

2025 DCHC Transportation Plan - Tier 2 Alternative Evaluation
Performance Measures

ATTACHMENT 2

Table 1

Criteria	1995	Base 2025	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5	Alt 6	Alt 7	Alt 8	Alt 9	Alt 10	Alt 11	Alt 12	Alt 13	Alt 14
I HIGHWAY																
MPO Population	313434	507335														
1.1 Total Vehicle Miles of Travel (VMT)	8,055,830	20,180,440	18,666,503	18,069,279	16,133,858	15,592,821	15,515,529	15,104,858	15,117,168	15,992,191	15,639,841	15,603,113	15,651,142	15,550,442	16,014,995	12,039,045
VMT per Capita	26	40	37	36	32	31	31	30	30	32	31	31	31	31	32	24
1.2 Total Vehicle Hours of Travel (VHT)	185,143	465,920	434,871	422,100	371,608	356,951	356,876	345,307	348,937	357,007	347,329	347,916	349,137	332,522	367,084	257,458
VHT per Capita	0.59	0.92	0.86	0.83	0.73	0.70	0.70	0.68	0.69	0.70	0.68	0.69	0.69	0.66	0.72	0.51
1.3 Average Speed	45.2	33.8	33.9	33.9	34.4	36.2	39.6	40.3	39	35	35.7	35.7	35.2	35.7	34.6	44.4
1.4 Percent Network Experiencing Congestion																
Freeway	38.34	78.7	69.6	65.5	63.0	27.9	25.7	13.1	18.3	53.0	46.4	51.0	40.1	37.7	56.9	4.9
Arterial	27.27	69.5	67.0	60.3	58.4	26.2	23.8	12.4	14.4	54.8	45.5	43.9	52.0	37.6	54.8	6.5
Overall	19.33	53.3	49.8	44.4	41.0	29.1	17.9	12.4	15.5	33.1	28.3	29.2	31.7	22.9	34.5	8.9
II MODE-SPLIT																
2.1 Percent Mode Choice - All Trips																
Drive alone (single occupant vehicle -SOV)		78.8%	75.52	75.97	75.41	75.36	75.36	65.46	66.93	72.22	64.49	63.57	67.02	59.68	71.31	49.27
Share ride (carpool)		18.0%	19.06	19.06	19.06	19.11	19.11	29	27.55	19.28	24.88	24.87	23.66	26.73	21.45	33.94
Transit		1.8%	2.14	1.78	2.14	2.12	2.12	2.13	2.11	4.35	5.55	6.41	4.86	7.74	3.09	10.12
Bike & Pedestrian		1.4%	3.28	3.19	3.39	3.41	3.41	3.41	3.41	4.15	5.08	5.15	4.46	5.85	4.15	6.67
2.2 Percent Mode Choice - Work Trips																
Drive alone (single occupant vehicle -SOV)		88.5%	85.68	86.71	85.68	85.55	85.55	75.62	78.41	81.41	73.61	72.88	76.33	68.1	80.1	52.74
Share ride (carpool)		8.8%	10.53	10.53	10.53	10.59	10.59	20.35	17.83	11.06	15.55	15.55	14.27	17.83	12.44	24.0
Transit		1.96%	2.59	1.96	2.59	2.59	2.59	2.7	2.43	5.38	7.82	8.44	7	10.26	5.35	18.88
Bike & Pedestrian		0.70%	1.20	0.80	1.20	1.27	1.27	1.33	1.33	2.15	3.02	3.13	2.40	3.81	2.11	4.18
III TRANSIT																
Average weekday Transit Ridership																
CHAPEL HILL TRANSIT - CHT	13228	27550	28448	27815	28491	29218	29264	29467	29478	30323	31798	32179	30617	33614	29552	39518
DURHAM AREA TRANSIT - DATA	10740	52400	54989	52795	55105	55415	55619	55909	55874	57630	61733	60902	58607	62524	56523	74115
TRIANGLE TRANSIT AUTHORITY - TTA	1505	39610	40093	39701	40450	41216	41282	41575	41590	42385	44442	45750	43753	46867	42489	49366
Rail Ridership			28844	27414	28900	29051	29089	29385	29173	29884	38793	38700	36286	51035	29957	66810
TOTAL COST ESTIMATES FOR ALTS (\$000)		\$ 1,413,187	\$ 1,747,497	\$ 2,623,337	\$ 2,623,337	\$ 3,743,345	\$ 3,864,303	\$ 4,125,292	\$ 4,155,457	\$ 2,828,902	\$ 3,237,770	\$ 3,253,115	\$ 3,249,655	\$ 3,662,345	\$ 3,484,461	\$ 7,017,574
			Base Highway and Moderate Transit	Moderate Highway & Base Transit	Moderate Highway and Moderate Transit	Moderate Highway + 1 and Moderate Transit	Moderate Highway + 1 & +2 & Moderate Transit	Moderate Highway + 1 & +2 & HOV & Moderate Transit	Moderate Highway + 1 & +2 & HOT & Moderate Transit	Moderate Highway & Intensive Transit	15501 Fixed Guideway (with airport connection) & US	Moderate Highway & Intensive Transit & NC 54 Fixed Guideway (with airport connection)	Moderate Highway & Intensive Transit & 1-40 Fixed Guideway (with airport connection)	Moderate Highway & Intensive Transit & US	15501 + NC 54 Fixed Guideway	Moderate Highway with HOV & Intensive Transit & Intensive Transit

2025 DCHC Transportation Plan - Tier 2 Alternative Evaluation
COST ESTIMATES

Criteria	1995	Base 2025	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5	Alt 6	Alt 7	Alt 8	Alt 9	Alt 10	Alt 11	Alt 12	Alt 13	Alt 14
COST ESTIMATES (Thousand Dollars)																
1 Highway																
Improvement		\$857,920	\$857,920	\$1,733,760	\$1,733,760	\$2,853,768	\$2,974,726	\$3,205,715	\$3,235,880	\$1,733,760	\$1,733,760	\$1,733,760	\$1,733,760	\$1,733,760	\$1,733,760	\$4,377,282
Maintenance																
Total Highway Cost Estimates		\$857,920	\$857,920	\$1,733,760	\$1,733,760	\$2,853,768	\$2,974,726	\$3,205,715	\$3,235,880	\$1,733,760	\$1,733,760	\$1,733,760	\$1,733,760	\$1,733,760	\$1,733,760	\$4,377,282
2 Transit																
Bus Capital Cost		\$38,990	\$67,825	\$67,825	\$67,825	\$67,825	\$67,825	\$67,825	\$67,825	\$98,790	\$99,846	\$99,846	\$99,805	\$102,254	\$70,118	\$144,330
Bus Operating & Maintenance		\$127,500	\$252,000	\$252,000	\$252,000	\$252,000	\$252,000	\$252,000	\$252,000	\$396,600	\$398,770	\$398,770	\$398,770	\$399,950	\$254,202	\$680,000
Total Bus Cost		\$166,490	\$319,825	\$319,825	\$319,825	\$319,825	\$319,825	\$319,825	\$319,825	\$495,390	\$498,616	\$498,616	\$498,575	\$502,204	\$324,320	\$824,330
Rail Capital		\$212,432	\$212,432	\$212,432	\$212,432	\$212,432	\$212,432	\$222,432	\$222,432	\$222,432	\$538,074	\$543,419	\$540,000	\$859,061	\$859,061	\$986,987
Rail Operating & maintenance		\$176,345	\$176,345	\$176,345	\$176,345	\$176,345	\$176,345	\$196,345	\$196,345	\$196,345	\$286,345	\$296,345	\$296,345	\$386,345	\$386,345	\$620,000
Total Rail Cost Estimate		\$388,777	\$388,777	\$388,777	\$388,777	\$388,777	\$388,777	\$418,777	\$418,777	\$418,777	\$824,419	\$839,764	\$836,345	\$1,245,406	\$1,245,406	\$1,606,987
Total Transit Cost Estimate		\$555,267	\$708,602	\$708,602	\$708,602	\$708,602	\$708,602	\$738,602	\$738,602	\$914,167	\$1,323,035	\$1,338,380	\$1,334,920	\$1,747,610	\$1,569,726	\$2,431,317
4 Non Motorized Transportation																
Bike Facilities			\$64,600	\$64,600	\$64,600	\$64,600	\$64,600	\$64,600	\$64,600	\$64,600	\$64,600	\$64,600	\$64,600	\$64,600	\$64,600	\$64,600
Sidewalks & Pedestrian Walkways			\$18,700	\$18,700	\$18,700	\$18,700	\$18,700	\$18,700	\$18,700	\$18,700	\$18,700	\$18,700	\$18,700	\$18,700	\$18,700	\$18,700
Total			\$83,300	\$83,300	\$83,300	\$83,300	\$83,300	\$83,300	\$83,300	\$83,300	\$83,300	\$83,300	\$83,300	\$83,300	\$83,300	\$83,300
5 TDM			\$45,675	\$45,675	\$45,675	\$45,675	\$45,675	\$45,675	\$45,675	\$45,675	\$45,675	\$45,675	\$45,675	\$45,675	\$45,675	\$45,675
6 ITS/TSM			\$52,000	\$52,000	\$52,000	\$52,000	\$52,000	\$52,000	\$52,000	\$52,000	\$52,000	\$52,000	\$52,000	\$52,000	\$52,000	\$80,000
TOTAL COST ESTIMATES FOR ALTS (\$000)		\$1,413,187	\$1,747,497	\$2,623,337	\$2,623,337	\$3,743,345	\$3,864,303	\$4,125,292	\$4,155,457	\$2,828,902	\$3,237,770	\$3,253,115	\$3,249,655	\$3,662,345	\$3,484,461	\$7,017,574

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