



**SCHEDULE "8"**

**CITY OF EKURHULENI**

**TARIFFS: ROAD RELATED SERVICE PROVISIONS**

In terms of section 75A of the Local Government: Municipal Systems Act, Act 32 of 2000 the City of Ekurhuleni at a meeting held on **31<sup>st</sup> May 2024**, resolved to amend its Tariffs for Road Related Service Provisions with effect from **01 July 2024** as follows:

**Table 1: City of Ekurhuleni Roads Related Tariffs (tariffs subject to CPI/ Escalation):**

Description		Unit	Tariff (VAT Incl.) 2023/2024	Tariff (VAT Incl.) 2024/2025
The Provision of Driveway Entrances		Fixed Charge	R2,461.00	R2,581.00
		Metre	R614.00	R644.00
The Repair / Replacement of Kerbing		Metre	R826.00	R866.00
Tar surface repairs	Verges	m <sup>2</sup>	R745.00	R781.00
	Class 5 Roads	m <sup>2</sup>	R926.00	R971.00
	Class 4 Roads	m <sup>2</sup>	R998.00	R1,046.00
	Class 3 Roads	m <sup>2</sup>	R1,750.00	R1,835.00
The Repair / Provision of block paving		m <sup>2</sup>	R460.00	R482.00
The Repair / Provision of brick paving		m <sup>2</sup>	R460.00	R482.00
Installation of a Speed hump (per running meter along the width of the road including road traffic signs and marks and Labour)		m	R2,267.00	R2,378.00
Removal of a Speed hump (per running meter along the width of the road)		m	R4,764.00	R4,997.00

Description		Unit	Tariff (VAT Incl.) 2023/2024	Tariff (VAT Incl.) 2024/2025
Verge reinstatement	Grass/lawn	m <sup>2</sup>	R83.00	R87.00
	Concrete Paving	m <sup>2</sup>	R460.00	R482.00
	Brick Paving	m <sup>2</sup>	R460.00	R482.00
Penalty for exceeding the time allowed in terms of the Temporary Road Closure Approval		day	R57,001.00	R59,794.00
Fine for having temporarily closed a road without written permission from the Roads and Stormwater Department		Per transgression	R228,009.00	R239,181.00
Wayleave Application Fees		Per application	R523.00	R548.00
Fine for no Wayleave approval and related documents on site		Per application	R157,050.00	R164,745.00
Penalty for exceeding the time allowed to do work in terms of the Wayleave approval, per day		Per application	R10,470.00	R10,983.00

**Table 2: City of Ekurhuleni tariffs used for the calculation of Roads and Stormwater External Engineering Services Contributions (tariffs subject to CPI/ Escalation):**

Table 2a: Land Value Cost tariffs used in the calculation of Roads and Stormwater External Engineering Services Contributions				
Description		Unit	Tariff (VAT Excl.) 2023/2024	Tariff (VAT Excl.) 2024/2025
Value of Land	Northern Region	Hectare	R3,151,841	R3,306,281
	Southern Region		R2,626,535	R2,755,235
	Eastern Region		R2,101,228	R2,204,188
	Other		R1,050,613	R1,102,093
Escalated Value of Land for Class 1 to 3 roads (32-meter-wide reserve)	Northern Region	Kilometre	R10,085,897	R10,580,105
	Southern Region		R8,404,914	R8,816,754

**Table 2a: Land Value Cost tariffs used in the calculation of Roads and Stormwater External Engineering Services Contributions**

Description		Unit	Tariff (VAT Excl.) 2023/2024	Tariff (VAT Excl.) 2024/2025
	Eastern Region		R6,723,930	R7,053,402
	Other		R3,361,964	R3,526,700
<b>Escalated Value of Land for Class 4 roads (20-meter-wide reserve)</b>	Northern Region	<b>Kilometre</b>	R6,303,685	R6,612,565
	Southern Region		R5,253,071	R5,510,471
	Eastern Region		R4,202,456	R4,408,376
	Other		R2,101,228	R2,204,188
<b>Escalated Value of Land for Class 5 roads (16 meter wide reserve)</b>	Northern Region	<b>Kilometre</b>	R5,042,947	R5,290,051
	Southern Region		R4,202,456	R4,408,376
	Eastern Region		R3,361,964	R3,526,700
	Other		R1,680,981	R1,763,349

**Table 2b: Construction Value Cost tariffs used in the calculation of Roads and Stormwater External Engineering Services Contributions (tariffs subject to CPI/ Escalation):**

Road Class	Cost per Kilometer 2023/2024 (VAT Excl.)	Cost per Kilometer 2024/2025 (VAT Excl.)
Class 3 roads (4 lanes @ 3.5-meter width lanes): Capacity Component	R21,705,373	R22,768,936
Class 3 roads: Strength Component	R2,822,758	R2,961,073
Class 4 (9 meter wide)	R8,999,035	R9,439,987
Class 5 (7 meter wide)	R6,492,468	R6,810,598

**Table 2c: Construction Value Cost Tariffs for Stormwater External Engineering Services implemented by Developers (tariffs subject to CPI/ Escalation):**

<b>Stormwater Pipes and Culverts</b>	<b>Tariff per meter length of conduit per cross-sectional area of conduit (in m<sup>2</sup>)</b> <b>Formula: Tariff*length of pipe (in m) * cross-sectional area of conduit (in m<sup>2</sup>) *(1+percentage of hard rock per cross-sectional area)</b>	
<b>Stormwater Conduit Cross-sectional Area</b>	<b>2023/2024 (VAT Excl.)</b>	<b>2024/2025 (VAT Excl.)</b>
Stormwater Pipe Conduits for pipe sizes up to 1050mm diameter.	R5,735	R6,016
Stormwater Pipe Conduits for pipe sizes larger than 1050mm diameter.	R6,966	R7,307
Stormwater Culverts for all sizes	R5,083	R5,332
Stormwater Channels lined	R1,029	R1,079
Stormwater Channels unlined	R426	R446
<b>Example:</b> <b>Length of pipe: 500 meters</b> <b>Conduit: 750 mm pipe; Area (<math>\pi r^2</math>) = <math>\pi (0.75/2)^2 = 0.44 \text{ m}^2</math></b> <b>Tariff applicable = R 6 016</b> <b>Percentage of hard rock in cross-sectional area = 20%</b> <b>Cost of Pipe: Tariff*length of pipe (in m) * cross-sectional area of conduit (in m<sup>2</sup>) *(1+percentage of hard rock per cross-sectional area)</b> <b>R 6 016 * 500 * 0.44 * (1 + 0.2) = R 1 594 672</b>		
<b>Gabions and Reno Mattresses</b>	<b>Tariff per m<sup>3</sup> of Gabions or Reno Mattresses installed:</b> <b>Formula: Tariff*length of Gabions or Reno Mattresses (in linear meters) *cross-sectional area of Gabions or Reno Mattresses installed (in m<sup>2</sup>)</b>	
<b>Gabion or Reno Mattresses Installed</b>	<b>2023/2024 (VAT Excl.)</b>	<b>2024/2025 (VAT Excl.)</b>
Gabions Installed	R1,308	R1,372
Reno Mattresses Installed	R1,936	R2,030
<b>Example for the above:</b> <b>Linear length of gabions: 250 m, Cross-sectional area: 1.2 m<sup>2</sup>, Tariff applicable = R 1 372</b> <b>Cost of System: Tariff*length of Gabions or Reno Mattresses (in linear meters) *cross-sectional area of Gabions or Reno Mattresses installed (in m<sup>2</sup>)</b> <b>R 1 372 * 250 * 1.2 = R 411 600.00 (VAT Excl.)</b>		

**Table 2d: Rebate percentage on roads and stormwater external engineering services contributions calculated (in using Table 2a and 2b) and in line with Council Resolution A-RT (05-2014) dated 27 November 2014 (rate not subject to CPI/ Escalation).**

<b>Rebate</b>	<b>Percentage 2023/2024</b>	<b>Percentage 2024/2025</b>
Rebate	40%	40%

**Table 2e: Tariffs applicable in determining values for master planning (high level mostly desktop analysis) conducted by land-use developers with respect to either roads or stormwater services where such master planning is not available at present (tariffs subject to CPI/ Escalation):**

<b>Master Planning Tariff</b>	<b>2023/2024 (VAT Excl.)</b>	<b>2024/2025 (VAT Excl.)</b>
For an area up to 9 hectares	R 4 445 per hectare with a minimum of R 20 063	R 4 662 per hectare with a minimum of R 21 046
For an area larger than 9 hectares and smaller than 20 hectares	R 2 970 per hectare	R 3 115 per hectare
For an area from 20 hectares and larger	R 2 421 per hectare	R 2 539 per hectare

**Traffic Engineering Parameters:** The following parameters are also used in the calculation of the **Roads and Stormwater External Engineering Services Contributions. These parameters are not subject to escalation. These parameters are mostly obtained from a manual published by** The South African National Roads Agency Limited, which manual is compiled under the auspices of the Roads Coordinating Body (RCB) of the Committee of Transport Officials (COTO). The manual title is the TMH 17: Volume 1: South African Trip Data Manual. **The latest published manual will always be used for the calculation of the contributions. The figures below reflect the parameters at time of print.**

**Table 3: Traffic Engineering Parameters: Trip Lengths parameters used in the calculation of Roads and Stormwater External Engineering Services Contributions. (Parameters NOT subject to CPI/ Escalation):**

Land Uses and Codes				Trip Lengths						
			Land Use Size Units	Total trip	Half trip	Class 4/5	Non-	Adj Trip		Size Adjustment
		Size	Base	Length	Length	Half trip	Municipal	Length		1-A/(1+sqm Size/B)
	Land Use	Units	Size	L <sub>T</sub> (km)	L <sub>T</sub> /2 (km)	P <sub>45</sub> (km)	P <sub>N</sub> (%)	L <sub>D</sub> /2 (km)	Factor A	Factor B
<b>100</b>	<b>Industrial</b>									
110	Service Industry	sqm GLA	100	12.00	6.00	1.25	50%	1.75		
120	Heavy Industry/Manufacturing	sqm GLA	100	15.00	7.50	1.25	50%	2.50		
121	Mining	Employees	1	15.00	7.50	1.25	50%	2.50		
130	Industrial Area	sqm GLA	100	15.00	7.50	1.25	50%	2.50		
140	Manufacturing	sqm GLA	100	15.00	7.50	1.25	50%	2.50		
150	Warehousing and distribution	sqm GLA	100	15.00	7.50	1.25	50%	2.50		
151	Mini-Warehousing	sqm GLA	100	10.00	5.00	1.00	40%	2.00		
<b>200</b>	<b>Residential</b>									
210	Single Dwelling Unit	D/Unit	1	8.50	4.25	1.00	40%	1.55		
220	Apartments and Flats	D/Unit	1	5.00	2.50	0.75	30%	1.00		
225	Student Apartments and Flats	D/Unit	1	3.00	1.50	0.60	20%	0.60		
231	Townhouses (Simplexes and Duplexes)	D/Unit	1	7.50	3.75	1.00	40%	1.25		
232	Multi-Level Townhouses	D/Unit	1	7.00	3.50	1.00	40%	1.10		
251	Retirement Village	D/Unit	1	5.50	2.75	1.00	30%	0.92		
254	Old-Age Home	D/Unit	1	5.50	2.75	1.00	30%	0.92		
260	Recreational Homes	D/Unit	1	10.00	5.00	1.50	40%	1.50		
<b>300</b>	<b>Lodging</b>									
310	Hotel (Residential)	Room	1	7.00	3.50	1.00	40%	1.10		
330	Hotel (Resort)	Room	1	8.00	4.00	1.00	50%	1.00		
350	Guest House	Room	1	6.00	3.00	1.00	35%	0.95		
<b>400</b>	<b>Recreational and Sport</b>									
430	Golf Course	Course	1	13.00	6.50	1.00	45%	2.58		
473	Casino	sqm GLA	100	14.00	7.00	1.00	50%	2.50		
480	Amusement Park	ha	1	12.00	6.00	1.00	50%	2.00		
488	Sport Stadium	Seat	1000	12.00	6.00	1.00	50%	2.00		
492	Health and Fitness Centre	sqm GLA	100	5.00	2.50	0.75	30%	1.00		
<b>500</b>	<b>Institutional</b>									
520	Public Primary School	Student	1	4.00	2.00	1.00	25%	0.50		
530	Public Secondary School	Student	1	5.00	2.50	1.00	35%	0.63		
536	Private School	Student	1	5.50	2.75	1.00	40%	0.65		

Land Uses and Codes				Trip Lengths						
			Land Use Size Units	Total trip	Half trip	Class 4/5	Non-	Adj Trip		Size Adjustment
		Size	Base	Length	Length	Half trip	Municipal	Length		1-A/(1+sqm Size/B)
	Land Use	Units	Size	L <sub>T</sub> (km)	L <sub>T</sub> /2 (km)	P <sub>45</sub> (km)	P <sub>N</sub> (%)	L <sub>D</sub> /2 (km)	Factor A	Factor B
550	University/College	Student	1	10.00	5.00	1.50	40%	1.50		
560	Places of Public Worship (Weekend)	Seat	1	6.00	3.00	0.80	35%	1.15		
561	Places of Public Worship (Weekday)	Seat	1	6.00	3.00	0.80	35%	1.15		
565	Pre-School (Day Care Centre: 31 pupils and above)	Student	1	3.50	1.75	0.90	35%	0.24		
993	Pre-School (Day Care Centre: 21 to 30 pupils)	Student	1	3.50	1.75	0.90	35%	0.12		
566	Cemetery	Ha	1	8.00	4.00	1.00	40%	1.40		
599	Orphanage	Student	1	5.50	2.75	1.00	30%	0.93		
<b>600</b>	<b>Medical</b>									
611	Public Hospital	Bed	1	8.50	4.25	1.00	40%	1.55		
612	Private Hospital	sqm GLA	100	8.00	4.00	1.00	40%	1.40		
620	Nursing Home	Bed	1	7.50	3.75	1.00	35%	1.44		
630	Medical Clinic	sqm GLA	100	5.00	2.50	1.00	30%	0.75		
640	Animal Hospital / Veterinary Clinic	sqm GLA	100	5.00	2.50	1.00	30%	0.75		
<b>700</b>	<b>Office</b>									
710	Offices	sqm GLA	100	9.00	4.50	1.00	35%	1.93		
713	Home offices and undertakings	House	1	7.00	3.50	1.00	35%	1.28		
720	Medical consulting rooms	sqm GLA	100	8.00	4.00	1.00	35%	1.60		
721	Dental/Physio/Occupational Therapy and similar (appointment based)	sqm GLA	100	8.00	4.00	1.00	35%	1.60		
760	Research & Development	sqm GLA	100	9.00	4.50	1.00	35%	1.93		
770	Business Centre (Park)	sqm GLA	100	10.00	5.00	1.00	40%	2.00		
780	Conference Centre	Seat	1	10.00	5.00	1.00	50%	1.50		
799	Hairdresser/Beauty Salon/Nail Parlor or similar	sqm GLA	100	7.00	3.50	1.00	35%	1.28		
<b>800</b>	<b>Retail</b>									
812	Building Materials	sqm GLA	100	8.00	4.00	1.00	40%	1.40		
816	Hardware and Paint Store	sqm GLA	100	7.00	3.50	1.00	40%	1.10		
817	Nursery (Garden Centre)	sqm GLA	100	6.50	3.25	1.00	30%	1.28		
820	Shopping Centre	sqm GLA	100	10.00	5.00	1.00	40%	2.00	0.740	148000
992	Spaza	sqm GLA	100	10.00	5.00	1.00	40%	2.00		
830	Value Retail (Bulk Trade Centre)	sqm GLA	100	10.00	5.00	1.00	50%	1.50		

Land Uses and Codes				Trip Lengths						
			Land Use Size Units	Total trip	Half trip	Class 4/5	Non-	Adj Trip		Size Adjustment
		Size	Base	Length	Length	Half trip	Municipal	Length		1-A/(1+sqm Size/B)
	Land Use	Units	Size	L <sub>T</sub> (km)	L <sub>T</sub> /2 (km)	P <sub>45</sub> (km)	P <sub>N</sub> (%)	L <sub>D</sub> /2 (km)	Factor A	Factor B
831	Wholesale Trade	sqm GLA	100	9.00	4.50	1.00	45%	1.48		
841	Motor Dealership	sqm GLA	100	6.50	3.25	0.75	40%	1.20		
843	Vehicle Parts Sales	sqm GLA	100	5.50	2.75	0.55	30%	1.38		
890	Furniture Store	sqm GLA	100	8.00	4.00	1.00	40%	1.40		
<b>900</b>	<b>Services</b>									
931	Quality (Sit-down) Restaurant	sqm GLA	100	6.50	3.25	0.80	30%	1.48		
932	Family (Sit-down) Restaurant	sqm GLA	100	5.50	2.75	0.80	30%	1.13		
991	Tavern	sqm GLA	100	4.50	2.25	0.80	30%	0.78		
933	Fast Food Take-Away	sqm GLA	100	4.00	2.00	0.70	25%	0.80		
934	Fast Food Drive-Through	sqm GLA	100	4.00	2.00	0.70	25%	0.80		
946	Filling Station	Station	1	5.00	2.50	0.50	40%	1.00		
947	Car Wash	Stalls	1	5.00	2.50	0.50	30%	1.25		
950	Vehicle Fitment Centre	sqm GLA	100	8.00	4.00	1.00	35%	1.60		



**Table 4: Traffic Engineering Parameters: Trip Generation Adjustment Factors parameters used in the calculation of Roads and Stormwater External Engineering Services Contributions (NOT subject to CPI/ Escalation):**

Land Uses and Codes				Trip Generation Adjustment Factors		
			Land Use Size Units	Percentage reduction for developments in areas with		
	Land Use	Size Units	Base Size	Mixed-used Development	Low vehicle Ownership	Transit nodes or Corridors
<b>100</b>	<b>Industrial</b>					
110	Service Industry	sqm GLA	100	5%	20%	15%
120	Heavy Industry/Manufacturing	sqm GLA	100	5%	20%	15%
121	Mining	Employees	1	5%	20%	15%
130	Industrial Area	sqm GLA	100	5%	20%	15%
140	Manufacturing	sqm GLA	100	5%	20%	15%
150	Warehousing and distribution	sqm GLA	100	5%	20%	15%
151	Mini-Warehousing	sqm GLA	100	5%	20%	15%
<b>200</b>	<b>Residential</b>					
210	Single Dwelling Unit	D/Unit	1	10%	40%	15%
220	Apartments and Flats	D/Unit	1	15%	30%	15%
225	Student Apartments and Flats	D/Unit	1	25%	50%	15%
231	Townhouses (Simplexes and Duplexes)	D/Unit	1	15%	30%	15%
232	Multi-Level Townhouses	D/Unit	1	15%	30%	15%
251	Retirement Village	D/Unit	1	5%	50%	15%
254	Old-Age Home	D/Unit	1	5%	50%	15%
260	Recreational Homes	D/Unit	1	10%	20%	15%
<b>300</b>	<b>Lodging</b>					
310	Hotel (Residential)	Room	1	20%	20%	15%
330	Hotel (Resort)	Room	1	20%	20%	15%
350	Guest House	Room	1	20%	30%	15%
<b>400</b>	<b>Recreational and Sport</b>					
430	Golf Course	Course	1	5%	0%	0%
473	Casino	sqm GLA	100	5%	20%	15%
480	Amusement Park	ha	1	5%	30%	15%
488	Sport Stadium	Seat	1000	5%	30%	15%
492	Health and Fitness Centre	sqm GLA	100	15%	20%	15%
<b>500</b>	<b>Institutional</b>					
520	Public Primary School	Student	1	30%	50%	15%
530	Public Secondary School	Student	1	30%	50%	15%
536	Private School	Student	1	30%	50%	15%
550	University/College	Student	1	20%	40%	15%
560	Places of Public Worship (Weekend)	Seat	1	10%	50%	15%

Land Uses and Codes				Trip Generation Adjustment Factors		
			Land Use Size Units	Percentage reduction for developments in areas with		
	Land Use	Size Units	Base Size	Mixed-used Development	Low vehicle Ownership	Transit nodes or Corridors
561	Places of Public Worship (Weekday)	Seat	1	10%	50%	15%
565	Pre-School (Day Care Centre: 31 pupils and above)	Student	1	5%	50%	15%
993	Pre-School (Day Care Centre: 21 to 30 pupils)	Student	1	5%	50%	15%
566	Cemetery	Ha	1	0%	30%	15%
599	Orphanage	Student	1	5%	50%	15%
<b>600</b>	<b>Medical</b>					
611	Public Hospital	Bed	1	0%	50%	15%
612	Private Hospital	sqm GLA	100	0%	20%	15%
620	Nursing Home	Bed	1	0%	50%	15%
630	Medical Clinic	sqm GLA	100	0%	50%	15%
640	Animal Hospital / Veterinary Clinic	sqm GLA	100	0%	50%	15%
<b>700</b>	<b>Office</b>					
710	Offices	sqm GLA	100	20%	20%	15%
713	Home offices and undertakings	House	1	10%	20%	15%
720	Medical consulting rooms	sqm GLA	100	10%	30%	15%
721	Dental/Physio/Occupational Therapy and similar (appointment based)	sqm GLA	100	10%	30%	15%
760	Research & Development	sqm GLA	100	30%	20%	15%
770	Business Centre (Park)	sqm GLA	100	15%	20%	15%
780	Conference Centre	Seat	1	10%	20%	10%
799	Hairdresser/Beauty Salon/Nail Parlor or similar	sqm GLA	100	0%	0%	0%
<b>800</b>	<b>Retail</b>					
812	Building Materials	sqm GLA	100	10%	30%	15%
816	Hardware and Paint Store	sqm GLA	100	10%	30%	15%
817	Nursery (Garden Centre)	sqm GLA	100	10%	30%	15%
820	Shopping Centre	sqm GLA	100	10%	30%	15%
992	Spaza	sqm GLA	100	10%	60%	15%
830	Value Retail (Bulk Trade Centre)	sqm GLA	100	10%	30%	15%
831	Wholesale Trade	sqm GLA	100	5%	20%	15%
841	Motor Dealership	sqm GLA	100	5%	20%	15%
843	Vehicle Parts Sales	sqm GLA	100	5%	20%	15%
890	Furniture Store	sqm GLA	100	5%	30%	15%
<b>900</b>	<b>Services</b>					
931	Quality (Sit-down) Restaurant	sqm GLA	100	10%	10%	15%

Land Uses and Codes				Trip Generation Adjustment Factors		
			Land Use Size Units	Percentage reduction for developments in areas with		
	Land Use	Size Units	Base Size	Mixed-used Development	Low vehicle Ownership	Transit nodes or Corridors
932	Family (Sit-down) Restaurant	sqm GLA	100	10%	30%	15%
991	Tavern	sqm GLA	100	10%	30%	15%
933	Fast Food Take-Away	sqm GLA	100	10%	40%	15%
934	Fast Food Drive-Through	sqm GLA	100	10%	15%	15%
946	Filling Station	Station	1	0%	0%	0%
947	Car Wash	Stalls	1	10%	0%	0%
950	Vehicle Fitment Centre	sqm GLA	100	0%	0%	0%

**Table 5: Traffic Engineering Parameters: Trip Generation Rates parameters used in the calculation of Roads and Stormwater External Engineering Services Contributions (NOT subject to CPI/ Escalation):**

Land Uses and Codes				Daily Trip Generation Rates and Parameters						
	Land Use	Land Use Size Units		Daily	Peaking	Hourly	Percent	E80 Axles	Size Adjustment	
		Size Units	Base Size	Trip rate	Factor	Trip rate	Heavy	Per HV		1+A/(1+sqm Size/B)
				AADTD	FQD	FQD.AADTD	P <sub>HD</sub>	E <sub>HD</sub>	Factor A	Factor B
<b>100</b>	<b>Industrial</b>									
110	Service Industry	sqm GLA	100	6.00	0.150	0.90	10%	1.34		
120	Heavy Industry / Manufacturing	sqm GLA	100	1.25	0.150	0.19	10%	2.35		
121	Mining	Employees	1	0.65	0.150	0.10	10%	2.35		
130	Industrial Area	sqm GLA	100	6.00	0.150	0.90	10%	2.35		
140	Manufacturing	sqm GLA	100	2.00	0.250	0.50	10%	2.35		
150	Warehousing and distribution	sqm GLA	100	3.00	0.140	0.42	10%	2.35		
151	Mini-Warehousing	sqm GLA	100	2.50	0.100	0.25				
<b>200</b>	<b>Residential</b>									
210	Single Dwelling Unit	D/Unit	1	4.00	0.225	0.90				
220	Apartments and Flats	D/Unit	1	2.75	0.225	0.62				
225	Student Apartments and Flats	D/Unit	1	1.25	0.225	0.28				
231	Townhouses (Simplexes and Duplexes)	D/Unit	1	3.75	0.225	0.84				
232	Multi-Level Townhouses	D/Unit	1	3.25	0.225	0.73				
251	Retirement Village	D/Unit	1	3.40	0.110	0.37				
254	Old-Age Home	D/Unit	1	2.50	0.100	0.25				
260	Recreational Homes	D/Unit	1	3.00	0.100	0.30				
<b>300</b>	<b>Lodging</b>									
310	Hotel (Residential)	Room	1	3.25	0.150	0.49				
330	Hotel (Resort)	Room	1	6.00	0.100	0.60				
350	Guest House	Room	1	3.00	0.150	0.45				
<b>400</b>	<b>Recreational and Sport</b>									
430	Golf Course	Course	1	650	0.05	32.50				
473	Casino	sqm GLA	100	50.00	0.050	2.50				
480	Amusement Park	ha	1	250.00	0.050	12.50				
488	Sport Stadium	Seat	1000	100.00	0.050	5.00				
492	Health and Fitness Centre	sqm GLA	100	32.50	0.300	9.75				
<b>500</b>	<b>Institutional</b>									
520	Public Primary School	Student	1	2.00	0.400	0.80				
530	Public Secondary School	Student	1	2.00	0.400	0.80				

Land Uses and Codes				Daily Trip Generation Rates and Parameters						
	Land Use	Land Use Size Units		Daily	Peaking	Hourly	Percent	E80	Size Adjustment	
		Size Units	Base Size	Trip rate	Factor	Trip rate	Heavy	Per HV	1+A/(1+sqm Size/B)	
				AADTD	FQD	FQD.AADTD	PHD	EHD	Factor A	Factor B
536	Private School	Student	1	2.00	0.400	0.80				
550	University/College	Student	1	1.90	0.110	0.21				
560	Places of Public Worship (Weekend)	Seat	1	0.65	0.085	0.06				
561	Places of Public Worship (Weekday)	Seat	1	0.60	0.085	0.05				
565	Pre-School (Day Care Centre: 31 pupils and above)	Student	1	3.00	0.275	0.83				
993	Pre-School (Day Care Centre: 21 to 30 pupils)	Student	1	3.00	0.275	0.83				
566	Cemetery	Ha	1	6.00	0.050	0.30				
599	Orphanage	Student	1	2.50	0.100	0.25				
<b>600</b>	<b>Medical</b>									
611	Public Hospital	Bed	1	7.00	0.200	1.40				
612	Private Hospital	sqm GLA	100	16.50	0.110	1.82				
620	Nursing Home	Bed	1	2.25	0.110	0.25				
630	Medical Clinic	sqm GLA	100	40.00	0.150	6.00				
640	Animal Hospital / Veterinary Clinic	sqm GLA	100	33.87	0.150	5.08				
<b>700</b>	<b>Office</b>									
710	Offices	sqm GLA	100	8.50	0.250	2.13	5%	1.21		
713	Home offices and undertakings	House	1	25.00	0.250	6.25				
720	Medical consulting rooms	sqm GLA	100	55.00	0.135	7.43				
721	Dental/Physio/Occupational Therapy and similar (appointment based)	sqm GLA	100	15.37	0.25	3.84				
760	Research & Development	sqm GLA	100	8.50	0.153	1.30	3%	0.91		
770	Business Centre (Park)	sqm GLA	100	10.00	0.150	1.50				
780	Conference Centre	Seat	1	1.00	0.300	0.30				
799	Hairdresser/Beauty Salon/Nail Parlor or similar	sqm GLA	100	8.32	0.25	2.08				
<b>800</b>	<b>Retail</b>									
812	Building Materials	sqm GLA	100	45.00	0.090	4.05	5%	1.32		
816	Hardware and Paint Store	sqm GLA	100	60.00	0.085	5.10	3%	1.32		
817	Nursery (Garden Centre)	sqm GLA	100	45.00	0.100	4.50				
820	Shopping Centre	sqm GLA	100	35.00	0.085	2.98	2%	1.32	6.000	3500
992	Spaza	sqm GLA	100	35.00	0.085	2.98				

Land Uses and Codes				Daily Trip Generation Rates and Parameters						
	Land Use	Land Use Size Units		Daily	Peaking	Hourly	Percent	E80	Size Adjustment	
		Size Units	Base Size	Trip rate	Factor	Trip rate	Heavy	Per HV	1+A/(1+sqm Size/B)	
				AADT <sub>D</sub>	F <sub>QD</sub>	F <sub>QD</sub> .AADT <sub>D</sub>	P <sub>HD</sub>	E <sub>HD</sub>	Factor A	Factor B
830	Value Retail (Bulk Trade Centre)	sqm GLA	100	7.50	0.145	1.09	2%	1.32		
831	Wholesale Trade	sqm GLA	100	7.20	0.167	1.20	2%	1.32		
841	Motor Dealership	sqm GLA	100	30.00	0.100	3.00				
843	Vehicle Parts Sales	sqm GLA	100	60.00	0.103	6.18				
890	Furniture Store	sqm GLA	100	5.40	0.250	1.35	2%	1.32		
<b>900</b>	<b>Services</b>									
931	Quality (Sit-down) Restaurant	sqm GLA	100	90.00	0.100	9.00				
932	Family (Sit-down) Restaurant	sqm GLA	100	140.00	0.100	14.00				
991	Tavern	sqm GLA	100	100.00	0.100	10.00				
933	Fast Food Take-Away	sqm GLA	100	200.00	0.100	20.00				
934	Fast Food Drive-Through	sqm GLA	100	350.00	0.100	35.00				
946	Filling Station	Station	1	500.00	0.120	60.00	2%	1.32		
947	Car Wash	Stalls	1	22.16	0.25	5.54				
950	Vehicle Fitment Centre	sqm GLA	100	22.00	0.150	3.30				