

**2025 Metrolina
VOC Emissions**

	Model		VOC RATES			VOC kg/day
	VMT	MPH	IM	No IM	Comp	
Cabarrus AM Peak						
Rural Interstate	0	0	2.718	3.710	2.778	0
Rural Principal Arterial	55,796	43	0.293	0.415	0.300	17
Rural Minor Arterial	66,314	45	0.292	0.416	0.299	20
Rural Major Collector	112,065	32	0.323	0.467	0.332	37
Rural Minor Collector	88,856	33	0.319	0.460	0.327	29
Rural Local	176,320	26	0.351	0.499	0.360	63
Urban Interstate	386,618	40	0.297	0.415	0.304	118
Urban Other Freeway/Xprway	0	0	2.875	4.046	2.945	0
Urban Principal Arterial	223,969	24	0.361	0.526	0.371	83
Urban Minor Arterial	251,521	24	0.361	0.526	0.371	93
Urban Collector	186,902	22	0.374	0.546	0.384	72
Urban Local	269,771	24	0.361	0.524	0.371	100
Cabarrus	1,818,132		94%	6%		632
Cabarrus Midday						
Rural Interstate	0	0	2.718	3.710	2.778	0
Rural Principal Arterial	70,946	48	0.285	0.402	0.292	21
Rural Minor Arterial	75,779	52	0.282	0.399	0.289	22
Rural Major Collector	152,703	36	0.311	0.448	0.319	49
Rural Minor Collector	113,054	39	0.304	0.436	0.312	35
Rural Local	251,151	27	0.345	0.492	0.354	89
Urban Interstate	521,188	60	0.272	0.371	0.278	145
Urban Other Freeway/Xprway	0	0	2.875	4.046	2.945	0
Urban Principal Arterial	332,311	27	0.344	0.501	0.353	117
Urban Minor Arterial	390,129	26	0.349	0.509	0.359	140
Urban Collector	283,187	26	0.349	0.508	0.359	102
Urban Local	437,132	24	0.361	0.524	0.371	162
Cabarrus	2,627,580		94%	6%		881
Cabarrus PM Peak						
Rural Interstate	0	0	2.718	3.710	2.778	0
Rural Principal Arterial	61,938	43	0.293	0.415	0.300	19
Rural Minor Arterial	73,135	44	0.294	0.419	0.302	22
Rural Major Collector	126,334	30	0.331	0.479	0.340	43
Rural Minor Collector	105,889	33	0.319	0.460	0.327	35
Rural Local	207,196	27	0.345	0.492	0.354	73
Urban Interstate	422,854	36	0.307	0.428	0.314	133
Urban Other Freeway/Xprway	0	0	2.875	4.046	2.945	0
Urban Principal Arterial	261,822	22	0.374	0.547	0.384	101
Urban Minor Arterial	294,280	21	0.382	0.559	0.393	116
Urban Collector	226,751	20	0.390	0.571	0.401	91
Urban Local	322,610	24	0.361	0.524	0.371	120
Cabarrus	2,102,807		94%	6%		751
Cabarrus Night						
Rural Interstate	0	0	2.718	3.710	2.778	0
Rural Principal Arterial	42,490	54	0.277	0.389	0.284	12
Rural Minor Arterial	45,972	55	0.279	0.393	0.286	13
Rural Major Collector	88,008	47	0.290	0.417	0.298	26
Rural Minor Collector	56,957	46	0.291	0.417	0.299	17
Rural Local	132,860	27	0.345	0.492	0.354	47
Urban Interstate	291,514	68	0.272	0.367	0.278	81
Urban Other Freeway/Xprway	0	0	2.875	4.046	2.945	0
Urban Principal Arterial	186,916	38	0.307	0.445	0.315	59
Urban Minor Arterial	211,771	37	0.309	0.448	0.317	67
Urban Collector	132,797	36	0.311	0.452	0.319	42
Urban Local	210,235	26	0.349	0.507	0.358	75
Cabarrus	1,399,521		94%	6%		440
Cabarrus 24 Hour						
Rural Interstate	0					0
Rural Principal Arterial	231,170					68
Rural Minor Arterial	261,200					77
Rural Major Collector	479,110					155
Rural Minor Collector	364,755					116
Rural Local	767,527					273
Urban Interstate	1,622,174					476
Urban Other Freeway/Xprway	0					0
Urban Principal Arterial	1,005,018					360
Urban Minor Arterial	1,147,701					416
Urban Collector	829,636					307
Urban Local	1,239,748					457
Cabarrus	7,948,040		model kg / day	VOC		2,705
						2,705
						6,941
						4,236

**2025 Metrolina
VOC Emissions**

	Model		VOC RATES			VOC kg/day
	VMT	MPH	IM	No IM	Comp	
Iredell AM Peak						
Rural Interstate	345,516	28	0.337	0.459	0.354	122
Rural Principal Arterial	0	0	2.850	4.001	3.011	0
Rural Minor Arterial	36,698	13	0.534	0.754	0.565	21
Rural Major Collector	72,473	23	0.368	0.533	0.391	28
Rural Minor Collector	67,048	24	0.361	0.521	0.383	26
Rural Local	194,908	25	0.356	0.507	0.377	74
Urban Interstate	0	0	2.798	3.881	2.950	0
Urban Other Freeway/Xprwy	0	0	2.875	4.046	3.039	0
Urban Principal Arterial	26,020	22	0.374	0.547	0.398	10
Urban Minor Arterial	44,277	18	0.422	0.614	0.449	20
Urban Collector	21,975	22	0.374	0.546	0.398	9
Urban Local	122,859	24	0.361	0.524	0.384	47
Iredell	931,774		86%	14%		357
Iredell Midday						
Rural Interstate	502,949	47	0.280	0.382	0.294	148
Rural Principal Arterial	0	0	2.850	4.001	3.011	0
Rural Minor Arterial	56,932	14	0.510	0.720	0.539	31
Rural Major Collector	103,839	28	0.339	0.491	0.360	37
Rural Minor Collector	91,910	28	0.339	0.489	0.360	33
Rural Local	305,895	26	0.351	0.499	0.372	114
Urban Interstate	0	0	2.798	3.881	2.950	0
Urban Other Freeway/Xprwy	0	0	2.875	4.046	3.039	0
Urban Principal Arterial	42,222	23	0.367	0.536	0.391	16
Urban Minor Arterial	68,514	20	0.391	0.572	0.416	29
Urban Collector	34,056	22	0.374	0.546	0.398	14
Urban Local	208,394	25	0.355	0.514	0.377	79
Iredell	1,414,710		86%	14%		500
Iredell PM Peak						
Rural Interstate	367,862	27	0.342	0.466	0.359	132
Rural Principal Arterial	0	0	2.850	4.001	3.011	0
Rural Minor Arterial	40,807	11	0.597	0.842	0.631	26
Rural Major Collector	81,426	22	0.375	0.544	0.399	32
Rural Minor Collector	76,496	24	0.361	0.521	0.383	29
Rural Local	228,954	24	0.363	0.517	0.385	88
Urban Interstate	0	0	2.798	3.881	2.950	0
Urban Other Freeway/Xprwy	0	0	2.875	4.046	3.039	0
Urban Principal Arterial	29,822	19	0.405	0.592	0.431	13
Urban Minor Arterial	49,166	15	0.486	0.698	0.516	25
Urban Collector	25,474	20	0.390	0.571	0.415	11
Urban Local	144,497	23	0.367	0.534	0.390	56
Iredell	1,044,503		86%	14%		413
Iredell Night						
Rural Interstate	282,802	68	0.267	0.355	0.279	79
Rural Principal Arterial	0	0	2.850	4.001	3.011	0
Rural Minor Arterial	33,623	29	0.335	0.480	0.355	12
Rural Major Collector	59,164	39	0.304	0.439	0.323	19
Rural Minor Collector	45,865	41	0.300	0.430	0.318	15
Rural Local	156,059	31	0.327	0.466	0.346	54
Urban Interstate	0	0	2.798	3.881	2.950	0
Urban Other Freeway/Xprwy	0	0	2.875	4.046	3.039	0
Urban Principal Arterial	21,473	32	0.323	0.471	0.344	7
Urban Minor Arterial	37,539	32	0.323	0.470	0.344	13
Urban Collector	14,603	32	0.323	0.470	0.344	5
Urban Local	97,706	26	0.349	0.507	0.371	36
Iredell	748,834		86%	14%		240
Iredell 24 Hour						
Rural Interstate	1,499,128					482
Rural Principal Arterial	0					0
Rural Minor Arterial	168,059					89
Rural Major Collector	316,903					117
Rural Minor Collector	281,319					103
Rural Local	885,815					329
Urban Interstate	0					0
Urban Other Freeway/Xprwy	0					0
Urban Principal Arterial	119,537					47
Urban Minor Arterial	199,494					87
Urban Collector	96,108					38
Urban Local	573,457					218
Iredell	4,139,820		model kg / day	VOC		1,510
			total model emissions			1,510
			emissions budget			3,601
			budget minus model			2,091

**2025 Metrolina
VOC Emissions**

	Model		VOC RATES			VOC kg/day
	VMT	MPH	IM	No IM	Comp	
Mecklenburg AM Peak						
Rural Principal Arterial	51,249	29	0.252	0.347	0.262	13
Rural Minor Arterial	38,248	16	0.344	0.472	0.357	14
Rural Major Collector	5,649	20	0.293	0.412	0.305	2
Rural Minor Collector	61,451	31	0.245	0.344	0.255	16
Rural Local	152,923	28	0.255	0.353	0.265	40
Urban Interstate	1,695,161	37	0.231	0.314	0.239	406
Urban Other Freeway/Xprway	1,992,786	50	0.216	0.298	0.224	447
Urban Principal Arterial	1,173,050	21	0.286	0.405	0.298	349
Urban Minor Arterial	1,297,261	22	0.280	0.396	0.292	378
Urban Collector	1,075,310	19	0.302	0.426	0.314	338
Urban Local	1,854,123	21	0.285	0.402	0.297	550
Urban HOV	57,851	65	0.202	0.285	0.210	12
Mecklenburg	9,455,063		90%	10%		2,565
Mecklenburg Midday						
Rural Principal Arterial	66,910	39	0.229	0.316	0.238	16
Rural Minor Arterial	53,985	21	0.288	0.400	0.299	16
Rural Major Collector	8,369	28	0.255	0.358	0.265	2
Rural Minor Collector	87,603	37	0.232	0.325	0.241	21
Rural Local	231,983	29	0.251	0.349	0.261	61
Urban Interstate	2,458,198	49	0.214	0.291	0.222	545
Urban Other Freeway/Xprway	2,364,812	58	0.213	0.290	0.221	522
Urban Principal Arterial	1,781,275	25	0.266	0.376	0.277	493
Urban Minor Arterial	2,001,051	25	0.266	0.375	0.277	554
Urban Collector	1,648,854	23	0.274	0.388	0.285	471
Urban Local	3,017,529	21	0.285	0.402	0.297	895
Urban HOV	52,566	67	0.202	0.285	0.210	11
Mecklenburg	13,773,136		90%	10%		3,607
Mecklenburg PM Peak						
Rural Principal Arterial	57,503	30	0.249	0.344	0.259	15
Rural Minor Arterial	43,387	18	0.316	0.437	0.328	14
Rural Major Collector	6,154	22	0.281	0.394	0.292	2
Rural Minor Collector	76,383	29	0.251	0.352	0.261	20
Rural Local	184,050	27	0.259	0.358	0.269	49
Urban Interstate	1,865,069	34	0.238	0.323	0.247	460
Urban Other Freeway/Xprway	2,248,556	48	0.218	0.301	0.226	509
Urban Principal Arterial	1,367,455	19	0.302	0.427	0.315	430
Urban Minor Arterial	1,531,515	19	0.302	0.426	0.314	482
Urban Collector	1,249,469	18	0.313	0.440	0.326	407
Urban Local	2,214,565	20	0.292	0.411	0.304	673
Urban HOV	53,843	65	0.202	0.285	0.210	11
Mecklenburg	10,897,949		90%	10%		3,072
Mecklenburg Night						
Rural Principal Arterial	38,514	48	0.217	0.299	0.225	9
Rural Minor Arterial	33,826	35	0.235	0.328	0.244	8
Rural Major Collector	5,078	37	0.232	0.326	0.241	1
Rural Minor Collector	42,326	44	0.222	0.311	0.231	10
Rural Local	109,536	29	0.251	0.349	0.261	29
Urban Interstate	1,493,484	61	0.210	0.280	0.217	324
Urban Other Freeway/Xprway	1,230,580	61	0.213	0.288	0.221	271
Urban Principal Arterial	966,855	36	0.234	0.331	0.244	236
Urban Minor Arterial	1,060,363	36	0.234	0.331	0.244	258
Urban Collector	865,889	35	0.235	0.333	0.245	212
Urban Local	1,428,738	24	0.270	0.380	0.281	401
Urban HOV	60	68	0.202	0.285	0.210	0
Mecklenburg	7,275,249		90%	10%		1,759
Mecklenburg 24 Hour						
Rural Principal Arterial	214,176					53
Rural Minor Arterial	169,447					52
Rural Major Collector	25,251					7
Rural Minor Collector	267,764					67
Rural Local	678,492					179
Urban Interstate	7,511,913					1,734
Urban Other Freeway/Xprway	7,836,735					1,749
Urban Principal Arterial	5,288,635					1,509
Urban Minor Arterial	5,890,190					1,672
Urban Collector	4,839,523					1,428
Urban Local	8,514,954					2,520
Urban HOV	164,320					35
Mecklenburg	41,401,397		model kg / day	VOC		11,004
			total model emissions			11,004
			emissions budget			26,368
			budget minus model			15,364

2025 Metrolina VOC Emissions

	Model		VOC RATES			VOC kg/day
	VMT	MPH	IM	No IM	Comp	
Union AM Peak						
Rural Interstate	0	0	2.718	3.710	2.827	0
Rural Principal Arterial	193,553	50	0.282	0.397	0.295	57
Rural Minor Arterial	30,652	45	0.292	0.416	0.306	9
Rural Major Collector	283,859	36	0.311	0.448	0.326	93
Rural Minor Collector	144,349	38	0.306	0.439	0.321	46
Rural Local	485,198	29	0.335	0.478	0.351	170
Urban Interstate	0	0	2.798	3.881	2.917	0
Urban Other Freeway/Xprway	72,172	39	0.302	0.430	0.316	23
Urban Principal Arterial	163,944	31	0.327	0.476	0.343	56
Urban Minor Arterial	199,941	25	0.355	0.516	0.373	75
Urban Collector	86,569	27	0.344	0.501	0.361	31
Urban Local	310,599	25	0.355	0.514	0.372	116
Union	1,970,836		89%	11%		676
Union Midday						
Rural Interstate	0	0	2.718	3.710	2.827	0
Rural Principal Arterial	218,293	51	0.281	0.395	0.294	64
Rural Minor Arterial	40,010	48	0.287	0.408	0.300	12
Rural Major Collector	401,408	40	0.302	0.436	0.317	127
Rural Minor Collector	197,367	41	0.300	0.430	0.314	62
Rural Local	694,486	29	0.335	0.478	0.351	244
Urban Interstate	0	0	2.798	3.881	2.917	0
Urban Other Freeway/Xprway	80,595	54	0.279	0.392	0.291	23
Urban Principal Arterial	241,951	35	0.313	0.456	0.329	80
Urban Minor Arterial	303,343	29	0.335	0.488	0.352	107
Urban Collector	128,108	31	0.327	0.476	0.343	44
Urban Local	487,498	26	0.349	0.507	0.366	179
Union	2,793,059		89%	11%		941
Union PM Peak						
Rural Interstate	0	0	2.718	3.710	2.827	0
Rural Principal Arterial	214,302	49	0.283	0.399	0.296	63
Rural Minor Arterial	35,115	43	0.295	0.421	0.309	11
Rural Major Collector	319,411	35	0.313	0.452	0.328	105
Rural Minor Collector	166,482	35	0.312	0.450	0.327	54
Rural Local	560,349	29	0.335	0.478	0.351	197
Urban Interstate	0	0	2.798	3.881	2.917	0
Urban Other Freeway/Xprway	77,488	47	0.287	0.407	0.300	23
Urban Principal Arterial	182,993	30	0.331	0.482	0.348	64
Urban Minor Arterial	229,183	23	0.367	0.536	0.386	88
Urban Collector	99,966	24	0.361	0.525	0.379	38
Urban Local	364,253	24	0.361	0.524	0.379	138
Union	2,249,541		89%	11%		781
Union Night						
Rural Interstate	0	0	2.718	3.710	2.827	0
Rural Principal Arterial	109,129	52	0.280	0.393	0.292	32
Rural Minor Arterial	24,131	52	0.282	0.399	0.295	7
Rural Major Collector	234,454	47	0.290	0.417	0.304	71
Rural Minor Collector	103,064	46	0.291	0.417	0.305	31
Rural Local	356,097	30	0.331	0.472	0.347	123
Urban Interstate	0	0	2.798	3.881	2.917	0
Urban Other Freeway/Xprway	37,469	54	0.279	0.392	0.291	11
Urban Principal Arterial	136,738	43	0.298	0.431	0.313	43
Urban Minor Arterial	179,543	39	0.305	0.442	0.320	57
Urban Collector	64,874	39	0.305	0.442	0.320	21
Urban Local	249,333	28	0.339	0.492	0.356	89
Union	1,494,831		89%	11%		486
Union 24 Hour						
Rural Interstate	0					0
Rural Principal Arterial	735,277					216
Rural Minor Arterial	129,908					39
Rural Major Collector	1,239,131					396
Rural Minor Collector	611,262					194
Rural Local	2,096,130					734
Urban Interstate	0					0
Urban Other Freeway/Xprway	267,724					80
Urban Principal Arterial	725,627					242
Urban Minor Arterial	912,010					327
Urban Collector	379,517					134
Urban Local	1,411,683					521
Union	8,508,268		model kg / day VOC			2,884
			total model emissions			2,884
			emissions budget			6,299
			budget minus model			3,415