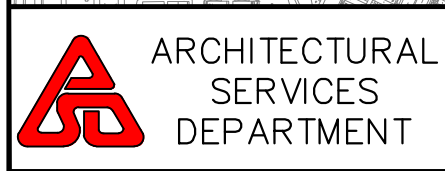
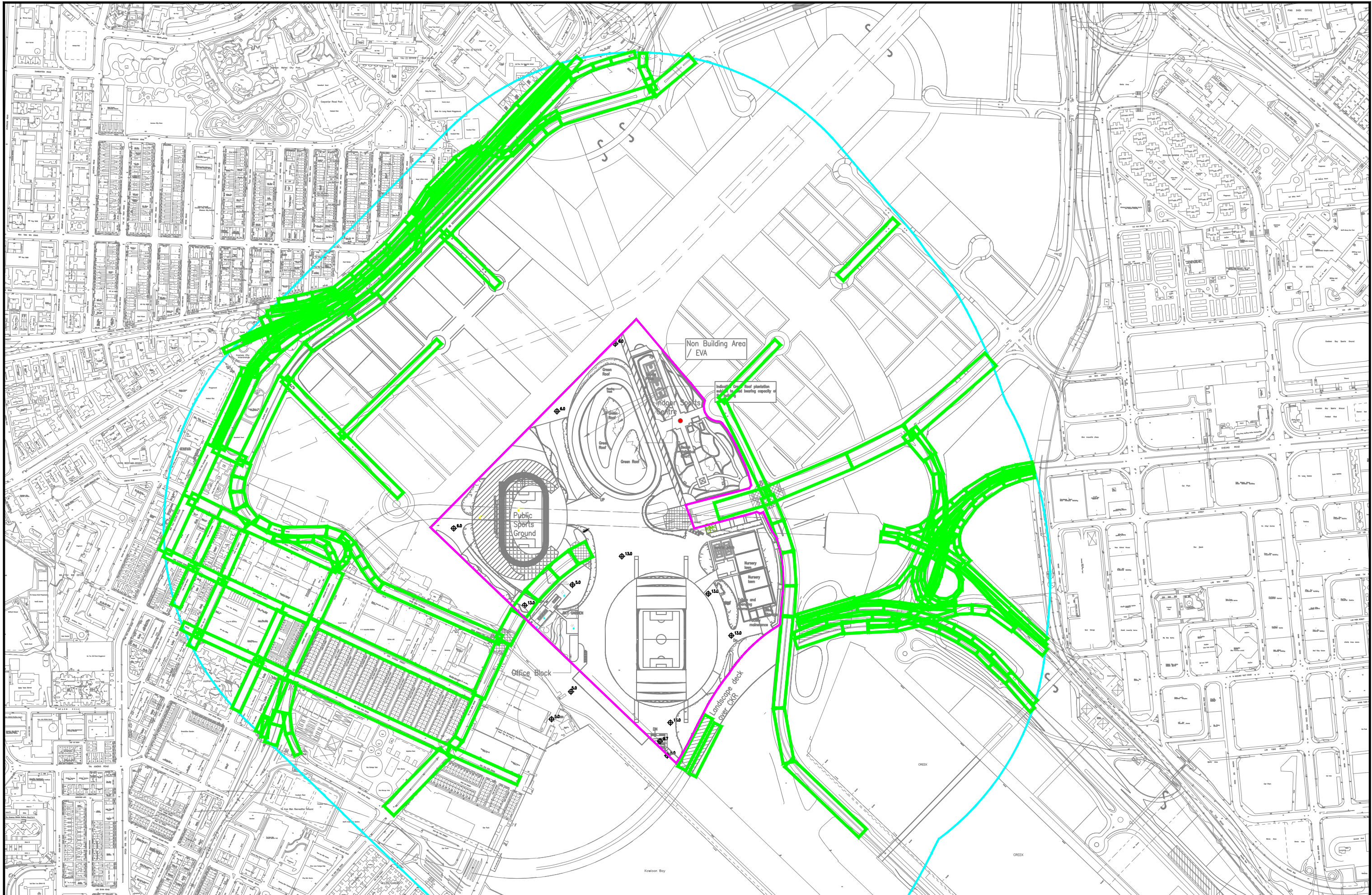

Appendix 3.3

Vehicular Emission Factors



The joint venture of
CINOTECH Cinotech Consultants Ltd. and Maurice Lee & Associates Ltd.



Drafting by	KW	03/16
Designed by	KW	03/16
Checked by	KS	03/16
Approved by	KS	03/16

SCALE: NTS @ A3 SIZE

PROJECT: Kai Tak Multi-purpose Sports Complex	
TITLE: Road Links of Vehicular Emission Model	
DRAWING NO: Appendix 3.3	REV: 0

Coordinate of Road Links for CALINE4

Road Pair ID	X	Y	X	Y	Height (m)	Mixing Zone Width
1	837853.64	820453.49	838078.30	820354.10	0	18
3	837776.14	820544.68	837788.19	820534.82	0	10
3	837788.19	820534.82	837792.57	820522.22	0	10
3	837792.57	820522.22	837790.93	820509.63	0	10
3	837790.93	820509.63	837786.00	820500.32	0	10
3	837786.00	820500.32	837771.21	820486.08	0	10
4	837771.99	820487.52	837653.11	820543.53	0	17
5	837772.39	820487.52	837760.59	820516.54	0	12
5	837760.59	820516.54	837751.82	820531.32	0	12
5	837751.82	820531.32	837727.38	820543.00	0	12
5	837727.38	820543.00	837698.63	820542.29	0	12
5	837698.63	820542.29	837675.45	820543.73	0	12
5	837675.45	820543.73	837653.15	820544.47	0	12
6	837651.89	820544.10	837600.86	820567.02	0	17
7	837601.03	820566.99	837551.82	820592.08	0	22
8	837551.62	820591.89	837496.25	820619.18	0	22
41	837729.41	820390.46	837683.78	820292.30	0	20
11	837621.58	820577.49	837644.15	820563.79	0	19
11	837644.15	820563.79	837670.06	820555.20	0	19
11	837670.06	820555.20	837752.27	820556.76	0	19
11	837751.87	820556.35	837780.01	820546.21	0	20
12	837781.20	820548.58	837799.39	820530.78	0	16
12	837799.39	820530.78	837812.05	820509.43	0	16
12	837812.05	820509.43	837824.70	820488.47	0	16
12	837824.70	820488.47	837838.54	820468.30	0	16
12	837838.54	820468.30	837852.78	820453.27	0	16
13	838082.68	820349.91	838037.27	820248.14	0	24
15	838037.27	820248.14	837999.80	820168.02	0	18
15	837999.80	820168.02	837987.35	820153.66	0	18
17	837974.53	820141.47	837868.80	820033.56	0	26
19	837981.51	820147.46	838112.10	820089.43	0	16
21	837979.53	820147.99	837679.36	820286.67	0	16
22	837679.36	820287.86	837624.39	820313.96	0	16
23	837624.14	820314.08	837511.67	820365.37	0	16
24	837511.28	820365.77	837482.07	820380.31	0	16
25	837448.99	820517.04	837504.16	820490.35	0	16
26	837503.96	820490.94	837557.35	820464.84	0	16
27	837559.52	820464.46	837669.53	820413.16	0	16
28	837670.20	820412.40	837719.52	820391.26	0	16
37	837667.24	820407.31	837625.00	820315.04	0	16
38	837624.35	820313.29	837582.27	820222.20	0	18
40	837641.77	820209.22	837672.96	820282.00	0	19
138	837624.59	820180.68	837636.85	820207.97	0	13
139	837664.66	820218.85	837658.37	820194.41	0	24
139	837658.37	820194.41	837647.25	820159.24	0	24
134	837635.16	820171.68	837639.32	820207.08	5	13

Road Pair ID	X	Y	X	Y	Height (m)	Mixing Zone Width
86	837676.33	820215.34	837681.77	820178.68	0	13
86	837681.77	820178.68	837698.24	820138.92	0	13
34	837499.31	820340.16	837511.87	820365.61	1	16
35	837511.97	820366.66	837557.65	820465.13	0	16
36	837559.87	820471.96	837597.11	820556.88	0	16
32	837547.28	820581.37	837507.15	820496.40	0	16
33	837503.07	820490.44	837469.46	820416.88	0	18.4
30	837448.77	820517.93	837495.83	820620.36	0	26
113	837496.62	820620.36	837539.73	820715.67	0	28
115	837542.30	820714.29	837597.87	820687.99	0	18
116	837534.14	820719.01	837595.87	820849.23	0	15
29	837738.33	820382.93	838026.89	820247.63	0	17
43	837598.14	820686.60	837587.07	820658.52	0	26
43	837587.07	820658.52	837583.96	820631.43	0	26
43	837583.96	820631.43	837590.71	820602.11	0	26
43	837590.71	820602.11	837612.77	820574.10	0	26
45	837597.95	820688.58	837673.06	820843.09	0	23
57	837673.18	820843.05	837781.06	820733.66	0	16
59	837781.06	820733.66	837890.57	820624.14	0	16
61	837779.65	820735.57	837963.15	820912.75	0	13
42	837730.94	820391.14	837773.21	820481.75	0	22
73	838083.45	820351.38	838111.91	820402.74	0	32
73	838111.91	820402.74	838136.51	820436.85	0	32
73	838136.51	820436.85	838177.55	820479.26	0	32
73	838177.55	820479.26	838215.35	820508.76	0	32
71	838243.66	820523.68	838215.35	820508.76	0	32
47	837672.95	820843.09	837718.16	820903.21	0	22
47	837718.16	820903.21	837801.88	820960.89	0	22
49	837802.01	820960.35	837852.86	820995.78	0	22
49	837852.86	820995.78	837971.36	821116.29	0	22
51	837971.64	821116.40	838134.86	821284.94	0	22
51	838134.86	821284.94	838159.54	821308.60	0	22
51	838159.54	821308.60	838188.57	821327.77	0	22
53	838189.18	821328.82	838362.51	821382.26	0	22
55	838363.66	821381.55	838437.00	821442.65	0	22
135	838345.25	821452.93	838344.45	821428.41	0	14
135	838344.45	821428.41	838354.59	821405.07	0	14
135	838354.59	821405.07	838364.18	821382.89	0	14
133	838330.02	821450.96	838285.33	821438.50	0	12
133	838285.33	821438.50	838251.91	821427.42	0	12
133	838251.91	821427.42	838208.41	821408.44	0	12
130	838209.59	821408.05	837855.63	821037.47	0	18
130	837855.63	821037.47	837801.85	820998.32	0	18
119	837804.61	820993.97	837755.06	820960.60	0	14
119	837755.06	820960.60	837701.77	820929.69	0	14
119	837701.77	820929.69	837662.82	820898.07	0	14
137	837662.02	820897.65	837643.38	820878.73	0	14

Road Pair ID	X	Y	X	Y	Height (m)	Mixing Zone Width
137	837643.38	820878.73	837619.56	820854.24	0	14
121	837622.37	820852.52	837591.83	820856.39	0	15
117	837620.68	820851.41	837554.00	820711.83	0	15
63	837971.48	821116.13	838072.62	821017.10	0	16
124	837541.32	820715.26	837589.65	820819.79	3.5	9
124	837589.65	820819.79	837609.75	820864.94	3.5	9
124	837609.71	820865.41	837629.09	820890.53	7	10.5
124	837629.09	820890.53	837656.18	820919.00	7	10.5
124	837655.98	820919.40	837687.03	820939.96	7	12
124	837687.03	820939.96	837717.09	820956.57	7	12
124	837717.09	820956.57	837749.12	820974.37	7	12
124	837749.12	820974.37	837777.79	820992.76	7	12
124	837776.99	820993.13	837806.84	821013.94	5.3	16
124	837806.84	821013.94	837845.18	821046.25	5.3	16
124	837845.62	821047.09	837909.98	821111.17	1.8	16
124	837909.98	821111.31	838078.52	821285.33	0	18
124	838078.52	821285.35	838163.03	821375.03	3.5	14
124	838163.31	821375.58	838206.30	821420.21	7	14
124	838206.30	821420.21	838225.74	821442.67	7	14
132	837995.65	821252.83	838025.77	821272.27	7	13
132	838025.77	821272.27	838053.27	821271.14	7	13
132	838053.27	821271.14	838080.27	821262.69	7	13
132	838080.27	821262.69	838098.34	821267.07	7	13
132	838098.34	821267.07	838110.94	821279.12	7	13
132	838110.66	821279.39	838148.45	821315.54	3.5	13
132	838148.45	821315.54	838163.51	821327.31	3.5	13
132	838163.51	821327.31	838185.69	821339.63	3.5	13
125	837546.42	820714.88	837564.70	820755.41	3.5	9
125	837564.70	820755.41	837583.80	820795.52	3.5	9
125	837583.80	820795.52	837600.92	820833.52	3.5	9
125	837600.92	820833.52	837614.20	820861.59	3.5	9
125	837614.20	820861.86	837633.92	820885.96	7	10.5
125	837633.92	820885.96	837659.93	820914.03	7	10.5
125	837659.93	820914.44	837684.85	820930.32	3.5	12
125	837684.85	820930.32	837706.62	820941.68	3.5	12
125	837706.62	820941.68	837734.28	820958.11	3.5	12
125	837734.28	820958.11	837762.48	820972.08	3.5	12
125	837762.48	820972.08	837780.69	820983.31	3.5	12
125	837780.69	820983.31	837801.50	820998.50	3.5	12
77	838578.24	820623.76	838491.98	820802.30	0	15
77	838491.98	820802.30	838597.68	820911.29	0	15
69	838483.22	820595.28	838578.51	820623.76	0	32
67	838577.01	820623.90	838732.00	820689.07	0	32
67	838732.00	820689.07	838841.53	820742.74	0	32
79	838577.96	820622.25	838597.41	820574.61	0	24
79	838597.41	820574.61	838615.75	820518.47	0	24
79	838615.75	820518.47	838620.14	820455.21	0	24

Road Pair ID	X	Y	X	Y	Height (m)	Mixing Zone Width
79	838620.14	820455.21	838616.58	820398.80	0	24
83	838417.65	820112.95	838467.88	820209.66	-10	17
84	838485.35	820194.88	838437.53	820100.59	-10	15
81	838615.91	820396.91	838599.52	820225.78	0	21
81	838599.52	820225.78	838617.79	820123.69	0	21
81	838617.79	820123.69	838756.42	819991.52	0	21
65	838841.54	820743.74	838996.29	820879.14	0	32
75	838714.47	821032.27	838818.71	821138.65	0	16
120	837635.25	820959.81	837648.46	820929.07	0	16
120	837648.46	820929.07	837657.36	820894.70	0	16
127	837796.30	821000.64	837774.53	820989.83	3.5	12
127	837774.53	820989.83	837732.77	820972.17	3.5	12
127	837732.50	820971.89	837688.68	820952.72	7	10
127	837688.68	820952.72	837624.88	820925.34	7	10
127	837624.88	820925.34	837559.71	820895.49	7	10
126	837595.03	820917.54	837626.80	820931.50	7	10
126	837626.80	820931.50	837661.30	820946.29	7	10
126	837661.30	820946.29	837708.95	820966.28	7	10
126	837708.95	820966.28	837732.77	820977.23	7	10
126	837733.04	820977.64	837754.27	820991.33	3.5	12
126	837754.27	820991.33	837767.00	821003.38	3.5	12
128	837770.97	821007.49	837803.01	821032.96	0	18
128	837803.01	821032.96	837832.31	821059.38	0	18
128	837832.31	821059.38	837867.77	821091.28	0	18
128	837867.77	821091.28	837904.33	821134.14	0	18
128	837904.33	821134.14	837918.57	821150.30	0	18
118	837662.26	820986.41	837694.02	820991.61	0	13
118	837694.02	820991.61	837725.79	820998.45	0	13
118	837725.79	820998.45	837765.91	821007.76	0	13
123	838199.52	821426.19	838044.53	821265.72	0	16
123	838044.26	821265.44	837930.41	821144.61	0	16
123	837930.21	821144.55	837864.35	821075.81	0	16
123	837864.35	821075.81	837818.89	821035.29	0	16
123	837818.89	821035.29	837774.67	820999.41	0	16
123	837773.16	820999.14	837717.57	820976.68	7	12
123	837717.57	820976.68	837640.90	820964.64	7	12
131	837789.73	820966.83	837837.10	821003.52	3.5	12
131	837837.10	821003.52	837893.79	821057.47	3.5	12
131	837893.79	821057.47	837921.17	821084.58	3.5	12
131	837921.85	821085.12	837927.74	821107.30	7	13
131	837927.74	821107.30	837926.24	821154.95	7	13
131	837926.24	821154.95	837945.27	821187.81	7	13
131	837944.58	821188.09	838039.60	821280.64	3.5	12
132	837995.79	821253.12	837945.40	821200.55	3.5	12
132	837945.40	821200.55	837913.37	821152.62	3.5	12
129	837920.21	821151.53	838035.63	821267.22	0	16
136	838036.32	821266.40	838112.99	821353.21	0	16

Road Pair ID	X	Y	X	Y	Height (m)	Mixing Zone Width
136	838112.99	821353.21	838190.76	821430.70	0	16
122	837649.66	820972.99	837683.89	820977.09	3.5	11
122	837683.89	820977.09	837712.78	820982.71	3.5	11
122	837712.78	820982.71	837767.67	821006.62	3.5	11
9	837669.51	820217.75	837682.93	820276.07	0	27
101	838635.73	820396.20	838742.40	820427.81	2	12
101	838742.49	820427.90	838785.86	820440.24	3	6
101	838785.86	820440.24	838821.78	820455.24	5	7
101	838821.78	820455.24	838849.79	820490.08	7	9
90	838853.39	820490.31	838876.29	820539.96	7.5	15
92	838871.57	820544.77	838889.22	820595.50	7.5	6.4
92	838889.22	820595.50	838896.40	820631.86	7.5	7.5
92	838896.40	820631.86	838893.89	820664.68	3.5	11
92	838893.89	820664.68	838878.80	820693.95	3.5	13
92	838878.80	820693.95	838839.65	820739.74	1.5	19
93	838877.86	820437.70	838899.59	820503.42	10	6
93	838899.59	820503.42	838910.05	820554.11	10	6
93	838910.05	820554.11	838912.20	820583.78	5	6
93	838912.20	820583.78	838912.29	820611.88	5	6
93	838912.29	820611.88	838904.44	820663.83	3.5	6
93	838904.44	820663.83	838889.26	820701.27	2.5	7.5
93	838889.26	820701.27	838852.99	820751.10	2.5	9.5
112	839077.82	820663.47	839050.16	820657.36	0	12
112	839050.16	820657.36	839020.35	820646.23	0	12
112	839020.35	820646.23	838984.80	820622.17	0	12
112	838984.80	820622.17	838964.68	820604.39	0	12
112	838964.68	820604.39	838944.93	820577.81	0	12
112	838944.93	820577.81	838936.13	820565.24	0	12
112	838936.13	820565.24	838931.64	820551.91	0	14
109	838932.27	820547.78	838934.79	820527.66	0	11
109	838934.79	820527.66	838941.88	820512.58	0	11
109	838941.88	820512.58	838954.63	820498.75	0	11
102	838949.60	820493.54	839100.71	820353.47	0	8
97	839077.95	820670.47	839047.78	820662.93	0	7.5
97	839047.78	820662.93	839018.69	820653.23	0	7.5
97	839018.69	820653.23	838994.00	820639.85	0	7.5
97	838994.00	820639.85	838963.29	820616.87	0	7.5
97	838963.29	820616.87	838942.28	820595.41	0	11
95	838943.29	820591.95	838932.29	820574.78	5	6.2
95	838932.29	820574.78	838923.31	820558.03	5	6.2
95	838923.31	820558.03	838916.85	820541.96	5	6.2
95	838916.85	820541.96	838907.33	820500.57	10	6
95	838907.33	820500.57	838901.05	820473.77	10	6.2
95	838901.05	820473.77	838895.30	820457.16	10	6
95	838895.30	820457.16	838883.94	820435.34	10	6
85	838880.05	820435.34	838867.81	820415.81	10	12
85	838867.81	820415.81	838847.31	820399.02	10	12

Road Pair ID	X	Y	X	Y	Height (m)	Mixing Zone Width
85	838847.31	820399.02	838825.66	820389.80	10	11.5
85	838825.66	820389.80	838808.62	820386.47	10	11.5
85	838808.62	820386.47	838767.63	820385.31	5	9.5
91	838766.09	820378.91	838718.94	820376.09	2	22
91	838718.94	820376.09	838631.57	820346.37	2	19
89	838930.84	820404.66	838865.63	820385.44	8	9.4
89	838865.63	820385.44	838820.03	820374.55	10	9.4
89	838820.03	820374.55	838767.50	820371.99	10	9.2
106	839038.71	820373.91	838992.59	820407.48	3	11
106	838992.59	820407.48	838961.85	820411.07	5	16
106	838961.85	820411.07	838930.07	820409.53	5	16
104	839098.16	820330.23	839042.94	820376.73	0	15
108	838928.34	820550.77	838920.08	820540.33	0	10
108	838920.08	820540.33	838909.83	820536.23	0	10
108	838909.83	820536.23	838893.05	820540.20	0	10
108	838893.05	820540.20	838884.59	820550.45	0	10
108	838884.59	820550.45	838883.31	820565.12	0	10
108	838883.31	820565.12	838887.86	820576.27	0	10
111	838889.14	820579.41	838924.89	820609.64	0	12
111	838924.89	820609.64	838951.53	820631.16	0	12
111	838951.53	820631.16	838992.14	820657.04	0	12
111	838992.14	820657.04	839021.35	820669.72	0	12
111	839021.35	820669.72	839046.21	820675.87	0	12
111	839046.21	820675.87	839075.67	820681.00	0	12
107	838843.21	820557.24	838866.15	820563.65	0	12
107	838866.15	820563.65	838885.88	820579.08	0	12
87	838636.95	820381.15	838674.36	820395.76	2	12
87	838674.36	820395.76	838706.90	820403.95	2	12
87	838706.90	820403.95	838746.62	820411.90	2	12
87	838746.62	820411.90	838796.32	820412.92	2	11.6
87	838796.32	820412.92	838845.26	820405.11	2	11.4
87	838845.26	820405.11	838890.36	820392.87	0	11.4
87	838890.36	820392.87	838927.90	820376.47	0	11.4
87	838927.90	820376.47	838963.26	820355.21	0	11.4
87	838963.26	820355.21	838999.13	820326.25	0	11
87	838999.13	820326.25	839031.28	820290.77	0	11
87	839031.28	820290.77	839080.16	820236.70	0	11
88	839074.52	820222.36	839028.14	820276.16	0	11.4
88	839028.14	820276.16	838996.63	820305.63	0	11.4
88	838996.63	820305.63	838971.77	820330.99	0	11.4
88	838971.77	820330.99	838936.93	820353.29	0	11.4
88	838936.93	820353.29	838900.29	820372.25	0	11
88	838900.29	820372.25	838853.91	820388.65	0	11
88	838853.91	820388.65	838812.02	820395.56	2	11.4
88	838812.02	820395.56	838774.87	820396.84	2	11.4
88	838774.87	820396.84	838689.03	820386.60	2	11
88	838689.03	820386.60	838628.82	820362.51	0	11

Road Pair ID	X	Y	X	Y	Height (m)	Mixing Zone Width
110	838937.95	820595.68	838919.76	820575.43	0	6
110	838919.76	820575.43	838902.59	820551.99	0	6
110	838902.59	820551.99	838890.17	820531.62	6	6
110	838890.17	820531.62	838878.76	820508.17	6	6
110	838878.76	820508.17	838869.93	820484.60	6	6
110	838869.93	820484.60	838868.77	820465.77	4	7
110	838868.77	820465.77	838873.99	820450.08	4	7
110	838873.99	820450.08	838881.94	820437.83	2	7
110	838881.94	820437.83	838899.33	820428.51	2	7
110	838899.33	820428.51	838914.86	820427.36	1	7
110	838914.86	820427.36	838927.93	820433.77	1	7
110	838927.93	820433.77	838939.84	820447.99	0	6
110	838939.84	820447.99	838941.25	820466.18	0	6
110	838941.25	820466.18	838932.92	820484.24	0	6
96	838880.85	820541.12	838896.22	820565.08	3	9.4
96	838896.22	820565.08	838914.03	820586.67	3	9.4
96	838914.03	820586.67	838946.66	820617.45	1	9
96	838946.66	820617.45	838993.81	820651.01	0	7.4
96	838993.81	820651.01	839021.35	820664.85	0	7.4
96	839021.35	820664.85	839046.59	820671.51	0	7.4
96	839046.59	820671.51	839076.83	820676.76	0	7.4
98	838795.88	820560.44	838837.13	820550.44	0	18
100	838837.13	820550.44	838913.36	820515.47	0	16
100	838913.36	820515.47	838941.92	820495.48	0	16
99	838932.83	820489.85	838893.24	820513.93	0	18
99	838893.24	820513.93	838845.58	820533.66	0	18
99	838845.58	820533.66	838823.04	820544.42	0	18
99	838823.04	820544.42	838790.75	820546.98	0	18
105	838635.80	820389.08	838745.13	820421.81	2	12
105	838745.13	820421.81	838788.64	820424.78	2	6
105	838788.64	820424.78	838828.62	820420.88	2	6
105	838828.62	820420.88	838879.38	820413.44	0	6
105	838879.38	820413.44	838931.62	820422.18	0	6
105	839031.75	820405.86	839099.99	820343.21	0	6
103	838937.94	820488.23	838963.88	820466.29	0	6
103	838963.88	820466.29	838995.96	820431.06	0.5	6
103	838995.96	820431.06	839010.09	820417.21	0.5	6
103	839010.09	820417.21	839045.04	820381.46	0.5	6
94	838928.65	820412.98	838886.44	820414.93	5.5	7.6
94	838886.44	820414.93	838862.64	820433.34	6	9.2
94	838862.64	820433.34	838853.01	820464.06	6.5	9
94	838853.01	820464.06	838856.59	820488.67	7	8

Table with columns for Road Pair, Road Name, and time intervals (00:00-01:00, 01:00-02:00, etc.) containing Emission Factor (Emf) and Traffic (Traf) values for NOx. The table lists 139 road pairs and their respective traffic and emission data across 24-hour intervals.

Table with columns: Road Pair, Road Name, Emission Factor (Emf) and Traffic (Traf) for various time intervals from 00:00-01:00 to 23:00-24:00. The table lists 139 road pairs and their corresponding emission and traffic data across 288 time intervals.

Table with 28 columns for time intervals (00:00-01:00 to 23:00-24:00) and multiple rows for road pairs and names, containing emission factor data.

Table with columns for Road Pair, Road Name, and 48 time intervals (00:00-01:00 to 23:00-24:00). Each cell contains two numerical values representing emission factors.

