

2015-2036

MMM – City Wide Integrated Public Transport Plan



Annexure R



INTEGRATED
PUBLIC
TRANSPORT
NETWORK

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R Origin Destination Pairs per Functional Public Transport Corridor

R.1 CBD Functional Public Transport Corridor

The main destinations are presented in Figure R-1 and Figure R-2. The trips from the CBD corridor to these destinations are presented per design year in Table R-1. The person trips represented in the table originate from the corridor in total and present movement from the corridor. This is a strategic indication of movement and cannot be used as is for detail planning and analysis. These movements assist in the design of routes and quantification of demand per route.

The peak hour person trips were classified into minor, secondary and primary movements. The peak hour person trips per movement class are:

Minor Movement	30-180	Equivalent to 2 – 12, 15-seat vehicle trips per hour
Secondary Movement	501-1000	Equivalent to 6 – 12, 78-seat vehicle trips per hour.
Primary Movement	>1000	More than 12, 78-seat vehicle trips per hour.

The person trips to main destinations from the CBD corridor are classified as minor or secondary movements, that indicate that the total demand from the corridor is spread across the city for the 2017 and 2025 design years. For the 2036 design year it is projected that the movement to Turflaagte/Heidedal/Rondenbeck/Bloemanda corridor will increase significantly and will be classified as a main movement.

Table R-1: CBD Corridor Peak Hour Person Trips per Main Destination For 2017, 2025 and 2036

Primary Destination	2017	2025	2036
Airport	37	67	213
Dan Pienaar/ Helicon Heights/Bayswater	59	114	174
Brandwag/ Universitas	199	401	591
Rural Botshabelo North		30	41
Turflaagte/Heidedal/Rondenbeck/Bloemanda	465	882	1,247
Heidedal	31	67	80
Batho/Rocklands	326	591	1,128
Rocklands/JB Mafora	408	809	1,125
Southern Suburbs/Lourier Park		37	70
Rural North	183	329	495
Thaba Nchu	87	172	251
Botshabelo	131	240	256
Rural Botshabelo South		48	58
Rural South West	56	97	73
Rural West	45	81	84

R.2 Airport Functional Public Transport Corridor

The main destination service areas are presented in Figure R-1 and Figure R-2 and the trips from the corridor to these destinations are presented per design year in Table R-2.

Table R-2: Airport Corridor Peak Hour Person Trips per Main Destination For 2017, 2025 and 2036

Primary Destination	2017	2025	2036
CBD	155	521	813
Airport	247	82	152
Dan Pienaar/ Helicon Heights/Bayswater	123	119	141
Brandwag/ Universitas			40
Turflaagte/Heidedal/Rondenbeck/Bloemanda	198	800	1,463
Batho/Rocklands	50	234	463
Rocklands/JB Mafora			49
Southern Suburbs/Lourier Park			37
Thaba Nchu	59	134	268
Rural South East		59	99

R.3 Dan Pienaar/ Helicon Heights/Bayswater Functional Public Transport Corridor

The main destination service areas are presented in Figure R-1 and Figure R-2 and the trips from the corridor to these destinations are presented per design year in Table R-3.

Table R-3: Dan Pienaar/ Helicon Heights/Bayswater Corridor Peak Hour Person Trips per Main Destination For 2017, 2025 and 2036

Primary Destination	2017	2025	2036
CBD	258	274	318
Airport	51	60	118
Dan Pienaar/ Helicon Heights/Bayswater	799	1,059	1,418
Brandwag/ Universitas	792	980	1,295
Rural Botshabelo North	33	38	47
Turflaagte/Heidedal/Rondenbeck/Bloemanda	215	234	302
Batho/Rocklands	39	64	95
Rocklands/JB Mafora	964	1,144	1,427
Southern Suburbs/Lourier Park	67	71	86
Langenhoven Park	95	87	75
Rural North	73	75	79
Thaba Nchu	114	115	131
Botshabelo	83	86	87
Rural South East			
Rural South West	79	82	64

R.4 Brandwag and Universitas Functional Public Transport Corridor

The main destination service areas are presented in Figure R-1 and Figure R-2 and the trips from the corridor to these destinations are presented per design year in Table R-4.

Table R-4: Brandwag and Universitas Corridor Peak Hour Person Trips per Main Destination For 2017, 2025 and 2036

Primary Destination	2017	2025	2036
CBD	605	665	861
Dan Pienaar/ Helicon Heights/Bayswater	180	230	355
Brandwag/ Universitas	465	609	1,014
Rural Botshabelo North		53	106
Turflaagte/Heidedal/Rondenbeck/Bloemanda	646	755	1,245
Batho/Rocklands	276	257	366
Rocklands/JB Mafora	748	439	653
Southern Suburbs/Lourier Park	223	205	297
Langenhoven Park	62	51	73
Rural North	44	45	74
Thaba Nchu	142	153	256
Botshabelo	245	303	366
Rural Botshabelo South		37	58
Rural South East	65	61	81
Rural South West	51	49	48

R.5 Turflaagte/Heidedal/Rondenbeck /Bloemanda Functional Public Transport Corridor

The main destination service areas are presented in Figure R-1 and Figure R-2 and the trips from the corridor to these destinations are presented per design year in Table R-5.

Table R-5: Turflaagte/Heidedal/Rondenbeck/Bloemanda Corridor Peak Hour Person Trips per Main Destination For 2017, 2025 and 2036

Primary Destination	2017	2025	2036
CBD	2,611	2,840	1,869
Airport	3,245	4,766	5,385
Dan Pienaar/ Helicon Heights/Bayswater	1,580	1,546	1,171
Brandwag/ Universitas	3,015	3,313	2,484
Turflaagte/Heidedal/Rondenbeck/Bloemanda	7,443	6,770	3,828
Batho/Rocklands	3,853	3,994	2,919
Rocklands/JB Mafora	1,455	2,079	1,271
Southern Suburbs/Lourier Park	1,247	1,284	915
Langenhoven Park	398	325	235
Rural North	201	261	183
Thaba Nchu	144	141	100
Botshabelo	76	78	33
Rural South East	188	169	73

R.6 Heidedal Functional Public Transport Corridor

The main destination service areas are presented in Figure R-1 and Figure R-2 and the trips from the corridor to these destinations are presented per design year in Table R-6.

Table R-6: Heidedal Corridor Peak Hour Person Trips per Main Destination For 2017, 2025 and 2036

Primary Destination	2017	2025	2036
CBD	204	749	1,180
Brandwag/ Universitas		354	598

R.7 Batho/Rocklands/JB Mafora Functional Public Transport Corridor

The main destination service areas are presented in Figure R-1 and Figure R-2 and the trips from the corridor to these destinations are presented per design year in Table R-7.

Table R-7: Batho/Rocklands/JB Mafora Corridor Peak Hour Person Trips per Main Destination For 2017, 2025 and 2036

Primary Destination	2017	2025	2036
CBD	1,634	1,703	1,535
Airport	868	1,245	1,962
Dan Pienaar/ Helicon Heights/Bayswater	268	278	314
Brandwag/ Universitas	1,366	1,576	2,107
Turflaagte/Heidedal/Rondenbeck/Bloemanda	3,453	3,427	4,081
Batho/Rocklands	3,367	3,935	4,970
Rocklands/JB Mafora	627	1,091	1,450
Southern Suburbs/Lourier Park	901	1,003	1,165
Langenhoven Park	107	94	105
Rural North	47	72	106
Thaba Nchu	110	204	373
Botshabelo	31	45	76
Rural South East	54	54	54

R.8 Rocklands/JB Mafora (OR Tambo) Functional Public Transport Corridor

The main destination service areas are presented in Figure R-1 and Figure R-2 and the trips from the corridor to these destinations are presented per design year in Table R-8.

Table R-8: R.8 Rocklands/JB Mafora Corridor Peak Hour Person Trips per Main Destination For 2017, 2025 and 2036

Primary Destination	2017	2025	2036
CBD	352	661	683
Airport	41	102	298
Dan Pienaar/ Helicon Heights/Bayswater	869	1,222	1,328
Brandwag/ Universitas	1,216	1,507	2,118
Turflaagte/Heidedal/Rondenbeck/Bloemanda	2,150	3,720	4,920
Batho/Rocklands	1,327	1,422	1,958
Rocklands/JB Mafora	1,282	2,211	2,328
Southern Suburbs/Lourier Park	336	775	1,173
Langenhoven Park	854	409	514
Rural North	108	139	125
Thaba Nchu	45	52	68
Botshabelo	66	75	78

R.9 Southern Suburbs/Lourier Park Functional Public Transport Corridor

The main destination service areas are presented in Figure R-1 and Figure R-2 and the trips from the corridor to these destinations are presented per design year in Table R-9.

Table R-9: R.9 Southern Suburbs/Lourier Park Corridor Peak Hour Person Trips per Main Destination For 2017, 2025 and 2036

Primary Destination	2017	2025	2036
CBD	114	237	379
Dan Pienaar/ Helicon Heights/Bayswater			34
Brandwag/ Universitas	547	1,064	1,670
Turflaagte/Heidedal/Rondenbeck/Bloemanda	150	174	265
Batho/Rocklands	324	363	424
Rocklands/JB Mafora	75	142	200
Southern Suburbs/Lourier Park	44	53	82
Langenhoven Park		32	45
Rural North			40
Thaba Nchu	43	70	117
Rural South East	62	71	83

R.10 Langenhoven Park Functional Public Transport Corridor

The main destination service areas are presented in Figure R-1 and Figure R-2 and the trips from the corridor to these destinations are presented per design year in Table R-10.

Table R-10: Langenhoven Park Corridor Peak Hour Person Trips per Main Destination For 2017, 2025 and 2036

Primary Destination	2017	2025	2036
CBD	71	67	60
Dan Pienaar/ Helicon Heights/Bayswater	209	195	177
Brandwag/ Universitas	605	572	676
Rural Botshabelo North	324	292	248
Turflaagte/Heidedal/Rondenbeck/Bloemanda	468	421	498
Batho/Rocklands	38	50	73
Rocklands/JB Mafora	370	31	
Southern Suburbs/Lourier Park	154	164	199
Thaba Nchu	35	33	39

R.11 Thaba Nchu Functional Public Transport Corridor

The main destination service areas are presented in Figure R-1 and Figure R-2 and the trips from the corridor to these destinations are presented per design year in Table R-11.

Table R-11: Thaba Nchu Corridor Peak Hour Person Trips per Main Destination For 2017, 2025 and 2036

Primary Destination	2017	2025	2036
CBD	302	301	242
Airport	352	564	1,056
Dan Pienaar/ Helicon Heights/Bayswater	173	169	165
Brandwag/ Universitas	515	548	518
Rural Botshabelo North	251	261	649
Turflaagte/Heidedal/Rondenbeck/Bloemanda	686	708	772
Batho/Rocklands	201	383	657
Rocklands/JB Mafora	685	795	767
Southern Suburbs/Lourier Park	152	181	159
Langenhoven Park	198	173	132
Rural North	240	410	723
Thaba Nchu	15,132	17,374	19,657
Botshabelo	144	174	117
Rural Botshabelo South	99	98	67

R.12 Botshabelo Functional Public Transport Corridor

The classified movement from the corridor is presented in Table R-12

Table R-12: Botshabelo Corridor Peak Hour Person Trips per Main Destination For 2017, 2025 and 2036

Primary Destination	2017	2025	2036
CBD	1,026	994	1,088
Airport	134	132	244
Dan Pienaar/ Helicon Heights/Bayswater	694	663	704
Brandwag/ Universitas	1,767	1,832	2,188
Rural Botshabelo North		56	317
Turflaagte/Heidedal/Rondenbeck/Bloemanda	667	607	773
Batho/Rocklands	191	265	417
Rocklands/JB Mafora	180	168	224
Southern Suburbs/Lourier Park	71	66	96
Rural North	65	60	62
Thaba Nchu	845	786	1,318
Botshabelo	20,484	19,334	20,576
Rural South East	105	96	111

R.13 Rural Functional Public Transport Corridor

The main destination service areas are presented in Figure R-1 and Figure R-2 and the trips from the corridor to these destinations are presented per design year in Table R-13 to Table R-18.

Table R-13: Rural Botshabelo South Corridor Peak Hour Person Trips per Main Destination For 2017, 2025 and 2036

Primary Destination	2017	2025	2036
CBD	52	50	38
Brandwag/ Universitas	53	55	48
Langenhoven Park	49	39	33
Thaba Nchu	967	909	1,127

Table R-14: Rural South East

Primary Destination	2017	2025	2036
CBD	63	63	51
Airport	194	258	379
Dan Pienaar/ Helicon Heights/Bayswater	133	135	153
Brandwag/ Universitas	454	469	636
Rural Botshabelo North	63	58	33
Turflaagte/Heidedal/Rondenbeck/Bloemanda	507	492	494
Batho/Rocklands	223	222	271
Rocklands/JB Mafora	76	64	63
Southern Suburbs/Lourier Park	387	379	457
Langenhoven Park	44	36	35
Thaba Nchu	34	33	31
Botshabelo	56	72	62
Rural South East	169	177	187

Table R-15: Rural South West

Primary Destination	2017	2025	2036
CBD	284	273	248
Dan Pienaar/ Helicon Heights/Bayswater	357	351	466
Brandwag/ Universitas	229	229	378
Southern Suburbs/Lourier Park	87	90	130
Langenhoven Park	55	43	53
Rural North	762	722	726

Table R-16: Rural West Corridor Peak Hour Person Trips per Main Destination For 2017, 2025 and 2036

Primary Destination	2017	2025	2036
CBD	450	436	324
Brandwag/ Universitas	119	185	537
Turflaagte/Heidedal/Rondenbeck/Bloemanda	229	209	190
Langenhoven Park	133	109	88
Rural North	357	346	371
Rural South East	52	56	58

Table R-17: Rural North Corridor Peak Hour Person Trips per Main Destination For 2017, 2025 and 2036

Primary Destination	2017	2025	2036
CBD	1,815	1,786	2,023
Airport			
Dan Pienaar/ Helicon Heights/Bayswater	519	530	605
Brandwag/ Universitas	343	355	408
Turflaagte/Heidedal/Rondenbeck/Bloemanda	95	130	172
Rocklands/JB Mafora		31	46
Southern Suburbs/Lourier Park	61	70	98
Langenhoven Park	211	183	289
Rural North	258	306	433
Thaba Nchu	74	213	350
Rural South East	60	62	58
Rural South West	452	425	386
Rural West	36	36	38

Table R-18: Rural Botshabelo North Corridor Peak Hour Person Trips per Main Destination For 2017, 2025 and 2036

Primary Destination	2017	2025	2036
CBD	104	118	141
Airport	213	234	351
Dan Pienaar/ Helicon Heights/Bayswater	219	223	218
Brandwag/ Universitas		73	121
Rural Botshabelo North	42	85	174
Turflaagte/Heidedal/Rondenbeck/Bloemanda	30	49	85
Langenhoven Park	377	317	327
Thaba Nchu	1,272	1,427	1,983
Botshabelo		194	366

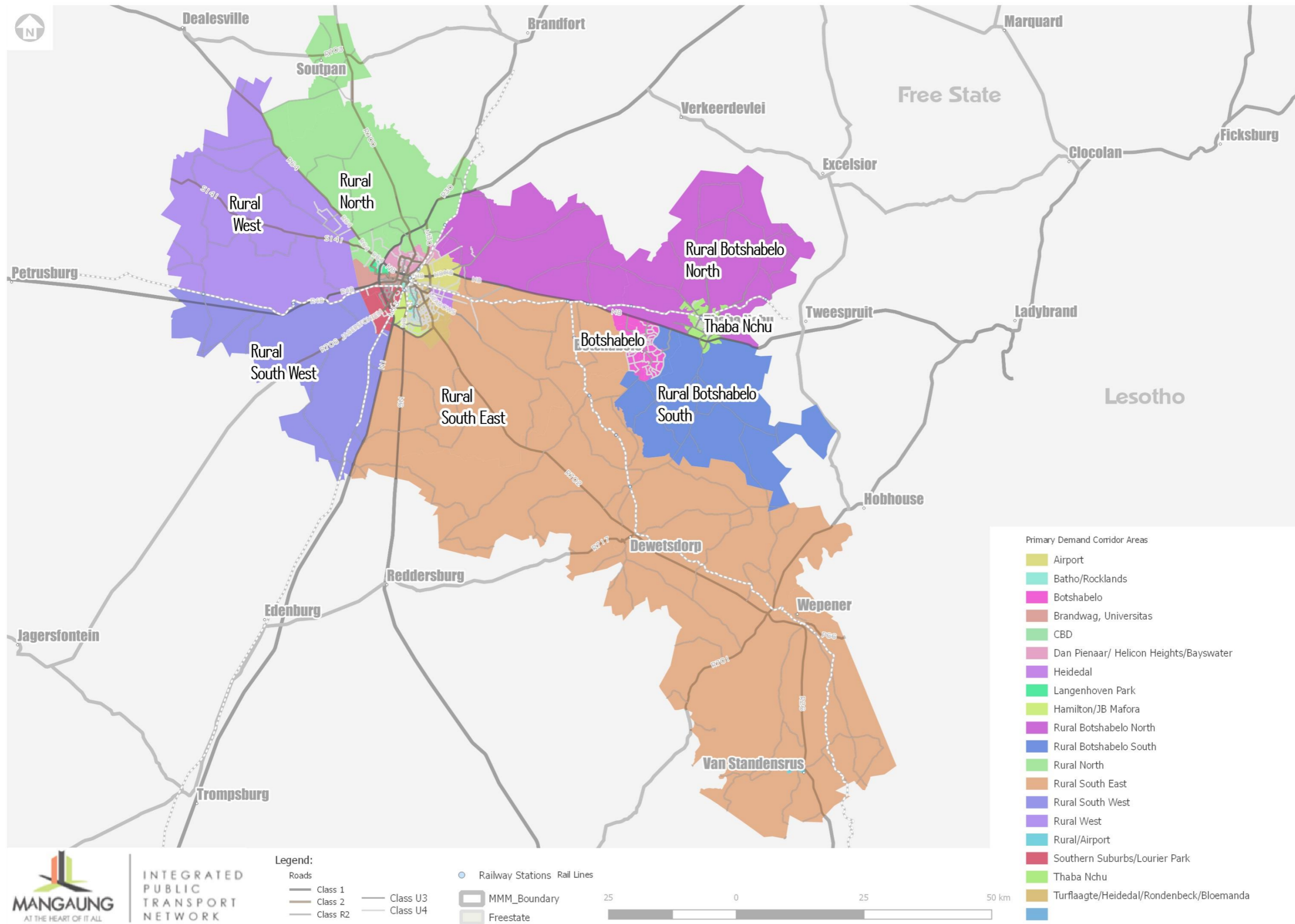
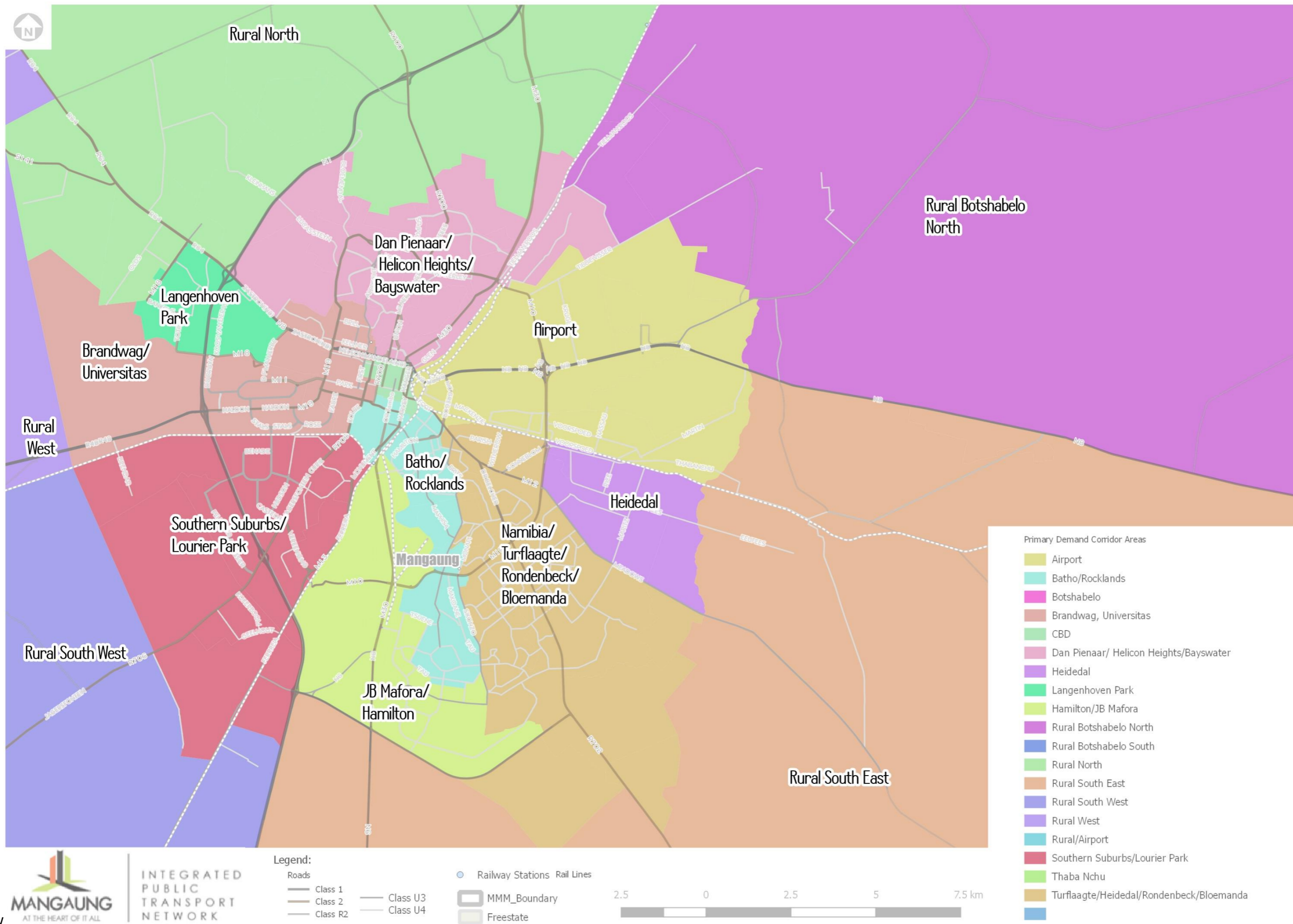


Figure R-1: Mangaung Metropolitan Functional Public Transport Corridors



INTEGRATED
PUBLIC
TRANSPORT
NETWORK

Legend:

Roads

Class 1

Class 2

Class R2

Class U3

Class U4

Railway Stations Rail Lines

MMM_Boundary

Freestate



Figure R-2: Mangaung Metropolitan Functional Public Transport Corridors – Bloemfontein Detail

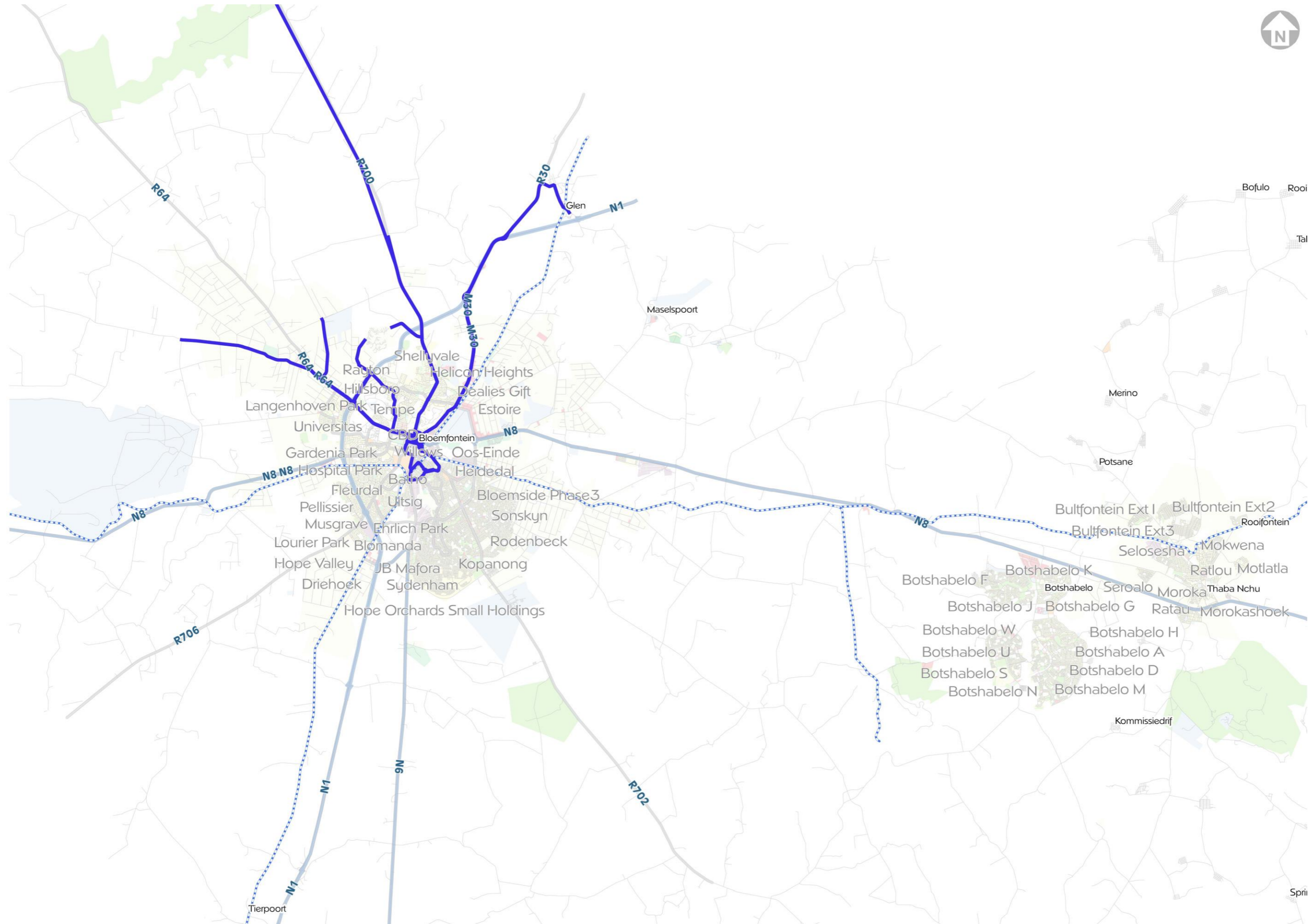


Figure R-3: Long Distance Corridor - Soutpan

