



No Documents
368

CITY ENGINEER'S DEPARTMENT

FORWARD PLANNING BRANCH

KEY STATISTICS

1965 & 1985

F.P. 27.

FOREWORD

Selected statistical data have been assembled in this branch publication for ease of reference. Extracts from the various reports have been made and the page references in the left hand columns refer to the relevant pages of the report "Greater Johannesburg Transportation Study Vol. 1 : 1965 Data And 1985 Projection" unless otherwise stated.

The 1970 Census data when available will provide a more accurate base on which to make further projections for the future and consequently the data must be accepted as an interim measure.

It is proposed to update this publication from time to time and the information will be distributed as it becomes available.

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CITY ENGINEER

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1. BANTU

Vol. 1

| | | | | | |
|-------|-------------------|-------------|-------------|--------------|----------|
| P. 80 | <u>Population</u> | <u>1965</u> | <u>1985</u> | <u>Incr.</u> | <u>%</u> |
| | | 0.726m | 1.137m | 0.41m | 56.6 |

| | | | | | |
|---------------|-------------------|-------------|-------------|--------------|--|
| P. 90 & 91 | <u>Employment</u> | <u>1965</u> | <u>1985</u> | <u>G. F.</u> | |
| | Study Area | 169 000 | 263 400 | 1.56 | |
| | Central Complex | 104 000 | 151 800 | 1.46 | |
| | Central Area | 66 000 | 100 900 | 1.53 | |

| | | |
|-------|---------------|--------------|
| P. 89 | Office Core | 180 per acre |
| | Retail Core | 163 per acre |
| | Incl. Suburbs | 48 per acre |

Car Ownership

P. 97 In 1965 13 cars/1000 and expected 1985, 47/1000

P. 98 See also Section 3

P. 33 Travel To Work

77% by train, 10% by bus, 7% walk and less than 1% by car

P. 70 Non-White Train Passengers Nov. 1967 Alighting Central Complex Station 6.45 - 7.45 a.m.

| | |
|--------------|--------------|
| George Goch | 1909 |
| Jeppe | 9323 |
| Doornfontein | 7914 |
| Faraday | 5395 |
| Braamfontein | 4279 |
| Westgate | 8069 |
| Johannesburg | <u>16993</u> |
| | 53882 |

All Day 1967 approx. 191,000. Increase of 24% in period 1963 - 1967

HOUSING & FAMILY SIZE

1965 85 500 houses (Soweto & Resettlement Board)

1985 155 500 "

70 000 "

A further $6\frac{1}{2}$ sq. miles of land is required for housing over and above land presently available. Family Size 5.2

2. BUS SERVICE

P. 63 Declining patronage

94.5 m in 1956 to 75m in 1966

P. 65 Average Speeds : 35 to 40% slower than motor cars

6 mph in Central Complex & 12 - 15 mph outside

P. 14 Bus Trips 1965 (Daily) Whites

| <u>Purpose</u> | <u>Number</u> | <u>Trips All Modes</u> | <u>%</u> |
|-----------------------|---------------|----------------------------|----------|
| Work | 55357 | 183 300 | 30.2 |
| Social & Recreational | 5973 | 108 600 | 5.5 |
| School | 22651 | 62 400 | 36.3 |
| Shopping | 8618 | 56 700 | 15.2 |

P. 19 Central Area Bus Trips

To Work 34 000 by bus out of total of 83 600

For Shopping 7 600 " " " " " " 20 600

P. 20 Core Area Work Trips By Bus

Buses bring in 18 800 (51%) workers (Car 15 400 or 42%)

P. 75 Non-Whites 1965

J. T. D. carried approx. 11 530 passengers to I C A each day and of these some 2 040 carried in peak hour.

Putco carried approx. 39 000 to I C A and [†] 11 000 in peak hours

Vol 2 Busways : Transportation Plan

In addition to existing busway over Joubert Park, two busways are proposed as interim measure. One from Parktown serving N. W. suburbs
One from Trojan serving southern suburbs.

Vol, 2 Bus Terminus : Transportation Plan

An off-street bus terminus is proposed on half-blocks on either side of Pritchard St between Loveday & Harrison Sts.

3. CAR & VEHICLE OWNERSHIP

Car Ownership (cars actually in use)

P. 98 Study Area 1965 & 1985

| <u>Group</u> | <u>1965</u> | <u>1985</u> | <u>G. F.</u> |
|--------------|--------------|---------------|--------------|
| White | 130 900 | 333 500 | |
| Asiatic | 2 500 | 16 300 | |
| Coloured | 1 400 | 11 600 | |
| Bantu | <u>9 100</u> | <u>47 600</u> | |
| Total | 143 900 | 409 000 | 2.8 |

P. 93 White Households 1965

One car 48%, No car 29½%, two cars 19½%, three or more 3%

P. 61 Vehicle Ownership

On the 30th June 1968, Whites owned 214 166 vehicles,

| | | | |
|-----------|---|--------|---|
| Bantu | " | 18 644 | " |
| Coloureds | | 3 313 | " |
| Asiatics | | 5 265 | |

P. 14

4. CAR TRIPS

1965 Home Interview Study Area

| <u>Purpose</u> | <u>Car Driver</u> | <u>%</u> | <u>Car Passenger</u> | <u>%</u> | <u>Total All Modes</u> |
|------------------|-------------------|----------|----------------------|----------|------------------------|
| To Work | 81 900 | 44.7 | 29 000 | 15.8 | 183 300 |
| To Social & Rec. | 50 600 | 46.6 | 47 900 | 44.2 | 108 600 |
| To School | 2 100 | 3.4 | 22 600 | 36.2 | 62 400 |
| To Shopping | 33 200 | 58.7 | 12 200 | 21.5 | 56 700 |

P. 14

Car Essential Trips To Work. Whole Study Area 1965

For 29 500 (36%) of the 81 900 car driver trips the car was essential for work (Study Area Residents)

P. 19 & Vol. 2

Car Essential Trips To Work Central Sector (Study Area Residents)

In 1965 these were 13 600 of the 36 700 Car Driver Trips
In 1985 these are expected to increase to 23 800

P. 19

Business Trips To Central Sector

In 1965 these were 20 400 Business Trips To Central Sector
In 1985 these are expected to increase to 53 600 : A growth factor of 2.6

P. 29

Vehicle Trips From Outside Study Area

In 1965, 31 400 cars garaged outside Study Area entered Study Area
7 - 9 a.m. Vehicle Volumes Entering Study Area

| | <u>1965</u> | <u>1985</u> | <u>Growth Factor</u> |
|--------------|-------------|-------------|----------------------|
| East Rand | 4 200 | 10 600 | 2.5 |
| Kempton Park | | | |
| Edenvale | 2 000 | 5 000 | 2.5 |
| West Rand | 3 700 | 11 800 | 3.2 |

Car Trips From Randburg & Sandton

In 1965, 27 500 car trips originated in Randburg & Sandton
In 1985 these are expected to increase to 78 700 :
A growth factor of 2.9

7 - 9 a.m. Trips By Car : Whites

| | <u>1965</u> | <u>1985 Modal Choice</u> | |
|-------------------|-------------|--------------------------|-------------------|
| | | <u>Free</u> | <u>Restricted</u> |
| Inner Cordon Area | 49.6% | 62% | 43% |
| Central Complex | 51.2% | 70% | 49% |

5. CENTRAL AREA

In 1965 there were 61.3 m sq. ft of floor space above ground level

Below ground there was 3.4 m sq. ft of floor space (retail, warehouse & ind.)

By 1985 expected to increase to 93 m sq. ft of floor space

Main details Floor Space Million sq. Ft

| <u>Use</u> | <u>1965</u> | <u>Incr.</u> | <u>1985</u> |
|--------------------|-------------|--------------|-------------|
| Office | 24 | 16 | 40 |
| Residential | 12 | 6 | 18 |
| Retail | 7.2 | 2.5 | 9.7 |
| Warehouse & Whlsle | 10.5 | 1.6 | 12.1 |
| Industrial | 8.2 | 1.5 | 9.7 |

At the end of 1969 the following increases had occurred:

Office + 4.6 Parking + 2.1 Res. + 0.6 Retail + 0.7 Warehouse + 0.7
Ind. + 0.5 million sq. ft.

Major Projected Developments of Office Complexes

- (1) S. A. Brewery Site in Braamfontein
- (2) Main Place near Magistrates Courts
- (3) Sanlam Near Supreme Courts
- (4) Messina S. of Stock Exchange
- (5) Sorec - adjoining Carlton Centre
- (6) Syfrets - Braamfontein
- (7) Rapp & Maister - Braamfontein
- (8) Sorec - Braamfontein (Civic Hills & W. of Civic Centre)
- (9) Stock Exchange
- (10) Sorec (S. of New Stock Exchange)
- (11) Sorec (Around Carlton Centre)
- (12) Glen Anil (Troye Street)

Developments In Course of Construction

- (1) Carlton (2) Civic Centre (3) Trust Bank (4) Liberty Life

Note: Of the projected 16m sq. ft increase in office space expected by 1985, some 12 million are already constructed, in the course of construction or projected.

Central Complex 1965

Attracts 52.5% of all work trips and 41% of all weekday shopping trips

6. COLOUREDS

P. 80 Population 1965 & 1985

69 000 in 1965 expected to increase by 64 000 to 133 000 in 1985. An increase of 93%. An annual increase of 3.3%

P. 97 Car Ownership

In 1965, 21 cars/1000 pop. expected to increase to 87/1000 in 1985
See also section 3

P. 90 & 91 Employment

| | <u>1965</u> | <u>1985</u> | <u>G. F.</u> |
|---------------------------|--------------|-------------|--------------|
| Study Area | 18 400 | 29 400 | 1.60 |
| Central Complex | 12 700 | 18 700 | 1.47 |
| Central Area | 7 300 | 12 100 | 1.66 |
| Office Core) | 14 per acre | | |
| Retail Core) | 12 per acre | | |
| Ind. Suburbs Doornfontein | 85 per acre | | |
| " " General | + 6 per acre | | |

P. 34 Travel To Work

51% by bus, 37% by train & 5% by car (57% of car owners)

7. COSTS

Transportation Plan @ 1969 costs & values

| | | | |
|-----------------------------------|---|-----------------------------------|--------------------|
| Motorways | † | R7m per mile including land costs | |
| Underground | † | R8m per mile including land costs | |
| Total length of motorways | | | at cost of R233.6m |
| Major Roads & Traffic Engineering | " | " | " 91.3m |
| Underground | " | " | " 124. m |
| Parking Garages | | 32 long period | |
| | | 10 park & ride and | |
| | | 10 Others | " " " 65. m |

8. DISPLACEMENTS

| <u>Income Group</u> | <u>Dwelling Units</u> | | <u>Total</u> |
|---------------------|-----------------------|--------------|--------------|
| | <u>Houses</u> | <u>Flats</u> | |
| Lower Income * | 2 297 | 1 206 | 3 503 |
| Middle " | 594 | 393 | 987 |
| Upper " | <u>223</u> | <u>80</u> | <u>303</u> |
| Total | 3 114 | 1 679 | 4 793 |

* Council to provide bulk of rehousing

9. EMPLOYMENT

Ps. 88-91 Employment Density 1965 - Persons/1000 sq ft. Non-residential F. S.

| <u>Location</u> | <u>White</u> | <u>Bantu</u> | <u>Coloured</u> | <u>Asiatic</u> | <u>Total</u> |
|-----------------|--------------|--------------|-----------------|----------------|--------------|
| Office Core | 3.5 | 0.7 | 0.05 | 0.03 | 4.3 |
| Retail Core | 2.6 | 0.8 | 0.07 | 0.03 | 3.5 |
| Braamfontein | 2.7 | 0.9 | 0.05 | 0.01 | 3.6 |
| Hillbrow Shop. | 1.8 | 1.2 | 0.04 | 0.04 | 3.1 |
| Doornfontein | 1.4 | 3.6 | 1.6 | 0.11 | 6.7 |
| Selby Village | 1.4 | 1.6 | 0.07 | 0.02 | 3.1 |

Employment Density 1965 : Workers Per Net Developed Acre

| | | | | | |
|--------------|-----|-----|----|---|------|
| Office Core | 879 | 180 | 14 | 8 | 1081 |
| Retail Core | 493 | 163 | 12 | 8 | 676 |
| B/fntn Core | 168 | 56 | 3 | 1 | 229 |
| Doornfontein | 76 | 192 | 85 | 6 | 359 |
| S - V | 71 | 80 | 3 | 1 | 155 |

Centralisation of Employment 1965 - Number of Workers in 1000's

| | | | | | |
|-------------------|------|------|------|-----|-----|
| Core | 48 | 12 | 0.9 | 0.6 | 62 |
| I. C. A. | 94.7 | 38 | 3.8 | 1.7 | 138 |
| Inner Cordon Area | 99.5 | 41.6 | 3.9 | 1.8 | 147 |
| Central Area | 130 | 66 | 7.3 | 2.5 | 206 |
| Central Compl. | 150 | 104 | 12.7 | 3.5 | 270 |
| Study Area | 220 | 169 | 18.4 | 5.0 | 412 |

Central Complex accommodates 70% of White employment and 58% of the Bantu employment.

Study Area Employment 1985 - Number of Workers in 1000's

| | | | | | |
|-------------------|-------|-------|------|-----|-------|
| Core | 69 | 16.6 | 1.4 | 0.7 | 87.7 |
| I. C. A. | 150.5 | 59.7 | 6.0 | 2.1 | 218.2 |
| Inner Cordon Area | 156.7 | 64.2 | 6.2 | 2.2 | 229.3 |
| Central Area | 229.3 | 100.9 | 12.1 | 3.2 | 345.5 |
| Central Compl. | 262.3 | 151.8 | 18.7 | 5.6 | 438.3 |
| Study Area | 359.2 | 263.4 | 29.4 | 8.9 | 661.0 |

Employment (cont.)

P. 31 Employment Of Whites Resident Outside Study Area 1965

| | |
|------------------------------|--------------|
| West Rand | 15 140 |
| East Rand | 8 370 |
| Alberton- Germiston | 4 940 |
| Bedfordview- Kempton Park | 4 860 |
| North of Study Area | 1 720 |
| South of " " | <u>1 430</u> |
| Total | 36 500 |

Of these 31 500 work in the Central Complex

Decentralised Employment Growth Points

Randburg, Sandown, Rosebank, Valley Park, Country Club,
Bruma, Ormonde, Rosettenville Corner

P. 81

10. HOUSING & FAMILY SIZE

White Population

| | | |
|----------|---------------|--------------|
| 1965 | 80 161 houses | 39 816 flats |
| 1985 | 128 161 " | 71 816 " |
| Increase | 48 000 " | 32 000 " |

Bantu Population

P. 82 A minimum of $6\frac{1}{2}$ sq. miles of extra land is required for Bantu Housing by 1985.

| | |
|----------|---|
| 1965 | 85 500 houses (So weto & Resettlement Area) |
| 1985 | 155 500 " |
| Increase | 70 000 " |

P. 83

Coloured Population

| | | |
|----------|-----------------|-------------------------|
| 1960 | 7 844 houses | 240 flat units |
| 1985 | + - 15 000 " | + - 4 000 flat units |
| Increase | + - 7 200 " | + - 3 800 " " |

P. 83

Indian Population

| | | |
|----------|----------------|------------------|
| 1960 | 3 518 houses | 1 093 flat units |
| 1985 | + - 5 518 " | + - 2 500 " " |
| Increase | + - 2 000 " | + - 1 400 " " |

Family Size

P. 81 Av. Family Size : Whites 4.2 persons in houses & 2.3 persons in flats
 " " " Bantu - 5.2
 " " " Coloureds & Asiatics - 5.9

11. JOURNEY TO WORK

P. 14 &
P. 19

Study Area Residents (White) 1965

| | <u>Study Area</u> | <u>%</u> | <u>Central Complex</u> | <u>%</u> |
|---------------|-------------------|--------------|------------------------|------------|
| Car Driver | 81 930 | 44.7 | 36 700 | 38 |
| Car Passenger | 28 960 | 15.8 | 14 700 | 15 |
| Bus Passenger | 55 360 | 30.2 | 37 600 | 39 |
| Other Modes | 17 050 | 9.3 | 7 000 | 8 |
| <u>Total</u> | <u>183 300</u> | <u>100.0</u> | <u>96 000</u> | <u>100</u> |

P. 31

Outside Residents (White) Car & Train*

| | <u>Car Driver</u> | | <u>Train</u> | |
|------------------------------|-------------------|-------------|--------------|-------------|
| | <u>1965</u> | <u>1985</u> | <u>1965</u> | <u>1985</u> |
| West Rand | 3 482 | | 9 235 | |
| East Rand | 1 925 | | 4 938 | |
| Germiston- Alberton | 1 796 | | 1 630 | |
| Bedfordview- Kempton Park | 1 847 | | 1 312 | |
| North of Study Area | 533 | | 705 | |
| South of Study Area | 400 | | 572 | |

Note: 31500 Outside residents work in Central Complex and
52% travel by train.

* Journey To Work Survey. Not fully representative of all work places

12. POPULATION

P. 80

Population 1965 & 1985 (000's)

| <u>Race Group</u> | <u>1965</u> | <u>1985</u> | <u>Incr.</u> | <u>%</u> | <u>Annual %</u> |
|-------------------|-------------|-------------|--------------|----------|-----------------|
| Whites | 450 | 724 | 274 | 61 | 2.4 |
| Bantu | 726 | 1 137 | 411 | 57 | 2.3 |
| Coloureds | 69 | 133 | 64 | 93 | 3.3 |
| Asiatics | 32 | 52 | 20 | 63 | 2.5 |
| Total | 1 277 | 2 046 | 769 | 60 | |

Complexes with largest expected increase in White Population

Population in 000's

P. 80 &
81

| <u>Area</u> | <u>1965</u> | <u>1985</u> | <u>Increase</u> |
|------------------------|-------------|-------------|-----------------|
| Hillbrow-Bellevue E. | 60 | 104 | 44 |
| Randburg | 17 | 51 | 34 |
| Sandton | 16 | 55 | 39 |
| Incorporated Area to S | 7 | 47 | 40 |
| Crown Mines - Ormonde | 0 | 20 | 20 |

Complexes With Largest Expected Increases In Population - Coloured & Asiatics

| | |
|------------------------|--|
| Nancefield (coloureds) | Unknown (Dept. of Community Development) |
| Lenasia (Indians) | 14 000 in 1965 to 52 000 in 1985 |

13. TRAIN SERVICE

(SAR)

Non-Whites 1967

- a. 190 000 entered the whole Johannesburg area in one day
- b. Increase of 24% since 1963
- c. 50 000 entered the Central Area in peak one hour

Whites 1966

- a. Of the 13 000 who entered the Johannesburg area in the peak hour, 10 000 did so at Johannesburg station.

Trains

- a. Non-white trains consist of 11 coaches and have a capacity of between 1 930 and 2 000 passengers.
- b. White trains consist of 8 coaches and have a capacity of 1 200 passengers.
- c. Trains through Johannesburg station operate at $2\frac{1}{2}$ minute headways.
- d. Trains to Westgate & Faraday operate at 10 minute headways.

(NON-SAR)

Transportation Plan

- a. 24 km (15 miles) rail rapid is proposed for 1985 estimated to cost R124m.
- b. Some sections expected to carry 19 000 pass/hr.
- c. Max speeds anticipated to be 95 km/hr (60 mph) and average speeds (including 20 sec. stops at stations) 42 km/hr (26 mph)
- d. Feeder bus and private auto to feed the system through Mode Change stations
- e. 7 - 9 a.m. Trips by public transport (not SAR) Whites

| | <u>1965</u> | <u>1985 - Modal Choice</u> | |
|-------------------|-------------|----------------------------|-------------------|
| | | <u>Free</u> | <u>Restricted</u> |
| Inner Cordon Area | 34.3% | 30% | 49% |
| Central Complex | 30.6% | 27% | 48% |

14. TRANSPORTATION PLAN

Description:

A Transportation Plan integrating a system of Motorways with an improved arterial network, with a Rail Rapid Transit System, with a reorganised bus service, Park 'n Ride Garages and parking garages in the Central Complex.

Principles

- (a) A system of N-S & E-W transportation corridors linking to a Motorway Box around the Central Complex.
- (b) Car travel within the Motorway Box to be restricted by complete control over both public and private parking within the Box.
- (c) The Parking Control to make provision for only 50% of the optional drivers who would like to journey by car.
- (d) A system of rail rapid transit routes, underground within the Box and connecting to Park 'n Ride Garages/transit/bus stations on the Box and on the corridors. Extensions of the underground to be on surface in the median of the corridors.
- (e) Buses to be rerouted to serve the transit stations primarily.
- (f) A number of Park 'n Ride Garages to be provided on the box and at stations.
- (g) The Public Garages in the Central Complex to serve in the main short-period parkers.
- (h) A system of improved arterial routes to give adequate access to the Motorways, the transit system in addition to the Central Complex.

Details

| | |
|--|-----------------|
| 56.8 km (35.3 miles) of Motorways at a cost of | R233.6m. |
| Arterials (miscellaneous at a cost of | R 86.3m. |
| 24 km (15 miles) of Underground at a cost of | R116.0m. |
| 10 "Park 'n Ride" garages at a cost of | R 21.6m. |
| 42 Public Parking Garages " " " " | <u>R 42.5m.</u> |
| | <u>R500.m.</u> |

15. TRAVEL CHARACTERISTICS

Summary of Major Transportation Surveys

| <u>Survey</u> | <u>Sample Interviews</u> | <u>Expanded Daily Trips Person</u> | <u>Expanded Daily Trips Vehicle</u> |
|----------------|--------------------------|--|---|
| Home Interview | 8 410 | 909 100 | 406 800 |
| Truck | 4 960 | - | 92 030 |
| External | <u>47 710</u> | <u>101 200</u> | <u>73 710</u> |
| Total | 61 080 | 1 010 300 | 572 540 |

Trips by Study Area Residents

P. 13 Daily trips by major purpose

| | | |
|----------------------|---------------|-----------|
| To get home | 389 800 | 43% |
| To Work | 183 300 | 20% |
| To Social Recreation | 108 600 | 12% |
| To School | 62 400 | 7% |
| To Shopping | 56 700 | 6% |
| To Business | 41 700 | 5% |
| To Serve Passenger | 37 800 | 4% |
| Other | <u>28 800</u> | <u>3%</u> |
| Total | 909 100 | 100% |

P. 14 Mode of Travel by Trip Purpose

| <u>Mode</u> | <u>To Work</u> | | <u>To Social</u> | | <u>To School</u> | | <u>To Shopping</u> | |
|---------------|----------------|------|------------------|------|------------------|------|--------------------|------|
| Car Driver | 81 900 | 45% | 50 600 | 47% | 2 100 | 3% | 33 200 | 59% |
| Car Passenger | 29 000 | 16% | 47 900 | 44% | 22 600 | 36% | 12 200 | 29% |
| Bus Passenger | 55 200 | 30% | 6 000 | 6% | 22 600 | 36% | 8 600 | 15% |
| Other | | 9% | | 3% | | 25% | | 4% |
| Total | 183 300 | 100% | 108 600 | 100% | 62 400 | 100% | 56 700 | 100% |

36% (29 500) of car driver work trips, 81 900 are essential car trips

P. 15

24% & 21% of all trips are made in 7 to 9 a.m. & 4 to 6 p.m. periods respectively

Trips By Trucks Registered in Study Area

| | | |
|-------|------------------------------------|---------------|
| P. 22 | Daily trips & commodities carried | |
| | Foods, domestic & miscellaneous | 31 600 trips |
| | Engineering & industrial materials | 15 600 |
| | Building materials | 7 000 |
| | Business commodities | 5 200 |
| | Passengers carried | 3 600 |
| | Other commodities | 3 000 |
| | No load carried | <u>26 100</u> |
| | Total | 92 000 |

P. 22 64% of all truck trips occur in 9 a.m. to 4 p.m. period

P. 22 61% of truck trips by medium trucks & 34% by light trucks
(i. e. up to $\frac{3}{4}$ ton)

P. 24 33 700 truck trips were destined to the Central Complex

Trips by Vehicles Registered Outside Study Area

P. 26 73 700 vehicles registered outside Study Area entered & left
Study Area in 13 hours.

P. 29 34 300 vehicle trips (27 100 cars & 7 200 trucks) originated in Study Area
39 400 vehicle trips (31 400 cars & 8 000 trucks) originated outside
Study Area.

P. 26 Car drivers - main purposes : Work 24 000 trips, business 18 300 trips

P. 26 55% of car trips concentrated in 7 to 9 a.m. & 4 to 6 p.m. periods

P. 27 4 700 vehicles passed through Study Area of which 1 200 made stops
i. e. effective bypass vehicle = 3 500 vehicles or 9% of 39 400 vehicles
entering Study Area.

Trip generation of Study Area Residents

| <u>Trip Purpose</u> | <u>Person Trips/Dwelling/Day</u> | | <u>Growth Factor</u> |
|---------------------|----------------------------------|-------------|----------------------|
| | <u>1965</u> | <u>1985</u> | |
| To Work | 1.25 | 1.33 | 1.06 |
| Business | 0.28 | 0.43 | 1.54 |
| School | 0.42 | 0.56 | 1.33 |
| Shopping | 0.38 | 0.73 | 1.92 |
| Soc. Rec. | 0.74 | 1.15 | 1.56 |
| Other | 0.45 | 0.78 | 1.74 |
| Home | 2.66 | 3.62 | 1.36 |
| Total | 6.22 | 8.81 | 1.42 |

16. TRAFFIC VOLUMES

| <u>Cordon Counts</u> | | <u>Inner Cordon Area</u> | | | <u>Growth</u> |
|----------------------|---------------------|--------------------------|-------------|-------------|---------------|
| | | <u>1954</u> | <u>1965</u> | <u>1967</u> | |
| P. 42 | 7 a.m. - 7 p.m. In | 108 570 | 175 972 | 190 570 | 4.5% p.a. |
| P. 43 | 7 a.m. - 9 a.m. In | 27 574 | 46 245 | 52 079 | 5.1% p.a. |
| | 7 a.m. - 9 a.m. Out | 11 143 | 25 663 | 29 769 | 8.3% p.a. |
| Car occupancy 1964 | | 1.71 | 1968 | 1.63 | |

Municipal Cordon (Now Intermediate Cordon)

| | | <u>1954</u> | <u>1963</u> | <u>1968</u> | <u>Growth</u> |
|------------------|------------------|-------------|-------------|-------------|---------------|
| 7 a.m. to 7 p.m. | | | | | |
| P. 44 | Total Cordon In | 31 900 | 59 000 | 96 800 | |
| P. 44 | Northern side In | 8 150 | 20 000 | 35 400 | 11½% p.a. |

Key Traffic Counting Stations 1967

| P. 45 | <u>24 Hour Volume</u> ¹ | | <u>Peak 2 Hours</u> ² | | |
|-------|------------------------------------|---------------|----------------------------------|--------------------|-----|
| | <u>Volume</u> | <u>Growth</u> | <u>Volume</u> | <u>Growth</u> | |
| | Jan Smuts Ave | 23 200 | 9% p.a. | 3 770 | 6% |
| | Louis Botha Ave | 35 500 | 4½% | 3 290 | 3½% |
| | Jules Street | 14 900 | 4½% | 1 640 | 6% |
| | Eloff St Ext. | 27 800 | 4½% | 3 200 | 4½% |
| | Bartlett-Queens | 26 000 | 6% | 4 130 ¹ | 7% |

1. Two-way travel

2. City-bound volumes

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