

# **Appendix C**

## **Ridership Study**

**SEHSR Passenger Services (full build SEHSR trains only)**

**Full Build  
RESULTS OF OPERATIONS**

**Key Metrics**

		19 2030	29 2040
Inflated	YOY NON DEF. COMPOSITE GDP INFLATOR	2.4%	2.4%
Frequency	AVG. DAILY ROUND TRIPS - ALL SERVICES	9	9
Ridership			
	Carolinian	480,000	579,200
	Piedmont	379,800	483,000
ON	SEHSR	1,215,700	1,464,700
OFF	Regional	0	0
<b>TOTAL REVENUES incl. Food &amp; Beverage (in millions)</b>		<b>2,075,500</b>	<b>2,526,900</b>
		<b>206.6</b>	<b>313.1</b>

**OPERATION & MAINTENANCE EXPENSE (in millions)**

		Factor	Driver		
<b>Direct &amp; Allocated AMTRAK Expenses:</b>					
	Train & Engine Labor	\$	1,765.00	Train Starts (Adjusted)	19.1 24.2
	Fuel (Carolinian)	\$	3.50	Train Mile & Fuel Matrix	3.5 4.4
	Onboard Service Labor (ex F&B supplies)	\$	585.00	Train Starts	6.8 8.5
	F&B Supplies	\$	0.73	Carolinian + SEHSR Riders	2.7 4.1
	Advert. Reservations, Sales & Commissions	\$	4.50	Riders	13.9 21.4
	Amtrak Stations Expense	\$	8.04	Riders	13.3 20.5
	Yard Expense - MOE turns + yard ops.	\$	1,068.00	Train Starts	3.4 4.3
	Regional Security & Police Allocation	\$	131.50	Train Starts	0.8 1.0
	Insurances	\$	0.78	Carolinian + SEHSR Riders	2.8 4.3
	Amtrak Alloc. Equipment Maintenance	\$	4,114.00	Carolinian Train Starts	2.7 3.4
	NEC Access Charge	\$	0.25	Carolinian+ SEHSR Psgr. Mi.	40.8 59.9
	Foreign RR On Time Incentives	\$	2.00	Train Miles	4.7 5.9
<b>Total Amtrak "Route Costs"</b>					<b>114.3 161.9</b>
<b>North Carolina Expenses:</b>					
	NCDOT Ticketing machines		300,000	Flat est.	0.9 1.1
	NCDOT Stations Exp.		650,000	Flat est.	2.7 3.0
	Fuel Piedmont	\$	3.50	Train Mile & Fuel Matrix	4.7 6.0
ON	Fuel SEHSR	\$	3.50	Train Mile & Fuel Matrix	14.5 18.4
ON	Richmond - Washington Track Fees	\$	3.00	Per Train Mile 118 Miles	1.8 2.2
	Allocated. NSRR/NCRR Track Maintenance Expense			Per contract	2.2 2.8
ON	Recurring Maintenance Raleigh to Petersburg	\$	35,000	Per Mile 207 Trk. Miles	10.8 13.6
ON	Recurring Maintenance Petersburg to Richmond	\$	35,000	Per Mile 30 Trk. Miles	1.6 2.0
	Recurring Maintenance of Rolling Stock:				0.0 0.0
	Base Labor	\$	132,685	Per Maintained Unit	13.2 16.7
	Extra Labor	\$	194,000	Flat Est.	0.7 0.9
	Parts	\$	46,342	Per Maintained Unit	4.6 5.8
	Insurances	\$	34,646	Per Maintained Unit	2.3 2.3
<b>Total North Carolina Direct Expense</b>					<b>60.0 75.0</b>
<b>Indirect / Overhead Expenses:</b>					
	Train & Engine Labor		33.5%	T & E Expense	6.4 8.1
	Maintenance of Equipment		27.1%	Car & Loco Mtce and tur	1.6 2.1
	On Board Service		10.0%	Onboard labor and provi	2.6 3.4
	Police	\$	0.005	per passenger mile	0.7 0.9
	Marketing (Carolinian route on NEC)		2.8%	Total Revenue	5.5 8.2
	Marketing (Piedmont)		1.9%	Total Revenue	0.2 0.4
	General & Administrative		2.0%	Route Costs	2.3 3.2
<b>Total Amtrak Additives</b>					<b>19.3 26.3</b>
				<b>Total O&amp;M Expense</b>	<b>193.6 263.2</b>
<b>Revenue from SEHSR Track Fees Charged</b>					
ON	Track Fees - CSXT		0.490	Wt. Avg. Per Rev. Car Mile	7.1 9.0
ON	Track Fees - Amtrak		0.750	Per Revenue Car Mile	2.5 3.1
<b>Operating Surplus / (Shortfall)</b>				<b>Revenue minus O&amp;M Exp.</b>	<b>22.6 62.1</b>

Summary SEHSR Service Net Operating Income (using Vanness Model)

ON	<b>FRA Captial Asset Renewal (depreciation)</b>				
	Piedmont Equipment Renewal Capital	Per Expansion	As Assets activated	(6.0)	(6.0)
	SEHSR Infrastructure Renewal	Replacement	As Assets activated	(5.7)	(5.7)
	SEHSR Equipment Renewal	Renew/Replace	As Assets activated	(5.2)	(5.2)
		<b>Total Capital Renewal</b>		<b>(16.8)</b>	<b>(16.8)</b>
	<b>Financial Operating Income (Loss) after Depreciation</b>			<b>5.8</b>	<b>45.3</b>
	<b>Fare Box Coverage Ratio (Total Revenues / Total O&amp;M Expense)</b>			<b>107%</b>	<b>119%</b>
Date	May 20, 2014				