APPENDIX

Table 4-8 - 2025 Southeast High Speed Rail/Full Service: Increment Only, 2000 $									
	Alternative A NCRR+S-Line	Alternative B NCRR via Winston-Salem + S-Line	Alternative C ACWR+S-Line	Alternative D NCRR + Weldon	Alternative E NCRR via Winston-Salem + Weldon	Alternative F ACWR + Weldon	Alternative G NCRR+A-Line	Alternative H NCRR via Winston-Salem + A-Line	Alternative J ACWR+A-Line
REVENUES:									
Transportation	98,410,000	100,380,000	77,770,000	90,670,000	93,060,000	86,060,000	72,110,000	88,250,000	68,900,000
Food and Beverage	4,920,000	5,019,000	3,888,500	4,533,500	4,653,000	4,303,000	3,605,500	4,412,500	3,445,000
Mail, Express and Baggage	0	0	0	0	0	0	0	0	0
Total Revenue	103,330,500	105,399,000	81,658,500	95,203,500	97,713,000	90,363,000	75,715,500	92,662,500	72,345,000
EXPENSE:									
Train & Engine Crew Labor	7,895,000	8,764,000	7,881,000	7,955,000	8,893,000	8,000,000	7.955,000	8,993,000	8,000,000
Fuel & Power	6,078,000	6,249,000	5,850,000	6,193,000	6,364,000	6,266,000	5,963,000	6,438,000	6,039,000
On Board Service Labor	4,795,000	4,906,000	4,560,000	4,890,000	5,022,000	4,967,000	4,730,000	5,118,000	4,767,000
Food & Beverage Supplies	5,161,000	5,265,000	4,079,000	4,756,000	4,881,000	4,514,000	3,782,000	4,629,000	3,613,000
Crew Support	1,407,000	1,440,000	1,338,000	1,434,000	1,473,000	1,456,000	1,386,000	1,501,000	1,398,000
Contract Railroad Payments	2,319,000	2,433,000	2,165,000	2,392,000	2,505,000	2,442,000	2,238,000	2,556,000	2,291,000
Contract Railroad Incentives	3,126,000	3,277,000	2,925,000	3,227,000	3,378,000	3,292,000	3,026,000	3,443,000	3,091,000
Maintenance of Way -- NEC	4,431,000	4,431,000	4,431,000	4,431,000	4,431,000	4,431,000	4,431,000	4,431,000	4,431,000
Insurance	5,963,000	6,156,000	5,182,000	6,063,000	6,239,000	6,058,000	5,279,000	6,222,000	5,300,000
Maintenance of Equipment	12,474,000	12,584,000	12,329,000	12,547,000	12,656,000	12,595,000	12,403,000	12,703,000	12,450,000
Marketing and Sales	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000
Commissions	4,853,000	4,950,000	3,835,000	4,471,000	4,589,000	4,244,000	3,556,000	4,352,000	3,398,000
Station Services	414,000	770,000	461,000	414,000	770,000	414,000	461,000	770,000	461,000
Reservations and Information	3,255,000	3,190,000	2,452,000	3,077,000	3,003,000	3,015,000	2,326,000	2,930,000	2,282,000
Train and Route Expenses	62,179,000	64,423,000	57,496,000	61,858,000	64,212,000	61,702,000	57,544,000	64,094,000	57,529,000
Overhead and G & A	18,654,000	19,327,000	17,249,000	18,557,000	19,264,000	18,511,000	17,263,000	19,228,000	17,259,000
30%									
Total Expenses	80,833,000	83,750,000	74,745,000	80,415,000	83,476,000	80,213,000	74,807,000	83,322,000	74,788,000
Net Operating Income/(Loss)	22,497,000	21,649,000	6,913,500	14,788,500	14,237,000	10,150,000	908,500	9,340,500	(2,443,000)
Train Miles	2,473,240	2,560,840	2,356,440	2,531,640	2,619,240	2,569,600	2,414,840	2,657,200	2,452,800
Passenger Miles (000's)	443,900,000	453,500,000	341,500,000	445,400,000	451,900,000	434,300,000	342,300,000	438,500,000	335,500,000
PM/TM	179	177	145	176	173	169	142	165	137
Revenue/Cost Ratio	127.83%	125.85%	109.25%	118.39%	117.06%	112.65%	101.21%	111.21%	96.73%
Contribution (Loss)/Passenger Mile	$0.0507	$0.0477	$0.0202	$0.0332	$0.0315	$0.0234	$0.0027	$0.0213	($0.0073)
Yield	$0.22	$0.22	$0.23	$0.20	$0.21	$0.20	$0.21	$0.20	$0.21

Source: KPMG Estimates, October 2000 (Note: Data is for 8 SEHSR trains only)

Table ES-2
Operational and Physical Characteristics Summary Information for Study Area Alternatives

Summary Information	A	B	C	D	E	F	G	H	J
Length (route miles)	448	463	428	468	483	448	481	496	461
Average Total Travel Time (Washington, DC to Charlotte, NC)	6.23 hrs.	6.90 hrs.	6.20 hrs.	6.55 hrs.	7.23 hrs.	6.53 hrs.	6.75 hrs.	7.43 hrs.	6.73 hrs.
Annual Ridership in 2025	1,790,600	1,756,700	1,400,900	1,700,700	1,660,600	1,333,300	1,669,700	1,625,000	1,312,000
Net operating contribution or (loss) in year 2025	$26.340 million	$25.270 million	$13.160 million	$18.980 million	18.120 million	$18.30 million	$20.06 million	$13.570 million	$4.090 million
Conceptual Capital Cost* (In Billions of dollars)	$2.611	$2.720	$2.515	$2.711	$2.820	$2.615	$2.848	$2.957	$2.752
Areas of Engineering Complexity (high)**	18	23	25	20	25	27	19	24	26
Potential right of way needs (in acres)	678	731	930	620	674	872	545	598	797
Estimated Relocations									
-Residential dwellings (each)	365	371	220	405	411	260	301	307	156
-Business (square footage)	65,145	110,920	57,374	62,191	107,966	54,420	70,344	116,119	62,573
Annual 2025 Trip Diversions									
-From auto to rail	618,106	601,314	425,066	612,859	591,635	418,400	642,333	616,854	438,444
-From air to rail	320,061	311,365	220,103	242,001	233,620	165,215	171,289	164,494	116,918
Fuel consumption (gal./trip)	403	432.3	383.5	421.2	450.5	401.7	434.2	463.5	414.7
At grade crossings	1,053	1,172	918	1,134	1,254	1,100	1,115	1,235	963

*All monies are in year 2000 dollars. Costs do not include equipment or station improvements.
** The complexity of the engineering required to design or construct the proposed project was based upon conceptual engineering assuming use of the existing railroad rights of way. An area was considered high if it involved considerable realignments or if physical constraints offered major challenges to developing acceptable engineering solutions.
Source: Carter & Burgess, Inc.; KPMG *Ridership and Revenue Report* September 2000: and William Gallagher and Associates.

Note: This chart includes all twelve trains in the Washington, DC to Charlotte, NC corridor (eight SEHSR trains plus existing Amtrak Crescent and three silver service trains).

Table ES-3
Summary of Potential Human/Natural Impacts and Benefits of the Study Area Alternatives

Environmental Information	Buffer width for review	A	B	C	D	E	F	G	H	J
Water Supply Watersheds	6 mi.	27	33	19	28	35	21	27	34	21
Major Rivers (potential crossings)	n/a	29	28	29	31	30	33	29	28	31
Wetlands (NWI & hydric soils in acres)	300 ft.	117.3	115.8	117.0	124.0	122.5	123.7	190.7	189.2	190.4
FEMA 100-year Floodplain crossings	n/a	83	76	44	89	82	50	97	90	58
Mineral Resources (Mines)	0.5 mi	36	37	40	37	38	41	33	34	37
Hazardous Materials Sites	0.5 mi.	412	441	252	427	456	267	454	483	294
Air Quality-Net reduction in NOx emissions (lbs/yr)	n/a	554,889	530,895	279, 065	547,392	517,065	269,540	589,505	553,099	298,179
Annual 2025 Trip Diversions	n/a									
-From auto to rail		865,349	841,840	595,092	858,004	828,290	585,761	899,266	863,596	613,822
-From air to rail		320,061	311,365	220,103	242,001	233,620	165,215	171,289	164,494	116,918
Estimated Relocations										
-Residential dwellings (each)	n/a	365	371	220	405	411	260	301	307	156
-Business (square footage)	n/a	65,145	110,920	57,374	62,191	107,966	54,420	70,344	116,119	62,573
Noise & Vibration Category 9 sensitive receptors	300 ft.	333	342	259	371	371	287	369	372	284
Prime farmland (acres)	6 mi.	37,219	39,360	26,523	45,137	46,992	34,308	57,346	59,134	46,670
Protected Species - # of known populations identified	6 mi.	33	35	45	44	46	56	43	49	51
National Rivers Inventory	6 mi.	11	11	13	10	11	13	12	13	14
Estimated Relocations										
-Residential dwellings (each)	n/a	365	371	220	405	411	260	301	307	156
-Business (square footage)	n/a	65,145	110,920	57,374	62,191	107,966	54,420	70,344	116,119	62,573
Historic Sites										
-National Register Sites	1500 ft.	333	333	304	333	333	304	320	320	211
-Study List Sites	1500 ft.	102	102	58	165	165	121	168	168	124
Parks	500 ft.	14	15	11	14	15	11	15	16	12
Gamelands/Public lands (ac.)	500 ft.	5.7	5.7	14	5.7	15.7	15.3	5.7	5.7	15.3
Areas of Environmental. Complexity (high)*	n/a	6	8	4	5	7	3	7	9	5

*Refers to the level of difficulty required to avoid or minimize environmental impacts in a certain area. High areas of complexity are those that would require creative avoidance and minimization techniques and add to the overall construction effort and would require public agency coordination and involvement.
Source: Carter & Burgess, Inc. 2001, compiled the Resource Group May 2001