

Appendix 4.9
Sample Output File for
Road Traffic Noise Model

MARC Engine v2.2.0
 Modelling Input and Calculation Listing
 Model Run date: 2007-10-23
 Model Run time: 11:19:46
 Project: W001.DIG
 Scenario: Trial
 Traffic Flow Year: 2020 AM
 Barrier Correction.....Yes
 Facade Correction.....Yes
 Opposite Facade Correction.....Yes
 Prompt Check messages during processing.....No
 Print Perp.Dist. & Angles of View.....No
 Print Corrections & Noise Contribution from each Road Seg.....No
 Print Noise Contribution from Each Road.....No

Cut-off angle = 1.00
 Cut-off distance = 300.00
 Cut-off distance for reflection (from kerb to barrier) = 20.00

No. of Roads = 201
 No. of Barriers = 149
 No. of Receivers = 32
 Road Configuration :

Node Easting Northing Elevation % Grad. width Surface Included

Node	Easting	Northing	Elevation	% Grad.	width	Surface	Included
Road 1: DIR1	1261.00	15.00	5.30	0.00	7.00	Bituminous	Y
Flow:	835261.13	815930.13	5.30	0.00	7.00	Bituminous	Y
1	835229.00	815932.38	5.30	0.00	7.00	Bituminous	Y
2	835201.88	815934.00	5.30	0.00	7.00	Bituminous	Y
3	835186.31	815934.81	5.30	0.00	7.00	Bituminous	Y
Road 2: DIR2	1464.00	14.00	5.10	0.47	7.00	Bituminous	Y
Flow:	835407.30	815920.81	5.10	0.81	7.00	Bituminous	Y
1	835378.13	815923.88	5.10	0.81	7.00	Bituminous	Y
2	835335.38	815926.13	5.60	0.81	7.00	Bituminous	Y
3	835298.19	815928.19	5.90	0.00	7.00	Bituminous	Y
4	835261.13	815930.13	5.90	0.00	7.00	Bituminous	Y
Road 3: DIR3-1	93.00	15.00	4.40	0.00	7.00	Bituminous	Y
Flow:	835700.31	815900.69	4.40	0.00	7.00	Bituminous	Y
1	835680.93	815902.21	4.40	0.00	7.00	Bituminous	Y
2	835659.36	815903.80	4.40	0.00	7.00	Bituminous	Y
Road 4: DIR3-2	1179.00	13.00	3.50	1.30	7.00	Bituminous	Y
Flow:	835659.36	815903.80	3.50	1.30	7.00	Bituminous	Y
1	835630.19	815906.00	3.80	1.30	7.00	Bituminous	Y
2	835584.31	815908.88	4.50	1.30	7.00	Bituminous	Y
3	835530.63	815912.88	4.80	1.62	7.00	Bituminous	Y
4	835498.31	815914.50	5.00	1.44	7.00	Bituminous	Y
5	835466.13	815916.50	5.50	4.12	7.00	Bituminous	Y
6	835431.50	815918.69	6.50	0.00	7.00	Bituminous	Y
7	835407.30	815920.81	6.50	0.00	7.00	Bituminous	Y
Road 5: DIR4	1039.00	15.00	5.30	0.00	7.00	Bituminous	Y
Flow:	835188.88	815944.81	5.30	0.00	7.00	Bituminous	Y
1	835217.81	815943.13	5.30	0.00	7.00	Bituminous	Y
2	835261.13	815942.31	5.30	0.00	7.00	Bituminous	Y
3	835282.31	815942.31	5.30	0.00	7.00	Bituminous	Y
4	835261.13	815942.31	5.30	0.00	7.00	Bituminous	Y
5	835302.63	815943.88	5.30	0.00	7.00	Bituminous	Y
6	835323.88	815945.88	5.30	0.00	7.00	Bituminous	Y
7	835336.81	815946.88	5.30	0.00	7.00	Bituminous	Y
Road 6: DIR5	2642.00	21.00	5.90	0.00	7.00	Bituminous	Y
Flow:	835336.88	815938.00	5.90	0.00	7.00	Bituminous	Y
1	835367.50	815937.38	5.90	0.00	7.00	Bituminous	Y
2	835409.88	815935.88	5.50	0.00	7.00	Bituminous	Y
3	835409.88	815935.88	5.50	0.00	7.00	Bituminous	Y

Road	7: DIR6	Flow:	2642.00	21.60	5.50	0.00	7.00	Bituminous	Y
1	835409.88	815935.88	5.50	0.00	7.00	Bituminous <td>Y</td>	Y		
2	835433.63	815934.81	5.00	0.00	7.00	Bituminous <td>Y</td>	Y		
3	835467.00	815932.69	4.50	0.00	7.00	Bituminous <td>Y</td>	Y		
4	835498.38	815930.81	4.00	0.30	7.00	Bituminous <td>Y</td>	Y		
5	835531.63	815929.13	4.10	0.00	7.00	Bituminous <td>Y</td>	Y		
6	835584.88	815927.38	3.80	0.00	7.00	Bituminous <td>Y</td>	Y		
7	835629.13	815927.81	3.40	0.00	7.00	Bituminous <td>Y</td>	Y		
8	835650.19	815928.13	3.40	0.00	7.00	Bituminous <td>Y</td>	Y		

Road	8: DIR7	Flow:	420.00	25.00	5.00	0.00	7.00	Bituminous	Y
1	835651.00	815922.38	3.40	0.00	7.00	Bituminous <td>Y</td>	Y		
2	835675.38	815923.38	3.40	0.00	7.00	Bituminous <td>Y</td>	Y		
3	835700.31	815924.13	3.40	0.00	7.00	Bituminous <td>Y</td>	Y		

Road	9: DIR8	Flow:	1.00	00	5.90	0.00	7.00	Bituminous	Y
1	835336.50	815947.13	5.00	0.00	7.00	Bituminous <td>Y</td>	Y		
2	835368.63	815950.81	4.80	0.00	7.00	Bituminous <td>Y</td>	Y		
3	835386.63	815951.69	4.30	0.00	7.00	Bituminous <td>Y</td>	Y		
4	835411.31	815952.31	4.20	0.00	7.00	Bituminous <td>Y</td>	Y		
5	835433.38	815951.38	4.10	1.15	7.00	Bituminous <td>Y</td>	Y		
6	835468.63	815948.31	4.10	0.75	7.00	Bituminous <td>Y</td>	Y		
7	835497.88	815945.19	4.50	0.82	7.00	Bituminous <td>Y</td>	Y		
8	835532.31	815941.38	4.90	1.10	7.00	Bituminous <td>Y</td>	Y		
9	835585.19	815937.31	5.20	0.00	7.00	Bituminous <td>Y</td>	Y		
10	835621.81	815937.38	5.20	0.00	7.00	Bituminous <td>Y</td>	Y		
11	835639.81	815939.63	5.40	0.00	7.00	Bituminous <td>Y</td>	Y		

Road	10: DIR9	Flow:	2222.00	21.00	5.40	0.00	7.00	Bituminous	Y
1	835639.81	815936.13	5.40	0.00	7.00	Bituminous <td>Y</td>	Y		
2	835650.19	815936.50	5.40	0.00	7.00	Bituminous <td>Y</td>	Y		

Road	11: DIR10	Flow:	2222.00	21.00	5.40	1.70	7.00	Bituminous	Y
1	835650.13	815936.38	5.80	3.00	7.00	Bituminous <td>Y</td>	Y		
2	835673.63	815935.19	6.60	0.00	7.00	Bituminous <td>Y</td>	Y		
3	835700.31	815935.88	6.60	0.00	7.00	Bituminous <td>Y</td>	Y		

Road	12: DIR11	Flow:	590.00	57.00	5.40	0.65	7.00	Bituminous	Y
1	835639.13	815943.13	5.50	1.96	7.00	Bituminous <td>Y</td>	Y		
2	835653.13	815949.50	5.50	0.00	7.00	Bituminous <td>Y</td>	Y		
3	835671.31	815958.81	5.90	0.00	7.00	Bituminous <td>Y</td>	Y		

Road	13: DIR12	Flow:	590.00	57.00	5.90	2.53	7.00	Bituminous	Y
1	835670.00	815962.00	6.20	1.19	7.00	Bituminous <td>Y</td>	Y		
2	835677.31	815971.31	6.20	0.00	7.00	Bituminous <td>Y</td>	Y		
3	835692.81	815991.19	6.50	0.00	7.00	Bituminous <td>Y</td>	Y		

Road	14: DIR13	Flow:	559.00	57.00	6.50	0.00	7.00	Bituminous	Y
1	835692.69	815991.00	6.50	0.00	7.00	Bituminous <td>Y</td>	Y		
2	835700.13	816002.81	6.50	0.00	7.00	Bituminous <td>Y</td>	Y		

Road	15: DIR14	Flow:	1.00	00	5.90	0.00	7.00	Bituminous	Y
1	835672.13	815954.81	5.90	0.00	7.00	Bituminous <td>Y</td>	Y		
2	835683.38	815957.81	5.90	0.00	7.00	Bituminous <td>Y</td>	Y		
3	835700.38	815960.31	5.90	0.00	7.00	Bituminous <td>Y</td>	Y		

Road	16: DIR16	Flow:	1397.00	9.60	4.30	1.92	7.00	Bituminous	Y
1	835700.31	815963.19	4.50	2.60	7.00	Bituminous <td>Y</td>	Y		
2	835692.13	815863.19	4.80	0.00	7.00	Bituminous <td>Y</td>	Y		
3	835683.13	815836.00	4.80	0.00	7.00	Bituminous <td>Y</td>	Y		

Road	17: DIR17	Flow:	692.00	10.00	4.80	0.00	7.00	Bituminous	Y
1	835685.81	815853.81	4.50	0.00	7.00	Bituminous <td>Y</td>	Y		
2	835675.88	815845.69	4.20	0.00	7.00	Bituminous <td>Y</td>	Y		
3	835668.88	815838.88	4.20	0.00	7.00	Bituminous <td>Y</td>	Y		

Road	18: DIR18	Flow:	2642.00	21.00	5.50	0.00	7.00	Bituminous	Y
1	835336.88	815938.00	5.90	0.00	7.00	Bituminous <td>Y</td>	Y		
2	835367.50	815937.38	5.90	0.00	7.00	Bituminous <td>Y</td>	Y		
3	835409.88	815935.88	5.50	0.00	7.00	Bituminous <td>Y</td>	Y		

Flow:	Sample In.txt	Speed:	veh/hr	Texture depth:	Bituminous	Sample In.txt	Speed:	veh/hr	Texture depth:	Bituminous
Flow: 705.00(17.70%hv)	50.00 km/h	4.80	815801.69	7.00	Bituminous	4.10	815801.69	7.00	Bituminous	7.00
1 835680.38	.00	4.80	815800.31	7.00	Bituminous	4.10	815800.31	7.00	Bituminous	7.00
2 835671.31	.00	4.80	815793.81	7.00	Bituminous	4.10	815793.81	7.00	Bituminous	7.00
3 835655.81	.00	4.80	815786.19	7.00	Bituminous	4.10	815786.19	7.00	Bituminous	7.00
Flow: 1044.00(13.00%hv)	50.00 km/h	4.50	815831.81	7.00	Bituminous	4.10	815831.81	7.00	Bituminous	7.00
1 835670.81	.00	4.50	815831.81	7.00	Bituminous	4.10	815831.81	7.00	Bituminous	7.00
2 835661.00	.00	4.70	815840.13	7.00	Bituminous	4.20	815840.13	7.00	Bituminous	7.00
3 835688.63	.00	4.70	815840.13	7.00	Bituminous	4.20	815840.13	7.00	Bituminous	7.00
4 835680.38	.00	4.50	815836.19	7.00	Bituminous	4.30	815836.19	7.00	Bituminous	7.00
5 835672.63	.00	4.30	815831.81	7.00	Bituminous	4.40	815831.81	7.00	Bituminous	7.00
Flow: 1736.00(11.80%hv)	50.00 km/h	4.30	815836.13	8.00	Bituminous	4.40	815836.13	8.00	Bituminous	8.00
1 835670.81	.00	4.20	815836.13	8.00	Bituminous	4.40	815836.13	8.00	Bituminous	8.00
2 835661.00	.00	4.10	815825.81	8.00	Bituminous	4.30	815825.81	8.00	Bituminous	8.00
3 835650.19	.00	4.00	815815.31	8.00	Bituminous	4.20	815815.31	8.00	Bituminous	8.00
4 835645.88	.00	3.90	815809.81	8.00	Bituminous	4.10	815809.81	8.00	Bituminous	8.00
5 835643.69	.00	3.90	815806.00	8.00	Bituminous	4.00	815806.00	8.00	Bituminous	8.00
6 835639.81	.00	3.90	815795.88	8.00	Bituminous	3.90	815795.88	8.00	Bituminous	8.00
7 835639.81	.00	3.90	815789.38	8.00	Bituminous	3.90	815789.38	8.00	Bituminous	8.00
8 835638.31	.00	3.90	815782.38	8.00	Bituminous	3.90	815782.38	8.00	Bituminous	8.00
9 835638.88	.00	3.90	815774.38	8.00	Bituminous	3.90	815774.38	8.00	Bituminous	8.00
10 835639.81	.00	3.90	815768.63	8.00	Bituminous	3.90	815768.63	8.00	Bituminous	8.00
Flow: 1538.00(13.00%hv)	50.00 km/h	4.50	815837.19	7.00	Bituminous	4.10	815837.19	7.00	Bituminous	7.00
1 835655.69	2.07	4.50	815837.19	7.00	Bituminous	4.10	815837.19	7.00	Bituminous	7.00
2 835646.88	4.29	4.80	815825.81	7.00	Bituminous	4.20	815825.81	7.00	Bituminous	7.00
3 835637.69	.00	3.50	815812.10	7.00	Bituminous	4.10	815812.10	7.00	Bituminous	7.00
4 835629.31	.00	3.50	815800.63	7.00	Bituminous	4.00	815800.63	7.00	Bituminous	7.00
5 835623.63	.00	5.50	815794.38	7.00	Bituminous	4.50	815794.38	7.00	Bituminous	7.00
6 835618.63	.00	5.50	815790.13	7.00	Bituminous	4.80	815790.13	7.00	Bituminous	7.00
7 835609.31	.00	5.00	815784.31	7.00	Bituminous	5.20	815784.31	7.00	Bituminous	7.00
8 835601.13	.00	4.80	815780.19	7.00	Bituminous	5.40	815780.19	7.00	Bituminous	7.00
9 835586.63	.00	4.10	815776.88	7.00	Bituminous	5.40	815776.88	7.00	Bituminous	7.00
Flow: 3246.00(14.00%hv)	50.00 km/h	3.90	815753.13	8.00	Bituminous	4.10	815753.13	8.00	Bituminous	8.00
1 835614.31	1.28	3.90	815753.13	8.00	Bituminous	4.10	815753.13	8.00	Bituminous	8.00
2 835607.19	1.03	4.00	815756.38	8.00	Bituminous	4.10	815756.38	8.00	Bituminous	8.00
3 835599.19	.00	4.10	815761.88	8.00	Bituminous	4.10	815761.88	8.00	Bituminous	8.00
4 835588.38	.00	4.10	815767.38	8.00	Bituminous	4.10	815767.38	8.00	Bituminous	8.00
Flow: 3246.00(14.00%hv)	50.00 km/h	4.10	815771.88	7.00	Bituminous	4.10	815771.88	7.00	Bituminous	7.00
1 835586.69	.00	4.10	815771.88	7.00	Bituminous	4.10	815771.88	7.00	Bituminous	7.00
2 835586.81	.00	4.10	815769.13	7.00	Bituminous	4.10	815769.13	7.00	Bituminous	7.00
3 835547.13	.00	4.10	815767.13	7.00	Bituminous	4.10	815767.13	7.00	Bituminous	7.00
4 835525.88	.00	4.10	815765.81	7.00	Bituminous	4.10	815765.81	7.00	Bituminous	7.00
5 835508.69	.00	4.10	815765.81	7.00	Bituminous	4.10	815765.81	7.00	Bituminous	7.00
6 835482.88	.00	4.10	815763.63	7.00	Bituminous	4.10	815763.63	7.00	Bituminous	7.00
Flow: 137.00(11.00%hv)	50.00 km/h	4.40	815770.38	7.00	Bituminous	4.40	815770.38	7.00	Bituminous	7.00
1 835481.00	.00	4.40	815770.38	7.00	Bituminous	4.40	815770.38	7.00	Bituminous	7.00
2 83549.69	.00	4.40	815768.38	7.00	Bituminous	4.40	815768.38	7.00	Bituminous	7.00
3 835442.81	.00	4.40	815767.13	7.00	Bituminous	4.40	815767.13	7.00	Bituminous	7.00
4 835420.38	.00	4.40	815764.88	7.00	Bituminous	4.40	815764.88	7.00	Bituminous	7.00
5 835406.69	.00	4.40	815763.13	7.00	Bituminous	4.40	815763.13	7.00	Bituminous	7.00
6 835394.38	.00	4.40	815762.88	7.00	Bituminous	4.40	815762.88	7.00	Bituminous	7.00
7 835381.38	.00	4.30	815762.81	7.00	Bituminous	4.30	815762.81	7.00	Bituminous	7.00
8 835371.00	.00	4.20	815764.31	7.00	Bituminous	4.20	815764.31	7.00	Bituminous	7.00
9 835364.50	.00	4.10	815766.31	7.00	Bituminous	4.10	815766.31	7.00	Bituminous	7.00
10 835360.19	.00	4.10	815771.81	7.00	Bituminous	4.10	815771.81	7.00	Bituminous	7.00
Flow: 137.00(11.00%hv)	50.00 km/h	4.10	815771.88	7.00	Bituminous	4.10	815771.88	7.00	Bituminous	7.00
1 835360.38	.00	4.10	815771.88	7.00	Bituminous	4.10	815771.88	7.00	Bituminous	7.00
2 835351.31	.00	4.10	815772.88	7.00	Bituminous	4.10	815772.88	7.00	Bituminous	7.00
3 835319.31	.00	4.10	815780.81	7.00	Bituminous	4.10	815780.81	7.00	Bituminous	7.00
4 835298.00	.00	4.10	815787.81	7.00	Bituminous	4.10	815787.81	7.00	Bituminous	7.00
5 835275.00	.00	4.10	815794.81	7.00	Bituminous	4.10	815794.81	7.00	Bituminous	7.00
6 835255.31	.00	4.10	815800.88	7.00	Bituminous	4.10	815800.88	7.00	Bituminous	7.00
7 835247.13	.00	4.10	815801.31	7.00	Bituminous	4.10	815801.31	7.00	Bituminous	7.00
Flow: 2006.00(10.00%hv)	50.00 km/h	4.10	815803.81	7.00	Bituminous	4.10	815803.81	7.00	Bituminous	7.00
1 835252.50	.00	4.10	815803.81	7.00	Bituminous	4.10	815803.81	7.00	Bituminous	7.00

Sample	In.txt	Flow	Texture	Depth	Speed	Sample	In.txt	Flow	Texture	Depth	Speed
10	836473.90	815783.80	7.00	Bituminous	19.00%	4213.00	13.13	1	836350.50	815691.00	4.00
11	836470.20	815793.80	7.00	Bituminous	19.00%	4213.00	12.99	2	836357.45	815695.83	4.00
12	836466.40	815804.00	7.00	Bituminous	19.00%	4213.00	4.73	3	836377.04	815703.54	4.00
13	836462.60	815814.90	7.00	Bituminous	19.00%	4213.00	.96	4	836410.63	815717.42	4.00
14	836452.60	815844.80	7.00	Bituminous	19.00%	4213.00		5	836441.18	815730.42	4.00
15	836444.70	815864.30	7.00	Bituminous	19.00%	4213.00		6	836463.38	815737.88	4.00
								7	836473.33	815744.44	4.00
								8	836482.43	815750.79	4.00
Road 133: MAR3-1											
Flow:	1.00	30.00%	50.00	km/h	Existing Road	Speed:	50.00	km/h	Existing Road	Speed:	70.00
1	836473.70	815757.60	7.00	Bituminous	1.50	mm	1.01	1	836004.80	815639.80	4.00
2	836473.20	815767.50	7.00	Bituminous	1.50	mm	.94	2	836114.00	815643.10	4.00
3	836470.20	815777.70	7.00	Bituminous	1.50	mm	.50	3	836173.00	815648.10	4.00
4	836463.10	815796.60	7.00	Bituminous	1.50	mm	.50	4	836230.30	815655.80	4.00
5	836456.10	815815.50	7.00	Bituminous	1.50	mm	.50	5	836275.20	815669.60	4.00
6	836449.10	815834.20	7.00	Bituminous	1.50	mm	.66	6	836297.40	815677.10	4.00
7	836438.90	815862.50	7.00	Bituminous	1.50	mm		7	836317.00	815686.10	4.00
Road 134: MAR3-2											
Flow:	1.00	30.00%	50.00	km/h	Existing Road	Speed:	50.00	km/h	Existing Road	Speed:	70.00
1	836358.90	815862.50	7.00	Bituminous	1.50	mm	.00	1	836004.80	815639.80	4.00
2	836407.80	815945.91	7.00	Bituminous	1.50	mm		2	836114.00	815643.10	4.00
Road 135: MAR4											
Flow:	1.00	30.00%	50.00	km/h	Existing Road	Speed:	50.00	km/h	Existing Road	Speed:	70.00
1	836532.50	815619.50	7.00	Bituminous	1.50	mm	.46	1	836004.80	815639.80	4.00
2	836516.00	815659.80	7.00	Bituminous	1.50	mm	.26	2	836114.00	815643.10	4.00
3	836502.00	815695.70	7.00	Bituminous	1.50	mm	.00	3	836173.00	815648.10	4.00
4	836497.50	815702.00	7.00	Bituminous	1.50	mm		4	836230.30	815655.80	4.00
Road 136: MAR5											
Flow:	1.00	30.00%	50.00	km/h	Existing Road	Speed:	50.00	km/h	Existing Road	Speed:	70.00
1	836511.70	815707.90	7.00	Bituminous	1.50	mm		1	836004.80	815639.80	4.00
2	836515.60	815694.60	7.00	Bituminous	1.50	mm	.00	2	836114.00	815643.10	4.00
3	836527.90	815664.40	7.00	Bituminous	1.50	mm	.00	3	836173.00	815648.10	4.00
4	836544.30	815623.40	7.00	Bituminous	1.50	mm		4	836230.30	815655.80	4.00
Road 137: TOR2											
Flow:	1.00	20.00%	50.00	km/h	Existing Road	Speed:	50.00	km/h	Existing Road	Speed:	70.00
1	836457.00	815720.60	7.00	Bituminous	1.50	mm	1.51	1	836004.80	815639.80	4.00
2	836432.40	815711.00	7.00	Bituminous	1.50	mm	8.26	2	836114.00	815643.10	4.00
3	836415.40	815704.60	7.00	Bituminous	1.50	mm	12.01	3	836173.00	815648.10	4.00
4	836402.20	815699.50	7.00	Bituminous	1.50	mm	7.71	4	836230.30	815655.80	4.00
5	836381.70	815691.40	7.00	Bituminous	1.50	mm	9.48	5	836275.20	815669.60	4.00
6	836370.70	815687.70	7.00	Bituminous	1.50	mm	8.15	6	836297.40	815677.10	4.00
7	836358.50	815686.40	7.00	Bituminous	1.50	mm	.00	7	836317.00	815686.10	4.00
8	836346.20	815689.90	7.00	Bituminous	1.50	mm	.00	8	836317.00	815686.10	4.00
9	836336.60	815694.90	7.00	Bituminous	1.50	mm	.00	9	836230.30	815655.80	4.00
10	836329.00	815701.90	7.00	Bituminous	1.50	mm	.00	10	836275.20	815669.60	4.00
11	836323.50	815712.60	7.00	Bituminous	1.50	mm	.00	11	836297.40	815677.10	4.00
12	836320.20	815721.20	7.00	Bituminous	1.50	mm	.00	12	836317.00	815686.10	4.00
13	836317.50	815729.40	7.00	Bituminous	1.50	mm	.00	13	836317.00	815686.10	4.00
14	836315.50	815737.10	7.00	Bituminous	1.50	mm	.00	14	836230.30	815655.80	4.00
15	836312.90	815746.00	7.00	Bituminous	1.50	mm	.00	15	836275.20	815669.60	4.00
16	836305.80	815769.90	7.00	Bituminous	1.50	mm	.00	16	836297.40	815677.10	4.00
17	836301.60	815783.20	7.00	Bituminous	1.50	mm	.00	17	836317.00	815686.10	4.00
Road 138: TOR3											
Flow:	2.00	19.00%	50.00	km/h	Existing Road	Speed:	50.00	km/h	Existing Road	Speed:	70.00
1	836309.40	815786.30	7.00	Bituminous	1.50	mm	.00	1	836004.80	815639.80	4.00
2	836318.90	815753.00	7.00	Bituminous	1.50	mm	.00	2	836114.00	815643.10	4.00
3	836329.00	815718.40	7.00	Bituminous	1.50	mm	.00	3	836173.00	815648.10	4.00
4	836335.30	815707.70	7.00	Bituminous	1.50	mm	.00	4	836230.30	815655.80	4.00
5	836345.70	815700.20	7.00	Bituminous	1.50	mm	.00	5	836275.20	815669.60	4.00
Road 139: TOR4											
Flow:	2.00	63.00%	50.00	km/h	Existing Road	Speed:	50.00	km/h	Existing Road	Speed:	70.00
1	836319.70	815688.70	7.00	Bituminous	1.50	mm	.00	1	836004.80	815639.80	4.00
2	836320.40	815696.00	7.00	Bituminous	1.50	mm	.00	2	836114.00	815643.10	4.00
3	836310.10	815729.90	7.00	Bituminous	1.50	mm	.00	3	836173.00	815648.10	4.00
4	836300.20	815761.70	7.00	Bituminous	1.50	mm	.00	4	836230.30	815655.80	4.00
5	836296.70	815771.80	7.00	Bituminous	1.50	mm	.00	5	836275.20	815669.60	4.00
Road 140: GLE11											
Flow:	4.00	19.00%	70.00	km/h	Existing Road	Speed:	70.00	km/h	Existing Road	Speed:	70.00
1	836482.40	815750.81	14.00	Bituminous	1.50	mm	.00	1	836004.80	815639.80	4.00
2	836498.12	815763.43	15.00	Bituminous	1.50	mm	.00	2	836114.00	815643.10	4.00
3	836510.70	815778.07	15.00	Bituminous	1.50	mm	.00	3	836173.00	815648.10	4.00
Road 141: GLE12											
Flow:	4.00	19.00%	70.00	km/h	Existing Road	Speed:	70.00	km/h	Existing Road	Speed:	70.00
1	836514.70	815747.90	14.00	Bituminous	1.50	mm	.00	1	836004.80	815639.80	4.00
2	836529.60	815744.10	14.00	Bituminous	1.50	mm	.00	2	836114.00	815643.10	4.00
3	836543.70	815747.90	14.00	Bituminous	1.50	mm	.00	3	836173.00	815648.10	4.00
4	836554.70	815747.90	14.00	Bituminous	1.50	mm	.00	4	836230.30	815655.80	4.00
5	836566.60	815775.20	14.00	Bituminous	1.50	mm	.00	5	836275.20	815669.60	4.00
6	836672.10	815782.30	14.00	Bituminous	1.50	mm	.00	6	836297.40	815677.10	4.00
7	836681.40	815793.50	14.00	Bituminous	1.50	mm	.00	7	836317.00	815686.10	4.00
8	836699.70	815797.90	14.00	Bituminous	1.50	mm	.00	8	836317.00	815686.10	4.00
9	836699.70	815801.90	14.00	Bituminous	1.50	mm	.00	9	836230.30	815655.80	4.00
10	836709.10	815806.10	14.00	Bituminous	1.50	mm	.00	10	836275.20	815669.60	4.00
11	836718.40	815810.20	14.00	Bituminous	1.50	mm	.00	11	836297.40	815677.10	4.00
12	836787.50	815842.00	14.00	Bituminous	1.50	mm	.00	12	836317.00	815686.10	4.00
13	836755.30	815827.30	14.00	Bituminous	1.50	mm	.00	13	836317.00	815686.10	4.00
14	836737.70	815819.20	14.00	Bituminous	1.50	mm	.00	14	836230.30	815655.80	4.00
15	836718.40	815810.20	14.00	Bituminous	1.50	mm	.00	15	836275.20	815669.60	4.00
16	836686.60	815775.20	14.00	Bituminous	1.50	mm	.00	16	836297.40	815677.10	4.00
17	836672.10	815782.30	14.00	Bituminous	1.50	mm	.00	17	836317.00	815686.10	4.00
18	836666.60	815775.20	14.00	Bituminous	1.50	mm	.00	18	836317.00	815686.10	4.00
19	836672.10	815782.30	14.00	Bituminous	1.50	mm	.00	19	836230.30	815655.80	4.00
20	836669.70	815797.90	14.00	Bituminous	1.50	mm	.00	20	836275.20	815669.60	4.00
21	836699.70	815801.90	14.00	Bituminous	1.50	mm	.00	21	836297.40	815677.10	4.00
22	836709.10	815806.10	14.00	Bituminous	1.50	mm	.00	22	836317.00	815686.10	4.00
23	836718.40	815810.20	14.00	Bituminous	1.50	mm	.00	23	836317.00	815686.10	4.00
24	836787.50	815842.00	14.00	Bituminous	1.50	mm	.00	24	836230.30	815655.80	4.00
25	836755.30	815827.30	14.00	Bituminous	1.50	mm	.00	25	836275.20	815669.60	4.00
26	836737.70	815819.20	14.00	Bituminous	1.50	mm	.00	26	836297.40	815677.10	4.00
27											

Flow: 2013.00(12.50%hv)	Speed: 70.00 km/h	Texture Depth: 1.50 mm	6	838327.86	817123.26	11.30	7.00	Bituminous	Y
1 835845.20	4.00	Bituminous	7	838271.63	817112.89	11.00			
2 838833.00	4.00	Bituminous							
3 83816.30	4.00	Bituminous							
4 835811.70	4.00	Bituminous							
5 835728.40	4.00	Bituminous							
6 835683.30	4.00	Bituminous							
7 835640.69	4.00	Bituminous							

Flow: 181.00(19.00%hv)	Speed: 70.00 km/h	Texture Depth: 1.50 mm	1	835482.80	815763.00	1.37			
2 835446.50	5.10	Bituminous	3	835431.50	815758.30	7.46			
4 835415.80	7.40	Bituminous	5	835402.10	815746.40	.00			
6 835392.00	8.60	Bituminous							

Flow: 701.00(11.00%hv)	Speed: 70.00 km/h	Texture Depth: 1.50 mm	1	835404.80	815762.00	4.10			
2 835390.70	4.10	Bituminous	3	835380.40	815739.20				

Flow: 1241.00(14.00%hv)	Speed: 50.00 km/h	Texture Depth: 1.50 mm	1	837279.72	816138.48	.22			
2 837266.24	4.80	Bituminous	3	837156.60	816187.82	.00			
4 837152.11	4.80	Bituminous	5	837066.09	816232.67				

Flow: 1293.00(29.00%hv)	Speed: 50.00 km/h	Texture Depth: 1.50 mm	1	836618.35	815926.74	.00			
2 836632.49	12.00	Bituminous	3	836643.97	815929.83	.00			
4 836661.01	11.90	Bituminous	5	836673.97	815933.53	.00			
6 836686.32	11.60	Bituminous							

Flow: 1293.00(29.00%hv)	Speed: 50.00 km/h	Texture Depth: 1.50 mm	1	836686.21	815933.76	.00			
2 836698.65	11.50	Bituminous	3	836712.14	815929.79	.00			
4 836729.87	11.10	Bituminous	5	836746.80	815918.15	.00			

Flow: 6535.00(13.00%hv)	Speed: 70.00 km/h	Texture Depth: 1.50 mm	1	838051.70	817068.09	.00			
2 838065.09	14.20	Pervious	3	838073.19	817082.56	1.51			
4 838085.85	14.00	Pervious	5	838097.75	817093.98				

Flow: 6535.00(13.00%hv)	Speed: 70.00 km/h	Texture Depth: 1.50 mm	1	838097.75	817093.98	.00			
2 838133.88	14.00	Pervious	3	838161.13	817118.31				

Flow: 6535.00(13.00%hv)	Speed: 70.00 km/h	Texture Depth: 1.50 mm	1	838161.13	817118.31	.00			
2 838188.19	13.60	Pervious	3	838216.53	817132.82	.00			
4 838227.37	13.40	Pervious	5	838237.69	817137.06				

Flow: 959.00(11.00%hv)	Speed: 50.00 km/h	Texture Depth: 1.50 mm	1	838474.04	817126.97	2.99			
2 838453.40	6.00	Bituminous	3	838434.75	817148.00	4.11			
4 838406.04	8.50	Bituminous	5	838368.34	817132.79	3.13			

2 837722.37 816257.53
 3 837731.34 816259.75
 4 837757.48 816261.12
 5 837778.86 816261.91

Sample In.txt
 4.00
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Existing Road
 Speed: 50.00 km/h
 1 837791.93 816204.20
 2 837777.10 816203.90
 3 837755.77 816202.66
 4 837741.45 816201.68
 5 837727.65 816201.51

Texture Depth: 1.20 mm
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Sample In.txt
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815922.81
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Road 201: SF ST
 Flow: 105.00(12.00%V) veh/hr
 1 837791.93 816204.20
 2 837777.10 816203.90
 3 837755.77 816202.66
 4 837741.45 816201.68
 5 837727.65 816201.51

Barr. Cantilever
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Segment Length
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815906.19
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Barrier Configuration :
 Node Easting Northing
 1 835807.13 815951.88
 2 835817.38 815949.31
 3 835830.88 815949.31
 4 835844.13 815949.88
 5 835856.19 815950.81
 6 835865.38 815951.31
 7 835873.38 815951.81
 8 835882.88 815952.31
 9 835893.81 815952.88
 10 835906.31 815953.50
 11 835906.50 815948.88
 12 835906.63 815944.81
 13 835883.81 815942.81
 14 835874.88 815942.31
 15 835866.81 815941.88
 16 835856.88 815941.31
 17 835844.88 815940.50
 18 835832.81 815939.88
 19 835807.81 815938.38

Flyover barrier (1)
 815906.19
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 815910.13
 815910.81
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 815915.13
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Barrier 5: DAB1
 1 837518.19 816183.88
 2 837501.38 816183.81
 3 837491.13 816147.38
 4 837481.69 816141.38
 5 837472.13 816135.81
 6 837463.19 816130.63
 7 837453.69 816125.81
 8 837444.50 816121.63
 9 837435.66 816118.60
 10 837427.71 816116.31
 11 837419.15 816114.41
 12 837411.91 816112.88
 13 837400.66 816110.86
 14 837390.51 816109.73

Grade barrier
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Barrier 4: D3B1B
 1 836505.81 815984.81
 2 836512.81 815987.31
 3 836519.81 815989.88
 4 836527.31 815992.50
 5 836535.13 815995.63
 6 836541.31 815997.31
 7 836547.50 815997.88
 8 836554.88 815996.81
 9 836559.88 815994.88
 10 836566.81 815989.88
 11 836573.38 815980.63
 12 836576.50 815973.00
 13 836580.81 815961.00
 14 836585.81 815947.63
 15 836589.50 815939.38
 16 836594.50 815934.38
 17 836600.19 815930.68
 18 836609.63 815929.38
 19 836618.50 815929.88

Flyover barrier (2)
 815984.81
 815987.31
 815989.88
 815992.50
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 815997.31
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Barrier 6: DAB2
 1 837390.51 816109.73
 2 837390.51 816109.73
 3 837390.51 816102.33
 4 837401.90 816103.10
 5 837420.81 816106.88

Grade barrier
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Reflective
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Barrier 7: DAB3
 1 837420.88 816106.81
 2 837429.57 816108.93
 3 837437.96 816111.41
 4 837447.53 816114.81
 5 837457.51 816118.94
 6 837466.31 816123.63
 7 837475.81 816128.69
 8 837485.55 816134.27
 9 837496.00 816141.00
 10 837505.30 816146.03
 11 837522.57 816153.66
 12 837540.51 816164.83

Flyover barrier (2)
 816106.81
 816108.93
 816111.41
 816114.81
 816118.94
 816123.63
 816128.69
 816134.27
 816141.00
 816146.03
 816153.66
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Barrier 8: DAB4
 1 837705.31 816239.38
 2 837707.63 816235.13
 3 837709.63 816230.88
 4 837711.31 816227.31
 5 837711.31 816227.31

Grade barrier
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Reflective
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Barrier 9: DAB8
 1 837728.69 816171.50
 2 837727.38 816178.31
 3 837725.13 816187.50
 4 837722.38 816196.50
 5 837720.63 816204.69
 6 837716.31 816213.31

Flyover barrier (2)
 816171.50
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 816187.50
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 816213.31

Group:2
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Barrier 10: D4FLA
 1 836508.19 815978.13
 2 836515.31 815980.50
 3 836522.63 815983.13
 4 836530.00 815985.63
 5 836537.38 815988.19
 6 836542.19 815989.81
 7 836547.69 815989.88
 8 836552.81 815989.88
 9 836557.69 815986.88
 10 836561.88 815983.69
 11 836566.63 815976.88
 12 836569.50 815969.50
 13 836573.81 815977.88
 14 836578.88 815944.31
 15 836583.88 815933.63
 16 836591.31 815926.88

Flyover barrier (2)
 815978.13
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 815983.13
 815985.63
 815988.19
 815989.81
 815989.88
 815989.88
 815986.88
 815983.69
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1	837117.84	816052.17	20.44	3	837223.80	815969.50	8.30	.00	Reflective	.00	Reflective	12.55	
2	837133.70	816063.07	20.12	4	837219.80	815981.40	9.30	.00	Reflective	.00	Reflective	11.99	
3	837150.13	816076.69	16.22	5	837215.80	815992.70	10.20	.00	Reflective	.00	Reflective	12.21	
4	837163.48	816085.90	12.98	6	837212.00	816004.30	11.10	.00	Reflective	.00	Reflective	10.97	
5	837176.31	816087.85	16.19	7	837199.80	816040.30	11.10	.00	Reflective	.00	Reflective	37.73	
6	837192.45	816086.53	13.84	8	837189.40	816050.00	11.10	.00	Reflective	.00	Reflective	9.78	
7	837205.35	816081.52	16.74	9	837185.30	816050.80	11.10	.00	Reflective	.00	Reflective	9.29	
8	837218.32	816070.94	18.51	10	837181.70	816063.00	11.40	.00	Reflective	.00	Reflective	6.43	
9	837227.84	816055.06	14.91	11	837175.50	816064.70	11.80	.00	Reflective	.00	Reflective	8.72	
10	837231.76	816041.53	18.25	12	837166.80	816064.10	12.10	.00	Reflective	.00	Reflective	5.95	
11	837231.74	816023.28	9.92	13	837161.20	816062.10	11.70	.00	Reflective	.00	Reflective	6.76	
12	837233.33	816013.49	20.90	14	837155.30	816058.80	10.10	.00	Reflective	.00	Reflective	15.84	
Barrier 11: D4FB													
1	837124.69	816043.31	20.90	15	837143.80	816047.90	7.70	.00	Reflective	.00	Reflective	26.67	
2	837140.31	816057.19	18.29	16	837123.50	816030.60	5.60	.00	Reflective	.00	Reflective	21.92	
3	837154.38	816068.88	12.48	17	837106.80	816016.40	4.30	.00	Reflective	.00	Reflective		
4	837165.81	816073.88	10.72	Flyover barrier (1)									Group:16
5	837176.38	816073.69	12.22	1	837240.20	815943.70	7.40	.00	Reflective	.00	Reflective	18.41	
6	837188.50	816074.13	11.80	2	837234.20	815961.10	8.30	.00	Reflective	.00	Reflective	11.13	
7	837199.72	816070.59	11.36	3	837230.80	815971.70	9.30	.00	Reflective	.00	Reflective	12.27	
8	837208.99	816064.02	14.18	4	837226.80	815983.30	10.20	.00	Reflective	.00	Reflective	12.02	
9	837216.77	816052.17	12.93	5	837223.00	815994.70	11.10	.00	Reflective	.00	Reflective	12.84	
10	837220.10	816039.68	16.94	6	837219.00	816006.90	11.10	.00	Reflective	.00	Reflective	37.38	
11	837219.57	816022.75	10.93	7	837207.00	816042.30	11.10	.00	Reflective	.00	Reflective	12.96	
12	837220.90	816011.90	4.80	8	837202.10	816054.30	11.10	.00	Reflective	.00	Reflective	11.10	
Barrier 12: D1BARA													
1	835783.86	816069.51	6.00	9	837194.30	816063.90	11.10	.00	Reflective	.00	Reflective	9.80	
2	835771.16	816061.30	15.12	10	837184.90	816069.80	11.40	.00	Reflective	.00	Reflective	9.90	
3	835763.22	816053.10	11.41	11	837175.40	816072.20	12.10	.00	Reflective	.00	Reflective	8.34	
4	835744.44	816030.08	29.71	12	837165.50	816071.90	12.00	.00	Reflective	.00	Reflective	8.61	
5	835733.06	816014.47	19.32	13	837157.80	816068.70	11.70	.00	Reflective	.00	Reflective	15.52	
6	835710.26	815988.86	34.29	14	837150.40	816064.30	10.10	.00	Reflective	.00	Reflective	26.66	
7	835701.66	815998.12	12.64	15	837138.70	816054.10	7.70	.00	Reflective	.00	Reflective	22.07	
8	835755.69	816023.75	34.77	16	837118.50	816036.70	5.60	.00	Reflective	.00	Reflective		
9	835744.22	816051.70	22.95	17	837101.60	816022.50	4.30	.00	Reflective	.00	Reflective		
10	835758.99	816068.45	19.69	Flyover barrier (1)									Group:15
11	835775.30	816079.48	46.76	1	836797.00	815884.80	6.50	.00	Reflective	.00	Reflective	11.79	
Barrier 13: Bu10													
1	837744.70	816426.20	59.22	2	836785.60	815887.80	7.40	.00	Reflective	.00	Reflective	16.95	
2	837709.00	816456.20	46.83	3	836769.60	815893.40	8.00	.00	Reflective	.00	Reflective	16.27	
3	837660.80	816472.00	61.75	4	836754.40	815899.20	9.10	.00	Reflective	.00	Reflective	13.00	
4	837684.81	816389.81	89.20	5	836742.20	815903.70	10.20	.00	Reflective	.00	Reflective		
5	837744.70	816426.19	13.29	Flyover barrier (2)									Group:15
Barrier 14: Bu4													
1	837770.90	816023.80	13.60	1	836802.50	815900.80	5.40	.00	Reflective	.00	Reflective	10.18	
2	837758.20	816027.70	6.24	2	836793.10	815904.70	7.40	.00	Reflective	.00	Reflective	17.79	
3	837754.10	816032.40	13.60	3	836776.50	815911.10	8.00	.00	Reflective	.00	Reflective	15.67	
4	837751.30	816046.10	19.63	4	836761.90	815916.80	9.10	.00	Reflective	.00	Reflective	13.29	
5	837740.20	816063.70	20.64	5	836749.40	815921.30	10.20	.00	Reflective	.00	Reflective		
6	837748.90	816086.30	7.50	Grade barrier									Group:15
7	837748.60	816093.80	7.50	1	837277.80	815814.20	6.60	.00	Reflective	.00	Reflective	11.89	
8	837747.60	816108.40	14.63	2	837281.80	815803.00	7.40	.00	Reflective	.00	Reflective	6.57	
Barrier 15: Bu5													
1	837745.60	816146.60	48.56	3	837284.30	815794.80	8.30	.00	Reflective	.00	Reflective	7.67	
2	837743.10	816195.10	22.52	4	837287.20	815787.70	9.10	.00	Reflective	.00	Reflective	8.79	
3	837785.60	816196.00	23.19	5	837289.80	815779.30	9.90	.00	Reflective	.00	Reflective	12.02	
Barrier 16: Bu6													
1	837735.10	816209.90	20.89	6	837293.60	815767.90	10.70	.00	Reflective	.00	Reflective	13.72	
2	837728.40	816232.10	44.25	7	837298.00	815754.90	11.30	.00	Reflective	.00	Reflective	42.41	
3	837720.40	816251.40	72.40	8	837311.80	815714.80	11.00	.00	Reflective	.00	Reflective		
4	837764.60	816253.60	72.20	Grade barrier									Group:15
Barrier 17: Bu9													
1	837640.90	816353.90	38.95	1	837284.10	815816.00	6.60	.00	Reflective	.00	Reflective	11.58	
2	837608.90	816376.10	5.77	2	837288.00	815805.10	7.40	.00	Reflective	.00	Reflective	8.48	
3	837607.30	816381.70	54.70	3	837290.80	815797.10	8.30	.00	Reflective	.00	Reflective	7.94	
4	837651.50	816414.20	45.83	4	837293.40	815789.60	9.10	.00	Reflective	.00	Reflective	8.51	
5	837684.50	816382.40	52.10	5	837296.00	815781.50	9.90	.00	Reflective	.00	Reflective	12.05	
6	837640.90	816353.88	82.00	6	837299.90	815770.10	10.70	.00	Reflective	.00	Reflective	13.92	
Barrier 18: B17a													
1	837233.10	815941.40	17.96	7	837304.60	815757.00	11.30	.00	Reflective	.00	Reflective	42.19	
2	837227.60	815958.50	11.64	8	837318.60	815717.20	11.00	.00	Reflective	.00	Reflective		
Barrier 19: B17b													
1	837240.20	815943.70	7.40	Flyover barrier (2)									Group:13
2	837234.20	815961.10	8.30	1	836632.70	815877.00	6.60	.00	Reflective	.00	Reflective	8.99	
3	837230.80	815971.70	9.30	2	836624.30	815873.80	7.10	.00	Reflective	.00	Reflective	8.68	
4	837226.80	815983.30	10.20	3	836617.20	815868.80	7.70	.00	Reflective	.00	Reflective	7.58	
5	837223.00	815994.70	11.10	4	836612.20	815863.10	8.20	.00	Reflective	.00	Reflective	6.62	
6	837219.00	816006.90	11.10	5	836609.20	815857.20	9.30	.00	Reflective	.00	Reflective	6.55	
7	837207.00	816042.30	11.10	6	836607.40	815850.90	9.90	.00	Reflective	.00	Reflective	6.54	
8	837202.10	816054.30	11.10	7	836606.70	815844.40	10.40	.00	Reflective	.00	Reflective	7.02	
9	837194.30	816063.90	11.10	8	836607.20	815837.40	11.00	.00	Reflective	.00	Reflective	7.09	
10	837184.90	816069.80	11.40	9	836609.20	815830.60	11.00	.00	Reflective	.00	Reflective	7.16	
11	837175.40	816072.20	12.10	Flyover barrier (2)									Group:13
12	837165.50	816071.90	12.00	1	836632.70	815877.00	6.60	.00	Reflective	.00	Reflective	8.99	
13	837157.80	816068.70	11.70	2	836624.30	815873.80	7.10	.00	Reflective	.00	Reflective	8.68	
14	837150.40	816064.30	10.10	3	836617.20	815868.80	7.70	.00	Reflective	.00	Reflective	7.58	
15	837138.70	816054.10	7.70	4	836612.20	815863.10	8.20	.00	Reflective	.00	Reflective	6.62	
16	837118.50	816036.70	5.60	5	836609.20	815857.20	9.30	.00	Reflective	.00	Reflective	6.55	
17	837101.60	816022.50	4.30	6	836607.40	815850.90	9.90	.00	Reflective	.00	Reflective	6.54	
Barrier 20: B18a													
1	836797.00	815884.80	6.50	7	836606.70	815844.40	10.40	.00	Reflective	.00	Reflective	7.02	
2	836785.60	815887.80	7.40	8	836607.20	815837.40	11.00	.00	Reflective	.00	Reflective	7.09	
3	836769.60	815893.40	8.00	9	836609.20	815830.60	11.00	.00	Reflective	.00	Reflective	7.16	
4	836754.40	815899.20	9.10	Flyover barrier (2)									Group:13
5	836742.20	815903.70	10.20	1	836632.70	815877.00	6.60	.00	Reflective	.00	Reflective	8.99	
Barrier 21: B18b													
1	836802.50	815900.80	5.40	2	836624.30	815873.80	7.10	.00	Reflective	.00	Reflective	8.68	
2	836793.10	815904.70	7.40	3	836617.20	815868.80	7.70	.00	Reflective	.00	Reflective	7.58	
3	836776.50	815911.10	8.00	4	836612.20	815863.10	8.20	.00	Reflective	.00	Reflective	6.62	
4	836761.90	815916.80	9.10	5	836609.20	815857.20	9.30	.00	Reflective	.00	Reflective	6.55	
5	836749.40	815921.30	10.20	6	836607.40	815850.90	9.90	.00	Reflective	.00	Reflective	6.54	
Barrier 22: B28a													
1	837277.80	815814.20	6.60	7	836606.70	815844.40	10.40	.00	Reflective	.00	Reflective	7.02	
2	837281.80	815803.00	7.40	8	836607.20	815837.40	11.00	.00	Reflective	.00	Reflective	7.09	
3	837284.30	815794.80	8.30	Flyover barrier (2)									Group:13
4	837287.20	815787.70	9.10	1	836632.70	815877.00	6.60	.00	Reflective	.00	Reflective	8.99	
5	837289.80	815779.30	9.90	2	836624.30	815873.80	7.10	.00	Reflective	.00	Reflective	8.68	
6	837293.60	815767.90	10.70	3	836617.20	815868.80	7.70	.00	Reflective	.00	Reflective	7.58	
7	837298.00	815754.90	11.30	4	836612.20	815863.10	8.20	.00	Reflective	.00	Reflective	6.62	
8	8373												

10	836612.60	815824.30	11.00	.00	Sample In.txt	.00	.00	Reflective	.00	7.39	8	836495.70	815769.10	9.60	.00	Sample In.txt	.00	Reflective	.00	13.44
11	836617.50	815818.60	11.00	.00	.00	.00	.00	Reflective	.00	8.88	9	836491.30	815781.80	8.20	.00	.00	.00	Reflective	.00	14.30
12	836624.10	815813.20	11.00	.00	.00	.00	.00	Reflective	.00	8.86	10	836491.30	815796.10	6.80	.00	.00	.00	Reflective	.00	13.16
13	836631.20	815807.90	11.00	.00	.00	.00	.00	Reflective	.00	10.17	11	836495.70	815808.60	5.40	.00	.00	.00	Reflective	.00	9.21
14	836639.10	815801.50	11.00	.00	.00	.00	.00	Reflective	.00	10.98	12	836500.40	815816.40	4.00	.00	.00	.00	Reflective	.00	10.47
15	836647.30	815794.20	11.00	.00	.00	.00	.00	Reflective	.00	20.36	13	836508.10	815823.50	4.00	.00	.00	.00	Reflective	.00	10.47
16	836660.50	815778.70	11.00	.00	.00	.00	.00	Reflective	.00											
Barrier 25: B19b																				
1	836623.70	815897.50	5.50	.00	Flyover barrier (1)	.00	.00	Reflective	.00	15.53	1	836584.00	815749.40	5.20	.00	Flyover barrier (1)	.00	Reflective	.00	11.81
2	836610.90	815888.70	6.80	.00	.00	.00	.00	Reflective	.00	10.48	2	836595.00	815753.70	6.30	.00	.00	.00	Reflective	.00	11.94
3	836603.10	815881.70	6.80	.00	.00	.00	.00	Reflective	.00	10.26	3	836606.10	815758.10	7.50	.00	.00	.00	Reflective	.00	11.64
4	836596.80	815873.60	7.70	.00	.00	.00	.00	Reflective	.00	10.93	4	836616.80	815762.60	8.10	.00	.00	.00	Reflective	.00	11.64
5	836591.40	815864.10	8.50	.00	.00	.00	.00	Reflective	.00	11.10	5	836627.90	815766.10	8.70	.00	.00	.00	Reflective	.00	6.80
6	836588.10	815853.50	9.30	.00	.00	.00	.00	Reflective	.00	9.83	6	836634.70	815766.10	9.80	.00	.00	.00	Reflective	.00	6.77
7	836587.30	815843.70	10.20	.00	.00	.00	.00	Reflective	.00	10.77	7	836641.10	815763.90	11.00	.00	.00	.00	Reflective	.00	
8	836588.50	815833.00	11.00	.00	.00	.00	.00	Reflective	.00	10.18	Barrier 31: B22b									
9	836591.60	815823.30	11.00	.00	.00	.00	.00	Reflective	.00	10.62	1	836581.60	815755.30	5.20	.00	Flyover barrier (2)	.00	Reflective	.00	11.70
10	836586.90	815814.10	11.00	.00	.00	.00	.00	Reflective	.00	10.72	2	836592.40	815759.80	5.80	.00	.00	.00	Reflective	.00	12.11
11	836603.80	815805.90	11.00	.00	.00	.00	.00	Reflective	.00	10.54	3	836603.60	815764.40	6.50	.00	.00	.00	Reflective	.00	11.53
12	836611.50	815798.70	11.00	.00	.00	.00	.00	Reflective	.00	9.95	4	836614.30	815768.70	7.50	.00	.00	.00	Reflective	.00	11.75
13	836619.20	815792.40	11.00	.00	.00	.00	.00	Reflective	.00	10.08	5	836625.20	815773.10	8.70	.00	.00	.00	Reflective	.00	10.75
14	836627.30	815786.40	11.00	.00	.00	.00	.00	Reflective	.00	10.12	6	836635.90	815774.10	9.80	.00	.00	.00	Reflective	.00	3.45
15	836634.80	815779.60	11.00	.00	.00	.00	.00	Reflective	.00	6.72	7	836639.30	815773.50	11.00	.00	.00	.00	Reflective	.00	
16	836639.40	815774.70	11.00	.00	.00	.00	.00	Reflective	.00											
Barrier 26: B20a																				
1	836482.80	815825.10	4.90	.00	Flyover barrier (2)	.00	.00	Reflective	.00	9.66	1	836641.00	815763.90	11.00	.00	Flyover barrier (1)	.00	Reflective	.00	8.91
2	836486.30	815816.10	4.90	.00	.00	.00	.00	Reflective	.00	11.48	2	836647.50	815757.80	11.00	.00	.00	.00	Reflective	.00	23.05
3	836470.20	815805.30	6.40	.00	.00	.00	.00	Reflective	.00	10.48	3	836656.30	815736.50	11.00	.00	.00	.00	Reflective	.00	38.55
4	836473.90	815795.50	7.90	.00	.00	.00	.00	Reflective	.00	10.92	4	836669.00	815705.50	11.00	.00	.00	.00	Reflective	.00	35.55
5	836477.30	815785.30	9.30	.00	.00	.00	.00	Reflective	.00	23.76	5	836683.30	815669.70	11.00	.00	.00	.00	Reflective	.00	50.80
6	836486.00	815763.00	10.70	.00	.00	.00	.00	Reflective	.00	19.31	6	836701.30	815622.20	11.00	.00	.00	.00	Reflective	.00	13.22
7	836493.00	815745.00	10.70	.00	.00	.00	.00	Reflective	.00	20.61	7	836704.20	815609.30	11.00	.00	.00	.00	Reflective	.00	8.75
8	836500.50	815725.80	10.70	.00	.00	.00	.00	Reflective	.00	22.25	8	836705.10	815600.60	11.00	.00	.00	.00	Reflective	.00	
9	836508.40	815703.00	10.70	.00	.00	.00	.00	Reflective	.00	12.55	Barrier 33: B23b									
10	836513.20	815693.40	8.90	.00	.00	.00	.00	Reflective	.00	10.45	1	836670.40	815775.40	11.00	.00	Flyover barrier (2)	.00	Reflective	.00	8.41
11	836517.10	815683.70	7.20	.00	.00	.00	.00	Reflective	.00	9.81	2	836679.20	815767.00	11.00	.00	.00	.00	Reflective	.00	22.93
12	836521.20	815673.60	5.50	.00	.00	.00	.00	Reflective	.00	9.81	3	836691.60	815714.30	11.00	.00	.00	.00	Reflective	.00	33.76
13	836525.10	815664.60	3.70	.00	.00	.00	.00	Reflective	.00		4	836695.90	815678.60	11.00	.00	.00	.00	Reflective	.00	38.46
14	836535.70	815649.60	6.40	.00	.00	.00	.00	Reflective	.00	9.49	5	836705.90	815678.60	11.00	.00	.00	.00	Reflective	.00	50.58
15	836545.70	815822.60	7.90	.00	.00	.00	.00	Reflective	.00	11.29	6	836724.60	815631.60	11.00	.00	.00	.00	Reflective	.00	17.01
16	836549.00	815813.70	9.50	.00	.00	.00	.00	Reflective	.00	11.33	7	836730.10	815615.50	11.00	.00	.00	.00	Reflective	.00	15.70
17	836482.90	815803.10	10.70	.00	.00	.00	.00	Reflective	.00	10.82	8	836733.60	815600.20	11.00	.00	.00	.00	Reflective	.00	
18	836479.50	815782.30	10.70	.00	.00	.00	.00	Reflective	.00	23.62	Barrier 34: B24a									
19	836479.50	815760.30	10.70	.00	.00	.00	.00	Reflective	.00	19.43	1	836717.10	815813.20	4.00	.00	Flyover barrier (2)	.00	Reflective	.00	10.03
20	836485.90	815742.10	10.70	.00	.00	.00	.00	Reflective	.00	20.32	2	836707.90	815809.20	5.00	.00	.00	.00	Reflective	.00	10.39
21	836493.10	815723.10	10.70	.00	.00	.00	.00	Reflective	.00	22.32	3	836698.40	815805.00	6.00	.00	.00	.00	Reflective	.00	9.62
22	836501.20	815702.30	10.70	.00	.00	.00	.00	Reflective	.00	12.61	4	836689.70	815800.90	7.00	.00	.00	.00	Reflective	.00	10.42
23	836505.80	815690.60	8.90	.00	.00	.00	.00	Reflective	.00	10.90	5	836680.30	815796.40	8.00	.00	.00	.00	Reflective	.00	12.64
24	836510.00	815680.50	7.20	.00	.00	.00	.00	Reflective	.00	10.10	6	836669.40	815700.00	9.00	.00	.00	.00	Reflective	.00	7.07
25	836513.70	815671.10	3.50	.00	.00	.00	.00	Reflective	.00	10.40	7	836663.50	815784.10	10.00	.00	.00	.00	Reflective	.00	5.99
26	836517.70	815661.50	3.70	.00	.00	.00	.00	Reflective	.00		8	836662.90	815778.70	11.00	.00	.00	.00	Reflective	.00	
Barrier 28: B21a																				
1	836597.10	815762.90	5.20	.00	Flyover barrier (1)	.00	.00	Reflective	.00	19.63	1	836719.50	815807.40	4.00	.00	Flyover barrier (2)	.00	Reflective	.00	9.98
2	836578.80	815755.80	6.30	.00	.00	.00	.00	Reflective	.00	20.41	2	836710.40	815803.30	5.00	.00	.00	.00	Reflective	.00	10.29
3	836559.90	815748.10	7.50	.00	.00	.00	.00	Reflective	.00	15.67	3	836701.10	815798.90	6.00	.00	.00	.00	Reflective	.00	9.89
4	836545.30	815742.40	8.70	.00	.00	.00	.00	Reflective	.00	12.97	4	836692.10	815794.80	7.00	.00	.00	.00	Reflective	.00	10.25
5	836539.40	815740.90	8.70	.00	.00	.00	.00	Reflective	.00	16.32	5	836685.80	815790.50	8.00	.00	.00	.00	Reflective	.00	9.50
6	836533.50	815744.60	9.80	.00	.00	.00	.00	Reflective	.00	13.80	6	836675.20	815784.80	9.00	.00	.00	.00	Reflective	.00	2.19
7	836500.00	815752.80	11.00	.00	.00	.00	.00	Reflective	.00	16.34	7	836672.30	815780.50	10.00	.00	.00	.00	Reflective	.00	5.52
8	836489.60	815765.40	11.00	.00	.00	.00	.00	Reflective	.00	15.94	8	836670.20	815775.40	11.00	.00	.00	.00	Reflective	.00	
9	836484.50	815780.50	9.60	.00	.00	.00	.00	Reflective	.00	16.30	Barrier 36: B25a									
10	836484.30	815796.80	8.20	.00	.00	.00	.00	Reflective	.00	11.15	1	836742.10	815903.60	10.50	.00	Flyover barrier (2)	.00	Reflective	.00	17.01
11	836489.00	815812.00	6.10	.00	.00	.00	.00	Reflective	.00	11.15	2	836725.90	815908.80	11.00	.00	.00	.00	Reflective	.00	
12	836495.40	815821.10	6.80	.00	.00	.00	.00	Reflective	.00	12.41	Barrier 37: B25b									
13	836504.80	815829.20	5.40	.00	.00	.00	.00	Reflective	.00		1	836749.30	815921.20	10.50	.00	Flyover barrier (2)	.00	Reflective	.00	20.34
Barrier 29: B21b																				
1	836594.70	815768.90	5.20	.00	Flyover barrier (2)	.00	.00	Reflective	.00	19.63	2	836730.40	815928.73	11.00	.00	.00	.00	Reflective	.00	18.49
2	836576.40	815761.80	6.30	.00	.00	.00	.00	Reflective	.00	20.48	3	836712.40	815932.96	11.00	.00	.00	.00	Reflective	.00	14.06
3	836557.30	815754.40	7.50	.00	.00	.00	.00	Reflective	.00	14.40	4	836698.65	815935.88	11.20	.00	.00	.00	Reflective	.00	12.25
4	836543.80	815749.40	8.70	.00	.00	.00	.00	Reflective	.00	14.09	5	836686.47	815937.20	11.50	.00	.00	.00	Reflective	.00	
5	836529.80	815747.80	9.80	.00	.00	.00	.00	Reflective	.00	14.53	Barrier 38: B26a									
6	836515.70	815751.30	11.00	.00	.00	.00	.00	Reflective	.00	13.48	1	836725.80	815908.70	10.20						