



Appendix 3.5 Detailed Calculations of Portal Emissions (Without Project Scenario)

Portal ID	Portal Emission Source ID	X	Y	Daily Emission Factor (QS) (g/s) [1]				HS	SY	SZ	Total NO	Total NO <sub>2</sub>	Total RSP	Total FSP
				NO	NO <sub>2</sub>	RSP	FSP							
A	A1	828918.2	826221.7	6.119E-03	1.030E-03	2.216E-04	2.035E-04	0.00	2.88	0.00				
	A2	828922.8	826225.8	6.119E-03	1.030E-03	2.216E-04	2.035E-04	0.00	2.88	0.00				
	A3	828926.7	826229.9	6.119E-03	1.030E-03	2.216E-04	2.035E-04	0.00	2.88	0.00				
	A4	828931.0	826233.9	6.119E-03	1.030E-03	2.216E-04	2.035E-04	0.00	2.88	0.00				
	A5	828935.6	826237.6	6.119E-03	1.030E-03	2.216E-04	2.035E-04	0.00	2.88	0.00				
	A6	828940.3	826241.3	6.119E-03	1.030E-03	2.216E-04	2.035E-04	0.00	2.88	0.00				
	A7	828945.2	826244.5	6.119E-03	1.030E-03	2.216E-04	2.035E-04	0.00	2.88	0.00				
	A8	828950.1	826247.8	6.119E-03	1.030E-03	2.216E-04	2.035E-04	0.00	2.88	0.00				
	A9	828955.2	826251.9	3.060E-03	5.149E-04	1.108E-04	1.017E-04	0.00	2.88	0.00				
	A10	828960.2	826255.9	3.060E-03	5.149E-04	1.108E-04	1.017E-04	0.00	2.88	0.00				
	A11	828965.3	826259.9	3.060E-03	5.149E-04	1.108E-04	1.017E-04	0.00	2.88	0.00				
	A12	828970.5	826263.9	3.060E-03	5.149E-04	1.108E-04	1.017E-04	0.00	2.88	0.00				
	A13	828975.7	826267.9	3.060E-03	5.149E-04	1.108E-04	1.017E-04	0.00	2.88	0.00				
	A14	828981.0	826271.9	3.060E-03	5.149E-04	1.108E-04	1.017E-04	0.00	2.88	0.00				
	A15	828986.5	826275.9	3.060E-03	5.149E-04	1.108E-04	1.017E-04	0.00	2.88	0.00				
	A16	828992.0	826279.9	3.060E-03	5.149E-04	1.108E-04	1.017E-04	0.00	2.88	0.00	7.343E-02	1.239E-02	2.659E-03	2.442E-03
B	B1	829006.0	826283.9	9.783E-04	1.895E-04	2.292E-05	2.100E-05	3.50	2.47	3.26				
	B2	829013.9	826359.1	9.783E-04	1.895E-04	2.292E-05	2.100E-05	3.50	2.47	3.26				
	B3	829022.8	826384.2	9.783E-04	1.895E-04	2.292E-05	2.100E-05	3.50	2.47	3.26				
	B4	829031.7	826389.3	9.783E-04	1.895E-04	2.292E-05	2.100E-05	3.50	2.47	3.26				
	B5	829040.2	826374.4	9.783E-04	1.895E-04	2.292E-05	2.100E-05	3.50	2.47	3.26				
	B6	829088.5	826379.4	9.783E-04	1.895E-04	2.292E-05	2.100E-05	3.50	2.47	3.26				
	B7	829086.7	826384.3	9.783E-04	1.895E-04	2.292E-05	2.100E-05	3.50	2.47	3.26				
	B8	829094.6	826389.1	9.783E-04	1.895E-04	2.292E-05	2.100E-05	3.50	2.47	3.26				
	B9	829082.4	826393.8	9.783E-04	1.895E-04	2.292E-05	2.100E-05	3.50	2.47	3.26				
	B10	829079.5	826398.2	4.892E-04	9.476E-05	1.146E-05	1.050E-05	3.50	2.47	3.26				
	B11	829076.6	826402.6	4.892E-04	9.476E-05	1.146E-05	1.050E-05	3.50	2.47	3.26				
	B12	829073.0	826406.4	4.892E-04	9.476E-05	1.146E-05	1.050E-05	3.50	2.47	3.26				
	B13	829069.2	826410.0	4.892E-04	9.476E-05	1.146E-05	1.050E-05	3.50	2.47	3.26				
	B14	829065.0	826413.2	4.892E-04	9.476E-05	1.146E-05	1.050E-05	3.50	2.47	3.26				
	B15	829060.5	826416.1	4.892E-04	9.476E-05	1.146E-05	1.050E-05	3.50	2.47	3.26				
	B16	829055.8	826418.3	4.892E-04	9.476E-05	1.146E-05	1.050E-05	3.50	2.47	3.26				
B17	829051.0	826420.2	4.892E-04	9.476E-05	1.146E-05	1.050E-05	3.50	2.47	3.26					
B18	829045.8	826422.2	4.892E-04	9.476E-05	1.146E-05	1.050E-05	3.50	2.47	3.26	1.321E-02	2.559E-03	3.094E-04	2.835E-04	
C	C1	829108.3	826356.3	9.783E-04	1.895E-04	2.292E-05	2.100E-05	3.50	2.70	3.26				
	C2	829109.7	826302.9	9.783E-04	1.895E-04	2.292E-05	2.100E-05	3.50	2.70	3.26				
	C3	829111.2	826297.5	9.783E-04	1.895E-04	2.292E-05	2.100E-05	3.50	2.70	3.26				
	C4	829112.4	826292.2	9.783E-04	1.895E-04	2.292E-05	2.100E-05	3.50	2.70	3.26				
	C5	829114.0	826286.8	9.783E-04	1.895E-04	2.292E-05	2.100E-05	3.50	2.70	3.26				
	C6	829115.4	826281.4	9.783E-04	1.895E-04	2.292E-05	2.100E-05	3.50	2.70	3.26				
	C7	829116.8	826276.0	9.783E-04	1.895E-04	2.292E-05	2.100E-05	3.50	2.70	3.26				
	C8	829118.3	826270.6	9.783E-04	1.895E-04	2.292E-05	2.100E-05	3.50	2.70	3.26				
	C9	829119.7	826265.3	9.783E-04	1.895E-04	2.292E-05	2.100E-05	3.50	2.70	3.26				
	C10	829121.1	826259.9	4.892E-04	9.476E-05	1.146E-05	1.050E-05	3.50	2.70	3.26				
	C11	829122.5	826254.5	4.892E-04	9.476E-05	1.146E-05	1.050E-05	3.50	2.70	3.26				
	C12	829123.9	826249.1	4.892E-04	9.476E-05	1.146E-05	1.050E-05	3.50	2.70	3.26				
	C13	829125.3	826243.8	4.892E-04	9.476E-05	1.146E-05	1.050E-05	3.50	2.70	3.26				
	C14	829126.8	826238.4	4.892E-04	9.476E-05	1.146E-05	1.050E-05	3.50	2.70	3.26				
	C15	829128.2	826233.0	4.892E-04	9.476E-05	1.146E-05	1.050E-05	3.50	2.70	3.26				
	C16	829129.6	826227.6	4.892E-04	9.476E-05	1.146E-05	1.050E-05	3.50	2.70	3.26				
C17	829131.0	826222.3	4.892E-04	9.476E-05	1.146E-05	1.050E-05	3.50	2.70	3.26					
C18	829132.4	826216.9	4.892E-04	9.476E-05	1.146E-05	1.050E-05	3.50	2.70	3.26	1.321E-02	2.559E-03	3.094E-04	2.835E-04	
D	D1	828999.9	826415.6	6.941E-04	1.345E-04	1.628E-05	1.490E-05	3.50	1.86	3.26				
	D2	828995.9	826414.2	6.941E-04	1.345E-04	1.628E-05	1.490E-05	3.50	1.86	3.26				
	D3	828992.2	826412.8	6.941E-04	1.345E-04	1.628E-05	1.490E-05	3.50	1.86	3.26				
	D4	828988.4	826411.4	6.941E-04	1.345E-04	1.628E-05	1.490E-05	3.50	1.86	3.26				
	D5	828984.7	826410.0	6.941E-04	1.345E-04	1.628E-05	1.490E-05	3.50	1.86	3.26				
	D6	828980.9	826408.7	6.941E-04	1.345E-04	1.628E-05	1.490E-05	3.50	1.86	3.26				
	D7	828977.1	826407.3	6.941E-04	1.345E-04	1.628E-05	1.490E-05	3.50	1.86	3.26				
	D8	828973.3	826405.9	6.941E-04	1.345E-04	1.628E-05	1.490E-05	3.50	1.86	3.26				
	D9	828969.6	826404.5	6.941E-04	1.345E-04	1.628E-05	1.490E-05	3.50	1.86	3.26				
	D10	828965.9	826403.2	6.941E-04	1.345E-04	1.628E-05	1.490E-05	3.50	1.86	3.26				
	D11	828962.2	826401.8	6.941E-04	1.345E-04	1.628E-05	1.490E-05	3.50	1.86	3.26				
	D12	828958.4	826400.4	6.941E-04	1.345E-04	1.628E-05	1.490E-05	3.50	1.86	3.26				
	D13	828954.6	826399.0	3.470E-04	6.723E-05	8.130E-06	7.448E-06	3.50	1.86	3.26				
	D14	828950.8	826397.6	3.470E-04	6.723E-05	8.130E-06	7.448E-06	3.50	1.86	3.26				
	D15	828947.1	826396.3	3.470E-04	6.723E-05	8.130E-06	7.448E-06	3.50	1.86	3.26				
	D16	828943.3	826394.9	3.470E-04	6.723E-05	8.130E-06	7.448E-06	3.50	1.86	3.26				
D17	828939.6	826393.5	3.470E-04	6.723E-05	8.130E-06	7.448E-06	3.50	1.86	3.26					
D18	828935.9	826392.1	3.470E-04	6.723E-05	8.130E-06	7.448E-06	3.50	1.86	3.26					
D19	828932.1	826390.8	3.470E-04	6.723E-05	8.130E-06	7.448E-06	3.50	1.86	3.26					
D20	828928.3	826389.4	3.470E-04	6.723E-05	8.130E-06	7.448E-06	3.50	1.86	3.26					
D21	828924.5	826388.0	3.470E-04	6.723E-05	8.130E-06	7.448E-06	3.50	1.86	3.26					
D22	828920.8	826386.6	3.470E-04	6.723E-05	8.130E-06	7.448E-06	3.50	1.86	3.26					
D23	828917.0	826385.3	3.470E-04	6.723E-05	8.130E-06	7.448E-06	3.50	1.86	3.26					
D24	828913.3	826383.9	3.470E-04	6.723E-05	8.130E-06	7.448E-06	3.50	1.86	3.26	1.249E-02	2.420E-03	2.927E-04	2.681E-04	
E	E1	829042.5	826425.6	6.941E-04	1.345E-04	1.628E-05	1.490E-05	3.50	2.09	3.26				
	E2	829040.0	826424.8	6.941E-04	1.345E-04	1.628E-05	1.490E-05	3.50	2.09	3.26				
	E3	829037.5	826423.8	6.941E-04	1.345E-04	1.628E-05	1.490E-05	3.50	2.09	3.26				
	E4	829035.0	826422.1	6.941E-04	1.345E-04	1.628E-05	1.490E-05	3.50	2.09	3.26				
	E5	829032.1	826420.4	6.941E-04										

**Appendix 3.5 Detailed Calculations of Portal Emissions (Without Project Scenario)**

**Hourly Profile for Portal Sources**

Hour	Enclosure A				Enclosure B				Enclosure C				Enclosure D			
	NO	NO <sub>2</sub>	RSP	FSP	NO	NO <sub>2</sub>	RSP	FSP	NO	NO <sub>2</sub>	RSP	FSP	NO	NO <sub>2</sub>	RSP	FSP
Hour 1	2.4%	1.9%	2.5%	2.5%	2.3%	1.6%	2.2%	2.2%	2.3%	1.6%	2.2%	2.2%	2.3%	1.6%	2.2%	2.2%
Hour 2	1.6%	1.3%	1.8%	1.8%	1.6%	1.2%	1.5%	1.5%	1.6%	1.2%	1.5%	1.5%	1.6%	1.2%	1.5%	1.5%
Hour 3	1.2%	1.0%	1.3%	1.3%	1.2%	0.9%	1.2%	1.2%	1.2%	0.9%	1.2%	1.2%	1.2%	0.9%	1.2%	1.2%
Hour 4	1.0%	0.8%	1.0%	1.0%	0.9%	0.8%	1.0%	1.0%	0.9%	0.8%	1.0%	1.0%	0.9%	0.8%	1.0%	1.0%
Hour 5	1.0%	0.9%	1.1%	1.1%	1.0%	0.8%	1.0%	1.0%	1.0%	0.8%	1.0%	1.0%	1.0%	0.8%	1.0%	1.0%
Hour 6	1.4%	1.3%	1.5%	1.5%	1.5%	1.3%	1.6%	1.6%	1.5%	1.3%	1.6%	1.6%	1.5%	1.3%	1.6%	1.6%
Hour 7	3.0%	2.9%	3.2%	3.2%	3.3%	3.1%	3.5%	3.5%	3.3%	3.1%	3.5%	3.5%	3.3%	3.1%	3.5%	3.5%
Hour 8	6.6%	6.4%	6.9%	6.9%	7.0%	6.9%	7.6%	7.5%	7.0%	6.9%	7.6%	7.5%	7.0%	6.9%	7.6%	7.5%
Hour 9	7.7%	7.4%	8.0%	8.0%	8.1%	7.8%	8.7%	8.7%	8.1%	7.8%	8.7%	8.7%	8.1%	7.8%	8.7%	8.7%
Hour 10	6.5%	6.3%	6.1%	6.1%	7.4%	7.2%	6.6%	6.6%	7.4%	7.2%	6.6%	6.6%	7.4%	7.2%	6.6%	6.6%
Hour 11	6.1%	6.4%	5.6%	5.6%	7.3%	7.8%	6.2%	6.2%	7.3%	7.8%	6.2%	6.2%	7.3%	7.8%	6.2%	6.2%
Hour 12	5.6%	6.2%	5.4%	5.4%	6.4%	7.3%	6.0%	6.0%	6.4%	7.3%	6.0%	6.0%	6.4%	7.3%	6.0%	6.0%
Hour 13	4.5%	5.3%	4.2%	4.2%	4.6%	5.6%	4.5%	4.5%	4.6%	5.6%	4.5%	4.5%	4.6%	5.6%	4.5%	4.5%
Hour 14	4.6%	5.5%	4.2%	4.2%	4.8%	5.9%	4.4%	4.5%	4.8%	5.9%	4.4%	4.5%	4.8%	5.9%	4.4%	4.5%
Hour 15	4.8%	5.7%	4.4%	4.4%	5.2%	6.1%	4.7%	4.7%	5.2%	6.1%	4.7%	4.7%	5.2%	6.1%	4.7%	4.7%
Hour 16	5.1%	5.9%	4.7%	4.7%	5.3%	6.1%	4.9%	4.9%	5.3%	6.1%	4.9%	4.9%	5.3%	6.1%	4.9%	4.9%
Hour 17	5.3%	5.9%	4.9%	4.9%	5.5%	6.1%	5.3%	5.3%	5.5%	6.1%	5.3%	5.3%	5.5%	6.1%	5.3%	5.3%
Hour 18	5.5%	5.8%	5.7%	5.7%	5.3%	5.7%	6.1%	6.1%	5.3%	5.7%	6.1%	6.1%	5.3%	5.7%	6.1%	6.1%
Hour 19	5.6%	5.5%	6.2%	6.2%	4.7%	4.7%	6.0%	6.0%	4.7%	4.7%	6.0%	6.0%	4.7%	4.7%	6.0%	6.0%
Hour 20	5.0%	4.7%	5.6%	5.6%	3.9%	3.7%	4.8%	4.8%	3.9%	3.7%	4.8%	4.8%	3.9%	3.7%	4.8%	4.8%
Hour 21	4.2%	3.8%	4.4%	4.4%	3.6%	3.1%	3.8%	3.8%	3.6%	3.1%	3.8%	3.8%	3.6%	3.1%	3.8%	3.8%
Hour 22	4.3%	3.6%	4.3%	4.3%	3.4%	2.5%	3.3%	3.3%	3.4%	2.5%	3.3%	3.3%	3.4%	2.5%	3.3%	3.3%
Hour 23	3.9%	3.1%	3.9%	3.9%	3.1%	2.1%	2.9%	2.9%	3.1%	2.1%	2.9%	2.9%	3.1%	2.1%	2.9%	2.9%
Hour 24	3.0%	2.4%	3.0%	3.0%	2.5%	1.8%	2.4%	2.4%	2.5%	1.8%	2.4%	2.4%	2.5%	1.8%	2.4%	2.4%

Hour	Enclosure E				Enclosure F				Enclosure G			
	NO	NO <sub>2</sub>	RSP	FSP	NO	NO <sub>2</sub>	RSP	FSP	NO	NO <sub>2</sub>	RSP	FSP
Hour 1	2.3%	1.6%	2.2%	2.2%	2.0%	1.3%	1.5%	1.5%	2.0%	1.3%	1.5%	1.5%
Hour 2	1.6%	1.2%	1.5%	1.5%	1.5%	1.0%	1.1%	1.1%	1.5%	1.0%	1.1%	1.1%
Hour 3	1.2%	0.9%	1.2%	1.2%	1.1%	0.8%	0.9%	0.9%	1.1%	0.8%	0.9%	0.9%
Hour 4	0.9%	0.8%	1.0%	1.0%	0.9%	0.7%	0.8%	0.8%	0.9%	0.7%	0.8%	0.8%
Hour 5	1.0%	0.8%	1.0%	1.0%	0.9%	0.7%	0.8%	0.8%	0.9%	0.7%	0.8%	0.8%
Hour 6	1.5%	1.3%	1.6%	1.6%	1.3%	1.1%	1.2%	1.2%	1.3%	1.1%	1.2%	1.2%
Hour 7	3.3%	3.1%	3.5%	3.5%	2.8%	2.4%	2.6%	2.6%	2.8%	2.4%	2.6%	2.6%
Hour 8	7.0%	6.9%	7.6%	7.5%	5.8%	5.4%	5.7%	5.7%	5.8%	5.4%	5.7%	5.7%
Hour 9	8.1%	7.8%	8.7%	8.7%	6.9%	6.2%	6.5%	6.5%	6.9%	6.2%	6.5%	6.5%
Hour 10	7.4%	7.2%	6.6%	6.6%	6.3%	5.5%	5.7%	5.7%	6.3%	5.5%	5.7%	5.7%
Hour 11	7.3%	7.8%	6.2%	6.2%	6.0%	5.8%	5.9%	5.9%	6.0%	5.8%	5.9%	5.9%
Hour 12	6.4%	7.3%	6.0%	6.0%	5.1%	5.3%	5.4%	5.4%	5.1%	5.3%	5.4%	5.4%
Hour 13	4.6%	5.6%	4.5%	4.5%	5.3%	6.8%	6.2%	6.2%	5.3%	6.8%	6.2%	6.2%
Hour 14	4.8%	5.9%	4.4%	4.5%	5.7%	7.2%	6.5%	6.5%	5.7%	7.2%	6.5%	6.5%
Hour 15	5.2%	6.1%	4.7%	4.7%	6.3%	7.8%	6.9%	6.9%	6.3%	7.8%	6.9%	6.9%
Hour 16	5.3%	6.1%	4.9%	4.9%	6.5%	7.8%	7.0%	7.0%	6.5%	7.8%	7.0%	7.0%
Hour 17	5.5%	6.1%	5.3%	5.3%	6.5%	7.6%	7.0%	7.0%	6.5%	7.6%	7.0%	7.0%
Hour 18	5.3%	5.7%	6.1%	6.1%	6.2%	7.0%	6.6%	6.6%	6.2%	7.0%	6.6%	6.6%
Hour 19	4.7%	4.7%	6.0%	6.0%	5.2%	5.5%	5.7%	5.7%	5.2%	5.5%	5.7%	5.7%
Hour 20	3.9%	3.7%	4.8%	4.8%	4.3%	4.1%	4.6%	4.6%	4.3%	4.1%	4.6%	4.6%
Hour 21	3.6%	3.1%	3.8%	3.8%	3.7%	3.4%	3.6%	3.6%	3.7%	3.4%	3.6%	3.6%
Hour 22	3.4%	2.5%	3.3%	3.3%	3.6%	2.7%	3.0%	3.0%	3.6%	2.7%	3.0%	3.0%
Hour 23	3.1%	2.1%	2.9%	2.9%	3.3%	2.2%	2.6%	2.6%	3.3%	2.2%	2.6%	2.6%
Hour 24	2.5%	1.8%	2.4%	2.4%	2.6%	1.9%	2.1%	2.1%	2.6%	1.9%	2.1%	2.1%



Appendix 3.5 Detailed Calculations of Portal Emissions (With Project Scenario (Without Direct Noise Remedies))

Portal ID	Portal Emission Source ID	X	Y	Daily Emission Factor (QS) (g/s) <sup>[1]</sup>						Total NO	Total NO <sub>2</sub>	Total RSP	Total FSP
				NO	NO <sub>2</sub>	RSP	FSP	HS	SY				
A	A1	828918.2	826221.7	6.128E-03	1.033E-03	2.218E-04	2.036E-04	0.00	2.88	0.00			
	A2	828922.5	826225.8	6.128E-03	1.033E-03	2.218E-04	2.036E-04	0.00	2.88	0.00			
	A3	828926.7	826229.9	6.128E-03	1.033E-03	2.218E-04	2.036E-04	0.00	2.88	0.00			
	A4	828931.0	826233.9	6.128E-03	1.033E-03	2.218E-04	2.036E-04	0.00	2.88	0.00			
	A5	828935.6	826237.6	6.128E-03	1.033E-03	2.218E-04	2.036E-04	0.00	2.88	0.00			
	A6	828940.3	826241.3	6.128E-03	1.033E-03	2.218E-04	2.036E-04	0.00	2.88	0.00			
	A7	828945.2	826244.5	6.128E-03	1.033E-03	2.218E-04	2.036E-04	0.00	2.88	0.00			
	A8	828950.1	826247.8	6.128E-03	1.033E-03	2.218E-04	2.036E-04	0.00	2.88	0.00			
	A9	828955.2	826250.9	3.064E-03	5.163E-04	1.109E-04	1.018E-04	0.00	2.88	0.00			
	A10	828960.2	826253.9	3.064E-03	5.163E-04	1.109E-04	1.018E-04	0.00	2.88	0.00			
	A11	828965.3	826256.9	3.064E-03	5.163E-04	1.109E-04	1.018E-04	0.00	2.88	0.00			
	A12	828970.5	826259.7	3.064E-03	5.163E-04	1.109E-04	1.018E-04	0.00	2.88	0.00			
	A13	828975.7	826262.5	3.064E-03	5.163E-04	1.109E-04	1.018E-04	0.00	2.88	0.00			
	A14	828981.0	826265.1	3.064E-03	5.163E-04	1.109E-04	1.018E-04	0.00	2.88	0.00			
	A15	828986.5	826267.3	3.064E-03	5.163E-04	1.109E-04	1.018E-04	0.00	2.88	0.00			
	A16	828992.0	826269.3	3.064E-03	5.163E-04	1.109E-04	1.018E-04	0.00	2.88	0.00	7.354E-02	1.239E-02	2.662E-03
B	B1	829095.0	826353.9	9.811E-04	1.896E-04	2.300E-05	2.107E-05	3.50	2.47	3.26			
	B2	829093.9	826359.1	9.811E-04	1.896E-04	2.300E-05	2.107E-05	3.50	2.47	3.26			
	B3	829092.8	826364.2	9.811E-04	1.896E-04	2.300E-05	2.107E-05	3.50	2.47	3.26			
	B4	829091.7	826369.3	9.811E-04	1.896E-04	2.300E-05	2.107E-05	3.50	2.47	3.26			
	B5	829090.2	826374.4	9.811E-04	1.896E-04	2.300E-05	2.107E-05	3.50	2.47	3.26			
	B6	829088.5	826379.4	9.811E-04	1.896E-04	2.300E-05	2.107E-05	3.50	2.47	3.26			
	B7	829086.7	826384.3	9.811E-04	1.896E-04	2.300E-05	2.107E-05	3.50	2.47	3.26			
	B8	829084.6	826389.1	9.811E-04	1.896E-04	2.300E-05	2.107E-05	3.50	2.47	3.26			
	B9	829082.4	826393.8	9.811E-04	1.896E-04	2.300E-05	2.107E-05	3.50	2.47	3.26			
	B10	829079.5	826398.2	4.906E-04	9.478E-05	1.150E-05	1.053E-05	3.50	2.47	3.26			
	B11	829076.6	826402.6	4.906E-04	9.478E-05	1.150E-05	1.053E-05	3.50	2.47	3.26			
	B12	829073.0	826406.4	4.906E-04	9.478E-05	1.150E-05	1.053E-05	3.50	2.47	3.26			
	B13	829069.2	826410.0	4.906E-04	9.478E-05	1.150E-05	1.053E-05	3.50	2.47	3.26			
	B14	829065.0	826413.2	4.906E-04	9.478E-05	1.150E-05	1.053E-05	3.50	2.47	3.26			
	B15	829060.6	826416.1	4.906E-04	9.478E-05	1.150E-05	1.053E-05	3.50	2.47	3.26			
	B16	829055.8	826418.3	4.906E-04	9.478E-05	1.150E-05	1.053E-05	3.50	2.47	3.26			
B17	829051.0	826420.2	4.906E-04	9.478E-05	1.150E-05	1.053E-05	3.50	2.47	3.26				
B18	829045.8	826421.2	4.906E-04	9.478E-05	1.150E-05	1.053E-05	3.50	2.47	3.26	1.324E-02	2.559E-03	3.104E-04	2.844E-04
C	C1	829108.3	826308.3	9.811E-04	1.896E-04	2.300E-05	2.107E-05	3.50	2.70	3.26			
	C2	829109.7	826302.9	9.811E-04	1.896E-04	2.300E-05	2.107E-05	3.50	2.70	3.26			
	C3	829111.2	826297.5	9.811E-04	1.896E-04	2.300E-05	2.107E-05	3.50	2.70	3.26			
	C4	829112.6	826292.2	9.811E-04	1.896E-04	2.300E-05	2.107E-05	3.50	2.70	3.26			
	C5	829114.0	826286.8	9.811E-04	1.896E-04	2.300E-05	2.107E-05	3.50	2.70	3.26			
	C6	829115.4	826281.4	9.811E-04	1.896E-04	2.300E-05	2.107E-05	3.50	2.70	3.26			
	C7	829116.8	826276.0	9.811E-04	1.896E-04	2.300E-05	2.107E-05	3.50	2.70	3.26			
	C8	829118.3	826270.6	9.811E-04	1.896E-04	2.300E-05	2.107E-05	3.50	2.70	3.26			
	C9	829119.7	826265.3	9.811E-04	1.896E-04	2.300E-05	2.107E-05	3.50	2.70	3.26			
	C10	829121.1	826259.9	4.906E-04	9.478E-05	1.150E-05	1.053E-05	3.50	2.70	3.26			
	C11	829122.5	826254.5	4.906E-04	9.478E-05	1.150E-05	1.053E-05	3.50	2.70	3.26			
	C12	829123.9	826249.1	4.906E-04	9.478E-05	1.150E-05	1.053E-05	3.50	2.70	3.26			
	C13	829125.3	826243.8	4.906E-04	9.478E-05	1.150E-05	1.053E-05	3.50	2.70	3.26			
	C14	829126.8	826238.4	4.906E-04	9.478E-05	1.150E-05	1.053E-05	3.50	2.70	3.26			
	C15	829128.2	826233.0	4.906E-04	9.478E-05	1.150E-05	1.053E-05	3.50	2.70	3.26			
	C16	829129.6	826227.6	4.906E-04	9.478E-05	1.150E-05	1.053E-05	3.50	2.70	3.26			
C17	829131.0	826222.3	4.906E-04	9.478E-05	1.150E-05	1.053E-05	3.50	2.70	3.26				
C18	829132.4	826216.9	4.906E-04	9.478E-05	1.150E-05	1.053E-05	3.50	2.70	3.26	1.324E-02	2.559E-03	3.104E-04	2.844E-04
D	D1	828999.7	826415.6	6.961E-04	1.345E-04	1.631E-05	1.494E-05	3.50	1.86	3.26			
	D2	828995.9	826414.2	6.961E-04	1.345E-04	1.631E-05	1.494E-05	3.50	1.86	3.26			
	D3	828992.2	826412.8	6.961E-04	1.345E-04	1.631E-05	1.494E-05	3.50	1.86	3.26			
	D4	828988.4	826411.4	6.961E-04	1.345E-04	1.631E-05	1.494E-05	3.50	1.86	3.26			
	D5	828984.7	826410.0	6.961E-04	1.345E-04	1.631E-05	1.494E-05	3.50	1.86	3.26			
	D6	828980.9	826408.6	6.961E-04	1.345E-04	1.631E-05	1.494E-05	3.50	1.86	3.26			
	D7	828977.1	826407.3	6.961E-04	1.345E-04	1.631E-05	1.494E-05	3.50	1.86	3.26			
	D8	828973.4	826405.9	6.961E-04	1.345E-04	1.631E-05	1.494E-05	3.50	1.86	3.26			
	D9	828969.6	826404.5	6.961E-04	1.345E-04	1.631E-05	1.494E-05	3.50	1.86	3.26			
	D10	828965.9	826403.2	6.961E-04	1.345E-04	1.631E-05	1.494E-05	3.50	1.86	3.26			
	D11	828962.1	826401.8	6.961E-04	1.345E-04	1.631E-05	1.494E-05	3.50	1.86	3.26			
	D12	828958.4	826400.4	6.961E-04	1.345E-04	1.631E-05	1.494E-05	3.50	1.86	3.26			
	D13	828954.6	826399.0	3.480E-04	6.725E-05	8.157E-06	7.472E-06	3.50	1.86	3.26			
	D14	828950.8	826397.6	3.480E-04	6.725E-05	8.157E-06	7.472E-06	3.50	1.86	3.26			
	D15	828947.1	826396.3	3.480E-04	6.725E-05	8.157E-06	7.472E-06	3.50	1.86	3.26			
	D16	828943.3	826394.9	3.480E-04	6.725E-05	8.157E-06	7.472E-06	3.50	1.86	3.26			
D17	828939.6	826393.5	3.480E-04	6.725E-05	8.157E-06	7.472E-06	3.50	1.86	3.26				
D18	828935.8	826392.1	3.480E-04	6.725E-05	8.157E-06	7.472E-06	3.50	1.86	3.26				
D19	828932.1	826390.8	3.480E-04	6.725E-05	8.157E-06	7.472E-06	3.50	1.86	3.26				
D20	828928.3	826389.4	3.480E-04	6.725E-05	8.157E-06	7.472E-06	3.50	1.86	3.26				
D21	828924.5	826388.0	3.480E-04	6.725E-05	8.157E-06	7.472E-06	3.50	1.86	3.26				
D22	828920.8	826386.6	3.480E-04	6.725E-05	8.157E-06	7.472E-06	3.50	1.86	3.26				
D23	828917.0	826385.3	3.480E-04	6.725E-05	8.157E-06	7.472E-06	3.50	1.86	3.26				
D24	828913.3	826383.9	3.480E-04	6.725E-05	8.157E-06	7.472E-06	3.50	1.86	3.26	1.253E-02	2.421E-03	2.937E-04	2.690E-04
E	E1	829045.0	826425.5	6.961E-04	1.345E-04	1.631E-05	1.494E-05	3.50	2.09	3.26			
	E2	829049.0	826424.8	6.961E-04	1.345E-04	1.631E-05	1.494E-05	3.50	2.09	3.26			
	E3	829052.8	826423.8	6.961E-04	1.345E-04	1.631E-05	1.494E-05	3.50	2.09	3.26			
	E4	829056.5	826422.1	6.961E-04	1.345E-04	1.631E-05	1.494E-05	3.50	2.09	3.26			
	E5	829060.1	826420.4	6.961E-04									

**Appendix 3.5 Detailed Calculations of Portal Emissions (With Project Scenario (Without Direct Noise Remedies))**

**Hourly Profile for Portal Sources**

Hour	Enclosure A				Enclosure B				Enclosure C				Enclosure D			
	NO	NO <sub>2</sub>	RSP	FSP	NO	NO <sub>2</sub>	RSP	FSP	NO	NO <sub>2</sub>	RSP	FSP	NO	NO <sub>2</sub>	RSP	FSP
Hour 1	2.4%	1.9%	2.5%	2.5%	2.3%	1.6%	2.2%	2.2%	2.3%	1.6%	2.2%	2.2%	2.3%	1.6%	2.2%	2.2%
Hour 2	1.6%	1.3%	1.8%	1.8%	1.6%	1.2%	1.6%	1.6%	1.6%	1.2%	1.6%	1.6%	1.6%	1.2%	1.6%	1.6%
Hour 3	1.2%	1.0%	1.3%	1.3%	1.2%	0.9%	1.2%	1.2%	1.2%	0.9%	1.2%	1.2%	1.2%	0.9%	1.2%	1.2%
Hour 4	1.0%	0.8%	1.0%	1.0%	0.9%	0.8%	1.0%	1.0%	0.9%	0.8%	1.0%	1.0%	0.9%	0.8%	1.0%	1.0%
Hour 5	1.0%	0.9%	1.1%	1.1%	1.0%	0.8%	1.1%	1.0%	1.0%	0.8%	1.1%	1.0%	1.0%	0.8%	1.1%	1.0%
Hour 6	1.4%	1.3%	1.5%	1.5%	1.5%	1.3%	1.6%	1.6%	1.5%	1.3%	1.6%	1.6%	1.5%	1.3%	1.6%	1.6%
Hour 7	3.1%	2.9%	3.2%	3.2%	3.3%	3.1%	3.5%	3.5%	3.3%	3.1%	3.5%	3.5%	3.3%	3.1%	3.5%	3.5%
Hour 8	6.6%	6.4%	6.9%	6.9%	7.0%	6.9%	7.6%	7.6%	7.0%	6.9%	7.6%	7.6%	7.0%	6.9%	7.6%	7.6%
Hour 9	7.7%	7.4%	8.0%	8.0%	8.2%	7.9%	8.7%	8.7%	8.2%	7.9%	8.7%	8.7%	8.2%	7.9%	8.7%	8.7%
Hour 10	6.5%	6.4%	6.1%	6.2%	7.4%	7.2%	6.6%	6.6%	7.4%	7.2%	6.6%	6.6%	7.4%	7.2%	6.6%	6.6%
Hour 11	6.1%	6.4%	5.7%	5.7%	7.3%	7.8%	6.2%	6.2%	7.3%	7.8%	6.2%	6.2%	7.3%	7.8%	6.2%	6.2%
Hour 12	5.6%	6.2%	5.5%	5.5%	6.4%	7.3%	6.0%	6.0%	6.4%	7.3%	6.0%	6.0%	6.4%	7.3%	6.0%	6.0%
Hour 13	4.5%	5.3%	4.2%	4.2%	4.6%	5.6%	4.4%	4.5%	4.6%	5.6%	4.4%	4.5%	4.6%	5.6%	4.4%	4.5%
Hour 14	4.6%	5.5%	4.2%	4.2%	4.8%	5.9%	4.4%	4.4%	4.8%	5.9%	4.4%	4.4%	4.8%	5.9%	4.4%	4.4%
Hour 15	4.8%	5.7%	4.3%	4.4%	5.2%	6.1%	4.7%	4.7%	5.2%	6.1%	4.7%	4.7%	5.2%	6.1%	4.7%	4.7%
Hour 16	5.1%	5.9%	4.7%	4.7%	5.3%	6.1%	4.8%	4.8%	5.3%	6.1%	4.8%	4.8%	5.3%	6.1%	4.8%	4.8%
Hour 17	5.3%	5.9%	4.9%	4.9%	5.5%	6.1%	5.2%	5.3%	5.5%	6.1%	5.2%	5.3%	5.5%	6.1%	5.2%	5.3%
Hour 18	5.5%	5.8%	5.7%	5.7%	5.3%	5.6%	6.1%	6.1%	5.3%	5.6%	6.1%	6.1%	5.3%	5.6%	6.1%	6.1%
Hour 19	5.6%	5.5%	6.2%	6.2%	4.7%	4.7%	6.0%	6.0%	4.7%	4.7%	6.0%	6.0%	4.7%	4.7%	6.0%	6.0%
Hour 20	5.0%	4.6%	5.6%	5.6%	3.9%	3.7%	4.8%	4.8%	3.9%	3.7%	4.8%	4.8%	3.9%	3.7%	4.8%	4.8%
Hour 21	4.2%	3.8%	4.4%	4.4%	3.5%	3.1%	3.8%	3.8%	3.5%	3.1%	3.8%	3.8%	3.5%	3.1%	3.8%	3.8%
Hour 22	4.3%	3.6%	4.3%	4.3%	3.4%	2.5%	3.3%	3.3%	3.4%	2.5%	3.3%	3.3%	3.4%	2.5%	3.3%	3.3%
Hour 23	3.9%	3.1%	3.9%	3.9%	3.1%	2.1%	2.9%	2.9%	3.1%	2.1%	2.9%	2.9%	3.1%	2.1%	2.9%	2.9%
Hour 24	3.0%	2.4%	3.0%	3.0%	2.5%	1.8%	2.4%	2.4%	2.5%	1.8%	2.4%	2.4%	2.5%	1.8%	2.4%	2.4%

Hour	Enclosure E				Enclosure F				Enclosure G			
	NO	NO <sub>2</sub>	RSP	FSP	NO	NO <sub>2</sub>	RSP	FSP	NO	NO <sub>2</sub>	RSP	FSP
Hour 1	2.3%	1.6%	2.2%	2.2%	2.0%	1.3%	1.5%	1.5%	2.0%	1.3%	1.5%	1.5%
Hour 2	1.6%	1.2%	1.6%	1.6%	1.5%	1.0%	1.1%	1.1%	1.5%	1.0%	1.1%	1.1%
Hour 3	1.2%	0.9%	1.2%	1.2%	1.1%	0.8%	0.9%	0.9%	1.1%	0.8%	0.9%	0.9%
Hour 4	0.9%	0.8%	1.0%	1.0%	0.9%	0.7%	0.8%	0.8%	0.9%	0.7%	0.8%	0.8%
Hour 5	1.0%	0.8%	1.1%	1.0%	0.9%	0.7%	0.8%	0.8%	0.9%	0.7%	0.8%	0.8%
Hour 6	1.5%	1.3%	1.6%	1.6%	1.3%	1.1%	1.2%	1.2%	1.3%	1.1%	1.2%	1.2%
Hour 7	3.3%	3.1%	3.5%	3.5%	2.8%	2.4%	2.6%	2.6%	2.8%	2.4%	2.6%	2.6%
Hour 8	7.0%	6.9%	7.6%	7.6%	5.8%	5.4%	5.7%	5.7%	5.8%	5.4%	5.7%	5.7%
Hour 9	8.2%	7.9%	8.7%	8.7%	6.9%	6.2%	6.5%	6.5%	6.9%	6.2%	6.5%	6.5%
Hour 10	7.4%	7.2%	6.6%	6.6%	6.3%	5.5%	5.6%	5.6%	6.3%	5.5%	5.6%	5.6%
Hour 11	7.3%	7.8%	6.2%	6.2%	6.0%	5.7%	5.8%	5.8%	6.0%	5.7%	5.8%	5.8%
Hour 12	6.4%	7.3%	6.0%	6.0%	5.1%	5.2%	5.4%	5.4%	5.1%	5.2%	5.4%	5.4%
Hour 13	4.6%	5.6%	4.4%	4.5%	5.3%	6.8%	6.2%	6.2%	5.3%	6.8%	6.2%	6.2%
Hour 14	4.8%	5.9%	4.4%	4.4%	5.7%	7.2%	6.5%	6.5%	5.7%	7.2%	6.5%	6.5%
Hour 15	5.2%	6.1%	4.7%	4.7%	6.4%	7.8%	6.9%	6.9%	6.4%	7.8%	6.9%	6.9%
Hour 16	5.3%	6.1%	4.8%	4.8%	6.5%	7.8%	7.0%	7.1%	6.5%	7.8%	7.0%	7.1%
Hour 17	5.5%	6.1%	5.2%	5.3%	6.5%	7.7%	7.0%	7.0%	6.5%	7.7%	7.0%	7.0%
Hour 18	5.3%	5.6%	6.1%	6.1%	6.1%	6.9%	6.6%	6.6%	6.1%	6.9%	6.6%	6.6%
Hour 19	4.7%	4.7%	6.0%	6.0%	5.3%	5.5%	5.7%	5.7%	5.3%	5.5%	5.7%	5.7%
Hour 20	3.9%	3.7%	4.8%	4.8%	4.3%	4.1%	4.6%	4.6%	4.3%	4.1%	4.6%	4.6%
Hour 21	3.5%	3.1%	3.8%	3.8%	3.8%	3.4%	3.6%	3.6%	3.8%	3.4%	3.6%	3.6%
Hour 22	3.4%	2.5%	3.3%	3.3%	3.7%	2.7%	3.0%	3.0%	3.7%	2.7%	3.0%	3.0%
Hour 23	3.1%	2.1%	2.9%	2.9%	3.3%	2.2%	2.6%	2.6%	3.3%	2.2%	2.6%	2.6%
Hour 24	2.5%	1.8%	2.4%	2.4%	2.6%	1.9%	2.1%	2.1%	2.6%	1.9%	2.1%	2.1%



Appendix 3.5 Detailed Calculations of Portal Emissions (With Project Scenario (With Direct Noise Remedies))

Portal ID	Description	Percentage for Portal	Length (m)	Portal Emission Source ID	Road Link ID	No. of Volume Sources	Hour	Q (veh/hr)	Total Emission Factor				Total Emission Rate				Emission Rate from Portal Sources <sup>(1)</sup>				Daily Emission Rate (Diurnal Profile (for 1st half Volume Source))				Daily Emission Rate (Diurnal Profile (for 2nd half Volume Source))							
									NO <sub>x</sub> (g/veh)	NO <sub>2</sub> (g/veh)	RSP (g/veh)	FSP (g/veh)	NO (g/s)	NO <sub>2</sub> (g/s)	RSP (g/s)	FSP (g/s)	NO (g/s)	NO <sub>2</sub> (g/s)	RSP (g/s)	FSP (g/s)	NO (g/s)	NO <sub>2</sub> (g/s)	RSP (g/s)	FSP (g/s)	NO (g/s)	NO <sub>2</sub> (g/s)	RSP (g/s)	FSP (g/s)	NO (g/s)	NO <sub>2</sub> (g/s)	RSP (g/s)	FSP (g/s)
G	Enclosure FG at New Territories (Near D PARK) (West Bound)	100%	190	Portal: G1-G12	311-312	12	1	883	0.2402	0.0217	0.0061	0.0056	6.953E-03	6.291E-04	1.767E-04	1.622E-04	3.477E-03	3.162E-04	8.836E-05	8.111E-05	2.0%	1.3%	1.5%	1.5%	2.0%	1.3%	1.5%	1.5%				
							2	427	0.2427	0.0222	0.0065	0.0060	4.031E-03	1.338E-04	4.031E-04	2.226E-04	2.811E-03	6.416E-05	4.129E-05	1.5%	1.0%	1.1%	1.1%	1.5%	1.0%	1.1%	1.1%	1.5%	1.0%	1.1%	1.1%	
							3	469	0.2457	0.0252	0.0069	0.0064	3.772E-03	8.702E-04	1.064E-04	9.772E-05	2.811E-03	1.888E-03	5.332E-05	1.1%	0.8%	0.9%	0.9%	1.1%	0.8%	0.9%	0.9%	1.1%	0.8%	0.9%	0.9%	0.9%
							4	376	0.2476	0.0269	0.0073	0.0067	3.053E-03	3.121E-04	9.615E-05	8.310E-05	1.572E-03	1.654E-04	4.526E-05	0.9%	0.7%	0.8%	0.8%	0.9%	0.7%	0.8%	0.8%	0.9%	0.7%	0.8%	0.8%	0.8%
							5	383	0.2513	0.0288	0.0077	0.0072	3.176E-03	3.816E-04	9.796E-05	8.896E-05	1.576E-03	1.898E-04	4.895E-05	0.9%	0.8%	0.9%	0.9%	1.0%	0.8%	0.9%	0.9%	1.0%	0.8%	0.9%	0.9%	0.9%
							6	545	0.2566	0.0311	0.0083	0.0076	4.538E-03	1.480E-04	1.480E-04	2.727E-04	2.727E-04	1.480E-04	1.480E-04	1.3%	1.1%	1.2%	1.2%	1.3%	1.1%	1.2%	1.2%	1.3%	1.1%	1.2%	1.2%	1.3%
							7	1089	0.2642	0.0338	0.0088	0.0081	9.440E-03	3.208E-04	3.156E-04	2.996E-04	4.292E-03	6.046E-04	1.578E-04	1.48E-04	2.8%	2.4%	2.6%	2.6%	2.8%	2.4%	2.6%	2.6%	2.8%	2.4%	2.6%	2.6%
							8	2183	0.2771	0.0371	0.0095	0.0087	1.994E-02	2.700E-03	6.801E-04	6.252E-04	9.919E-03	1.928E-03	3.401E-04	3.102E-04	5.8%	5.4%	5.7%	5.7%	5.8%	5.4%	5.7%	5.7%	5.8%	5.4%	5.7%	5.7%
							9	2842	0.2919	0.0332	0.0084	0.0077	2.347E-02	3.090E-03	7.804E-04	7.159E-04	1.174E-02	1.545E-03	3.902E-04	3.579E-04	6.9%	6.2%	6.5%	6.5%	6.9%	6.2%	6.5%	6.5%	6.9%	6.2%	6.5%	6.5%
							10	2448	0.2678	0.0338	0.0084	0.0077	2.150E-02	2.714E-03	6.747E-04	6.199E-04	1.075E-02	1.351E-03	3.737E-04	3.099E-04	6.3%	5.9%	6.3%	6.3%	6.5%	5.9%	6.3%	6.3%	6.5%	5.9%	6.3%	6.3%
							11	2191	0.2842	0.0396	0.0097	0.0089	2.042E-02	2.817E-03	6.958E-04	6.412E-04	1.012E-02	1.422E-03	3.692E-04	3.100E-04	6.0%	5.6%	6.0%	6.0%	6.2%	5.6%	6.0%	6.0%	6.2%	5.6%	6.0%	6.0%
							12	1988	0.2657	0.0393	0.0099	0.0091	1.732E-02	2.565E-03	6.429E-04	5.906E-04	8.861E-03	1.282E-03	3.214E-04	2.932E-04	5.1%	5.2%	5.4%	5.4%	5.1%	5.2%	5.4%	5.1%	5.2%	5.4%	5.1%	5.2%
							13	1700	0.2320	0.0311	0.0114	0.0123	1.629E-02	2.406E-03	7.868E-04	7.268E-04	8.058E-03	9.144E-03	1.702E-03	1.702E-03	5.3%	6.8%	6.2%	6.2%	5.3%	6.8%	6.2%	6.2%	5.3%	6.8%	6.2%	6.2%
							14	1767	0.2358	0.0321	0.0135	0.0124	1.942E-02	3.010E-03	1.817E-04	1.717E-04	9.726E-03	1.808E-03	3.909E-04	3.389E-04	5.7%	7.2%	6.5%	6.5%	5.7%	7.2%	6.5%	6.5%	5.7%	7.2%	6.5%	6.5%
							15	1963	0.2374	0.0301	0.0129	0.0119	2.172E-02	3.871E-03	8.306E-04	7.629E-04	1.086E-02	1.934E-03	4.133E-04	3.815E-04	6.4%	7.8%	6.9%	6.9%	6.4%	7.8%	6.9%	6.9%	6.4%	7.8%	6.9%	6.9%
							16	1944	0.2508	0.0310	0.0122	0.0122	2.236E-02	3.886E-03	8.843E-04	7.749E-04	1.116E-02	1.941E-03	4.218E-04	3.975E-04	6.5%	7.8%	7.0%	7.0%	6.5%	7.8%	7.0%	7.0%	6.5%	7.8%	7.0%	7.0%
							17	2018	0.2365	0.0378	0.0126	0.0116	2.272E-02	3.825E-03	8.341E-04	7.679E-04	1.114E-02	1.912E-03	3.840E-04	3.64%	6.5%	7.7%	7.0%	7.0%	6.5%	7.7%	7.0%	7.0%	6.5%	7.7%	7.0%	7.0%
							18	2087	0.2347	0.0389	0.0116	0.0106	2.086E-02	3.412E-03	7.919E-04	7.267E-04	1.043E-02	1.706E-03	3.906E-04	3.633E-04	6.1%	6.9%	6.6%	6.6%	6.1%	6.9%	6.6%	6.6%	6.1%	6.9%	6.6%	6.6%
							19	2202	0.2497	0.0380	0.0119	0.0109	1.892E-02	3.147E-03	7.492E-04	6.842E-04	9.273E-03	1.373E-03	3.620E-04	3.194E-04	5.2%	5.9%	5.7%	5.7%	5.2%	5.9%	5.7%	5.7%	5.2%	5.9%	5.7%	5.7%
							20	1854	0.2411	0.0338	0.0090	0.0083	1.688E-02	2.060E-03	5.505E-04	5.061E-04	7.339E-03	1.036E-03	2.733E-04	2.531E-04	4.3%	4.1%	4.6%	4.6%	4.3%	4.1%	4.6%	4.6%	4.3%	4.1%	4.6%	4.6%
							21	1463	0.2674	0.0251	0.0090	0.0083	1.283E-02	1.684E-03	4.336E-04	3.980E-04	6.415E-03	8.420E-04	2.168E-04	1.990E-04	3.8%	3.4%	3.6%	3.6%	3.8%	3.4%	3.6%	3.6%	3.8%	3.4%	3.6%	3.6%
							22	1392	0.2747	0.0299	0.0079	0.0073	1.254E-02	1.364E-03	3.620E-04	3.328E-04	6.272E-03	8.621E-04	1.814E-04	1.646E-04	3.7%	2.7%	3.0%	3.0%	3.7%	2.7%	3.0%	3.0%	3.7%	2.7%	3.0%	3.0%
							23	1317	0.2616	0.0257	0.0065	0.0065	1.111E-02	1.111E-03	3.054E-04	2.808E-04	5.647E-03	5.554E-04	1.528E-04	1.404E-04	3.3%	2.2%	2.6%	2.6%	3.3%	2.2%	2.6%	2.6%	3.3%	2.2%	2.6%	2.6%
							24	1040	0.2641	0.0278	0.0075	0.0069	9.026E-03	9.646E-04	2.571E-04	2.338E-04	4.503E-03	4.722E-04	1.285E-04	1.179E-04	2.6%	1.9%	2.1%	2.1%	2.6%	1.9%	2.1%	2.1%	2.6%	1.9%	2.1%	2.1%
Daily						3.116E-01	3.116E-01	1.099E-02	1.099E-02	1.179E-01	1.179E-01	8.999E-02	2.766E-02	6.656E-04	6.656E-04	1.616E-04	1.616E-04	1.335E-03	1.335E-03													
H	Enclosure HI at Tsuen Wan Road (Near Park City) (East Bound)	100%	94	Portal: HI-H8	1-2	8	1	2504	0.2912	0.0266	0.0077	0.0098	1.183E-02	1.022E-03	3.698E-04	3.916E-03	3.698E-04	2.188E-04	1.959E-04	2.1%	1.5%	2.0%	2.0%	2.1%	1.5%	2.0%	2.0%	2.1%				
							2	1784	0.2927	0.0281	0.0110	0.0101	8.152E-03	1.389E-04	2.943E-04	2.236E-04	4.072E-04	1.594E-04	1.616E-04	1.5%	1.1%	1.4%	1.4%	1.5%	1.4%	1.5%	1.4%	1.4%	1.4%			
							3	1337	0.2944	0.0297	0.0114	0.0105	6.300E-03	6.637E-04	2.647E-04	2.875E-04	3.195E-03	1.232E-04	1.132E-04	1.1%	0.9%	1.1%	1.1%	1.1%	0.9%	1.1%	1.1%	1.1%	1.1%	1.1%		
							4	1074	0.2958	0.0312	0.0117	0.0108	5.158E-03	5.447E-04	2.044E-04	1.874E-04	2.274E-04	1.023E-04	9.308E-05	0.9%	0.7%	0.9%	0.9%	0.7%	0.9%	0.9%	0.7%	0.9%	0.9%	0.9%		
							5	1086	0.2979	0.0329	0.0121	0.0111	5.306E-03	5.632E-04	2.157E-04	1.978E-04	2.427E-04	1.099E-04	9.990E-05	0.9%	0.8%	1.0%	1.0%	0.9%	1.0%	1.0%	0.8%	1.0%	1.0%	1.0%	1.0%	
							6	1564	0.3009	0.0346	0.0125	0.0115	7.838E-03	8.722E-04	3.171E-04	2.917E-04	3.819E-03	4.384E-04	1.585E-04	1.45E-04	1.3%	1.2%	1.4%	1.4%	1.3%	1.2%	1.4%	1.4%	1.3%	1.2%	1.4%	1.4%
							7	3138	0.3047	0.0364	0.0129	0.0119	1.552E-02	1.852E-03	6.564E-04	6.040E-04	7.758E-03	9.266E-04	3.202E-04	3.002E-04	2.7%	2.5%	3.0%	3.0%	2.7%	2.5%	3.0%	3.0%	2.7%	2.5%	3.0%	3.0%
							8	6205	0.3201	0.0410	0.0135	0.0124	3.274E-02	4.195E-03	1.384E-03	1.272E-03	1.637E-02	1.937E-03	6.922E-04	6.426E-04	5.8%	5.2%	6.2%	6.2%	5.8%	5.2%	6.2%	6.2%	5.8%	5.2%	6.2%	6.2%
							9	8154	0.3207	0.0428	0.0125	0.0115	4.243E-02	5.668E-03	1.650E-03	1.520E-03	2.122E-02	2.834E-03	8.251E-04	7.601E-04	7.5%	7.6%	7.4%	7.4%	7.5%	7.6%	7.4%	7.4%	7.5%	7.6%	7.4%	7.4%
							10	7138	0.3138	0.0399	0.0121	0.0111	3.658E-02	4.442E-03	1.404E-03	1.290E-03	1.829E-02	2.312E-03	7.022E-04	6.451E-04	6.4%	6.2%	6.3%	6.3%	6.4%	6.2%	6.3%	6.3%	6.4%	6.2%	6.3%	6.3%
							11	4465	0.3280	0.0449	0.0135	0.0124	3.412E-02	4.141E-03	1.330E-03	1.216E-03	1.701E-02	1.935E-03	7.091E-04	6.529E-04	6.1%	6.4%	6.4%	6.4%	6.1%	6.4%	6.4%	6.4%	6.1%	6.4%	6.4%	6.4%
							12	5874	0.3020	0.0422	0.0136	0.0125	2.878E-02	4.025E-03	1.299E-03	1.190E-03	1.431E-02	2.012E-03	6.475E-04	5.948E-04	5.1%	5.4%	5.8%	5.8%	5.1%	5.4%	5.8%	5.8%	5.1%	5.4%	5.8%	5.8%
							13	5762	0.2869	0.0450	0.0124	0.0114	2.662E-02	4.203E-03	1.166E-03	1.049E-03	1.341E-02	1.701E-03	5.801E-04	5.346E-04	4.7%	5.7%	5.2%	5.2%	4.7%	5.7%	5.2%	5.2%	4.7%	5.7%	5.2%	5.2%
							14	5922	0.2986	0.0469</																						



Appendix 3.5 Detailed Calculations of Portal Emissions (With Project Scenario (With Direct Noise Remedies))

Portal ID	Portal Emission Source ID	X	Y	Daily Emission Factor (QS) (g/s) <sup>(1)</sup>						Total NO	Total NO <sub>2</sub>	Total RSP	Total FSP
				NO	NO <sub>2</sub>	RSP	FSP	HS	SY				
A	A1	828918.2	826221.7	6.128E-03	1.033E-03	2.218E-04	2.036E-04	0.00	2.88	0.00			
	A2	828922.5	826225.8	6.128E-03	1.033E-03	2.218E-04	2.036E-04	0.00	2.88	0.00			
	A3	828926.7	826229.9	6.128E-03	1.033E-03	2.218E-04	2.036E-04	0.00	2.88	0.00			
	A4	828931.0	826233.9	6.128E-03	1.033E-03	2.218E-04	2.036E-04	0.00	2.88	0.00			
	A5	828935.6	826237.6	6.128E-03	1.033E-03	2.218E-04	2.036E-04	0.00	2.88	0.00			
	A6	828940.3	826241.3	6.128E-03	1.033E-03	2.218E-04	2.036E-04	0.00	2.88	0.00			
	A7	828945.2	826244.5	6.128E-03	1.033E-03	2.218E-04	2.036E-04	0.00	2.88	0.00			
	A8	828950.1	826247.8	6.128E-03	1.033E-03	2.218E-04	2.036E-04	0.00	2.88	0.00			
	A9	828955.2	826250.9	3.064E-03	5.163E-04	1.109E-04	1.018E-04	0.00	2.88	0.00			
	A10	828960.2	826253.9	3.064E-03	5.163E-04	1.109E-04	1.018E-04	0.00	2.88	0.00			
	A11	828965.3	826256.9	3.064E-03	5.163E-04	1.109E-04	1.018E-04	0.00	2.88	0.00			
	A12	828970.5	826259.7	3.064E-03	5.163E-04	1.109E-04	1.018E-04	0.00	2.88	0.00			
	A13	828975.7	826262.5	3.064E-03	5.163E-04	1.109E-04	1.018E-04	0.00	2.88	0.00			
	A14	828981.0	826265.1	3.064E-03	5.163E-04	1.109E-04	1.018E-04	0.00	2.88	0.00			
	A15	828986.5	826267.3	3.064E-03	5.163E-04	1.109E-04	1.018E-04	0.00	2.88	0.00			
	A16	828992.0	826269.3	3.064E-03	5.163E-04	1.109E-04	1.018E-04	0.00	2.88	0.00	7.354E-02	1.239E-02	2.662E-03
B	B1	829095.0	826353.9	9.811E-04	1.896E-04	2.300E-05	2.107E-05	3.50	2.47	3.26			
	B2	829093.9	826359.1	9.811E-04	1.896E-04	2.300E-05	2.107E-05	3.50	2.47	3.26			
	B3	829092.8	826364.2	9.811E-04	1.896E-04	2.300E-05	2.107E-05	3.50	2.47	3.26			
	B4	829091.7	826369.3	9.811E-04	1.896E-04	2.300E-05	2.107E-05	3.50	2.47	3.26			
	B5	829090.2	826374.4	9.811E-04	1.896E-04	2.300E-05	2.107E-05	3.50	2.47	3.26			
	B6	829088.5	826379.4	9.811E-04	1.896E-04	2.300E-05	2.107E-05	3.50	2.47	3.26			
	B7	829086.7	826384.3	9.811E-04	1.896E-04	2.300E-05	2.107E-05	3.50	2.47	3.26			
	B8	829084.6	826389.1	9.811E-04	1.896E-04	2.300E-05	2.107E-05	3.50	2.47	3.26			
	B9	829082.4	826393.8	9.811E-04	1.896E-04	2.300E-05	2.107E-05	3.50	2.47	3.26			
	B10	829079.5	826398.2	4.906E-04	9.478E-05	1.150E-05	1.053E-05	3.50	2.47	3.26			
	B11	829076.6	826402.6	4.906E-04	9.478E-05	1.150E-05	1.053E-05	3.50	2.47	3.26			
	B12	829073.0	826406.4	4.906E-04	9.478E-05	1.150E-05	1.053E-05	3.50	2.47	3.26			
	B13	829069.2	826410.0	4.906E-04	9.478E-05	1.150E-05	1.053E-05	3.50	2.47	3.26			
	B14	829065.0	826413.2	4.906E-04	9.478E-05	1.150E-05	1.053E-05	3.50	2.47	3.26			
	B15	829060.6	826416.1	4.906E-04	9.478E-05	1.150E-05	1.053E-05	3.50	2.47	3.26			
	B16	829055.8	826418.3	4.906E-04	9.478E-05	1.150E-05	1.053E-05	3.50	2.47	3.26			
B17	829051.0	826420.2	4.906E-04	9.478E-05	1.150E-05	1.053E-05	3.50	2.47	3.26				
B18	829045.8	826421.2	4.906E-04	9.478E-05	1.150E-05	1.053E-05	3.50	2.47	3.26	1.324E-02	2.559E-03	3.104E-04	2.844E-04
C	C1	829108.3	826308.3	9.811E-04	1.896E-04	2.300E-05	2.107E-05	3.50	2.70	3.26			
	C2	829109.7	826302.9	9.811E-04	1.896E-04	2.300E-05	2.107E-05	3.50	2.70	3.26			
	C3	829111.2	826297.5	9.811E-04	1.896E-04	2.300E-05	2.107E-05	3.50	2.70	3.26			
	C4	829112.6	826292.2	9.811E-04	1.896E-04	2.300E-05	2.107E-05	3.50	2.70	3.26			
	C5	829114.0	826286.8	9.811E-04	1.896E-04	2.300E-05	2.107E-05	3.50	2.70	3.26			
	C6	829115.4	826281.4	9.811E-04	1.896E-04	2.300E-05	2.107E-05	3.50	2.70	3.26			
	C7	829116.8	826276.0	9.811E-04	1.896E-04	2.300E-05	2.107E-05	3.50	2.70	3.26			
	C8	829118.3	826270.6	9.811E-04	1.896E-04	2.300E-05	2.107E-05	3.50	2.70	3.26			
	C9	829119.7	826265.3	9.811E-04	1.896E-04	2.300E-05	2.107E-05	3.50	2.70	3.26			
	C10	829121.1	826259.9	4.906E-04	9.478E-05	1.150E-05	1.053E-05	3.50	2.70	3.26			
	C11	829122.5	826254.5	4.906E-04	9.478E-05	1.150E-05	1.053E-05	3.50	2.70	3.26			
	C12	829123.9	826249.1	4.906E-04	9.478E-05	1.150E-05	1.053E-05	3.50	2.70	3.26			
	C13	829125.3	826243.8	4.906E-04	9.478E-05	1.150E-05	1.053E-05	3.50	2.70	3.26			
	C14	829126.8	826238.4	4.906E-04	9.478E-05	1.150E-05	1.053E-05	3.50	2.70	3.26			
	C15	829128.2	826233.0	4.906E-04	9.478E-05	1.150E-05	1.053E-05	3.50	2.70	3.26			
	C16	829129.6	826227.6	4.906E-04	9.478E-05	1.150E-05	1.053E-05	3.50	2.70	3.26			
	C17	829131.0	826222.3	4.906E-04	9.478E-05	1.150E-05	1.053E-05	3.50	2.70	3.26			
	C18	829132.4	826216.9	4.906E-04	9.478E-05	1.150E-05	1.053E-05	3.50	2.70	3.26	1.324E-02	2.559E-03	3.104E-04
D	D1	828999.7	826415.6	6.961E-04	1.345E-04	1.631E-05	1.494E-05	3.50	1.86	3.26			
	D2	828995.9	826414.2	6.961E-04	1.345E-04	1.631E-05	1.494E-05	3.50	1.86	3.26			
	D3	828992.2	826412.8	6.961E-04	1.345E-04	1.631E-05	1.494E-05	3.50	1.86	3.26			
	D4	828988.4	826411.4	6.961E-04	1.345E-04	1.631E-05	1.494E-05	3.50	1.86	3.26			
	D5	828984.7	826410.0	6.961E-04	1.345E-04	1.631E-05	1.494E-05	3.50	1.86	3.26			
	D6	828980.9	826408.7	6.961E-04	1.345E-04	1.631E-05	1.494E-05	3.50	1.86	3.26			
	D7	828977.1	826407.3	6.961E-04	1.345E-04	1.631E-05	1.494E-05	3.50	1.86	3.26			
	D8	828973.4	826405.9	6.961E-04	1.345E-04	1.631E-05	1.494E-05	3.50	1.86	3.26			
	D9	828969.6	826404.5	6.961E-04	1.345E-04	1.631E-05	1.494E-05	3.50	1.86	3.26			
	D10	828965.9	826403.2	6.961E-04	1.345E-04	1.631E-05	1.494E-05	3.50	1.86	3.26			
	D11	828962.1	826401.8	6.961E-04	1.345E-04	1.631E-05	1.494E-05	3.50	1.86	3.26			
	D12	828958.4	826400.4	6.961E-04	1.345E-04	1.631E-05	1.494E-05	3.50	1.86	3.26			
	D13	828954.6	826399.0	3.480E-04	6.725E-05	8.157E-06	7.472E-06	3.50	1.86	3.26			
	D14	828950.8	826397.6	3.480E-04	6.725E-05	8.157E-06	7.472E-06	3.50	1.86	3.26			
	D15	828947.1	826396.3	3.480E-04	6.725E-05	8.157E-06	7.472E-06	3.50	1.86	3.26			
	D16	828943.3	826394.9	3.480E-04	6.725E-05	8.157E-06	7.472E-06	3.50	1.86	3.26			
	D17	828939.6	826393.5	3.480E-04	6.725E-05	8.157E-06	7.472E-06	3.50	1.86	3.26			
	D18	828935.8	826392.1	3.480E-04	6.725E-05	8.157E-06	7.472E-06	3.50	1.86	3.26			
	D19	828932.1	826390.8	3.480E-04	6.725E-05	8.157E-06	7.472E-06	3.50	1.86	3.26			
	D20	828928.3	826389.4	3.480E-04	6.725E-05	8.157E-06	7.472E-06	3.50	1.86	3.26			
	D21	828924.5	826388.0	3.480E-04	6.725E-05	8.157E-06	7.472E-06	3.50	1.86	3.26			
	D22	828920.8	826386.6	3.480E-04	6.725E-05	8.157E-06	7.472E-06	3.50	1.86	3.26			
	D23	828917.0	826385.3	3.480E-04	6.725E-05	8.157E-06	7.472E-06	3.50	1.86	3.26			
	D24	828913.3	826383.9	3.480E-04	6.725E-05	8.157E-06	7.472E-06	3.50	1.86	3.26	1.253E-02	2.421E-03	2.937E-04
E	E1	829045.0	826425.5	6.961E-04	1.345E-04	1.631E-05	1.494E-05	3.50	2.09	3.26			
	E2	829049.0	826424.8	6.961E-04	1.345E-04	1.631E-05	1.494E-05	3.50	2.09	3.26			
	E3	829052.8	826423.8	6.961E-04	1.345E-04	1.631E-05	1.494E-05	3.50	2.09	3.26			
	E4	829056.5	826422.1	6.961E-04	1.345E-04	1.631E-05	1.494E-05	3.50	2.09	3.26			
	E5	829060.1	826420.4	6.961E-04									

Appendix 3.5 Detailed Calculations of Portal Emissions (With Project Scenario (With Direct Noise Remedies))

Portal ID	Portal Emission Source ID	X	Y	Daily Emission Factor (QS) (g/s) <sup>[1]</sup>						Total	Total	Total	Total	
				NO	NO <sub>2</sub>	RSP	FSP	HS	SY	SZ	NO	NO <sub>2</sub>	RSP	FSP
G	G1	829502.5	826272.7	1.899E-02	2.766E-03	6.650E-04	6.106E-04	11.50	4.19	3.26				
	G2	829495.0	826270.7	1.899E-02	2.766E-03	6.650E-04	6.106E-04	11.50	4.19	3.26				
	G3	829487.5	826268.8	1.899E-02	2.766E-03	6.650E-04	6.106E-04	11.50	4.19	3.26				
	G4	829480.0	826267.1	1.899E-02	2.766E-03	6.650E-04	6.106E-04	11.50	4.19	3.26				
	G5	829472.4	826265.9	1.899E-02	2.766E-03	6.650E-04	6.106E-04	11.50	4.19	3.26				
	G6	829464.7	826264.7	1.899E-02	2.766E-03	6.650E-04	6.106E-04	11.50	4.19	3.26				
	G7	829457.1	826263.5	9.496E-03	1.383E-03	3.325E-04	3.053E-04	11.50	4.19	3.26				
	G8	829449.4	826262.6	9.496E-03	1.383E-03	3.325E-04	3.053E-04	11.50	4.19	3.26				
	G9	829441.7	826262.4	9.496E-03	1.383E-03	3.325E-04	3.053E-04	11.50	4.19	3.26				
	G10	829434.0	826262.3	9.496E-03	1.383E-03	3.325E-04	3.053E-04	11.50	4.19	3.26				
	G11	829426.2	826262.1	9.496E-03	1.383E-03	3.325E-04	3.053E-04	11.50	4.19	3.26				
	G12	829418.5	826262.0	9.496E-03	1.383E-03	3.325E-04	3.053E-04	11.50	4.19	3.26	1.709E-01	2.489E-02	5.985E-03	5.496E-03
H	H1	829566.7	825384.4	4.733E-02	6.174E-03	1.852E-03	1.703E-03	14.65	6.14	4.33				
	H2	829574.5	825376.5	4.733E-02	6.174E-03	1.852E-03	1.703E-03	14.65	6.14	4.33				
	H3	829582.3	825368.6	4.733E-02	6.174E-03	1.852E-03	1.703E-03	14.65	6.14	4.33				
	H4	829590.0	825360.7	4.733E-02	6.174E-03	1.852E-03	1.703E-03	14.65	6.14	4.33				
	H5	829597.8	825352.8	2.367E-02	3.087E-03	9.259E-04	8.517E-04	14.65	6.14	4.33				
	H6	829605.6	825344.8	2.367E-02	3.087E-03	9.259E-04	8.517E-04	14.65	6.14	4.33				
	H7	829613.4	825336.9	2.367E-02	3.087E-03	9.259E-04	8.517E-04	14.65	6.14	4.33				
	H8	829621.2	825329.0	2.367E-02	3.087E-03	9.259E-04	8.517E-04	14.65	6.14	4.33	2.840E-01	3.704E-02	1.111E-02	1.022E-02
I	I1	829473.6	825455.5	4.733E-02	6.174E-03	1.852E-03	1.703E-03	14.65	6.14	4.33				
	I2	829465.8	825463.4	4.733E-02	6.174E-03	1.852E-03	1.703E-03	14.65	6.14	4.33				
	I3	829458.1	825471.4	4.733E-02	6.174E-03	1.852E-03	1.703E-03	14.65	6.14	4.33				
	I4	829450.3	825479.3	4.733E-02	6.174E-03	1.852E-03	1.703E-03	14.65	6.14	4.33				
	I5	829442.5	825487.2	2.367E-02	3.087E-03	9.259E-04	8.517E-04	14.65	6.14	4.33				
	I6	829434.7	825495.2	2.367E-02	3.087E-03	9.259E-04	8.517E-04	14.65	6.14	4.33				
	I7	829426.9	825503.1	2.367E-02	3.087E-03	9.259E-04	8.517E-04	14.65	6.14	4.33				
	I8	829419.2	825511.0	2.367E-02	3.087E-03	9.259E-04	8.517E-04	14.65	6.14	4.33	2.840E-01	3.704E-02	1.111E-02	1.022E-02
J	J1	829634.8	825291.4	9.168E-02	1.265E-02	3.633E-03	3.342E-03	15.15	5.95	4.79				
	J2	829627.0	825299.3	9.168E-02	1.265E-02	3.633E-03	3.342E-03	15.15	5.95	4.79				
	J3	829619.3	825307.3	9.168E-02	1.265E-02	3.633E-03	3.342E-03	15.15	5.95	4.79				
	J4	829611.5	825315.3	9.168E-02	1.265E-02	3.633E-03	3.342E-03	15.15	5.95	4.79				
	J5	829603.7	825323.2	4.584E-02	6.323E-03	1.817E-03	1.671E-03	15.15	5.95	4.79				
	J6	829595.9	825331.2	4.584E-02	6.323E-03	1.817E-03	1.671E-03	15.15	5.95	4.79				
	J7	829588.2	825339.2	4.584E-02	6.323E-03	1.817E-03	1.671E-03	15.15	5.95	4.79				
	J8	829580.4	825347.1	4.584E-02	6.323E-03	1.817E-03	1.671E-03	15.15	5.95	4.79	5.501E-01	7.588E-02	2.180E-02	2.005E-02

Note:

[1] The emission factors for portal are calculated from the results of EMFAC-HK model and traffic data adopted in this study.

Appendix 3.5 Detailed Calculations of Portal Emissions (With Project Scenario (With Direct Noise Remedies))

Hourly Profile for Portal Sources

Hour	Enclosure A				Enclosure B				Enclosure C				Enclosure D				Enclosure E				
	NO	NO <sub>2</sub>	RSP	FSP	NO	NO <sub>2</sub>	RSP	FSP	NO	NO <sub>2</sub>	RSP	FSP	NO	NO <sub>2</sub>	RSP	FSP	NO	NO <sub>2</sub>	RSP	FSP	
Hour 1	2.4%	1.9%	2.5%	2.5%	2.3%	1.6%	2.2%	2.2%	2.3%	1.6%	2.2%	2.2%	2.3%	1.6%	2.2%	2.2%	2.3%	1.6%	2.2%	2.2%	2.2%
Hour 2	1.6%	1.3%	1.8%	1.8%	1.6%	1.2%	1.6%	1.6%	1.6%	1.2%	1.6%	1.6%	1.6%	1.2%	1.6%	1.6%	1.6%	1.2%	1.6%	1.6%	1.6%
Hour 3	1.2%	1.0%	1.3%	1.3%	1.2%	0.9%	1.2%	1.2%	1.2%	0.9%	1.2%	1.2%	1.2%	0.9%	1.2%	1.2%	1.2%	0.9%	1.2%	1.2%	1.2%
Hour 4	1.0%	0.8%	1.0%	1.0%	0.9%	0.8%	1.0%	1.0%	0.9%	0.8%	1.0%	1.0%	0.9%	0.8%	1.0%	1.0%	0.9%	0.8%	1.0%	1.0%	1.0%
Hour 5	1.0%	0.9%	1.1%	1.1%	1.0%	0.8%	1.1%	1.0%	1.0%	0.8%	1.1%	1.0%	1.0%	0.8%	1.1%	1.0%	1.0%	0.8%	1.1%	1.1%	1.0%
Hour 6	1.4%	1.3%	1.5%	1.5%	1.5%	1.3%	1.6%	1.6%	1.5%	1.3%	1.6%	1.6%	1.5%	1.3%	1.6%	1.6%	1.5%	1.3%	1.6%	1.6%	1.6%
Hour 7	3.1%	2.9%	3.2%	3.2%	3.3%	3.1%	3.5%	3.5%	3.3%	3.1%	3.5%	3.5%	3.3%	3.1%	3.5%	3.5%	3.3%	3.1%	3.5%	3.5%	3.5%
Hour 8	6.2%	6.4%	6.9%	6.9%	7.0%	6.9%	7.6%	7.6%	7.0%	6.9%	7.6%	7.6%	7.0%	6.9%	7.6%	7.6%	7.0%	6.9%	7.6%	7.6%	7.6%
Hour 9	7.7%	7.4%	8.0%	8.0%	8.2%	7.9%	8.7%	8.7%	8.2%	7.9%	8.7%	8.7%	8.2%	7.9%	8.7%	8.7%	8.2%	7.9%	8.7%	8.7%	8.7%
Hour 10	6.5%	6.4%	6.1%	6.2%	7.4%	7.2%	6.6%	6.6%	7.4%	7.2%	6.6%	6.6%	7.4%	7.2%	6.6%	6.6%	7.4%	7.2%	6.6%	6.6%	6.6%
Hour 11	6.1%	6.4%	5.7%	5.7%	7.3%	7.8%	6.2%	6.2%	7.3%	7.8%	6.2%	6.2%	7.3%	7.8%	6.2%	6.2%	7.3%	7.8%	6.2%	6.2%	6.2%
Hour 12	5.8%	6.2%	5.5%	5.5%	6.4%	7.3%	6.0%	6.0%	6.4%	7.3%	6.0%	6.0%	6.4%	7.3%	6.0%	6.0%	6.4%	7.3%	6.0%	6.0%	6.0%
Hour 13	4.5%	5.3%	4.2%	4.2%	4.6%	5.6%	4.4%	4.5%	4.6%	5.6%	4.4%	4.5%	4.6%	5.6%	4.4%	4.5%	4.6%	5.6%	4.4%	4.5%	4.5%
Hour 14	4.6%	5.5%	4.2%	4.2%	4.8%	5.9%	4.4%	4.4%	4.8%	5.9%	4.4%	4.4%	4.8%	5.9%	4.4%	4.4%	4.8%	5.9%	4.4%	4.4%	4.4%
Hour 15	4.8%	5.7%	4.3%	4.4%	5.2%	6.1%	4.7%	4.7%	5.2%	6.1%	4.7%	4.7%	5.2%	6.1%	4.7%	4.7%	5.2%	6.1%	4.7%	4.7%	4.7%
Hour 16	5.1%	5.9%	4.7%	4.7%	5.3%	6.1%	4.8%	4.8%	5.3%	6.1%	4.8%	4.8%	5.3%	6.1%	4.8%	4.8%	5.3%	6.1%	4.8%	4.8%	4.8%
Hour 17	5.3%	5.9%	4.9%	4.9%	5.5%	6.1%	5.2%	5.3%	5.5%	6.1%	5.2%	5.3%	5.5%	6.1%	5.2%	5.3%	5.5%	6.1%	5.2%	5.3%	5.3%
Hour 18	5.6%	5.8%	5.7%	5.7%	5.3%	5.6%	6.1%	6.1%	5.3%	5.6%	6.1%	6.1%	5.3%	5.6%	6.1%	6.1%	5.3%	5.6%	6.1%	6.1%	6.1%
Hour 19	5.6%	5.5%	6.2%	6.2%	4.7%	4.7%	6.0%	6.0%	4.7%	4.7%	6.0%	6.0%	4.7%	4.7%	6.0%	6.0%	4.7%	4.7%	6.0%	6.0%	6.0%
Hour 20	5.0%	4.6%	5.6%	5.6%	3.9%	3.7%	4.8%	4.8%	3.9%	3.7%	4.8%	4.8%	3.9%	3.7%	4.8%	4.8%	3.9%	3.7%	4.8%	4.8%	4.8%
Hour 21	4.2%	3.8%	4.4%	4.4%	3.5%	3.1%	3.8%	3.8%	3.5%	3.1%	3.8%	3.8%	3.5%	3.1%	3.8%	3.8%	3.5%	3.1%	3.8%	3.8%	3.8%
Hour 22	4.3%	3.6%	4.3%	4.3%	3.4%	2.5%	3.3%	3.3%	3.4%	2.5%	3.3%	3.3%	3.4%	2.5%	3.3%	3.3%	3.4%	2.5%	3.3%	3.3%	3.3%
Hour 23	3.9%	3.1%	3.9%	3.9%	3.1%	2.1%	2.9%	2.9%	3.1%	2.1%	2.9%	2.9%	3.1%	2.1%	2.9%	2.9%	3.1%	2.1%	2.9%	2.9%	2.9%
Hour 24	3.0%	2.4%	3.0%	3.0%	2.5%	1.8%	2.4%	2.4%	2.5%	1.8%	2.4%	2.4%	2.5%	1.8%	2.4%	2.4%	2.5%	1.8%	2.4%	2.4%	2.4%

Hour	Enclosure F				Enclosure G				Enclosure H				Enclosure I				Enclosure J				
	NO	NO <sub>2</sub>	RSP	FSP	NO	NO <sub>2</sub>	RSP	FSP	NO	NO <sub>2</sub>	RSP	FSP	NO	NO <sub>2</sub>	RSP	FSP	NO	NO <sub>2</sub>	RSP	FSP	
Hour 1	2.0%	1.3%	1.5%	1.5%	2.0%	1.3%	1.5%	1.5%	2.1%	1.5%	2.0%	2.0%	2.1%	1.5%	2.0%	2.0%	2.1%	1.5%	2.0%	1.6%	1.6%
Hour 2	1.5%	1.0%	1.1%	1.1%	1.5%	1.0%	1.1%	1.1%	1.5%	1.1%	1.4%	1.4%	1.5%	1.1%	1.4%	1.4%	1.1%	1.0%	1.2%	1.2%	1.2%
Hour 3	1.1%	0.8%	0.9%	0.9%	1.1%	0.8%	0.9%	0.9%	1.1%	0.9%	1.1%	1.1%	1.1%	0.9%	1.1%	1.1%	0.9%	0.7%	0.9%	0.9%	0.9%
Hour 4	0.9%	0.7%	0.8%	0.8%	0.9%	0.7%	0.8%	0.8%	0.9%	0.7%	0.9%	0.9%	0.9%	0.7%	0.9%	0.9%	0.7%	0.6%	0.7%	0.7%	0.7%
Hour 5	0.9%	0.7%	0.8%	0.8%	0.9%	0.7%	0.8%	0.8%	0.9%	0.8%	1.0%	1.0%	0.9%	0.8%	1.0%	1.0%	0.7%	0.6%	0.8%	0.8%	0.8%
Hour 6	1.3%	1.1%	1.2%	1.2%	1.3%	1.1%	1.2%	1.2%	1.3%	1.2%	1.4%	1.4%	1.3%	1.2%	1.4%	1.4%	1.0%	0.9%	1.1%	1.1%	1.1%
Hour 7	2.8%	2.4%	2.6%	2.6%	2.8%	2.4%	2.6%	2.6%	2.7%	2.5%	3.0%	3.0%	2.7%	2.5%	3.0%	3.0%	2.1%	1.9%	2.4%	2.4%	2.4%
Hour 8	5.8%	5.4%	5.7%	5.7%	5.8%	5.4%	5.7%	5.7%	5.8%	5.7%	6.2%	6.2%	5.8%	5.7%	6.2%	6.2%	4.4%	4.1%	5.0%	5.0%	5.0%
Hour 9	6.9%	6.2%	6.5%	6.5%	6.9%	6.2%	6.5%	6.5%	7.5%	7.6%	7.4%	7.4%	7.5%	7.6%	7.4%	7.4%	5.5%	5.4%	5.8%	5.8%	5.8%
Hour 10	6.3%	5.5%	5.6%	5.6%	6.3%	5.5%	5.6%	5.6%	6.4%	6.2%	6.3%	6.3%	6.4%	6.2%	6.3%	6.3%	5.0%	4.7%	5.2%	5.2%	5.2%
Hour 11	6.0%	5.7%	5.8%	5.8%	6.0%	5.7%	5.8%	5.8%	6.1%	6.4%	6.4%	6.4%	6.1%	6.4%	6.4%	6.4%	4.8%	4.9%	5.3%	5.3%	5.3%
Hour 12	5.1%	5.2%	5.4%	5.4%	5.1%	5.2%	5.4%	5.4%	5.1%	5.4%	5.8%	5.8%	5.1%	5.4%	5.8%	5.8%	4.0%	4.3%	4.9%	4.9%	4.9%
Hour 13	5.3%	6.8%	6.2%	6.2%	5.3%	6.8%	6.2%	6.2%	4.7%	5.7%	5.2%	5.2%	4.7%	5.7%	5.2%	5.2%	5.5%	6.5%	5.9%	5.9%	5.9%
Hour 14	5.7%	7.2%	6.5%	6.5%	5.7%	7.2%	6.5%	6.5%	5.1%	6.1%	5.4%	5.4%	5.1%	6.1%	5.4%	5.4%	5.9%	7.1%	6.2%	6.2%	6.2%
Hour 15	6.4%	7.8%	6.9%	6.9%	6.4%	7.8%	6.9%	6.9%	5.8%	6.8%	5.8%	5.8%	5.8%	6.8%	5.8%	5.8%	7.0%	8.3%	6.7%	6.7%	6.7%
Hour 16	6.5%	7.8%	7.0%	7.1%	6.5%	7.8%	7.0%	7.1%	6.0%	7.0%	6.0%	6.0%	6.0%	7.0%	6.0%	6.0%	7.3%	8.5%	7.0%	7.0%	7.0%
Hour 17	6.5%	7.7%	7.0%	7.0%	6.5%	7.7%	7.0%	7.0%	6.4%	7.4%	6.2%	6.2%	6.4%	7.4%	6.2%	6.2%	7.7%	8.9%	7.2%	7.2%	7.2%
Hour 18	6.1%	6.9%	6.6%	6.6%	6.1%	6.9%	6.6%	6.6%	6.2%	6.9%	6.2%	6.2%	6.2%	6.9%	6.2%	6.2%	7.5%	8.4%	7.1%	7.1%	7.1%
Hour 19	5.3%	5.5%	5.7%	5.7%	5.3%	5.5%	5.7%	5.7%	5.7%	5.9%	5.7%	5.7%	5.7%	5.9%	5.7%	5.7%	6.9%	7.2%	6.6%	6.6%	6.6%
Hour 20	4.3%	4.1%	4.6%	4.6%	4.3%	4.1%	4.6%	4.6%	4.6%	4.2%	4.7%	4.7%	4.6%	4.2%	4.7%	4.7%	5.2%	4.8%	5.3%	5.3%	5.3%
Hour 21	3.8%	3.4%	3.6%	3.6%	3.8%	3.4%	3.6%	3.6%	3.8%	3.1%	3.6%	3.6%	3.8%	3.1%	3.6%	3.6%	4.2%	3.3%	4.0%	4.0%	4.0%
Hour 22	3.7%	2.7%	3.0%	3.0%	3.7%	2.7%	3.0%	3.0%	3.9%	2.7%	3.2%	3.2%	3.9%	2.7%	3.2%	3.2%	4.2%	2.8%	3.5%	3.5%	3.5%
Hour 23	3.3%	2.2%	2.6%	2.6%	3.3%	2.2%	2.6%	2.6%	3.6%	2.3%	2.8%	2.8%	3.6%	2.3%	2.8%	2.8%	3.9%	2.4%	3.1%	3.1%	3.1%
Hour 24	2.6%	1.9%	2.1%	2.1%	2.6%	1.9%	2.1%	2.1%	2.8%	1.9%	2.3%	2.3%	2.8%	1.9%	2.3%	2.3%	3.0%	2.0%	2.5%	2.5%	2.5%