment to the revenues NS earns—and includes in its R-1 filings—on the intermodal shipments of its subsidiary TDIS (and TCS) is bogus and self-serving. In Reply Exhibit III-C-8, NS attempts to discredit SunBelt’s analysis as unnecessarily complicated. In fact, NS is critical in this one instance of

³³ See NS Reply Exhibit III-C-8 at 24, citing SunBelt Opening Exhibit III-A-2 at 9.

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SunBelt's efforts to "create a complicated link between [] two data sets."³⁴ Apparently NS believes "human input, effort, and judgment" is only valuable and legitimate when exercised by NS's consultants. NS goes so far as to say that, "Contrary to SunBelt's assertion, the separate TCS/TDIS data do not include any records that are needed for the SAC analysis."³⁵ Were this actually true—it is not—NS would surely have objected to their production in the first place. The data clearly are needed for the SAC analysis. This is why SunBelt requested, and NS provided, them in discovery. For reasons clearly articulated in Part III-A, SunBelt continues to include this data (with minor adjustment) in Rebuttal.

**C. NS RESPONSE TO SUNBELT
OPENING EXHIBIT III-A-3**

In Opening Exhibit III-A-3, SunBelt identified five (5) major problems that it encountered when utilizing the NS-produced electronic traffic data to develop required inputs for the calculation of SBRR revenues for cross-over traffic included in the SBRR traffic group: 1) NS actual route of movement; 2) NS mileage by NS segment; 3) NS density by NS segment; 4) NS fixed cost per route mile; and 5) NS variable cost of service. In each of these areas, SunBelt explained the nature of the data deficiency and the special study undertaken to work around the data deficiency.

On Reply, NS responds to each of the five (5) major problems identified by SunBelt. NS's responses fall into one of five categories: 1) SunBelt is correct that the data is insufficient but NS does not have an obligation to produce data that is designed to facilitate SAC analysis;³⁶ 2) SunBelt is correct that the data is insufficient but NS put the data together as best as possible;³⁷

³⁴ See NS Reply Exhibit III-C-8 at 31.

³⁵ Id.

³⁶ See NS Reply, Exhibit III-C-8 at 31-32.

³⁷ See NS Reply, Exhibit III-C-8 at 32.

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3) SunBelt is correct that the electronic data is insufficient but SunBelt should have used maps, track charts or other paper data to make calculations;³⁸ 4) SunBelt is correct that the electronic data is insufficient but NS produced the data in the format in which it is maintained during the ordinary course of business;³⁹ and 5) SunBelt is correct that the electronic data is insufficient but the number of bad files is miniscule.⁴⁰

Nowhere has NS attempted to deny that the data it provided to develop ATC division percentages is deeply flawed. In addition, NS recognizes how difficult, complicated, and time-consuming it is to utilize the NS-produced data to implement the Board's methodology for the calculation of cross-over revenues.⁴¹ But all NS can do is make excuses and allege no harm because SunBelt managed to work through the flaws and deficiencies, even though NS sometimes criticizes the means by which SunBelt has done so. In providing deficient data for the SAC analysis, NS should forfeit its right to criticize SunBelt's reasonable attempts to work through and around those deficiencies.

**D. NS RESPONSE TO SUNBELT
OPENING EXHIBIT III-C-1**

SunBelt Exhibit III-C-1 explained the many flaws included in the NS's train event data, including, but not limited to, duplicate milepost information, missing milepost information, missing station information and missing train statistical information. Individually, each one of

³⁸ See NS Reply, Exhibit III-C-8 at 35.

³⁹ See NS Reply, Exhibit III-C-8 at 34.

⁴⁰ See NS Reply, Exhibit III-C-8 at 36.

⁴¹ See the "Joint Verified Statement Of Benton V. Fisher and Michael Matelis In Support Of Norfolk Southern Railway's Reply To Second Motion To Compel Of E. I. SunBelt De Nemours And Company" attached to "Norfolk Southern Railway Company's Reply To Second Motion To Compel Of E. I. SunBelt De Nemours And Company" filed on August 1, 2011 in this proceeding. In their Joint Verified Statement, NS's experts Fisher and Matelis bemoan and complain to the Board that manipulating NS data is an "onerous task" requiring the utilization of "data that overlaps across different files". Clearly, the NS understands the insufficiency of the electronic data it produced in this proceeding and would prefer not to experience the burden associated with utilizing this data to produce evidence in this proceeding.

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these flaws created an issue with examining and using NS train event data in the preparation of the SAC evidence. However, it is not the individual flaws that really created havoc in SunBelt's analyses, but rather the cumulative and compounding nature of the flaws.

For example, if the only flaw in NS train event data was missing milepost information, SunBelt could have worked around this issue by looking at the milepost information on either side of the missing record in developing its analyses. However, looking at the records on either side of the missing information requires the surrounding data to be accurate in order to make a reasonable inference on the missing information. That was not the case with the NS data. With the train event data provided by NS, the missing information was surrounded by equally flawed information making inferences in many cases unreliable or impossible.

NS's Reply Exhibit III-C-8 attempts to hide this fact by looking at each flaw individually, and dismissing them as small or immaterial. When discussing individual flaws in data that impact millions of records, a small number of flaws quickly become material. When those flaws are compounded by other flaws, their impact grows exponentially.

SunBelt addresses each item in turn below.

1. Duplicate Milepost

SunBelt noted in Opening that it identified 267 duplicate mileposts associated with 2,015,257 train events records.⁴² Because milepost information is the only location information included in NS train event data, the inclusion of duplicate mileposts creates issues in identifying locations along a train's route, especially if the duplicate occurred in the first or last train event record.

⁴² See SunBelt Opening Exhibit III-C-1 at 3.

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In Reply, NS stated that its “system is a product of numerous historic mergers. With each merger, the merged railroad maintained, for the most part, the infrastructure of its predecessors, including the milepost designations for the various districts. As such, duplicate mileposts developed on the system.”⁴³ NS then attempts to dismiss the significance of this data issue by comparing the small number (267) of duplicate mileposts to the total number of train event records (47,962,181).⁴⁴ Also, In Reply, NS states that there are only 91 duplicate mileposts and that SunBelt made erroneous assumptions. As an example of the “erroneous assumption,” NS highlights Milepost 156.00 and states that “SunBelt inferred that this was a milepost duplicated along the segment of line 7 between Norwood, KY and Somerset, KY.”⁴⁵ NS further states that SunBelt “assume[d] numerous duplicate mileposts that in fact do not exist within the data produced to SunBelt in discovery.”⁴⁶

Despite NS’s claim, the record clearly indicates that the duplicate mileposts were included in materials provided by NS in Discovery. Specifically, milepost 156.00 (along with other duplicates) is recorded in the Discovery file “milepost.xlsx.”⁴⁷ Regardless of the cause of duplicate milepost codes in the NS system, they exist and must be accounted for in conducting any analysis that relies on train event data. SunBelt was forced into this exercise because NS did not provide the required data fields (or decoders) or other means to uniquely identify the stations with duplicate mileposts in the Train Event data. NS was fully aware of this issue and chose not to disclose it in discovery, much less provide additional data fields that would have allowed for

⁴³ See NS Reply Exhibit III-C-8 at 37.

⁴⁴ See NS Reply Exhibit III-C-8 at 38.

⁴⁵ Id.

⁴⁶ See NS Reply Exhibit III-C-8 at 39.

⁴⁷ See DVD with Bates # NS-DP-C-DVD-021.

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differentiation between stations with duplicate mileposts (such as district/milepost or subdivision/milepost).

The importance of accurate and well-defined Train Event data is underscored by NS' own admission: "The train event data provided detailed point by point information that could have been used to identify the exact location and route that SunBelt's special study aimed to identify."⁴⁸ NS's defense for its data deficiency rests on a meaningless comparison of the number of duplicate mileposts to the number of train event records. Such a comparison is meaningless because it hides the fact that more than one million individual train event records had to be scrutinized to resolve the duplicate milepost issue.

2. Missing Mileposts

In Opening, SunBelt documented 886,923 train event records with no milepost identified, and stated: "While the number of records with blank mileposts is relatively small, their mere presence creates problems when attempting to use automated programming to work with the data."⁴⁹

In reply, NS states that "SunBelt's assertions amount to little more than a complaint that such minor data errors created problems with its preferred 'automated programming' approach," and "Building a railroad is not an automated process." They further contend: "The fact that SunBelt confronted minor data issues in doing so is no excuse for the shortcuts and failings of SunBelt's submission."⁵⁰

NS's assertion that SunBelt attempted to "build a railroad" using "an automated process" is an exercise in misdirection. SunBelt performed—and documented—a considerable

⁴⁸ See NS Reply Exhibit III-C-8 at 32.

⁴⁹ See SunBelt Opening Exhibit III-C-2 at 4.

⁵⁰ See NS Reply Exhibit III-C-8 at 39.

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amount of “non-automated” work in the development of its Operating Plan. However, so-called “automated” or programmatic processes are necessary to analyze the massive volumes of data required to conduct a SAC analysis, particularly in this case, in which NS provided over 1.2 billion data records in discovery. NS’s attempt to trivialize this issue through a comparison of the number of train event records with no mileposts (886,923) to the total number of train event records (48 million) fails because NS does not acknowledge that a manual inspection of 886,923 records is a monumental undertaking even if it is not required for the other 47 million plus data records.

3. Erroneous Mileposts

In Opening, SunBelt documented 22 mileposts with erroneous information, and stated “erroneous location information causes problems when attempting to route trains and identify origin and destination locations.”⁵¹

NS states that “this complaint relates to a minor data issue that should be easily identifiable (and correctable) by any data analyst.”⁵² NS further states that all the milepost data problems collectively affect a relatively small number (<0.2 percent) of event records. Finally, NS states that, “Origin and destination information is easily discernible from waybill data,” and, “Had SunBelt retained the car-specific data in the database ... it would have easily been able to reconcile any inconsistencies in the data.”⁵³

As with the issues discussed above, this issue cannot be properly evaluated based on the frequency of its occurrence. NS fails to acknowledge the point that relatively small input errors can produce relatively large errors in final results. Furthermore, the City/State data in

⁵¹ See SunBelt Opening Exhibit III-C-2 at 5.

⁵² See NS Reply Exhibit III-C-8 at 40.

⁵³ Id.

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the waybill file and the station (OS) and city/state data in the Car Event file are not as granular as Milepost data.

4. No Station Information

SunBelt stated in Opening that it “identified 281 mileposts that could not be definitely linked to a station or state. While a seemingly innocuous number, these mileposts showed up in 448,151 train event records.” and “SunBelt had to manually impute station and state information for these 281 mileposts.”⁵⁴ NS in reply states that SunBelt “again attempted to mask the fundamental deficiencies of its evidence by citing minor data issues.”⁵⁵

As noted in Opening, SunBelt did account for this data deficiency. SunBelt’s discussion of this issue serves to demonstrate that a small number of data input errors (281 mileposts) had a large impact (481,151 impacted train events) on the analysis. Also, this issue, when considered along with the other issues documented in this Rebuttal Exhibit III-C-1, demonstrates that, in total, the data submitted by NS in discovery is deficient and analyses based on it are unavoidably affected by the inherent deficiencies.

5. Multiple Mileposts per Station

In Opening, SunBelt noted that 1,559 NS stations are associated with multiple mileposts, 1,040 of which were associated with mileposts recorded in the train event data. In reply, NS chides SunBelt for “Complaining about an issue that makes perfect sense in the real world of railroading yet again prov[ing] that SunBelt views the SAC process as an automated, computerized exercise and has made no effort to take into consideration real world operations.”⁵⁶

⁵⁴ See SunBelt Opening Exhibit III-C-2 at 5.

⁵⁵ See NS Reply Exhibit III-C-8 at 41.

⁵⁶ See NS Reply Exhibit III-C-8 at 49-50.

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NS again incorrectly accuses SunBelt of seeking to implement a “completely automated, computerized exercise.” As NS well knows, SunBelt must correctly identify and categorize all mileposts to identify specific and precise “on-SARR” and “off-SARR” locations for every train movement included in the SAC analysis. Because stations encompass multiple mileposts, the SARR does not always include all mileposts within a station.⁵⁷ This issue also highlights the mismatch between the Train Event data (which locates by Milepost) and Car Events (which locates by Station, City, and State).

It is clear that SunBelt did not use an “automated” process to develop the information needed to develop its operating plan.⁵⁸ However, as stated above, it is unrealistic to think that SunBelt would manually assemble the 48 million train event records provided by NS without the use of a digital process to effectively manage and analyze the information. These processes are only as effective as the data input, e.g., “garbage-in/garbage-out.” SunBelt expended considerable effort attempting to fix NS’s flawed data to move it to a point where reasonable inferences could be made.

6. Arrival and Departure Imbalance

SunBelt stated in Opening that there was nearly a 20-to-1 imbalance between train departure events and train arrival events. This data imbalance had serious ramifications for the development of train dwell times used in the SAC analysis.⁵⁹

⁵⁷ See NS Reply Exhibit III-C-8 at 6-7.

⁵⁸ See, e.g., SunBelt Opening e-workpaper “NS Non-Coal Trains - March 1.xlsx,” which develops the initial non-coal train list. If SunBelt had not developed an “automated” process, it would have had to go through the time and effort to manually normalize train location information and train statistical information. Also noted in that Opening workpaper is SunBelt’s use of other supporting NS information, including train scheduling information, to develop its operating plan data.

⁵⁹ See Sunbelt Opening Exhibit III-C-1 at 7.

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In Reply, NS suggested that the “data SunBelt needed was in the car and intermodal event data”, and “Locomotive event data ... also would have been useful to develop dwell times.”⁶⁰ Despite NS’s statement that the needed data was in the car events, review of NS’s work papers reveals that NS actually considered and rejected this very source of data, presumably for the same reason SunBelt did – Car Event data produces inconsistent train dwell times. Instead, as discussed in its Rebuttal III-C narrative, NS relied upon the opinions of its operating witnesses to develop dwell times. SunBelt’s point in Opening remains valid. NS’s Train Event data is insufficient for determining Train dwell times, which NS acknowledges.⁶¹

NS’s claim that the imbalance of arrival and departure times did not impact SunBelt’s transit time analyses because SunBelt developed transit times in its RTC model is nothing but a classic misdirection play. While shippers do not use railroad real-world transit time data to develop SAC, they do use the real world transit times to demonstrate whether the SARR is providing the same or better service than the incumbent railroad as is required in a SAC presentation. The failure of NS train event data to include balanced arrival and departure information made it impossible to compare all of the SBRR’s operations to NS’s actual operations. Stated differently, SunBelt did not use train event arrival and departure information to develop its SAC as NS incorrectly infers, but to measure the SBRR’s performance against the incumbent NS.

⁶⁰ See NS Reply Exhibit III-C-8 at 42-43.

⁶¹ See NS Reply Exhibit III-C-8 at 42.

DATA SUFFICIENCY REBUTTAL**7. Out of Sequence Arrival
And Departure Times**

SunBelt highlighted in Opening that virtually every train had out of sequence train event arrival and departure times.⁶² Specifically, when the departure and arrival events in the Train Event data are aligned sequentially by timestamps, trains appear to jump to locations out of sequence. SunBelt included Attachment No. 3 to Exhibit III-C-1 demonstrating this issue with Train {{[REDACTED]}}, where on two occasions this train arrives at a station after the NS data shows it at already departed from the station. This is not a single isolated example. Almost all train event records produced by NS show this mismatch in train departure and arrival data.

NS states that it: “collected this data from a variety of sources and compiled it to the best of its ability. Thus, the fact that certain arrivals and departures are not in synch is attributable to the fact that the data was collected from different sources because NS does not have one single source for this information.”⁶³ NS further states: “any operating expert reviewing this data clearly would have been able to identify the issue and realize that the train did not return to a prior location in the middle of the route.”⁶⁴ And most importantly it states: “this issue would have easily been remedied had SunBelt not excluded the car-event data from its analysis.” NS attempts to illustrate this “remedy” with a figure listing pertinent Car Event data for the same train highlighted by SunBelt, and NS claims: “car-specific data could easily have been used to clarify any inconsistencies in the train sheets.”⁶⁵

NS’s offered defense of its data actually serves as a condemnation of the same. NS admits that it was fully aware that its train data contained timestamp data that are “not in synch,”

⁶² See SunBelt Opening Exhibit III-C-1 at 8.

⁶³ See NS Reply Exhibit III-C-8 at 44.

⁶⁴ Id.

⁶⁵ See NS Reply Exhibit III-C-8, Figure 9.

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yet did not disclose this known data deficiency to SunBelt. NS's assertions that any "operating expert reviewing this data clearly would have been able to identify the issue and realize that the train did not return to a prior location in the middle of the route" is particularly troubling. NS apparently believes it is incumbent on SunBelt to identify faulty data knowingly provided by NS and replace it with a second-best source file. The slippery slope upon which this argument rests is steep. It is incumbent on NS—not SunBelt—to ensure the reliability of NS's data. To suggest that SunBelt's use of NS's data is inappropriate, because SunBelt should have known the data was flawed, is patently absurd.

SunBelt did recognize the data integrity issue on Opening, and discussed the problem and the reasonable workaround it developed. NS admits that its Train Event data is flawed. But NS faults SunBelt for using the flawed data even though NS failed to disclose the known deficiencies. If NS truly believes that "this issue would have easily been remedied had SunBelt not excluded the car-event data from its analysis", and further "car-specific data could easily have been used to clarify any inconsistencies in the train sheets," then it was incumbent on NS to disclose that known problem and remedy when it provided the data. NS's *post hoc* offer of its preferred solution to a data issue it never disclosed in Reply is classic sandbagging.

Furthermore, NS conveniently ignores the Train Event records in the example it provides as proof that its proposed alternate data source "could easily have been used to clarify any inconsistencies in the train sheets." Car Event data cannot be used to clarify inconsistencies in the train sheets, as NS suggests. If anything, it may in some cases be used in place of train sheet data. When car and train data are evaluated together (as one would do when attempting to clarify inconsistencies), the inconsistencies persist or are even magnified.

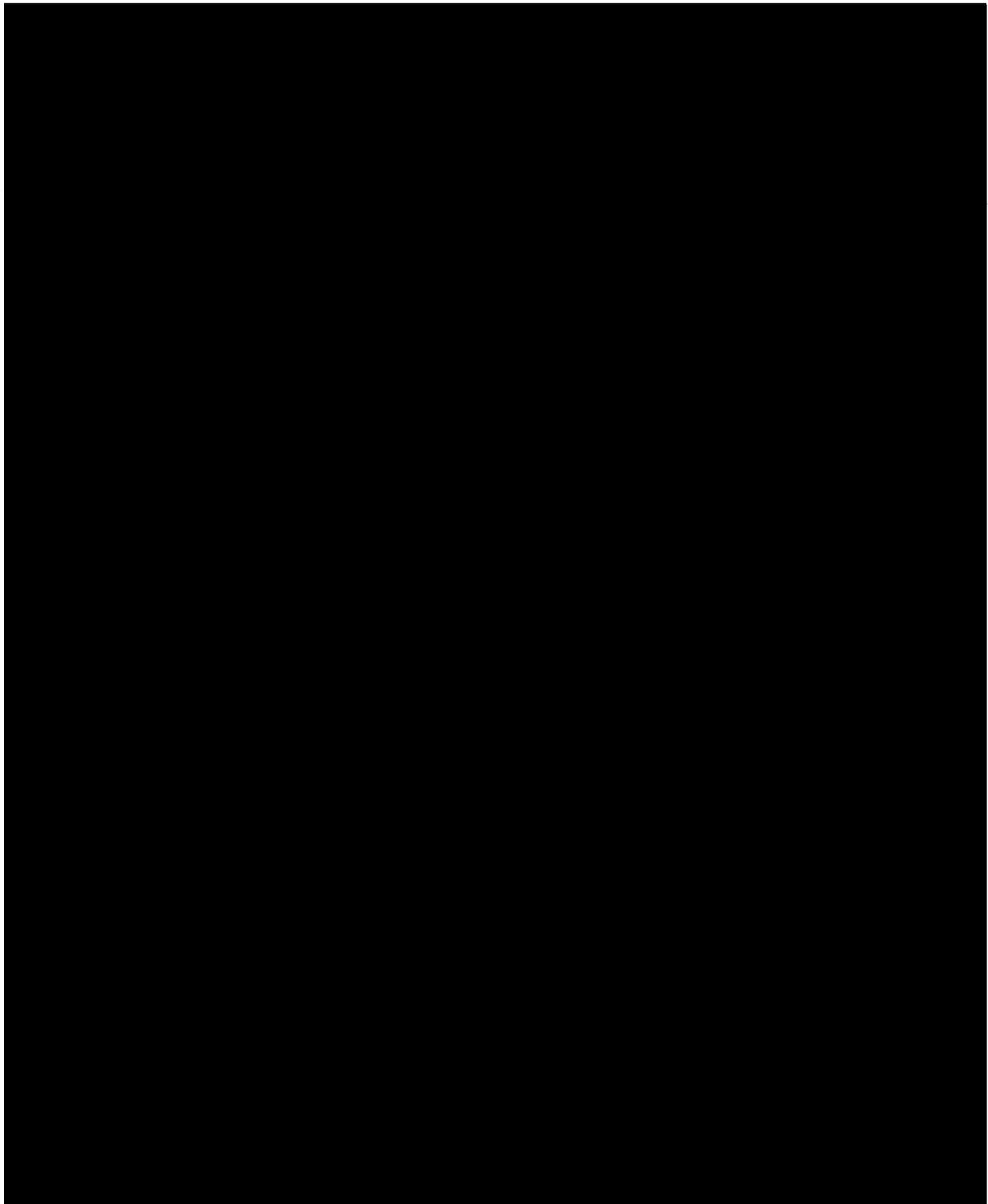
DATA SUFFICIENCY REBUTTAL

SunBelt presents a clear example of this in Figures 1 and 2 below and in the combined train and car event data shown in Attachment No. 1 to this Rebuttal Exhibit. Figure 1 below depicts the routing for train {{[REDACTED]}}, the same train illustrated in Opening and Reply. This train moves from {{[REDACTED]}} to {{[REDACTED]}}, through {{[REDACTED]}}. Based on Train Event departure times, it appears to make an incongruous jump around {{[REDACTED]}}.

DATA SUFFICIENCY REBUTTAL

Figure 1

Plot of Partial Route of Train {{[REDACTED]}}
Based on Departure Train Events

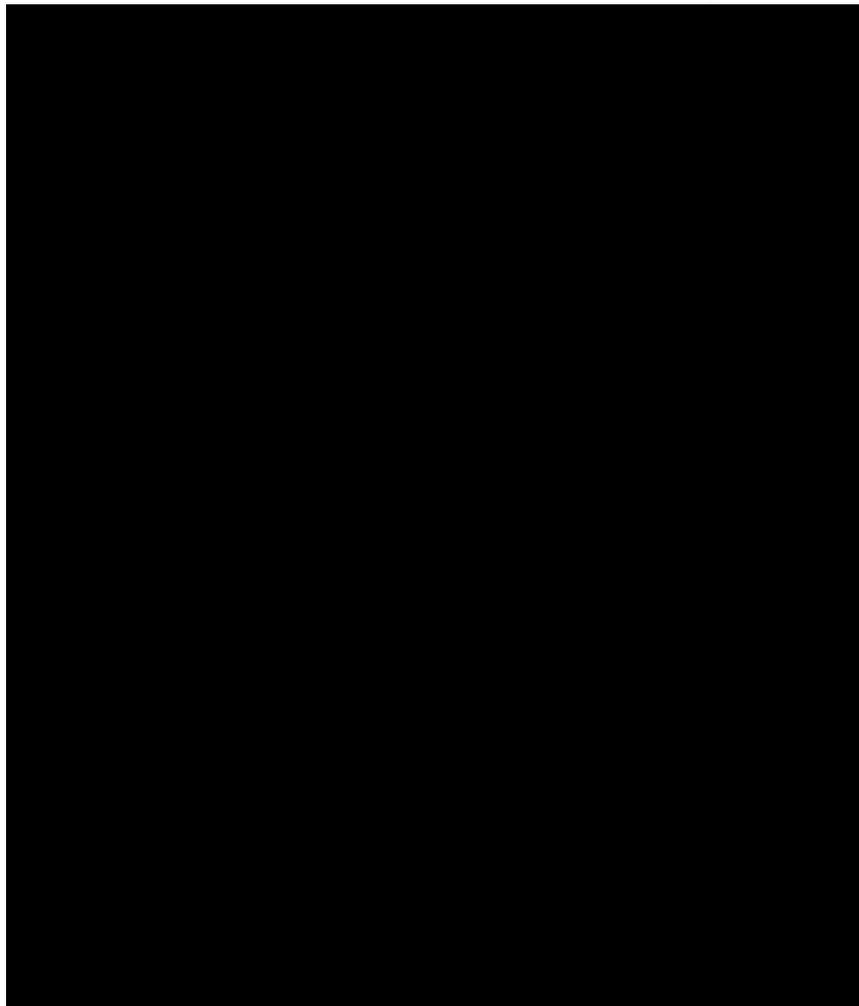


DATA SUFFICIENCY REBUTTAL

The jump, shown in Figure 1 above, required additional investigation to determine if it was the train's true routing, or the manifestation of more flawed NS data.

NS's proffered solution to resolve this discontinuous train event was to use combined car and train event data arrival and departure information, which is shown in Attachment No. 1 to this Rebuttal Exhibit and shown graphically in Figure 2 below. But note that, when both car and train event data are combined for this train, the route of movement becomes even more muddled.

Figure 2
Plot of Partial Route of Train {{ [REDACTED] }}
Based on Departure Train Events Merged with Car Events

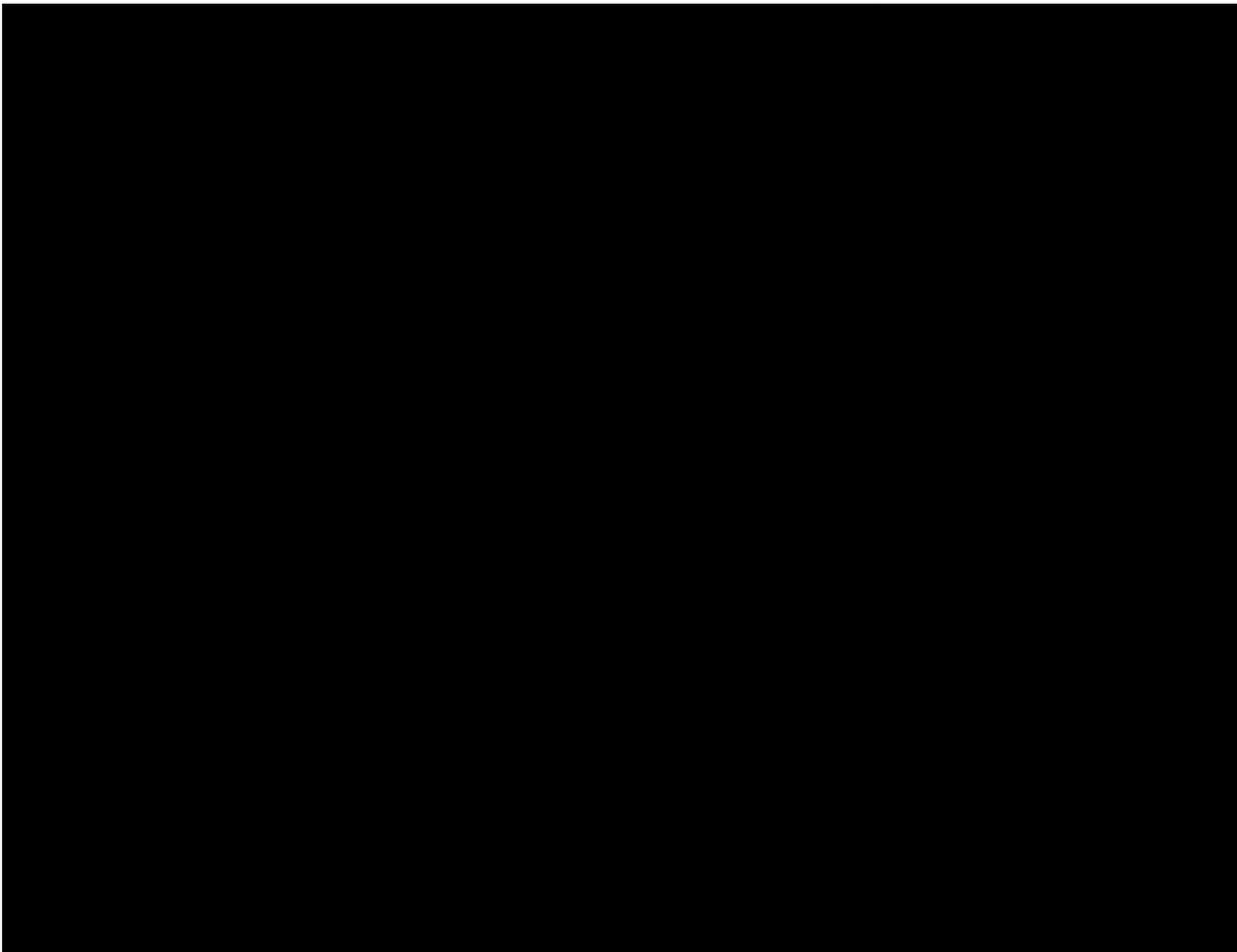


DATA SUFFICIENCY REBUTTAL

As shown in Figure 2 above, the combination of car and train event data provides no usable information on the true routing of this train.

Another example of the flaws in the use of combined car and train event data is shown in Figures 3 and 4 below and Attachment No. 2 to this Exhibit. Figure 3 displays the route of a General Merchandise train based on departure times reported along the train's route.

Figure 3
Plot of Partial Route of Train 130-07/30/2010-0
Based on Departure Train Events

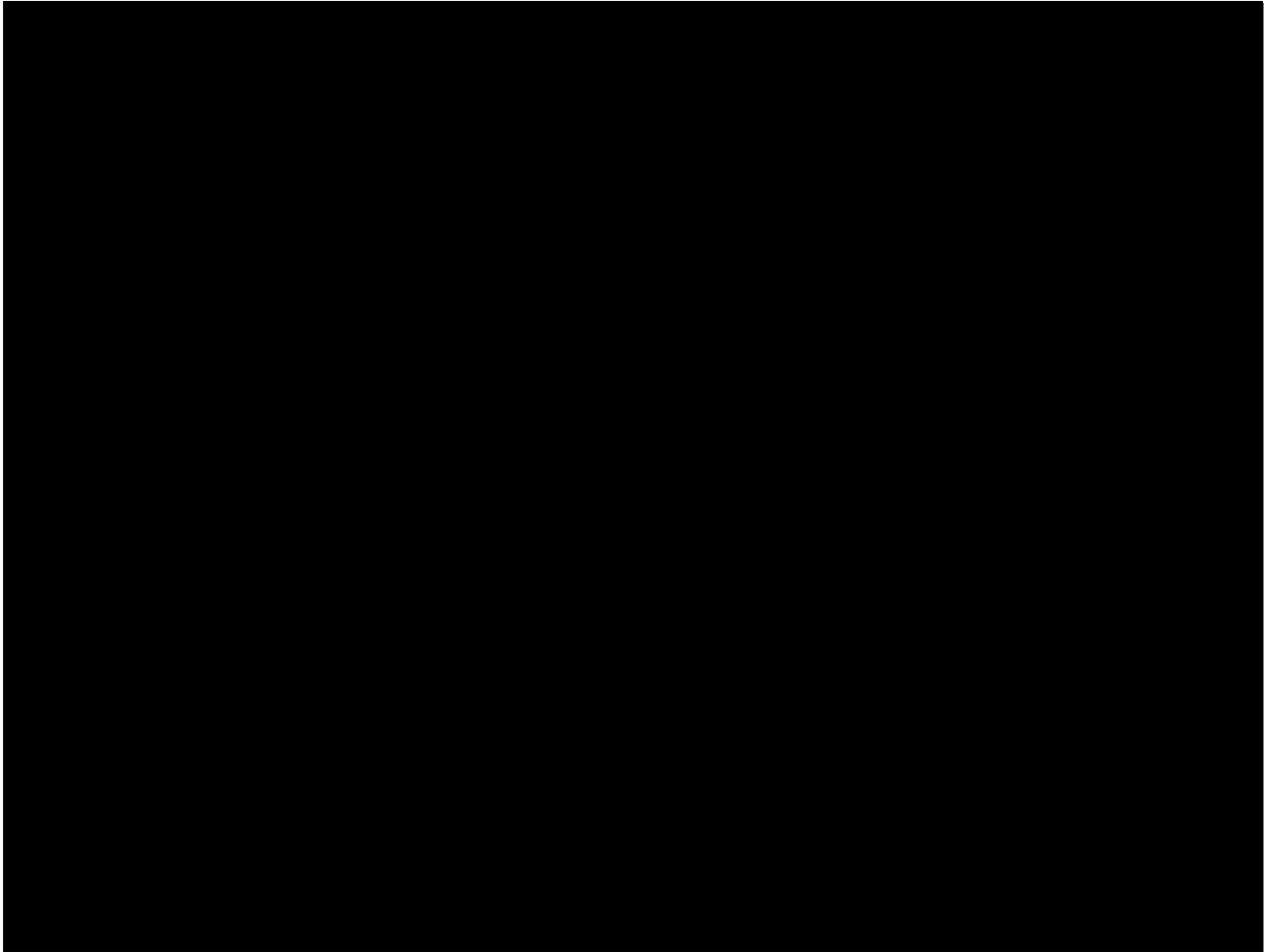


As shown in Figure 3 above, when looking at departure times, this train moves through stations in {{ [REDACTED] }} on the way to the {{ [REDACTED] }}. However, when car and train

DATA SUFFICIENCY REBUTTAL

departure and arrival times are compiled, the route shows no semblance of logic as shown in Figure 4 below.

Figure 4
Plot of Partial Route of Train 130-07/30-0
Based Departure and Arrival Events

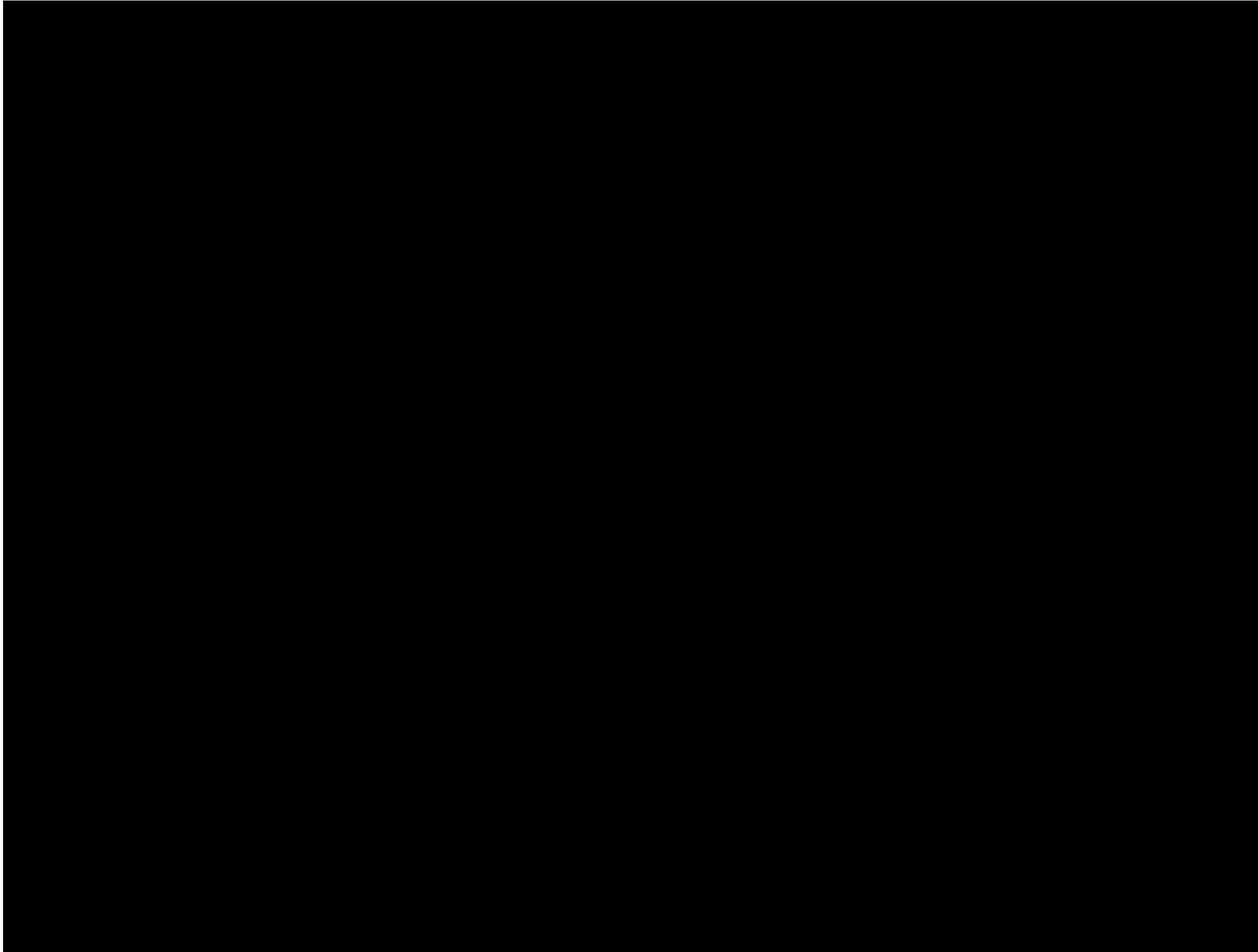


As Figure 4 above shows and Attachment No. 2 details, this train's movements, when considering combined car and train movement arrival and departure events produces an unusual train routing with near impossible speeds to achieve. Also, based exclusively on car event arrival and departure times, this train reported a backtrack of 4.7 miles after departing {{ [REDACTED] [REDACTED] }}.

DATA SUFFICIENCY REBUTTAL

Finally, Figures 5 and 6 demonstrate the flaws in combined car and train event data with a loaded coal train in 2010. Figure 5 below shows the movements of this train from {{[REDACTED]}} based on reported departure events.

Figure 5
Plot of Partial Route of Train {{[REDACTED]}}
Based on Departure Train Events

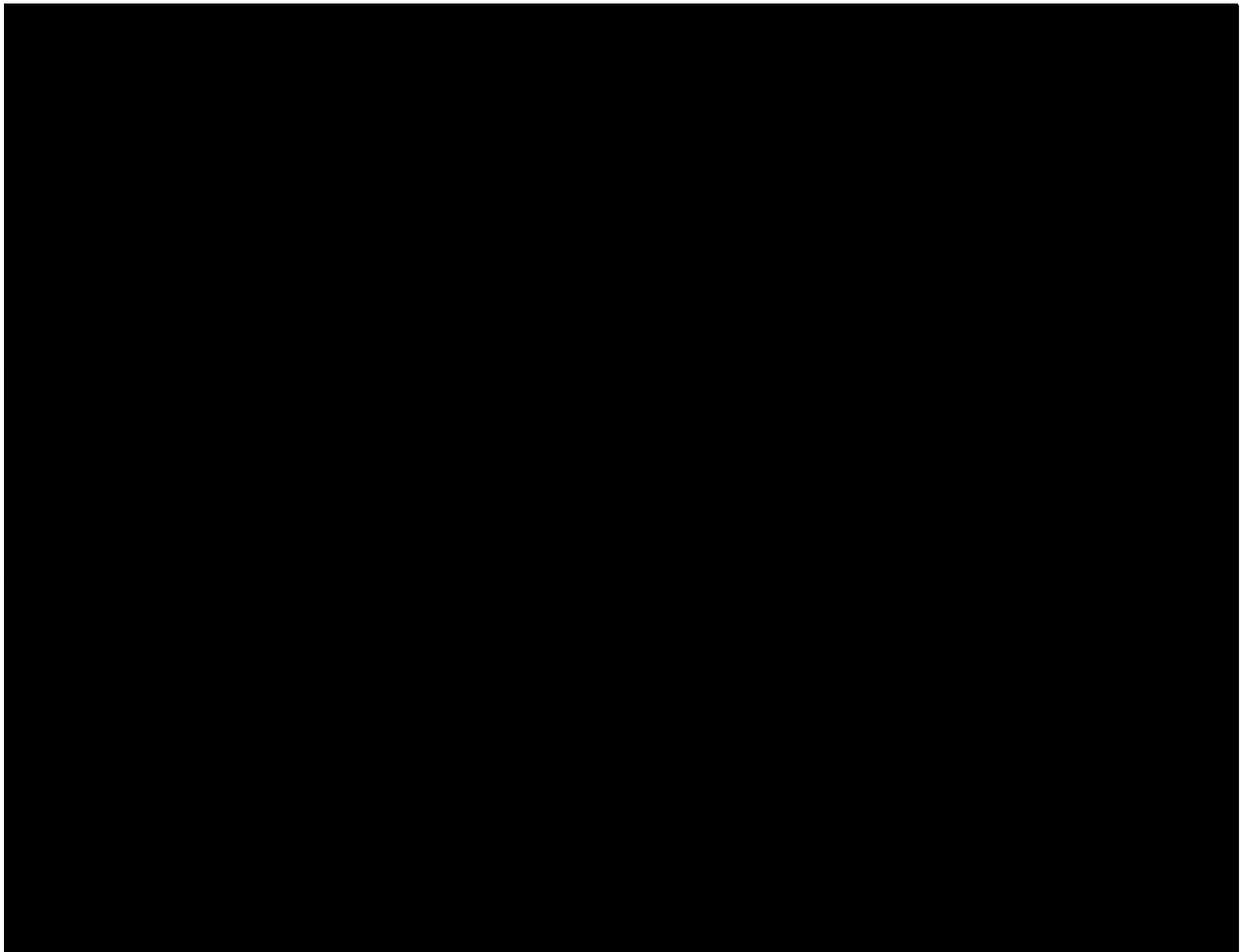


As shown in Figure 5 above, this train moves through {{[REDACTED]}}, headed to {{[REDACTED]}}.

DATA SUFFICIENCY REBUTTAL

However, it is not possible to tell any dwell time in route for this movement. To do this requires the combination of car and train event data, which is summarized in Attachment No. 3 to this Exhibit and graphically displayed in Figure 6 below.

Figure 6
Plot of Partial Route of Train {{[REDACTED]}}
Based on Departure Train Events merged with Car Events



As illustrated in Figure 6 above, when considering Car Events along with Train Events, this train reports a very impractical and nonsensical routing.

Despite NS's claims to the contrary, car event data cannot be used to supplement train event data because combining the two data sources produces illogical results. In reality, NS's

DATA SUFFICIENCY REBUTTAL

position is that: (1) it knowingly provided faulty and deficient train event data; (2) it was under no obligation to disclose the known deficiencies to SunBelt; (3) the deficiencies should have been clear and obvious to SunBelt's experts; and (4) SunBelt should have known it was supposed to ignore the provided train event data and replace it with car event data that does not include location data at a level of granularity that is required to model operations. The Board should reject this attempt to shift the consequences of the defendant's data deficiencies to the complainant, because such data is essential to the SAC analysis.⁶⁶

SunBelt also explained, in Opening Exhibit III-C-1, that it was hampered in modeling local trains, especially local turn trains, and pick-up and set-outs because of the inconsistencies and flaws in NS's data. NS latches onto these inconsistencies to claim that SunBelt did not model these services. NS is wrong. As SunBelt explains in more detail in its Rebuttal narrative, it did model local service and pick-up and set out services where warranted and justified based on the useable data mined by SunBelt.

In its Rebuttal RTC model, SunBelt has updated its model to include stops along the local train for local turn trains and changes in consist sizes for all trains in direct response to NS's criticisms. However, to do this, SunBelt had to once again spend considerable time and effort to scrutinize NS data and to tease out the useable from the unusable. SunBelt continues to have grave concerns about NS's data and its efficacy, but updated its models to be conservative and to address NS's Reply.

⁶⁶ See, e.g., *Guidelines*, at 548 ("We recognize that shippers may require substantial discovery to litigate a case under CMP, and we are prepared to make that discovery available to them."); *AEPCO 2011* at 225 ("Operating in an industry subject to regulatory oversight of rates charged on captive traffic, railroads have a responsibility to provide information needed by the Board.")

DATA SUFFICIENCY REBUTTAL**8. Missing and Truncated
Event Data**

SunBelt explained in its Opening Exhibit III-C-1 that truncated and missing train event data lead to issues with the routing of trains and scheduling train arrival and departure times. NS claims that SunBelt did not need train event data to determine routing and that it could have used waybill data and car event data to develop routes. NS is wrong for several reasons.

First, as discussed and shown graphically above, combining train and car event data in an attempt to determine train routes leads to illogical results. Second, the railroads have previously stated that waybill and train event data cannot be reasonably combined. This issue of the inability to combine waybill and train event data was first raised in *AEPCO 2011* by the defendant railroad and the same consultants used in this proceeding. In *AEPCO 2011*, the shipper in the case attempted to link train event and waybill data based on a perceived flaw in the two datasets.⁶⁷ The two railroads in the *AEPCO 2011* case, the BNSF and UP, dismissed this effort to link waybill and train event data stating that one cannot reasonably link the two because they contain different information:

The two databases [train event and waybill], however, contain different sets of information used for different purposes...BNSF personnel do not, in the ordinary course of business, utilize the two data sets together or even attempt to correlate information in one database with information in the other database.⁶⁸

Since *AEPCO 2011*, shippers have not attempted to link waybill and train event data, because the railroads have clearly stated that they contain different data sets; yet this is what NS now claims SunBelt should have done in this case. Waybill data may show origin and

⁶⁷ See *AEPCO* November 2003 decision at 3 “[t]hat is because *AEPCO* had improperly adjusted the traffic data that it had obtained in discovery to conform to what it viewed as inconsistent train movement data also obtained in discovery.”

⁶⁸ See BNSF Reply Evidence in *AEPCO*, May 27, 2003 (Public Version) at III-A-7.

DATA SUFFICIENCY REBUTTAL

destination information, but it is silent on specific routing of movements and therefore is nearly useless when attempting to determine routing for specific trains. There is simply no merit to NS's claim that SunBelt should have combined train event and waybill data.

In addition to explaining the issues with truncated data, SunBelt included some examples of the issues with the truncated data. NS dismissed the examples as "laughable," but it is NS's misunderstanding of SAC requirements that is laughable. When identifying the routing for trains in SAC cases, especially for trains that a shipper may input into its RTC capacity analysis, it is critical that routings for individual trains are known. A shipper may impute routings for an individual train where the data is truncated, as is the case here, but runs the risk of using an improper routing for that particular train.

This is especially true for the Georgia Power trains included in SunBelt's Opening Exhibit III-C-1 example since the utility has several plants in the area served by the SBRR, and has a history of diverting trains en route from one plant to another. The TRN symbol indicated in the example may indicate a movement to Georgia Power's Scherer generating station, but there is no guarantee that Scherer is the train's actual final destination. Defendant railroads have repeatedly criticized shippers for routing trains different from their real world counterparts.⁶⁹ Apparently, NS is stating that SunBelt should have routed these trains according to their schedule regardless of where their true world counterparts moved.

SunBelt also explained in its Rebuttal III-C-1 that it had to make certain allowances for an inability to definitively identify each train's origin and destination. NS said this was "ludicrous" since SunBelt should have based its operating plan on waybill data and not what it called "historic" NS trains. Once again, it is NS's Reply response that is ludicrous. As explained in

⁶⁹ See, e.g., *TMPA* at 591 and *Duke/NS* at 113.

DATA SUFFICIENCY REBUTTAL

great detail in SunBelt's Rebuttal III-C narrative, both parties in past cases decided by the Board have used "historic" trains as the foundation for their operating plans. In this case, however, NS ignored real world operations in developing its operating plan, and instead delved into a make-believe world using its MultiRail program to develop fictitious trains. Moreover, NS's claim that SunBelt did not need train event data to model peak period coal trains directly contradicts its testimony in the *Duke/NS* and *CP&L* cases, where it stated the shipper was wrong for modeling trains that did not match real world NS trains.⁷⁰

Finally, SunBelt stated that the truncated data did not allow it to link coal trains at origin and destinations. NS alleges that SunBelt was disingenuous with this fact because it is the RTC model that determines when trains arrive and depart, not real world arrival and departure times. NS is absolutely wrong, and either NS is being disingenuous itself or NS truly does not understand the importance of real world arrival and departure times for linking coal trains. The RTC model is a deterministic model that dispatches trains based on data input by the user. For certain trains, especially coal unit trains, departure times from a particular location are a function of their arrival time at that location, or, in other words, a train cannot depart before it arrives at a station. To keep from having the RTC model dispatch an empty coal train from a generating station before its loaded antecedent arrives; users have linked arrival and departure times for these unit trains. To do this requires identifying which loaded and empty trains can be linked from the train event data. In this case, this was not possible due to truncated NS data. NS and its experts, as license holders of the RTC model, should have understood this basic fact.

⁷⁰ See *Duke/NS* at 117 and *CP&L* at 255.

DATA SUFFICIENCY REBUTTAL**9. Inconsistent and Missing
Train Statistics**

SunBelt reported in Opening that train statistics are missing on 94.3 percent of the Train Events records, and that 20.4 percent of identified trains had no statistics reported in Train Events. SunBelt worked around this by using several methods: use of average train statistics for certain train symbols where available, use of averages for train symbol based on base year train event data and use of train statistics derived from car event data.⁷¹

NS explains: “The four fields it evaluated – loaded cars, empty cars, tons, and length – are not typically included in most train event records because they are not collected at such a granular level.”⁷² NS further states that “the car event data identifies which cars were on which train”⁷³, and “The car event data and waybill records reflect changes in the data sets SunBelt sought to evaluate and make it obvious that these were the records that should be relied upon to derive these calculations.”⁷⁴

Here SunBelt is not familiar with NS data collection methods. However, a competent data analyst / database administrator would recognize that data sets should be factored separately if they are not collected at the same granularity (thus having different reference points or primary / foreign relationships). The fact that NS reports train statistics at the Train Events level implies that this is the proper place to summarize such. Lacking the proper segregation of disparate data,

⁷¹ For certain analyses early in the evidentiary process before SunBelt had compiled all of its car event data and train event data, it used average statistics by train symbol. This was required because the development of evidence in a SAC case is not directly linear. If a shipper attempted to develop evidence in a linear manner, it would take the shipper years to develop opening evidence. In this case, SunBelt used averages by train symbol where actual train statistics are not available in the train event data early in the train identification process and RTC input process. Later, after SunBelt had compiled all of its car event data, it used this data to finalize its evidence.

⁷² See NS Reply Exhibit III-C-8 at 59.

⁷³ See NS Reply Exhibit III-C-8 at 50.

⁷⁴ See NS Reply Exhibit III-C-8 at 51.

DATA SUFFICIENCY REBUTTAL

and lacking proper documentation of train statistics in discovery, NS cannot fault SunBelt for the reasonable assumptions it made in this regard.

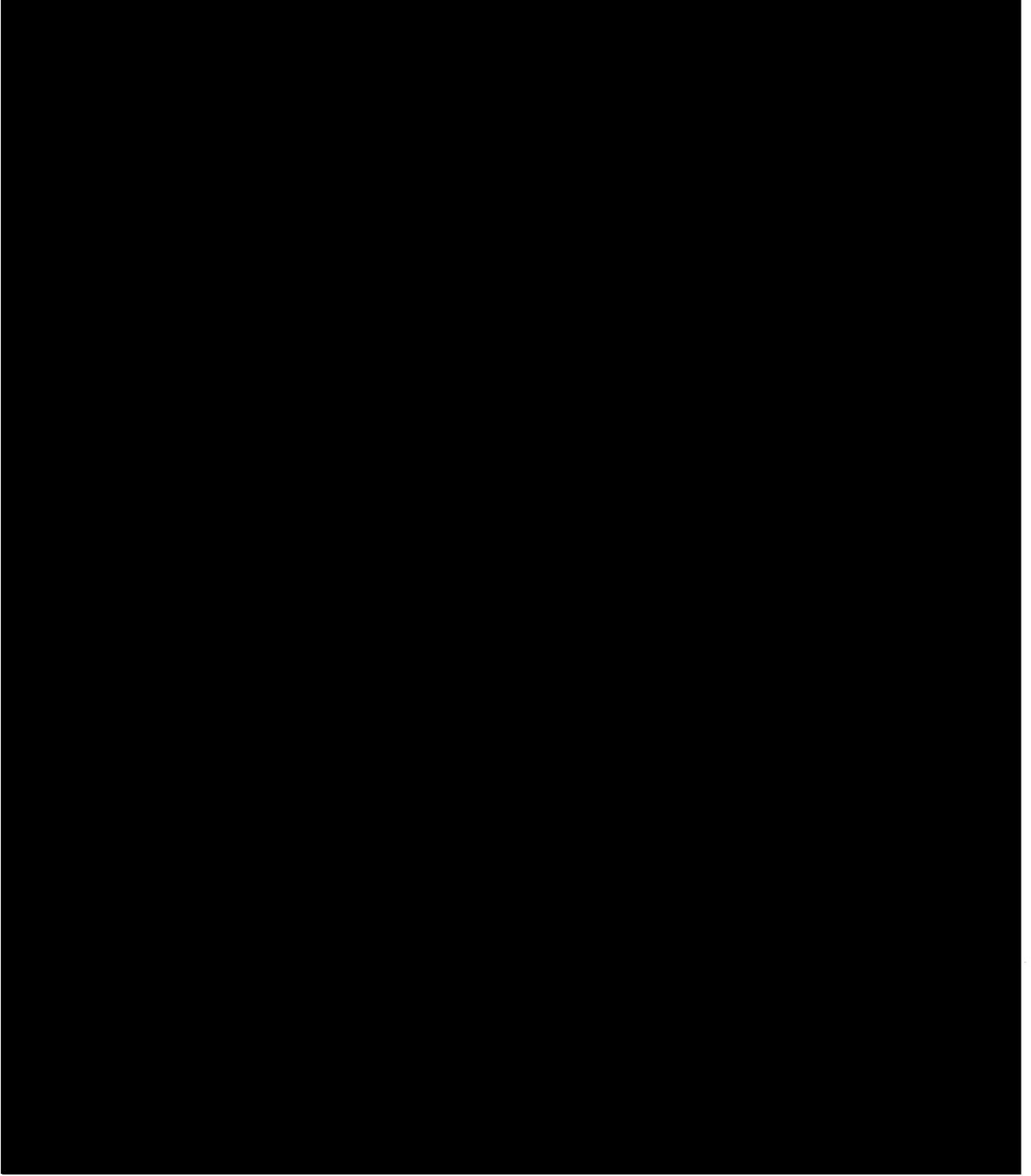
SunBelt also identified many instances where maximum train lengths were clearly incorrect. For example, SunBelt identified in Table 1 of Exhibit III-C-1 trains that NS data shows are over 10 miles in length. To correct these issues, SunBelt sequenced the anomalies with the worst case at the top of the list.

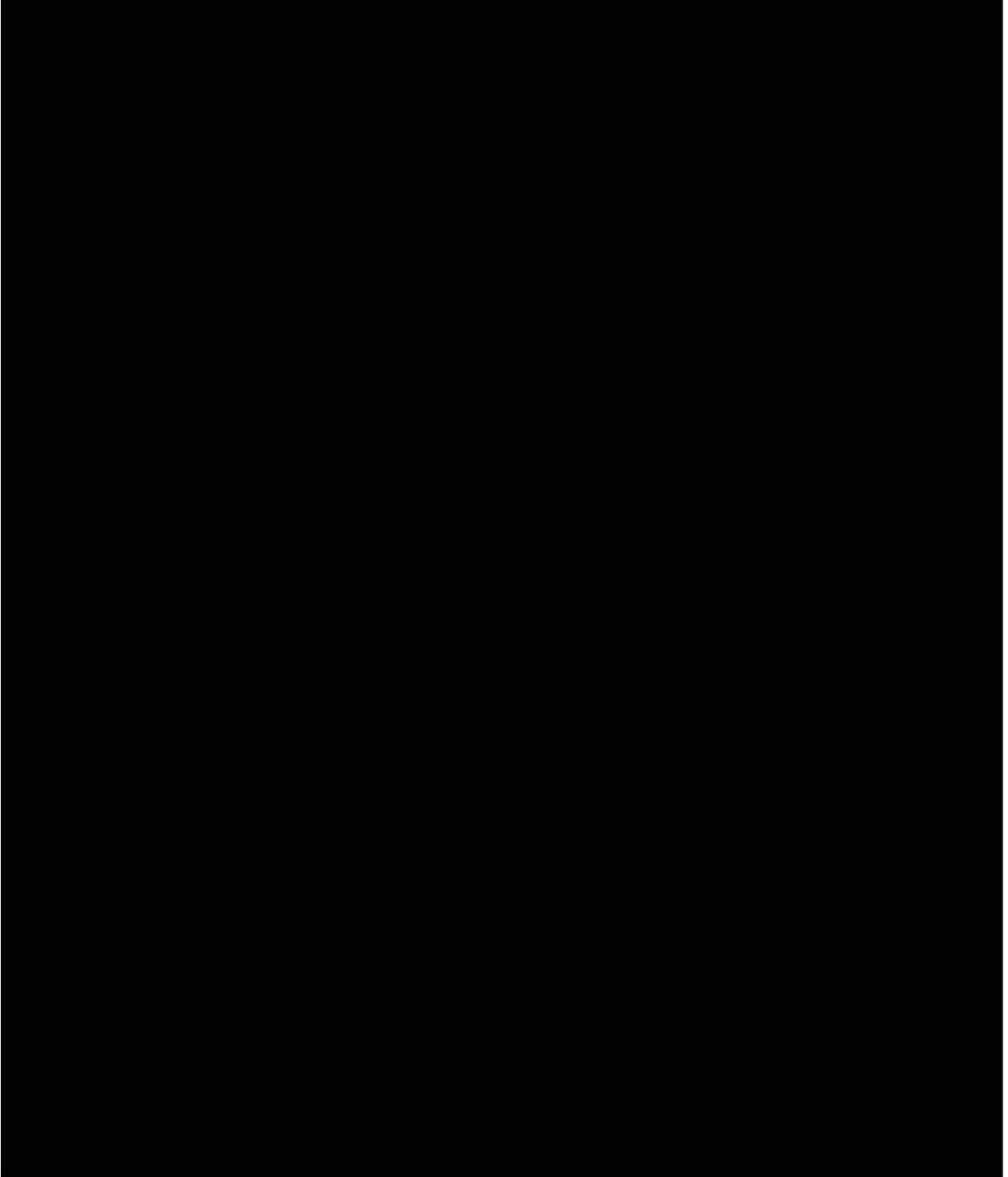
In Reply, NS states:

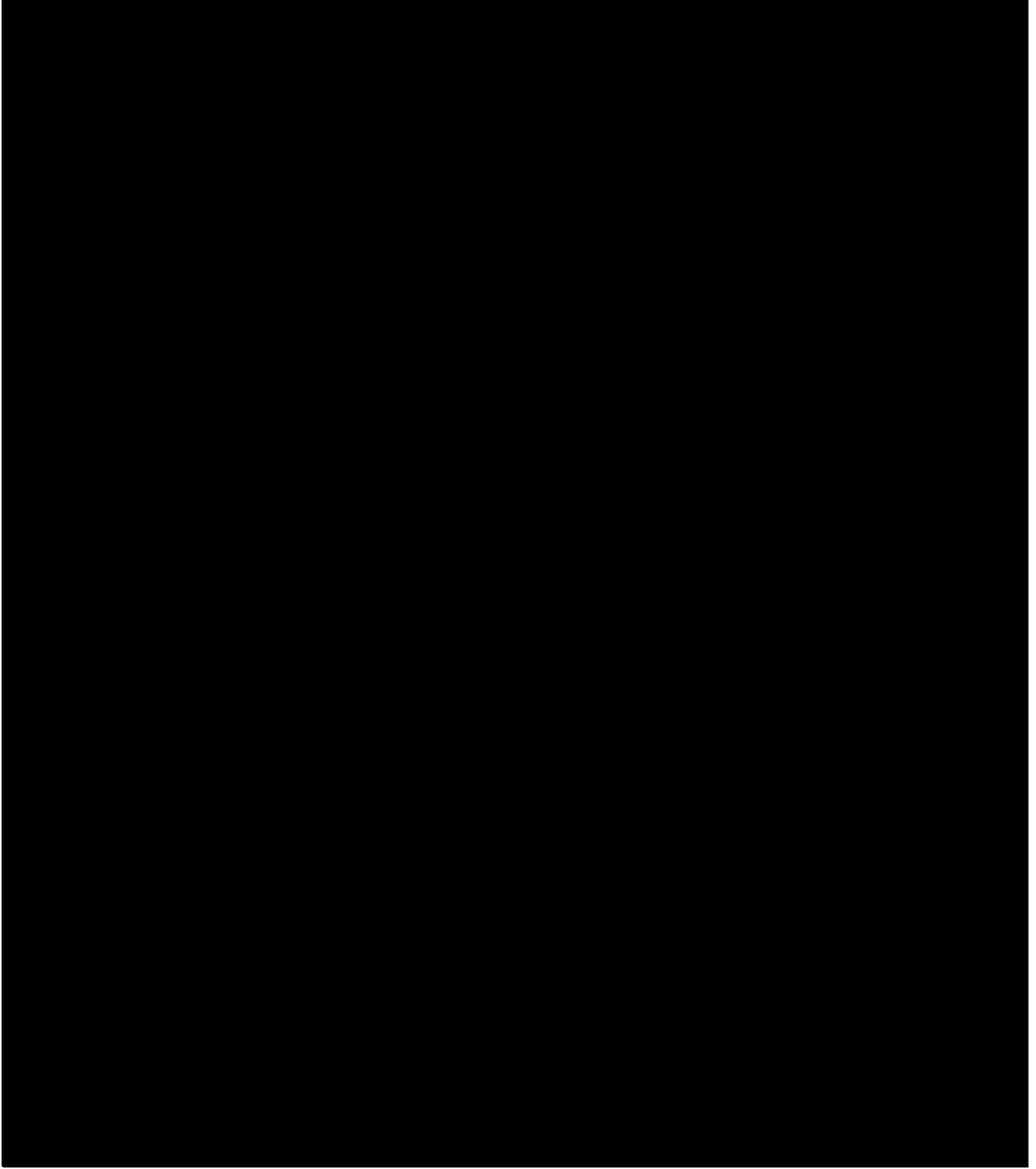
SunBelt's methodology for attempting to discern maximum train lengths from the NS data was designed to find the extreme anomalies in the data. SunBelt searched for the few trains in the 48 million train event records that contained a data anomaly resulting from an erroneous aggregation of data or human error.⁷⁵

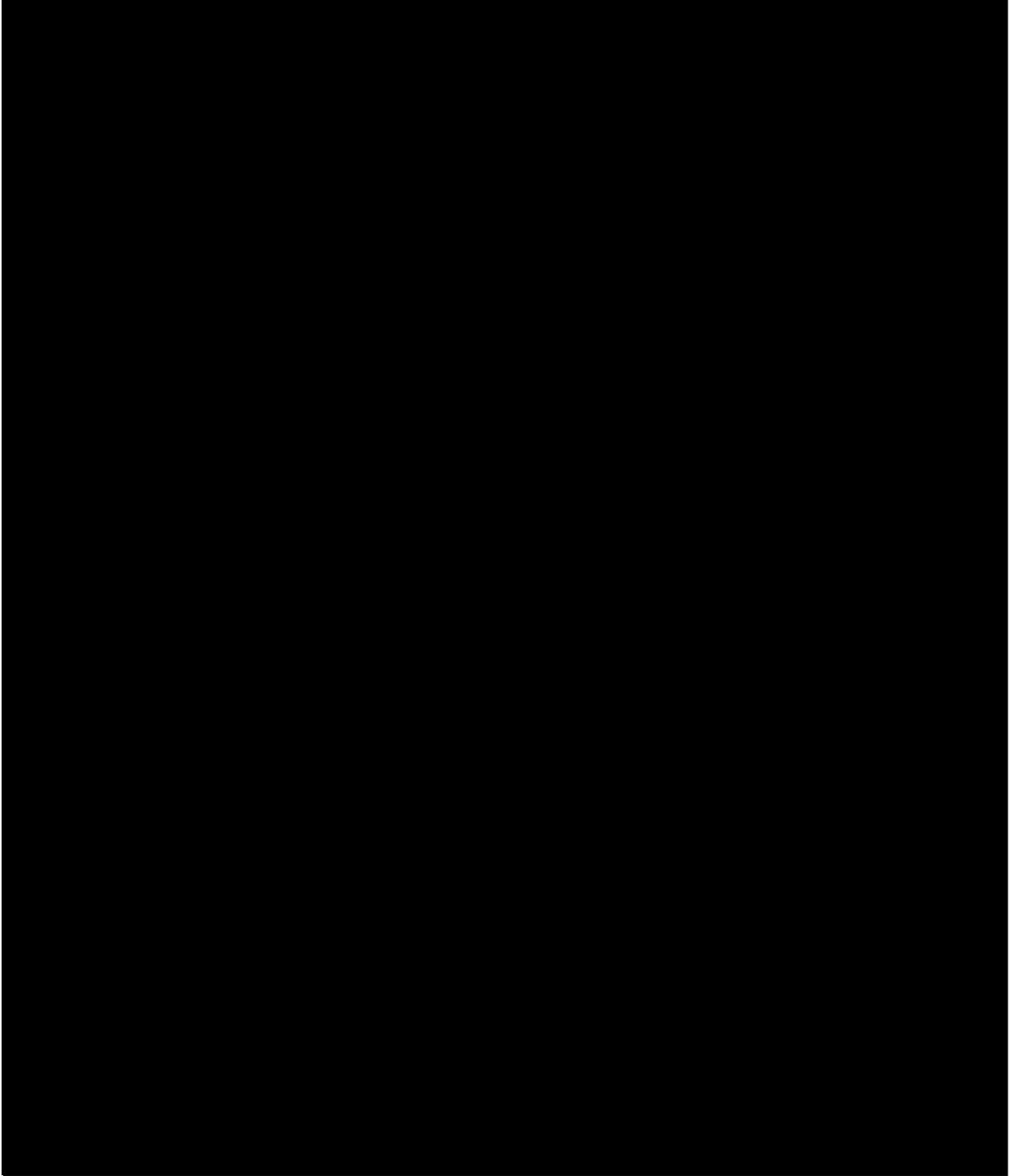
By its reply, NS acknowledges the scope of effort required to deal with this issue (48 million train events to analyze). The methodology employed by SunBelt was to sequence the data from longest to shortest trains, thus highlighting erroneous records first. This methodology allowed SunBelt to manually work through and correct data errors. In Opening, SunBelt presented the top ten items from its working list simply to highlight significant errors in NS's discovery data, and the significant effort it took to accommodate those errors. As discussed above, SunBelt ultimately relied upon a combination of corrected train event data and NS car event data to estimate train sizes. However, this does not eliminate the fact that SunBelt had to spend additional time and expenses dealing with flawed and/or deficient NS traffic data that only served to muddy the waters.

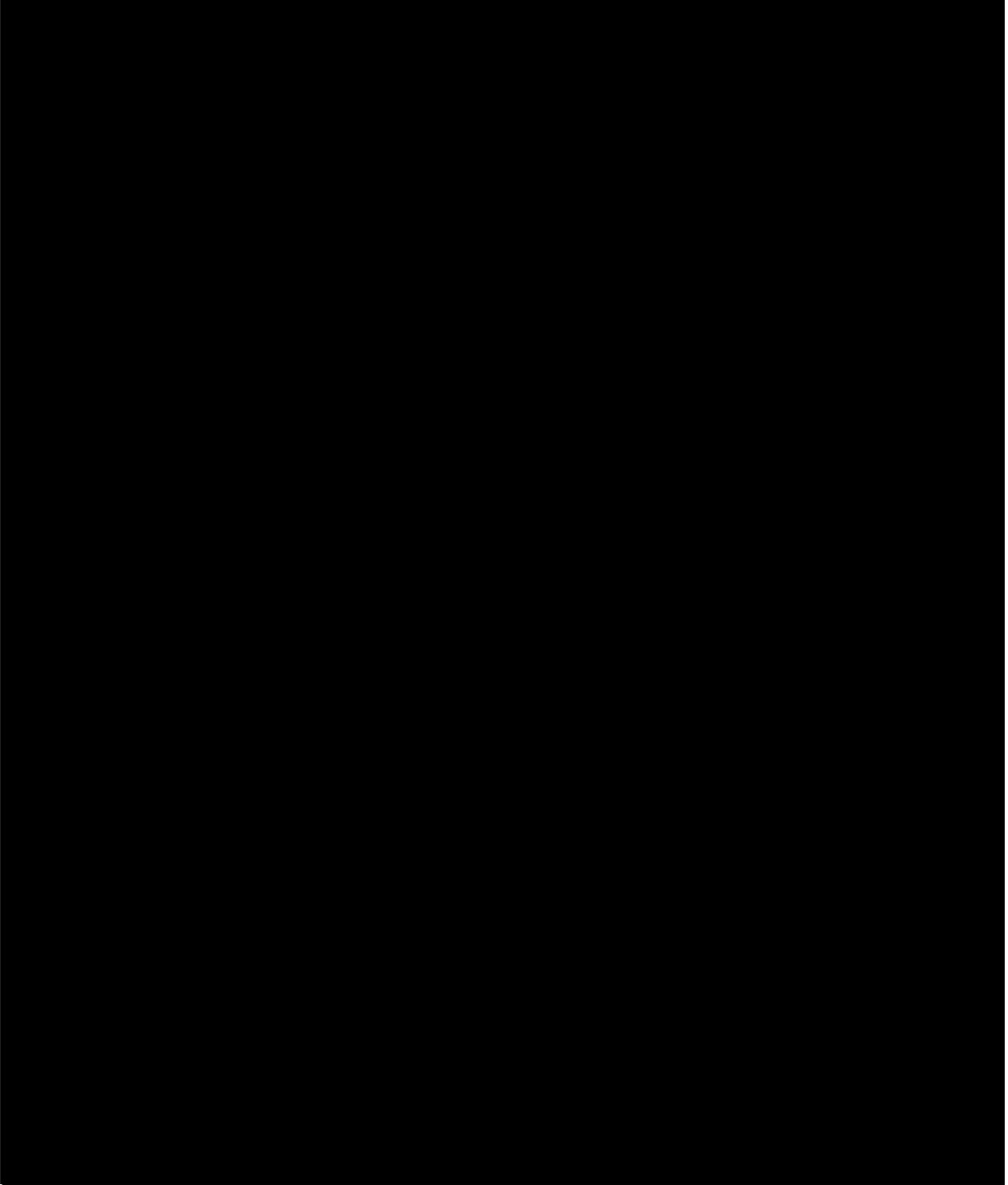
⁷⁵ See NS Reply Exhibit III-C-8 at 60.

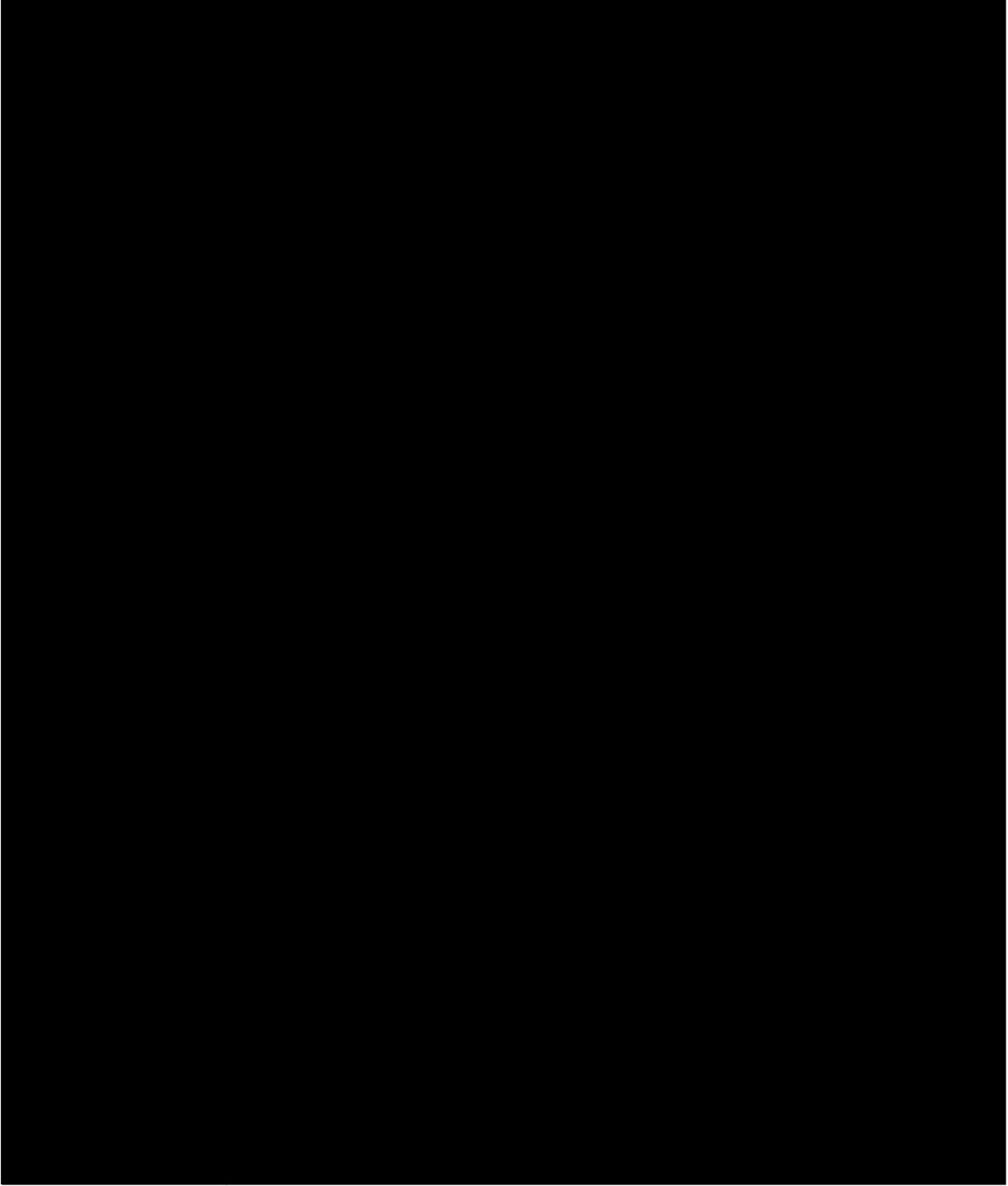


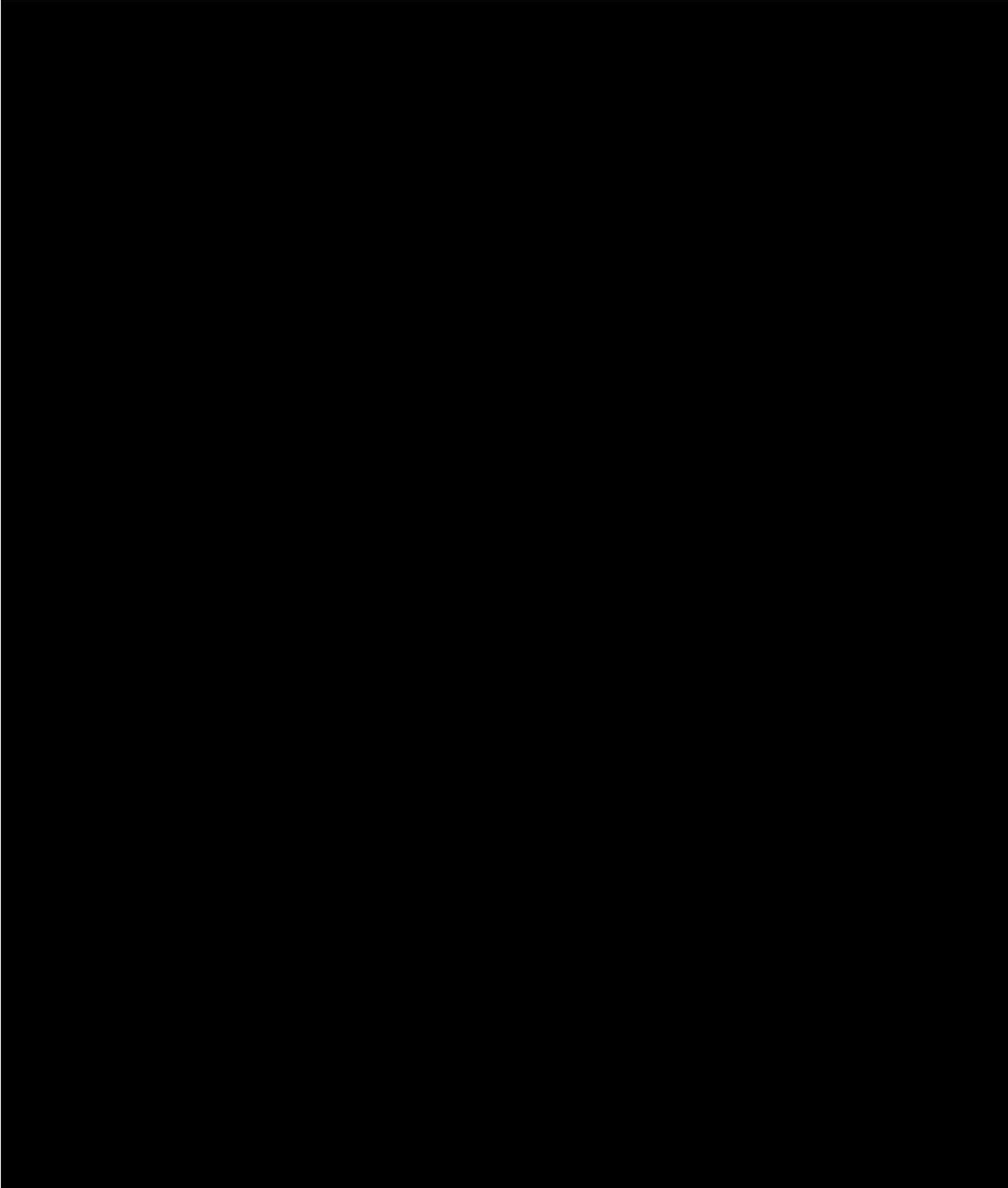


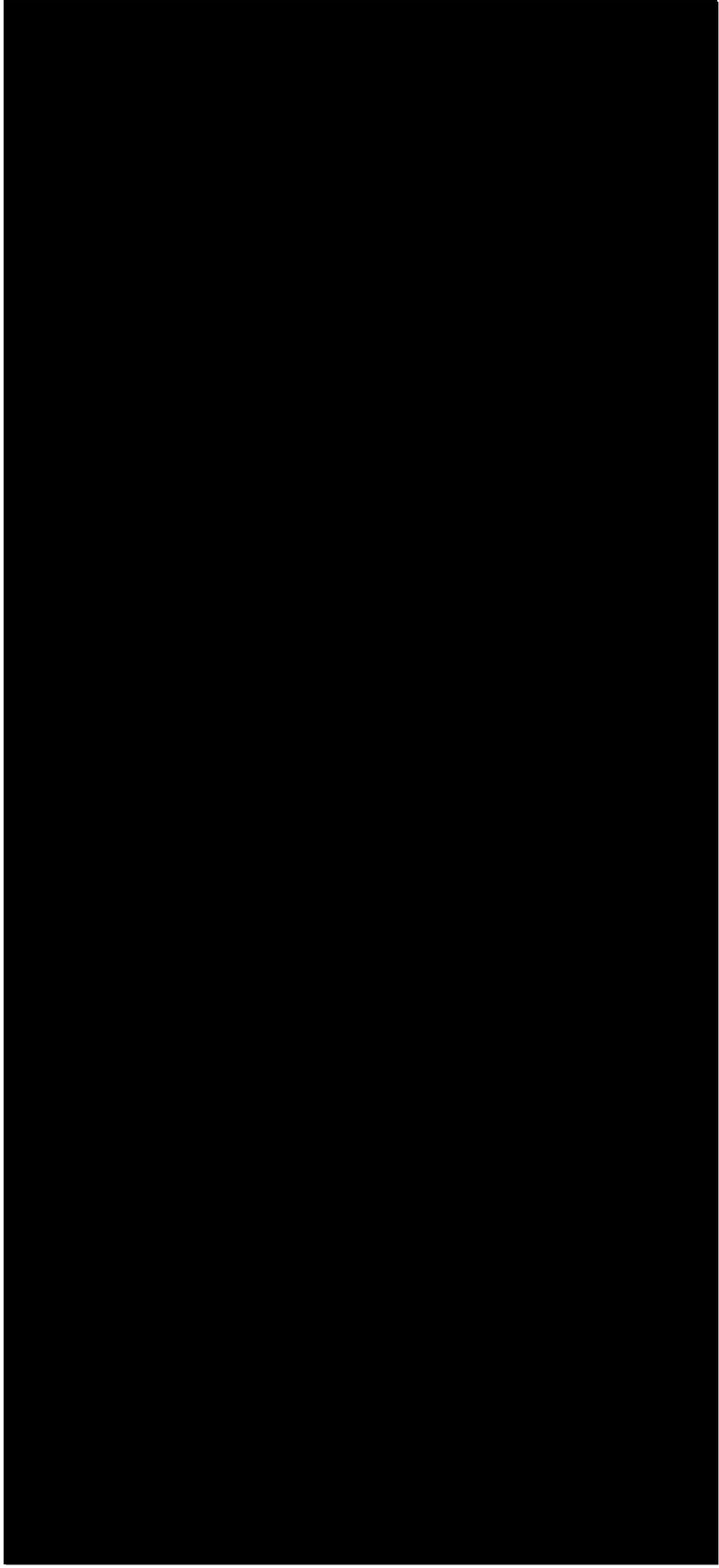


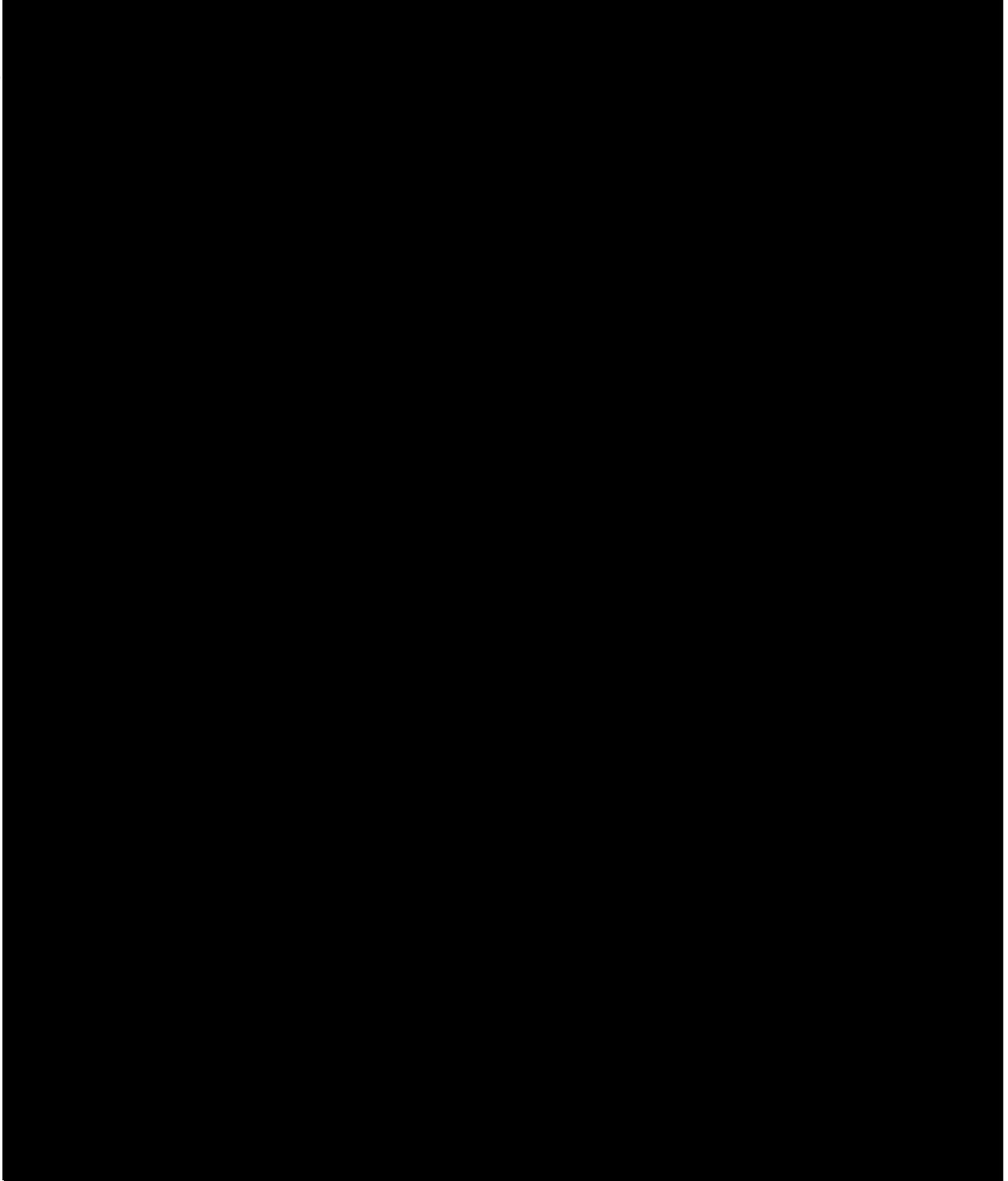


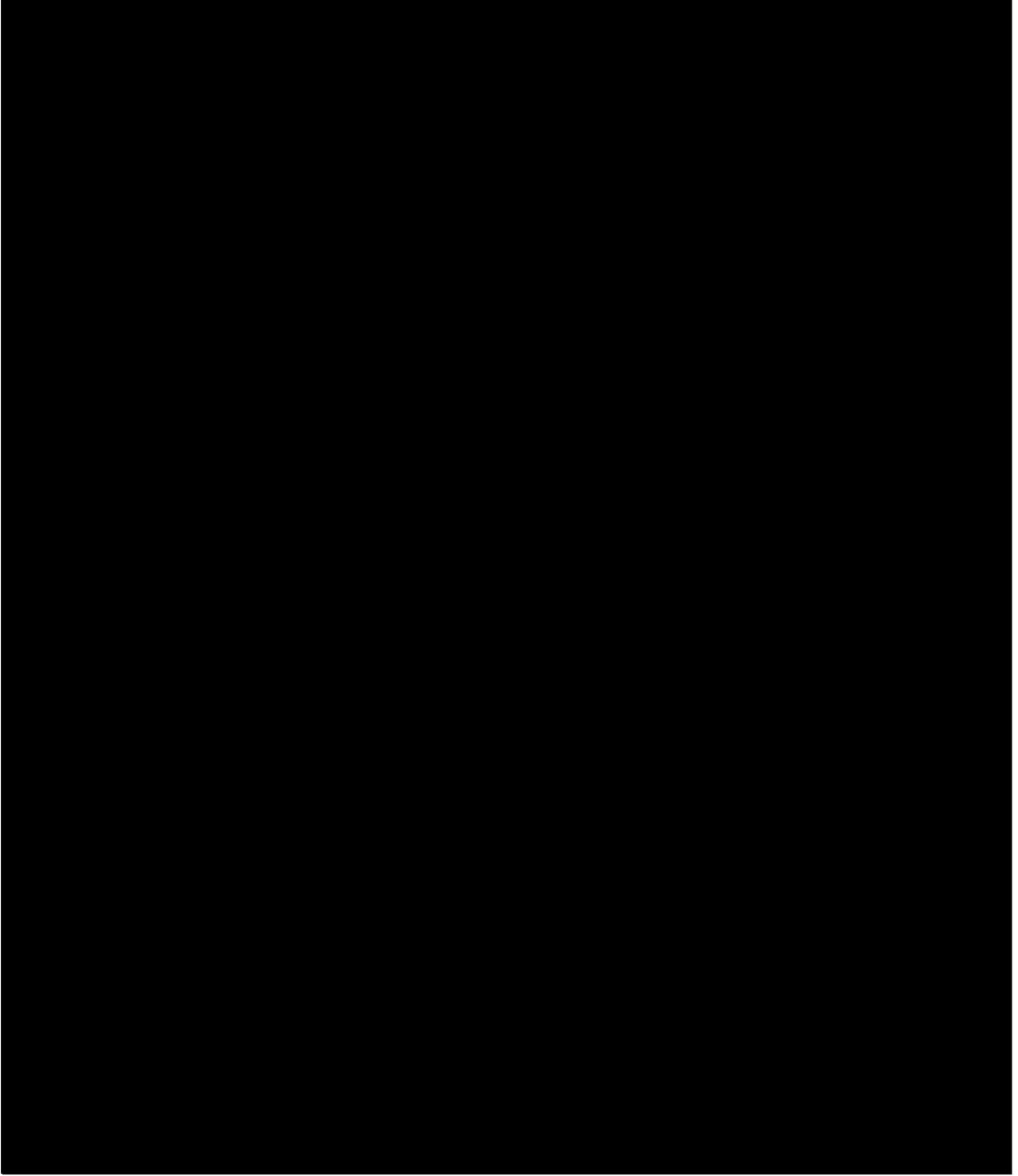


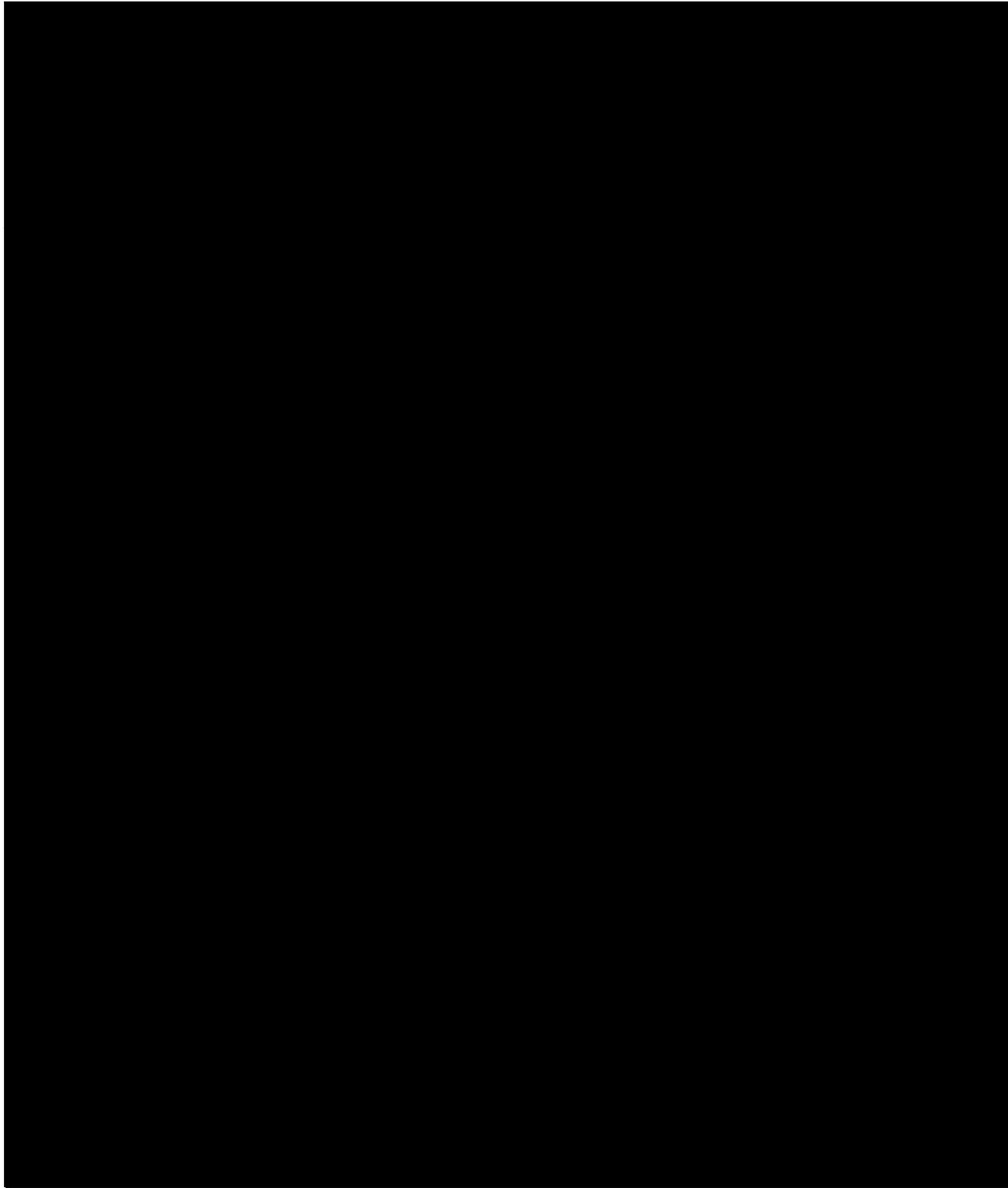


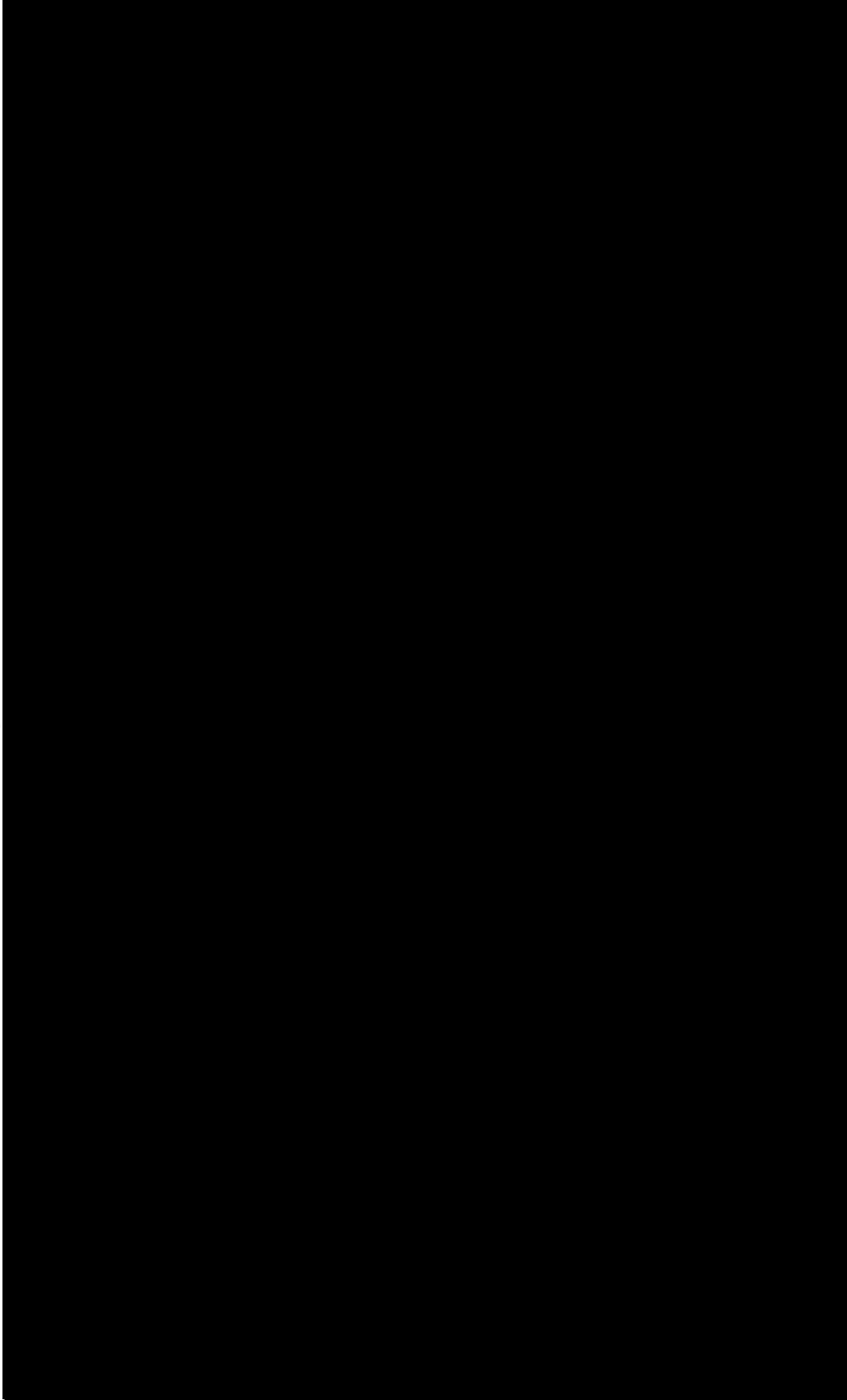


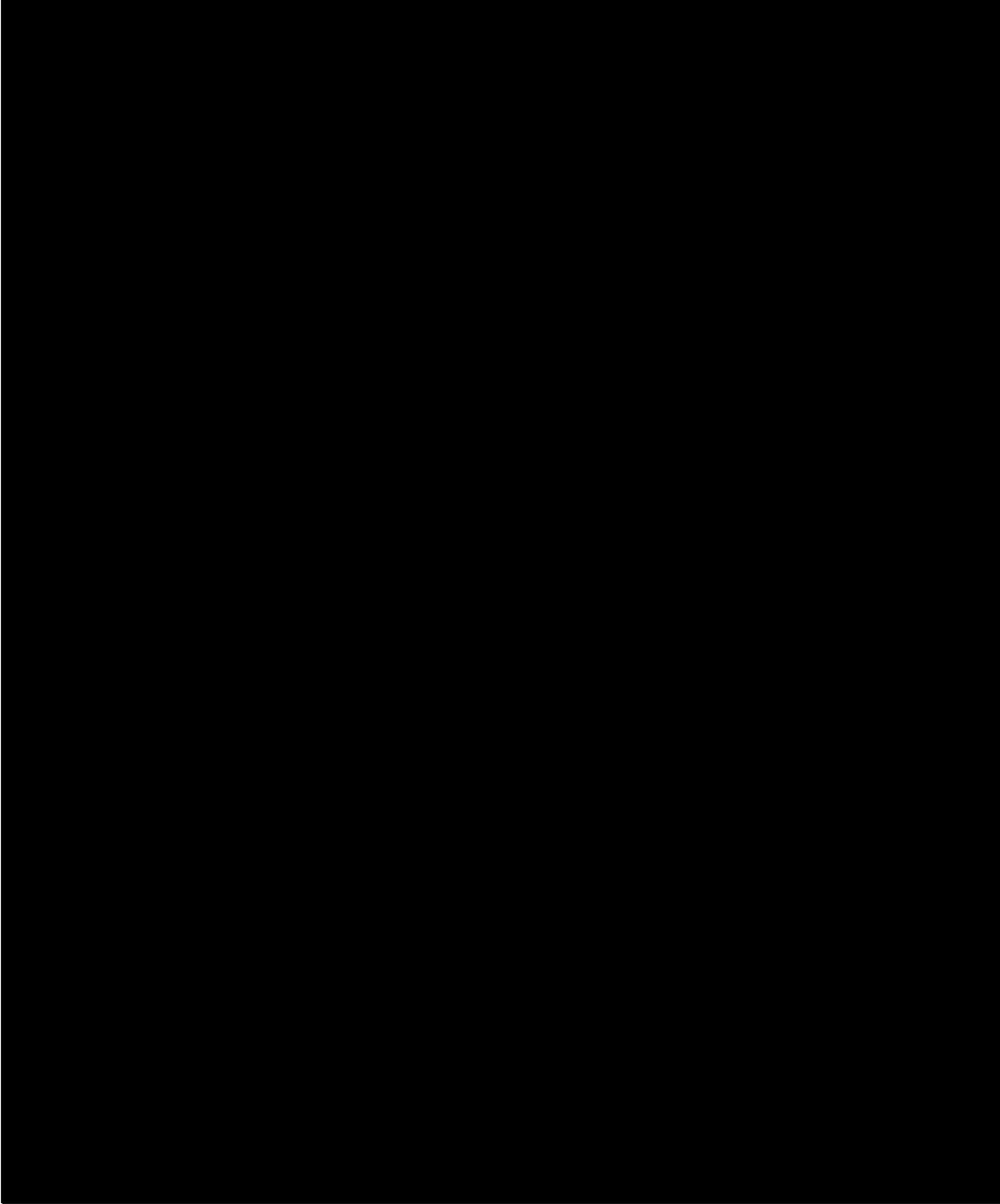


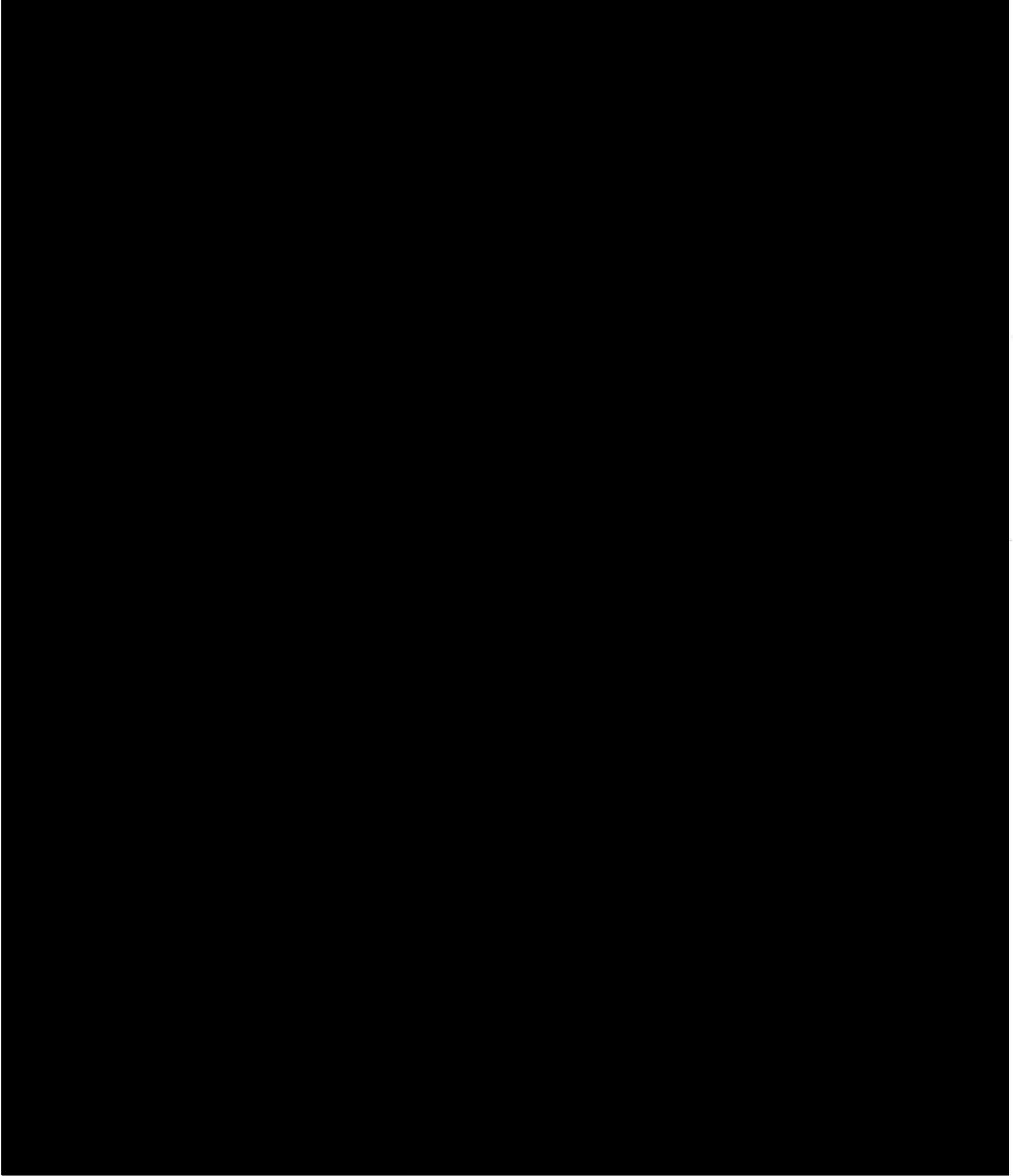


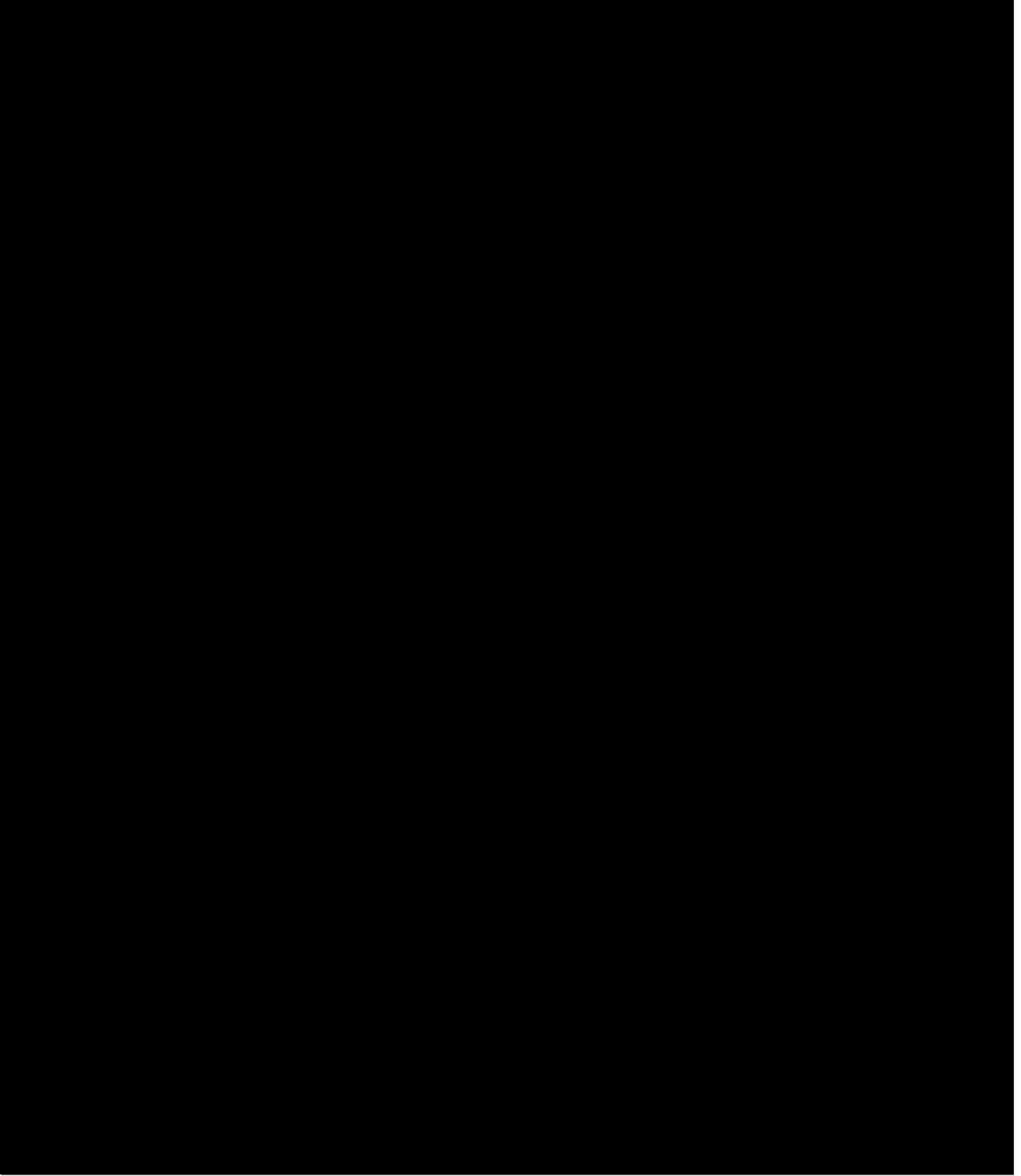


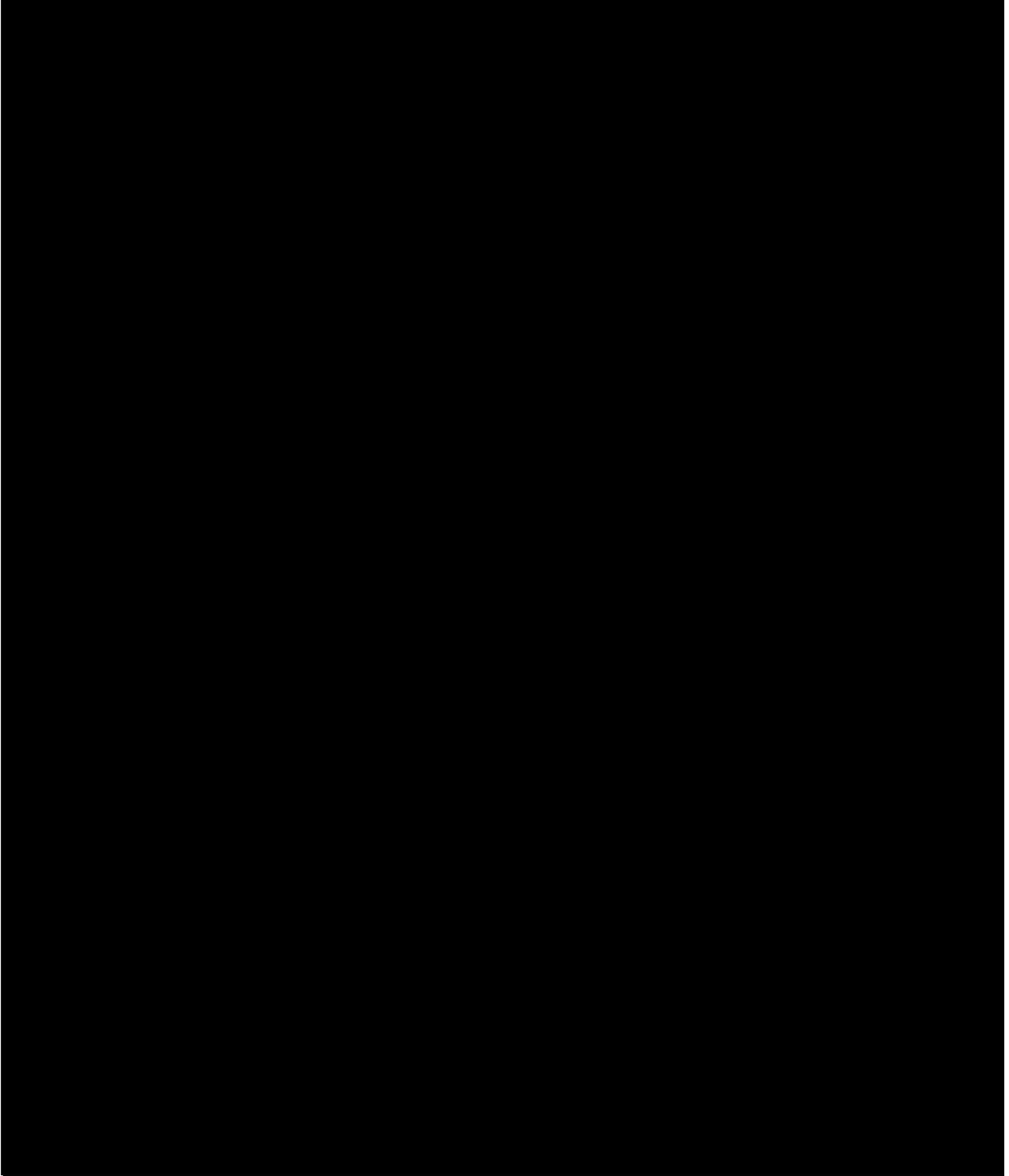


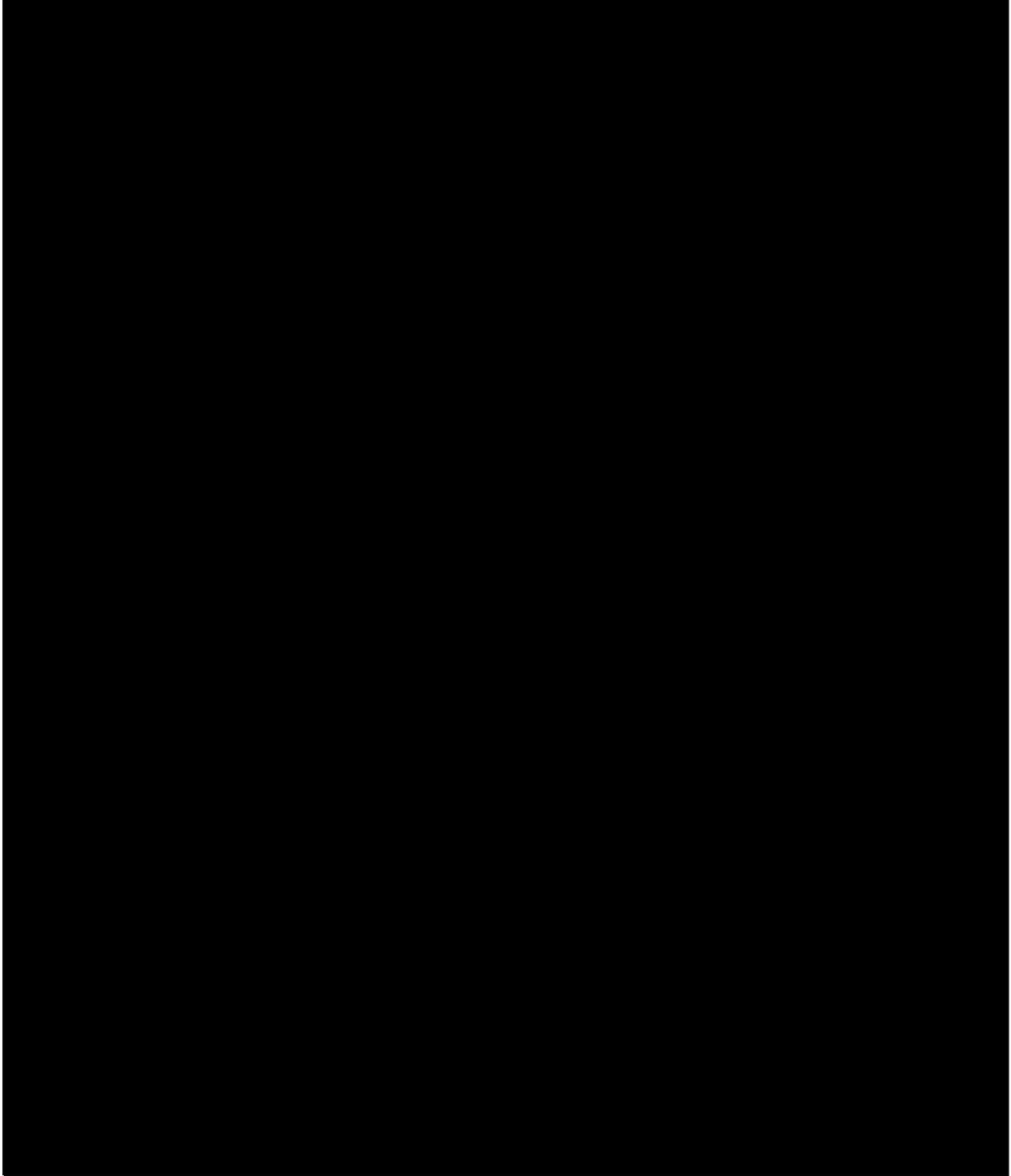


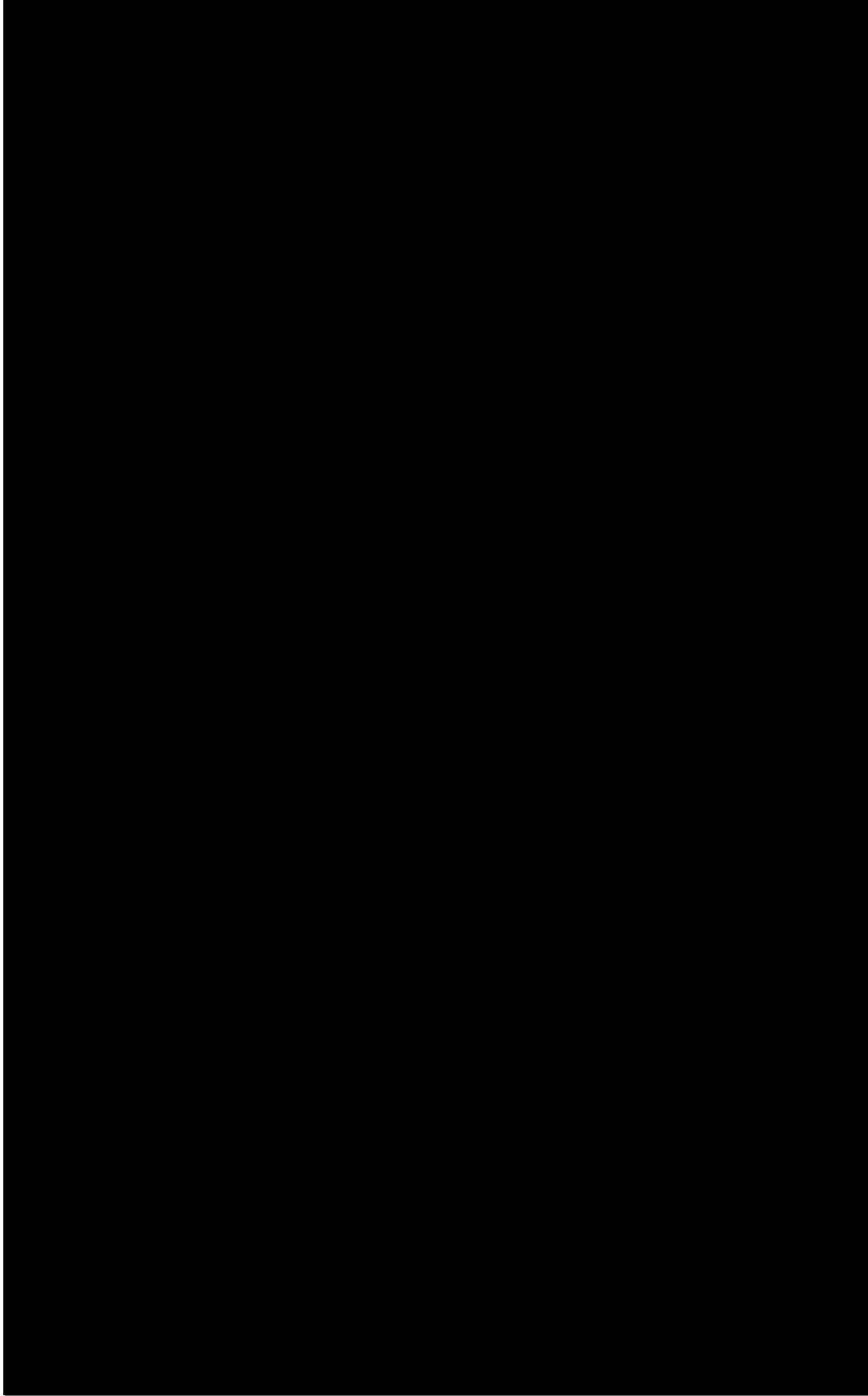




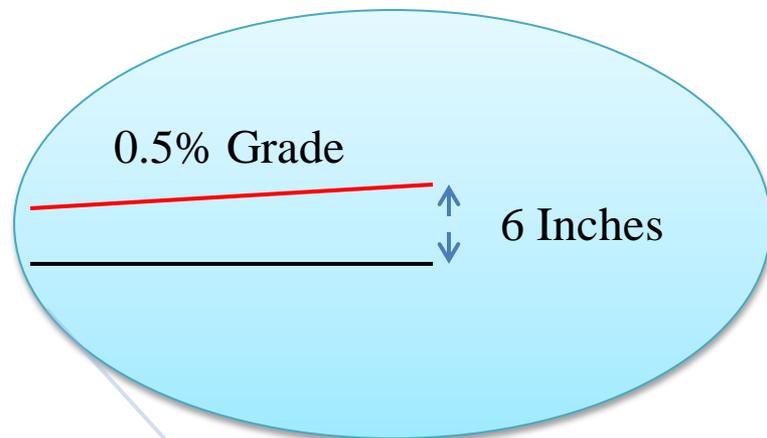
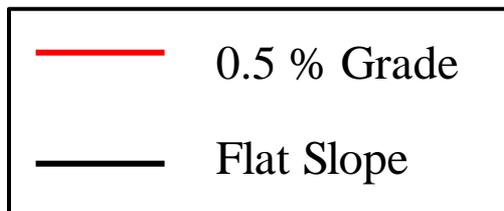




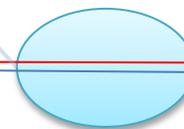




A Visual Representation of 86% of the Grade Errors Claimed by NS (0.5% or less)



100'



GENERAL & ADMINISTRATIVE EXPENSE

On Opening, SunBelt included \$6.1 million for general and administrative (“G&A”) costs, including costs related to personnel, materials and supplies, and the outsourcing of various activities. SunBelt’s Opening Evidence organized the SBRR’s 22 G&A personnel into four (4) separate Departments responsible for the railroad’s principal staff functions.¹ Those included an Executive Department, a Marketing Department, a Finance/Accounting Department, and a Legal & Administrative Department (which also is responsible for the Human Resource functions and Information Technology functions).

In Reply, NS proposes to increase the G&A staffing to a staggering level of 104 personnel, a level that is nearly *five* times that proposed by SunBelt on Opening. NS fails to recognize the fact that the SBRR is a new, startup railroad operation, and not an existing railroad that was established through mergers and acquisitions, such as NS. The SBRR is a simple operation with less than 50 trains in the Base Year and will function primarily as an overhead carrier.

On the basis of its enormous staffing proposal, NS argues that 2011 G&A expenses for the SBRR should be increased to a level that is 303 percent of SunBelt’s estimate (*i.e.*, \$18.5 million). The \$12.4 million disparity between the parties’ estimates amounts to more than eleven (11) percent of the total 2011 operating cost difference between the parties’ Opening and Reply evidence.

NS asserts that SunBelt “significantly underestimated” the G&A costs that would be incurred by the SBRR.² NS claims that its evidence is the least-cost G&A staffing and expense

¹ See SunBelt Opening Exhibit III-D-2 at 1-7.

² See NS Reply at III-D-42.

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based upon “the minimum legal, regulatory, commercial, and administrative requirements.”³ A close inspection of the NS Reply Evidence, however, reveals that many of the claimed “requirements” are mere phantoms that do not exist (SunBelt provides further details below). In fact, what NS presents as “requirements” are often simply discretionary choices made by certain railroads regarding the way to manage and organize their operations. Further, those “requirements” that are essential for any typical railroad do not require an armada of people for a small company, and in many cases, those functions or requirements can be consolidated within forces without the additional forces posited by NS.

NS’s position on G&A expenses is based on the flawed premise that the SBRR must operate in a fashion similar to that of NS itself or other Class II railroads. NS states that “SunBelt’s evidence contains no references to neutral third-party benchmarks; no detailed explanations of job functions; and no concrete evidence of any kind explaining why the SBRR would be more efficient than a real-world railroad.”⁴ Such a view is directly contrary to the entire purpose of the Stand-Alone Cost constraint. As 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.”⁵

The difference in the parties’ evidence regarding G&A staffing levels relates to NS’s inclusion of an excessive number of employees in each department, including an additional two (2) Outside Directors, one (1) additional employee in the Executive Department, an additional 30 employees in the Finance and Accounting Department, an additional 41 employees in the Legal

³ See NS Reply at III-D-47.

⁴ See NS Reply at III-D-44.

⁵ See *McCarty Farms* at 468. See also *AEPCO 2011* at 10 (“complainants are permitted to propose a hypothetical SARR that would provide service in a different way and would use rail configurations different from the actual operations of the defendant railroad”).

GENERAL & ADMINISTRATIVE EXPENSE

and Administrative Department, and an additional eight (8) employees in the Marketing Department, for a total increase in staffing from 22 employees to 104 employees (an 82-employee proposed increase). Additional differences also exist between the parties with respect to the costs associated with outsourcing. Finally, there are significant differences between the parties regarding the amount and proper accounting treatment of start-up costs.

The overall annual G&A expense estimates provided by the parties, including G&A compensation, outsourcing, and materials and supplies, are shown in Table 1 below.

Rebuttal Exhibit III-D-1 Table 1 SunBelt Opening, NS Reply and SunBelt Rebuttal 2011 G&A Expense (\$ in millions)	
Source (1)	2011 G&A Expense (2)
1. SunBelt Opening	\$6.1
2. NS Reply	\$18.5
3. SunBelt Rebuttal	\$9.1
Source: SunBelt Rebuttal e-workpaper "SBRR Operating Expense Rebuttal.xlsx."	

SunBelt’s Rebuttal costs reflect the addition of 12 G&A positions on Rebuttal.

In each of its decisions in *Duke/NS*, *Duke/CSXT*, and *CP&L*, the Board accepted the complainant’s G&A expenses on the basis of its observation that the complainant’s G&A staffing levels “are based on the experience of former senior-level railroad employees, [and] are reasonable and supported . . .”⁶

⁶ See *Duke/NS* at 156; *Duke/CSXT* at 459; *CP&L* at 269. Similarly, in *PSCo/Xcel*, the Board characterized the complainant’s evidence on G&A staffing levels as “feasible,” as it was “supported by testimony from senior-level railroad employees.” See *PSCo/Xcel* at 589.

GENERAL & ADMINISTRATIVE EXPENSE

SunBelt's Opening and Rebuttal G&A evidence likewise is sponsored by four witnesses who have considerable expertise in matters relating to both operating and G&A expenses, and collectively have spent many years working for Class I and other railroads in positions of significant responsibility. SunBelt's principal witness, Richard McDonald, has 35 years of experience in railroad operations, engineering, and management, largely with C&NW, as well as the New York Central. C&NW operated effectively by depending on each individual assigned to a required task, rather than the NS philosophy of assigning additional layers of management to serve as "watchdogs." In Mr. McDonald's experience with the former Penn Central, now a part of NS, this created an atmosphere of distrust among employees and an inefficiency which added significantly to the cost of doing business.

SunBelt witness Gary Hunter, who worked with Mr. McDonald in evaluating NS's Reply G&A evidence and in preparing SunBelt's Rebuttal evidence, likewise has substantial experience, 37 years, in senior management positions at the Southern Pacific and Western Pacific ("WP") Railroads and with several regional railroads. Mr. Hunter has been involved in several railroad mergers, including UP/MKT, SP/DRGW and KCS's acquisition of its Mexican franchise, in which his work involved operations, marketing/traffic and organization/personnel. More recently, Mr. Hunter has worked extensively with BNSF in the areas of operations equipment, marketing/traffic and organization/personnel, and his projects have included analysis of large regional railroads and short-line holding companies in these same areas.

During Mr. Hunter's time at WP, which was a small Class I railroad with nearly 1,500 miles of track, WP operated in California, Nevada, and Utah over varied terrain, including valley lands, mountains, and desert territories. For WP to compete, it had to be operated on a lean and

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cost effective basis. WP competed with larger railroads such as Southern Pacific Railroad and Santa Fe Railway. WP did not have the luxury of having excess personnel on staff so the key people had to fill many roles. Mr. Hunter served as Regional Trainmaster and had many different duties, including handling customer calls, marketing, sales and business development, public relations, and working with local government and economic development agencies, as well as chambers of commerce.

WP operated and ran in a very cost effective and efficient manner; utilizing a limited amount of staff. There is no reason SBRR cannot operate in the same manner as that of WP. Modern railroads must be lean in order to be competitive in the market. As a new railroad, SBRR does not have the personnel burden that mergers cause and that have plagued the rail industry for years. SBRR is a model for today's railroading which NS failed to recognize in its Reply.

SunBelt's other two (2) G&A witnesses include Joseph Kruzich, who has 38 years of experience in railroad accounting, executive administration, and information technology, including service as Vice President Telecommunications and Chief Information Officer of the Kansas City Southern Railway, and Philip Burris, a Senior Vice President of L.E. Peabody & Associates, Inc. with more than 30 years of consulting experience with regard to railroad economics. Mr. Burris has been a member of the Board of Directors of the South Central Florida Express Railroad ("SCFE") since 2005. SCFE is a regional railroad operating over nearly 200 route miles and moving hundreds of commodities in general freight service and also providing unit train service. As a Director, Mr. Burris is very familiar with the very lean and efficient management structure of the SCFE. Mr. Burris, developed SunBelt's Opening and Rebuttal

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evidence regarding compensation levels for G&A personnel, material and supplies expenses, and non-Operating personnel training and recruiting costs.

In light of this wealth of real-world experience, SunBelt's G&A evidence is well-supported. It is also consistent with recent Board decisions in SAC rate cases.

A. STAFFING

The SBRR consists of 578 miles of track and 2 miles of trackage rights for a total of 580 miles. NS attempts to justify its proposal to more than quadruple the SBRR's G&A staffing by "benchmarking" the SBRR against: 1) allegedly comparable companies, particularly Class II railroads such as Providence and Worcester Railroad Company ("P&W"), Wheeling & Lake Erie Railway ("W&LE"), Reading Blue Mountain and Northern Railroad Company ("RBMN"), Montana Rail Link ("MRL"), Montreal, Maine, & Atlantic ("MM&A"), and the Iowa Interstate Railroad; 2) third party benchmarking studies where such studies were available; and 3) NS's real-world G&A staffing and spending. The fact is, however, that there is no existing railroad or railroad holding company that is comparable to the SBRR. Unlike its supposed "peers," the SBRR is a brand-new, start-up operation that does not have collective bargaining agreements, is not a product of mergers, and is able to take full advantage of current, state-of-the-art technology rather than gradually installing technology to replace human staff. Also, with the exception of the MRL, unlike the railroads NS seeks to compare with the SBRR, a majority of the SBRR's traffic is overhead traffic which means the originating/terminating railroads perform a greater share of the marketing effort. Of the "benchmark carriers" NS identifies, only the MRL is similar to the SBRR as it is also primarily an overhead carrier moving traffic approximately 575 miles between Billings, Montana and Sandpoint, Idaho.

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Today, with even better technology and more efficient operations, railroads can be operated with even fewer personnel. Many of a railroad's administrative functions have been simplified and require fewer personnel than 30 years ago. The integrated online systems have allowed customers to access rates, equipment, and rail shipments without needing to speak with a railroad representative.

In many areas, third parties or consultants are used to supplement any function that might need additional personnel or someone specialized to the point where it is more economical to outsource than to have a person on staff. This is determined as the need arises, as opposed to in the initial startup.

The SBRR is a startup railroad, unlike NS and other Class II railroads with which SBRR is being compared: W&LE, P&W, MM&A, RBMN, MRL, and Iowa Interstate Railroad. These supposed "peer" railroads are not relevant however, because the operations of these carriers are fundamentally different from the operations of the SBRR. Notably, a substantial percentage of the traffic of SBRR (approximately 82 percent) is overhead traffic. As compared with local traffic and with traffic that either originates or terminates on the lines of a carrier, overhead traffic is substantially less "G&A intensive."

In addition, the companies compared by NS are irrelevant for many different reasons: (1) these railroads have a long history and were created by various mergers, acquisitions, and consolidations. Several of these included spin off lines from existing Class I railroads at the time, meaning they were problematic lines already with complex issues related to customers, agreements, operations, *etc*; (2) these railroads all have intrinsically different railroad networks, operations, and staffing needs. These railroads have numerous branch lines which significantly

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increase costs and staffing needs, as well as substantial short haul and local moves on their lines. These railroads also have very little bridge traffic. The SBRR is a unique system, extremely simple with only two main lines and no branch lines, and is not comparable to these other lines as far as complexity and expenses go; and (3) most were in poor physical condition when they started operating, thus requiring heavy maintenance. These railroads are a poor comparison to SBRR and cannot be used simply to push NS's personnel estimates and proposed costs.

A new railroad, like the SBRR, will not have this issue and the number of employees can be based on the specific needs of the railroad. SBRR is a private company that will operate with the latest technology, which will reduce the need for additional personnel. Modern railroads operate with less direct contact between customers and rail personnel, and most rates can be established online through the railroad's website, with little to no assistance from a railroad employee. Since SBRR's traffic is 82.3 percent bridge traffic, with implementation of a handling line agreement, there would be very little rate creation and customer contact needed from SBRR. In fact, SBRR will only have 0.3 percent local traffic to establish and make rates for, which should be handled with a published local tariff. It is only the higher volume customers who will need contacts within the organization, and once the rates are negotiated, there is little more to be done until the rates are to be updated or re-negotiated. The only rates that need special attention are rates for special commodities that do not have established rates in tariffs. This is a small percentage of the moves on the SBRR and should not require significant time from rail personnel.

In spite of the differences between the SBRR and the Class II carriers NS has selected for comparison, the G&A staffing for these carriers is remarkably similar to SunBelt's staffing for

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the SBRR. Further, contrary to NS's assertions, SunBelt's G&A staffing is very similar to the Board's past decisions in *WFA/Basin* and *PSCo/Xcel*. Table 2 below shows the similarities between SunBelt's managerial G&A personnel and that of past cases, as well as the Class II railroads NS uses as benchmarks.⁷ Table 2 also shows NS's excessive and unnecessary G&A managerial staffing for the SBRR.

⁷ The comparisons in Table 2 are limited to staff G&A staff personnel with titles of Manager and above as the information available for the Class II does not provide information regarding non-managerial G&A personnel.

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Rebuttal Exhibit III-D-1 Table 2 Comparison of SBRR Managerial G&A Staffing With the Board's Decisions for Similarly Sized SARRs and for Actual Class II Railroads		
<u>Railroad</u>	<u>Operating Miles 1/</u>	<u>Managerial G&A Employees 1/</u>
(1)	(2)	(3)
1. SunBelt Opening	578	9
2. NS Reply	578	38
3. SunBelt Rebuttal	578	17
4. <i>PSCo/Xcel</i>	396	2/
5. <i>WFA/Basin</i>	218	17
6. MRL	937	23
7. P&W	516	13
8. WLE	576	25
9. RBMN	320	11
10. MMA	510	11
11. Iowa Interstate	592	15

1/ Source: SunBelt Rebuttal e-workpaper "Peer Railroad Comparison.pdf."
2/ *PSCo/Xcel* does not specify employees by position, therefore Managerial G&A employees are not known.

As referenced above, MRL is similar to the SBRR as it is primarily an overhead carrier moving carloads of freight interchanging on both ends of its system with BNSF in Billings, Montana and Sandpoint, Idaho. As reported in MRL's website, it moves approximately 364,500 carloads of freight annually,⁸ almost exactly the same number as the 350,145 carloads of freight moved by the SBRR in the Base Year.⁹

Table 3, below compares G&A managerial personnel included in Sunbelt's Opening, NS's Reply and SunBelt's Rebuttal evidence with MRL's managerial G&A staff.

⁸ See SunBelt Rebuttal workpaper "Peer Railroad Comparison.pdf."

⁹ See SunBelt Rebuttal workpaper "SUNBELT_ATC_Rebuttal.xlsx."

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Rebuttal Exhibit III-D-1 Table 3 Comparison of SBRR Managerial G&A Staffing With MRL Railroad			
Department	NS Reply	SunBelt Rebuttal	MRL
(1)	(2)	(3)	(4)
1. Executive	2	2	2
2. Marketing	8	3	4
3. Finance	16	7	5
4. Law/Admin	12	5	12
5. Subtotal	38	17	23
6. Outside Directors	4	3	-
7. Total	42	20	23

Source: e-workpaper "MRL G&A Staff Comparison.xlsx."

Further proof of the excessive and unnecessary NS G&A staffing is shown by comparing NS and SunBelt's total (i.e., managerial and non-managerial) G&A staffing by department with the Board's decisions in *WFA/Basin* and *PSCo/Xcel*. On a revenue basis these two SARRs are similar in size to the SBRR, with \$245.0 million and \$452.2 million in 2011 revenues, respectively.¹⁰ The SBRR 2011 revenue equals \$396.9 million. The following table shows SunBelt's G&A staffing is in line with the Board's past decisions and demonstrates that NS has substantially overstaffed the SBRR G&A Department.

¹⁰ *WFA/Basin* at 31 and *PSCo/Xcel* at 640.

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Rebuttal Exhibit III-D-1 Table 4 Comparison of <i>WFA/Basin</i> and <i>PSCo/Xcel</i> G&A Staffing With SunBelt and NS				
Department	NS Reply	SunBelt Rebuttal	<i>WFA/Basin</i>	<i>PSCo/Xcel</i> 1/
(1)	(2)	(3)	(4)	(5)
1. Executive	3	3	3	3
2. Marketing	9	3	2	13
3. Finance	36	9	15	16
4. Law/Admin	52	16	16	14
5. Outside Directors	4	3	3	3
6. Total	104	34	39	49

1/ *PSCo/Xcel* also includes five operating department personnel for a total of 54 employees. These operating employees are removed for the "G&A" comparison.

SunBelt rejects the management reconfiguration and most of the additional staffing (and additional compensation) proposed by NS for the SBRR and continues to rely upon the G&A staffing that it submitted on Opening, with the exception of the following:

1. One (1) Manager of Corporate, Government, and Public Relations is added to the executive function;
2. Two (2) Marketing Managers are added to the marketing function;
3. Three Managers are added to staff the finance/ accounting function, including a Manager – Revenue Accounting, a Manager – Accounts Payable, and a Manager – Tax/Financial Reporting;
4. Five (5) additional employees are added to the legal and administrative function, including a Director Law/General Counsel, a Manager – Human Resources and three Information Technology Specialist; and
5. SBRR’s Board of Directors increased to five (5) members including three (3) outside Directors.

Table 5 below compares the parties’ G&A staffing proposals for the SBRR, and shows the increase in staffing accepted by SunBelt on Rebuttal.¹¹

¹¹ The SBRR’s Mechanical Department staffing includes one (1) Manager of Testing and Environmental; the MOW Department includes one (1) Environmental/Safety/ Training Manager. See SunBelt Opening Exhibit III-D-1 at 3 and Exhibit III-D-3 at 14. NS places its Environmental staff within G&A.

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Rebuttal Exhibit III-D-1

Table 5

SunBelt Opening, NS Reply and SunBelt Rebuttal G&A Staffing

Position (1)	SunBelt Opening (2)	NS Reply (3)	SunBelt Rebuttal (4)	Difference ^{1/} (5)
A. Executive				
1. President/CEO	1	1	1	0
2. Administrative Assistant	1	1	1	0
3. Director Corporate Communications	0	1	0	1
4. Mgr. Corp./Gov't/Public Relations	0	0	1	(1)
4. Executive Department Total	2	3	3	0
B. Marketing				
1. VP Marketing	0	1	0	1
2. Director-Sales & Marketing	1	0	1	(1)
3. Administrative Assistant	0	1	0	1
4. Director-Accounts	0	1	0	1
5. Manager-Marketing	0	6	2	4
6. Marketing Department Total	1	9	3	6
C. Finance & Accounting				
1. Executive/Treasury Function				
a. VP Finance & Accounting/CFO	0	1	0	1
b. Administrative Assistant	0	1	0	1
c. Controller/Treasurer	1	1	1	0
d. Managers	0	3	0	3
2. Controller Function				
a. Manager-Financial Reporting	0	1	0	1
b. Director-Revenue Accounting	0	1	0	1
c. Managers-Revenue Accounting	0	2	1	1
d. Revenue Accounting Analysts	0	14	0	14
e. Director-Accounts Payable	0	1	0	1
f. Manager-Payrolls	1	1	1	0
g. Accounts Payable Analysts	0	1	0	1
h. Manager-Miscellaneous Billing	0	1	0	1
i. Analysts	2	3	2	1
j. Director-Taxes	0	1	0	1
k. Manager-Taxes	0	1	0	1
l. Manager-Accounts Payable	0	0	1	(1)
m. Manager-Tax/Financial Reporting	0	0	1	(1)
3. Budget/Purchasing Function				
a. Manager-Budgets & Purchasing	1	1	1	0
b. Purchasing Accountant	0	1	0	1
4. Internal Auditing Function				
a. Manager-Claims & Int. Auditing	1	0	1	(1)
b. Director-Financial Auditing	0	1	0	1
5. Finance & Accounting Dept. Total	6	36	9	27
D. Legal & Administration				
1. Administrative Function				

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Table 5

SunBelt Opening, NS Reply and SunBelt Rebuttal G&A Staffing

Position (1)	SunBelt Opening (2)	NS Reply (3)	SunBelt Rebuttal (4)	Difference ^{1/} (5)
a. Vice President Administration	0	1	0	1
b. Administrative Assistant	0	1	0	1
2. Legal Function				
a. General Attorney	0	1	0	1
b. Director-Claims	0	1	0	1
c. Claims Agents	0	2	0	2
d. Director Law/General Counsel	0	0	1	(1)
3. Environmental Function				
a. Environmental Directors	0	1	0	1
b. Environmental Professionals	0	5	0	5
4. Real Estate & Security				
a. Directors-Real Estate & Security	1	1	1	0
b. Mgr.-Real Estate & Development	0	1	0	1
c. Police Chief	0	1	0	1
d. Administrative Assistant	0	1	0	1
e. Communications Manager	0	1	0	1
f. Communications Staff	0	7	0	7
c. Security Agents	2	12	2	10
6. Human Resources Function				
a. Director of Human Resources	1	1	1	0
b. Managers of Human Resources	0	2	1	1
7. Information Technology Function				
a. Director-Information Technology	0	1	0	1
b. Manager-Information Technology	1	0	1	(1)
c. Information Technology Specialists	6	12	9	3
8. Legal & Administration Total	11	52	16	36
F. Total G&A Staff	20	100	31	69
1. Outside Directors	2	4	3	1
G. Total	22	104	34	70

Source: Column (2) e-workpaper "SBRR Operating Expense.xls."

Column (3) e-workpaper "SBRR Operating Expense NS Reply.xlsx."

Column (4) e-workpaper "SBRR Operating Expense_Rebuttal.xlsx."

1/ Column (3) – Column (4)

With the foregoing as background, SunBelt addresses below the differences between the parties' staffing for each department.

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1. Executive Department

In its Opening Evidence, SunBelt proposed an Executive Department consisting of two (2) individuals headed by the President and supported by an Administrative Assistant.

On Reply, NS creates an Executive Department comprised of three (3) individuals.¹² NS claims that "[t]he duties SunBelt charges to the President and CEO, plus an Administrative Assistant, would be completely overwhelming for such a small staff" in regard to SunBelt's assignment of responsibilities to the SBRR President.¹³ NS claims that the SBRR President could not manage the railroad and handle external relations due to the SBRR's size. While the SBRR President and CEO has overall responsibility for the railroad, he does not "manage" the railroad's operations; as with other railroads, the Vice President of Operations does that. NS's claim is also unreasonable given the fact the real-world NS has one person, Charles W. Moorman, who acts as Chairman, President, and CEO. Similar to NS, Michael J. Ward is Chairman, President, and CEO of CSX Corporation. Both individuals are handling the day to day and long term strategy functions of these three (3) positions for railroads that are 30 to 40 times larger than the SBRR.

Like NS and CSX, the SBRR President has people who will handle many of the day to day functions of the railroad and will report directly to the President. NS's claim that the SBRR President cannot handle the corporate functions of the railroad is inaccurate based on NS's real-world operations. Both NS and CSX operations confirm this.

NS also claims that SBRR's Executive Department would need one (1) Director of Corporate Relations, due to the fact that SunBelt's President would not be able to handle the

¹² See NS Reply at III-D-64-66.

¹³ See NS Reply at III-D-64.

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many different facets of external relations. NS states that the SBRR will need staff to oversee Corporate Relations, Public Relations, and Government Relations, however, many of these positions are not required for a private company.

NS is a much larger, publicly traded company that has a constant media presence, always fostering public view and investment. The fact that NS decides to operate this way, as a public company, does not mean that SBRR, as a private company, would need to operate the same way regarding Corporate and Public Relations. SBRR operates in portions of three (3) states rather than more than 20 states as does NS. Derailments, public inquiries, news stories, events and speeches are not everyday occurrences for the SBRR. The SBRR will address the key items, but as a private company, this need is reduced significantly from NS's experience. SBRR is a privately held company with limited investors rather than a publicly traded company.

In Rebuttal, SunBelt has added a Manager of Corporate/Government/Public Relations to work closely with the President and Board on these areas. A railroad this size requires some focused management of these relationships, but a "Director" is not necessary and one manager level employee is sufficient.

2. Board Of Directors

In its Opening Evidence, SunBelt proposed a four (4) person Board of Directors consisting of the President, Vice President-Operations, and two (2) outside directors. SunBelt proposed that the outside Directors would be uncompensated. NS claims that "[t]his is completely unrealistic for a large company where the outside Directors would be expected to take on multiple oversight responsibilities in critical areas like audit, compensation, and

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corporate governance."¹⁴ In Rebuttal, SunBelt increased the number of outside directors to three (3), adding a director investor interest in the SBRR, and the inside directors are kept at two (2).

In Opening, Sunbelt did not compensate the outside Directors. In contrast, NS included outside Director compensation based on compensation paid to Genesse & Wyoming (“G&W”) and Rail America (“RA”) and scaled to the SBRR based on carloads moved. This results in a Director’s compensation of \$97,619 a year. NS’s compensation for outside Directors is unreasonable for the SBRR. The SBRR is not a public company, there are only four quarterly meetings, and this is by no means a full time position. SBRR's Outside Directors would have a direct interest in the success of SBRR, and would therefore be willing to serve on the board with minimal compensation (*i.e.* travel expenses). SunBelt's decision that outside Directors would not be compensated is very reasonable and follows suit with prior SAC cases.¹⁵ SBRR would still be able to attract quality, experienced personnel for this position.

3. Marketing & Sales Department

In its Opening Evidence, SunBelt proposed a Marketing & Sales sub-department comprised of one (1) individual, a Director of Marketing & Sales.¹⁶ SunBelt also explained that it would outsource much of the marketing function, as is common with many large regional railroads.¹⁷

On Reply, NS proposes to include a larger staff for the Marketing & Sales function. NS has proposed nine (9) employees. NS’s restructuring of the department is based upon a rejection of outsourcing, and the additional layers of unnecessary bureaucracy to the Marketing & Sales

¹⁴ See NS Reply at III-D-118.

¹⁵ See *PSCo/Xcel* at 653; *CP&L* at 297; *Duke/NS* at 159; *TMPA* at 676-77.

¹⁶ See SunBelt Opening Exhibit III-D-2 at 7.

¹⁷ *Id.*

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department. SunBelt rejects NS's proposed changes to this department, modifies the marketing department staff in Rebuttal to add two (2) marketing managers, and addresses each of the differences below.

First, with regard to outsourcing, SunBelt acknowledges that the outsourcing costs for Marketing were unintentionally omitted from its Opening evidence. SunBelt has since added *two (2) Marketing Managers to its Marketing Department and will not be outsourcing any Marketing related functions.*

Second, NS attempts to benchmark the SBRR's Marketing staff against supposedly "comparable" companies, including W&LE, M&MA, and P&W. These railroads are intrinsically different than the SBRR; they have numerous branch lines as well as substantial short haul and local moves on their lines. These carriers have very little overhead traffic. By comparison the SBRR has two mainline segments and no branch lines, 82 percent of its traffic is overhead to its system, and only 0.3 percent of its traffic is local to its system. As a result, SBRR's operations are substantially different from these companies. SBRR is a new, startup operation with the latest in technology, and is a very lean and cost effective company. Notwithstanding these differences, as shown in Table 2 *supra*, the non-managerial G&A personnel for these Class II carriers support the G&A staffing that SunBelt proposes in its Rebuttal and demonstrates that NS's G&A staffing is unreasonable.

Third, in today's railroad environment, railroads have simplified the entire rate making process. There are fewer rate negotiations and contracts in favor of more public tariffs and automated rate quotes. The vast majority of traffic moves under these simplified rate authorities, which works very well for most of the traffic. Most customers today use rail mainly because

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there is no other alternative. This allows railroads to quote a rate that shippers must accept without negotiation because 90 percent of the quoted shipments must move by rail. Despite NS's claim of thousands of customers and 3,485 rate authorities, a majority of SBRR's traffic is from large customers, who comprise larger portions of the traffic. This means there are fewer customers, rates, and contracts to deal with.

Further, of the 3,485 tariffs cited by NS, 2,159 are NS tariffs, and of those 2,159 NS tariffs there are only 1,060 unique NS tariffs. Thus, SBRR would only be responsible for 1,060 tariffs, and not 3,485 as NS claims. While SBRR would still have to review the remaining tariffs for traffic that passes through SBRR's system, the primary burden of this responsibility falls on the connecting carriers.

NS then claims that much of the SBRR's traffic is Rule 11, for which the SBRR must negotiate and publish rates. NS correctly states that the SBRR is responsible for negotiating rates and publishing tariffs for cars which it originates, i.e., local traffic and interchange forwarded traffic. But NS's claim that the SBRR would handle a large portion of its traffic as Rule 11 traffic is based on a series of unsupported calculations. These manipulations increase the number of originated carloads from 50,500 to 71,773 carloads.¹⁸

NS then claims that the SBRR has the same marketing and accounting responsibilities for this interchange traffic as it does for its local traffic and therefore concludes SBRR's marketing and customer service personnel are understated. This clearly is not accurate. Carriers must negotiate rates and publish tariffs for traffic it originates. Further, the originating carrier must create waybills and provide connecting carriers with pertinent information, and in the instance of

¹⁸ See NS Reply e-workpaper "SBRR 2011 Revenue Traffic.xls." It should be pointed out that the percentage of traffic which NS assumes are moving under Rule 11 rates are based on hard coded numbers for which NS provides no explanation or support and are therefore they are unsupported and of no value.

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shipments with prepaid freight, the originating carrier bills the customer and disburses revenues to the participating connecting carriers. Carriers whose traffic is overhead to its system do not have nearly the same level of involvement with customers as do originating carriers. They do not bill the customer, collect revenues or disburse revenues, unless the rates are Rule 11 rates, in which instance they bill the customer for their own revenue and have no responsibility for disbursement. Rule 11 overhead carriers do not have the same role in negotiations or customer relations as originating or terminating carriers, as they do not serve the customers facilities. The overhead carrier's responsibility is limited to the time the shipment is on its system, and for the SBRR, this is a very limited duration.

In Rebuttal, three (3) marketing personnel for SBRR will be more than adequate given SBRR's small amount of local traffic and rate development needed. The connecting railroads would be responsible for most of the rate development and quoting to customers. An estimate of nine (9) marketing personnel for this unique railroad with so few local customers is excessive and makes no sense. SBRR will function primarily as an overhead carrier, drastically reducing the need for marketing personnel.

Fourth, a large percentage of SBRR's traffic is intermodal, which will all move in unit trains, and these rates are usually set by contract for a long period – 6 months to a year – and do not need to be re-established for each move. Overall, the SBRR rate system will be much simpler than NS's model, relying more on public tariffs and less on personnel necessary to develop new rate quotes every week.

Fifth, NS's proposed Marketing organization includes extra personnel that are excessive for a new railroad organization. NS's Marketing staff consisting of one (1) Vice President

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(supported by an Administrative Assistant), one (1) Director-Accounts, and six (6) Marketing Managers is completely unnecessary and does not model the operations of a least-cost, most-efficient railroad. Many of these positions could be eliminated or consolidated within a railroad such as the SBRR. The SBRR should not be treated like a larger organization with unnecessary positions leading to waste and low productivity. A new railroad will be very streamlined and develop only those positions necessary to serve their customers effectively and efficiently.

SunBelt discusses NS's proposals to add new positions to the SBRR's Marketing & Sales Department staff below.

a. Additional Managers

Rather than the one (1) Director of Sales & Marketing that SunBelt proposed, NS has proposed a group of six (6) Managers (one responsible for chemicals, one for intermodal, one for all remaining commodities, one for Market Analysis, one for Marketing Services, and one responsible for E-Commerce and Systems).

SunBelt has added two (2) managers to the SBRR's marketing staff. These managers would be responsible for marketing and sales, as well as equipment supply, and ordering with customers. Even if SBRR were a handling line, there would still be some minimal responsibility in this area that should be managed well to maintain other efficiencies. These two managers would handle any rates needed, sales as necessary, potential customer service, and equipment/car management issues as necessary. A railroad of this size must account for these functions, although they can easily be consolidated into these two positions for a line of this simple complexity. SunBelt rejects NS's additional managers as inconsistent with the nature of the SBRR as a least-cost, most efficient railroad.

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In short, NS's proposed staffing of the Marketing function vastly exceeds the needs of a stand-alone railroad, as the Board's past holdings on G&A staffing confirm. NS's proposal ignores the nature of the SBRR's traffic group, and the large proportion of its traffic that is interlined with other railroads (particularly NS) which will bring their own marketing and customer service staffs to bear on issues involving the marketing and tracking of the traffic handled by the SBRR. On Rebuttal, SunBelt has added two (2) employees. SunBelt's addition of two (2) positions to the Marketing staffing presented in Opening (for a total of three (3)) is more than adequate to enable the SBRR to cover these functions, and addresses the needs of a startup operation like SBRR. The three (3) marketing personnel SunBelt uses in Rebuttal is consistent with the Board's finding in *WFA/Basin* where there were two (2) marketing personnel and with the MRL which is also primarily an overhead carrier and has four (4) marketing personnel. In all instances this is far less than NS's nine (9) marketing personnel for the SBRR.

4. Finance & Accounting Department

In its Opening Evidence, SunBelt proposed a Finance and Accounting Department consisting of six (6) employees headed by the Controller/Treasurer.¹⁹ The department includes four separate functions: 1) Executive/Treasury (which has one (1) employee); 2) Controller (which has three (3) employees); 3) Budget/Purchase (which has one (1) employee); and 4) Internal Auditing (which has one (1) employee).²⁰

On Reply, NS creates a much larger Finance and Accounting Department consisting of 36 individuals, six times the 6-member department established by SunBelt.²¹ NS's proposed

¹⁹ See SunBelt Opening Exhibit III-D-2 at 3.

²⁰ See SunBelt Opening Exhibit III-D-2 at 2.

²¹ See NS Reply at III-D-72-89.

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Finance and Accounting Department is disproportionate to the tasks required. In the most recent SAC decision, *AEPCO 2011*, the Board relied upon a 32-person staff for Finance & Accounting, less than the NS proposal for the SBRR, even though the SARR in that prior case had revenue over five times that of the SBRR.²² In other words, NS has proposed 0.0936 F&A staff per million of SBRR revenue,²³ yet *AEPCO 2011* had only 0.0117 F&A staff per million of revenue.

In past cases, the Board has rejected carrier efforts to introduce huge numbers of employees into SARR Finance & Accounting departments, but NS has ignored that precedent in gold-plating its version of the SBRR.²⁴ In *WFA/Basin* and *PSCO/Xcel*, the Board found the Finance and Accounting staff equaled 15 and 16 employees respectively, i.e., less than one-half of the employees of the 36 employees NS has proposed for the SBRR Finance and Accounting Department. Clearly NS's proposed staffing is overstated and unreasonable.

While NS tries to use real-world railroads to determine SBRR finance staffing. However, none of the Finance & Accounting Departments for the comparison carriers are anywhere near as large as that proposed for the SBRR by NS. This is evidenced by the fact that the entire managerial G&A staff for any of the comparison railroads is only 25 employees or 11 employees less than NS has proposed for this single Department.²⁵

²² See *AEPCO 2011* at 55 and 144 (based on 2012 revenue of \$2.741 billion).

²³ See NS Reply Exhibit III-A-1 (based on 2012 revenue of \$385 million) and at III-D-89 (36 F&A staff). NS claims that the *AEPCO* decision was an outlier (NS Reply at III-D-73), but the Board stated that the F&A staffing in that case fell "within the range of staffing levels we have accepted in a long line of SAC cases." See *AEPCO 2011* at 58.

²⁴ See, e.g., *AEP Texas II* at 55-57 (rejecting additional employees for the financial reporting function, the revenue analysis/budgeting function, and the real estate function); *TMPA* at 681-683 (rejecting effort to add 37 members to the finance/accounting staff); *WFA/Basin* at 44-45 (rejecting effort to add employees for the financial reporting function, the budgeting and purchasing function, the real estate function, and 10 miscellaneous clerks, analysts, managers, and directors); and *Otter Tail* at C-9 (rejecting effort to revenue accounting and financial reporting employees, and revenue analysts to handle "such matters as overcharging, undercharging, miscoded bills, etc.")

²⁵ See Table 2.

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SunBelt acknowledges the importance of the finance and accounting department and has added three (3) employees to help in this area in lieu of the many additions NS suggested. SunBelt's additions consist of a Manager of Revenue Accounting, Manager of Accounts Payable, and Manager of Tax/Financial Reporting. Keeping SBRR's overall accounting functions small and efficient will allow for increased productivity. In Rebuttal, SunBelt provides for a total of seven (7) managerial Finance & Accounting employees which is more than the five (5) managerial Finance & Accounting employees on the MRL.

Much of the difference between the parties' staffing estimates relates to the Controller function. NS agrees with SunBelt's proposal to employ a Controller, but NS adds an additional 23 employees who will work under the Controller (SunBelt proposed four (4) employees and NS responded with 27). NS addresses the four areas of responsibility for various Directors and Managers separately. SunBelt will respond to each NS argument in turn.

a. Revenue Accounting

NS proposes that the Controller/Treasurer will be supported by one (1) Director, two (2) Revenue Accounting Managers, and fourteen (14) Analysts (*i.e.*, a total of 17 employees working under the Controller/Treasurer). NS claims that this staffing is necessary to "process, correct, and collect freight bills for thousands of customers; ...resolve issues with interline settlements; ...be responsible for waybills, which must be processed by the SBRR for every carload handled; ...be responsible for tasks including processing customer shipping documentation to create waybills; managing waybill exceptions; and properly rating waybills; ...oversee the submission of waybill data to the STB for the Carload Waybill Sample; ...guarantee the accurate and timely reporting of all operating revenue and to monitor and

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estimate all revenue-related and receivable reserves pursuant to Financial Accounting Standards ("FAS") guidelines."²⁶

NS bases its 17-member accounting staff partially on the view that the SBRR's use of RMI software for automatic waybill generation will result in errors 10 percent of the time.²⁷ However, a close look at the cited RMI materials reveals that NS has overstated its case. Although NS implied that RMI made "errors" 10 percent of the time, the materials actually state that "[f]ully automatic rating of waybills in RMS is greater than 90 percent for most users."²⁸ Crucially, the RMI materials say nothing about accuracy or errors. Moreover, even if NS's error percentages were accurate, as the SBRR originates only 9.9 percent of its traffic, the SBRR would be responsible for tracing errors on a very small number of waybills, not the 1,154 weekly waybills claimed by NS.

NS's flawed RMI critique is also based on the claim that SunBelt did "not provide any SBRR personnel" to operate the RMI revenue accounting software.²⁹ Later, however, NS admits that SunBelt has included an "RMI Technician" in its G&A staffing.³⁰ NS's proposed staffing of the Revenue Accounting Function is also excessive due to the fact that over 47 percent of SBRR's traffic moves in unit trains and is billed by the trainload, not by the car, and approximately 90 percent of the SBRR's traffic is controlled by other railroads. This means there are relatively few customers for the SBRR to invoice, notwithstanding the large amount of revenue generated by the traffic. Thus the SBRR needs only a small revenue accounting staff.

²⁶ See NS Reply at III-D-80.

²⁷ See NS Reply at III-D-80 ("The SBRR will...need human staff to correct errors. RMI boasts of a 90 percent accuracy level for automatic rating of waybills, meaning that 10 percent of waybills will need to be corrected").

²⁸ See SunBelt Opening e-workpaper "Exhibit III-D-2 Information Technology.pdf," at 18.

²⁹ See NS Reply at III-D-79.

³⁰ See NS Reply at III-D-98.

GENERAL & ADMINISTRATIVE EXPENSE**b. Disbursements**

NS argues that SunBelt's proposed staffing of the Disbursement function (*i.e.*, one (1) Manager of Payroll and two (2) Analysts) would be insufficient.³¹ NS proposes that the Controller/Treasurer should be supported by one (1) Accounts Payable Director, one (1) Payroll Manager, one (1) Accounts Payable Analyst, one (1) Miscellaneous Billing Manager, and three (3) Staff Accountants.³² NS argues that this level of staffing is necessary and compares SBRR staffing to that of W&LE.³³ NS adds that these staff members would be responsible for "tasks like confirming the receipt of purchases; managing purchase card programs for small purchases required in the general course of business; entering data for non-electronic purchase orders; coordinating with field personnel to assure the prompt payment of vendors; reviewing and reconciling statements on a monthly basis; and managing inventory to ensure that the tracked inventory value matches up to real-world stock on hand."³⁴

This proposed staffing again is excessive given the nature of the SBRR's traffic group which limits functions like disbursements, invoicing, transfers, *etc.* Also, as discussed above, SBRR is a new rail line operation without past mergers, acquisitions, or consolidations, so using benchmarks such as W&LE real-world data is inappropriate.

NS also argues that the SBRR would need three (3) Staff Accountants assisting the Payroll Manager.³⁵ In particular, NS states that the "use of Paychex does not eliminate the need for a full-time in-house employee responsible for Payroll."³⁶ According to NS, additional

³¹ See NS Reply at III-D-83-85.

³² Id.

³³ Id.

³⁴ See NS Reply at III-D-83.

³⁵ See NS Reply at III-D-85.

³⁶ See NS Reply at III-D-84.

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staffing would be necessary to: 1) provide Paychex with information regarding individual employees' compensation and deductions; 2) coordinate with Paychex on garnishment, child support, and tax liens; and 3) process and report who is working, who is sick or injured, and who is on vacation.³⁷ This staffing is excessive given the SBRR has less than 500 employees, which is quite small in comparison to Class I and many other Class II railroads. Today's software applications also make it easier to manage the Paychex system than in the past.

NS also argues that the SBRR requires three (3) additional staff accountants, as SunBelt provided no technology for the SBRR that could assist with expense reporting. NS's claim is not correct. As shown in the brochure for the SAGA MAS 200 accounting package included with SunBelt's Opening IT software, there are many expense reporting options available to the user with this software. According to SunBelt witness Kruzich this is the same accounting package used by many Class I carriers for their expense reporting.

c. Tax Function

On Opening, SunBelt outsourced tax preparation services to outside consulting firms. NS contends on Reply that the Tax function must be staffed with one (1) Director of Taxes and one (1) Manager of Taxes. NS claims "SunBelt would...need internal resources to provide data, analysis, and oversight of outsourced tax work [and] [p]aying the SBRR's property taxes in each of the many county jurisdictions...requires year-round efforts to review and verify each tax bill and to follow up on mistakes and requested corrections."³⁸ On the basis of these arguments, NS insists that, in addition to the Tax preparation outsourcing, the SBRR will need a Director of Tax and a Manager of Tax. The Director "would have oversight over the entire tax process and

³⁷ Id.

³⁸ See NS Reply at III-D-85-86.

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would maintain relationships with property assessment officials in the three SBRR states. The Manager would coordinate with the outsourced income tax provider, manage the tax filing and payment process, and respond to all data requests and audit inquiries."³⁹

NS claims that the Director and Manager are needed primarily because of state property tax issues.⁴⁰ These staff are necessary, claims NS, in order to “build, nurture, and maintain relationships with state tax assessment offices to achieve the best possible valuation outcome for the railroad.”⁴¹ In other words, NS believes the SBRR must have employees whose primary duty is influencing local property tax assessors. NS’s belief is contrary to established appraisal ethics guidelines. Pursuant to the Uniform Standards of Professional Appraisal Practice, “[a]n appraiser must perform assignments with impartiality, objectivity, and independence, and without accommodation of personal interests.”⁴² Furthermore, an appraiser “must not perform an assignment with bias”, “must not advocate the cause or interest of any party or issue”, and “must not accept an assignment that includes the reporting of predetermined opinions and conclusions.”⁴³

Similar sentiment is found in the Code of Ethics of the International Association of Assessing Officers (“IAAO”), a professional organization of government assessment officials who administer property taxes-exactly the types of government employees that NS would want the SBRR to influence. Under the IAAO ethics guidelines,

- It is unethical for members to accept an appraisal or assessment-related assignment...in which they have an unrevealed personal interest or bias. (ER 3-1)

³⁹ See NS Reply at III-D-86.

⁴⁰ See NS Reply at III-D-85.

⁴¹ See NS Reply at III-D-86.

⁴² Appraisal Standards Board, Uniform Standards of Professional Appraisal Practice, 2012-2013 Edition, at page U-7, lines 209-210 (The Appraisal Foundation, publisher).

⁴³ Uniform Standards of Professional Appraisal Practice, 2012-2013 Edition, at page U-7, lines 211-215.

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- It is unethical to accept an assignment or participate in an activity where a conflict of interest exists and could be perceived as a bias, or impair objectivity. (ER 3-3)⁴⁴

NS's proposal is excessive in terms of the staff needed for preparation of monthly state and federal tax forms and related follow-up. Most such forms are standardized and repetitive, which commends them to computer processing. Also, a month is available between most filings to plan and prepare for the next filing. If additional help is needed to respond to audits, etc., outside firms can be used for assistance – although this is unlikely given the limited number of repetitive forms due each month.

NS's proposal is also unreasonable given the SBRR is a single, private railroad. NS is a public railroad made up of hundreds of companies and subsidiaries that are still carried on the books and require extra tax handling and accounting. With SBRR being a private railroad, with only one company to report on, they do not need as many tax personnel.

On Rebuttal, SunBelt believes that the outsourcing, along with one (1) Manager of Tax/Financial Reporting will suffice.

d. Financial Reporting

NS argues that the SBRR must have a Manager-Financial Reporting.⁴⁵ NS bases its argument on various financial functions, as well as “Class I railroad reporting requirements [of] NS and other Class I carriers.”⁴⁶ According to NS, the Financial Reporting function would be responsible for the monthly closing of books, financial audits, benefit plan reporting, accounting

⁴⁴ See <<http://www.iaao.org/sitepages.cfm?Page=70>>.

⁴⁵ See NS Reply at III-D-86-88.

⁴⁶ See NS Reply at III-D-87.

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research, internal and investor reporting, and STB reporting when the SBRR qualifies as a Class I carrier.⁴⁷

As described in the tax prep section above, SBRR is a single, private railroad, as opposed to NS being a multi-company public railroad. NS needs more personnel to report on the hundreds of companies, subsidiaries, and partial ownerships they have acquired over the years of their operation, and NS is required to report and file on numerous areas as a publicly traded company with substantial public stockholders. NS is accountable to numerous agencies and boards because of its public status, and everything must be audited and audited again to remain compliant in this financial environment. SBRR does not exist in the same environment at all due to its private status. It can remain financially compliant and responsible simply by maintaining a basic annual report with minimal other reporting, accountable only to its private board members. Private vs. public status makes all the difference in NS's excessive personnel needs in this area. However, as discussed above, SunBelt has added one (1) Manager of Tax/Financial Reporting, which will be more than sufficient to handle the needs of the SBRR.

In addition to the oversized support staffing for the Controller/Treasurer already identified by SunBelt, NS also proposes to add other staffing to the Finance & Accounting Department to supplement the staffing proposed by SunBelt for the Budgets and Purchasing function.

In its Opening Evidence, SunBelt proposed to staff the budget and purchasing function with one (1) Budgets & Purchasing Manager.⁴⁸ NS proposes to add one employee, a Purchasing Accountant.⁴⁹

⁴⁷ Id.

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There is no need for a Purchasing Accountant. The SBRR is a new railroad, with new track, bridges, locomotives, leased cars, and other equipment, so equipment and MOW-material purchases should be limited during the first five years of its existence. Purchases are made in bulk, and thus are limited on a daily basis. The SBRR does not have anything remotely approaching the purchasing demands suggested by NS. The Budgets & Purchasing Manager SunBelt has provided on Rebuttal should be able to handle the railroad's ongoing fuel, material, and small-equipment purchases.

In short, SunBelt disagrees with NS's addition of staffing for the Budgets and Purchasing function. First, SunBelt has already provided for one (1) Budgets & Purchasing Manager; there is absolutely no need for a Purchasing Accountant to handle one (1) sub-function (purchasing).

5. Law and Administration Department

The biggest discrepancies between NS and SunBelt estimates are the Legal & Administrative areas. SunBelt is adamant that management and the minimal recommended support staff in SunBelt's estimates can handle the administrative functions of the respective departments adequately without excessive needs for clerical and redundant support staff. SBRR will be a simple operation without special projects, hampering legal concerns, or layers of overlapping duties.

On Opening, SunBelt proposed a Legal & Administrative Department for the SBRR comprised of: a Real Estate & Security Director; two (2) Security Agents; one (1) Director of Human Resources; one (1) Information Technology Manager; and six (6) Information

⁴⁸ See SunBelt Opening Exhibit III-D-2 at 4.

⁴⁹ See NS Reply at III-D-89.

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Technology Specialists.⁵⁰ The total headcount proposed for this department was 11. On Reply, NS proposes an enormous Legal & Administrative Department consisting of 52 individuals, more than four times the staffing proposed by SunBelt on Opening.

As with many of NS's other G&A departments, the NS proposal for Legal & Administrative staffing exceeds that found in recent cases. In *AEPCO 2011*, the Board established a 29-person staff for Legal & Administrative, which is 0.0115 staff per million of SARR revenue.⁵¹ In contrast, the NS proposal for the SBRR is 0.1471 Legal & Administrative staff per million of SARR revenue.⁵² In *WFA/Basin* and *PSCo/Xcel* the Board found the Legal & Administrative staff to equal 16 and 14 employees, respectively. These facts demonstrate the excessive and unreasonable nature of NS's proposed Legal & Administrative staff for the SBRR.

There are seven principal differences between SunBelt's Opening and NS's Reply staffing of the Legal & Administrative Department: (i) NS's addition of a Director of Claims (supported by two (2) Claims Agents); (ii) NS's Police Chief (supported by 12 Security Agents, one (1) Communications Manager, and seven (7) Communications Staff); (iii) NS's addition of six (6) Information Technology Specialists; (v) an Environmental Function staff comprised of six (6) individuals; (vi) an addition of 2 Human Resources Managers; and (vii) NS's addition of more than \$1 million in outside legal fees. NS's staffing is excessive and in large part unnecessary. As shown in this section, SunBelt adds five (5) employees to the SBRR Legal & Administrative staff in Rebuttal, bringing the total to 16 Legal & Administrative employees. This is exactly in line with the Board's findings for the Legal & Administrative staff in both *WFA/Basin* and *PSCo/Xcel*.

⁵⁰ See SunBelt Opening Exhibit III-D-2 at 2.

⁵¹ See *AEPCO 2011* at 55 and 144 (based on 2011 revenue of \$2.515 billion).

⁵² See NS Reply Exhibit III-A-1 (based on 2011 revenue of \$353.5 million).

GENERAL & ADMINISTRATIVE EXPENSE**a. Attorneys/Paralegals**

On Opening, SunBelt proposed that the SBRR would incur an annual cost for outside law firms of \$200,000.⁵³ On Reply, NS claims that SunBelt has significantly understated the SBRR's legal expenses and staffing needs.⁵⁴ In particular, NS claims that the SBRR would need additional resources to ensure compliance with FRA, TSA, environmental, and STB regulations.⁵⁵ On the basis of its various arguments, NS proposed to staff the legal function with one (1) General Attorney, along with outside counsel spending of \$1.4 million.

SunBelt agrees a railroad the size of SBRR will need a designated person on staff to handle legal matters, and in Rebuttal adds a Director of Law/General Counsel. Duties of this employee would include everything from agreements and contracts, to petty claims and other lawsuits, potential risk management advisory and liability issues, filings and compliance issues, *etc.* Major issues, such as lawsuits and overflow duties would still be handled by outside attorneys on a rare and as needed basis. It is possible for any litigation to be outsourced, just like most Class I railroads today, and would be much less frequent than today's Class I railroads due to its smaller size. Also, SBRR will have no past liabilities, derailments, spills, construction, *etc.* to guard against like that of older railroads. The SBRR would also not face the prospect of rate litigation because it is presumed to operate in a contestable market, and rate case filings are not an everyday occurrence for a railroad the size and age of SBRR.⁵⁶

⁵³ See SunBelt Opening e-workpaper "SBRR G&A Outsourcing.xls."

⁵⁴ See NS Reply at III-D-90-91.

⁵⁵ See NS Reply at III-D-90.

⁵⁶ Rate litigation might occur if the SBRR and its interline partners raise rates substantially (as NS did with SunBelt's rates after the parties' rail transportation contract expired), but the SBRR's projected rates and revenues are based on indexing current rates based on existing contract price-adjustment mechanisms or standard cost indices. There is no reason to assume rate litigation would occur in these circumstances.

GENERAL & ADMINISTRATIVE EXPENSE**b. Outside Counsel**

The SBRR outsources the majority of its legal work. As noted above, in Rebuttal the SBRR's G&A staff includes a Director of Law/General Counsel who will serve as the railroad's General Counsel. On Opening, SunBelt assumed the SBRR would retain outside counsel to perform the balance of its legal work and included an amount of \$50,000 per state for this cost based on what has been accepted in previous proceedings.

In Reply, NS calculated an outside legal budget for the SBRR based upon a 2011 benchmarking study prepared by the consulting firm of ALM Legal Intelligence that reported total legal expenses as a share of company revenues.⁵⁷ For companies with annual revenues between \$100 million and \$999 million, ALM Legal Intelligence reported benchmark spending as 0.40 percent of revenues on combined inside and outside legal spending.⁵⁸

Using the ALM Legal Intelligence benchmark of 0.40 percent (which does not take into account the fact that SBRR is a new railroad), NS calculated a total legal budget of \$1,548,000 for the SBRR. NS subtracted the annual salary, fringe benefits, and different expenses associated with the SBRR's General Attorney to yield a proposed outside legal expense of \$1,412,400.

On Rebuttal, SunBelt accepts calculation of an outside legal budget based on a percent of revenue calculation, however SunBelt makes a minor adjustment to NS's calculation.

It is necessary to consider that both internal and outside counsel for the SBRR likely will reside in Birmingham, AL, where legal salaries are much lower than in other markets, such as the Washington, D.C. region where outside counsel for Class I railroads typically reside. A

⁵⁷ See NS Reply e-workpaper "ALM Legal Benchmarking Study.pdf" and "SBRR Operating Expense NS Reply.xlsx," Tab "Outside Services."

⁵⁸ See NS Reply e-workpaper "ALM Legal Benchmarking Study.pdf," at 1.

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study shows that the mean wage for attorneys in Birmingham is 86 percent of the mean wage for attorneys in Washington, D.C.⁵⁹

In light of this, SunBelt has utilized a conservative figure of 0.35 percent to calculate the SBRR's total legal spending as a percentage of revenues. SunBelt developed this figure by: 1) using NS's ALM figure of 0.40 percent; then (2) multiplying that figure by 86 percent to account for the reduced attorney salaries in Birmingham (*i.e.*, 0.40 percent x 0.86 = 0.35 percent). Based upon the first year revenues of the SBRR of \$396 million, SunBelt's calculation yields a total SBRR legal budget of \$1,369,882.

As discussed above, SunBelt believes Legal Staffing of one (1) Director of Law/General Counsel will suffice. In aggregate, the total internal legal budget for the SBRR is \$135,600. Subtracting this internal budget from the \$1,369,882 estimated total legal expense yields an outside counsel expense for the SBRR of \$1,234,281. The combination of this outside counsel budget and the SBRR's internal staffing level will be sufficient to cover the legal needs of a carrier the size of the SBRR.

c. Claims

On Opening, SunBelt provided one (1) Manager of Claims & Internal Auditing and outsourced work to Claims Investigators at an annual cost of \$125,000. NS argues that "SunBelt overstates the degree to which the SBRR could effectively outsource the claims function and therefore provides insufficient in-house claims staffing."⁶⁰ NS staffs the claims department with one (1) Director of Claims and two (2) Claims Agents.⁶¹

⁵⁹ Cf. Rachel M. Zahorsky, "What America's Lawyers Earn," ABA Journal (March 1, 2011)(See e-workpaper "Zahorsky.pdf")

⁶⁰ See NS Reply at III-D-92.

⁶¹ See NS Reply at III-D-93.

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NS's claim is flawed for several reasons. First, SBRR will be responsible for investigation of claims on local and received traffic only (less than one-tenth of the traffic, 8.1 percent). Second, a good deal of what moves by rail is the customers' responsibility, as far as damages, because of loading responsibilities. In the uncommon circumstances that there is a claim filed by a customer that SBRR actually is responsible for investigating, SBRR can outsource the effort to a third party on an "as needed" basis. Third, SBRR handles less carloads than NS, and recently, claims against the railroads have been decreasing due to unit train shipments (like coal) and shipper responsibilities through loading.

In short, SBRR's traffic makeup and responsibility for claims will be substantially lower than NS's for the same "carloads" of traffic, and the same formulas for measuring claims need not apply. SunBelt continues to rely on the estimates provided in Opening for claims outsourcing for these reasons.

d. Real Estate

On Opening, SunBelt provided one (1) Director of Real Estate & Security to staff the Real Estate function. NS adds one (1) Manager of Real Estate & Development who "is responsible for short- and long-term real estate issues including negotiating sales, acquisition, or lease terms; interacting with government authorities; design and engineering support; and any other activity related to the proper and efficient use of SBRR property."⁶²

Given that the SBRR real estate department is mainly just the right of way to operate the rail line, and there are few excess pieces of real estate, there is no need for an additional real estate employee. Environmental concerns tie into the real estate, but this a very specialized area

⁶² See NS Reply at III-D-113-114.

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of expertise and only of periodic necessity for an operation like the SBRR. Most of these functions can be handled by third parties. This is much more cost effective for the SBRR.

e. Police

The excessive size of the Legal & Administrative staffing proposed by NS is largely due to the police staff. NS argues on reply that, “[b]ecause of the significant security, regulatory, and asset protection requirements of all railroads, especially those handling large volumes of TIH traffic such as chlorine, sufficient police personnel are required to cover the 585 mile, three state territory over which the SBRR Network is spread.”⁶³ SunBelt concurs with NS’s suggestion that security staffing is needed, but NS’s proposed staffing of 22 individuals is unnecessary. Instead, the SBRR’s security needs can be met with a Director of Real Estate & Security (SunBelt proposed and NS accepted) and two (2) Security Agents (who are on call 24 hours a day). This staffing would be sufficient to cover the SBRR’s system. The Director of Security or a Security Agent can also call in local public police forces, should additional assistance to handle a particular incident be required. This is a common practice for smaller railroads, and over the years even the Class I railroads have cut back on in-house special agents and rely increasingly on local police. There is no reason this cannot be done here. SunBelt rejects NS’s proposed changes to this department, and addresses each issue raised by NS below.

First, the primary justification offered by NS for this sizable police force is that SunBelt’s three-member police force “is not consistent with real-world practice.”⁶⁴ As an initial matter, “real-world practice” is not a “requirement,” it is merely a “practice” or custom that a

⁶³ See NS Reply at III-D-109.

⁶⁴ Id.

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complainant need not follow as long as the needs of the traffic group are met. The complainant is free to avoid unnecessary and/or inefficient practices.⁶⁵

Second, despite NS's assertion of "government regulation," NS cites to just two regulatory requirements – both of which are of extremely dubious value in supporting a 22-officer police force. First, NS cites to the requirement for Class I railroads to "provide the location and shipping information" of a rail car to TSA within five minutes.⁶⁶ The Board should reject NS's assertion that police officers are needed to locate a rail car, given that other SBRR departments already fulfill this task: SBRR has nine (9) dispatchers staffing two (2) desks around-the-clock; five (5) Customer Service Agents staffing one (1) position around the clock for duties such as "questions concerning the locations of specific trains and cars;" and computerized dispatching systems for monitoring "the movement of trains and other equipment at all times." Second, NS cites to a Federal Register notice issuing a new rule that railroads maintain a toll-free phone number to allow the public to report unsafe road or pathway crossing conditions.⁶⁷ Answering phones about unsafe crossing conditions is plainly not a police function, especially since the purpose of this new requirement is to allow a railroad to adjust rail operations and/or fix defective crossings in a timely manner.⁶⁸ The SBRR dispatching department in conjunction with the field operations department can handle these tasks when they arise.

NS also cites two (2) additional statutes, but these statutes merely proclaim that, if a railroad has police officers, then the officers may enforce local laws (49 USC § 28101) or may

⁶⁵ See *Duke/NS* at 112 ("The SAC test is designed to measure the costs of serving traffic in the absence of inefficiencies...[which] can take many forms").

⁶⁶ See NS Reply at III-D-104 (citing 49 CFR § 1580.103(d)(1)).

⁶⁷ See NS Reply at III-D-110 (citing 77 Fed. Reg. 35164).

⁶⁸ See e.g., 77 Fed. Reg. p. 35167.

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have to meet qualifications (Miss. Code § 77-7-505). The statutes do not state that a railroad must have any particular number of police officers, or that there are any specific legal requirements that must be enforced by railroad police officers. NS also has not shown that the normal local police are incapable of responding to criminal behavior on rail property. NS claims that railroads “must pay for” local police operations,⁶⁹ but has not cited to any statute or other authority supporting this unusual assertion.

Third, NS also asserts that its own internal police force generated {{[REDACTED]}} criminal and non-criminal incidents in 2011.⁷⁰ This is insufficient justification for the SBRR’s staffing. Just because NS has decided to hire a large police force to generate reports does not mean that the SBRR must similarly do so.⁷¹

Fourth, SBRR's on-line operating work force is constantly on alert for situations requiring the attention of the police, therefore, it is not necessary to have all aspects of security handled by a police officer. SBRR's police will be able to coordinate with the local police force should an incident occur, and can work with local law enforcement on security, trespassing on rail right of way, vandalism, etc. as needed as the right of way moves through jurisdictions. NS has a larger police force due to its vast system and size, and has found it easier to simply train its own police force to handle its private concerns and interests. A smaller, new rail operation does not require this vast security body and can address problems as they arise.

This is yet another example of NS’s philosophy where each and every task requires a separate employee. As with all property owners and businesses that pay property taxes and

⁶⁹ See NS Reply at III-D-109.

⁷⁰ *Id.*

⁷¹ See *e.g.*, *McCarty Farms* at 468 (the SARR can be designed “in a manner that is different from, and more efficient than, the incumbent carrier’s service” as long as it meets the shippers’ needs).

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contribute to local economies that support local and state police, railroads can enlist police assistance when the need arises. NS has not shown that the normal police are incapable of responding to criminal behavior on rail property. The inclusion of 22 police officers for which NS cannot articulate any firm requirement or reasoning is not an efficient way to run a railroad, and the complainant is free to avoid unnecessary and/or inefficient practices.⁷² The board should reject NS's 22-member police force.

f. Environmental

Notwithstanding the fact that SunBelt proposed in Opening that the SBRR's Mechanical Department would employ one (1) Manager of Testing and Environment and the MOW Department would employ one (1) Environmental/Safety/Training Manager, NS contends that it is necessary for the SBRR's Legal & Administrative Department to include an Environmental Director and five (5) Environmental Professionals.⁷³ NS asserts that more environmental staff are needed to "manage compliance with...regulations" and to "respond to hazardous materials safety and security issues that might occur",⁷⁴ but neither assertion requires the extra staffing proposed by NS. The regulations cited by NS do not require six (6) full-time employees. Most of the regulations require one-time (or only occasional) actions establishing policies or standards, such as that each railroad must:

- "Designate a railroad employee" with hazmat responsibility
- "Restrict access to information" about hazmat shippers
- "Establish procedures for performing background checks"
- "Develop a system" that enables locating a car within five minutes
- "Enact" chain of custody control requirements

⁷² See *Duke/NS* at 112 ("The SAC test is designed to measure the costs of serving traffic in the absence of inefficiencies...[which] can take many forms").

⁷³ See NS Reply at III-D-108.

⁷⁴ See NS Reply at III-D-101.

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- “Enact commodity-specific improvements” for new rail cars
- “Set a 50 mile-per-hour speed limit” for certain traffic⁷⁵

The above tasks would not be recurring, daily responsibilities, but, instead, would only require attention for a single or isolated period of time. Of the other regulatory responsibilities listed by NS, three (3) concern rail route analysis in order to determine the safest route possible.⁷⁶ Of course, the SBRR system map is extremely simple and would not even enable different routings to be used for a particular shipment.

NS also criticized SunBelt’s use of continuous welded rail (“CWR”) on all of the SBRR main tracks. On Opening, SunBelt stated that the use of CWR would mean derailments would be less likely. NS claims that “less than 41% of derailments were track-related”⁷⁷ in 2011, citing to an FRA report from the Office of Safety Analysis. A close look at that report shows that NS has misinterpreted it. The report shows that 43.6 percent of derailments were track-related, not “less than 41%.” More significant, however, is the fact that the FRA determined that 60.3 percent of reportable damage was due to incidents from track causes.⁷⁸ If the goal is to eliminate costly and dangerous hazardous materials spills, then the SBRR, with its CWR construction as specified by SunBelt, is well on its way to addressing over 60 percent of the possible damage.

NS’s additional staffing is also redundant and unnecessary because the SBRR is a new railroad with a first-class track structure, and does not have ongoing environmental issues from the past. Outside assistance would be more economical for infrequent special circumstances, such as a derailment involving spillage of toxic substances. This work is highly specialized and does not happen every day. SBRR will not need additional dedicated, full-time specialists for

⁷⁵ See NS Reply at III-D-103-105.

⁷⁶ See NS Reply at III-D-104.

⁷⁷ See NS Reply at III-D-102.

⁷⁸ See NS Reply WP “Derailment Report.pdf.”

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these rare occurrences. Further, SunBelt's Director of Law/General Counsel is directly involved in all environmental matters.

g. Human Resources

On Opening, SunBelt provided one (1) Director of Human Resources ("HR"). SunBelt also explained that it would outsource most of the HR functions.⁷⁹

On Reply, NS proposes to add two (2) Human Resources Managers to this Department. NS's restructuring of the department is based upon a rejection of most of SunBelt's outsourcing, as well as the rejection of SunBelt's attrition rate. SunBelt rejects NS's proposed changes to this department, and will address each issue below.

First, with regard to outsourcing, SunBelt acknowledges that the outsourcing costs for HR were left out in Opening. On Rebuttal, SunBelt has added one (1) employee to its HR department in lieu of outsourcing.

Second, there is no need for the additional employees as stated by NS, as SBRR has limited employees, and HR needs for a non-union labor force will be substantially lower than a union-governed entity. There will be no personnel necessary to dedicate to labor negotiations, grievances, labor contract management, special contract payroll coding for multiple contracts, etc. Non-union labor will allow the SBRR to function with a more streamlined HR Department. Also, as a new railroad, the bulk of the employees will be in place, and turnover is not expected to be an issue. This gives the HR department time to plan and staff the SBRR with adequate employees.

⁷⁹ See SunBelt Opening Exhibit III-D-2 at 7.

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On Rebuttal, SunBelt has concluded that the HR Department requires a total of two (2) employees (one (1) Director of HR and one (1) Manager of HR), or one (1) more than posited on Opening. This HR staff is perfectly adequate for a newly-formed railroad with less than 500 employees.

h. Information Technology

SunBelt's IT expert, Joseph Kruzich, initially designed an IT department consisting of seven (7) individuals. NS accepted SunBelt's method for addressing IT staffing and proposed an increase in IT staffing of six (6) individuals for a total of 13.⁸⁰ SunBelt believes this increase is unnecessary. The complexity of the IT system and quality of newly hired personnel will be a key factor in SBRR's IT staffing. SBRR will start with the latest in technology and advancements, whereas a railroad such as NS is always balancing between legacy technologies and implementation of new technologies.

The basic IT functions will be developed to meet the needs of the SBRR and where needed, certain IT functions will be outsourced without requiring full time staff. Technology today is very user friendly, automated, and self-sufficient. User interfaces have removed the need for excessive IT personnel and manufacturers' customer service removes the need for excessive in-house development and maintenance personnel.

NS also develops a lot of its own software and equipment as an integrated control strategy, and because in the past, there were not sufficient rail software tracking, modeling, dispatch, and finance software available. This is not the case today with a market of abundant rail software programs and applications available to a smaller railroad like the SBRR. The

⁸⁰ See NS Reply at III-D-98-100.

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SBRR will not need any of these personnel as NS does for development of its own software, training of such, testing of such and integrating into existing systems.

NS cites a Gartner benchmark that claims “IT employees represent an average of { [REDACTED] } of full time employees in transportation industry companies.”⁸¹ This is completely irrelevant in this case because these benchmarks include all transportation companies such as airlines, trucking companies, waterway operators, bus lines, Class I railroads, *etc.* The SBRR is a railroad with a relatively simple operation that lends itself to readily-available IT systems. It should be no surprise that the SBRR spends a significantly lower percentage of its revenue on IT than the average transportation company.

Further support for the claim that NS's staff increase is unnecessary comes from the fact that during Mr. Kruzich's time with KCS as Vice President and Chief Information Officer (CIO), KCS employed close to 50 IT personnel that were able to handle all IT functions in-house, in other words, there was no outsourcing. Mr. Kruzich is well aware of functions that the SBRR's IT staff would have to cover. The fact that the SBRR is typical for a SARR, with over 578 route miles and \$396 million in annual revenue, is not determinative of its IT staffing needs; what is determinative is the IT functions that need to be performed, and these functions are much less complex than those of a typical Class I railroad.

In designing more complex computer systems and a much larger IT staff, NS fails to recognize the simplicity and efficiency of the SBRR's operations and instead proposes an IT department that is similar to that of a large Class I railroad. The computer system requirements for a typical Class I railroad are very complex due to the large number of customers served and

⁸¹ See NS Reply at III-D-100.

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commodities handled, the need to accommodate thousands of different origin and destination pairs, the need for extensive yard operations to sort and block cars and support local switching activities, and the need to keep track of service commitments to customers on an individual car basis. These conditions simply do not exist on the SBRR. SunBelt responds to the defendants' various IT positions below.

i. IT Specialists

NS proposes four (4) additional RMI specialists to oversee three (3) primary functions: Marketing, Operations, and Finance. The RMI specialist proposed in Opening by Mr. Kruzich was responsible for monitoring and troubleshooting RMI activities only, not marketing and accounting as NS suggests. In Opening, Mr. Kruzich provided one (1) Programmer/Development technician for maintaining and upgrading the crew calling, dispatching, human resources, and accounting systems. Given the size of the SBRR, this is sufficient staffing to provide support for these functions. However, to assure adequate coverage, one (1) additional RMI specialist has been added to cover the afternoon shift during regular business hours. The SBRR will now have RMI coverage from 7:00 AM to 11:00 PM during regular business hours, which is more than sufficient.

Consistent with today's practice for a company its size in terms of total managerial staff, the SBRR does not have a mainframe, and outsources nearly all of its IT services to RMI. Most of the functions performed in-house at KCS 15 years ago will be performed for the SBRR at RMI locations by RMI personnel. The SBRR has very little need for applications development, systems analysis, technology support, or network monitoring. When such functions are required, it is provided by the Programmer/Development position.

GENERAL & ADMINISTRATIVE EXPENSE**ii. Help Desk Technicians**

NS proposes a total of five (5) Help Desk technicians and two (2) field Technicians for the SBRR.⁸² This is completely unreasonable. Mr. Kruzich does not feel this is necessary for the size of the SBRR. However, to provide additional coverage, SunBelt has added one (1) help desk technician and one (1) field technician who would be responsible for covering both Meridian and Selma. This will provide help desk coverage from 7:00AM to 11:00PM during regular business hours. The other hours will be handled by an answering machine as proposed in Opening. The defendants' gross overstaffing of the Help Desk function should be rejected. Mr. Kruzich only sees a need for two (2) additional positions, one help desk technician at headquarters and one field technician at one of the large yards.

In summary, on Rebuttal SunBelt has increased the SBRR's G&A staff by 12 employees, raising the total from 22 to 34. SunBelt's Rebuttal G&A staffing is more than sufficient and should be accepted by the Board over NS's bloated staffing.

B. COMPENSATION

NS states that it accepts SunBelt's approach to use data from NS's Wage Forms A and B, with the exceptions of the Executives and the Director of Sales and Marketing.⁸³ With respect to the Director Sales & Marketing, NS argues that SunBelt misclassified the Director – Sales and Marketing as STB Wage Form A & B code 102. NS claims that this position, as well as the Marketing Managers should be classified as “Sales and Traffic Representatives and Agents (code 205). SunBelt accepts this personnel classification in Rebuttal.

⁸² See NS Reply at III-D-99-100.

⁸³ See NS Reply at III-D-114-118.

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With respect to Executive compensation, NS states that SunBelt's decision to use P&W as a comparison railroad is flawed for two reasons. First, the P&W is not appropriate for comparison purposes as the SBRR is significantly larger than the P&W based on both revenue and the number of employees.⁸⁴ Second, NS states that, while SunBelt based their salaries on the compensation for similar positions by P&W, SunBelt included only their salaries and “ignores other compensation besides base salary, such as stock-based awards, that are major elements of executive compensation at all railroads, including the P&W.”⁸⁵

NS then calculates executive pay based on the compensation paid to Genesee & Wyoming, Inc. (“G&W”) and Rail America executives, including base salary, stock awards, stock options and other compensation. As these carriers are larger than the SBRR, NS scales the average executive pay paid these individuals to the SBRR based on annual revenues.⁸⁶

Historically the Board has not included stock awards, stock options, non-equity incentive plan compensation, and “all other compensation” in stand-alone cost proceedings due to the fact these expenses were not included in the Annual Proxy Statement. While these forms of compensation are now included, SunBelt still believes they should not be counted when calculating Executive Compensation. SunBelt excluded stock awards, stock options, non-equity incentive plan compensation and “all other compensation,” to the extent they were identified, for the following reasons.⁸⁷

The SBRR is a new startup railroad, the initial salaries meet the requirements of a startup railroad and depending on the performance and profitability of SBRR, there may be room for

⁸⁴ See NS Reply at III-D-114-115.

⁸⁵ See NS Reply at III-D-115.

⁸⁶ See NS Reply WP “Executive Compensation.xlsx.”

⁸⁷ See SunBelt Opening e-workpapers “III-D-4 Salaries.pdf” and “SBRR Salaries.xlsx.”

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salary increases, stock awards, and other incentives. This is a very small company and comparatively, the pay is very good.

In terms of finding good employees at these salary ranges, there are many railroaders and non-railroaders seeking employment. Salaries for a startup such as SBRR versus a long established railroad are quite different and should be based on performance rather than titles.

In Rebuttal, SunBelt accepts use of the average executive salaries of G&W and Rail America executives, but continues to exclude stock awards, stock options, non-equity incentive plans and other compensation for the reasons discussed above. When excluding the excessive stock awards and other non-salary items from the G&W and Rail America executives' compensation, there is no need to "scale" the result to achieve a reasonable level for the SBRR. Using SunBelt's approach the executive pay for the SBRR equals \$610,288, \$328,350 and \$295,345 for the President, Vice President Operations and Assistant Vice Presidents, respectively.⁸⁸ These amounts are far more reasonable than the amounts NS included for these positions of \$1,602,260, \$635,073 and \$454,832 for the President, VPO and AVPs, respectively.⁸⁹

Finally, were the Board to somehow conclude that it is appropriate to include stock awards, and to scale the executive compensation of G&W and Rail America to the SBRR, then the Board should replace revenue as the scaling metric with carloads. As shown in NS's supporting workpapers, NS calculated scaling factors for four carriers, P&W, G&W, Rail America and KCS. The results show an unreasonable range of CEO compensation per million dollars of revenue, with a low of \$2.90 for the KCS and a high of \$15.40 per million dollars in

⁸⁸ See SunBelt Rebuttal e-workpaper "Executive Compensation_Revised.xlsx"

⁸⁹ See NS Reply WP "Executive Compensation.xls."

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revenue for the P&W, with G&W and Rail America in between at \$3.67 and \$6.20 per million in revenue, respectively.⁹⁰

Using carloads as the scaling metric reduces the variance among the observations considerably, with CEO compensation equal to \$2.41, \$3.00 and \$4.60 per carload for Rail America, KCS and G&W, respectively. (P&W is an outlier in this analysis with CEO compensation of \$12.77 per carload).⁹¹

As discussed above in regard to outside directors, this is a very small railroad and two of the three outside directors are shippers or investors in the SBRR and therefore, have a direct interest in the SBRR's success. Thus, the outside directors would be willing to serve on the board with only minimal compensation, *i.e.* travel expenses.

C. MATERIALS, SUPPLIES AND EQUIPMENT

NS accepts SunBelt's proposed unit costs for the materials, supplies and equipment needed by the SBRR's employees. The revised employee count on Rebuttal requires a corresponding revision in the total expenditure for materials, supplies and equipment.⁹²

D. OTHER

1. IT Systems

The SBRR's Opening IT systems, as developed by SunBelt Witness Kruzich, were designed on the basis of currently available technology best suited for the SBRR's needs. Much of the technology provided is through RMI outsourcing. NS devoted an entire section of G&A to claims that SunBelt's IT systems would be inferior to other railroads. This is totally unfounded and should be rejected. SunBelt has provided IT systems that are equal to those of

⁹⁰ Id.

⁹¹ See SunBelt Rebuttal e-workpaper "Executive Compensation_Revised.xlsx"

⁹² See SunBelt Rebuttal e-workpaper "SBRR Operating Expense_Rebuttal.xlsx" for details.

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other railroads, and is using many of the same packages as Class I railroads. SunBelt’s claim is not that SBRR IT systems are superior to other railroad's, but rather are efficient IT systems that will provide SBRR employees the most complete means of accomplishing their daily activities. NS has accepted the IT systems proposed by SunBelt on Opening but has made several adjustments that significantly increase IT costs. SunBelt has made adjustments to the SBRR IT systems on Rebuttal and will discuss each below. The expenses associated with IT systems are shown in Table 7 below.

Rebuttal Exhibit III-D-1 Table 7 SunBelt Opening, NS Reply and SunBelt Rebuttal Capital And Operating Costs For SBRR IT and Communications Systems						
Item (1)	SunBelt Opening		NS Reply		SunBelt Rebuttal	
	Capital Cost (2)	Operating Expense (3)	Capital Cost (4)	Operating Expense (5)	Capital Cost (6)	Operating Expense (7)
1. IT	\$1,758,627	\$2,321,668	\$7,104,101	\$2,557,209	\$2,419,728	\$2,514,780
2. Communications	\$32,509	\$130,914	\$49,064	\$177,047	\$37,265	\$160,512
3. Total	\$1,791,136	\$2,452,582	\$7,153,165	\$2,734,256	\$2,456,993	\$2,675,292

Source: e-workpapers “SBRR - Capital Budget-Rebuttal Final.xlsx” and “SBRR - Operating Budget-Rebuttal Final.xlsx.”

a. RMI

NS proposes to increase RMI implementation costs from SunBelt's Opening cost of \$100,000 to {{ [REDACTED] }}, based on {{ [REDACTED] }}⁹³. NS claims that, “[b]ecause {{ [REDACTED] }} handles approximately the same number of annual carloads of the SBRR, {{ [REDACTED] }} experience suggests that the SBRR's

⁹³ See NS Reply at III-D-119.

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implementation costs would amount to {{ [REDACTED] }}⁹⁴ This claim is infeasible for several reasons.

First, {{ [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] }} it would be more complex to implement RMI when compared to SBRR.

Second, using carloads as a benchmark is unreasonable. Carloads have little to do with the implementation cost of any IT system. The biggest determining factor for implementation costs is the reporting stations where information is input, such as freight offices. The total reporting stations a railroad has is more aligned with route miles than it is with carloads. This is precisely why Mr. Kruzich strongly feels a better criteria to estimate RMI implementation costs is route miles.

Third, SBRR would write many training manuals for one railroad, whereas {{ [REDACTED]

[REDACTED] }} The SBRR manuals would then be distributed to the various employees being trained. It cannot be emphasized enough the additional expense required to implement {{ [REDACTED]

[REDACTED]

[REDACTED] }} adjusted to SBRR route miles of 578, and arrived at SBRR implementation costs of {{ [REDACTED]

⁹⁴ Id.

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 } } Mr. Kruzich believes this is a fair and logical approach to determine SBRR RMI training costs.

NS also provides SBRR crews with Mobile Crew Reporting ("M-Crew") devices at a total cost of \$281,709. SunBelt accepts the addition of M-Crew devices because it will increase productivity and require less clerical employees in the yard offices. Total costs were adjusted based on crew count, and SunBelt's total cost for M-Crew devices is \$230,145.

b. Sage MAS 200 & Optimum Solutions

NS accepts SunBelt's Accounting and Human resources software packages, but adjusted the costs to reflect additional users.

NS states that SunBelt did not provide sufficient implementation costs for Sage MAS 200. NS also "concluded that a realistic enterprise resource planning ("ERP") implementation cost would be four times the cost of the software" based on ERP implementation studies.⁹⁵ Mr. Kruzich believes this is extremely high and has never experienced such outrageous implementation costs in all his years of experience. When Mr. Kruzich was at the Santa Fe Railway in the early 1990's, Santa Fe developed a new transportation system called Transportation Support System (TSS). The system cost just over \$70 million, and Mr. Kruzich can say with absolute certainty that it did not cost anywhere near \$280 million to implement. NS's implementation cost is grossly overstated, and it is apparent that NS's Reply numbers are exaggerated to make their case.

One fallacy in the ERP Implementation Studies is the fact that it does not specify which software is being implemented. It is common knowledge that some software packages are much

⁹⁵ See NS Reply at III-D-120.

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less expensive to implement than others and the costs can vary drastically. According to Accounting Software Research, “implementing a mid-market to high-end accounting software system will typically range from 1:1 to 2:1 compared to the cost of the software.”⁹⁶ Further support comes from ERP Wisdom, which stated that implementation cost “can be as low as 50 percent of the TCO if the software is based on one-tier architecture and it can be reduced if the buyer has done prior preparation.”⁹⁷

Clearly these numbers are much lower, and more in line with Mr. Kruzich’s experience. Mr. Kruzich agrees that implementation cost on the Accounting/HR software should be increased, and should reflect a more reasonable cost that is based on previous research. However, he disagrees that the number is four times the cost of the software and believes a more reasonable number is one times the cost of the software (which the ERP Wisdom and Accounting Software Research studies have suggested).

RMI software design has generic provisions in the software architecture that would make it easier to interface with commonly used accounting and human resources software such as MAS 200 and Optimum Solutions. Also, it seems as though an RMI implementation cost of {{[REDACTED]}} would have partial costs related to accounting and human resources software packages. NS does not provide any detail as to what is included in the {{[REDACTED]}} As discussed above, Mr. Kruzich concurs that one times the software cost is appropriate for accounting software packages, particularly since the {{[REDACTED]}} RMI implementation cost most likely includes some of this cost. Therefore, SunBelt has increased its Capital Budget by

⁹⁶ See e-workpaper “SBRR-Software Implementation Cost Ratios.pdf,” at 3.

⁹⁷ Id at 2.

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\$9,975, based on Rebuttal employee counts (this increase includes both software packages: accounting and human resources).

c. Communications

SunBelt rejects NS's expense for additional security and redundancy systems at SBRR's eleven field offices. NS is clearly overstating the systems requirements.

d. Hardware

After review of the SBRR's field Security Systems, Mr. Kruzich has decided that four additional systems are needed at SBRR's large yards. This leads to an increase of \$16,400, for a total of \$20,500.

NS also “adds a T1 telecom connection at New Orleans, Meridian, and Selma. In the event of an outage to the microwave system, the T1 telecom connection will allow the SBRR to continue major operations.”⁹⁸ Mr. Kruzich concurs and has added \$19,800 to the Operating Budget.

e. Miscellaneous

SunBelt has added the M-Crew Monthly charges to the SBRR Operating budget. As discussed previously, SunBelt did not include M-Crew devices in its Opening evidence and has since added the devices and costs to Rebuttal. M-Crew devices will allow the SBRR to be more efficient by having train & engine personnel input car status from the field in real time. It will also improve the accuracy of reporting and fully utilize the TEY personnel. SunBelt has added a total cost of \$193,112 for M-Crew Outsourcing.

⁹⁸ See NS Reply at III-D-121.

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NS accepts SunBelt's remaining IT proposals including hardware configuration, pricing, crew calling, dispatching and telephone systems. However, NS scales these items up to account for the additional staffing. SunBelt will make adjustments to the IT Rebuttal Capital and Operating Budgets when employee count adjustments on Rebuttal affect these costs.

Although NS asserts that the IT systems solution provided by SunBelt does not represent an integrated approach to data processing, and would require a significantly larger IT staff, NS accepts the backbone of the system which is the RMI operating system.

2. Other Out-Sourced Functions

As described earlier, several functions customarily provided in-house by large Class I railroads such as NS can be out-sourced by the SBRR. NS agrees the SBRR will be able to out-source certain functions, but does not agree completely as to what those functions are, or the cost of outsourcing. SunBelt responds to the defendants' position on each of these issues below.

a. Payroll Processing

NS has accepted SunBelt's proposal for Paychex to process payroll at \$50 per head. However, NS added an outsourced cost for an Employee Assistance Program (EAP) which NS claims is "a commonly provided benefit to connect employees with services such as child care, mental health and substance abuse programs, and financial advisors."⁹⁹ NS's EAP proposal is unreasonable due to the fact that EAP's are fringe benefits, and the cost for any such program will be included in the calculation of fringe benefits. By outsourcing the EAP, NS is double-counting these costs.

⁹⁹ See NS Reply at III-D-122.

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b. Audit and Internal Review

SunBelt accepts NS's proposal to use 0.03 percent of revenue, approximately \$119,046, as a benchmark for internal auditing costs.¹⁰⁰ However, NS has overstated the SBRR's external audit costs. NS used audit fees of \$600 per million in revenue, which was found in the Financial Executive Research Foundation June 2012 Audit Fee Survey report, and is based on the audit fees of private companies with revenue between \$100 million and \$499 million.¹⁰¹

Instead, SunBelt has used NS's actual audit fees and revenue for the past three years to calculate a more reasonable and reliable cost for the SBRR. SunBelt did so by calculating the percent of NS revenue that was spent on audit fees for the years 2009 through 2011.¹⁰² After averaging the results, SunBelt came to the conclusion that 0.0257 percent of NS's revenue goes towards external audits.¹⁰³ Applying this percent to the \$396 million first year revenues of the SBRR produces external audit costs of \$101,983.

3. Start-up and Training Costs

On Reply, NS accepts SunBelt's calculations of the average cost to train individual employees, but makes three adjustments: 1) NS adjusts total training costs to incorporate additional staff; 2) NS uses its incorrect fringe benefit ratio of 45.6 percent; and 3) NS modifies SunBelt's attrition rates. SunBelt's position on each adjustment is discussed below.

¹⁰⁰ See NS Reply at III-D-122-123.

¹⁰¹ See NS Reply e-workpaper "FERF 2012 Audit Fees Survey.pdf."

¹⁰² Audit fees were found in NS's annual proxy statement; Revenue was found in NS's annual report.

¹⁰³ See SunBelt Rebuttal workpaper "External Audit.xlsx."

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On Opening, SunBelt proposed the SBRR be staffed with 318 employees. NS proposes 672 SBRR employees. SunBelt has adjusted the total number of employees and on Rebuttal staffs the SBRR with 414 employees.

b. Fringe Benefit Ratio

In Opening, SunBelt proposed a fringe benefit ratio of 37.5 percent of wages. NS contends SBRR must use a fringe benefit ratio of 45.6 percent. As discussed in Part III-D, SunBelt has shown NS's 45.6 percent fringe benefit ratio to be unreasonable, and continues to use a fringe benefit ratio of 37.5 percent.

c. Attrition Rates

In Opening, SunBelt included an attrition rate of 1.8 percent based on testimony related to “quit rates” among unionized employees of the four major Class I railroads presented on behalf of these railroads by Dr. Robert Topel, PhD. to the Emergency Board No. 243 on Behalf of the Railroads Represented by the National Carriers’ Conference Committee before the National Mediation Board Case Nos. A-12569; A-13570; A-13572; A-13573; A-13574; A-13575; A-13592. While the SBRR employees are not unionized, the pay rates and fringe benefits provided SBRR employees in all crafts by both SunBelt and NS are based on NS’s actual pay rates to unionized employees, which were the subject of the proceeding before the Mediation Board.

NS characterizes SunBelt’s attrition rate from Dr. Topel’s testimony as “a willful misreading of a document of particular unions’ quit rate.”¹⁰⁴ However, reading of Dr. Topel’s

¹⁰⁴ See NS Reply at III-D-93-94.

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testimony on behalf of the major Class I railroads, including NS, explains in detail why turnover among union employees of the Class I carriers is remarkably low. Dr. Topel states:

The carriers' data on employee turnover provides further evidence of the economic rents that Coalition Employees enjoy as a result of their large compensation premium.....¹⁰⁵

These dynamics are reflected in three dimensions of labor turnover: the quit rates among Coalition Employees, the job tenures of Coalition Employees (as compared to similar workers in other industries and occupations), and the propensity of furloughed Coalition Employees to accept recall, even after very long separations. Each of these metrics demonstrates that Coalition Employees have extraordinary attachments to their jobs and that additional above-market compensation increases are not necessary.¹⁰⁶

By comparison, the average [monthly] quit rate overall among bargaining unit jobs with the Carriers is less than 0.15 percent – *less than one-tenth the rate of other Transportation, Warehousing and Utilities jobs.*¹⁰⁷ (emphasis in original)

Indeed, once hired, Coalition Employees remain employed with the same employer more than twice as long as employees with similar educational levels and skills in other industries. Similarly, I find that voluntary terminations among Coalition Employees are extremely rare – another indicator that these jobs are highly desirable in comparison to alternatives.¹⁰⁸

It is clear from Dr. Topel's testimony that turnover among Class I carriers' union employees of all crafts is extremely low, in large measure because of the very attractive compensation packages paid by the carriers, and by the SBRR. Based on Dr. Topel's testimony, SunBelt accepted the monthly quit rate of 0.15 which when multiplied by 12 months equals an annual rate of 1.8 percent.

¹⁰⁵ See SunBelt Rebuttal Workpaper "Topel Report Complete.pdf" at 18.

¹⁰⁶ Id.

¹⁰⁷ Id. at 21.

¹⁰⁸ Id. at 30.

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Moreover, NS's reliance upon its own experience of attrition rates is not appropriate for the SBRR. NS is an established carrier that is the result of numerous mergers and acquisitions over several decades. NS calculates that average annual attrition rates for NS are between {{█}} percent and {{█}} percent and produce an overall average annual attrition for agreement employees of {{█}} percent and an annual attrition rate of {{█}} percent for non-agreement employees.¹⁰⁹ As shown in the workpaper supporting its calculation of average annual attrition rates, NS has a substantial number of employees leaving the railroad because of retirement. In fact, NS's workpapers show that ,from 2008 through 2011, {{█}} percent of Agreement and non-Agreement employees, respectively, left NS because of retirement, rather than for other reasons. The SBRR, a new, small start-up railroad that is not the product of numerous mergers and acquisition would not have such an imbalance of employees at or near retirement. NS's attrition rates adjusted to remove the retirees drops significantly to average annual attrition rates of {{█}} percent and {{█}} percent for agreement and non-agreement employees, respectively.¹¹⁰

Further, in Mr. Hunter's experience employees tend to maintain employment with smaller railroads like the SBRR due to a smaller territory, less travel and being closer to home with less away time than larger Class I Railroads.

In Rebuttal, SunBelt continues to use the 1.8 percent quit rate for attrition among SBRR employees. Were the Board to determine that the quit rate of 1.8 percent relied on by SunBelt were somehow inappropriate for the SBRR, than use of the NS attrition rates, adjusted to remove

¹⁰⁹ See NS Reply e-workpapers "2008-2011 Agreement Attrition.xlsx" and "2009-2011 Nonagreement Attrition.xlsx."

¹¹⁰ See SunBelt Rebuttal e-workpaper "2008-2011 Agreement Attrition_Revised.xlsx" and "2009-2011 Nonagreement Attrition_Revised.xlsx."

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the excessive influence of retiring population should be used rather than NS's actual attrition rates.

4. Travel

In Opening, SunBelt provided annual travel expenses for certain senior and mid-level management personnel of \$10,475 based on the annual survey published by Runzheimer International for travel in 2010. In Reply, NS accepts SunBelt's annual travel expenses, but argues that the number of positions to which travel expenses are applied should include numerous additional positions. SunBelt has reviewed the positions added by NS and agrees to add the following positions: Controller/Treasurer, Manager-Budgets/Purchasing, two (2) Help Desk PC Technicians, one (1) additional outside Director and one (1) Director Law/General Counsel.¹¹¹

After making the adjustments discussed above, SunBelt's travel expense for SBRR G&A employees on Rebuttal equals \$136,175 million in the Base Year.

5. Bad Debt

NS assumes the SBRR will not receive 100 percent of the revenue it bills to its customers and that the SBRR would experience a write down of doubtful accounts comparable to that of Class I railroads. NS indicates that the average amount of uncollectible accounts for all seven Class I railroads over the five-year period from 2007 through 2011 is 0.05 percent of revenue.¹¹²

¹¹¹ It must be noted that NS indicates that outside Directors are also reimbursed for travel expenses, implying that SunBelt had omitted this expense. In fact, SunBelt provides travel expense for outside Directors in Opening and continues to do so in Rebuttal.

¹¹² See NS Reply at III-D-130.

GENERAL & ADMINISTRATIVE EXPENSE

Based on *AEPCO 2011*, SunBelt accepts the inclusion of bad debt expense in Rebuttal, however, SunBelt does not accept NS's uncollectible amount of 0.05 percent of revenue for two reasons.

First, NS's benchmark is based on the time period 2007 through 2011. If SBRR's bad debt is to be considered "a legitimate business expense," the time period should be similar to that of SBRR's operations. Given that 2007 through 2010 are prior to the start of the railroad, SunBelt will use 2011 to determine the average amount of SBRR bad debt.

Second, NS's use of all Class I carriers is unreasonable. NS claims that, "[t]o obtain the best approximation of the average amount of bad debt that the SBRR would encounter over the SAC analysis period, NS calculated the average amount of uncollectible accounts as a percentage of revenue for all seven Class I railroads..."¹¹³ This is merely a way for NS to hide the fact that NS has a very low bad debt expense. NS's uncollectible accounts as a percentage of revenue for 2011 was only 0.01 percent, whereas all Class I carriers had a ratio of 0.04 percent during the same period. The SBRR should not have to be burdened with the debt of other railroads, while NS customers pay their bills reliably and in a timely manner.

In short, SunBelt agrees bad debt should be included as an expense and has used NS's real-world uncollectible accounts as a percentage of revenue for the time period 2011, which equals 0.01 percent of revenue, or \$56,619.¹¹⁴

¹¹³ Id.

¹¹⁴ See SunBelt Rebuttal Workpaper "Bad Debt.xlsx"

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SunBelt's maintenance-of-way ("MOW") plan for the SBRR is described in Opening Exhibit III-D-3. On Reply, NS's experts claim SunBelt fell short of its burden to present evidence of likely SBRR MOW staffing and expenses that is consistent with real-world railroading.¹ They propose a MOW plan with more than double SunBelt's SBRR staffing level. The Board should reject this plan because it is based on flawed assumptions, substantially unsupported, and bloated with new positions and extra personnel that would not be required for the MOW operations and annual maintenance of the SBRR. SunBelt's experts reaffirm their approach to MOW staffing and annual costs taken on Opening, and strongly disagree with NS's assertions that the SBRR is understaffed.

In Part A of this Exhibit, SunBelt explains how NS fails to tailor its MOW Plan to the needs and characteristics of the SBRR. In Parts B through F, SunBelt addresses the specific aspects of NS's MOW Plan.

A. NS DOUBLES THE MOW STAFF AND ANNUAL EXPENSES WITHOUT CONSIDERING THE ACTUAL NEEDS AND CHARACTERISTICS OF THE SBRR

NS proposes to more than double the SBRR's annual MOW expense, from \$14.3 million in Opening to \$36.3 million in Reply. NS also proposes to increase the SBRR's office and field MOW personnel² by 100 percent, from 97 employees to 195 employees, or an increase of 98 employees.³ This grossly overstates the SBRR's MOW needs.

¹ See NS Reply at III-D-135.

² On Reply, NS states that job titles and duties are listed in a workpaper entitled "MOW Job Titles and Position Descriptions.pdf."² There was no such file provided in Reply. SunBelt assumes that NS is referring to file "SBRR MOW Job Titles and Position Descriptions.xls."

³ See NS Reply, Table III-D-31 at III-D-139.

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1. NS's MOW Plan And Costs Fail To Account For The New Condition Of The SBRR

NS's experts designed their SBRR MOW plan based on their experience with the aging NS system and similar rail systems and, thus, more than double SunBelt's proposed MOW staff, create entirely new, and unnecessary, positions, and increase the numbers of employees in needed roles without demonstrating a need for more employees. The existing NS system is comprised of older infrastructure constructed well over 100 years ago to a lower standard than modern infrastructure, has undergone phases of deferred maintenance, roadbed and track joint pumping, was constructed using archaic construction techniques, and has existing defects and age-related maintenance needs. NS's experts essentially impute these characteristics on the SBRR in their MOW plan and overlook the new condition of the SBRR. That is, because the NS experts have decades of experience maintaining older, aging infrastructure, they overstate the maintenance needs of the newly constructed railroad infrastructure of the SBRR.

Indeed, NS, in Reply, treats the SBRR as if it were like the NS system, constructed in the late 1800s or early 1900s, with the same inherent problems and flaws, and same infrastructure conditions. In addition, NS MOW experts fail to recognize uniformly in Reply the significance of having a completely new railroad with respect to annual maintenance needs and staffing. Although NS's experts acknowledge that the SBRR bridges will require less maintenance because they are new steel and concrete bridges, NS's experts fail to acknowledge that the SBRR's track and roadbed will also require very little maintenance in the ten year life of the SBRR, because they are also new.⁴ The NS experts set a double standard by taking this

⁴ See NS Reply at III-D-175.

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approach, without explaining why new track and roadbed require more maintenance than new bridges. Moreover, the NS MOW plan reverts to the staffing levels characteristic of the Southern Railway of the 1970s and the NS in the early 1980s.

The SBRR, being new, does not face the same challenges that the existing NS replicated lines face. The SBRR has a sound, newly constructed, undamaged roadbed, unlike the existing NS roadbeds which have failures and weaknesses due to archaic construction techniques at the turn of the century, having not been constructed with a crusher run sub-ballast cap and having had jointed rail in the past, deferred maintenance over the course of decades in the mid-1900's, and poor drainage in the past. SBRR culverts and bridges are new, and are not failing due to the age of the structures, or due to the type of material used originally. Also, the SBRR will not be maintaining rail that was laid 10, 20, 30 or 40 or more years ago. Since the SBRR is constructed with all new ties, the tie life cycle on the SBRR is completely different from the aged ties in the existing NS main lines, sidings, and other tracks. Even spot maintenance needs will be drastically lower with a newly constructed SBRR system compared with an older, aging track system, like the NS. Thus, NS's experts' use of NS's existing maintenance needs and their experience maintaining the NS lines and similar lines at other carriers as bases for the needs of the SBRR is unreasonable and illogical.

Table 1, below, identifies significant differences between the SBRR and NS infrastructure that the NS experts fail to reflect in their MOW plan.

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Rebuttal Exhibit III-D-2 Table 1 <u>Differences in SBRR and NS Railroad Infrastructure Conditions</u>	
<u>New SBRR Infrastructure</u> (1)	<u>Existing NS System Infrastructure</u> (2)
1. New, sound, well compacted roadbed, built with modern equipment, no damage from past operations	Old, weaker roadbed built with mules and drag pans, poorer compaction, soft spots from prior jointed rail pumping
2. New compacted crusher run sub-ballast cap, shaped to drain, less track surfacing required	No crusher run sub-ballast cap in original construction, poor drainage, more track surfacing required
3. New, clean working ditches, less need for cleaning	Old ditch lines, sedimentation over time, requiring more maintenance
4. Right-of-way completely cleared and grubbed, no trees, new grass, less maintenance required	Trees outside 20-25' from centerline, heavy vegetation & trees, more maintenance effort required
5. New track, new rail (CWR), new crossties, new clean ballast, new fasteners all requiring little to no maintenance	Old track, components vary in age, older rail, engine burns, shelling, bends, older crossties, fouled ballast, older fasteners, more maintenance
6. Less rail movement and fewer track gage problems	More rail/plate movement and more track gage problems due to age
7. Premium head hardened rail in curves 3 degrees and over	Limited use of head hardened rail in curves
8. New turnouts and switch ties, new frogs and switch points, brace plates, switch plates, switch stands, etc. requiring less welding maintenance	Older turnouts and switch ties, worn frogs, switch points, switch plates, and switch stands, requiring more welding maintenance
9. New insulated joints	Older insulated joints
10. Fewer joints in track	More joints in track
11. New grade crossings	Older grade crossings
12. New culverts, all coated steel materials, excellent condition	Older culverts, corroded steel, clay or older stone masonry material
13. New retaining walls	Older retaining walls
14. New bridges built with concrete and steel, all 286k compliant, requiring very, very little maintenance	Older bridges, many timber, older steel, some not 286k compliant, requiring ongoing maintenance

In contrast to NS, on Opening, SunBelt presented a workable, reasonable plan for the SBRR MOW department based upon the projected maintenance needs of the SBRR. SunBelt's plan reflects the reduced tasks and costs associated with a newly constructed railroad operation, the use of new materials and a properly built roadbed in the SBRR's construction, the type of

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track materials, bridges, and other components used in construction, the SBRR's use of modern technology and equipment, the projected annual tonnage on the SBRR, the absence of union restrictions on SBRR staffing, the ten-year life of the SBRR, the SBRR's use of contractors to perform most annual testing and maintenance, and other factors. In addition, it separates the tasks and costs of capital projects performed by contractors.

The Board's review and evaluation of the SBRR MOW staffing plan and maintenance costs should account for the fact that the SBRR is a "new" railroad with new roadbed, new ditches, a crushed stone sub-ballast roadbed cap, complete right-of-way clearing and grubbing, all new track and turnouts, new culverts and new concrete and steel bridges, etc. The maintenance costs for new railway infrastructure construction would be minimal for all new construction items within the first 10 years of service, unlike the maintenance costs for an existing railroad that is staffed to maintain older infrastructure with many imbedded deficiencies. Thus, the Board should refrain from deriving the cost of maintaining a newly constructed SBRR from the cost of maintaining an existing railroad that is staffed to maintain older infrastructure with many imbedded deficiencies.

2. SunBelt's MOW Plan Is Appropriately Sized For The SBRR's Size, Tonnage, Terrain, And Other Characteristics

NS experts claim that the SBRR's MOW plan developed by its principal engineering expert, Harvey Crouch, ignores the SBRR's size, tonnage, varied terrain, and other less

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significant factors.⁵ The NS argument is based on a criticism of the SBRR plan as being a “paper exercise.” These claims are absurd.

First, as detailed in his Statement of Qualifications, Mr. Crouch has considerable experience designing, building and maintaining railroad lines in the territory served by the SBRR, including direct field experience as a track supervisor and member of the NS Engineering Department.⁶ He has planned and designed track projects in all of the states of the SBRR system. Over his 35 years in the railway industry, he has observed the different types of terrain involved, roadbed and ditch conditions, track components and conditions, existing bridges and culverts (design, type and configuration), grade crossings and grade separations (which were very uniform in their design and construction), signal systems, and train operations in varying weather conditions on both tangent and curved track in mountainous, intermediate, and coastal-plain areas. His past experience and follow-up inspections played an important role in developing the SBRR’s MOW plan.

Mr. Crouch’s consulting firm, headquartered near Nashville, TN, specializes in railway engineering and has planned, designed, and supervised numerous successful railroad construction and MOW projects in the SBRR region. Mr. Crouch and his team at Crouch Engineering are well-aware of the geography, topography, soils, weather, and other conditions in which the SBRR must be constructed and operate. They are also familiar with NS’s maintenance practices, and followed them where appropriate in designing the SBRR MOW plan.

Also, while Mr. Crouch has worked extensively on railway projects throughout the eastern United States, he did not rely solely on his own past experience in developing the

⁵ See NS Reply at III-D-137-140.

⁶ See SunBelt Opening, Part IV.

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SBRR's MOW plan. In the summer of 2011 he rode over the NS line from Birmingham, AL to New Orleans, LA (via Amtrak) to verify ditch, vegetation, railroad bridge type, overhead bridge type and other physical features of the railroad, validating and confirming his past experience and knowledge of the lines.

Second, contrary to NS's insinuations, Mr. Crouch's MOW plan acknowledges that railroad infrastructure that handles a high volume of heavy tonnage trains must be maintained to a different standard than a railroad with lower traffic densities and less traffic. Mr. Crouch's MOW plan as presented in Opening treated annual gross tonnage as the major factor affecting maintenance requirements on the SBRR, aside from length of track. That is, annual gross tonnage is the major factor in terms of impacts on MOW maintenance requirements and testing frequencies. Indeed, annual gross tonnage over a line is the most significant factor with respect to rail wear, which SunBelt considered in the development of the MOW plan and design.

To be clear, all calculations for maintenance needs have a length of track component. All annual work and costs set forth in Opening by SunBelt were based on annual gross tonnage and the length of the tracks in the SBRR system, and other factors presented in Opening.

Third, when developing Sunbelt's SBRR MOW plan, Mr. Crouch and his team considered other important factors, in addition to annual gross tonnage and length of track, such as track geometry, grades and curves; geography; climate; maximum authorized train speeds; and train car weights.⁷ The factors mentioned above, along with annual gross tonnages, drove the design of maintenance frequencies, testing frequencies, and staffing. Below are some

⁷ 286,000-pound cars move mostly in unit coal trains, which compose a minority of the SBRR's traffic. Most of the SBRR's merchandise trains, and all of its intermodal trains, have cars or containers that are loaded to considerably less than 286,000 pounds GWR. Still, Mr. Crouch designed the SBRR MOW plan primarily for the 286,000-pound loads.

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examples of the SunBelt experts' use of or consideration of annual tonnage and other significant factors in the design and preparation of the MOW plan:

1. Traffic density/annual tonnage was used to develop thresholds for the rail section used in each type of track (e.g., 115 RE CWR was used where annual gross tonnage was below 20 MGT).
2. Traffic density/annual tonnage was used in developing maintenance cycles for ultrasonic rail testing.
3. Traffic density/annual tonnage was used in developing maintenance cycles for geometry car testing.
4. Traffic density/annual tonnage was used in developing maintenance cycles for the rail grinding program.
5. Curvature was used in planning for use of head hardened rail, spiking patterns, super elevation, ballast quantities, and other calculations.
6. Climate and location were considered in developing the level of vegetation control required.
7. Climate and location were considered in developing snow removal costs.

Fourth, Mr. Crouch considered NS's own maintenance standards, as well as other industry standards for maintenance practices based on annual gross tonnage. In contrast, NS does not compare the SunBelt SBRR plan – or its own SBRR MOW plan – with actual NS maintenance standards and practices. Thus, NS's plan does not reflect its real-world operations.

3. NS's Increases Of MOW Staffing Do Not Reflect the SBRR's Needs

In its Reply, NS attempts to paint the SBRR MOW plan as inadequate by emphasizing its claim that SBRR's maintenance costs will be higher than those SunBelt presented in Opening. But NS fails to mention that its expansion of the SBRR system and arbitrary increasing of Roadmaster territories, which automatically increases the amount of needed local crews,

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smoothing crews, backhoes, etc., are the main drivers of difference in the costs of the NS and SunBelt MOW plans.

A significant portion of the difference between the Sunbelt and NS MOW cost and staffing proposals arises directly from NS's unnecessary expansion of SBRR infrastructure in its Reply. In its Reply, NS added a hump yard and other facilities and automatically increased the number of MOW employees to account for these additional facilities. But NS failed to justify the addition of these facilities and, thus, the corresponding increase in MOW staffing and costs is unsupported. Accordingly, much of NS's increase in MOW staffing and costs is not because SunBelt's MOW plan was inadequate for the SBRR infrastructure it proposed; it is because NS added infrastructure.

NS also dramatically increased the size of its MOW field staff by cutting in half the average size of the SBRR's Roadmaster territories, and then proportionately increasing the total amount of MOW staff and equipment that SunBelt had assigned to the SBRR Roadmaster territories in Opening. But NS has not supported its use of smaller Roadmaster territories on the SBRR. Nor does NS explain why each of its Roadmaster territories for the SBRR, which are geographically half the size of SunBelt's Roadmaster territories, require the same number of staff and equipment that SunBelt proposed for its much larger territories. By shortening the Roadmaster territories, NS experts increased the field staff and equipment without demonstrating the need to do so. Furthermore, because NS itself has Roadmaster territories that are larger than it proposes for the SBRR, NS has not demonstrated why SunBelt's territories are unrealistic or infeasible. The Board should reject the NS's use of 100-mile average Roadmaster territories,

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which departs from NS's own practice on its system, as discussed in the Roadmaster section, below.

On Reply, NS also included a completely unnecessary layer of management. NS included many engineers, engineering managers, an AVP, and other engineering personnel that are not required because their functions are not needed on the SBRR.⁸ This staff is unnecessary because the SBRR has been designed and constructed to transport the proper peak period capacity and to serve all existing industries, thus eliminating the need for the design, mapping, GIS, and other services that this staff primarily provides. That is, NS failed to acknowledge that, because the SBRR was properly modeled and sized for the operating needs of the SBRR, design and other technical staff are not actually needed. Thus, the only reason that these positions were added was to inflate the size of the SBRR MOW staff.

4. NS's Comparison Of SunBelt's MOW Plan To Those In Previous Cases Overlooks The Unique Efficiencies And Design Of The SBRR
And Design Of The SBRR

In Opening, SunBelt submitted a detailed MOW plan that is based on the SBRR traffic group and related densities and the SBRR operating plan. The SunBelt MOW plan considered the kinds of terrain and climate in which the various portions of the SBRR are located and utilizes contractors to perform all of the SBRR's program work.⁹

On Reply, NS claims that "SunBelt's opening evidence of the SBRR's maintenance-of-way ("MOW") staffing and expenses falls far short of its burden to present evidence of likely

⁸ It should be noted, that while NS states in its text an AVP Engineering is to be included, it was not included in its spreadsheets.

⁹ See SunBelt Opening at III-D-18-20.

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SBRR MOW costs that is consistent with the underlying realities of real-world railroading.”¹⁰ NS draws this conclusion based on a comparison of “SunBelt’s staffing levels to the MOW staffing that the Board has found to be reasonable in recent SAC cases.”¹¹ But NS proposes a track miles to MOW staff ratio of 3.9 (Table III-D-31 at III-D-139 in Reply), which is far less than the 5.9 ratio in AEPCO, a recent SAC case. Thus, if the Board were to follow NS’s suggestion to compare the SBRR MOW plans to those accepted in past cases, the Board would have to reject NS’s plan as excessive. Moreover, there are many economies of scale in consideration of the staff size that NS has not recognized or acknowledged.

The SBRR should operate more efficiently than the complainants’ SARRs in prior cases before the Board and real-world railroads, especially since the SBRR is a highly-efficient and productive railroad that is constructed to handle the peak period traffic over the 10-year DCF model life. Indeed, there are many reasons that the SunBelt SBRR employee to track-mile ratio would be higher than those developed in the Board’s recent decisions. First, fewer upper level managers are required because there is little overlap in responsibilities and duties among Roadmaster territories and work crews. Second, the SBRR MOW plan calls for capital work to be completed by contractors, such as rail laying, tie replacement, grade crossing paving, testing programs, and vegetation control. The Board in past cases has failed to recognize that this contracted work would result in less need for annual production work by Roadmasters and the MOW local work crews.

¹⁰ See NS Reply at III-D-135.

¹¹ Id.

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5. NS Does Not Acknowledge The Use Of Non-Union Labor

Another significant flaw in the NS staffing plan assumptions is related to the fact that currently, NS employs many union employees, whose duties are restricted, and whose work rules are limiting. The SBRR staff is not subject to those same limitations and restrictions, and it does not need to follow the traditional craft boundaries (or layers of field supervision) that are typical of Class I railroads such as NS.

6. NS Overstates Environmental Concerns, Which SunBelt Addresses In Its MOW Plan

NS experts claim that precipitation and soil type in a geographic area are factors to consider in preparation of a MOW plan. Precipitation and soil type can be ruled out as major factors for several reasons.¹² Precipitation occurs all over the SBRR, and is handled perfectly well by its newly constructed roadbed (and crushed stone sub-ballast cap which drains the track roadbed to the ditches), ditches, culverts, and bridges. Precipitation, per se, has no impact on track maintenance over the ten (10) year life of the SBRR.

Soil type varies all over the SBRR. There is no one soil type per region or along the length of the SBRR. Furthermore, all soil encountered is stabilized during construction; the new roadbed is well-compacted; the new roadbed is capped with compacted crusher run sub-ballast which allows rainfall to drain off of the roadbed to ditches; ditches are adequate to convey storm water away from the roadbed; the soil subgrade does not get saturated because there is adequate drainage, the SBRR's construction meets modern industry and AREMA standards. NS's use of soil type to support increased MOW costs ignores these aspects of the SBRR.

¹² See NS Reply at III-D-135-140.

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In NS Reply workpaper “SBRR Environmental Factors.docx”, NS compares the environmental factors affecting the SBRR, the IRR (the WFA/Basin SARR), and ANR (AEPCO SARR) to determine the extent to which SBRR workload should be similar to the workload on the IRR and ANR. According to NS, “subgrade condition as determined by precipitation and soil types is the greatest differentiator between SBRR and [the IRR and ANR]. . . .”¹³ But this conclusion ignores that the SBRR’s design substantially eliminates the effect of soil and precipitation on SBRR workload. Specifically, the SBRR utilizes a compacted crusher run sub-ballast roadbed cap that provides proper runoff and drainage for handling precipitation, the underlying soil type is not a significant factor, nor is precipitation itself. NS’s experts ignore these design elements and the design differences between the SBRR and the IRR and ANR. Thus, their claims that the SBRR would have increased workload relative to the IRR and ANR due to environmental factors proceed from the flawed assumption that the SBRR, IRR, and ANR are equally suited to handle these factors.

The same fallacy is present when NS tries to use the impact of precipitation and soil on its own workload to argue that SBRR workload will be higher. This reasoning ignores the fact that the sub-grade on the SBRR would have a stabilized sub-base, would be well compacted, would not be damaged from prior factors (jointed rail, joint pumping, washouts, poor ditch maintenance over time, etc.) and would be capped with a new crusher run sub-ballast roadbed cap, unlike the original railroad roadbeds of the NS lines being replicated. The existing roadbed, which does not have a stabilized subgrade, or a compacted crusher run roadbed cap shaped to

¹³ See NS Reply e-workpaper “SBRR Environmental Factors.docx.”

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drain precipitation, is subject to becoming saturated from precipitation falling on the track. Thus, maintenance needs of the SBRR will be less than those of the existing roadbed.

The track modulus will be more consistent on the SBRR than on the existing NS lines being replicated. NS experts fail to properly explain and relate the modulus of elasticity of the roadbed with the track modulus. The modulus of elasticity varies with depth of ballast, sub-ballast, and depth of stabilized sub-grade. Because the SBRR has a uniform ballast depth, a uniform sub-ballast depth, and well-compacted stabilized roadbed, the modulus of elasticity will remain very uniform, and will therefore cause the track modulus to remain uniform, reducing the need for more frequent track surfacing.

And, it is commonly accepted in the railroad industry that newly constructed track and roadbed require very little maintenance within the first 10 years of use. Short of an extreme storm event, or washout, precipitation is not a factor in roadbed stability for newly constructed roadbed and track with a well-compacted roadbed, properly functioning ditches, and compacted, protective roadbed cap.

On Reply, NS asserts that SunBelt did not account for rain.¹⁴ That is ludicrous. Rain is accounted for in the design of the SBRR. When precipitation hits the roadbed, it is drained across the top of the sloped, compacted, crushed stone sub-ballast. From the edge of the sub-ballast cap, the runoff makes its way into lateral ditches, and then culverts or bridges, all of which have been designed for the purpose of draining the SBRR roadbeds. NS experts' claim that precipitation is a major factor in staffing the SBRR MOW department is unrealistic and unsupported because the roadbed design and construction, including stabilized soil, a compacted

¹⁴ See NS Reply at III-D-140.

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crusher run sub-ballast cap, and proper ditches, ensure proper drainage function, thereby drastically reducing the maintenance required over time suggested by NS.

7. NS Uses A Flawed, Unsupported Model And Approach To Justify MOW Positions

On Reply, NS claims that, “after evaluating relevant SBRR and external data, the NS MOW experts summarized the relevant characteristics that determine workforce requirements for each of the main SBRR routes. The...experts then assigned the appropriate number of track maintenance crews and signal maintenance employees to each segment...” Reply Exhibits “Line Segment Work Load Evaluation.xlsx” and “Line Segment Work Load Support.xlsx”.¹⁵

SunBelt rejects the NS Reply spreadsheets referenced above and the data contained therein because the spreadsheets contain unsupported evidence, unexplained and incoherent calculations, lack of correlation between data, no explanation of any modeling or process or procedures, and no calculations in some cells, with un-sourced data inserted into the spreadsheet without reference or calculation.

NS fails to explain its model, where data came from, how data were used, and what calculations were made. The spreadsheets do not represent or yield any acceptable type of modeling or calculation effort and should be rejected.

¹⁵ See NS Reply at III-D-140.

MAINTENANCE OF WAY**8. NS Fails To Understand The
MOW Presented In Opening
Regarding The SBRR Field Staff
And Division Level Supervision**

On Reply, NS adds organizational structure, management, and other positions for functions that are common in Class 1 railroads, but are not at all necessary for the operation of the SBRR.¹⁶

On the SBRR, the general office does not manage the maintenance and replacement of the infrastructure assets, maintain road property asset inventories, maintain records for tax purposes, manage infrastructure relationships with governments or third parties (government project costs are reimbursed), analyze infrastructure and performance, or develop plans for infrastructure maintenance. These activities, as necessary, are carried out at the Division level because the size of the SBRR, which is smaller than even one division on the NS, does not warrant the need for substantial general office oversight and multiple levels of management that are required by the entire existing NS system, where the general office coordinates multiple divisions. Indeed, all evaluation, testing, planning, and scheduling of annual work per the SBRR MOW plan is done on the Division level, coordinated by the Track Engineer. The Track Engineer's office maintains those records, and reporting required for tax accounting purposes can be easily turned over to accounting as needed. A separate hierarchy is not needed for MOW planning and record keeping because these tasks are easily accomplished on the division level, and there are not multiple divisions that would benefit from having some of the services performed by one individual for the entire group.

¹⁶ See e-workpaper "III-D-3 NS SBRR MOW Plan.xls."

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On Reply, NS adds MOW positions that are not necessary, are redundant, or would be performed by contractors and funded by third parties.¹⁷ NS fails to explain the need for most of these positions, and fails to acknowledge that many of the duties provided would not be necessary on the SBRR. For example, an AVP Engineering is not necessary. It is a redundant position performed by the VP Engineering. There is no need for an intermediate level of management between the Track Engineer and the VP of Engineering on a railroad the size of the SBRR. More Roadmasters with larger or additional crews, as suggested by NS, are not needed because many tasks performed on the existing NS lines being replicated are not necessary on the SBRR. With respect to major track rehabilitation projects, third party contractors are used to perform the work. These contractors perform the significant annual maintenance tasks that had been performed by local Roadmasters and MOW crews in the past, eliminating the need for the number of MOW employees stated by NS in Reply. Moreover, there is no need for Roadmaster or local MOW crew assistance in preparation for annual projects since all work is performed by contractors.

B. GENERAL OFFICE ORGANIZATION

SunBelt provides a total of 16 general office personnel to staff the MOW function; NS proposes a general office staff of 24, or 8 additional employees.¹⁸ NS either fails to explain the need for the additional staffing or assigns additional staffing without considering the size of the SBRR, relative to NS's own operations. SunBelt addresses the General Office staffing in its discussions of each department and miscellaneous administrative/support personnel.

¹⁷ Id.

¹⁸ See NS Reply Table III-D-33 at III-D-142.

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C. TRACK DEPARTMENT

1. General Office Staff

NS's proposes to staff the General Office with the same level of Track Department staff as SunBelt.

2. Field Staff

NS proposes a field staff organizational structure that eliminates the Assistant Engineer proposed by SunBelt and has the Roadmasters report directly to the Engineer MOW.¹⁹ This approach overlooks the need for an Assistant Engineer to support the Track Engineer, supervise annual MOW testing programs such as rail flaw detection and geometry car testing, and assist the Track Engineer in the supervision of the Roadmasters and the MOW staff.

a. Roadmasters And Assistant Roadmasters

NS proposes five Roadmasters, two more than SunBelt, and five Assistant Roadmasters, one less than SunBelt.²⁰ This proposal is based on NS's claim that the 200-mile average SBRR Roadmaster territories that SunBelt proposes are "unrealistically large."²¹ NS, however, all but fails to offer an operational justification for modifying SunBelt's proposed staffing of three Roadmasters and six Assistant Roadmasters.

First, NS all but fails to offer an operational justification for reducing the size of the SunBelt's proposed SBRR Roadmaster territories. NS proposes additional Roadmasters to reduce the SBRR Roadmaster territories to an average size of 116 miles. But NS's primary rationale for reducing the territory size is that average territory sizes in past cases were shorter,

¹⁹ See NS Reply III-D-148.

²⁰ See NS Reply at III-D-148-149.

²¹ See NS Reply III-D-148.

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not that SunBelt's proposed Roadmaster teams, which comprise one Roadmaster and two Assistant Roadmasters, are incapable of handling the workload of the larger territories that SunBelt proposed.

Indeed, the efficiencies of the SBRR, which NS ignores, permit the Roadmaster staffing levels proposed by SunBelt. Because the SBRR is all new (new rail, new crossties, new turnouts, new roadbed, new culverts, new grade crossings, etc.), there will be very little spot maintenance required, and because there are no in-house system gangs performing capital improvement work, the local Roadmaster and its track crews have significantly less responsibility than once was typical for a Roadmaster.

Also, SunBelt based its Roadmaster territories on a comprehensive analysis of factors, which is absent in NS's Reply. SunBelt Witness Crouch considered the new construction, topography, track geometry, annual tonnage and other factors, with annual gross tonnage being the most significant factor in planning for MOW maintenance and staff sizes, and number of route miles being the most significant factor for determining Assistant Roadmaster territories. Mr. Crouch also considered the SBRR's constructed route miles including branch lines, and its mainline track miles, in developing his Roadmaster territories (and track crew assignments).

Second, NS's use of average-sized territories is hypocritical. NS criticizes SunBelt's use of average-sized territories, claiming that the varying traffic and environmental factors on the SBRR do not lend to a one-size-fits-all approach. NS Reply, at III-D-137 to -138. Not only does NS ignore that SunBelt's proposed territories account for these factors, as indicated above, but also NS itself applies an average Roadmaster territory size to the SBRR. NS Reply, at III-D-149. Moreover, NS bases its proposed average territory size on other cases, not the varying traffic and

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environmental factors on the SBRR system. NS Reply, at III-D-148 to -149. Thus, NS's proposed Roadmaster territory sizes fail based on its own logic.

Third, SunBelt's proposed SBRR Roadmaster territories better reflect current practices among railroads. Using Roadmaster territories of approximately 100 route miles would have been appropriate in 1970, on a railroad that was aging, constructed in the 1800s, and which had been subject to deferred maintenance over several decades. Indeed, in the 1970s, division sizes were smaller, Roadmaster territories were smaller, and Track Supervisors had responsibilities for roughly 100 route mile territories. But, since the 1980s, Class 1 railroads, short lines, and regional railroads have been trending upward from the 100 route-mile average length of a Roadmaster territory to about 200 miles, primarily due to increases in system or contracted crews, the use of contractors, improvements in technology, and reduced duties over time. Many short line railroads, which use contract labor almost exclusively for various maintenance and capital projects, have Roadmaster territories in excess of 200 miles.

Indeed, even NS's own Roadmaster territories have increased dramatically over the last 30 years. After the Southern Railway/N&W merger in 1982, the MOW department was studied, and in 1987, significant changes were made in terms of downsizing the MOW staff. Division sizes shrunk, positions were eliminated, and cuts were made in the MOW staff based on increasing and improving technologies, and economies of scale. As recently as 1987, not every NS Track Supervisor had a hi-rail equipped truck, which has allowed them to cover larger territories. In the past, they were responsible for lines that had been in a state of deferred maintenance in earlier decades, and were responsible for coordinating and assisting with system rail laying crews, timber and surfacing crews, brush cutting crews, rail test and geometry test

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cars. NS's local maintenance crews were often used for major rail change-out of welded rail in curves, performing bolt tightening, rebuilding turnouts, crosstie replacement in sidings and yard tracks, and other tasks that would not be performed by the local maintenance crews on the SBRR either because of the newness of the system, or because the work would be done by Contractors.

Many of the tasks regularly performed by a Roadmaster and his crews in the past, when 100-mile territories were common, are simply not needed on the SBRR for the following reasons:

1. The "new" roadbed, bridge, culvert, turnout, grade crossing, and track construction.
2. Drift at bridges is lessened by the longer spans and lack of timber bridge spans.
3. Ditches and culverts function properly because they are new, and made of good materials.
4. Vegetation control needs are less because the entire right-of-way has been cleared, grubbed, and seeded, and is controlled by weed spraying.
5. The SBRR does not need Roadmaster and maintenance crew support for capital projects and maintenance projects such as rail replacement projects, grade crossing paving projects, or timber and surfacing projects, because the SBRR bids these projects to contractors who perform them.

In fact, work routinely performed in the past, but that is not necessary on the SBRR includes the following:

- Unloading of spikes, crossties, rail anchors, tie plates, and rail and other materials.
- Distributing and/or laying out crossties, tie plates, spikes, rail anchors, etc.
- Assisting the production crew with substitute labor or machine operators.
- Clean-up and picking up materials following the work of the production crew.
- Making field welds following rail laying.
- Setting up crew trailers.
- Assisting production crews with moving vehicles around, access to work sites, traffic control, miscellaneous labor, etc.
- Testing the rail.

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- Disposing of or loading scrap or other released materials into rail cars or trucks.
- Restoring bond wires and signals.
- Cleaning, lubricating, adjusting, and checking turnouts for proper working order of switch stands, switch points, and power switches following tie replacement and rail laying programs.

Fourth, SunBelt's inclusion of two (2) Assistant Track Engineers per territory reduces the demand on the Roadmasters because Roadmasters will not have to accompany test vehicles over the Roadmaster territory. The Roadmaster is free to line up his foremen and crews to perform spot maintenance, or planned switch, lubricator, or other maintenance on a daily basis, and assist the Assistant Roadmasters with inspections that are weather or event driven, as needed. Spot maintenance requirements will be considerably less than on the aging NS replicated lines since the SBRR railroad infrastructure is all new construction.

Fifth, NS's reduction of Assistant Roadmasters runs contrary to its own practice of using 100-mile Assistant Roadmaster territories, which has been in place on NS, and its predecessor, Southern Railway, for decades, and has remained fairly consistent throughout the industry over time. The reason that Assistant Roadmaster territories have not expanded over time is due to their main responsibility for track inspection and the physical constraints of getting track time for inspections. Thus, SunBelt's use of 6 Assistant Roadmasters to cover the 578 route miles of the SBRR, providing one Assistant Roadmaster for every 96-97 route miles of the SBRR, is conservative and closer to the industry average of 100 route miles than the 116 route-mile territories proposed by NS.

Sixth, NS adds a Roadmaster to cover a hump yard at Birmingham, AL, which is not part of SunBelt's proposed SBRR. Thus, this Roadmaster and Roadmaster territory is completely unnecessary.

MAINTENANCE OF WAY**b. Track Crews**

NS contends that 13 track crews are needed, instead of the seven proposed by SunBelt, primarily because NS believes that SunBelt's staffing is too lean for the amount of track that must be maintained.²² The SunBelt and NS track crews have the same makeup—one foreman and three crew members.

First, NS fails to consider the impact that the improved efficiency of the SBRR has on track crew workload. Specifically, even though NS admitted that less maintenance would be required for SBRR bridges, since the bridges would be new, NS and its witnesses fail to acknowledge that the SBRR's track, roadbed, and related infrastructure would also require less maintenance because they are all new (new roadbed and sub-ballast cap, new rail, new tie plates, new welds, new rail anchors, all new crossties, new grade crossings, new turnouts, new derails, new culverts, new bridges, new ditches, new seeding and mulching and clearing).

Indeed, each Roadmaster probably will have to make work for track crews to perform during much of the 10-year life of the SBRR because maintenance needs will be so low due to the new construction. Local crews will likely perform minor spot maintenance duties such as sweeping, cleaning and lubricating turnouts, occasionally replacing a defective rail (contractors test the new rail based on annual gross tonnage over each line), and will provide support for division smoothing crews, ditching crews, welding crews, etc. An 83 route mile territory per track crew is very reasonable based on the level of maintenance required for the newly constructed SBRR.

²² See NS Reply at III-D-150-151.

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Second, NS's staffing proposal proceeds from NS's assumption that the SBRR track crews would have the same workload as NS crews. Indeed, NS's local work crews on the existing NS lines that the SBRR is replicating perform many more tasks currently than would be required of the SBRR crews. For example, unlike on the NS, the SBRR has contractors perform all weed spraying, testing, road crossing paving, rail replacement of worn rail, timber and surfacing projects, etc. Thus, in contrast to their NS counterparts, SBRR local crews do not need to support capital projects, grade crossing maintenance, rail laying, or other types contracted work. NS's proposal fails to account for this significant difference in MOW maintenance needs that the NS and SunBelt track crews cover.

Third, the amount of track-miles per track crew are consistent with practice on other railroads for the level of maintenance that the SBRR requires. For example, Mr. Crouch is familiar with an NS track crew based at Savannah, GA. This four-man crew covers approximately 125 mainline track miles in a territory with approximately 20 MGT per mile per year. It also maintains tracks in six yards as well as industry connection and setout tracks. By comparison, Mr. Crouch assigns to track crews on the SBRR an average of approximately 80 mainline track miles with densities ranging from 5-30 MGT. Also, no SBRR track crew is assigned more than 80 miles of mainline track where any portion of the track has a density exceeding 30 MGT per mile. Based on the experience of NS's Savannah crew, the SBRR assignment in the lower density track is very conservative and in the greater than 30 MGT per density track the assignment of only 80 miles per crew more than offsets the lower density of the Savannah crew. This level of staffing is much smaller than the level of staffing proposed by SunBelt for the SBRR. NS failed to offer any contrary evidence of its own standards and

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practices for the number of track miles that can be maintained by a track crew on a newly constructed railroad.

Fourth, NS's use of staffing levels in previous rate cases as support for its proposed track crew staffing level fails to account for differences between the SBRR and SARRs in those cases. NS claims that route miles per SBRR track crew should be similar to the route miles per track crew found reasonable in other rate cases.²³ But NS fails to identify the similarities between the SBRR and SARRs in previous cases that would justify this result.

Fifth, NS overstates the impact of the environmental challenges that it cites to justify its track crew staffing level. As explained above, soil conditions and precipitation are not significant factors since the SBRR roadbed, ditches, culverts and other drainage structures are better designed, and constructed than on the NS lines being replicated.

Sixth, SunBelt's use of floating maintenance crews is consistent with NS's own practice. NS experts permanently assign track crews to single Roadmaster territories instead of using floating track crews²⁴ because they claim that using floating track crews is "unthinkable" and eliminates clear accountability, which is "essential."²⁵ But the use of floating track crews is a standard practice on NS itself that dates back to NS's predecessor, the Southern Railway. Also, NS's concerns about clear accountability and reporting to multiple Roadmasters are unfounded because floating crews are assigned to different Roadmasters as needed, rather than at the same time.

²³ See NS Reply at III-D-150.

²⁴ See NS Reply at III-D-150-151.

²⁵ See NS Reply e-workpaper "Text Analysis of SunBelt Track Workforce Plan."

MAINTENANCE OF WAY**c. Roadway Maintenance
Machine Operators**

NS claims five roadway machine operators are necessary, one per each Roadmaster district.²⁶ In addition, NS claims that one semi-truck driver and one material-truck driver are necessary.²⁷ SunBelt maintains that its proposal of four roadway machine operators is adequate.

First, NS increases the number of machine operators just because it added additional Roadmaster districts.²⁸ NS fails to identify why the four machine operators that SunBelt proposed are insufficient to cover the entire SBRR, regardless of the number of Roadmaster districts.

Second, semi-truck and material-truck drivers are unnecessary. Roadway machine operators (dozer operators in particular, because they have time available for other tasks when the need arises) can be cross-trained and licensed to operate semi-trucks and material trucks. In addition, most materials needed by track and other crews are transported to the worksite by the crews' assigned trucks, by the vendors who supply the materials, or contractors. Thus, a material truck and material truck driver are unnecessary.

Third, SunBelt does not need to provide for the transportation cost of materials and equipment.²⁹ As mentioned above, contractors perform program work, and handle the materials being supplied, and Suppliers deliver the purchased materials for capital projects and local maintenance. The cost of capital work is included in the DCF model, not in annual maintenance. There was no evidence provided by NS to indicate extra costs need to be included.

²⁶ See NS Reply at III-D-154.

²⁷ See NS Reply at III-D-155-156; NS Reply WP "III-D-3 NS SBRR MOW Plan."

²⁸ See NS Reply at III-D-154.

²⁹ Id.

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d. Welder/Helper/Grinders

NS proposes 5 welding crews per Roadmaster, which is two more crews than SunBelt proposed. NS claims that these additional crews are needed for workload reasons. The Board should reject this proposal for multiple reasons.

First, NS's proposal does not account for the better condition of the SBRR, compared to the NS system. The existing NS system replicated by the SBRR is composed of used components in varying stages of their useful life. Because the SBRR is constructed new, with all new materials, the maintenance needs will be much less for the SBRR, just as NS has acknowledged that maintenance for new bridges will be much less than for the existing bridges. Indeed, NS's experts assessed welding crew need based upon their experience on well-maintained high-tonnage lines, but they have no experience, or at least do not call upon any experience, maintaining newly constructed track.³⁰

Second, NS bases its proposal on an unrealistic assumption of one failure per mile per year. Because the SBRR is constructed with all new factory welded, tested rail, there will be significantly fewer rail defects found per year on the SBRR as compared with the older, aging NS rail currently in-track, which has varying degrees of age and wear. Likewise, wear on switch components should be minor since all new components are being used in the construction of the SBRR, and the occurrence of other random rail joints will be minimal. The reduction in rail failures in turn reduces the need for maintenance (rail work) windows.

Third, NS ties the number of welding crews to its arbitrary increase of the number of Roadmasters rather than the workload of the crews. While NS focuses on why SunBelt's welding

³⁰ See NS Reply at III-D-156-157.

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crew staffing level is inadequate, it fails to explain why the staffing level it proposes is adequate and not excessive.

e. Rail Lubricator Repairmen

NS accepts SunBelt's proposal for two lubricator repairmen.³¹

f. Roadway Equipment Mechanics

NS proposes three roadway equipment mechanics, which is one more than SunBelt proposed.³² NS adds the additional mechanic because of the unsupported increase that NS makes in the number of pieces of roadway equipment. SunBelt asserts that the increase is unsupported, and results primarily from NS experts arbitrarily increasing the number of MOW crews and equipment, without supporting evidence of need, simply because it also increased the number of Raodmaster districts.

g. Ditching Crews

NS proposes three ditching crews, one more than SunBelt proposed, because of environmental factors.³³ SunBelt asserts that its original proposal of two ditching crews is adequate.

First, NS's proposal is not based on a newly constructed railroad. NS's expert bases the proposal on personal experience with rail lines that are already in existence.³⁴ But the SBRR is constructed new, with a new roadbed using modern roadbed construction techniques, a new subgrade crusher run sub-ballast cap, complete clearing and seeding of the right-of-way, new culverts, new ditches, new bridges, and stabilized slopes. These design elements result in better

³¹ See NS Reply at III-D-157.

³² See NS Reply at III-D-158.

³³ Id.

³⁴ Id.

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conditions on the SBRR than would be found on the existing NS lines being replicated. The new roadbed and new track will require significantly less maintenance because roadbed failures due to poor roadbed design and construction will be eliminated. Accordingly, the SBRR's ditch cleaning and earth-moving requirements will be substantially lower than those of an existing railroad.

Second, the soils in the SBRR territory do not make yearly ditching necessary. NS experts argued that additional ditching would be required because of soil type, based on their experience with the territory; however, NS failed to mention that ditching required is a function of many conditions, including cut slope erosion over time, poor design and construction of the original roadbed, and debris left in ditch lines from maintenance programs. NS ignores the new and superior construction and design of the SBRR.

Third, NS suggests that warmer, wetter weather in the south increases maintenance needs for the roadbed and track. As explained above, precipitation is not a significant factor when a roadbed has been properly designed and constructed. Precipitation will continue to run off the roadbed into lateral ditches since the roadbed is capped with a properly shaped and compacted crusher run roadbed cap.

Fourth, NS ignores that most of its own roadbed that is replicated by the SBRR is perched, meaning that it is on fill or embankment with no parallel ditches except in cut sections.³⁵ The SBRR has even a greater proportion of perched roadbed. Thus, most of the SBRR's route does not have any ditches that need cleaning or repairing, and the SBRR will

³⁵ See SunBelt Opening Exhibit III-D-3, at 9 n.10. Mr. Crouch reaffirms his observations based on his inspection between Birmingham, AL and New Orleans, LA, by train, and his prior experience working all over the eastern US, and past experiences surveying, maintaining, and working on NS lines. He has also reaffirmed his position by viewing NS railway lines in Google Earth.

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require less ditching and repairing than the replicated NS lines.³⁶ Thus, there should be virtually no ditch maintenance required on the SBRR in the first few years and very little maintenance required in the ten year life of the SBRR.

Fifth, the portion of NS's argument concerning the perils of inadequate ditching is irrelevant. The issue here is not whether inadequate ditching creates additional costs. It is whether an additional ditching crew is necessary. Moreover, NS's cite to the Track Cyclopedia for the proposition that ditches should have a minimum bottom width of 3 feet to have an adequate capacity to contain soil erosion or rock fallout and carry water runoff.³⁷ It is not clear why NS states this. The typical roadbed section for the SBRR roadbed indicates a two foot flat bottom ditch, which also happens to be a common ditch width in the design of modern NS infrastructure projects. The use of 3-foot flat bottom ditches is not the NS standard for new construction. Therefore, SunBelt rejects the use of 3-foot flat bottom ditches as unnecessary and unrealistic.

h. Smoothing Crews

NS proposes three smoothing crews, instead of the two crews that SunBelt proposed.³⁸ NS increases the number of smoothing crews due to traffic density and terrain of the SBRR.

First, a smoothing crew, operating with the same levels of annual gross tonnage, can maintain 400 miles of track, which is much less than the territory size on the SBRR. Also, the terrain on the SBRR is much gentler than on many divisions of the existing NS. Thus, the SBRR will have less smoothing needs than the NS.

³⁶ Id.

³⁷ See NS Reply at III-D-159-160.

³⁸ See NS Reply at III-D-161.

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Second, NS's claim that additional smoothing is required for newly constructed track is illogical and incorrect. New track, constructed using current design techniques and equipment on a properly compacted subgrade and properly shaped and compacted sub-ballast roadbed cap, with brand new ballast, ties, and rail, will maintain its line and surface much better and longer than the existing lines consisting of older, aging crossties, rail, fouled ballast, weak and damaged roadbed. Thus if anything, the SBRR requires fewer smoothing crews than does NS's existing track structures.

Third, SunBelt's proposed number of smoothing crews reflects actual staffing practices of railroads. Railroads typically assign one smoothing crew per 400 route miles. Given that the SBRR is only 578 route miles, SunBelt's proposal of two smoothing crews is very conservative.

3. Signals and Communications

a. General Office Staff

NS increases SunBelt's proposed general office staff of one Communications & Signal Engineer and two Assistant Engineers to seven members, which include one Superintendent of Communications and Signals (who replaces SunBelt's Communications & Signal Engineer), one Manager of Signal Systems, one Engineer-PTC Signal Systems, one Manager of Communications Systems, one Engineer-PTC Communications, one Coordinator of Communications Systems, and one CTC Technician.³⁹ These alterations to SunBelt's proposed staffing are unnecessary and unsupported.

³⁹ NS identifies other positions in its discussion of General Office staff, two Signal Supervisors and one Terminal Supervisor C&S, but fails to indicate whether these positions are part of the General Office staff. SunBelt assumes these are part of NS's Field Staff and discusses these positions in its discussion of Signals and Communications Field Staff. See NS Reply at III-D-165-167.

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First, the Manager of Signal Systems is not required because the position supervises work of PTC engineers, for which the SBRR uses outside contractors, and the Engineer Grade Crossings is responsible for ensuring that outside PTC engineer contractors provide signal design and support that meets the requirements of SBRR. In addition, the Engineer Grade Crossings coordinates with the PTC engineer contractors concerning the installation schedules of signal equipment. Moreover, the SBRR will not be using a conventional amount of PTC engineer services because the SBRR will be built with a signal system that can fully accommodate its needs.

Second, the Engineer – PTC Signal Systems and the Engineer – PTC Communications are not required because the SBRR will have been built with the PTC capacity it needs for 10 years of projected traffic growth. NS proposes these positions for the purposes of “installation and operational commissioning of the PTC signal equipment.”⁴⁰ But PTC is already installed and commissioned on SunBelt’s proposed SBRR. In addition, NS claims that these positions are required for operation of the PTC system, beginning in 2015. But SunBelt’s staffing proposal already accounts for operation of the PTC system, and NS has failed to identify why these positions are necessary to supplement SunBelt’s proposed staffing.

Also, NS’s assertion that these Engineer positions cannot be combined because of the differences between signals and communications is irrelevant. SunBelt has proposed two Assistant Engineers, who can be separately responsible for signals and communications.

Third, the Manager of Communications Systems is unnecessary as described by NS, because the SBRR will be built with a communications system that can fully accommodate the

⁴⁰ See NS Reply at III-D-166.

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SBRR's needs. The cost of maintenance of the communications system is provided for in the annual maintenance costs which were accepted by NS in Reply.⁴¹ Stated differently, including this additional staffing double counts the Communications Systems maintenance costs already provided.

Fourth, the Coordinator of Communications Systems position⁴² is unnecessary. NS proposes this position to ensure that the communications network is operating at optimum levels and efficiency. However, NS fails to recognize that the cost of the maintenance of the communications system has been accounted for, and accepted by NS in Reply. Also, NS does not explain how the functions of this position are not already covered by SunBelt's staffing proposal. Additionally, the roving Communications Technicians in SunBelt's staffing plan are entirely capable of handling the communications equipment maintenance responsibilities of the Coordinator of Communications Systems.

SunBelt addresses the CTC position below in the Dispatch Center discussion.

b. Field Staff

i. Signal Maintainers, Inspectors, And Technicians

NS proposes 27 Signal Maintainers, two Signal Inspectors, two Signal Technicians, and two Signal Supervisors, which is a substantial increase over SunBelt's proposal of seven Signal Maintainers and one Signal Supervisor.⁴³ NS claims that its proposed staffing level is necessary primarily because SunBelt has overestimated workload capacity and underestimated the number

⁴¹ See NS Reply at III-D-184, Table III-D-42.

⁴² NS uses multiple names to refer to this position, including Coordinator Communications Control Center (NS Reply Table III-D-36), Coordinator Communications Control Center (NS Reply, at III-D-172), and Coordinator Communications Center (NS Reply III-D-173).

⁴³ See NS Reply Table III-D-36.

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of signal units that must be maintained.⁴⁴ As a result of changes to the SBRR system, SunBelt adopts NS's count of 28,256 AREMA units and, therefore, revises its original staffing proposal by adding seven Signal Maintainers, for a revised total of 15 Signal Maintainers.⁴⁵ SunBelt maintains that no additional staffing adjustments are necessary.

First, NS's assessment of workload capacity is based on the NS system and fails to account for the newer equipment and more modern technology used on the SBRR. See NS Reply III-D-168. To calculate the number of Signal Maintainers that the SBRR needs, NS devised a ratio of 1,100 AREMA units per each Signal Maintainer, which is based on its study of the number of AREMA units covered by Signal Maintainers on the NS. But this methodology fails to account for the NS's inefficiencies, relative to the SBRR. In contrast to the signal equipment on the SBRR, the NS lines have older and aging signal equipment, which is not uniform by equipment type and is made by various manufacturers. Thus, basing SBRR Signal Maintainer workload on the actual workload of NS Signal Maintainers is unrealistic. In Rebuttal, SunBelt continues to rely on the ratio of one maintainer per 2,000 AREMA units used in Opening.

Second, as stated in Opening, SunBelt bases the workload capacity of the SBRR Signal Maintainers on real-world operations. SunBelt's Communications and Signals expert, Victor Grappone, determined that each SBRR Signal Maintainer could realistically be responsible for 2,000 AREMA units, based on the direct experience he gained over his 20-year career at the Long Island Railroad, which has a more complex signal system than the SBRR, as an engineer assigned to signals and communications projects and systems.

⁴⁴ See NS Reply at III-D-167.

⁴⁵ SunBelt derives this total by applying the ratio of 2000 AREMA units per maintainer, which it also applied on Opening.

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Third, NS includes an additional signal supervisor without providing any justification. In contrast to its claim for additional signal maintainers, NS offers no evidence of its own practices or practices of other railroads that would justify the addition. Also, NS fails to cite workload concerns as a reason for the additional supervisor.

Fourth, the addition of two Signal Inspectors is unnecessary because the signal maintainers perform this function. Also, NS ties the number of Signal Inspectors to the number of Signal Supervisors without any justification.

Sixth, the addition of two Signal Technicians is unnecessary because the signal maintainers also perform this function. Further, NS ties the number of Signal Technicians to the number of Signal Supervisors without any justification.

ii. Communications Technicians

NS and SunBelt both propose two Communications Technicians.⁴⁶ But NS will locate these technicians at the Norris Yard radio shop, instead of having them rove the SBRR under SunBelt's plan.⁴⁷ Thus, under NS's proposal, these technicians will not be available to fix problems with communications equipment in the Dispatch Center.⁴⁸ Accordingly, NS adds a Coordinator of Communication Systems, who is assigned to the Dispatch Center and is responsible for maintaining communications systems in the Dispatch Center.⁴⁹ NS's addition of the coordinator position duplicates the communications systems maintenance expense already provided for by SunBelt and accepted by NS. Stated differently, NS is attempting to add

⁴⁶ See NS Reply at III-D-173.

⁴⁷ Id.

⁴⁸ Id.

⁴⁹ Id.

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additional costs for maintenance of the communications system even though they accepted the costs provided by SunBelt at Opening.

iii. Norris Yard

NS proposes a dedicated communication and signal staff at Norris Yard comprising one C&S Terminal Supervisor, one Electronic Technician, and six Signalmen.⁵⁰ As discussed in Part III-C, the SBRR does not include the Norris Yard or any other hump yards, so the SBRR does not have any need or requirement for additional C&S staff for hump yards.

iv. Dispatch Center

NS proposes to add a Coordinator of Communications Systems to the Dispatch Center and a CTC Center Technician, which SunBelt did not include in its Opening.⁵¹ On Rebuttal, SunBelt adds a CTC Center Technician position, but does not add the Coordinator of Communications Systems Position. SunBelt addresses the Coordinator of Communications Systems position in its discussion of General Office staff, above.

4. Bridge & Building Department

NS criticizes SunBelt's Bridge & Building Department ("B&B") staff as understated⁵² and more than doubles the number of B&B employees. However, this proposed B&B staff increase is unreasonable, given that there will be virtually no repairs needed for newly constructed concrete and steel bridges within the first ten (10) years of their life, NS has overstated the need for repairs, and the movable bridges will be remotely operated.

The fact that the SBRR's bridges are being constructed new, with concrete and steel components, and generally, with longer spans than the existing NS bridges, results in a reduced

⁵⁰ See NS Reply at III-D-171.

⁵¹ See NS Reply at III-D-172.

⁵² See NS Reply at III-D-173-174.

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likelihood of stream flow impacts and drift accumulation impacts, and minimizes this type of annual maintenance work required during the first ten years of operations. Thus Mr. Crouch's original proposed B&B staffing is very conservative.

Culvert performance will be assessed weekly during the regular track inspections by the Assistant Roadmasters. Culverts will be inspected annually by the B&B work forces.

Since there will be little to no required maintenance on the new bridges or culverts, the B&B work crews can also assist in performing annual bridge inspections and culvert inspections if needed. For these reasons, NS overstates the personnel required for the proper functioning of the B&B Department.

a. General Office Staff

NS and SunBelt similarly staff the General Office with a Bridge Engineer, but NS uses a structural engineer who performs the functions of a bridge engineer, a clearance engineer, and other associated functions.⁵³ Also, NS proposes a higher salary for the Bridge Engineer (NS - Engineer Structures) than SunBelt proposed, which appears to compensate for the expanded role of the Bridge Engineer under NS's proposal.⁵⁴ SunBelt maintains the Bridge Engineer does not need to perform the expanded role that NS proposes because it includes functions that are not needed on the SBRR. NS suggests the expanded role includes reviewing plans and designs for temporary and permanent structures proposed by shippers and verifying engineering calculations, plans, specifications, estimates and material requirements for annual capital programs. As a new railroad, the SBRR is not building structures on behalf of shippers, and because all of its bridges are new, the Bridge engineer will not be required to be required to

⁵³ See NS Reply at III-D-175.

⁵⁴ Compare NS Reply Table III-D-38 with SunBelt Opening Exhibit III-D-3, at 12, Table 4.

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verify plans or specifications or provide estimates for building bridges. Stated differently the proposed expanded role of the bridge engineer is not needed on the SBRR. Indeed, NS has not explained why this expanded role is necessary given the B&B staffing levels that SunBelt proposed.

b. Field Staff

i. B&B Supervisors

NS accepted SunBelt's proposal of one B&B Supervisor.

ii. Bridge Inspectors And Other Field B&B Employees

NS accepts SunBelt's proposal of one Bridge Inspector and two B&B Foremen.⁵⁵ But NS increases the number of Carpenters/Welders/Helpers from the four that SunBelt proposed to six as a result of its decision to have two four-person (including foreman) B&B crews instead of the single five-person B&B crew that SunBelt proposed.⁵⁶ NS also increases the number of Machine Operators from one to two.⁵⁷ And NS includes 13 Bridge Tenders, which SunBelt has not proposed.⁵⁸

First, the creation of two four-person B&B crews, instead of accepting the single five-person crew that SunBelt proposed, and the related increase in workers is unnecessary. Although NS agrees that little routine maintenance will be required on the SBRRs bridges and buildings, NS cites the need to perform routine repairs and operating tasks as the reason for this higher staffing level.⁵⁹ But NS overstates the need to perform routine repairs and operating tasks.

⁵⁵ NS Reply WP "III-D-3 NS SBRR MOW Plan."

⁵⁶ Id.

⁵⁷ Id.

⁵⁸ See NS Reply at III-D-174.

⁵⁹ See NS Reply at III-D-176.

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Indeed, the examples that NS provides of the types of items and events that trigger repairs and operating tasks are rare or already accounted for in SunBelt's staffing plan. Specifically, NS cites to the following: derailment damage (included in the annual derailment cost); washouts (included in the annual cost of washouts – even though washouts would occur with less frequency on a newly constructed, well-maintained railroad); foreign objects falling from cars (which rarely occurs); wooden ballast retainers (there are no wooden ballast retainers on the SBRR because the bridges are all constructed using concrete and steel, not timber); and bridge drains needing maintenance (the drains are very small in diameter, established to allow precipitation to trickle down from the bridge deck to the ground. These drains are not accessible because they are covered by ballast, so they are not a realistic maintenance item).⁶⁰

Also, NS does not justify its decision to create 300-mile maintenance territories, resulting in the need for two crews. It merely claims that the SBRR's bridge inventory is too large. This might be true if the SBRR infrastructure was similar to NS's, which has many timber and steel structures that require substantial ongoing maintenance and repairs, largely due to the fact that they were designed and constructed in the late 1800s and early 1900s when gross car weights were lower than today's freight cars. With today's heavier car loads, these bridges require above-normal levels of annual inspection, maintenance, and repair work. But the SBRR is not burdened by older infrastructure. It has only new concrete and steel bridges designed for today's gross car weights. Thus, the B&B staffing levels presented by SunBelt in Opening are very conservative given the fact that the bridges are all new, and will require little to no annual maintenance.

⁶⁰ See NS Reply at III-D-176.

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Second, NS's own proposal to use only two B&B Machine Operators for operating a bridge crane belie its criticism of SunBelt's use of one Machine Operator and one B&B Foreman to operate a crane. Instead of increasing the amount of workers for crane operations, NS simply adds another Machine Operator and reassigns the Foreman to a bridge crew.⁶¹

SunBelt maintains that the use of a bridge hoist is unnecessary since the SBRR does not have any timber bridges, and NS's use of a bridge hoist is based on its historical maintenance practices, using a bridge hoist for the repair of its existing timber bridges. Furthermore, annual bridge repair costs were presented at Opening and accepted by NS in Reply.

Third, the SBRR does not need thirteen (13) Bridge Tenders. As SunBelt described in Opening, the SBRR is a newly-constructed, non-unionized railroad that would not man these movable bridges with Bridge Tenders, which are anachronistic. Rather, it would provide for remote control of such bridges by the railroad's dispatcher for the territory involved, with the Coast Guard authorized to provide a telephone number or radio contact information so that a vessel approaching the bridge could contact the dispatcher to request that the span be moved.⁶² The SBRR reaffirms that it would follow this procedure and thus does not need any Bridge Tenders.

5. Miscellaneous Administrative/ Support Personnel

NS accepts SunBelt's proposal of three Administrative Assistants, one Engineer of Programs and Contracts (but on a full-time basis with additional duties), one Public Project

⁶¹ Id.

⁶² See Koglin, Terry L., *Movable Bridge Engineering*, John Wiley & Sons, Inc. 2003 (copy of relevant pages included in Rebuttal e-workpaper "Movable Bridges.pdf"). This publication also describes several instances where existing movable span railroad bridges have been converted to remote control, thus eliminating the need for bridge tenders.

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Engineer, and one Manager of Administration & Budgets (but NS expands the title to Manager Engineering Costs and Business Systems).⁶³ But NS eliminates SunBelt's proposed Manager of Mechanical Operations, Water Plant and Fueling Technician, Manager Environmental/Safety/Training.⁶⁴ Also NS adds a Manager of MOW Safety and Training, a Manager of Support Services, a System Engineer-Records & Maps, a System Engineer-Real Estate, Tax, and Joint Accounts, and three Management Trainees.⁶⁵ The differences in the staffing are addressed below by position.

a. Engineer Of Programs And Contracts

Both parties include this position, NS simply uses the term "manager" rather than "Engineer."

b. Manager Of Administration & Budgets

Both parties include this position, NS simply uses the term "Manager - Engineering costs and Business Systems" rather than "Manager of Administration and Budgets."

c. Manager Of Mechanical Operations

NS does not include this position on the SBRR. SunBelt includes this position to interface between the MOW department and the mechanical department. The Manager is responsible for deployment of MOW equipment. SunBelt continues to include the Manager of Mechanical operations in Rebuttal.

⁶³ See NS Reply at III-D-178-181.

⁶⁴ Id.

⁶⁵ Id.

MAINTENANCE OF WAY**d. Water Plant And
Fueling Technician**

SunBelt explains in Opening that this water plant and fueling technician maintains and repairs water and fuel systems. SunBelt continues to include the Water Plant and Fueling Technician in Rebuttal.

e. Manager of Support Services

NS uses this position to manage support service functions of MOW department and management of trainees & administrative support staff. SunBelt Administrative Assistants report directly to their supervisor (department head). Therefore there is no need for this extra level of management.

**f. Manager Of MOW
Safety And Training**

Both parties include this position. This is the equivalent of SunBelt's "Manager Environmental/Safety/Training."

**g. System Engineer –
Records & Maps**

A System Engineer-Records & Maps is unnecessary. NS claims that this position is necessary to maintain property records and land maps, including easements, licenses and leases. On the SBRR, this role is performed by a third party contractor, at no cost to the railroad - a common practice on many railroads.

**h. System Engineer-Real Estate,
Tax, and Joint Accounts**

NS adds a System Engineer-Real Estate, Tax, and Joint Accounts, but fails to provide any reasons for this addition. Thus, this position is unsupported.

MAINTENANCE OF WAY**i. Management Trainees**

Management trainees are not a functional role in the SBRR and are not necessary for the proper functioning of the railroad.

6. Allocation Of MOW Personnel To Operations And Maintenance Expenses

SunBelt stated in Opening that it allotted two-thirds (66 percent) of the salaries of the Assistant Vice President-Engineering and his direct reports to operating expense, with the remainder to be capitalized. In addition, SunBelt allotted 100 percent of the field MOW staff salaries to operating expense.⁶⁶ NS allotted 85 percent of MOW management staff salaries to operating expense stating that, “[since] all the program work on the SBRR is capitalized, the involvement of the General Office staff is much less than would be the case if program work were performed by railroad employees using railroad-owned equipment and using material purchased and handled by the engineering department.”⁶⁷ SunBelt’s allocation of two-thirds of the Vice President and General Office staff, plus 100 percent of the field staff, to operating expense is appropriate. The Vice President and General Office staff will be required to plan, contract and oversee contractors who are performing the programmed maintenance which is not a small task and will easily consume one-third of the staff’s time.

⁶⁶ See SunBelt Opening Exhibit III-D-3 at 27. Inadvertently, SunBelt included 100 percent of the salaries of the Vice President and his direct reports as operating expense. NS noted this error through a comment in its maintenance of way spreadsheet titled “III-D-3 NS SBRR MOW Plan.xlsx”, tab “Totals-Reply”, col. D, line 5, where it states “Actual SunBelt staff operating expense should be \$9,630,696.45.” In Rebuttal, SunBelt corrects this error and includes only the expense portion of the Vice President and his direct reports as an operating expense.

⁶⁷ See NS Reply at III-D-197.

MAINTENANCE OF WAY**7. Compensation for MOW Employees**

NS omitted any discussion of MOW salaries, or the basis for the salaries for MOW staff shown in Reply.⁶⁸ NS also failed to provide workpapers outlining the basis for MOW staff salaries in Reply. Without explanation, NS experts use higher salaries for their MOW staff positions in many cases. Because NS failed to explain the basis for the higher salaries, NS's MOW salaries in Reply should be rejected. SunBelt affirms that the salaries used on Opening were reasonable for each position, and should be used. The expense portion of the MOW salaries continues to be used in the calculation of the annual MOW costs.⁶⁹

D. NON-PROGRAM MOW WORK PERFORMED BY CONTRACTORS

NS accepts SunBelt's use of outside contractors for MOW work, but disputes the costs of such work. In this section, SunBelt addresses NS's proposed costs.

1. Planned Contract Maintenance

NS disputes the amount of track geometry testing, ultrasonic rail testing, and rail grinding services that must be performed and the unit cost of performing these services.⁷⁰ SunBelt addresses these issues in turn, below.

a. Track Geometry Testing

Although NS accepts SunBelt's proposed testing frequency, NS claims that SunBelt's unit cost for track geometry testing and proposed miles of testing are unsupported.⁷¹

⁶⁸ See NS Reply, Table III-D-38 at III-D-174.

⁶⁹ See e-workpaper "Exhibit III-D-2 SBRR MOW Rebuttal 5-23-2013.xlsx," tab "Totals" and "MOW Staff."

⁷⁰ See NS Reply at III-D-184.

⁷¹ See NS Reply at III-D-184-185.

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SunBelt uses the geometry testing cost of {{[REDACTED]}} per mile that NS provided in discovery.⁷² Thus, this number was not “concocted” by SunBelt, as NS claims, but provided by NS. In contrast, NS uses a unit cost of {{[REDACTED]}}⁷³ from Holland that NS did not provide SunBelt in Discovery or document in its Reply Evidence. Also, SunBelt applies its unit cost figure to 955.8 miles per year versus NS’s 821 miles per year, which results in a more conservative outcome. The Board should reject NS’s unit cost figure because it was not provided in Discovery and NS failed to support it on Reply.

NS also claims that SunBelt’s costs are not reliable because they are comprised of a mix of operating and capital cost. To the extent SunBelt’s cost includes includes capital costs, it overstates NS’s operating cost.

b. Ultrasonic Rail Testing

NS accepted the cost per mile of {{[REDACTED]}} per mile, which was actually provided by NS in discovery, but disagrees with the amount of testing required based on FRA regulations. SunBelt accepts the lower NS quantity for rail flaw detection testing based on annual tonnage and the FRA regulations,⁷⁴ and accepts the reduction in annual ultrasonic rail testing costs shown by NS in Reply from SunBelt’s {{[REDACTED]}} to NS’s annual cost of {{[REDACTED]}}.⁷⁵

c. Rail Grinding

NS accepted SunBelt’s approach to rail grinding and costs per mile, but did not agree that premium rail does not need grinding before 100 MGT. NS referred to a study done on the Canadian division of the CP with the most extreme track geometry and weather conditions as

⁷² See NS discovery spreadsheet “Rail and Track Testing Costs 2011.xlsx,” provided on DVD003.

⁷³ See NS Reply e-workpaper “III-D-3 NS SBRR MOW Plan.xls.”

⁷⁴ Id at III-D-186.

⁷⁵ See NS Reply, Table III-D-42 at III-D-184.

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support of its Reply argument. In addition, NS claims that SunBelt improperly capitalizes rail grinding costs.

First, NS's assertion that premium rail needs grinding before 100 MGT is unsupported by the study. The study⁷⁶ provides no data, opinions, evidence, nor claims regarding the required frequency for grinding rail in curves with premium rail over three (3) degrees, nor does it identify any correlation to rail lubrication or other factors affecting premium rail wear. In addition, the study does not contain any references to an industry standard for corrective rail grinding in premium rail. Thus, the Board should use the rail grinding methodology, plan and costs presented on Opening.

Second, based on the accounting standards NS uses in its real world operations and statements made by its engineering executives, the proper methodology for accounting for these MOW costs is to include them in the SBRR's capital recovery stream. In its Opening SAC analysis, SunBelt capitalized certain expenditures, including rail grinding, instead of treating these activities as standard operating cost items.⁷⁷ In Reply, NS disputes the capitalization of the maintenance activities and cites *AEPCO 2011* for the reasons that these activities should be treated as operating expenses.⁷⁸

NS has represented that these types of expenditures should be capitalized. NS's 2012 SEC Form 10-K discusses when and where the railroad decides to treat maintenance of way outlays as either a capital expense or an operating expense. As indicated by NS:

We capitalize interest on major projects during the period of their construction. Expenditures, including those on leased assets, that extend an asset's useful life or increase its utility, are capitalized. Expenditures

⁷⁶ See NS Reply at III-D-186, note 337.

⁷⁷ See SunBelt Opening e-workpaper "Exhibit III-H-1 Errata.xlsx," tab "Investment SAC," cell J13.

⁷⁸ See NS Reply at III-D-187.

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capitalized include those that are directly related to a capital project and may include materials, labor and equipment, in addition to an allocable portion of indirect costs that clearly relate to a particular project. Due to the capital intensive nature of the railroad industry, a significant portion of annual capital spending relates to the replacement of self-constructed assets. Because removal activities occur in conjunction with replacement, removal costs are estimated based on an average percentage of time employees replacing assets spend on removal functions. Costs related to repairs and maintenance activities that do not extend an asset's useful life or increase its utility are expensed when such repairs are performed.⁷⁹

Based on NS's description of its accounting practices, the key factor of whether the cost is expensed or capitalized is whether the activity extends the life of the asset.

Based on statements made by NS engineering executives, there is no question that rail grinding and repaving extend the useful lives of NS assets. NS included, in an SEC Form 8-K filing, a presentation made by Tim J. Drake, NS's then Vice President of Engineering, at a June 6, 2007 Investor Day hosted by NS, during which members of management provided information regarding various aspects of NS's business. Mr. Drake stated as part of his presentation that:

Norfolk Southern will spend \$12 million in rail grinding in 2007. This process is used to enhance the life of the rail and provide a smooth running surface for trains.⁸⁰

NS's own engineering executives clearly acknowledge rail grinding extends the life of rail.

These sentiments are expressed by other maintenance of way experts. Based on published reports, NS uses a Loram RG400 Series grinder as part of its maintenance

⁷⁹ NS SEC Form 10-K for Year Ending December 31, 2012 at page K49 (emphasis added). Similar statements of NS's accounting position can be found in NS's SEC Form 10-K from earlier years.

⁸⁰ A copy of Mr. Drake's presentation can be found at <http://www.sec.gov/Archives/edgar/data/702165/000070216507000154/drake1.htm>.

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operations.⁸¹ According to Loram's Manager of Marketing and Business Development, Joseph Ashley, "we're starting to see better rail life extension through more exact rail grinding."⁸²

Similar statements were made by other railroad spokespeople:

At CSX Transportation, MOW officials are seeking a computerized selection of the daily grind plan based on a laser-head profile at the front of the grinder and a daily pre-grind measurement to improve grinding operations. In addition, if grinders could operate more efficiently, CSXT could reduce the amount of track time needed for grinding, said CSXT Spokesman Gary Sease in an email, adding that the Class I's "preventative grinding philosophy" calls for operating production grinders on main routes to maintain rail and extend rail life.⁸³

There is no question that rail grinding extends the useful life of rail. Based on this widely acknowledged fact, and NS's own statement that it capitalizes maintenance activities that extend the life of assets, SunBelt continues to capitalize certain maintenance of way activities in Rebuttal.

d. Yard Cleaning

NS accepted that yards require cleaning, and accepted the daily rate for yard cleaning used by SunBelt.⁸⁴ The yard cleaning quote relied on by SunBelt in Opening and accepted by NS was provided by ANR, who indicated that yards require three days to clean on average. NS experts suggest that the number of days of yard cleaning provided by SunBelt is not adequate and instead assume that only 10,000 track feet can be cleaned daily. NS uses this 10,000 track feet figure to calculate the number of days required to clean its 108 miles of yard track annually.

⁸¹ See "Maintenance of Way: Rail Grinding Equipment Update," Progressive Railroading, November 2011, "Norfolk Southern Railway was the first railroad to begin using the RG400 Series Production Rail Grinder," says Loram Manager of Marketing and Business Development Joseph Ashley."

⁸² Id.

⁸³ See "Technology update: Rail grinding equipment," Progressive Railroading, May 2010.

⁸⁴ See NS Reply at III-D-187-189.

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In Mr. Crouch's experience, a railroad does not clean all yards annually, nor does it clean all tracks in a yard. Further, NS provided no evidence in discovery that it uses a yard cleaning service for all yard tracks in all of its existing yards on an annual basis, nor did it provide evidence of its annual cost of yard cleaning in discovery that would support the NS argument. And NS does not claim that it cleans all of its yard tracks on an annual basis. Therefore, SunBelt's indexed cost of \$41,705 per year is very reasonable and realistic. NS's claim is unsupported.

e. Vegetation Control

NS states that the costs used by SunBelt for vegetation control are wrong due to errors in the calculation of the unit cost of the brush spray program and crossing maintenance program and SunBelt's assumption that the SBRR would incur little or no brush cutting costs.⁸⁵

First, NS is correct that SunBelt did err in the calculation of the vegetation control unit costs in Opening, these errors are corrected in Rebuttal.

Second, NS also argues that SunBelt omitted portions of required brush cutting cost. This is not accurate. SunBelt used information provided by NS in discovery to develop its costs on Opening. The costs provided by SunBelt are extremely conservative considering that the brush cutting requirements on the existing NS lines are not the same as the requirements for the SBRR. There will not be any areas where crops are growing or ornamental shrubs are growing on the right-of-way because the right-of-way will have been recently purchased and completely cleared. As a result, spraying of newly seeded and planted right-of-way is adequate to maintain vegetation control at least for the first ten (10) years of operations. NS overstates the need for

⁸⁵ See NS Reply at III-D-189.

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brush and vegetation control; therefore the vegetation control plan presented by SunBelt on Opening should be used.

f. Crossing Repaving

The NS experts accepted the costs proposed for this item on Opening, which SunBelt included in the DCF model. SunBelt experts opine that repaving would not likely be required within the 10 year life of the SBRR, and that including it at all is very conservative.

NS incorrectly claims that repaving costs are not properly charged to capital. Like rail grinding costs, discussed *supra*, repaving costs extend the life of road property assets, in this instance, crossings, and therefore are included as a capital expenditure, not an operating expense.

g. Shoulder Ballast Cleaning

SunBelt experts asserted on Opening that no shoulder ballast cleaning would be required on the SBRR within the first ten years considering that it is a newly constructed line, free from blown in soils, and because it would have no fouling of ballast from roadbed pumping, and no previously fouled ballast with which to contend.⁸⁶ In Reply, NS claims that SunBelt “omitted the essential maintenance function of shoulder ballast cleaning” in Opening, which is not correct.⁸⁷ SunBelt experts recognize that it is a useful practice when and where needed, but that the need for shoulder ballast cleaning comes over time, and for reasons that would not be a factor on a newly constructed railroad.

First, NS’s claim that shoulder ballast cleaning will be necessary arises from its experts’ experience with older, existing railroads. NS’s experts state that there will be no need for shoulder ballast cleaning within the first three (3) years of operation, but suggest that cleaning

⁸⁶ See SunBelt Opening e-workpaper “III-D-3 SBRR MOW.xls,” tab “Totals.”

⁸⁷ See NS Reply at III-D-190-192.

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cycles will vary from four (4) to ten (10) years after that. This ignores the characteristics of a newly constructed railroad like the SBRR.

NS's experts fail to recognize that the SBRR conforms to the modern practice of using sub-ballast to cap the roadbed and provide for drainage of the track and roadbed, unlike most all of the existing lines replicated by the SBRR, where a sub-ballast cap was not used in the original construction. The increased drainage that a sub-ballast cap provides substantially reduces MOW needs because, when there is poor drainage from the track and roadbed, the roadbed under the track becomes more susceptible to roadbed pumping, which is one of the primary causes of ballast fouling. Thus, on the SBRR, precipitation will run off the roadbed, which is sloped to drain for that purpose, as opposed to the earlier construction in the 1800s, which was not built in the same fashion.

Another factor in determining the need for shoulder ballast cleaning is time. It takes time for dust from the atmosphere to settle into the roadbed, or accumulate from passing coal cars or other open-top hopper cars. There is no reason to assume that shoulder ballast cleaning would be necessary within the first ten years on a newly constructed railroad. Thus, SunBelt experts listed shoulder ballast cleaning in Exhibit III-D-3 SBRR MOW.xls in Opening, but stated that it would not be needed and provided zero cost on Opening.

Second, NS's actual practice of shoulder ballast cleaning belies its call for extensive shoulder ballast cleaning on the SBRR. NS experts mention in Reply that NS used {{ [REDACTED] [REDACTED] }}

However, the NS experts claim that their conservative annual shoulder ballast cleaning plan for

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the SBRR includes cleaning 164 miles of track each year, or 28 percent of the SBRR.⁸⁸ If shoulder ballast cleaning is truly that important, and is a regular practice of NS, then the track miles cleaned on the NS in 2010 would have been on the order of 5,800 miles (based on just over ¼ of the 20,600 mile long NS system)⁸⁹ not {{[REDACTED]}} miles.

h. Equipment Maintenance

NS accepts SunBelt's calculation that the SBRR's annual cost of equipment maintenance would be five (5) percent of the purchase price,⁹⁰ but overestimates the annual contract equipment maintenance cost by including the additional vehicles required for the extra MOW personnel that it proposes in its MOW plan. As described above, with rare exceptions, the additional MOW personnel proposed by NS in Reply are unnecessary. Thus, NS's overstates the equipment maintenance cost. The Board therefore should accept SunBelt's Opening equipment maintenance unit costs, and the final cost adjusted as noted in the Rebuttal sections herein, based on correcting the number of trucks required per position, and using five (5) percent of the annual cost of equipment for the cost of maintenance.

i. Communications System Inspection And Repair

NS accepts SunBelt's methodology for determining communications system inspection and repair costs (two (2) percent of the original purchase cost).⁹¹ SunBelt reaffirms its cost of \$467,931 in Opening, which was accepted by NS.⁹²

⁸⁸ See NS Reply at III-D-192.

⁸⁹ SBRR = 578 miles, NS recommended cleaning 164 miles, 164 divided by 578 = 0.28.

⁹⁰ See NS Reply, at III-D-193.

⁹¹ Id.

⁹² See NS Reply at III-D-184, Table III-D-42.

MAINTENANCE OF WAY**j. Bridge Inspections**

NS accepted SunBelt's cost for Bridge Inspection of \$82,277.⁹³

k. Building Maintenance

NS accepted SunBelt's methodology for calculating the cost of contract building maintenance (two (2) percent of the total cost of constructing the buildings).⁹⁴ Because, on Rebuttal, SunBelt adjusts the total cost of constructing buildings based on its revisions to the total staff needed for the SBRR and the related changes to facilities, SunBelt adjusts the annual building maintenance cost to \$751,617.

l. Ditching

SunBelt's MOW plan outfits each ditching crew with a Gradall or excavator, a hi-rail swivel dump truck, and a conventional pick-up truck. In addition, a bulldozer is available for shaping ditches. NS accepts this outfit, except that it proposes to equip crews with hi-rail Gradalls instead of excavators.⁹⁵ NS's choice of equipment is a matter of preference and not need. SunBelt asserts that its equipment choices conform to current best management practices on railroads in the southeast US.

The SBRR MOW equipment called for on Opening is very conservative. With newly constructed roadbed, ditches, culverts and bridges, it is highly likely that most of the SBRR ditches would remain problem-free within the ten year life. Indeed, neither SunBelt nor NS called for any additional contract ditching costs on the SBRR.

⁹³ See NS Reply at III-D-193.

⁹⁴ Id.

⁹⁵ See NS Reply III-D-158.

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2. Unplanned Contract Maintenance

a. Snow Removal

NS accepts SunBelt's position that there will be no snow removal costs for the SBRR.⁹⁶

b. Storm Debris Removal

SunBelt proposed \$10,000 for annual storm debris removal costs.⁹⁷ On Reply, NS proposes increasing these costs to \$25,000. This increase is unsupported. NS has not provided in discovery or in its Reply Evidence any data or support for this increase.

Because local track crews and Assistant Roadmasters typically handle normal, localized storm debris cleanup, the \$10,000 annual contract cost proposed by Mr. Crouch is more than sufficient for the SBRR.

c. Building Repairs

NS accepts SunBelt's proposal to subsume building repairs in the general building maintenance cost, which NS accepts as two percent of building construction costs. NS Reply, at III-D-194.

3. Large Unplanned Maintenance

a. Derailments, Accidents And Wreck Clearing

NS rejects SunBelt's proposed annual cost for repairing damage resulting from derailments and clearing wrecks. NS claims that SunBelt's cost estimate is flawed because SunBelt did not account for traffic volume when allocating derailment and wreck-clearing expenses, assumes that most derailments are track-related, and relies on an incomplete source for derailment costs. Not only do these criticisms not withstand scrutiny, but also NS has submitted

⁹⁶ Id.

⁹⁷ See SunBelt Opening e-workpaper "III-D-3 SBRR MOW.xls."

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inconsistent cost evidence and bases its proposal on unrelated costs that it reports in its Annual Report Form R-1.

First, SunBelt's allocation of derailment and wreck-clearing expenses based on a ratio of SBRR to NS route miles, instead of ton-miles, produces an accurate estimate of these expenses on the SBRR. As demonstrated by the title of the Schedule 410 expense NS relies upon in its evidence, i.e., "Road Property Damaged," in the real world, NS relates the damage caused by derailments and wrecks to road property, not to tons handled. Also, this method of allocating costs is consistent with parties' calculations and Board decisions in previous proceedings.⁹⁸ If, for some reason, the Board believes that the derailment expense NS proffers (i.e., that reported in Schedule 410, line 18) should be used, then SunBelt argues the Board should not allocate this expense based on ton-miles, as allocation based on route miles or track miles is more appropriate.

Second, NS claims that newly constructed track is just as susceptible to derailments as older, well-maintained track.⁹⁹ Mr. Crouch disagrees. There are track-caused derailments that increase in likelihood over time due to the age of materials, wear over time, and material failures that are age related. Examples of these types of derailments include transverse defects in rail that result in broken rail derailments; other types of broken rail defects; center-cracked joint bars; switch points not fitting properly against stock rails in switches; bucked track; wide gage derailments, etc.

⁹⁸ The public version of testimony in both the AEPCO proceedings demonstrates the parties agreed on using FRA accident reports for determining the cost of derailments on a mileage basis in stand-alone proceedings. The Board accepted the parties' evidence, which included the use of FRA accident reports, in these proceedings. See Public version of Complaint's Opening testimony at III-D-90-91 and Defendants' Reply at III.D-109.

⁹⁹ See NS Reply at III-D-195.

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Third, SunBelt's reliance on the FRA accident reporting database produces a more accurate cost estimate than NS's method of relying on R-1 filings. By relying on the FRA accident reports, which are geographically coded, SunBelt's costs estimates account for geographic factors. By contrast, NS's use of its R-1 filing, which provides system-wide costs fails to account for geographic factors that affect the accident rate on the portion of the NS system that the SBRR replicates. In addition, NS fails to attribute its system-wide derailment costs to the causes of the derailments and correlate the causes of derailment and the magnitude of the costs associated with each type of derailment.

NS incorrectly claims that the derailment expense amount it reports in Schedule 410, line 18 of the Annual Report Form R-1 more appropriately reflects derailment costs than do the costs published by the FRA, which are based on data provided to FRA by NS. NS states that the R-1 expenses include the expense of repairing damage to roadway property resulting from "derailments, collision, fire, explosions, sabotage and other casualties."¹⁰⁰ Clearly this expense includes more than repairing damage from derailments and over-reports NS's expense for derailments. Review of the public record in both the *WFA/Basin* and *AEPCO 2011* proceedings reveals that both parties relied on FRA data, not R-1 data, for determining the cost of repairing damage from derailments, and the Board accepted the parties' calculations in those proceedings.

Fourth, NS's expense estimates ignore that the entire SBRR is signaled and will have Positive Train Control, thereby reducing the likelihood of train collisions as a source of wrecks and derailments. This will result in a significant reduction in the number of broken rail and non-

¹⁰⁰ See NS Reply at III-D-195.

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track related derailments and accidents, as does the Federal Railroad Administration by enacting requirements for PTC.

Fifth, NS submits inconsistent cost evidence. For example, NS proposes an annual cost of \$1.7 million for derailments and clearing wrecks on page III-D-196 of its Reply. But it proposes \$1.4 million in NS Reply workpaper “Reply SBRR Derailment and Clearing Wrecks.xlsx.” The disconnect between NS’s Reply narrative and Reply workpapers also runs to the ratio of SBRR to NS ton-miles.

For these reasons, the Board should use the derailment expense and clearing for wrecks expense that SunBelt proposed in its Opening.

b. Washouts

NS rejects SunBelt’s proposal of \$10,000 annual expense for repairs of washout damage and proposes a \$50,000 annual cost.¹⁰¹ NS’s proposal should be rejected for multiple reasons.

First, NS has offered no evidence, either in discover or on Reply, to support its cost estimate. Indeed, it failed to provide documentation of even its own annual costs related to washout damage. Accordingly, its estimate is mere speculation.

Second, NS’s proposed expense is based on its expert’s experience in maintaining the NS lines being replicated by the SBRR.¹⁰² Thus, NS’s estimate does not account for the construction differences between the NS lines and the SBRR lines. Washouts typically occur for a number of reasons, such as when concrete culverts separate at the joints and cause the roadbed to fail; when a record flood causes runoff flows that exceed design capacity; when ditches become blocked with tree debris, or culverts become clogged with drift or vegetation. But the construction of the

¹⁰¹ See NS Reply at III-D-196-197.

¹⁰² See NS Reply at III-D-197.

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SBRR reduces the likelihood that these events will occur. For example, the SBRR uses metal pipe culverts for the most part, which typically do not experience joint separation failure as do concrete pipe culverts. Also, ditches, culverts, and bridges are new on the SBRR and not subject to failure under normal circumstances. The SBRR's culverts are designed for present-day runoff coefficients and drainage area characteristics.

In contrast, the construction of the NS segments replicated by the SBRR make them more prone to washouts. Existing railroads, such as NS, have to deal with culverts that were built many years ago and are now undersized, based on changes in land characteristics and runoff coefficients. Land characteristics and runoff coefficients have changed for the worse over time due to increasing land development – forests have been replaced with parking plots and agricultural fields, which concentrate storm water runoff much faster, requiring larger culverts.

c. Environmental Cleanups

NS accepts SunBelt's cost estimate for environmental cleanups.¹⁰³

4. Program Maintenance

SunBelt stated in Opening that it allotted two-thirds (66 percent) of the salaries of the Assistant Vice President-Engineering and his direct reports to operating expense, with the remainder to be capitalized. SunBelt allotted 100 percent of the field MOW staff salaries to operating expense.¹⁰⁴ NS allotted 85 percent of MOW management staff salaries to operating expense stating that, “[since] all the program work on the SBRR is capitalized, the involvement

¹⁰³ See NS Reply at III-D-197.

¹⁰⁴ See SunBelt Opening Exhibit III-D-3 at 27. Inadvertently, SunBelt included 100 percent of the salaries of the Vice President and his direct reports as operating expense. NS noted this error through a comment in its maintenance of way spreadsheet titled “III-D-3 NS SBRR MOW Plan.xlsx”, tab “Totals-Reply”, col. D, line 5, where it states “Actual SunBelt staff operating expense should be \$9,630,696.45.” In Rebuttal, SunBelt corrects this error and includes only the expense portion of the Vice President and his direct reports as an operating expense.

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of the General Office staff is much less than would be the case if program work were performed by railroad employees using railroad-owned equipment and using material purchased and handled by the engineering department.”¹⁰⁵ SunBelt’s allocation of two-thirds of the Vice President and General Office staff, plus 100 percent of the field staff, to operating expense is appropriate. The Vice President and General Office staff will be required to plan, contract and oversee contractors who are performing the programmed maintenance which is not a small task and will easily consume one-third of the staff’s time.

Given the differences between the parties on the general office staff and the varying percentages of their time (and salaries) assigned to operating expense by NS, the Board should accept SunBelt’s proposal to assign a flat 66 percent of the general office staff salaries to operating expense.

**a. Rail Grinding Surfacing
And Lining Track**

There is no additional cost required for rail grinding, surfacing and lining track that has not already been accounted for in SunBelt’s plan for smoothing crews and capital work covered by the DCF model. NS does not address surfacing in its discussion of Large Magnitude Unplanned Maintenance.

**b. Bridge Substructure And
Superstructure Repair**

NS accepts SunBelt’s methodology and costs for determining the annual cost of contract bridge repairs (\$4,000 per bridge with repairs performed on each major bridge every five (5) years).¹⁰⁶

¹⁰⁵ See NS Reply at III-D-197.

¹⁰⁶ See NS Reply, Table III-D-42 at III-D-184.

MAINTENANCE OF WAY**E. EQUIPMENT**

NS overstates the amount of equipment required for the SBRR for multiple reasons, including the arbitrary doubling of work crews associated with the increased number of Roadmasters and the smaller Roadmaster territories proposed by NS. SunBelt recognizes the need to make some limited corrections based on valid NS criticisms and has made the appropriate changes in Rebuttal.¹⁰⁷

1. Vehicle Inventory

NS has generally accepted SunBelt's listing of vehicles and other equipment for the SBRR's MOW personnel, except that NS used some different models of vehicles for certain functions and NS has increased the number of vehicles that SunBelt proposes, which reflects NS's proposed increase in staffing levels.¹⁰⁸ SunBelt has checked the vehicle lists for the required MOW staff, and has made corrections to some quantities that were both understated, and overstated.¹⁰⁹ In this section, SunBelt addresses in turn the specific vehicle inventory criticisms made by NS on Reply.

Pickup Trucks. NS claims that the SBRR relies too much on the use of pickup trucks.¹¹⁰ SunBelt asserts that it assigned the proper type of truck to the proper position in every case, with final quantities and modifications to the type and number of vehicles provided in Rebuttal workpaper "Exhibit III-D-2 SBRR MOW Rebuttal 5-23-2013.xls."

¹⁰⁷ See Rebuttal e-workpaper "Exhibit III-D-2 SBRR MOW Rebuttal 5-23-2013.xls."

¹⁰⁸ See NS Reply at III-D-198.

¹⁰⁹ See Rebuttal e-workpaper "Exhibit III-D-2 SBRR MOW Rebuttal 5-23-2013.xls."

¹¹⁰ Id.

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Suburbans. In Reply, NS provides for a Suburban vehicle for the Track Engineer and Supervisor of Signals and Communications.¹¹¹ These vehicles are not necessary since every Roadmaster and Assistant Roadmasters, as well as every Signal Supervisor and Signal Maintainer, have hi-rail inspection vehicles.

B&B Maintenance Trucks. On Rebuttal, SunBelt provides each B&B maintenance crew with a standard B&B maintenance truck that provide the type of vehicle necessary to perform bridge related maintenance tasks on the SBRR.

Assistant Roadmaster Hi-Rails. NS merely selected different equipment based on preference or higher cost rather than agreeing with SunBelt's selection of suitable hi-rail inspection vehicles commonly used on many railroads for track inspection. Thus, because NS fails to identify the need for this equipment, the Board should reject NS's proposal to use this equipment.

Vehicles for Roadway Equipment Mechanics. NS merely selected different equipment based on preference or higher cost rather than agreeing with SunBelt's selection of a vehicle suitable for a roadway mechanic. Most equipment is leased, with minimal and minor repairs required. Daily maintenance is performed by the roadway machine operator.

Material Truck and Tractor-Trailer. As explained above, there is no need for special equipment to move track material. Materials are delivered as needed to work sites, and can be moved by contractors or on other vehicles provided by the SBRR.

¹¹¹ See NS Reply at III-D-199.

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Signal Maintainer Vehicles. SunBelt provides each signal maintainer one hi-rail equipped truck. It is not clear whether NS agrees or disagrees with SunBelt's providing a hi-rail truck for each signal maintainer.

Boom Trucks. The two (2) C&S boom trucks listed by NS are not necessary since all signal installations have been completed during construction of the SBRR.¹¹²

Bucket Trucks. NS lists bucket trucks for removing overhanging brush and other tasks that would not be required in the SBRR since the right-of-way has been cleared of all brush and an annual vegetation control program is in place.

Smoothing Crew Vehicle. SunBelt provided a sufficient vehicle for the smoothing crew. NS merely selected different equipment based on preference or higher cost rather than agreeing with SunBelt's selection of suitable vehicle commonly used on many railroads for smoothing crews. Fueling can be done by local fuel suppliers.

Bridge Maintenance Truck. SunBelt provided for adequate crew trucks for the bridge crews in Rebuttal¹¹³

Speedswing. The SunBelt experts did not include a Speedswing at each hump yard because the SBRR in Opening did not have any hump yards. The SunBelt experts do not believe that a Speedswing would be required in a new hump yard regardless since rail change-outs could be done with a MOW crew truck or local Roadmaster backhoe. In addition, SunBelt disagrees that a hump yard would be required.

¹¹² See NS Reply at III-D-201.

¹¹³ See SunBelt Rebuttal e-workpaper "Exhibit III-D-2 SBRR MOW Rebuttal 5-23-2013.xls."

MAINTENANCE OF WAY**2. Equipment And Vehicle
Monthly Rental Rates**

NS does not accept SunBelt's monthly rates for vehicles and equipment, claiming that SunBelt's rates understate the lease rates.¹¹⁴ In Opening, SunBelt relied on information provided by NS in discovery to estimate equipment costs based on actual prices paid by NS, as such the amounts included by SunBelt are supported and reasonable.¹¹⁵ To the extent that SunBelt's calculations contained errors, SunBelt corrects them on Rebuttal.¹¹⁶

Tampers. Regarding Tampers, NS experts questioned the cost of the tamper specified by SunBelt. SunBelt obtained a quote directly from the manufacturer and reaffirms that it used the proper cost.

NS does not accept SunBelt's monthly rates for vehicles and equipment, claiming that SunBelt's rates are too low.¹¹⁷ SunBelt, however, provided the monthly rates that NS provided in discovery or, where those rates were unavailable, a unit cost/month that was based on a conservative 5-year financing period.

First, where NS provided monthly rates for equipment in discovery, which covers most of the equipment used by SunBelt in Opening, SunBelt has proposed a monthly cost that represents an average of the rates provided. NS cannot criticize SunBelt for using the very cost figures that NS provided in discovery.¹¹⁸ Thus, where the SunBelt rates are based on monthly rates provided by NS in discovery, the Board should use those rates.

¹¹⁴ See NS Reply at III-D-201-202.

¹¹⁵ The equipment lease and acquisition rates were derived from discovery spreadsheet "MOW vehicles.xlsx."

¹¹⁶ See SunBelt Rebuttal e-workpaper "Exhibit III-D-2 SBRR MOW Rebuttal 5-23-2013.xlsx."

¹¹⁷ See NS Reply at III-D-201-202.

¹¹⁸ See AEPCO 2011, at 103 (holding that parties are entitled to reasonably rely on evidence that the other party supplied in discovery).

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Second, NS fails to support its methodology for calculating unit cost/month where monthly lease rates are not available. Where monthly Danella lease rates are not available, NS proposes to calculate unit cost/month by dividing the equipment purchase price by the lifespan of the vehicle.¹¹⁹ But NS adopts an arbitrary approach to determining vehicle life span. That is, it arbitrarily determines that vehicles under 6500 pounds GVW will have a life span of 36 months, vehicles between 6500 pounds and 10,000 pounds GVW will have a life span of 48 months, and vehicles of 10,000 pounds GVW and work equipment will have a life span of 60 months. NS offers no evidence to support these categories or lifespan figures, and its rationale for this methodology is simply that it is “indisputable” that heavy vehicles have a longer useful life than light vehicles. But this rationale does not explain how NS determined the cutoff points for light, medium, and heavy vehicles. Nor does it explain the specific lifespan figures NS uses. Accordingly, NS’s methodology is unsupported.

Third, SunBelt’s methodology represents a conservative approach to determining unit cost/month where monthly lease rates are not available. Where NS did not provide cost or lease information in discovery, SunBelt calculated the unit cost/month of the vehicle using the capital cost of the vehicle, financed over 60 months at five percent interest. This approach is very conservative, since the useful life of this equipment, in the experience of SunBelt expert Crouch, far exceeds 5 years, and, there would be value in the equipment after 5 years.

¹¹⁹ See NS Reply at III-D-202.

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Fourth, as stated above, SunBelt relies on information provided by NS in discovery to determine the cost of maintenance vehicles.¹²⁰ Below are examples of the difference between the costs that Sunbelt and NS uses:¹²¹

- a. The {█} monthly rate that SunBelt uses for Case 580M backhoes is based on the rental rate provided by NS in discovery. Instead of using the least-cost monthly lease rate provided by NS in discovery for this piece of equipment,¹²² which was {{█}} per month for the Case 580M in August, 2009, SunBelt's expert chose to use an average of the lease rates provided {{█}}. The Board should reject NS's use of a higher monthly rate because SunBelt reasonably relied on data that NS provided in discovery to generate its proposed monthly rate and NS fails to account for lower-cost monthly rates that it provided for this equipment in discovery.
- b. The {{█}} per month used for trailers for backhoes was provided by NS in discovery compared with the {{█}} per month relied on by NS in Reply.
- c. SunBelt does not use Suburbans for MOW personnel.
- d. SunBelt relies on the cost of acquisition NS provided in discovery for hi-rail pick-ups amortized to produce an annual cost of {{█}} per vehicle. NS used {{█}} per vehicle in its calculations, even though its text states it uses {{█}} per vehicle.
- e. SunBelt relies on the cost of acquisition NS provided in discovery for standard pick-ups and sedans amortized to produce an annual cost of {{█}} per vehicle. In an obvious overstatement, rather than using the cost of standard pick-ups, NS uses the same amount as it uses for hi-rail vehicles of {{█}} per vehicle in its calculations.
- f. SunBelt relies on the cost of acquisition NS provided in discovery for maintenance trucks, amortized to produce an annual cost of {{█}} per vehicle. In contrast, NS includes {{█}} per truck in its calculations even though its text states it uses {{█}} per vehicle.

Fifth, the Board should reject NS's proposed tamper cost. NS failed to provide a cost for tampers in discovery. Also, Plasser American, the manufacturer of the 09-16 Dyna-C.A.T. tamper that SunBelt proposed and NS accepted, quoted SunBelt a price of \$750,000 for the

¹²⁰ See e-workpaper "Exhibit III-D-2 SBRR MOW Rebuttal 5-23-2013.xls."

¹²¹ See NS Reply at III-D-203.

¹²² See e-workpaper "MOW Vehicles.xls."

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tamper in a telephone conversation with Mr. Crouch. Thus, the quote that NS received from Plasser does not represent the lowest price that could be obtained for the tamper.

SBRR ROAD PROPERTY INVESTMENT
(\$ in millions)

<u>Item</u> (1)	SunBelt <u>Opening 1/</u> (2)	NS <u>Reply 2/</u> (3)	SunBelt <u>Rebuttal 3/</u> (4)
1. Land	\$198.9	\$218.1	\$215.6
2. Roadbed Prep	244.5	676.7	260.9
3. Track construction	536.7	874.4	583.9
4. Tunnels	0.0	0.0	0.0
5. Bridges	316.2	486.4	283.1
6. Signals and Communications	94.6	198.5	146.2
7. Buildings and facilities	17.6	175.7	59.9
8. Public Improvements	<u>8.1</u>	<u>17.6</u>	<u>12.3</u>
9. Subtotal	\$1,416.6	\$2,647.4	\$1,561.9
10. Mobilization	32.9	72.5	36.4
11. Engineering	121.8	238.2	134.6
12. Contingencies	<u>137.2</u>	<u>269.2</u>	<u>151.7</u>
13. Total Road Property Investment	\$1,708.5	\$3,227.3	\$1,884.6

1/ SunBelt Opening e-workpaper "III-F Total.xls"

2/ NS Reply e-workpaper "III-F Total NS Reply.xls"

3/ SunBelt Rebuttal e-workpaper "III-F Total Rebuttal.xlsx"

Land Inflation Values

I. INTRODUCTION

In its Opening Evidence, SunBelt relied upon historic average land values reported by independent third parties to develop estimated future rural and urban land values. This approach is consistent with STB precedent, which states in the absence of an objective, non-litigation produced forecast, use of historical averages is the preferred method in estimating future values.

¹ Moreover, the STB has also stated that when developing historic averages, it is preferable to use a longer rather than a shorter period of historic data when forecasting future economic trends, such as an inflation rate for land values.²

NS asserts that SunBelt's approach is flawed and that what happened in the past is not necessarily what will happen in the future. Because of this, NS asserts that SunBelt's use of over 80 years of historic farm land values is improper and replaces SunBelt's historic average with an unsupported figure developed by real estate consultants. In addition, NS claims that the urban land indexes SunBelt used are unrepresentative of the land parcels along the SBRR's urban corridors. In actuality, NS claims are incorrect as is explained below.

¹ See *TMPA* at 603 "We are reluctant to rely on forecasts prepared specifically for this litigation,..." and *McCarty Farms*, at page 473 "Absent an actual forecast of future growth trends, McCarty's method of projecting traffic growth based on historical traffic trends will be used."

² See *AEPCO 2011* at page 139, "We reiterate that it is preferable to use a longer rather than a shorter period of historic data when forecasting future economic trends, such as an inflation rate for land values or the cost of equity."

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A. RURAL LAND VALUES

NS claims that SunBelt improperly uses the average quarterly rate of farmland appreciation from 1930 to 2011 reported by the United States Department of Agriculture (“USDA”) to index the average annual rate of appreciation of SBRR rural land.³ Instead, NS states that there is a direct link between U.S. farm income and farm land values, and that projected declines in U.S. farm exports and increases in farm operating costs and in interest rates will lead to lower future farm income, and, therefore, lower future land values.⁴ NS states that, at best, SBRR rural land values will appreciate at a rate equal to the general rate of inflation through 2021 forecasted by the USDA.⁵ NS asserts that general rate of inflation is more consistent with projected farm income during the DCF period, and, thus, more reflective of future rural land values. SunBelt rejects NS’ proposal because it fails to consider many important components that make up farmland value, and ignores more current research that shows a delinking between farm land values and farm incomes. These components are discussed below.

For the first half of the twentieth century, agricultural economists believed that farm values and farm income were closely linked. This belief extended from the belief that farmland values were derived from the expected stream of returns from the agricultural products produced. However, as numerous studies have recently shown, the links between farm income and land values have dramatically declined. Current USDA research has found little correlation between

³ See NS Reply e-workpaper “Inflation Indices.docx” at page 1.

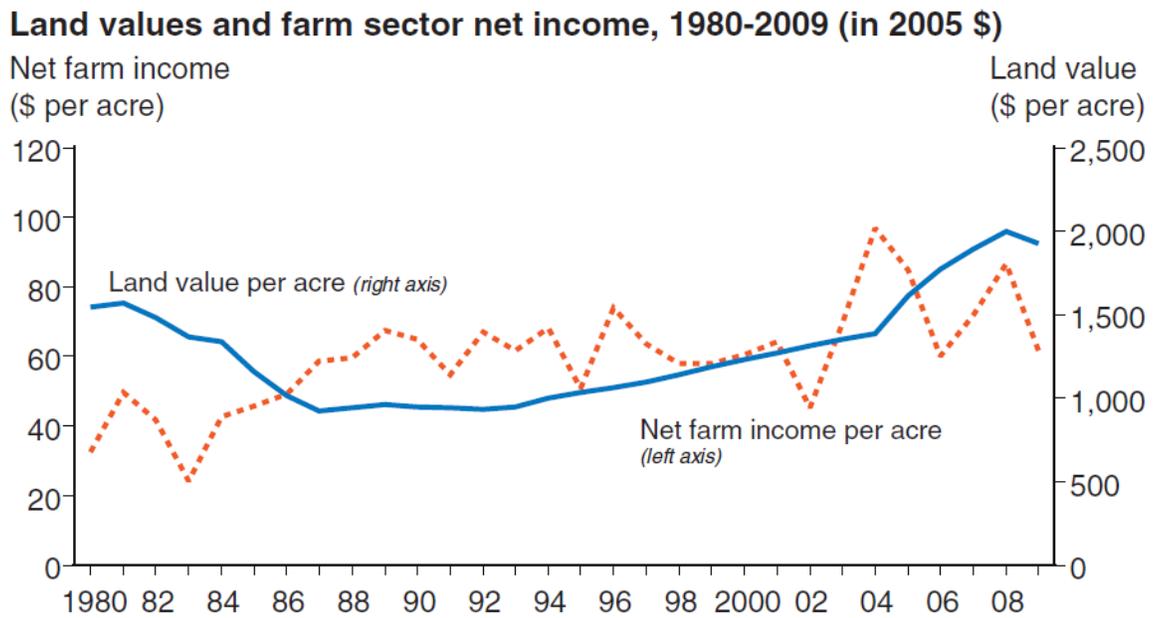
⁴ Id. at page 1.

⁵ Id. at page 4.

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land values and farm income.⁶ This lack of correlation is clearly evident in the Figure 1 below, which contains a graph of farmland values and farm income produced by the USDA.

Figure 1



Source: USDA, ERS Farm Income Accounts data, available at <http://www.ers.usda.gov/data/FarmIncome/Finfidmuxls.htm>

As shown in Figure 1 above, in recent years there has been little correlation between land values and farm incomes.

⁶ See “Trends in U.S. Farmland Values and Ownership,” United States Department of Agriculture Economic Research Service, February 2012 at page 5.

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Moreover, nonagricultural factors influence farmland value more now than they have historically. Factors, such as income from hunting leases and developers' potential returns from developing the farmland, make farmland more valuable even in the wake of declining farm incomes.⁷

NS also asserts that higher interest rates in the future will lead to lower future land values. But, farmland markets tend to be extremely "thin," meaning less than approximately 0.5 percent of farmland is sold each year, and sales are more often a result of the death or retirement of the farmer than changes in farmland affordability.⁸ In fact, many farmers will not even sell when farmland is valuable and unaffordable. As a result, farms are not highly leveraged. Therefore, the effect of rising interest rates on farmland value would be minimal. In addition, the USDA projects that interest rates will remain low in the short to intermediate term and changes are likely to be gradual when they do increase in the long-term. Historically, farmers have been slow to react to market changes; therefore, rising interest rates should not have an effect on farmland value during the DCF period.

Finally, the lack of correlation between farmland value and farm income is most apparent when land value rises while farm income shrinks. In 2005, farmland became more expensive despite farm income making it less affordable. Afterwards, farmland remained more expensive than farm income alone would have permitted it to be until 2008. Since the 1970s farmland has

⁷ Cynthia Nickerson et al., *Farmland Values on the Rise: 2000-2010*, 10 USDA ERS. (2012). <http://www.ers.usda.gov/amber-waves/2012-september/farmland-values.aspx#.UVXdy2f0fdk>

⁸ *Id.*

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been more expensive than affordable more often than not.⁹ Clearly farm income is not the primary determinant of farmland value.

Overall, NS's claim that, on average, future rural land values along the SBRR will decline due to projected modest increases in exports versus the high increases experienced in the past, flat crop prices, increased production costs, and higher interest rates simply does not comport with current research. As summarized by the USDA:

Yet, several macroeconomic measures indicate that over a longer horizon, farmland values are becoming less correlated with farm-related factors once thought to support those values. Declining rent-to-value ratios indicate cash rents are increasingly smaller relative to farmland values, and the ratio is smallest for cropland close to urban areas. Also, the affordability of farmland has varied over time. While in 2009-2010 average income from farming has been more than sufficient to service farm real estate debt, during 2005-08 and during 1978-1985, this was not the case. A lack of correlation with net farm incomes, declining rent-to-value ratios, and low levels of affordability all suggest that nonagricultural factors are increasingly important in determining farmland values.¹⁰

⁹ *Id.*

¹⁰ *Id.*, p. 34

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B. URBAN LAND VALUES

NS rejects SunBelt's usage of the National Council of Real Estate Investment Fiduciaries ("NCREIF") commercial property index's average rate of appreciation as the average rate of return for SBRR urban land. Instead, NS uses two transaction-based indices, Moody's Commercial Property Price Index ("MCPPI") and the CoStar Repeat Sale Indices ("CCRSI"), and a *MetroMonitor* article to support its claim that future land inflation will lag historic inflation. Parallel to NS' conclusions about SBRR rural land, NS concludes that it is reasonable to assume that the average annual rate of appreciation for SBRR urban land will be equivalent to the United States Department of Agriculture's ("USDA") forecasted general rate of inflation through 2019.¹¹ SunBelt rejects NS' claim against the NCREIF index and proposal.

NS claims that the NCREIF index is not indicative of SBRR urban land because the index: (a) focuses primarily on low risk, or "core," real estate; (b) has a different regional distribution than SBRR urban land; and (c) is primarily made up of assets that are usually not located near railroads. Each claim is addressed below.

First, NS asserts that the NCREIF index focuses on top-tier metropolitan areas. The assumption is based on the composition of the NCREIF index. The index consists of approximately 7,200 properties¹² that are owned by tax-exempt institutional investors, usually pension funds, which primarily invest in relatively low risk, or "core," real estate. Core properties are usually located in top-tier metropolitan areas, where approximately 54 percent of

¹¹ See NS Reply at III-G-5

¹² According to NCREIF's *NCREIF Data and Products Guide*, the index included 7,276 properties in the 3rd Quarter of 2012.

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SBRR urban land value is located.¹³ However, NCREIF does not consider the index a Core Properties Index, partially because a property's inclusion in the index is not based on its location. As a result, almost half of the properties included in the NCREIF index are not in top-tier metropolitan areas.¹⁴

Next, NS states that the regions where SBRR urban land would be located are unrepresented by the NCREIF index. NS uses information from the University of Chicago,¹⁵ instead of releases from NCREIF, which shows a low percentage of NCREIF market value in the South, where 100 percent¹⁶ of SBRR urban real estate value would be. Contrary to NS' assertion about lack of representation, the NCREIF includes indexes for four distinct regions of the country including the South. Therefore, contrary to NS's claim, the South region is not unrepresented in the NCREIF index.¹⁷

Third, NS claims that the types of assets the index represents are not indicative of the SBRR urban market. Again, NS uses data from the University of Chicago, which shows that more of the index's market value is in Class "A" and "B" offices, apartments and retail properties than industrial properties. However, the University of Chicago's data does not show that the index includes more industrial properties than any other property type. In fact, for eight consecutive quarters the index has been increasing the number of industrial properties it

¹³ See NS Reply at III-G-5

¹⁴ Paul Fiorilla et al., *Size-Tiered Economic Geography: 2010 Update*, PREI. (2010).

¹⁵ NS did not disclose what quarter or year the University of Chicago's data was reporting nor did they explain why they used the University's data instead of a NCREIF NPI Release.

¹⁶ $45.38+36.57=81.95$; therefore, almost 82% of SBRR urban land value is located in these regions but not more than as NS claims.

¹⁷ Not only was the Southern market represented in the NCREIF index, it was the top performing market in the fourth quarter of 2012. NCREIF, *NPI Press Release 4q12*, January 25, 2013.

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includes.¹⁸ Last quarter the index included 2,974 industrial properties followed by 1,514 apartments and 1,426 offices.¹⁹ Pension funds invest in industrial properties in the South because of the goods producing and trades oriented economies. Contrary to NS' claim, pension funds, such as those that make up the NCREIF index, do not prefer to invest in office properties in the South where "offices represent the smallest portion of investments."²⁰

Nevertheless, even if all of NS' claims were correct, which they are not, they would be irrelevant because there has not been much variance in market returns. Last quarter, NCREIF stated, "all property types and nearly all geographic regions report similar numbers."²¹ Therefore, most markets included in the NCREIF index, which includes all of the SBRR urban land markets, have approximately the same return.

To support its claim that SunBelt's annual average rate of appreciation is too high, NS relies on short-term trends observed by two transaction-based subscription only indices, MCPPI and CCRSI. SunBelt rejects NS' use of these indices because NS does not use either index correctly nor is either index more indicative of SBRR urban land than the NCREIF index.

First, NS considers two transaction-based indices without considering an appraisal-based index, such as the NCREIF index. Transaction-based indices are solely based on the prices for which properties are sold, while appraisal-based indices are constructed from the valuation of interval property appraisals. There are shortcomings to only considering transaction-based indices because they are only based on a sample of properties rather than census like appraisal-

¹⁸ NCREIF, *NCREIF-NAREIT Executive Summary Report Third Quarter 2012* (2012).

¹⁹ NCREIF, *NPI Press Release 4q12*, *Supra*.

²⁰ Fiorilla, *supra*.

²¹ NCREIF, *NPI Press Release 4q12*, *Supra*.

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based indices. Due to this drawback, according to the creator of MCPPI, Massachusetts Institute of Technology (“MIT”), it is not appropriate to use transaction-based indices for benchmarking; however, it is appropriate to benchmark using an appraisal-based index.²² Therefore, MIT instructs that transaction-based indices be used as a complement, not a substitute, for the NCREIF index.²³ Nevertheless, NS incorrectly fails to consider the NCREIF index or any other appraisal-based index.

Second, NS does not consider a wide enough timespan. NS uses the annual rate of appreciation reported in MCPPI and CCRSI for the period 2002 through 2011 and 2002 through March of 2012, respectively. By not considering longer term historical values, NS violates CoStar’s intended use of CCRSI. CoStar criticizes the MCPPI for being based on only 10 years of historic data, saying that “the use of this index is limited by the lack of comprehensive data coverage.”²⁴ Likewise, NS’ consideration of 10 years of CCRSI data would also be considered limited by these standards. Even under normal circumstances, these are clearly not a long enough periods upon which to base a forecast. However, to make matters worse, nearly half of the timespan NS considers was atypical because of the 2008 world financial crisis. Similar to all transaction-based indices, both indices were less reliable during the crisis because there were fewer transactions on which to base them. In comparison, the NCREIF index includes over 34 years of data. As reiterated by the STB in its AEPCO decision, it is preferable to use a longer rather than a shorter period of historic data when forecasting future economic trends, such as an

²² David Geltner, *A Simplified Transaction Based Index (TBI) for NCREIF*, MIT. (2011).

²³ *Id.*

²⁴ CoStar, *CoStar Commercial Repeat-Sale Indices Methodology*.

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inflation rate for land values. NS' use of MCPPI and CCRSI is incorrect because NS does not consider the NCREIF index and a wide enough timespan.

Third, even if NS considered the NCREIF index, as MIT instructs users of MCPPI do, SunBelt is dumbfounded by NS' usage of MCPPI because NS considers a draft of MCPPI rather than a finalized version of the index, and the draft is less representative of the SBRR urban land than the NCREIF index. In June 2012, when the release that NS cites was published, Moody's was releasing a draft of MCPPI that was made to replace the discontinued Moody's/REAL CPPI. In simple terms, NS relied on unfinished data. NS also incorrectly claims that the perfunctory MCPPI that it did use is more indicative of SBRR urban land.²⁵ However, the rate of return from the draft that NS considers does not include the Chicago area, where a significant amount of SBRR urban land is located. In addition, Moody's considers the index to be a "core" commercial property index.²⁶ This is ironic because NS incorrectly criticizes the NCREIF for being just that.

Lastly, NS incorrectly uses information from *MetroMonitor* as evidence that SBRR urban real estate will appreciate less quickly than SunBelt proposes. *MetroMonitor* is a subsection of the Brookings Institute that tracks the economy of the 100 largest metropolitan areas in the U.S. by tracking employment, output, and housing prices. Using this information, NS asserts that, during the DCF period, the majority of economic and real estate investment will be in dense,

²⁵ Contrary to NS' claim, MCPPI does not encompass 90 percent of transactions over \$2.5 million because a property must be sold twice to be included in the index.

²⁶ Every property included in MCPPI, except apartments, is included in the Core Commercial Sub-Index of MCPPI.

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urban MSAs and suburban clusters, and not along urban areas along the SBRR route, which tend to have less population density. SunBelt rejects NS' claim about *MetroMonitor* because it reports on residential, not commercial, real estate. Less residential real estate being bought in smaller urban communities does not indicate a slow rate of appreciation for the commercial real estate that makes up SBRR urban land.

TABLE A: SRR ANNUAL COST OF CAPITAL

<u>Year</u>	<u>Industry Cost of Capital</u>	<u>Industry Cost of Debt 1/</u>	<u>Industry Cost of Preferred Equity 2/</u>	<u>Industry Cost of Equity 3/</u>	<u>SRR 's Cost of Debt</u>	<u>SRR 's Cost of Preferred Equity</u>	<u>SRR 's Cost of Equity</u>	<u>Debt as a Percent of Total Investment</u>	<u>Preferred Equity as a Percent of Total Investment</u>	<u>Equity as a Percent of Total Investment</u>	<u>Composite Cost of Capital</u>	<u>1 + Cost of Capital</u>	<u>STB Prescribed Debt as a % of Capital 4/</u>
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
2009	10.43%	5.72%	0.00%	12.37%	5.72%	0.00%	12.37%	29.10%	0.00%	70.90%	10.43%	1.1043	29.10%
2010	11.03%	4.61%	0.00%	12.99%	4.61%	0.00%	12.99%	23.37%	0.00%	76.63%	11.03%	1.1103	23.37%
2011	11.57%	3.97%	0.00%	13.57%	3.97%	0.00%	13.57%	20.83%	0.00%	79.17%	11.57%	1.1157	20.83%
2012	11.06%			13.33%	4.70%	0.00%	13.33%	24.03%	0.00%	75.97%	11.26%	1.1126	
2013					4.70%	0.00%	13.07%	24.03%	0.00%	75.97%	11.06%	1.1106	
2014					4.70%	0.00%	13.07%	24.03%	0.00%	75.97%	11.06%	1.1106	
2015					4.70%	0.00%	13.07%	24.03%	0.00%	75.97%	11.06%	1.1106	
2016					4.70%	0.00%	13.07%	24.03%	0.00%	75.97%	11.06%	1.1106	
2017					4.70%	0.00%	13.07%	24.03%	0.00%	75.97%	11.06%	1.1106	
2018					4.70%	0.00%	13.07%	24.03%	0.00%	75.97%	11.06%	1.1106	
2019					4.70%	0.00%	13.07%	24.03%	0.00%	75.97%	11.06%	1.1106	
2020					4.70%	0.00%	13.07%	24.03%	0.00%	75.97%	11.06%	1.1106	
2021					4.70%	0.00%	13.07%	24.03%	0.00%	75.97%	11.06%	1.1106	

1/ Cost of railroad industry debt from the STB Decision in Ex Parte No. 558 (Sub-No. 13), Railroad Cost of Capital - 2009, decided September 30, 2010, the STB decision Ex Parte No. 558 (Sub-No. 14), Railroad Cost of Capital - 2010, decided September 30, 2011 and the STB decision in Ex Parte No. 558 (Sub-No. 15), Railroad Cost of Capital - 2011, served September 13, 2012

2/ No preferred equity was issued in 2009 - 2011

3/ Cost of railroad industry common equity from the STB Decision in Ex Parte No. 558 (Sub-No. 13), Railroad Cost of Capital - 2009, decided September 30, 2010, the STB decision Ex Parte No. 558 (Sub-No. 14), Railroad Cost of Capital - 2010, decided September 30, 2011, the STB decision in Ex Parte No. 558 (Sub-No. 15), Railroad Cost of Capital - 2011, served September 13, 2012, and the AAR workpapers in Ex Parte No. 558 (Sub-No. 16), Railroad Cost of Capital - 2012, submitted April 19, 2012

4/ Railroad industry capital structure from the STB Decision in Ex Parte No. 558 (Sub-No. 13), Railroad Cost of Capital - 2009, decided September 30, 2010, the STB decision in Ex Parte No. 558 (Sub-No. 14), Railroad Cost of Capital - 2010, decided September 30, 2011 and the STB decision in Ex Parte No. 558 (Sub-No. 15), Railroad Cost of Capital - 2011, served September 13, 2012.

TABLE B: SRR INFLATION INDEXES

<u>Period</u> (1)	<u>Land 1/</u> (2)	<u>Hybrid RCAF 2/</u> (3)	<u>MWSExFuel 3/</u> (4)	<u>Mat & Suppl 4/</u> (5)	<u>Wages & Supps 5/</u> (6)
1Q 2009	100.0		423.9	319.5	444.1
2Q 2009	96.9		422.7	305.5	445.8
3Q 2009	94.7		425.8	312.5	448.0
4Q 2009	93.3		421.7	302.2	445.4
1Q 2010	93.7		451.4	311.2	479.7
2Q 2010	95.0		448.8	305.2	477.9
3Q 2010	96.8		448.1	304.5	477.1
4Q 2010	99.1		451.7	322.0	477.5
1Q 2011	100.9		453.9	314.7	481.9
2Q 2011	102.8		454.5	309.1	484.0
3Q 2011	104.8	100.0	460.7	329.4	486.8
4Q 2011	106.8	100.1	466.7	331.8	493.5
1Q 2012	108.6	96.9	466.4	331.4	493.2
2Q 2012	110.4	98.2	476.6	344.5	502.7
3Q 2012	112.0	97.0	477.5	346.6	503.3
4Q 2012	114.2	100.2	475.6	340.7	502.4
1Q 2013	116.1	99.9	477.1	339.0	504.6
2Q 2013	118.1	100.7	471.5	335.9	498.5
3Q 2013	120.1	99.6	478.3	339.2	506.0
4Q 2013	122.1	100.3	485.3	343.0	513.6
1Q 2014	124.2	100.4	491.0	346.7	519.8
2Q 2014	126.3	100.8	491.4	348.8	519.8
3Q 2014	128.5	100.6	497.1	352.0	526.0
4Q 2014	130.7	101.3	503.1	356.2	532.3
1Q 2015	132.9	100.9	509.6	358.3	539.8
2Q 2015	135.2	101.3	513.5	359.8	544.1
3Q 2015	137.5	101.3	516.9	359.0	548.4
4Q 2015	139.9	103.0	520.8	360.5	552.8
1Q 2016	142.3	103.8	524.8	362.1	557.3
2Q 2016	144.7	104.7	528.9	363.7	561.9
3Q 2016	147.2	105.5	532.9	365.3	566.5
4Q 2016	149.7	106.3	537.0	367.0	571.1
1Q 2017	152.3	107.1	541.6	369.4	576.0
2Q 2017	154.9	107.9	546.1	371.9	581.0
3Q 2017	157.6	108.7	550.7	374.4	586.0
4Q 2017	160.3	109.5	555.3	376.9	591.1
1Q 2018	163.1	110.4	559.8	377.2	596.5
2Q 2018	165.9	111.2	564.4	377.4	601.9
3Q 2018	168.8	112.0	568.9	377.7	607.4
4Q 2018	171.7	112.9	573.5	378.0	612.9
1Q 2019	174.6	113.7	578.6	380.7	618.5
2Q 2019	177.7	114.5	583.8	383.4	624.2
3Q 2019	180.7	115.3	589.0	386.2	629.9
4Q 2019	183.9	116.1	594.2	389.0	635.6
1Q 2020	187.1	116.8	599.3	391.6	641.3
2Q 2020	190.3	117.5	604.5	394.2	647.0
3Q 2020	193.6	118.2	609.7	396.8	652.7
4Q 2020	197.0	118.9	614.9	399.5	658.5
1Q 2021	200.4	119.5	620.0	401.6	664.2
2Q 2021	203.9	120.1	625.1	403.8	669.9
3Q 2021	207.4	120.7	630.3	406.0	675.7
<u>Annual Inflation Rate 6/</u>	7.09%		3.24%	2.70%	3.31%

1/ Used to index Road Property Account 2. Based on historic change in rural land prices as reported by the USDA and urban land prices as reported by the National Council of Real Estate Investment Fiduciaries.

2/ Used to index expenses in Table K. Based on the RCAF-U and RCAF-A through 2Q 2013 then Global Insight forecast for remaining periods.

3/ Used to index Road Property Accounts 3, 5, 6, 13, 17, 19, 20, 26, 27, 37, and 39. Based on RCR indices - East Region through 1Q13 then Global Insight forecast

4/ Used to index Road Property Accounts 8, 9, and 11. Based on RCR indexes - East Region through 1Q13 then Global Insight forecast for remaining periods.

5/ Used to index Road Property Accounts 1, 1A and 12. Based on RCR indexes - East Region through 1Q13 then Global Insight forecast for remaining periods.

6/ $1Q2009 \div 3Q2021^{(1/12.5)} - 1$. The Annual Rate is used to develop asset replacement values at the end of asset lives.

TABLE C: SRR PROPERTY INVESTMENT VALUES

Construction of the SRR occurs between February 28, 2009 and July 29, 2011.
Investments are assumed to be in July 30, 2011 dollars.

Property Account (1)	Property Component (2)	Service Life In Years 1/ (3)	Investment In 7/30/2009 Dollars 2/ (4)	Investment In 7/30/2010 Dollars 3/ (5)	Investment In 7/30/2011 Dollars 4/ (6)	2009 Investment Value 5/ (7)	2010 Investment Value 6/ (8)	2011 Investment Value 7/ (9)	Total Property Investment 3Q 2011 8/ (10)
1	Engineering	NA	\$136,291,685	\$145,144,560	\$148,095,518	\$107,086,324	\$31,102,406	\$0	\$138,188,729
2	Land	NA	194,806,740	199,223,810	\$215,563,000	194,806,740	0	0	194,806,740
3	Grading	95	247,417,633	260,375,391	\$267,696,814	106,036,128	148,785,938	0	254,822,066
5	Tunnels	120	0	0	\$0	0	0	0	0
6	Bridges & Culverts	96	320,632,345	337,424,505	\$346,912,451	0	247,444,637	92,509,987	339,954,624
8	Ties	23	122,652,735	119,512,825	\$129,285,795	0	79,675,217	43,095,265	122,770,482
9	Rails and OTM	40	303,923,416	296,142,977	\$320,359,595	0	197,428,651	106,786,532	304,215,183
11	Ballast	40	85,647,827	83,455,242	\$90,279,661	0	55,636,828	30,093,220	85,730,049
12	Labor	36	110,122,492	117,275,538	\$119,659,886	0	78,183,692	39,886,629	118,070,321
13	Fences and Roadway Signs	95	1,170,718	1,232,031	\$1,266,674	0	821,354	422,225	1,243,579
16	Stations and Office Buildings	43	0	0	\$0	0	0	0	0
17	Roadway Buildings	44	42,536,876	44,764,618	\$46,023,342	0	44,764,618	0	44,764,618
19	Fuel Stations	31	11,022,228	11,599,484	\$11,925,647	0	11,599,484	0	11,599,484
20	Shops and Enginehouses	50	8,941,064	9,409,326	\$9,673,904	0	9,409,326	0	9,409,326
26	Communications Systems	26	24,371,997	25,648,408	\$26,369,608	0	4,274,735	21,974,674	26,249,408
27	Signals and Interlockers	56	128,307,028	135,026,724	\$138,823,503	0	22,504,454	115,686,253	138,190,707
39	Public Improvements	13	<u>11,704,732</u>	<u>12,317,733</u>	<u>\$12,664,092</u>	<u>0</u>	<u>8,211,822</u>	<u>4,221,364</u>	<u>12,433,186</u>
	Total		\$1,749,549,517	\$1,798,553,170	\$1,884,599,490	\$407,929,192	\$939,843,160	\$454,676,147	\$1,802,448,499

1/ 1 ÷ Depreciation Rate shown in Schedule 332 of NS' 2011 Annual Report R-1.

2/ July 30, 2011, indexed to 2009 dollars; Investment Exhibit - 3Q11 x Inflation Index from Table B, 3Q2009 ÷ 3Q2011.

3/ July 30, 2011, indexed to 2010 dollars; Investment Exhibit - 3Q11 x Inflation Index from Table B, 3Q2010 ÷ 3Q2011.

4/ July 30, 2011, indexed to 2011 dollars; Investment Exhibit - 3Q11 x Inflation Index from Table B, 3Q2011 ÷ 3Q2011.

5/ Column (4) x Percent constructed in 2009.

6/ Column (5) x Percent constructed in 2010.

7/ Column (6) x Percent constructed in 2011.

8/ Sum of Columns (7) through (9).

TABLE D: INTEREST DURING CONSTRUCTION

Month of Installation (1)	Cost of Funds 1/ (2)	Timing of Account 1 Investment 2/ (3)	Timing of Account 2 Investment 2/ (4)	Timing of Accounts 3 and 5 Investment 2/ (5)	Timing of Accounts 6, 13 through 20 and 39 Investment 2/ (6)	Timing of Accounts 8 through 12, 26 and 27 Investment 2/ (7)	Total Investment by Month 3/ (8)	Interest During Construction 4/ (9)	Cost of Debt 5/ (10)	Deductible Interest During Construction 6/ (11)
Feb-09	0.83%	\$9,735,120	\$0	\$0	\$0	\$0	\$9,735,120	\$0	0.46%	\$0
Mar-09	0.83%	9,735,120	0	0	0	0	9,735,120	80,856	0.46%	13,162
Apr-09	0.83%	9,735,120	0	0	0	0	9,735,120	162,384	0.46%	26,433
May-09	0.83%	9,735,120	0	0	0	0	9,735,120	244,588	0.46%	39,815
Jun-09	0.83%	9,735,120	27,829,534	0	0	0	37,564,655	327,476	0.46%	53,307
Jul-09	0.83%	9,735,120	27,829,534	0	0	0	37,564,655	642,193	0.46%	104,538
Aug-09	0.83%	9,735,120	27,829,534	0	0	0	37,564,655	959,523	0.46%	125,438
Sep-09	0.83%	9,735,120	27,829,534	0	0	0	37,564,655	1,279,490	0.46%	167,268
Oct-09	0.83%	9,735,120	27,829,534	35,345,376	0	0	72,910,031	1,602,114	0.46%	209,444
Nov-09	0.83%	9,735,120	27,829,534	35,345,376	0	0	72,910,031	2,220,982	0.46%	290,349
Dec-09	0.83%	9,735,120	27,829,534	35,345,376	0	0	72,910,031	2,844,990	0.46%	371,925
Jan-10	0.88%	10,367,469	0	37,196,484	0	0	47,563,953	3,663,633	0.38%	367,834
Feb-10	0.88%	10,367,469	0	37,196,484	22,494,967	0	70,058,920	4,112,311	0.38%	412,882
Mar-10	0.88%	10,367,469	0	37,196,484	33,457,205	0	81,021,158	4,761,941	0.38%	478,106
Apr-10	0.88%	0	0	37,196,484	33,457,205	0	70,653,689	5,513,274	0.38%	553,541
May-10	0.88%	0	0	0	34,586,352	51,365,549	85,951,900	6,180,383	0.38%	620,520
Jun-10	0.88%	0	0	0	34,586,352	51,365,549	85,951,900	6,987,326	0.38%	701,538
Jul-10	0.88%	0	0	0	34,586,352	51,365,549	85,951,900	7,801,335	0.38%	783,266
Aug-10	0.88%	0	0	0	34,586,352	51,365,549	85,951,900	8,622,475	0.38%	771,619
Sep-10	0.88%	0	0	0	23,624,114	51,365,549	74,989,662	9,450,806	0.38%	845,745
Oct-10	0.88%	0	0	0	23,624,114	51,365,549	74,989,662	10,190,379	0.38%	911,929
Nov-10	0.88%	0	0	0	23,624,114	51,365,549	74,989,662	10,936,430	0.38%	978,693
Dec-10	0.88%	0	0	0	23,624,114	78,144,737	101,768,851	11,689,015	0.38%	1,046,041
Jan-11	0.92%	0	0	0	24,288,394	82,497,597	106,785,991	13,272,051	0.32%	980,176
Feb-11	0.92%	0	0	0	24,288,394	82,497,597	106,785,991	14,372,441	0.32%	1,061,443
Mar-11	0.92%	0	0	0	24,288,394	82,497,597	106,785,991	15,482,917	0.32%	1,143,455
Apr-11	0.92%	0	0	0	24,288,394	82,497,597	106,785,991	16,603,572	0.32%	1,226,218
May-11	0.92%	0	0	0	0	27,532,185	27,532,185	17,734,497	0.32%	1,309,740
Jun-11	0.92%	0	0	0	0	0	0	18,149,388	0.32%	1,340,381
Jul-11	0.92%	0	0	0	0	0	0	18,315,736	0.32%	1,352,666
Total		\$138,188,729	\$194,806,740	\$254,822,066	\$419,404,815	\$795,226,149	\$1,802,448,499	\$214,204,505		\$18,287,473

1/ $((1 + \text{Cost of Capital from Table A for the applicable year})^{(1/12)} - 1) \times 100$.

2/ Applicable account value from Table C for the applicable investment period.

3/ Sum of Columns (3) through (7)

4/ February 2009 equals Column (2) x prior Column (8), all other periods equal Column (2) x ((Sum of Column (8) for all prior periods) + (Sum of Column (9) for all prior periods))

5/ $((1 + \text{Cost of Debt from Table A for the applicable year})^{(1/12)} - 1) \times 100$.

6/ February 2009 equals prior Column (8) x Column (10) x Table A, Column (9) for 2009, all other periods equal Column (10) x ((Sum of Column (8) for all prior periods) - (Sum of Column (9) for all prior periods)) x Table A, Column (9) for the applicable year

TABLE E: SRR INTEREST PAYMENTS FOR ASSETS PURCHASED WITH DEBT CAPITAL

INTEREST SCHEDULE FOR THE SRR 2009 ROAD PROPERTY INVESTMENT FOR THE 3Q2011 START-UP			INTEREST SCHEDULE FOR THE SRR 2010 ROAD PROPERTY INVESTMENT FOR THE 3Q2011 START-UP			INTEREST SCHEDULE FOR THE SRR 2011 ROAD PROPERTY INVESTMENT FOR THE 3Q2011 START-UP		
1. TOTAL INVESTMENT	\$407,929,192	1/	1. TOTAL INVESTMENT	\$939,843,160	1/	1. TOTAL INVESTMENT	\$454,676,147	1/
2. IDC	\$10,364,594	2/	2. IDC	\$89,909,308	2/	2. IDC	\$113,930,603	2/
3. PRINCIPAL	\$121,723,492	3/	3. PRINCIPAL	\$240,653,152	3/	3. PRINCIPAL	\$118,440,786	3/
4. INTEREST	5.72%	4/	4. INTEREST	4.61%	4/	4. INTEREST	3.97%	4/
5. TERM (QUARTERS)	80	5/	5. TERM (QUARTERS)	80	5/	5. TERM (QUARTERS)	80	5/
6. QUARTERLY COUPON	\$1,704,508	6/	6. QUARTERLY COUPON	\$2,726,830	6/	6. QUARTERLY COUPON	\$1,158,419	6/

Quarter	Interest 7/	Quarter	Interest 7/	Quarter	Interest 7/
(1)	(2)	(3)	(4)	(5)	(6)
1	\$1,704,508	1	\$2,726,830	1	\$1,158,419
2	1,704,508	2	2,726,830	2	1,158,419
3	1,704,508	3	2,726,830	3	1,158,419
4	1,704,508	4	2,726,830	4	1,158,419
5	1,704,508	5	2,726,830	5	1,158,419
6	1,704,508	6	2,726,830	6	1,158,419
7	1,704,508	7	2,726,830	7	1,158,419
8	1,704,508	8	2,726,830	8	1,158,419
9	1,704,508	9	2,726,830	9	1,158,419
10	1,704,508	10	2,726,830	10	1,158,419
11	1,704,508	11	2,726,830	11	1,158,419
12	1,704,508	12	2,726,830	12	1,158,419
13	1,704,508	13	2,726,830	13	1,158,419
14	1,704,508	14	2,726,830	14	1,158,419
15	1,704,508	15	2,726,830	15	1,158,419
16	1,704,508	16	2,726,830	16	1,158,419
17	1,704,508	17	2,726,830	17	1,158,419
18	1,704,508	18	2,726,830	18	1,158,419
19	1,704,508	19	2,726,830	19	1,158,419
20	1,704,508	20	2,726,830	20	1,158,419
21	1,704,508	21	2,726,830	21	1,158,419
22	1,704,508	22	2,726,830	22	1,158,419
23	1,704,508	23	2,726,830	23	1,158,419
24	1,704,508	24	2,726,830	24	1,158,419
25	1,704,508	25	2,726,830	25	1,158,419
26	1,704,508	26	2,726,830	26	1,158,419
27	1,704,508	27	2,726,830	27	1,158,419
28	1,704,508	28	2,726,830	28	1,158,419
29	1,704,508	29	2,726,830	29	1,158,419
30	1,704,508	30	2,726,830	30	1,158,419
31	1,704,508	31	2,726,830	31	1,158,419
32	1,704,508	32	2,726,830	32	1,158,419
33	1,704,508	33	2,726,830	33	1,158,419
34	1,704,508	34	2,726,830	34	1,158,419
35	1,704,508	35	2,726,830	35	1,158,419
36	1,704,508	36	2,726,830	36	1,158,419
37	1,704,508	37	2,726,830	37	1,158,419
38	1,704,508	38	2,726,830	38	1,158,419
39	1,704,508	39	2,726,830	39	1,158,419
40	1,704,508	40	2,726,830	40	1,158,419

1/ From Table D, Column (7) for the applicable year investment.
 2/ From Table D, Column (8) for the applicable year investment.
 3/ (Total Investment + IDC) x (Proportion of Debt from Table A, Column (9))
 4/ From Table A, Column (6) for the applicable year investment.
 5/ Based on Ex Parte No. 657 20-year payment period x 4.
 6/ Quarterly coupon payments on Line 3 principal and Line 4 interest rates.
 7/ Line 6 coupon payment.

TABLE E: SRR INTEREST PAYMENTS FOR ASSETS PURCHASED WITH DEBT CAPITAL

(Continued)

INTEREST SCHEDULE FOR THE SRR 2009 ROAD PROPERTY INVESTMENT FOR THE 3Q2011 START-UP			INTEREST SCHEDULE FOR THE SRR 2010 ROAD PROPERTY INVESTMENT FOR THE 3Q2011 START-UP			INTEREST SCHEDULE FOR THE SRR 2011 ROAD PROPERTY INVESTMENT FOR THE 3Q2011 START-UP		
1. TOTAL INVESTMENT	\$407,929,192	1/	1. TOTAL INVESTMENT	\$939,843,160	1/	1. TOTAL INVESTMENT	\$454,676,147	1/
2. IDC	\$10,364,594	2/	2. IDC	\$89,909,308	2/	2. IDC	\$113,930,603	2/
3. PRINCIPAL	\$121,723,492	3/	3. PRINCIPAL	\$240,653,152	3/	3. PRINCIPAL	\$118,440,786	3/
4. INTEREST	5.72%	4/	4. INTEREST	4.61%	4/	4. INTEREST	3.97%	4/
5. TERM (QUARTERS)	80	5/	5. TERM (QUARTERS)	80	5/	5. TERM (QUARTERS)	80	5/
6. QUARTERLY COUPON	\$1,704,508	6/	6. QUARTERLY COUPON	\$2,726,830	6/	6. QUARTERLY COUPON	\$1,158,419	6/

Quarter	Interest 7/	Quarter	Interest 7/	Quarter	Interest 7/
(1)	(2)	(3)	(4)	(5)	(6)
41	\$1,704,508	41	\$2,726,830	41	\$1,158,419
42	1,704,508	42	2,726,830	42	1,158,419
43	1,704,508	43	2,726,830	43	1,158,419
44	1,704,508	44	2,726,830	44	1,158,419
45	1,704,508	45	2,726,830	45	1,158,419
46	1,704,508	46	2,726,830	46	1,158,419
47	1,704,508	47	2,726,830	47	1,158,419
48	1,704,508	48	2,726,830	48	1,158,419
49	1,704,508	49	2,726,830	49	1,158,419
50	1,704,508	50	2,726,830	50	1,158,419
51	1,704,508	51	2,726,830	51	1,158,419
52	1,704,508	52	2,726,830	52	1,158,419
53	1,704,508	53	2,726,830	53	1,158,419
54	1,704,508	54	2,726,830	54	1,158,419
55	1,704,508	55	2,726,830	55	1,158,419
56	1,704,508	56	2,726,830	56	1,158,419
57	1,704,508	57	2,726,830	57	1,158,419
58	1,704,508	58	2,726,830	58	1,158,419
59	1,704,508	59	2,726,830	59	1,158,419
60	1,704,508	60	2,726,830	60	1,158,419
61	1,704,508	61	2,726,830	61	1,158,419
62	1,704,508	62	2,726,830	62	1,158,419
63	1,704,508	63	2,726,830	63	1,158,419
64	1,704,508	64	2,726,830	64	1,158,419
65	1,704,508	65	2,726,830	65	1,158,419
66	1,704,508	66	2,726,830	66	1,158,419
67	1,704,508	67	2,726,830	67	1,158,419
68	1,704,508	68	2,726,830	68	1,158,419
69	1,704,508	69	2,726,830	69	1,158,419
70	1,704,508	70	2,726,830	70	1,158,419
71	1,704,508	71	2,726,830	71	1,158,419
72	1,704,508	72	2,726,830	72	1,158,419
73	1,704,508	73	2,726,830	73	1,158,419
74	1,704,508	74	2,726,830	74	1,158,419
75	1,704,508	75	2,726,830	75	1,158,419
76	1,704,508	76	2,726,830	76	1,158,419
77	1,704,508	77	2,726,830	77	1,158,419
78	1,704,508	78	2,726,830	78	1,158,419
79	1,704,508	79	2,726,830	79	1,158,419
80	1,704,508	80	2,726,830	80	1,158,419

1/ From Table D, Column (7) for the applicable year investment.
 2/ From Table D, Column (8) for the applicable year investment.
 3/ (Total Investment + IDC) x (Proportion of Debt from Table A, Column (9))
 4/ From Table A, Column (6) for the applicable year investment.
 5/ Based on Ex Parte No. 657 20-year payment period x 4.
 6/ Quarterly coupon payments on Line 3 principal and Line 4 interest rates.
 7/ Line 6 coupon payment.

TABLE F: SRR PRESENT VALUE OF REPLACEMENT COST

Property Account	Property Component	Service Life In Years 1/	Investment 2/	Salvage 3/	Replacement Year Asset Net Cost 4/	Replacement Cost Adjusted To Reflect An Infinite Life 5/	Present Value Of Replacement Cost Adjusted To Reflect An Infinite Life (2011 Dollars) 6/
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
3	Grading	95	\$6,355,663,892	\$0	\$5,418,878,866	\$5,426,531,913	\$256,469
5	Tunnels	120	0	0	0	0	0
6	Bridges & Culverts	96	8,730,239,474	0	6,467,767,516	6,476,342,462	278,132
8	Ties	23	270,731,162	0	180,339,754	227,075,800	20,629,200
9	Rails and OTM	40	1,056,977,564	68,541,219	661,738,635	706,601,347	10,776,302
11	Ballast	40	297,863,956	0	198,413,482	211,864,967	3,231,130
12	Labor	36	455,109,535	0	303,158,089	331,010,123	7,739,542
13	Fences and Roadway Signs	95	31,016,812	0	22,978,697	23,011,149	1,088
16	Stations and Office Buildings	43	0	0	0	0	0
17	Roadway Buildings	44	218,296,056	0	161,723,873	169,881,147	1,695,778
19	Fuel Stations	31	36,922,489	0	27,353,897	31,109,962	1,258,117
20	Shops and Enginehouses	50	55,465,820	0	41,091,660	42,444,383	227,478
26	Communications Systems	26	72,079,464	0	48,013,656	57,581,074	3,780,327
27	Signals and Interlockers	56	992,026,499	29,343,939	643,763,130	657,449,130	1,846,336
39	Public Improvements	13	<u>22,224,817</u>	<u>0</u>	<u>16,465,178</u>	<u>28,399,831</u>	<u>7,621,228</u>
Total			\$18,594,617,540	\$97,885,158	\$14,191,686,433	\$14,389,303,290	\$59,341,127

1/ From Table C, Column (3).
 2/ (Table C, Column (10) after allocation of Engineering) x (Table B, 1.0 + Annual Inflation Index)^(Column (3)).
 3/ [(Column (4) x Salvage %) - (Table C, Column (10) after allocation of Engineering x Salvage %)] x (1 - Current Federal Tax Rate) + (Table C, Column (10) after allocation of Engineering x Salvage %).
 4/ Column (4) - (Present Value of the remaining tax deductions for depreciation, interest expense and the Present Value of any salvage).
 5/ Column (6) + [(Column (6) / ((1 + Real Cost of Capital)^Column (3) - 1)].
 6/ Column (7) / ((1 + Average Nominal Cost of Capital from Table A Column (2))^Column (3)).

TABLE G: SRR TAX DEPRECIATION SCHEDULES

Depreciation of Start-up investment for tax purposes using accounting lives from Modified Accelerated Cost Recovery System (MACRS) 1/

Road Property Account	Road Property Component	Asset Lives Per MACRS 2/	Total 3Q 2011 Investment	Depreciable Base
(1)	(2)	(3)	(4)	(5)
1	Engineering	5	\$138,188,729	\$138,188,729
2	Land	N/A	194,806,740	0
3	Grading	50	254,822,066	254,822,066
5	Tunnels	50	0	0
6	Bridges & Culverts	15	339,954,624	339,954,624
8	Ties	7	122,770,482	122,770,482
9	Rails and OTM	7	304,215,183	304,215,183
11	Ballast	7	85,730,049	85,730,049
12	Labor	7	118,070,321	118,070,321
13	Fences and Roadway Signs	15	1,243,579	1,243,579
16	Stations and Office Buildings	15	0	0
17	Roadway Buildings	15	44,764,618	44,764,618
19	Fuel Stations	15	11,599,484	11,599,484
20	Shops and Enginehouses	15	9,409,326	9,409,326
26	Communications Systems	7	26,249,408	26,249,408
27	Signals and Interlockers	7	138,190,707	138,190,707
39	Public Improvements	15	<u>12,433,186</u>	<u>12,433,186</u>
Total			\$1,802,448,499	\$1,607,641,760

1/ Applicable Depreciation Method: 200 or 150 percent Declining Balance Switching to Straight Line
 Applicable Recovery Periods: 7, 15 and 50 a/ years
 Applicable Convention: Mid-quarter(property placed in service in third quarter)

The Depreciation Rates are as follows for the corresponding Recovery Period and Recovery year:

Recovery Year	--- Recovery Period ---				Recovery Year	--- Recovery Period ---			
	5-Year	7-year	15-year	50-year		7-year	15-year	50-year	
1	20.00%	10.71%	3.750%	2.00%	10	0.00%	5.900%	2.00%	
2	20.00%	25.51%	9.630%	2.00%	11	0.00%	5.910%	2.00%	
3	20.00%	18.22%	8.660%	2.00%	12	0.00%	5.900%	2.00%	
4	20.00%	13.02%	7.800%	2.00%	13	0.00%	5.910%	2.00%	
5	20.00%	9.30%	7.020%	2.00%	14	0.00%	5.900%	2.00%	
6		8.85%	6.310%	2.00%	15	0.00%	5.910%	2.00%	
7		8.86%	5.900%	2.00%	16	0.00%	3.690%	2.00%	
8		5.53%	5.900%	2.00%	17	0.00%	0.000%	2.00%	
9		0.00%	5.910%	2.00%	18	0.00%	0.000%	2.00%	
					19-50	0.00%	0.000%	2.00%	

a/ 50 year property uses the Straight Line Method for all time periods

2/ Bonus Depreciation Per the **Economic Stimulus Act of 2008**, the **American Recovery & Reinvestment Act**, and **The Tax Relief, Unemployment Insurance Reauthorization and Job Creation Act of 2010** for the following depreciable assets:

MACRS Lives (1)	50% Bonus Depreciation (2)	100% Bonus Depreciation
7	\$109,579,837	\$576,066,475
15	\$117,027,274	\$185,350,268

TABLE G: SRR TAX DEPRECIATION SCHEDULES
(Continued)

Year	Amortization - 5 Years			Road Property Depreciation - MACRS 7 Years			Depreciation - MACRS 15 Years			Depreciation - MACRS 50 Years			Total Annual Depreciation 10/
	Unamortized Investment 1/ (2)	Rate 2/ (3)	Annual Amort. 3/ (4)	Undepreciated Investment 4/ (5)	Rate 2/ (6)	Annual Amount 5/ (7)	Undepreciated Investment 6/ (8)	Rate 2/ (9)	Annual Amount 7/ (10)	Unamortized Investment 8/ (11)	Rate 2/ (12)	Annual Amount 9/ (13)	
1	\$138,188,729	20.00%	\$27,637,746	\$109,579,837	10.71%	\$11,736,001	\$117,027,274	3.75%	\$4,388,523	\$254,822,066	2%	\$5,096,441	\$1,036,882,564
2	110,550,984	20.00%	27,637,746	97,843,836	25.51%	27,953,816	112,638,751	9.63%	11,269,726	249,725,625	2%	5,096,441	71,957,730
3	82,913,238	20.00%	27,637,746	69,890,020	18.22%	19,965,446	101,369,025	8.66%	10,134,562	244,629,183	2%	5,096,441	62,834,195
4	55,275,492	20.00%	27,637,746	49,924,574	13.02%	14,267,295	91,234,463	7.80%	9,128,127	239,532,742	2%	5,096,441	56,129,609
5	27,637,746	20.00%	27,637,746	35,657,279	9.30%	10,190,925	82,106,335	7.02%	8,215,315	234,436,301	2%	5,096,441	51,140,427
6				25,466,354	8.85%	9,697,816	73,891,021	6.31%	7,384,421	229,339,859	2%	5,096,441	22,178,678
7				15,768,539	8.86%	9,708,774	66,506,600	5.90%	6,904,609	224,243,418	2%	5,096,441	21,709,824
8				6,059,765	5.53%	6,059,765	59,601,991	5.90%	6,904,609	219,146,977	2%	5,096,441	18,060,815
9							52,697,381	5.91%	6,916,312	214,050,535	2%	5,096,441	12,012,753
10					100.00%		45,781,070	5.90%	6,904,609	208,954,094	2%	5,096,441	12,001,050
11							38,876,460	5.91%	6,916,312	203,857,653	2%	5,096,441	12,012,753
12							31,960,149	5.90%	6,904,609	198,761,212	2%	5,096,441	12,001,050
13							25,055,539	5.91%	6,916,312	193,664,770	2%	5,096,441	12,012,753
14							18,139,227	5.90%	6,904,609	188,568,329	2%	5,096,441	12,001,050
15							11,234,618	5.91%	6,916,312	183,471,888	2%	5,096,441	12,012,753
16							4,318,306	3.69%	4,318,306	178,375,446	2%	5,096,441	9,414,748
17										173,279,005	2%	5,096,441	5,096,441
18								100.00%		168,182,564	2%	5,096,441	5,096,441
19										163,086,122	2%	5,096,441	5,096,441
20										157,989,681	2%	5,096,441	5,096,441
21										152,893,240	2%	5,096,441	5,096,441

1/ From Table G, Page 8, Column (5), Road Property Accounts 1 minus Page 8, 5-Year Bonus Depreciation.

2/ From Table G, Footnote 1/, Page 8.

3/ Column (2), Year 1 x Column (3).

4/ From Table G, Page 8, Column (5), Road Property Accounts 8, 9, 11, 12, 26 and 27 minus Page 10, 7-Year Bonus Depreciation.

5/ Column (5), Year 1 x Column (6).

6/ From Table G, Page 8, Column (5), Road Property Accounts 6, 13, 16, 17, 19, 20 and 39 minus Page 8, 15-Year Bonus Depreciation.

7/ Column (8), Year 1 x Column (9).

8/ From Table G, Page 8, Column (5), Road Property Accounts 3 and 5.

9/ Column (11), Year 1 x Column (12).

10/ Column (4) + Column (7) + Column (10) + Column (13) plus Page 8, 5, 7 & 15 Year Bonus Depreciation.

TABLE H: SRR AVERAGE ANNUAL INFLATION IN ASSET PRICES

Development of average annual inflation factors for all capital assets

1. 3Q2011 Land value	\$194,806,740 1/
2. 3Q2011 Property asset value accounts 3, 5, 6, 13, 17, 26, 27, 39 and 52	\$838,666,996 1/
3. 3Q2011 Road Property asset value accounts 8, 9, and 11	\$512,715,713 1/
4. 3Q2011 Road Property asset value accounts 1 and 12	\$256,259,050 1/

Period	Quarter	Inflation Index For Land 2/ (3)	Inflation Index For Line 2 Property Assets 3/ (4)	Inflation Index For Line 3 Road Property Assets 4/ (5)	Inflation Index For Line 4 Road Property Assets 5/ (6)	Land Value 6/ (7)	Road Property Value 7/ (8)	3Q2011
								Inflation Index 8/ (9)
0		1.000	1.000	1.000	1.000	\$194,806,740	\$1,607,641,760	1.000
1	July 30-Sep 30, 2011	1.020	1.014	1.066	1.006	198,630,810	1,654,237,180	1.028
2	2011 4 Qtr	1.039	1.027	1.073	1.020	202,498,314	1,672,837,049	1.040
3	2012 1 Qtr	1.057	1.026	1.072	1.019	205,898,698	1,671,461,140	1.042
4	2012 2 Qtr	1.074	1.049	1.115	1.039	209,313,265	1,717,042,047	1.069
5	2012 3 Qtr	1.090	1.051	1.121	1.040	212,407,248	1,722,503,798	1.073
6	2012 4 Qtr	1.111	1.046	1.102	1.038	216,393,072	1,708,734,755	1.068
7	2013 1 Qtr	1.130	1.050	1.097	1.043	220,073,504	1,709,847,593	1.071
8	2013 2 Qtr	1.149	1.037	1.087	1.030	223,819,218	1,691,204,630	1.062
9	2013 3 Qtr	1.168	1.052	1.098	1.046	227,631,411	1,713,256,241	1.077
10	2013 4 Qtr	1.188	1.068	1.110	1.061	231,511,304	1,736,273,522	1.092
11	2014 1 Qtr	1.209	1.080	1.122	1.074	235,460,141	1,756,430,662	1.105
12	2014 2 Qtr	1.229	1.081	1.129	1.074	239,479,187	1,760,544,853	1.110
13	2014 3 Qtr	1.250	1.094	1.139	1.087	243,569,734	1,779,603,700	1.122
14	2014 4 Qtr	1.272	1.107	1.152	1.100	247,733,097	1,800,958,944	1.137
15	2015 1 Qtr	1.293	1.121	1.159	1.115	251,970,615	1,820,539,781	1.150
16	2015 2 Qtr	1.316	1.130	1.164	1.124	256,283,654	1,832,267,726	1.159
17	2015 3 Qtr	1.338	1.137	1.162	1.133	260,673,604	1,839,802,540	1.165
18	2015 4 Qtr	1.361	1.146	1.166	1.142	265,141,882	1,851,673,269	1.174
19	2016 1 Qtr	1.384	1.155	1.171	1.152	269,689,932	1,864,132,308	1.184
20	2016 2 Qtr	1.408	1.164	1.177	1.161	274,319,226	1,876,679,728	1.193

1/ Table C, Page 3, Column (10).

2/ Previous Column (3) x (1 + Quarterly Inflation Rate Change from Table B).

3/ Previous Column (4) x (1 + Quarterly Inflation Rate Change from Table B).

4/ Previous Column (5) x (1 + Quarterly Inflation Rate Change from Table B).

5/ Previous Column (6) x (1 + Quarterly Inflation Rate Change from Table B).

6/ Line 1 x Column (3) for applicable quarter.

7/ (Line 2 x Column (4) for applicable quarter) + (Line 3 x Column (5) for applicable quarter) + (Line 4 x Column (6) for applicable quarter).

8/ (Column (7) + Column (8)) ÷ (Period 0; (Column (7) + Column (8))).

9/ Annual weighted inflation using the last two quarters, used to calculate real cost of capital.

TABLE H: SRR AVERAGE ANNUAL INFLATION IN ASSET PRICES**(Continued)**

Development of average annual inflation factors for all capital assets

1. 3Q2011 Land value	\$194,806,740 1/
2. 3Q2011 Property asset value accounts 3, 5, 6, 13, 17, 26, 27, 39 and 52	\$838,666,996 1/
3. 3Q2011 Road Property asset value accounts 8, 9, and 11	\$512,715,713 1/
4. 3Q2011 Road Property asset value accounts 1 and 12	\$256,259,050 1/

<u>Period</u>	<u>Quarter</u>	<u>Inflation Index For Land 2/</u>	<u>Inflation Index For Line 2 Property Assets 3/</u>	<u>Inflation Index For Line 3 Road Property Assets 4/</u>	<u>Inflation Index For Line 4 Road Property Assets 5/</u>	<u>Land Value 6/</u>	<u>Road Property Value 7/</u>	<u>3Q2011 Inflation Index 8/</u>
21	2016 3 Qtr	1.432	1.173	1.182	1.170	\$279,031,261	\$1,889,316,180	1.203
22	2016 4 Qtr	1.457	1.182	1.187	1.180	283,827,566	1,902,042,319	1.213
23	2017 1 Qtr	1.482	1.192	1.195	1.190	288,709,696	1,917,044,942	1.224
24	2017 2 Qtr	1.508	1.202	1.203	1.200	293,679,237	1,932,167,214	1.235
25	2017 3 Qtr	1.534	1.212	1.211	1.211	298,737,804	1,947,410,097	1.246
26	2017 4 Qtr	1.560	1.222	1.219	1.221	303,887,043	1,962,774,563	1.258
27	2018 1 Qtr	1.587	1.232	1.220	1.232	309,128,632	1,974,401,017	1.267
28	2018 2 Qtr	1.614	1.242	1.221	1.244	314,464,279	1,986,121,150	1.276
29	2018 3 Qtr	1.642	1.252	1.222	1.255	319,895,726	1,997,935,744	1.286
30	2018 4 Qtr	1.671	1.262	1.223	1.266	325,424,747	2,009,845,588	1.296
31	2019 1 Qtr	1.699	1.273	1.232	1.278	331,053,150	2,026,708,272	1.308
32	2019 2 Qtr	1.729	1.284	1.241	1.290	336,782,778	2,043,713,800	1.321
33	2019 3 Qtr	1.759	1.296	1.249	1.301	342,615,506	2,060,863,391	1.333
34	2019 4 Qtr	1.789	1.307	1.258	1.313	348,553,249	2,078,158,278	1.346
35	2020 1 Qtr	1.820	1.319	1.267	1.325	354,597,956	2,094,902,024	1.359
36	2020 2 Qtr	1.852	1.330	1.275	1.337	360,751,611	2,111,782,460	1.372
37	2020 3 Qtr	1.884	1.341	1.284	1.349	367,016,240	2,128,800,715	1.385
38	2020 4 Qtr	1.917	1.353	1.292	1.361	373,393,904	2,145,957,927	1.398
39	2021 1 Qtr	1.950	1.364	1.299	1.372	379,886,705	2,161,944,407	1.410
40	2021 2 Qtr	1.984	1.375	1.306	1.384	386,496,784	2,178,053,832	1.423
41	July 1 - July 29 2021	2.019	1.387	1.314	1.396	393,226,323	2,194,287,173	1.436
<u>Annual Average 9/</u>								3.63%

1/ Table C, Page 3, Column (10).

2/ Previous Column (3) x (1 + Quarterly Inflation Rate Change from Table B).

3/ Previous Column (4) x (1 + Quarterly Inflation Rate Change from Table B).

4/ Previous Column (5) x (1 + Quarterly Inflation Rate Change from Table B).

5/ Previous Column (6) x (1 + Quarterly Inflation Rate Change from Table B).

6/ Line 1 x Column (3) for applicable quarter.

7/ (Line 2 x Column (4) for applicable quarter) + (Line 3 x Column (5) for applicable quarter) + (Line 4 x Column (6) for applicable quarter).

8/ (Column (7) + Column (8)) ÷ (Period 0; (Column (7) + Column (8))).

9/ Annual weighted inflation using the last two quarters, used to calculate real cost of capital.

TABLE I: SRR DISCOUNTED CASH FLOW
(Road Property)

Discounted Cash Flow

Present Value of the Cash Flow Discounted at the Cost of Capital in Table A

Inflation In Asset Values From Table H

1. 3Q2011 Road Property Investment	\$1,805,655,754 1/	Federal Tax Rate	35.0%
2. Interest During Construction (3Q2011 Invest.)	\$214,204,505 2/		
3. Total 3Q2011 Investment	\$2,019,860,259 3/	Route Mile Weighted	
4. Present Value Of Replacement Cost for the SRR	\$59,341,127 4/	Average State Tax Rate	6.19% 6/
5. Total Cost Recovered From Quarterly Revenue Flow	\$2,079,201,386 5/		

<u>Period</u>	<u>Quarter</u>	<u>Quarterly Levelized Capital Carrying Charge Requirement 7/</u>	<u>Interest on Investment Financed With Debt 8/</u>	<u>Tax Depreciation 9/</u>	<u>Actual Federal Tax Payments 10/</u>	<u>Actual State Tax Payments 11/</u>	<u>Cash Flow 12/</u>	<u>Present Value Cash Flow 13/</u>	<u>Cumulative Present Value 14/</u>
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1	July 30-Sep 30, 2011	\$31,819,756	\$3,827,768	\$421,442,590	\$0	\$0	\$31,819,756	\$31,398,302	\$31,398,302
2	2011 4 Qtr	47,030,390	5,589,757	615,439,973	0	0	47,030,390	45,206,743	76,605,046
3	2012 1 Qtr	47,081,161	5,589,757	17,989,433	0	0	47,081,161	44,084,621	120,689,667
4	2012 2 Qtr	48,309,888	5,589,757	17,989,433	0	0	48,309,888	44,064,749	164,754,415
5	2012 3 Qtr	48,524,452	5,589,757	17,989,433	0	0	48,524,452	43,115,281	207,869,696
6	2012 4 Qtr	48,279,105	5,589,757	17,989,433	0	0	48,279,105	41,787,375	249,657,072
7	2013 1 Qtr	48,399,312	5,589,757	15,708,549	0	0	48,399,312	40,807,538	290,464,609
8	2013 2 Qtr	48,025,713	5,589,757	15,708,549	0	0	48,025,713	39,444,852	329,909,461
9	2013 3 Qtr	48,674,336	5,589,757	15,708,549	0	0	48,674,336	38,943,220	368,852,681
10	2013 4 Qtr	49,348,874	5,589,757	15,708,549	0	0	49,348,874	38,461,337	407,314,018
11	2014 1 Qtr	49,953,413	5,589,757	14,032,402	0	0	49,953,413	37,925,176	445,239,194
12	2014 2 Qtr	50,157,381	5,589,757	14,032,402	0	0	50,157,381	37,094,764	482,333,958
13	2014 3 Qtr	50,737,931	5,589,757	14,032,402	0	0	50,737,931	36,553,235	518,887,193
14	2014 4 Qtr	51,377,896	5,589,757	14,032,402	0	0	51,377,896	36,056,594	554,943,786
15	2015 1 Qtr	51,975,222	5,589,757	12,785,107	0	0	51,975,222	35,532,032	590,475,818
16	2015 2 Qtr	52,377,504	5,589,757	12,785,107	0	0	52,377,504	34,880,588	625,356,406
17	2015 3 Qtr	52,676,558	5,589,757	12,785,107	0	0	52,676,558	34,172,103	659,528,509
18	2015 4 Qtr	53,086,314	5,589,757	12,785,107	0	0	53,086,314	33,546,885	693,075,394
19	2016 1 Qtr	53,512,825	5,589,757	5,544,669	0	0	53,512,825	32,941,457	726,016,851
20	2016 2 Qtr	53,943,589	5,589,757	5,544,669	0	0	53,943,589	32,347,452	758,364,303
21	2016 3 Qtr	54,378,661	5,589,757	5,544,669	0	0	54,378,661	31,764,649	790,128,953
22	2016 4 Qtr	54,818,096	5,589,757	5,544,669	0	0	54,818,096	31,192,832	821,321,785
23	2017 1 Qtr	55,316,773	5,589,757	5,427,456	0	0	55,316,773	30,662,179	851,983,964
24	2017 2 Qtr	55,820,644	5,589,757	5,427,456	0	0	55,820,644	30,140,908	882,124,872
25	2017 3 Qtr	56,329,771	5,589,757	5,427,456	0	0	56,329,771	29,628,850	911,753,722

TABLE I: SRR DISCOUNTED CASH FLOW
(Road Property Continued)

<u>Period</u>	<u>Quarter</u>	<u>Quarterly Levelized Capital Carrying Charge Requirement 7/</u>	<u>Interest on Investment Financed With Debt 8/</u>	<u>Tax Depreciation 9/</u>	<u>Actual Federal Tax Payments 10/</u>	<u>Actual State Tax Payments 11/</u>	<u>Cash Flow 12/</u>	<u>Present Value Cash Flow 13/</u>	<u>Cumulative Present Value 14/</u>
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
26	2017 4 Qtr	\$56,844,222	\$5,589,757	5,427,456	\$0	\$0	\$56,844,222	\$29,125,839	\$940,879,560
27	2018 1 Qtr	57,267,245	5,589,757	4,515,204	0	0	57,267,245	28,583,389	969,462,949
28	2018 2 Qtr	57,694,977	5,589,757	4,515,204	0	0	57,694,977	28,051,800	997,514,749
29	2018 3 Qtr	58,127,480	5,589,757	4,515,204	0	0	58,127,480	27,530,845	1,025,045,594
30	2018 4 Qtr	58,564,818	5,589,757	4,515,204	8,321,179	1,567,486	48,676,154	22,457,924	1,047,503,518
31	2019 1 Qtr	59,128,859	5,589,757	3,003,188	16,593,548	3,125,778	39,409,533	17,712,096	1,065,215,614
32	2019 2 Qtr	59,699,020	5,589,757	3,003,188	16,780,761	3,161,044	39,757,215	17,406,038	1,082,621,653
33	2019 3 Qtr	60,275,379	5,589,757	3,003,188	16,970,009	3,196,693	40,108,677	17,105,573	1,099,727,225
34	2019 4 Qtr	60,858,016	5,589,757	3,003,188	17,161,319	3,232,731	40,463,966	16,810,594	1,116,537,819
35	2020 1 Qtr	61,429,514	5,589,757	3,000,263	17,349,932	3,268,260	40,811,322	16,516,217	1,133,054,036
36	2020 2 Qtr	62,007,172	5,589,757	3,000,263	17,539,607	3,303,990	41,163,575	16,227,750	1,149,281,786
37	2020 3 Qtr	62,591,069	5,589,757	3,000,263	17,731,330	3,340,106	41,519,633	15,944,615	1,165,226,401
38	2020 4 Qtr	63,181,286	5,589,757	3,000,263	17,925,129	3,376,612	41,879,545	15,666,710	1,180,893,111
39	2021 1 Qtr	63,745,030	5,589,757	3,003,188	18,109,275	3,411,300	42,224,455	15,387,045	1,196,280,156
40	2021 2 Qtr	64,314,799	5,589,757	3,003,188	18,296,359	3,446,542	42,571,898	15,112,262	1,211,392,418
41	July 1 - July 29 2021	20,454,668	1,761,989	946,657	5,826,935	1,097,638	13,530,096	4,740,400	1,216,132,818
	Future	3,733,710,873	321,626,133	74,321,273	1,095,959,936	206,449,364	2,431,301,573	863,068,569	2,079,201,386

1/ From Table C, Column (10) + Rail Grinding Capital Costs from [MOW Costs - Final.xls]

2/ From Table D, Column (8).

3/ Line 1 + Line 2.

4/ Table F Column (8).

5/ Line 3 + Line 4.

6/ Alabama, Mississippi and Louisiana corporate income tax rates weighted on SRR route miles.

7/ Quarterly carrying costs needed to recover the total investment over 40 quarters after consideration of the applicable interest payments, tax depreciation and tax liability. The Future value is an estimate of a perpetual income stream for the SRR and is calculated by taking the Period 40, Column (3) value and dividing it by the SRR 's estimated quarterly Real Cost of Capital.

8/ Value from Table E.

9/ Value from Table G, Page 12, Column (14) divided by 4 quarters.

10/ Table J: Part 1 Page 16 of 20.

11/ Table J: Part 2 Page 17 of 20.

12/ (Column (3) - Column (6) - Column (7)).

13/ Column (8) discounted by the fourth root of the annual Cost of Capital adjusted to midquarter dollars from Table A

14/ Cumulative total of Column (9)

TABLE J - PART 1: COMPUTATION OF FEDERAL TAX LIABILITY - TAXABLE INCOME
(Road Property)

Time Period	Taxable Income B/4 NOL's SRR 1/	Net Operating Losses Generated 2/	NOL's Generated Plus Carryforward 3/	Carryforward Utilized 4/	Carryforward Remaining 5/	Carryback Available 6/	Carryback Utilized 7/	Carryback Remaining 8/	Annual Taxable Income 9/	Annual Tax Liability 10/
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
2009	(\$1,401,680)	(\$1,401,680)	(\$1,401,680)	\$0	(\$1,401,680)	(\$1,401,680)	\$0	(\$1,401,680)	\$0	\$0
2010	(8,471,715)	(8,471,715)	(9,873,394)	0	(9,873,394)	(9,873,394)	0	(9,873,394)	0	0
Jan 1-Jul 29, 2011	(8,414,079)	(8,414,079)	(18,287,473)	0	(18,287,473)	(18,287,473)	0	(18,287,473)	0	0
July 30-Sep 30, 2011	(393,450,603)	(393,450,603)	(411,738,076)	0	(411,738,076)	(411,738,076)	0	(411,738,076)	0	0
2011 4 Qtr	(573,999,340)	(573,999,340)	(985,737,416)	0	(985,737,416)	(985,737,416)	0	(985,737,416)	0	0
2012 1 Qtr	23,501,972	0	(985,737,416)	23,501,972	(962,235,444)	(962,235,444)	0	(962,235,444)	0	0
2012 2 Qtr	24,730,699	0	(962,235,444)	24,730,699	(937,504,745)	(937,504,745)	0	(937,504,745)	0	0
2012 3 Qtr	24,945,263	0	(937,504,745)	24,945,263	(912,559,482)	(912,559,482)	0	(912,559,482)	0	0
2012 4 Qtr	24,699,916	0	(912,559,482)	24,699,916	(887,859,566)	(887,859,566)	0	(887,859,566)	0	0
2013 1 Qtr	27,101,007	0	(887,859,566)	27,101,007	(860,758,560)	(860,758,560)	0	(860,758,560)	0	0
2013 2 Qtr	26,727,408	0	(860,758,560)	26,727,408	(834,031,152)	(834,031,152)	0	(834,031,152)	0	0
2013 3 Qtr	27,376,030	0	(834,031,152)	27,376,030	(806,655,121)	(806,655,121)	0	(806,655,121)	0	0
2013 4 Qtr	28,050,568	0	(806,655,121)	28,050,568	(778,604,553)	(778,604,553)	0	(778,604,553)	0	0
2014 1 Qtr	30,331,254	0	(778,604,553)	30,331,254	(748,273,299)	(748,273,299)	0	(748,273,299)	0	0
2014 2 Qtr	30,535,222	0	(748,273,299)	30,535,222	(717,738,077)	(717,738,077)	0	(717,738,077)	0	0
2014 3 Qtr	31,115,772	0	(717,738,077)	31,115,772	(686,622,305)	(686,622,305)	0	(686,622,305)	0	0
2014 4 Qtr	31,755,737	0	(686,622,305)	31,755,737	(654,866,568)	(654,866,568)	0	(654,866,568)	0	0
2015 1 Qtr	33,600,359	0	(654,866,568)	33,600,359	(621,266,208)	(621,266,208)	0	(621,266,208)	0	0
2015 2 Qtr	34,002,641	0	(621,266,208)	34,002,641	(587,263,567)	(587,263,567)	0	(587,263,567)	0	0
2015 3 Qtr	34,301,695	0	(587,263,567)	34,301,695	(552,961,872)	(552,961,872)	0	(552,961,872)	0	0
2015 4 Qtr	34,711,451	0	(552,961,872)	34,711,451	(518,250,422)	(518,250,422)	0	(518,250,422)	0	0
2016 1 Qtr	42,378,399	0	(518,250,422)	42,378,399	(475,872,023)	(475,872,023)	0	(475,872,023)	0	0
2016 2 Qtr	42,809,163	0	(475,872,023)	42,809,163	(433,062,860)	(433,062,860)	0	(433,062,860)	0	0
2016 3 Qtr	43,244,235	0	(433,062,860)	43,244,235	(389,818,625)	(389,818,625)	0	(389,818,625)	0	0
2016 4 Qtr	43,683,670	0	(389,818,625)	43,683,670	(346,134,956)	(346,134,956)	0	(346,134,956)	0	0
2017 1 Qtr	44,299,561	0	(346,134,956)	44,299,561	(301,835,395)	(301,835,395)	0	(301,835,395)	0	0
2017 2 Qtr	44,803,431	0	(301,835,395)	44,803,431	(257,031,964)	(257,031,964)	0	(257,031,964)	0	0
2017 3 Qtr	45,312,559	0	(257,031,964)	45,312,559	(211,719,405)	(211,719,405)	0	(211,719,405)	0	0
2017 4 Qtr	45,827,009	0	(211,719,405)	45,827,009	(165,892,396)	(165,892,396)	0	(165,892,396)	0	0
2018 1 Qtr	47,162,285	0	(165,892,396)	47,162,285	(118,730,111)	(118,730,111)	0	(118,730,111)	0	0
2018 2 Qtr	47,590,016	0	(118,730,111)	47,590,016	(71,140,095)	(71,140,095)	0	(71,140,095)	0	0
2018 3 Qtr	48,022,519	0	(71,140,095)	48,022,519	(23,117,576)	(23,117,576)	0	(23,117,576)	0	0
2018 4 Qtr	46,892,372	0	(23,117,576)	23,117,576	0	0	0	0	23,774,796	8,321,179
2019 1 Qtr	47,410,136	0	0	0	0	0	0	0	47,410,136	16,593,548
2019 2 Qtr	47,945,031	0	0	0	0	0	0	0	47,945,031	16,780,761
2019 3 Qtr	48,485,741	0	0	0	0	0	0	0	48,485,741	16,970,009
2019 4 Qtr	49,032,340	0	0	0	0	0	0	0	49,032,340	17,161,319
2020 1 Qtr	49,571,234	0	0	0	0	0	0	0	49,571,234	17,349,932
2020 2 Qtr	50,113,163	0	0	0	0	0	0	0	50,113,163	17,539,607
2020 3 Qtr	50,660,944	0	0	0	0	0	0	0	50,660,944	17,731,330
2020 4 Qtr	51,214,655	0	0	0	0	0	0	0	51,214,655	17,925,129
2021 1 Qtr	51,740,785	0	0	0	0	0	0	0	51,740,785	18,109,275
2021 2 Qtr	52,275,312	0	0	0	0	0	0	0	52,275,312	18,296,359
July 1 - July 29 2021	16,648,385	0	0	0	0	0	0	0	16,648,385	5,826,935
Future	3,131,314,104	0	0	0	0	0	0	0	3,131,314,104	1,095,959,936

1/ Table I, Page 13, Column (3) - Table E, Page 5, Columns (2),(4) & (6) - Table G, Column (14) / 4 - Table J Part 2, Page 15, Column (11).

Values for 2009- July 29, 2011 from Table D, Sum of Column (10).

2/ Column (2) if less than zero, otherwise zero.

3/ Cumulative total of Column (2).

4/ If Column (2) is greater than zero, and (Column (2) + Column (4) is less than zero, then Column (2), otherwise Column (4)

5/ Column (4) + Column (5) + Column (8).

6/ Previous period Column (9) + current period Column (3) - current period Column (5).

7/ If previous Column (10) is greater than zero, and previous Column (10) is less than current Column (7), then previous Column (10), otherwise zero

8/ Column (7) + Column (8).

9/ If Column (2) is greater than zero, then Column (2) - Column (5) - Column (8), otherwise zero

10/ Column (10) times applicable Federal Statutory Tax Rate.

TABLE J - PART 2: COMPUTATION OF STATE TAX LIABILITY - TAXABLE INCOME
(Road Property)

Time Period	Taxable Income B/4 NOL's SRR 1/	Net Operating Losses Generated 2/	NOL's Generated Plus Carryforward 3/	Carryforward Utilized 4/	Carryforward Remaining 5/	Carryback Available 6/	Carryback Utilized 7/	Carryback Remaining 8/	Annual Taxable Income 9/	Annual Tax Liability 10/
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
2009	(\$1,401,680)	(\$1,401,680)	(\$1,401,680)	\$0	(\$1,401,680)	(\$1,401,680)	\$0	(\$1,401,680)	\$0	\$0
2010	(8,471,715)	(8,471,715)	(9,873,394)	0	(9,873,394)	(9,873,394)	0	(9,873,394)	0	0
Jan 1-Jul 29, 2011	(8,414,079)	(8,414,079)	(18,287,473)	0	(18,287,473)	(18,287,473)	0	(18,287,473)	0	0
July 30-Sep 30, 2011	(393,450,603)	(393,450,603)	(411,738,076)	0	(411,738,076)	(411,738,076)	0	(411,738,076)	0	0
2011 4 Qtr	(573,999,340)	(573,999,340)	(985,737,416)	0	(985,737,416)	(985,737,416)	0	(985,737,416)	0	0
2012 1 Qtr	23,501,972	0	(985,737,416)	23,501,972	(962,235,444)	(962,235,444)	0	(962,235,444)	0	0
2012 2 Qtr	24,730,699	0	(962,235,444)	24,730,699	(937,504,745)	(937,504,745)	0	(937,504,745)	0	0
2012 3 Qtr	24,945,263	0	(937,504,745)	24,945,263	(912,559,482)	(912,559,482)	0	(912,559,482)	0	0
2012 4 Qtr	24,699,916	0	(912,559,482)	24,699,916	(887,859,566)	(887,859,566)	0	(887,859,566)	0	0
2013 1 Qtr	27,101,007	0	(887,859,566)	27,101,007	(860,758,560)	(860,758,560)	0	(860,758,560)	0	0
2013 2 Qtr	26,727,408	0	(860,758,560)	26,727,408	(834,031,152)	(834,031,152)	0	(834,031,152)	0	0
2013 3 Qtr	27,376,030	0	(834,031,152)	27,376,030	(806,655,121)	(806,655,121)	0	(806,655,121)	0	0
2013 4 Qtr	28,050,568	0	(806,655,121)	28,050,568	(778,604,553)	(778,604,553)	0	(778,604,553)	0	0
2014 1 Qtr	30,331,254	0	(778,604,553)	30,331,254	(748,273,299)	(748,273,299)	0	(748,273,299)	0	0
2014 2 Qtr	30,535,222	0	(748,273,299)	30,535,222	(717,738,077)	(717,738,077)	0	(717,738,077)	0	0
2014 3 Qtr	31,115,772	0	(717,738,077)	31,115,772	(686,622,305)	(686,622,305)	0	(686,622,305)	0	0
2014 4 Qtr	31,755,737	0	(686,622,305)	31,755,737	(654,866,568)	(654,866,568)	0	(654,866,568)	0	0
2015 1 Qtr	33,600,359	0	(654,866,568)	33,600,359	(621,266,208)	(621,266,208)	0	(621,266,208)	0	0
2015 2 Qtr	34,002,641	0	(621,266,208)	34,002,641	(587,263,567)	(587,263,567)	0	(587,263,567)	0	0
2015 3 Qtr	34,301,695	0	(587,263,567)	34,301,695	(552,961,872)	(552,961,872)	0	(552,961,872)	0	0
2015 4 Qtr	34,711,451	0	(552,961,872)	34,711,451	(518,250,422)	(518,250,422)	0	(518,250,422)	0	0
2016 1 Qtr	42,378,399	0	(518,250,422)	42,378,399	(475,872,023)	(475,872,023)	0	(475,872,023)	0	0
2016 2 Qtr	42,809,163	0	(475,872,023)	42,809,163	(433,062,860)	(433,062,860)	0	(433,062,860)	0	0
2016 3 Qtr	43,244,235	0	(433,062,860)	43,244,235	(389,818,625)	(389,818,625)	0	(389,818,625)	0	0
2016 4 Qtr	43,683,670	0	(389,818,625)	43,683,670	(346,134,956)	(346,134,956)	0	(346,134,956)	0	0
2017 1 Qtr	44,299,561	0	(346,134,956)	44,299,561	(301,835,395)	(301,835,395)	0	(301,835,395)	0	0
2017 2 Qtr	44,803,431	0	(301,835,395)	44,803,431	(257,031,964)	(257,031,964)	0	(257,031,964)	0	0
2017 3 Qtr	45,312,559	0	(257,031,964)	45,312,559	(211,719,405)	(211,719,405)	0	(211,719,405)	0	0
2017 4 Qtr	45,827,009	0	(211,719,405)	45,827,009	(165,892,396)	(165,892,396)	0	(165,892,396)	0	0
2018 1 Qtr	47,162,285	0	(165,892,396)	47,162,285	(118,730,111)	(118,730,111)	0	(118,730,111)	0	0
2018 2 Qtr	47,590,016	0	(118,730,111)	47,590,016	(71,140,095)	(71,140,095)	0	(71,140,095)	0	0
2018 3 Qtr	48,022,519	0	(71,140,095)	48,022,519	(23,117,576)	(23,117,576)	0	(23,117,576)	0	0
2018 4 Qtr	48,459,858	0	(23,117,576)	23,117,576	0	0	0	0	25,342,282	1,567,486
2019 1 Qtr	50,535,914	0	0	0	0	0	0	0	50,535,914	3,125,778
2019 2 Qtr	51,106,075	0	0	0	0	0	0	0	51,106,075	3,161,044
2019 3 Qtr	51,682,434	0	0	0	0	0	0	0	51,682,434	3,196,693
2019 4 Qtr	52,265,071	0	0	0	0	0	0	0	52,265,071	3,232,731
2020 1 Qtr	52,839,495	0	0	0	0	0	0	0	52,839,495	3,268,260
2020 2 Qtr	53,417,153	0	0	0	0	0	0	0	53,417,153	3,303,990
2020 3 Qtr	54,001,050	0	0	0	0	0	0	0	54,001,050	3,340,106
2020 4 Qtr	54,591,267	0	0	0	0	0	0	0	54,591,267	3,376,612
2021 1 Qtr	55,152,085	0	0	0	0	0	0	0	55,152,085	3,411,300
2021 2 Qtr	55,721,854	0	0	0	0	0	0	0	55,721,854	3,446,542
July 1 - July 29 2021	17,746,022	0	0	0	0	0	0	0	17,746,022	1,097,638
Future	3,337,763,467	0	0	0	0	0	0	0	3,337,763,467	206,449,364

1/ Table I, Page 15, Column (3) - Table E, Page 5, Columns (2),(4) & (6) - Table G, Column (14) / 4.
Values for 2009- July 29, 2011 from Table D, Sum of Column (10).

2/ Column (2) if less than zero, otherwise zero.

3/ Cumulative total of Column (2).

4/ If Column (2) is greater than zero, and (Column (2) + Column (4) is less than zero, then Column (2), otherwise Column (4).

5/ Column (4) + Column (5) + Column (8).

6/ Previous period Column (9) + current period Column (3) - current period Column (5).

7/ If previous Column (10) is greater than zero, and previous Column (10) is less than current Column (7), then previous Column (10), otherwise zero.

8/ Column (7) + Column (8).

9/ If Column (2) is greater than zero, then Column (2) - Column (5) - Column (8), otherwise zero.

10/ Column (10) times applicable route mile weighted State Statutory Tax Rates.

TABLE K: SRR OPERATING EXPENSES

<u>Item</u> (1)	<u>2011</u> (2)	<u>2012</u> (3)	<u>2013</u> (4)	<u>2014</u> (5)	<u>2015</u> (7)	<u>2016</u> (8)	<u>2017</u> (9)	<u>2018</u> (10)	<u>2019</u> (11)	<u>2020</u> (12)	<u>2021</u> (12)
1. Train & Engine Personnel	\$19,234,366	\$20,656,377	\$21,910,022	\$22,890,732	\$23,886,736	\$24,874,586	\$26,229,469	\$27,706,501	\$29,222,293	\$30,794,722	\$32,709,936
2. Locomotive Lease Expense	5,911,499	6,348,541	6,733,837	7,035,249	7,341,361	7,644,968	8,061,378	8,515,330	8,981,194	9,464,465	10,053,088
3. Locomotive Maintenance Expense	11,383,425	12,225,010	12,966,951	13,547,363	14,136,825	14,721,461	15,523,319	16,397,466	17,294,554	18,225,160	19,358,637
4. Locomotive Operating Expense	48,887,755	52,502,065	55,688,438	58,181,098	60,712,628	63,223,434	66,667,126	70,421,279	74,273,950	78,270,573	83,138,451
5. Railcar Lease Expense	13,986,665	15,020,710	15,932,324	16,645,468	17,369,732	18,088,068	19,073,299	20,147,353	21,249,593	22,393,017	23,785,705
6. Material & Supply Operating	887,298	887,298	887,298	887,298	887,298	887,298	887,298	887,298	887,298	887,298	887,298
7. Ad Valorem Tax	5,097,822	5,097,822	5,097,822	5,097,822	5,097,822	5,097,822	5,097,822	5,097,822	5,097,822	5,097,822	5,097,822
8. Operating Managers	9,139,589	9,139,589	9,139,589	9,139,589	9,139,589	9,139,589	9,139,589	9,139,589	9,139,589	9,139,589	9,139,589
9. General & Administration	9,081,226	9,211,705	9,211,705	9,211,705	9,211,705	9,211,705	9,211,705	9,211,705	9,211,705	9,211,705	9,211,705
10. Loss and Damage	600,803	645,221	684,380	715,013	746,124	776,980	819,301	865,438	912,785	961,901	1,021,725
11. Coal Traffic Dwell Off-Set	-1,178,181	-1,078,159	-1,163,136	-1,211,954	-1,240,434	-1,187,905	-1,193,328	-1,254,396	-1,222,825	-1,115,965	-1,391,473
12. Intermodal Lift Costs	387,692	416,355	441,623	461,391	481,467	501,378	528,687	558,459	589,011	620,705	659,309
13. Switching Costs	982,815	1,055,475	1,119,533	1,169,644	1,220,536	1,271,012	1,340,243	1,415,714	1,493,167	1,573,513	1,671,374
14. Insurance	3.89% 5,471,453	5,771,830	6,025,437	6,224,517	6,427,521	6,632,005	6,909,452	7,209,767	7,521,628	7,848,023	8,229,797
15. Maintenance of Way	<u>16,314,609</u>	<u>16,314,609</u>	<u>16,314,609</u>	<u>16,314,609</u>							
16. Total Operating Expenses	\$146,188,836	\$154,214,448	\$160,990,430	\$166,309,543	\$171,733,520	\$177,197,011	\$184,609,970	\$192,633,933	\$200,966,373	\$209,687,137	\$219,887,572
17. Expense Per Quarter	\$36,547,209	\$38,553,612	\$40,247,608	\$41,577,386	\$42,933,380	\$44,299,253	\$46,152,493	\$48,158,483	\$50,241,593	\$52,421,784	\$54,971,893

TABLE K: SRR OPERATING EXPENSES, INDEXED

(Continued)

<u>Period</u>	<u>Quarter</u>	<u>Hybrid Index 1/</u>	<u>Operating Expense Indexed For Inflation 2/</u>	<u>Period</u>	<u>Quarter</u>	<u>Hybrid Index 1/</u>	<u>Operating Expense Indexed For Inflation 2/</u>
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1	July 30-Sep 30, 2011	100.000	\$25,026,893	27	2018 1 Qtr	110.367	\$53,151,134
2	2011 4 Qtr	100.148	36,601,365	28	2018 2 Qtr	111.197	53,551,025
3	2012 1 Qtr	96.898	37,357,711	29	2018 3 Qtr	112.034	\$53,953,925
4	2012 2 Qtr	98.215	37,865,262	30	2018 4 Qtr	112.859	\$54,351,271
5	2012 3 Qtr	97.046	37,414,790	31	2019 1 Qtr	113.674	57,111,546
6	2012 4 Qtr	100.183	38,624,212	32	2019 2 Qtr	114.494	57,523,796
7	2013 1 Qtr	99.867	40,193,989	33	2019 3 Qtr	115.321	57,939,020
8	2013 2 Qtr	100.747	40,548,260	34	2019 4 Qtr	116.136	58,348,730
9	2013 3 Qtr	99.629	40,098,174	35	2020 1 Qtr	116.833	61,246,198
10	2013 4 Qtr	100.296	40,366,832	36	2020 2 Qtr	117.535	61,613,866
11	2014 1 Qtr	100.366	41,729,739	37	2020 3 Qtr	118.240	61,983,742
12	2014 2 Qtr	100.838	41,925,869	38	2020 4 Qtr	118.928	62,344,417
13	2014 3 Qtr	100.606	41,829,440	39	2021 1 Qtr	119.533	65,709,307
14	2014 4 Qtr	101.250	42,097,148	40	2021 2 Qtr	120.140	66,043,080
15	2015 1 Qtr	100.886	43,313,601	41	July 1 - July 29 2021	120.750	20,923,673
16	2015 2 Qtr	101.350	43,512,844				
17	2015 3 Qtr	101.289	43,486,736				
18	2015 4 Qtr	103.036	44,236,882				
19	2016 1 Qtr	103.844	46,002,228				
20	2016 2 Qtr	104.659	46,363,040				
21	2016 3 Qtr	105.480	46,726,682				
22	2016 4 Qtr	106.295	47,088,032				
23	2017 1 Qtr	107.102	49,430,090				
24	2017 2 Qtr	107.914	49,805,063				
25	2017 3 Qtr	108.733	50,182,880				
26	2017 4 Qtr	109.543	50,556,808				

1/ 3Q11 equals 100.0, all other quarters equal Quarterly Inflation Indexes for the Hybrid Index from Table B).

2/ (Quarterly expense from Table K, Page 18, for the applicable time period x Column (3) or Column (7) ÷ 3Q11.

TABLE L : SRR - Stand-Alone Costs and Revenues

Revenue Requirements to Cover Total Stand-Alone Costs

<u>Period</u>	<u>Quarter</u>	<u>Quarterly Capital Requirement Road Property</u>	<u>Quarterly Operating Expense</u>	<u>Annual Stand-Alone Requirement</u>	<u>Quarterly Stand-Alone Revenues</u>	<u>Annual Stand-Alone Revenues</u>	<u>Overpayments Or Shortfalls In Revenues</u>	<u>PV Difference</u>	<u>Cumulative PV Difference</u>
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1	July 30-Sep 30, 2011	\$31,819,756	\$26,235,031		\$64,886,600				
2	2011 4 Qtr	47,030,390	38,413,572	\$143,498,749	94,755,035	\$159,641,634	\$16,142,885	\$16,142,885	\$16,142,885
3	2012 1 Qtr	47,081,161	39,169,918		102,852,279				
4	2012 2 Qtr	48,309,888	39,677,469		102,852,279				
5	2012 3 Qtr	48,524,452	38,018,859		102,852,279				
6	2012 4 Qtr	48,279,105	38,624,212	347,685,064	102,852,279	411,409,118	63,724,054	57,276,705	73,419,590
7	2013 1 Qtr	48,399,312	40,193,989		112,417,194				
8	2013 2 Qtr	48,025,713	40,548,260		112,417,194				
9	2013 3 Qtr	48,674,336	40,098,174		112,417,194				
10	2013 4 Qtr	49,348,874	40,366,832	355,655,489	112,417,194	449,668,775	94,013,286	76,227,508	149,647,097
11	2014 1 Qtr	49,953,413	41,729,739		122,317,451				
12	2014 2 Qtr	50,157,381	41,925,869		122,317,451				
13	2014 3 Qtr	50,737,931	41,829,440		122,317,451				
14	2014 4 Qtr	51,377,896	42,097,148	369,808,818	122,317,451	489,269,803	119,460,985	87,218,744	236,865,841
15	2015 1 Qtr	51,975,222	43,313,601		134,322,014				
16	2015 2 Qtr	52,377,504	43,512,844		134,322,014				
17	2015 3 Qtr	52,676,558	43,486,736		134,322,014				
18	2015 4 Qtr	53,086,314	44,236,882	384,665,663	134,322,014	537,288,057	152,622,394	100,337,493	337,203,334
19	2016 1 Qtr	53,512,825	46,002,228		148,911,998				
20	2016 2 Qtr	53,943,589	46,363,040		148,911,998				
21	2016 3 Qtr	54,378,661	46,726,682		148,911,998				
22	2016 4 Qtr	54,818,096	47,088,032	402,833,153	148,911,998	595,647,993	192,814,839	114,142,316	451,345,650
23	2017 1 Qtr	55,316,773	49,430,090		163,958,143				
24	2017 2 Qtr	55,820,644	49,805,063		163,958,143				
25	2017 3 Qtr	56,329,771	50,182,880		163,958,143				
26	2017 4 Qtr	56,844,222	50,556,808	424,286,251	163,958,143	655,832,574	231,546,323	123,425,632	574,771,282
27	2018 1 Qtr	57,267,245	53,151,134		179,599,846				
28	2018 2 Qtr	57,694,977	53,551,025		179,599,846				
29	2018 3 Qtr	58,127,480	53,953,925		179,599,846				
30	2018 4 Qtr	58,564,818	54,351,271	446,661,876	179,599,846	718,399,383	271,737,507	130,430,243	705,201,525
31	2019 1 Qtr	59,128,859	57,111,546		196,845,344				
32	2019 2 Qtr	59,699,020	57,523,796		196,845,344				
33	2019 3 Qtr	60,275,379	57,939,020		196,845,344				
34	2019 4 Qtr	60,858,016	58,348,730	470,884,366	196,845,344	787,381,378	316,497,012	136,791,646	841,993,171
35	2020 1 Qtr	61,429,514	61,246,198		214,907,510				
36	2020 2 Qtr	62,007,172	61,613,866		214,907,510				
37	2020 3 Qtr	62,591,069	61,983,742		214,907,510				
38	2020 4 Qtr	63,181,286	62,344,417	496,397,264	214,907,510	859,630,039	363,232,775	141,363,157	983,356,328
39	2021 1 Qtr	63,745,030	65,709,307		233,750,688				
40	2021 2 Qtr	64,314,799	66,043,080		236,347,918				
41	July 1 - July 29 2021	20,454,668	20,923,673	\$301,190,556	75,319,666	\$545,418,272	244,227,716	87,860,180	1,071,216,509

SunBelt Rebuttal MMM Results

	<u>Year</u>	<u>MMM R/VC Ratio</u>
	(1)	(2)
1.	2011	257.9%
2.	2012	210.7%
3.	2013	179.6%
4.	2014	166.4%
5.	2015	154.3%
6.	2016	144.5%
7.	2017	136.8%
8.	2018	130.3%
9.	2019	125.0%
10.	2020	120.7%
11.	2021	116.1%

Source: "SBRR MMM Model Rebuttal.xlsb."