

THE CONSIDERATION OF A PLAN FOR
CENTRAL PRETORIA WITHIN THE FRAMEWORK
OF THE PRETORIA TRAFFIC PLAN.

by

JOHN DAVID ROBERTSON BRYANT.

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SEPTEMBER 1963.

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JOHN DAVID ROBERTSON BRYANT.

submitted in fulfilment of the requirements for the

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FACULTY OF ENGINEERING.

UNIVERSITY OF PRETORIA.

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- CHAPTER I -

INTRODUCTION.

1. 1. AIMS.

In 1948 the Pretoria City Council invited Professor William Holford to prepare a report on central Pretoria. In September, 1949, the report was duly submitted. Ever since that date the replanning of central Pretoria has received periodic attention from the press, and the suggestions and statements of many individuals and organizations have been recorded.

With the publication of the Pretoria Traffic Plan in 1960, the subject received fresh impetus and the press has given great prominence to many views on planning matters concerning the central area in general, or specific parts thereof, such as Church Square and the present municipal market site. The subject of this thesis, therefore, is one which has been widely discussed and in which many individuals and organizations have become interested. However, opinions expressed and solutions offered to date have, generally, been with a single problem or aspect in view and with little or no survey data to substantiate any statement. A well considered overall scheme has been lacking. This the author will endeavour to provide.

In view of the circumstances and the wide interest in the subject, it is hoped that this thesis will not merely be of academic interest, but be a tangible contribution to the replanning of central Pretoria. Research will be done to obtain information and any suggestions made will be based on factual data.

Stated briefly the aim of this study is to determine whether physical improvements in the central area of Pretoria are necessary, and if so whether they are feasible and of practical implementation.

1. 2. METHOD.

The recognised planning procedure of survey, analysis and synthesis will be followed. A complete and full analysis of the growth of the city is unnecessary, as the present position is the period of vital interest. Nevertheless, certain background information is essential and to this end a brief history will be given.

Further, existing planning schemes which apply to central Pretoria **will be studied**, and the probable effect of major changes scheduled to take place will be discussed.

A functional delimitation of use zones within the central area will be attempted and growth trends determined. These will be extracted from surveys undertaken by the author.

Transport, both public and private, is a factor which must be considered in any planning study as is the position with regard to parking facilities.

There are certain aspects of Pretoria which require detail study. There are Church Square, which has a special significance, and the retail function.

When all data has been analysed, the preparation of a physical plan for the central area will be attempted in the light of the findings. The desirability of any changes suggested will be considered both in the light of Pretoria's own problems and solutions suggested for other cities.

The findings and suggestions will be shown in the form of maps and sketches to afford a visual representation of descriptions given.

1. 3. SOURCES OF INFORMATION.

Much of the bibliography given is obtainable from the various branches of the Pretoria Municipality. Some books were loaned to the author by interested parties who were approached or interviewed. The library of the Council for Scientific and Industrial Research has many of the works mentioned. The good offices of this library were used to obtain books and periodicals from other libraries.

Interview was extensively used to obtain data. In this regard it must be men-

tioned that several of those interviewed wish their names to be withheld as the views they hold do not necessarily represent the official view of the body, association or department with which they are connected. As the obtaining of information in these cases was subject to this condition the author has adopted a policy of anonymity in this matter throughout.

On site survey was also used and this was supplemented by information obtained from all branches of the Pretoria City Engineer's Department. This includes maps and data from surveys conducted by the Municipality.

Aerial photographs, both contact size and enlargements, were obtained from the Government Trigonometrical Survey office at Pretoria. As these were flown in 1962, much up to date information was obtained from this source. This was supplemented by observations in the field.

1. 4. SCOPE.

For the purposes of survey the extent of the central area will be taken to be that portion of the city within the proposed ring road freeway envisaged in the Pretoria Traffic Plan. For the purposes of comparison and location the position of this road has been superimposed on most of the illustration maps.

However, it would be unwise to completely isolate the study area in this way. Therefore surveys will extend slightly beyond the area defined by the ring road.

1. 5. PLANNING IMPLICATIONS.

Any suggested improvement must, of necessity, be both practical and **feasible**. To arrive at planning improvements the problem must be approached objectively and without bias. If survey and analysis prove the necessity of having a particular function in a particular position, then allowance must be made for that function. Further, the implementation of suggestions must be economically possible. In Pretoria, costs of implementation are of particular importance at the present time in view of the considerable expenditure to which the City Council is already committed.

The question arises as to whether it is wise, in view of this expenditure, to consider further physical planning proposals. A parallel is found in the reconstruction of the City of Coventry, in England. Discussing the decision to progress from partial redevelopment to an all embracing master plan, city architect Donald Gibson states: "... it seemed such a pity to build so many new buildings and still have a nasty city when they were finished" (7, page 476). The overall plan was naturally more costly, but in the interests of good planning and civic architecture, it was considered the correct thing to do. Simi-

larly, in Pretoria, while extensive remodelling of the central area is to take place, it is logical to consider all aspects and to determine whether an overall plan is required.

Obviously, existing planning schemes must be taken into consideration and new suggestions should, as far as possible, complement, rather than replace, these. The principle of building upon that which is good from the past must be adhered to.

Pretoria, as a national and provincial capital, has a unique status. In view of this, consideration will be given to the possibility, not only of interdepartmental municipal co-operation, but of co-operation between the national government, the provincial administration and the municipality to obtain plan implementation.

- CHAPTER II -

THE GROWTH OF PRETORIA
UP TO THE PRESENT TIME.

As the history of Pretoria has been given in great detail by Louw (2), Preller (31), Nathan (32) and others, the author will confine himself to only a very brief reference to the growth of the city. It is intended also to sketch the growth pattern of the central area and to evaluate the factors responsible for its growth. The legislation governing development which is presently in operation will be discussed as will be schemes which have been accepted in principle but which have not yet reached the stage of implementation.

2. 1. ORIGIN AND LOCATION.

Pretoria is situate in the Southern portion of the Province of Transvaal and this location was deliberately decided upon for reasons of its centrality to those burghers inhabiting the Transvaal Republic, as the province then was, at the middle of the nineteenth century. According to Louw (2, page 21) by 1850 there were four towns in the Republic; Potchefstroom in the South-West, Rustenburg in the West, Lydenburg in the East and Schoemansdal in the North, each forming the centre of an administrative zone. The need of a central capital was felt and in April 1851, one hundred and thirty two burgher farmers from the Heidelberg, Witwatersrand, Pretoria and Rustenburg highveld areas sent a memorandum to the

Volksraad, requesting the establishment of a capital in the centre of the community.

In 1852, the Volksraad, meeting at Potchefstroom, decided that the farm Bronnekors Vontyn would be reserved for the establishment of a town. The farm is known as Fountains today and was settled by the brothers G.S. and L. Bronkhorst as early as 1842. The spring, or fountain, provided a strong and continuous water supply. However, the nucleus of the town arose at a point where the wagon trails of the Republic met. These were the Rustenburg to Lydenburg, Potchefstroom to Lydenburg and Heidelberg to Lydenburg roads and they were crossed by the wagon trail from Schoemansdal to the port of D'Urban. According to Hall and Paver, (10 page 18), M.W. Pretorius purchased land from Messrs. Prinsloo and Van der Walt for the establishment of the Town. These persons are commemorated in the names of two main streets.

Louw mentions other reasons for the establishment of the town, such as political, military, social and the important religious factors. There were, however, no good economic reasons for the origin of Pretoria as in the case of many other towns where a trading store or place of work provided a nucleus. The first shop in Pretoria opened in 1857(2 page 26).

The nucleus of Pretoria was a church and a Government office or "Raadsaal" where the council could meet.

The original name suggested was Fretoria-Philadelphia, in memory of the Great Trek leader A.W.J. Pretorius. Peacock records that the second part of the name was soon dropped and on November 16, 1855, Pretoria was proclaimed a town and the building of a church on Church Square was commenced in February 1857 (9, pages 24 - 26).

2. 2. GROWTH.

2.2.1. Up to the First South African War.

In 1857, Andries Francios du Toit laid out the first town plan with only a fifty foot chain and a telescope (2 page 28). The church formed the focal point and the area marked out remains the central area of the city today. From the church Du Toit set out three streets west, four streets east, five streets north and four streets south. Today this represents the area bounded by Potgieter, Bloed, Du Toit and Minnaar Streets. The axial streets, Kerk (east/west) and Market (north/south) took on the names of the two principal functions of the central square.

The first functions of the core area, namely those for which the town was established, were religion, a social centre for the country and the administration of justice.

In the early days trade was conducted by travellers mainly from D'Urban. The first shop opened by a certain Austen in 1857, had a size of fifteen feet by twenty feet.

Pretoria was declared the capital of the Transvaal Republic in 1860 (10, page 19) and a centralised postal service was established. After ten years of slow growth there were, in 1860, between seventy and eighty houses, a few shops and offices and four hundred residents. The area laid out by Du Toit was very sparsely built up. By 1872 the population had risen to 3,000. The eight blocks surrounding Church Square were reasonably well built-up and twenty-one blocks in all contained a fair measure of development.

After the 1877 annexation by Shepstone, the military influx provided a growth stimulus as did the development of the Witwatersrand Goldfields. Later, in 1880, some 5,000 military men were concentrated in Pretoria (10, page 21) and the town forged ahead. New businesses and banks were opened up. At this time the first Municipal Council was elected which body was placed in possession of the whole of the town lands (10, page 22).

This form of local government did not last long, as the first South African war reached its **climax** in the Boer victory at Amajuba and the British authorities were expelled.

2.2.2.Up to Union.

After the war Paul Kruger was elected president of the Transvaal and a republican

form of government was reintroduced (10, page 24). In 1890, the white population was 5,055. The rail connection with Lourenco Marques, in 1895, was a further sign of the development of Pretoria.

After the second South African war, (1899 - 1902,) there followed a period of great expansion. In 1902, Pretoria again became the Transvaal Provincial capital and this meant an influx of officials and once more military concentrations were centred in the town. The Town Council was again instituted and this body started to levy municipal assessment rates. Census statistics show that in 1904 there were 22,821 Whites, 14,183 Bantu and 3,530 Asiatics, giving a total of 40,534, and this represented an increase of eight times the population of 1890 (4, page 41).

On May 4th 1908, a conference between the Transvaal, Cape Colony, Natal and Orange River Colony, called primarily to discuss customs, unanimously passed a resolution which provided for the appointment of a South African National Convention. This convention met in Durban on 11th October, 1908 (10, page 13). On 3rd February, 1909, the completed draft act was signed and on 9th February, the proposed South African Constitution was published. In June of the same year the final draft was passed by the four parliaments and it was carried through the British House of Lords as the South Africa Act (10, page 14).

The constitution provided that, except for the sitting of Parliament in Cape Town, Pretoria would be the seat of Government. Expansion was thus assured as was the administrative nature of the town. In 1931, Pretoria was declared a City (2, page 49).

2.2.3. Up to the Present.

The growth of Pretoria has been steady and continuous. As the population of the country as a whole has increased, so the city has grown to keep pace with administrative needs.

The growth in population within the municipal boundaries, from 1904 onwards, is shown in the following table, taken from the Bureau of Census and Statistics reports.

TABLE 1. POPULATION GROWTH OF PRETORIA (MUNICIPAL AREA).

Census Year	WHITES	BANTU	ASIATICS	COLOUREDS	TOTAL
1904	22,821	14,183	3,530	-	40,534
1911	29,618	15,789	3,200	-	48,607
1921	42,169	22,856	1,721	2,015	68,761
1936	68,576	34,409	2,744	2,820	108,549
1946	106,986	54,152	4,179	2,741	168,058
1951	130,797	90,518	5,631	4,764	231,710

However, in considering the growth of a city, the townships outside of the municipal area but within the metropolitan area must be taken into account. On the periphery of

the Pretoria municipal area considerable development has taken place. In recent years these townships have housed an increasing number of persons. The central area of the city serves this greater Pretoria.

Figure 1 on page 14 shows the horizontal development of the city both within the municipal area and beyond. Compared with a total municipal population of 231,710 in 1951, the metropolitan population was 285,370. In 1960, the municipal total was 298,632 (154,789 Whites) and the metropolitan figure was 415,989.

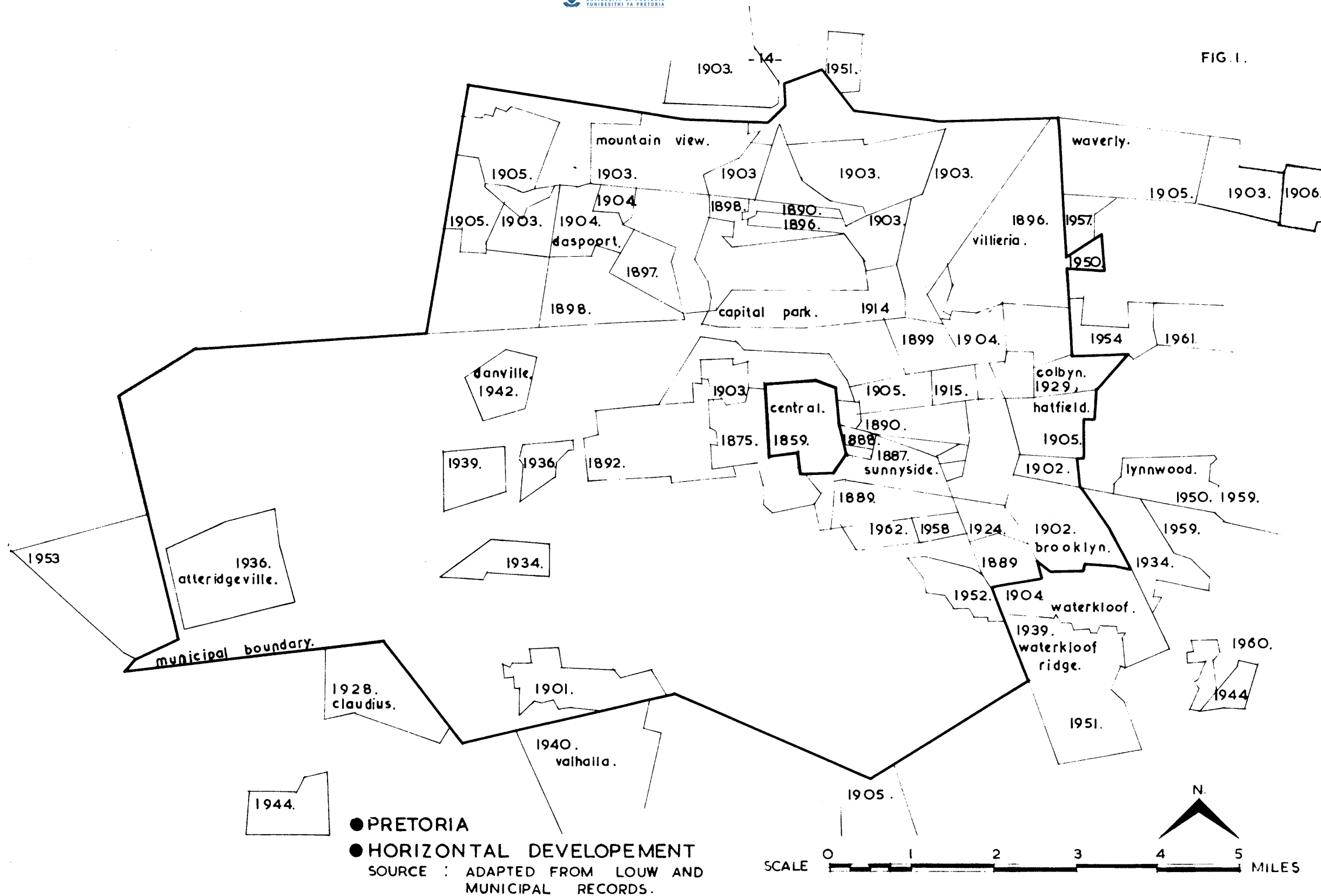
2. 3. THE GROWTH OF THE CENTRAL AREA.

The construction of the original church gave the new town its focal point. Business and social activity centred on the immediate vicinity of the church and early development, therefore, spread out from Church Square.

The townsfolk built their houses around the church forming a special residential function which completely encircled the centre. From the beginning the important administrative function was present. The first administration buildings were located to the west of **Church Square** and the commercial development took place to the east.

Figure 2 on page 15 shows the 1893 land use pattern of central Pretoria. The location of the administrative function and the location of retailing and other business in

FIG. 1.



● PRETORIA
● HORIZONTAL DEVELOPEMENT
SOURCE : ADAPTED FROM LOUW AND MUNICIPAL RECORDS.

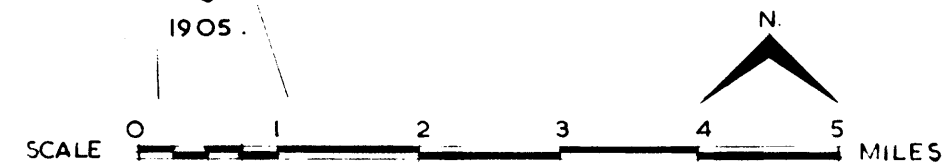
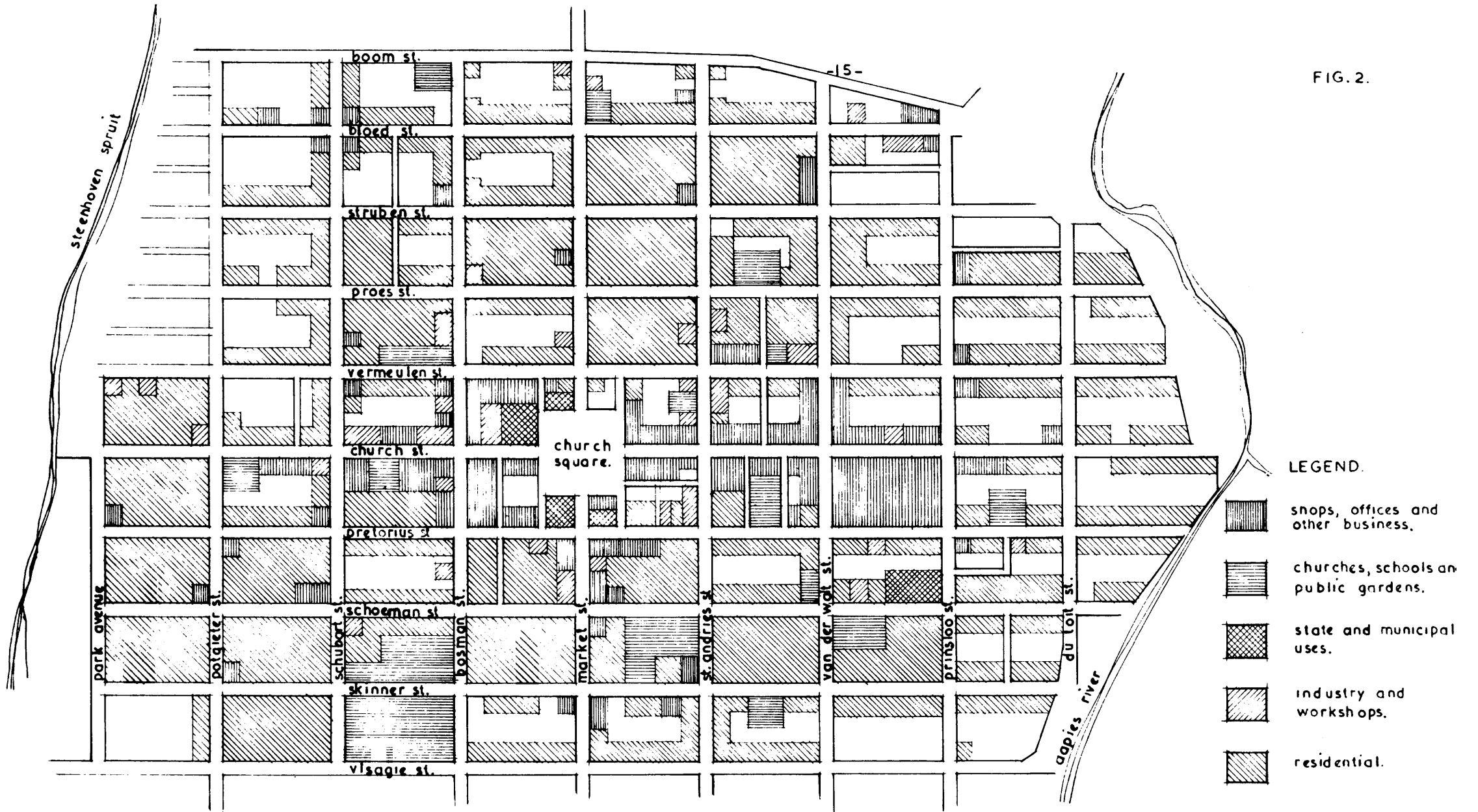


FIG. 2.



● PRETORIA
● LAND USE 1893
SOURCE : ADAPTED FROM LOUW.

SCALE 1:10,000 0 1/4 1/2 3/4 1 MILE

Church Street east can be clearly seen. These two land uses were more firmly established in their respective zones with the passage of time.

Figure 3 on page 17 shows the 1947 land use pattern of the central area. The special residential ring has been broken into, particularly to the north, by the insurgence of small businesses and the eastward development of retailing. Further large scale Government development is evident west of Church Square.

In 1870, there were 50 trading licences held in the town of which seventeen were liquor licences and fourteen retail licences. In 1946-47 there were 140 wholesale and 1329 retail licence holders in the city. By 1952 these figures had risen to 188 wholesale and 1712 retail licences respectively. (2, page 116).

2. 4. EXISTING DEVELOPMENT SCHEMES.

2.4.1. Town Planning Scheme No. 1 of 1944.

This document with its relevant charts forms the present framework of development for Pretoria. Clauses 16, 17 and 18 lay limitations on the use of buildings and land.

The whole of the municipal area is divided into thirteen use zones. These are:

- | | | | | | |
|----|----------------------|----|---------------------|----|----------------|
| 1 | Special Residential. | 3. | General Business. | 5. | Institutional. |
| 2. | General Residential. | 4. | General Industrial. | 6. | Undetermined. |



FIG. 3.

- | | | |
|------------------------|----------------------|--------------------------|
| 7. Educational. | 9. Special Business. | 11. Agriculture. |
| 8. Municipal Purposes. | 10. Special Zone. | 12. Service Industrial. |
| | | 13. Government purposes. |

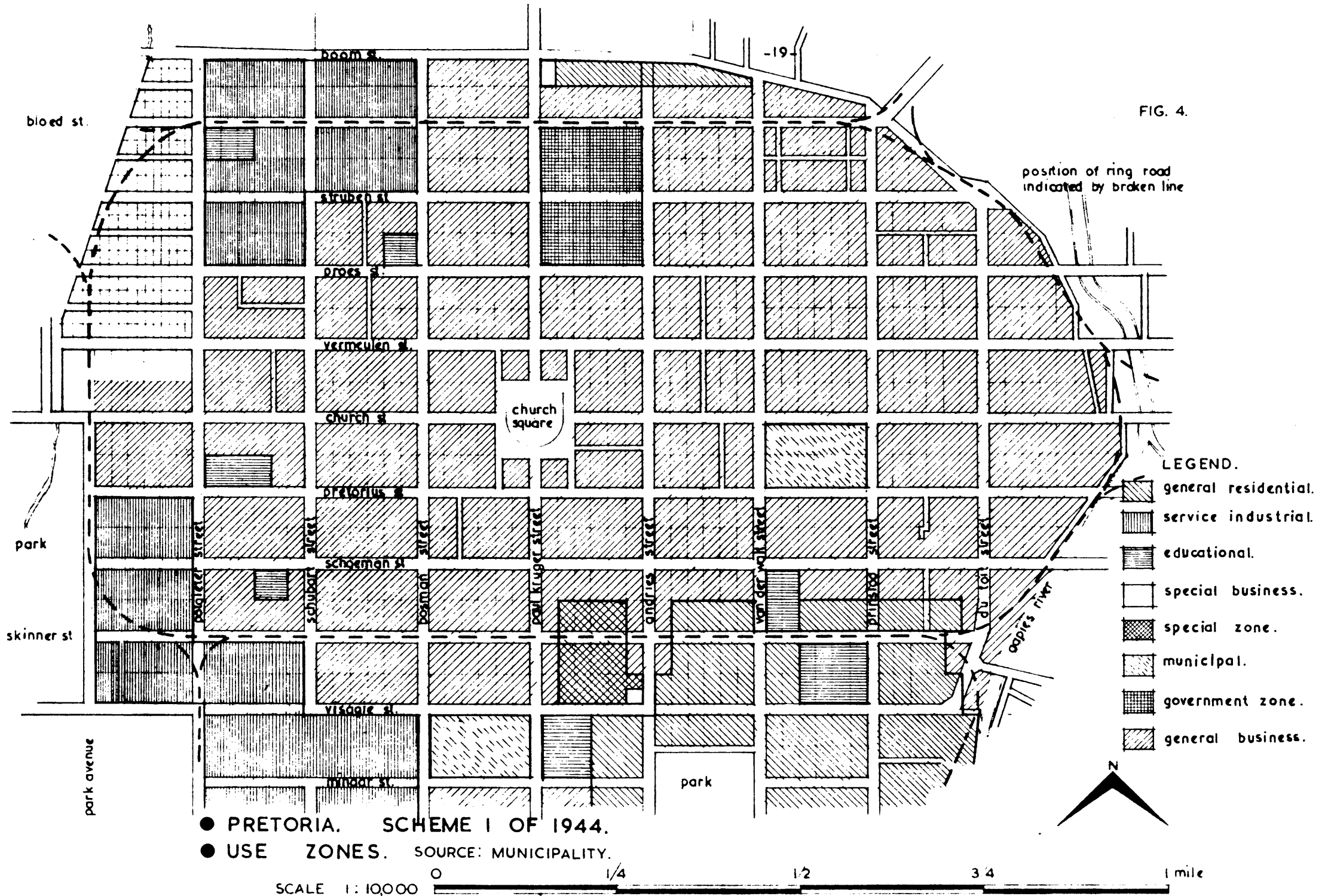
For each zone, the erection and use of buildings falls into three categories,

namely:

1. Those which need no further approval.
2. Those which may be erected and used only with the consent of the Council.
3. Those which may not be erected and used.

Figure 4, on page 19 shows the use zones in the central area. It is clear that the predominating land use is general business. The erection and uses permitted under this head are shops, business premises, residential buildings, social halls, places of public worship, places of instruction, places of refreshment, parking garages and premises licensed under any Liquor Act. Erection and use for dwelling-houses, sportsgrounds, places of amusement, special buildings, public garages, institutions, warehouses and craft industries, may only occur if the approval of the Council is obtained. (5, page 18).

It is sound planning that particular types of buildings may be erected for partic-



ular purposes on sites zoned for them. In this way the use of land is controlled and the possibility of uncomplimentary uses being intermixed is eliminated. However, throughout the forty-one clauses of the scheme, provision for alteration of the general requirements is made through the channels of appeal to the Council or higher authority. Thus, while a clear pattern of desired development is set forth, provision for the unorthodox or for possible change is made.

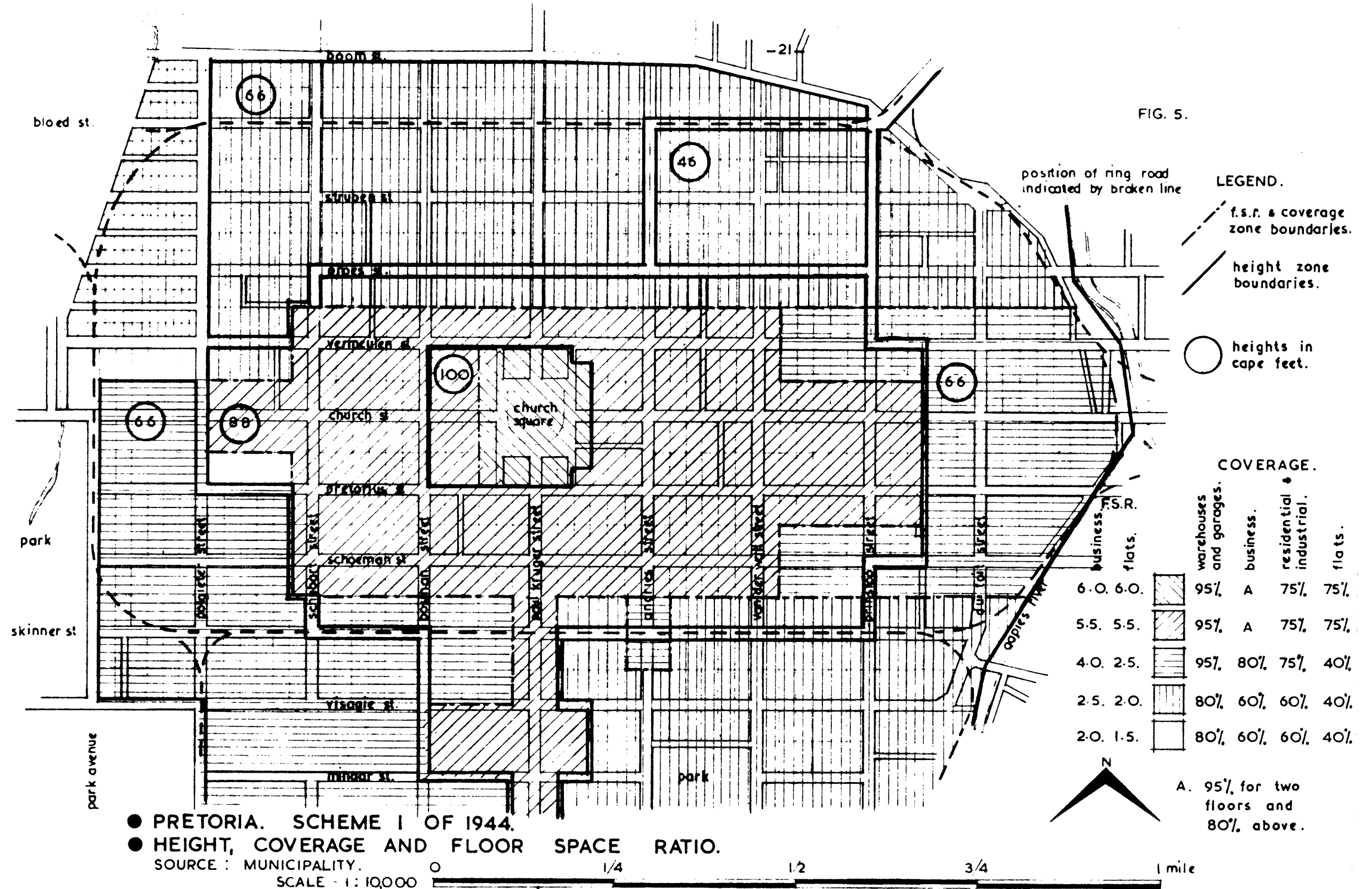
An interesting observation from the use zone map is that although the government is firmly entrenched to the west of Church Square, this area is not zoned for government use.

The other factor governing physical development of the central area is density.

In Pretoria this is controlled by three factors:

- a. Coverage allowed, expressed as percentage of the area of the site,
- b. height, and
- c. floor space ratio, expressed as $\frac{\text{Total Area of Building.}}{\text{Total Area of Site.}}$ (5, page 15).

The density pattern for central Pretoria is shown in figure 5, page 21. It will be seen that height limitations are zoned separately from site coverage and floor space ratio, while these two latter vary according to the use of land. The intention is a build-



ing up in density to a climax of development around Church Square.

2.4.2. The Holford Plan.

The report submitted by Holford to the City Council is not based on detailed survey. In fact the report recommends that a thorough traffic survey be carried out and analysed. Nevertheless there is much of interest in the report and many of the recommendations made have been accepted by the City Council, particularly with regard to building setbacks and density zoning.

Holford points out that as the Administrative capital of South Africa, Pretoria has some characteristics peculiar to itself. In and around Pretoria, one person in five and one worker in two is in the Government Service, and the ratio is tending to grow in favour of the Government Service (4, page 8). This fact gives rise to the possibility of the grouping of Government offices for efficiency and civic design. Holford goes into considerable detail in describing his ideas for this, particularly with regard to developing Struben Street, from Paul Kruger Street eastwards, as a Government Avenue. This would ultimately link up with the Union Buildings.

This particular scheme has been accepted as a long-term Government project. To date the land bounded by Paul Kruger, Bloed, Andries and Proes Streets has been purchased.

In his report, Holford recommends that the central area of Pretoria should be physically defined. This area should be large enough for the requirements of normal growth (4, page 8). Holford's suggestion is that the central area be defined by means of a limited access ring road, which would also provide for local through traffic. His suggestions for road improvements are shown on figure 6, page 24. The course selected for the ring road is interesting for comparison with the Pretoria Traffic Plan. Holford's approach is civic rather than that of traffic engineering and in his definition of the central area he was guided only by what appeared to be the most natural boundaries available. At the time of the report his selection was generally well received.

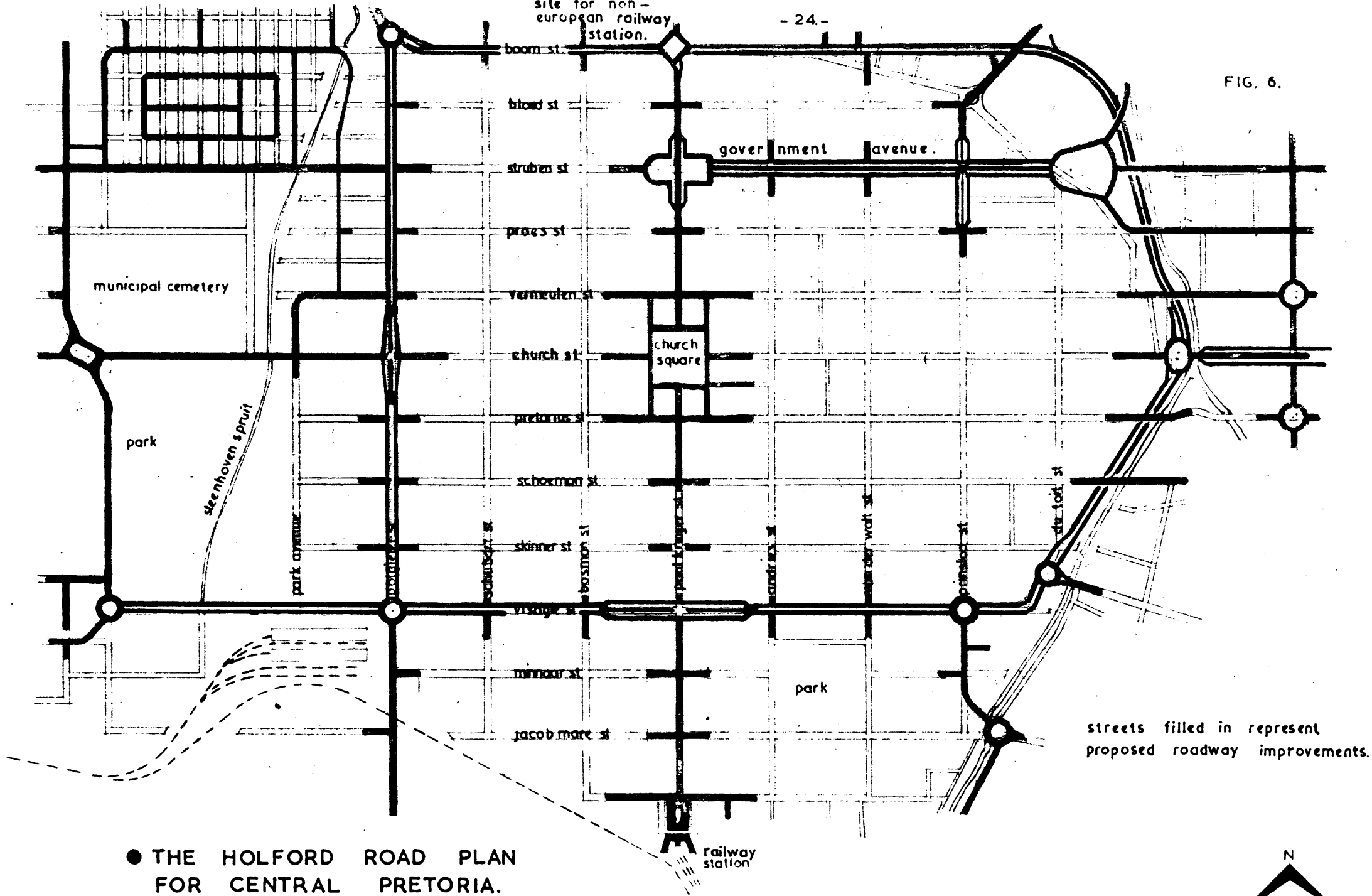
The proposed street widening in the central area was hotly contested and in the heart of the city the scheme has been abandoned or only enforced on one street front in the case of corner sites. However, certain roadways have been widened at the expense of sidewalk width. A particularly good example of this is Schoeman Street. Many sidewalks are no longer wide enough to comfortably cope with peak hour pedestrian traffic. This is noticeable near Church Square, which is the transit node, and the three blocks east of Church Square during the mid-day lunch break.

In designing the ring road, Holford had in mind that it served the following purposes:

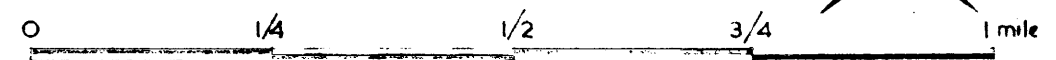
site for non-
european railway
station.

- 24 -

FIG. 6.



● THE HOLFORD ROAD PLAN
FOR CENTRAL PRETORIA.
SOURCE : THE HOLFORD REPORT.



- (a) To provide a system of radial and ring roads designed for traffic rather than for access to buildings;
- (b) To provide a route for local through-traffic and for arterial-traffic passing through the city, without in either case crossing the central business area;
- (c) To provide better distribution of traffic, particularly at peak hours, from the centre to the outskirts and vice versa.
- (d) To act as a natural boundary between areas which are central to the city as a whole and those that are sub-central, local or special.
- (e) To act, as far as possible, as a "traffic exchange". It would mark the boundary between unrestricted private transport outside the central area and the more or less restricted private transport within it. (4, page 11).

These aims correspond almost identically with those stated in the Pretoria Traffic Plan (6, page 28, 29).

Although making use of fly-overs and grade separation at such points as the Paul Kruger - Visagie and Paul Kruger - Struben Street intersections, Holford suggests traffic roundabouts at most of the ring road junctions. As survey data was lacking, these roundabouts should be taken to indicate nothing more than a major road junction and in the light of later surveys they appear to be well placed (6, pages 25, 26).

The proposal of siting a railway station for Non-Whites at the north end of Paul

Kruger Street has been rejected. This has been constructed between the existing station and the goods yards.

2.4.3. The Pretoria Traffic Plan.

This plan, based on 1956 survey data, aims at developing a road system in Pretoria which will afford a smooth traffic flow for conditions which are likely to prevail in 1981. Special consideration is given to the central area.

The report quotes figures to indicate the probable increase in traffic volumes. In 1956 the Pretoria metropolitan area contained 173,000 Whites and 194,000 Non-Whites, with 47,000 motor vehicles. The estimates for 1981 are 334,000 Whites, 427,000 Non-Whites and 157,000 vehicles (6, page 7). The 1956 survey showed that 44,508 vehicles entered and 43,531 left the central area between 6.30 a.m. and 6.30 p.m. on an average week day. 12,210 of these, or 27.4% passed through the central area without parking. The estimated figures for 1981 are 175,000 entering the central area, of which 83,200 or 47.4% will be passing through only (6, page 16). It will be seen that the proportion of traffic entering the area, but which will not be seeking a destination within the area, is expected to increase considerably. If this by-passable traffic can in fact by-pass the central area, then, in the opinion of the authors, only the peak hour traffic problem will remain for

solution.

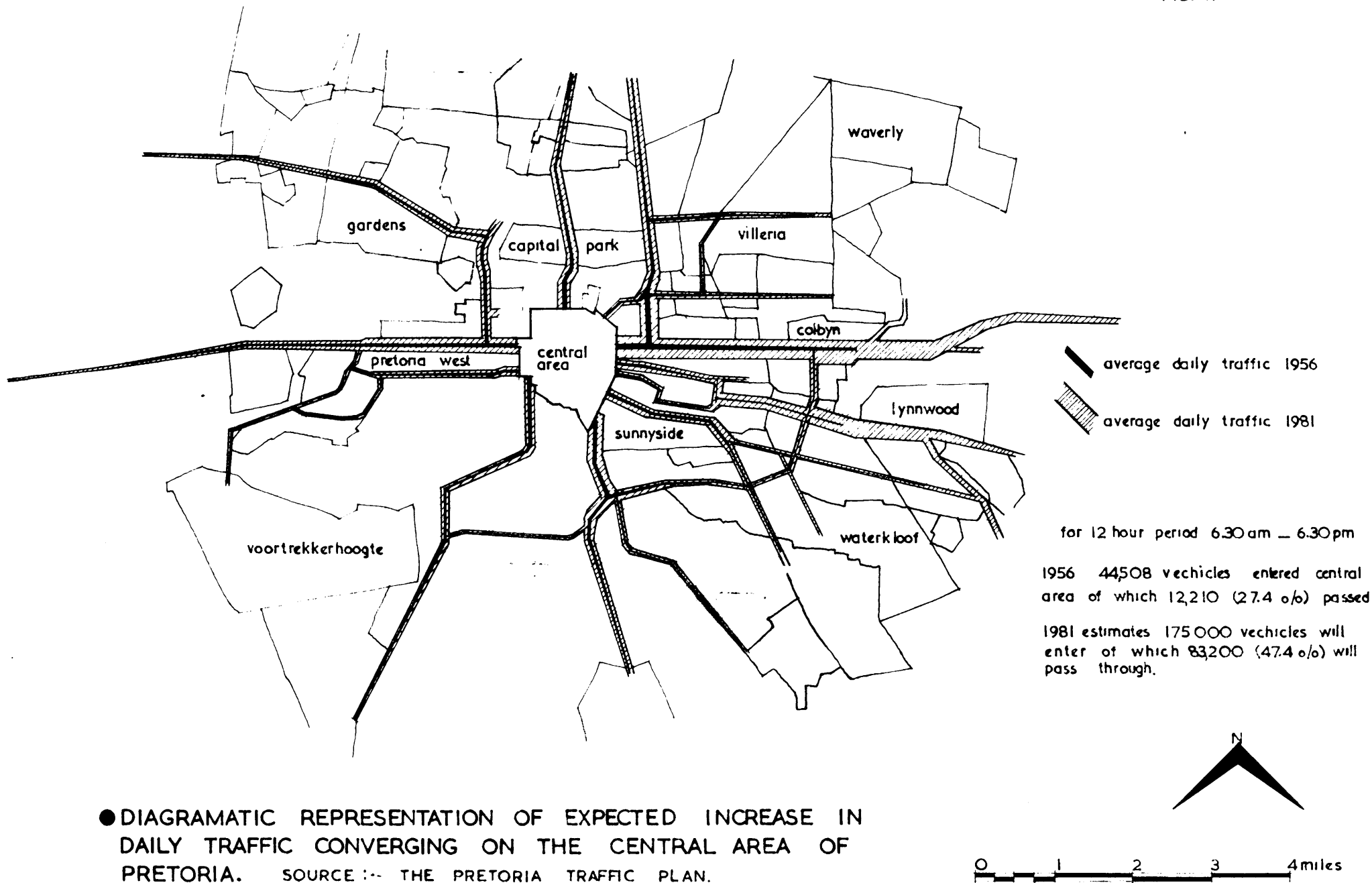
Figure 7 on page 28, showing the 1956 and anticipated 1981 traffic flow volumes, reveals the necessity for a master plan to solve the impending traffic chaos. The necessity for a bold approach is abundantly clear.

The report presents the following possible solutions but rejects each for various reasons:

1. Improved Mass Transportation Services. This was rejected as all surveys indicated that the desires of the public are against this as a solution although demands for public transport will increase as the densities of general residential areas within walking distance of bus routes increases (6, page 19).
2. The Park and Ride Scheme. Under this plan the motorist proceeds on radial arterials to strategically located parking facilities about one mile from the city centre and is transported at a reasonable fare to his destination by a fast bus service. This is rejected as not being attractive enough from the point of view of mobility (6, page 20).
3. Central Area One-Way System. Although one-way flow increases capacities from 20% to 35%, this solution was rejected as it would provide only temporary relief, as would the widening of existing streets (6, page 22).

The solution to the problem is seen in a system of through-ways and express-ways

FIG. 7.



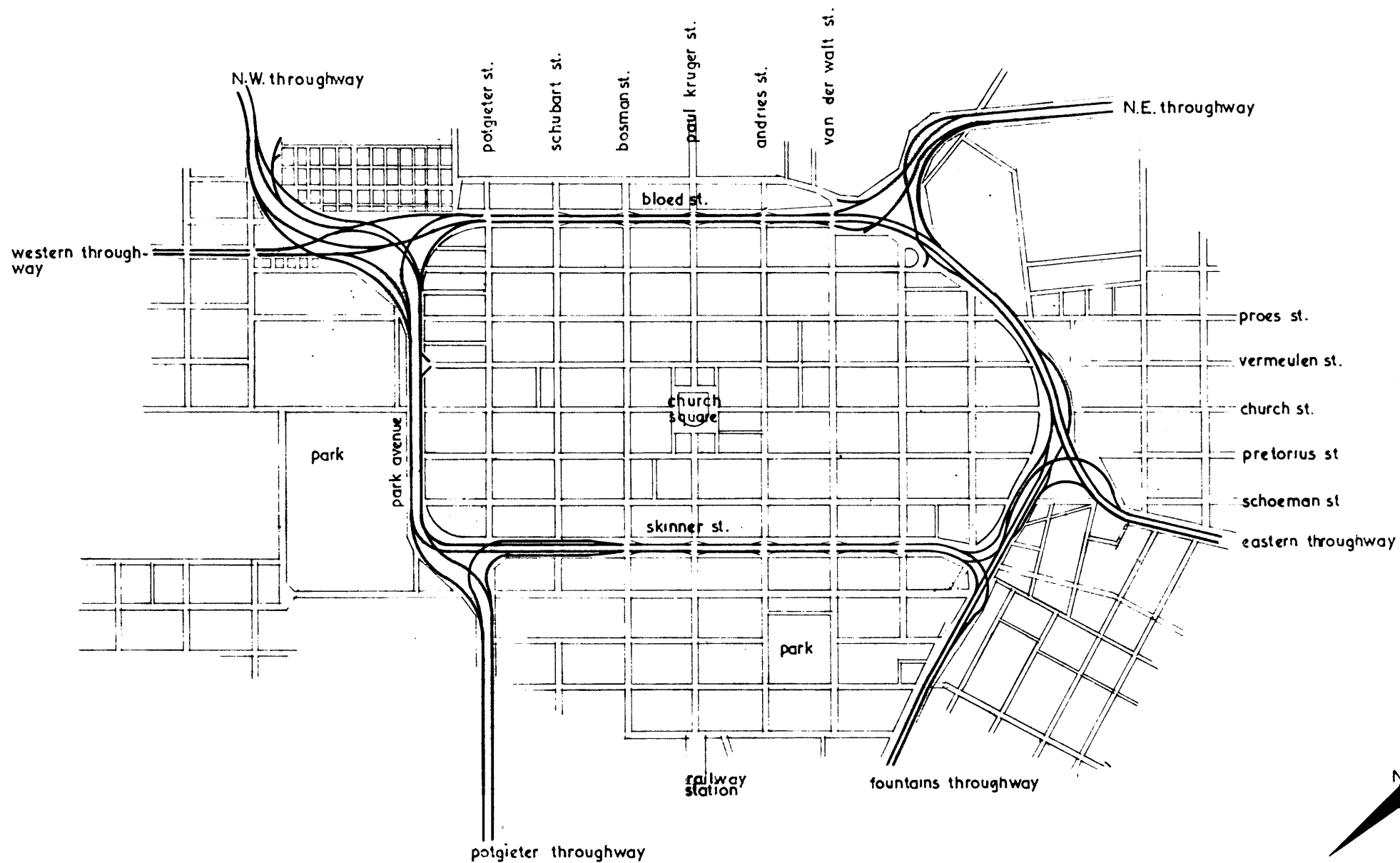
● DIAGRAMATIC REPRESENTATION OF EXPECTED INCREASE IN DAILY TRAFFIC CONVERGING ON THE CENTRAL AREA OF PRETORIA. SOURCE :- THE PRETORIA TRAFFIC PLAN.

superimposed on, and acting in conjunction with, the existing street pattern. That portion of the plan which affects the central area is shown in figure 8, page 30.

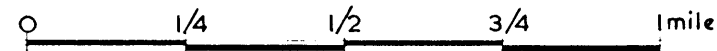
The central area ring road will primarily act as a collector and distributor for traffic to the central area with numerous on-and-off ramps. It also serves to by-pass through traffic. In fact the ring road will act as a giant, all-directional interchange between the radiating through-ways.

Although it is intended to maintain the existing street pattern either over or under the ring road, the latter will provide definition of the central area. It will, in effect, determine the boundaries of the central area and it is this portion of land which will be considered in this treatise. It is interesting to note that only some months after the adoption of the plan in principle, was the question of whether to use Blood Street or Boom Street as the northern perimeter of the ring road settled. This would seem to indicate that the central area could with little difficulty, be extended one block in a northerly direction.

The Chamber of Commerce has criticized the choice of Skinner Street instead of Visagie Street as the southern boundary. Although there is considerable business activity carried on south of Skinner Street, moving the ring road one block further south would bring



● CENTRAL AREA OF PRETORIA SHOWING RING ROAD & THROUGHWAY LINKS.



two schools into the central area. Furthermore, it has been proved that the selection of Skinner Street will result in minimum loss of revenue from rates and taxes.

The Pretoria Traffic Plan was criticized by many individuals and bodies, and members of the City Engineer's Department have shown an awareness of the need for public relations work in conjunction with the plan. They have addressed several gatherings and have constructed a model of the ring road for public display. Generally, once the vast impending increase in traffic volume is grasped, the need of the plan becomes apparent. The cost of implementing the scheme is estimated at fifty million Rand spread over twenty years.

2. 5. MAJOR CHANGES IN THE CENTRAL AREA.

Apart from the construction of the ring road, there are several other projects of major importance due to take place within the central area of Pretoria, arising from short- and long-term requirements of national, provincial and local government.

These are shown on figure 9, page 32.

2.5.1. Provincial Headquarters.

This building is nearing completion and will soon be fully occupied. The building will house most of the Provincial Departments, certainly all those of an administrative nature. There are no shop-fronts to the building, which will, in conjunction with the buildings on the north side of Church Street, form a break between the retail

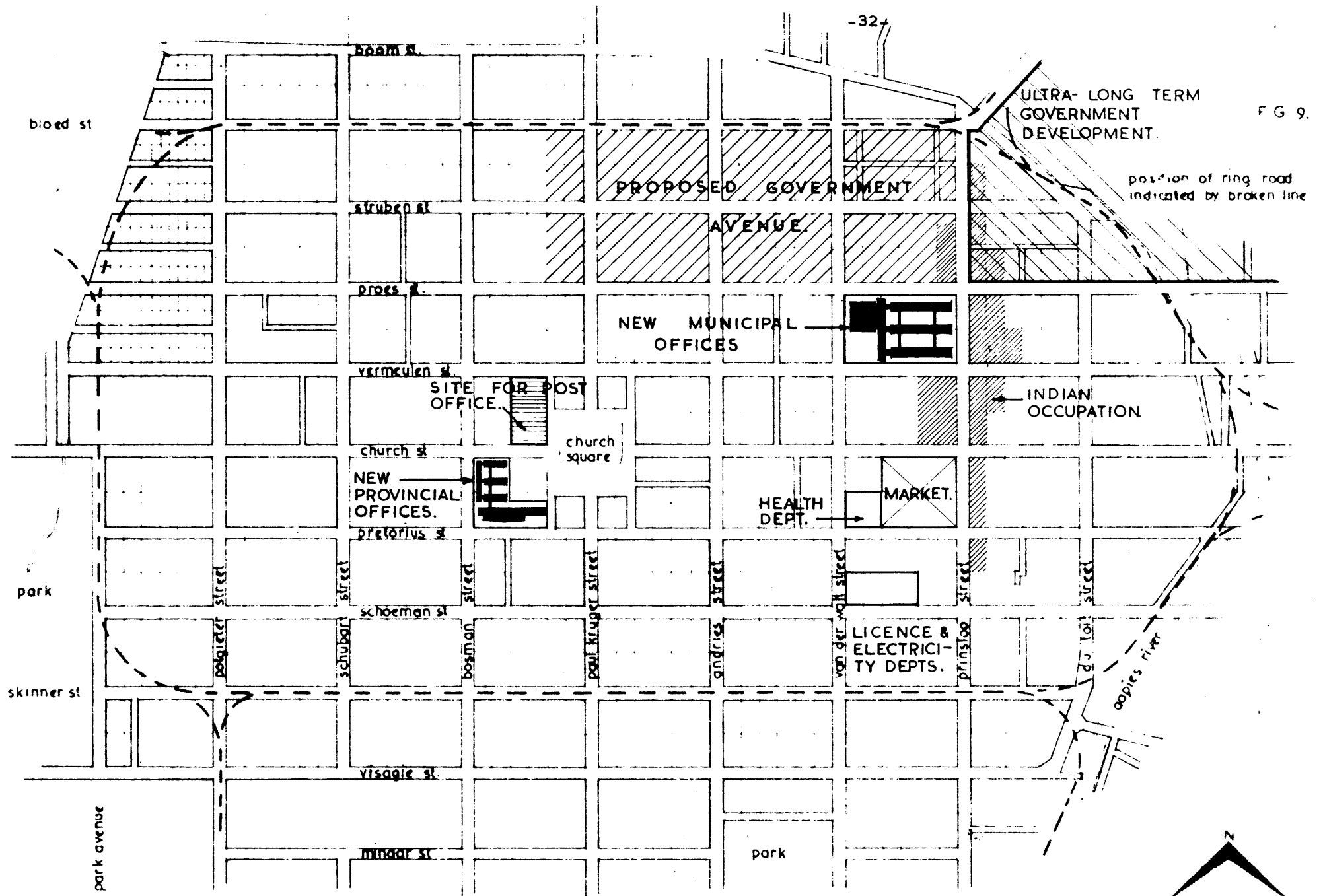


FIG 9.

● MAJOR CHANGES IN CENTRAL PRETORIA.



shopping in Church Street west and Church Street east. The new building is in close proximity to the Raadsaal, which is the Provincial debating chamber. This close relationship is **not** striking enough to be readily noticeable due to the conglomeration of buildings north-east of the new Headquarter building on the same block.

2.5.2. New Post Office.

A new General Post Office is to be erected to replace the existing one. This will doubtless be of contemporary design and multi-storied. The remainder of the block houses the Department of Public Works and, together with the Provincial Buildings, forms part of a phalanx of government building which divides the centre of town into definite eastern and western zones. This will be more clearly seen in chapter III where the existing land use pattern is discussed.

2.5.3. Government Boulevard:

The establishment of this boulevard, as suggested by Holford, is being proceeded with as a long term project, from Paul Kruger Street eastwards as far as Prinsloo Street. From this point further east, until the link with the Union Buildings may be described as ultra-long-term but, should the increase in the size and number of National Government departments warrant it, this development would be desirable and may ultimately include the Houses

of Parliament, if these should eventually be moved from Cape Town.

However, stage one, as it were, will certainly go a very long way to defining Pretoria as the administrative capital of the Republic. At present Government Departments and the many Government sponsored Boards and Commissions occupy considerably more than half of the office space in the city, either in their own buildings or in rented accommodation. It has been accepted that, both for the convenience of the public and of the staffs of the Departments, a grouping of Government buildings would be advantageous.

Despite the acceptance of this scheme, Government development has continued on various building sites distributed throughout the central area. This is due to expediency rather than the lack of a master plan for, with the acceptance of the Holford plan, the Government and City have agreed to co-operate in what, it is hoped, will ultimately be a dignified indication of the status of Pretoria. The recent Government building activity has taken place on land which the Government had acquired prior to the acceptance of the plan.

2.5.4. Municipal Headquarters:

The Blackwood Villa Site is at present being developed into the municipal pulse of the city. It is anticipated that by 1980, the full development of the site will be complete and that the buildings will house the local Government Administration staff required

for a period of 50 years without further expansion.

The erection of the new municipal offices means that several buildings in Pretoria, at present owned and used by the City Council, will no longer be required to serve their present purposes. The moving of the Licencing, Electrical and Health Departments alone will mean that six full erven in the central area will become available for other uses.

2.5.5. Municipal Market.

In bygone days Church Square was the true heart of Pretoria. All manner of business was conducted on this site and, as the population increased, one of the first decentralization moves was that the buying and selling of animals and produce was transferred to a separate site some quarter mile or more to the east of the square to the present municipal market site. The market is to be moved again, this time right out of the central area.

However, the market site was presented to the City on condition that a market would always continue on the site. There is a **large** body of opinion that this condition of title should be honoured rather than apply to the authorities to have it changed.

2.5.6. Prinsloc Street.

Shops in Indian ownership and **tenancy** have tended to locate in Prinsloo Street and, due to this, the area has developed a character different from other retail areas in the city.

The **Blackwood** Villa project has encroached on this somewhat and the remainder of this concentration of Indian business is to disappear.

By the authority of the Group Areas Act, the whole of the central area of Pretoria has been zoned as an area for European occupation. This means that while Indians may retain ownership, even lease-hold, they must sub-let to white tenants. The deadline for the change to European occupation was set as 30th June, 1961, but due to a multiplicity of reasons it could not occur by that date. At present Prinsloo Street continues in its traditional character but the change will occur in the foreseeable future.

A survey **conducted** by the author and recorded in Chapter III, showed that the majority of these premises occupied by Indians are unfit for their present uses. It would appear highly unlikely that similar businesses will be carried on in the existing buildings by Whites when the Indians have finally moved out. Therefore, Prinsloo Street would qualify for urban renewal either by private enterprise or under the auspices of the Local Authority. As the area occupied by Indians for business and residence is fairly large, this area could well be one in which major changes could occur.

2. 6. CULTURE AND TOURISM.

The capital city of any country may be expected to lead that country in many, if

not all, respects. Pretoria, sharing as it does the function of capital with Cape Town and being so close to Johannesburg with its greater population, may appear to be somewhat handicapped. Nevertheless, the municipal authorities are determined that Pretoria shall have a cultural reputation in keeping with its status. The erection of a fine art museum in Arcadia is evidence that the City Council are serious in their intention.

The Municipality have, in the past, held several festivals during the Jacaranda season, but these were discontinued when attendance fell off. In 1962, an attempt was made to stage a Festival and vast crowds were attracted to the centre of the city. This was run on a very limited budget and the attractions were not on a scale large enough to entertain all who attended. The intention is that a Jacaranda Carnival be staged each year.

Interviews with personnel of the South African Tourist Corporation revealed that, to overseas visitors, Pretoria represented the epitome of "The South African Way of Life" and this in itself was an attraction.

In addition to the human element, Pretoria has several attractions worthy of the attention of visitors. These include Iscor, which has made a tremendous impression on many industrialists, the Voortrekker Monument, the N'debele Village, the Union Buildings, the Onderstepoort Veterinary Research Institute, Museums, Parks and Government Institutions

such as the C.S.I.R. and Mint.

The Tourist Corporation has established that these features do, in fact, attract visitors, usually in conjunction with each other. Furthermore, Pretoria has more visitors during the weeks during which the Jacarandas bloom than at any other time.

There is, however, great difficulty in assembling data on tourists, which is ascribed to the proximity of Johannesburg. Many of the visitors do not actually live in Pretoria but remain based in Johannesburg and spend one or two days visiting the capital. Exact figures are, therefore, difficult to obtain, but generally, especially as far as the hotel industry is concerned, Pretoria's big tourist problem is how to make them stay here.

From interviews it is apparent that the hotel and retail trades and commerce in general, would welcome any sound scheme to promote Pretoria as a Tourist attraction. There is general agreement that any cultural attraction should be of a very high standard to attract what is referred to as "outside money". Mediocrity does not attract. If quality is offered, patronage and the backing of business is assured.

When **considering** a plan for any city, the social and cultural aspects should not be overlooked.

CHAPTER III.

SURVEYS.

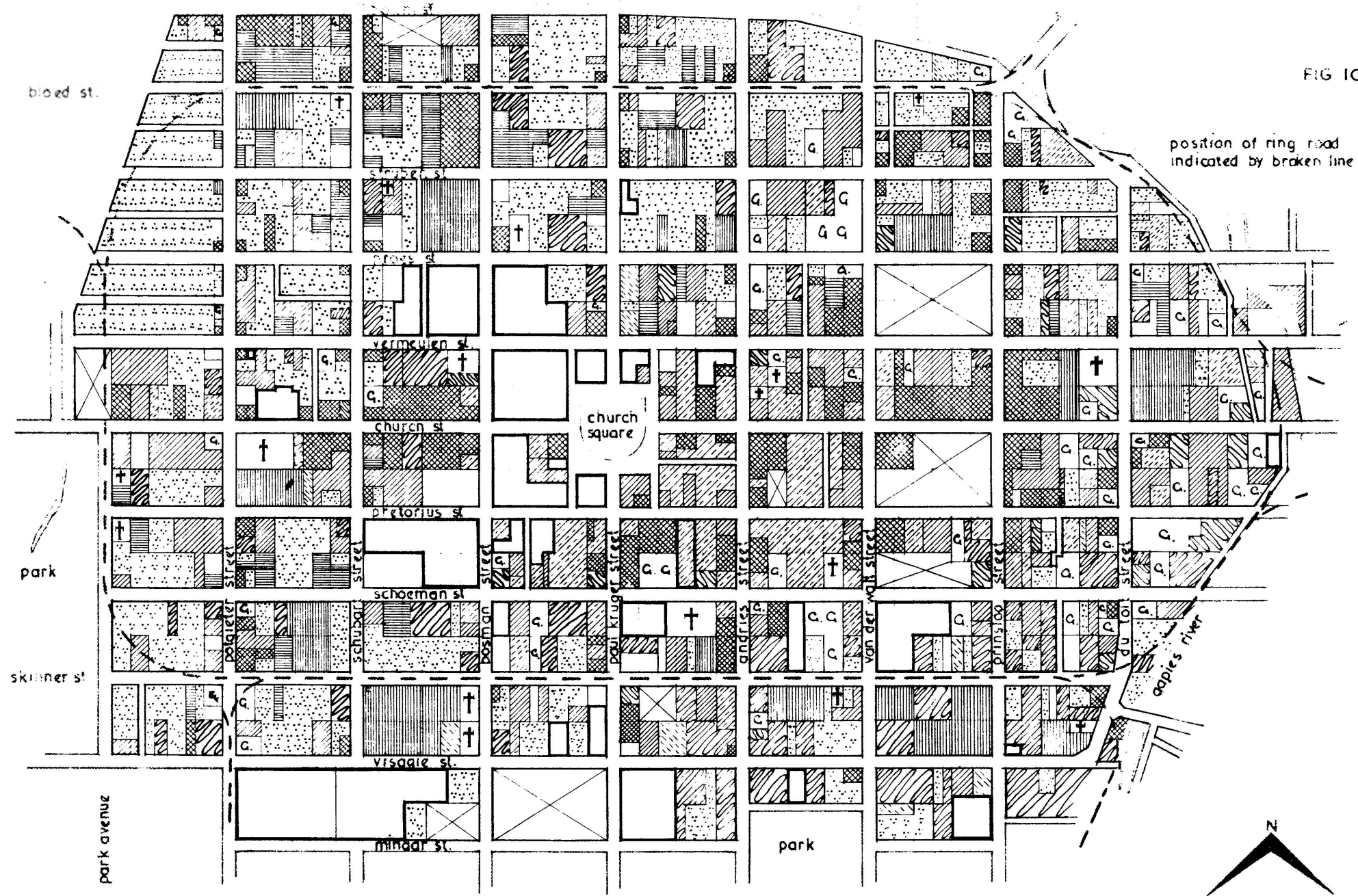
Thorough survey and analysis of the many facets of any city is a mammoth task requiring full time staff. Senior members of the staff of the City Engineer's Department have indicated that while up to date data on the development of Pretoria, particularly the central area, would be of great value to the municipality, staff and time have never been available.

The surveys recorded in this chapter were carried out by the author, and whereas it was not possible to investigate the type of businesses which occupy each floor of every building, nor to investigate the back yards of all premises which have a street front appearance of being special residential, to determine whether small scale industry was being practiced, each building in the central area was surveyed and the following recorded results are as accurate and as detailed as the representative scale permits.

3. 1. LAND USE.

Figure 10 on page 40 represents a land use survey of the central area, the key for which appears on page 41. Projects under construction at the time of the survey have been allocated uses. These uses have mostly been obtained from letting agents advertisements.

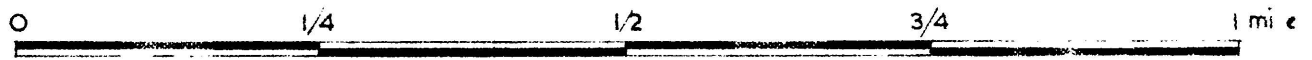
FIG 10.







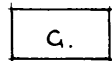
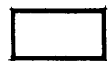
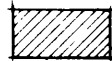
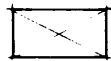

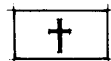
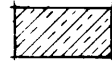
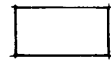



● LAND USE MAP OF CENTRAL PRETORIA BASED ON A SURVEY SEPT.-OCT. 1961.

KEY ON FOLLOWING PAGE.

SCALE 1:10000



	SPECIAL RESIDENTIAL.		EDUCATION.
	GENERAL RESIDENTIAL.		SERVICE OR LIGHT INDUSTRY.
	RETAIL SHOPPING ON GROUND FLOOR. GENERAL RESIDENTIAL ON UPPER FLOORS.		INSTITUTIONAL.
	GARAGE OR MOTOR INDUSTRY.		GOVERNMENT. (NATIONAL AND PROVINCIAL)
	GENERAL BUSINESS.		MUNICIPAL.
	RETAIL SHOPPING.		RELIGION.
	RETAIL SHOPPING ON GROUND FLOOR. GENERAL BUSINESS ON UPPER FLOORS.		OPEN GROUND.
	WAREHOUSING AND WHOLESALE.		

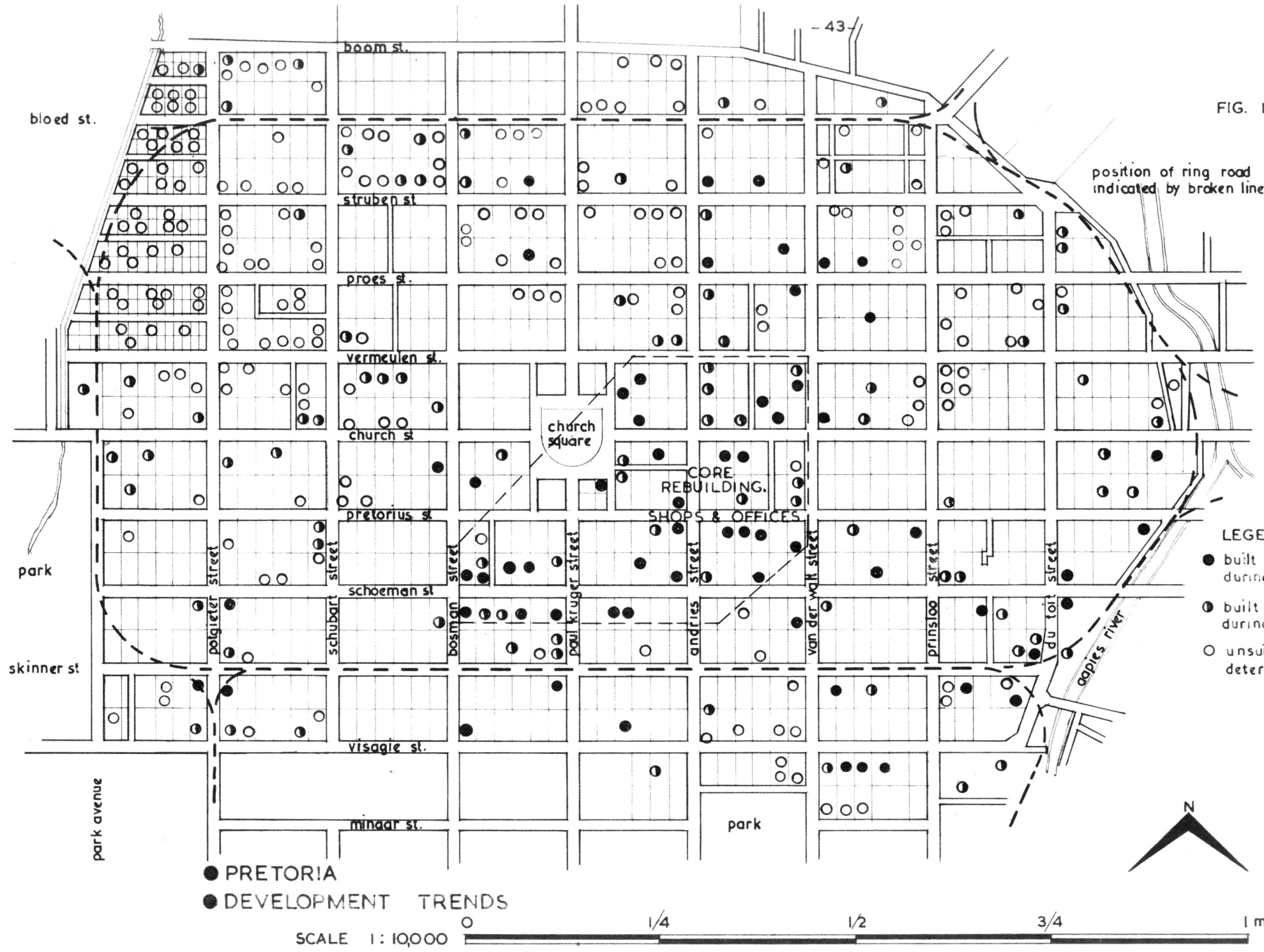
Apart from the concentration of government buildings west of Church Square and certain areas where the residential function predominates, the pattern appears as a confusion of uses.

One interesting feature which emerges clearly is that, except in the south east, the core is surrounded by a fair amount of the special residential function which remains from the days when private residences surrounded a smaller central core. This indicates that the barrier formed by the concentration of government buildings has prevented commercial spread to the west and that this development has taken place in the opposite direction.

Apart from Church Square, there is no open space which may be considered as a park within usable distance of the business core.

To obtain a clearer picture of development trends, the land use map should be read in conjunction with further studies. One of these which was done to determine where development was taking place is shown on figure 12, page 43. Here, as accurately as could be determined, is represented the building development which has taken place within the past ten years. This period of time has been split in half so that up to date development trends may be observed. The periods covered by the symbols indicated on the drawings, therefore,

FIG. 12.



LEGEND.

- built or major additions during past 5 years.
- built or major additions during past 10 years.
- unsuitable for present use. deteriorating.

● PRETORIA
● DEVELOPMENT TRENDS

SCALE 1:10,000 0 1/4 1/2 3/4 1 mile

are 1953 - 1957 and 1958 - 1962.

There are so many properties annotated as being "unsuitable for present use" that it might appear that the application of criteria has been too harsh, but actually there are very few properties which could be described as 'blighted' and which are beyond repair and should be demolished in the interests of the general public. The properties shown are largely those which could be renovated and restored to adequacy, mainly by redecoration and minor repairs, but which required this attention some time in the past. As this attention has not been forthcoming and the buildings concerned have degenerated to the extent where reconditioning is necessary on a scale greater than that required for normal minimal maintenance, it is assumed that the owners are not interested in maintaining the values of the existing buildings and do not intend to finance restoration. In the main, dilapidation is occurring in the old special residential fringe. The property owners may be awaiting natural urban renewal caused by natural expansion of the central core. Their land is potentially valuable and they are awaiting the time when a profitable sale will relieve them of their land. It cannot, therefore, be anticipated that these buildings will receive proper maintenance, let alone restoration, although in the majority of cases the basic structure is sound.

For the purposes of this study it may be assumed that where recent development has occurred, such development has been to the full extent of each site as allowed by municipal by-laws. Those sites on which this is not the case form too small a percentage to materially affect this assumption.

It becomes clear from the illustration that there has been massive rebuilding in the centre of the city of both retail and office premises. According to Wallace, these are the primary core functions (11, page 40).

3. 2. LAND VALUES.

From the latest Pretoria Municipal Valuation Roll, covering the period 1959 to 1962, a survey of land values was made. Land values were reduced to terms of rand per square foot and plotted on a graph.

Although the pattern was not clear cut, the isovals plotted on figure 13, page 46, indicate how the value of land decreases from the business core.

The land which has the highest commercial value has, consequently, the highest economic value and is located at the very heart of the city and usually at the point of greatest pedestrian concentration (11, page 31). From the isovals as plotted the following deductions may be made:

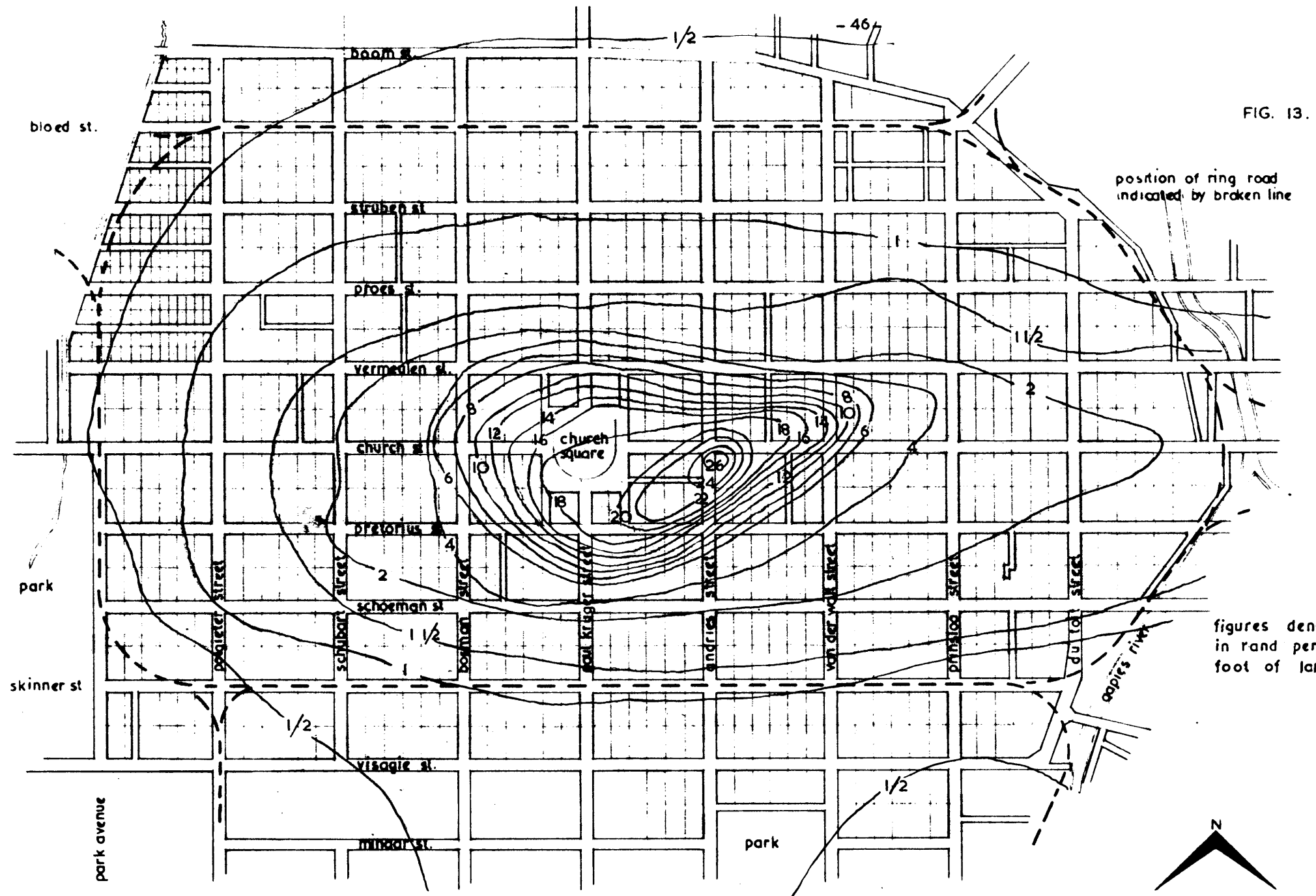


FIG. 13.

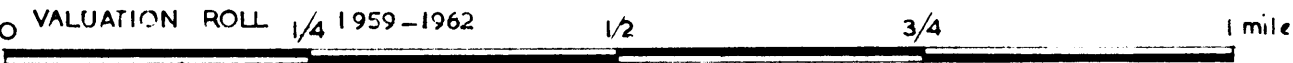
position of ring road indicated by broken line

figures denote value in rand per square foot of land.

● CENTRAL PRETORIA - ISOVALS SHEWN IN RAND

LAND VALUES OBTAINED FROM MUNICIPAL VALUATION ROLL 1/4 1959-1962

SCALE 1: 10000



- (a) The business core has moved from its original location of Church Square and is now practically at the intersection of Church and Andries Streets.
- (b) The optimum location is slightly south east of this intersection.
- (c) The development trend is generally in an easterly direction as indicated by the fact that the isovals tend to elongate, showing that values are rising most rapidly in this direction.

Although the valuation roll revealed much interesting and informative data, investigation in other fields brought to light some contradictory facts, namely:

- (a) The highest price per square foot paid for property in Pretoria to date was for a site on the north west corner of the intersection of Pretorius and Andries Streets. In this particular case the developer wanted the site in question and no other, so comparative prices of property available were not considered.
- (b) The highest shop and office rentals per unit area are being won from buildings in Pretorius Street, indicating a rise in commercial status for this street. These buildings offer both basement garaging and air conditioning.
- (c) From interview it appears that it is the view of many businessmen that the valuation roll is out of date and that, in fact, the business node is now almost at the Church

Street, van der Walt Street, intersection.

3. 3. LAND USE ZONES AND TRENDS.

Figure 14 on page 49 shows a generalised zonal distribution of the several functions together with the directions of thrust of some of the more virile functions.

It will be seen from figure 10 that use zones are not easily discernible and therefore the delimitation recorded in figure 14 is based on functions which are most prevalent, rather than predominant, in each area.

Apart from the small zone to the east of Paul Kruger Street which has a variety of functions apparently firmly established, those zones indicated as "mixed" have no function which is clearly more prevalent than any other and may be considered as zones of transition. There has been very little recent development in these zones. They are the areas which are available to accommodate overspill from other adjacent zones where development is occurring.

Predominance of development during the past five years has been in the area from north east to south west of the Square. This confirms the finding that the business centre of Pretoria is not Church Square, but that this has moved in an easterly direction. This is true despite the high concentration of government office workers and, therefore, sales

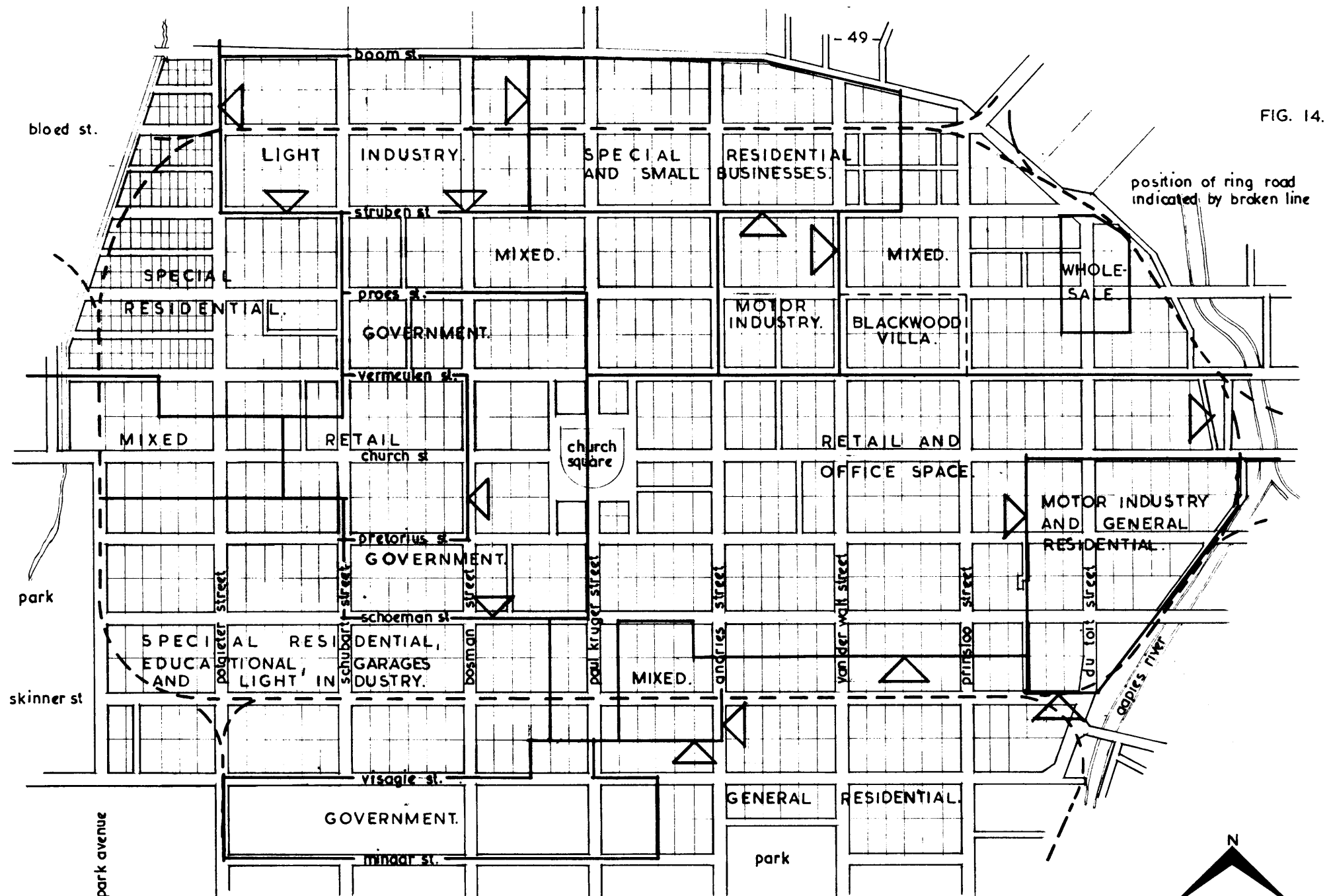


FIG. 14.

- PRETORIA CENTRAL. - 1961.
- USE ZONES AND THRUSTS.



potential - west of the **square**. The manner in which the Government zone splits the central retailing function can be clearly seen. The western retail zone is deteriorating as it cannot, apparently, generate enough custom to expand or even to maintain a fair degree of prosperity. On the other hand the eastern shopping area is continuing to expand.

The development in Church Street, east of the square, includes several department stores while the Pretorius Street development is characterised by the appearance of Building Societies. The bulk of development in Schoeman Street, between Paul Kruger and Bosman, is predominantly offices over small shops with some general residential over small shops.

There are two areas in which the motor industry has tended to locate. The area to the south east has had motor industry associations for some time, whereas the zone bounded by Struben, Andries, Vermeulen and van der Walt Streets represents new development.

New hotel development, while noticeable, is very scattered and much of it outside the ring road. There is no discernable hotel zone. There is a very definite concentration of general residential buildings, mainly flats, in the south eastern corner of the area under consideration. This does not indicate a thrust out from the centre but rather an incision from the concentration of flat development in Sunnyside.

Similarly the location of many small industrial concerns, mainly in older buildings,

in the south west, appears to indicate that industry, which has been creeping eastwards along Mitchell Street in Pretoria West for some years, is now encroaching on the central area.

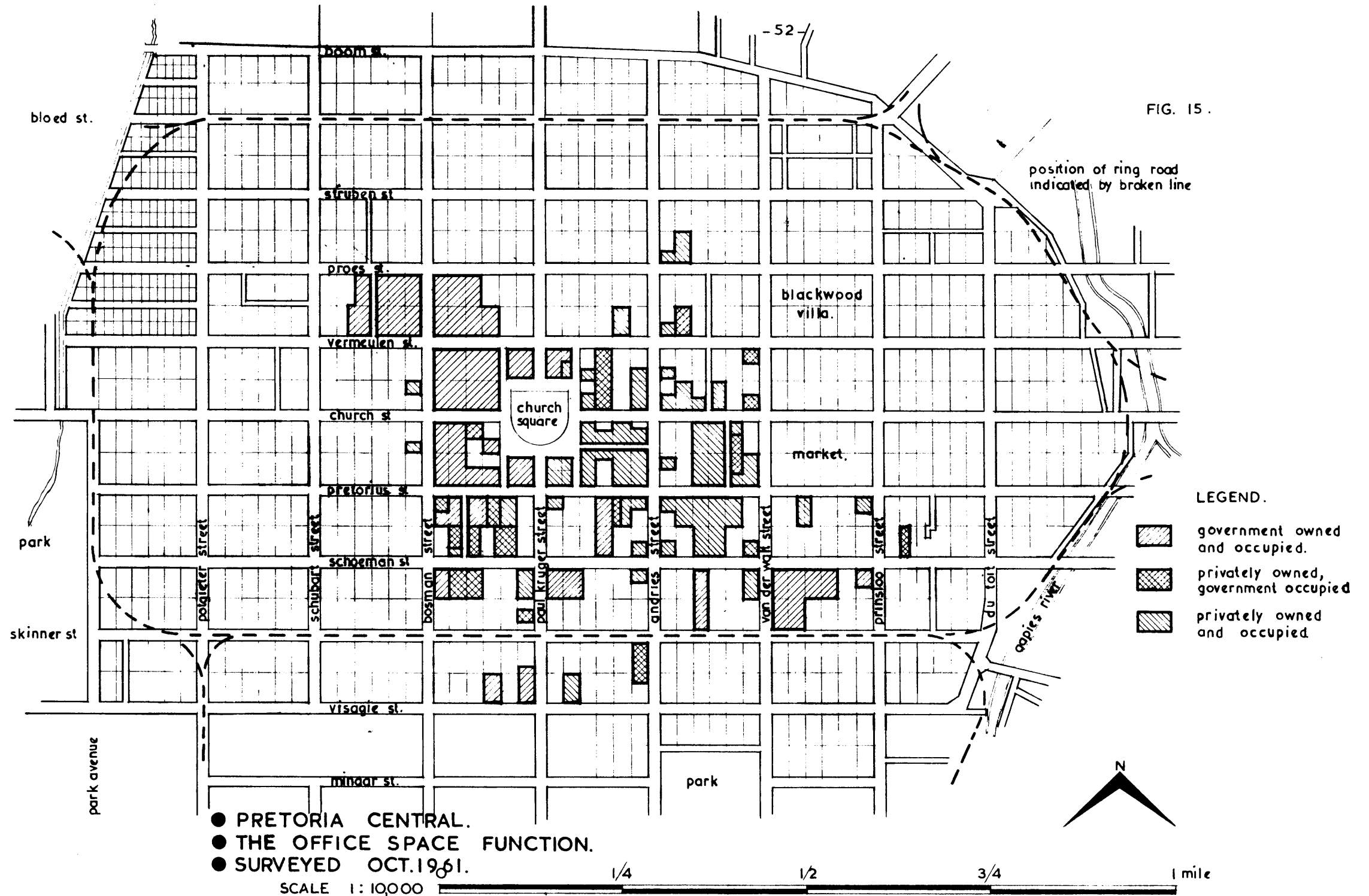
Wallace, in his Baltimore report, states that the key role performed by the core in the metropolitan structure is a concentrated place for the exchange of services, the nurture of ideas and symbols and the transaction of the administration which has become so important a part of modern living (11, page 40). The office is usually the centre of such activity and thus is a principal core land use. From a real estate point of view only high volume retail and office buildings can economically justify occupancy of prime sites in the centre of the metropolitan area. In the diagram these two key land uses have been allocated a common zone, which represents, therefore, the core of the whole central area. A more detailed survey of these functions was made.

3.3.1. Office Space.

A record of Pretoria's office space distribution, based on on-site survey, is given in figure 15, page 52.

The position regarding office space in Pretoria is uncomplicated. The only problem concerns parking facilities for the workers, and here again it is principally a question of economics. If one is prepared to pay for one's parking, then daily parking space is avail-

FIG. 15.



able; if not one must be prepared to walk to and from a point outside of the parking meter zone. This is the present position for long term parkers, but with the increase as calculated in the Pretoria Traffic Plan report, those who are prepared to pay may soon not be able to obtain parking.

There is no shortage of office accommodation in Pretoria, in fact, with the rate of recent construction and the Provincial Headquarters and Blackwood Villa schemes, a surplus larger than desirable may occur.

There is, as yet, no decentralization of office land use in Pretoria apart from certain government and semi-government organizations such as the C.S.I.R. and ISCOR. Private companies and businesses have shown no decentralisation tendencies. This proves the mutual need of centralisation for convenience and unless some unusual factors, powerful enough to upset the normal dictates of economics appear, the present situation will continue. Supply is slightly ahead of demand and facilities are available to all who are prepared to pay for them.

In Pretoria the office space function breaks down into three general categories. The first of these are those office blocks erected and occupied by the Government (national, provincial, or municipal). Generally these do not have shops on the ground floor. The

second category is those office buildings erected by private enterprise but predominantly occupied by government departments. The third category is those office buildings erected by private enterprise and occupied by non-government concerns. The latter two categories generally have shops or financial concerns at street level.

The main location of government owned and occupied offices is west of Paul Kruger Street; buildings leased to the government are scattered, while buildings housing private concerns are tending to locate in the area in which recent massive rebuilding has occurred.

Many of the privately owned buildings housing government departments were, in fact, erected on the strength of a government lease. This has not been in the interests of the civic dignity of Pretoria and is a curious anomaly of how the workings of the National Government detracts from the beauty of the city which should gain from its presence. When a government department erects its own accommodation, then there is no lack of funds and a prestige building rises, but when accommodation is sought in a privately owned building then the lowest rentals are paid. Therefore, buildings which rely on Government tenancy have, perforce, to be of very economic construction and finish.

The better class office buildings do not house Government tenants but offer such services as basement parking and air conditioning, which are considered by the owners to be factors which help to let the buildings.

The development of the government boulevard along Struben Street will cause a movement of office space land use to occur which may well have a considerable influence on other land uses. Government policy is a factor powerful enough to alter normal development, and unusual in that it is only encountered in capital cities. Whether non-government offices will be effected by this massive relocation is difficult to forecast. Trends will have to be measured by means of periodic land use surveys. There would appear to be no reason for those concerns which do not have regular contact with government departments to relocate and it is reasonable to assume that office use will, in large measure, remain in east Church, and Pretorius and Schoeman Streets.

3.3.2. Retailing.

Figure 16 page 56 shows an extraction of shopfront in the central area from the land use map. This is of interest in determining the retail zone for any reconstruction of the central area.

The largest concentration of retail shopping is in an arc from north east to south west of Church Square. There has been much recent development of the shopping arcade. These arcades are indicated as shopfront as are buildings which are currently under construction but which are - as closely as can be determined - to have shopfronts. Small gaps for entrances to buildings above shops have not been indicated. Most of the large

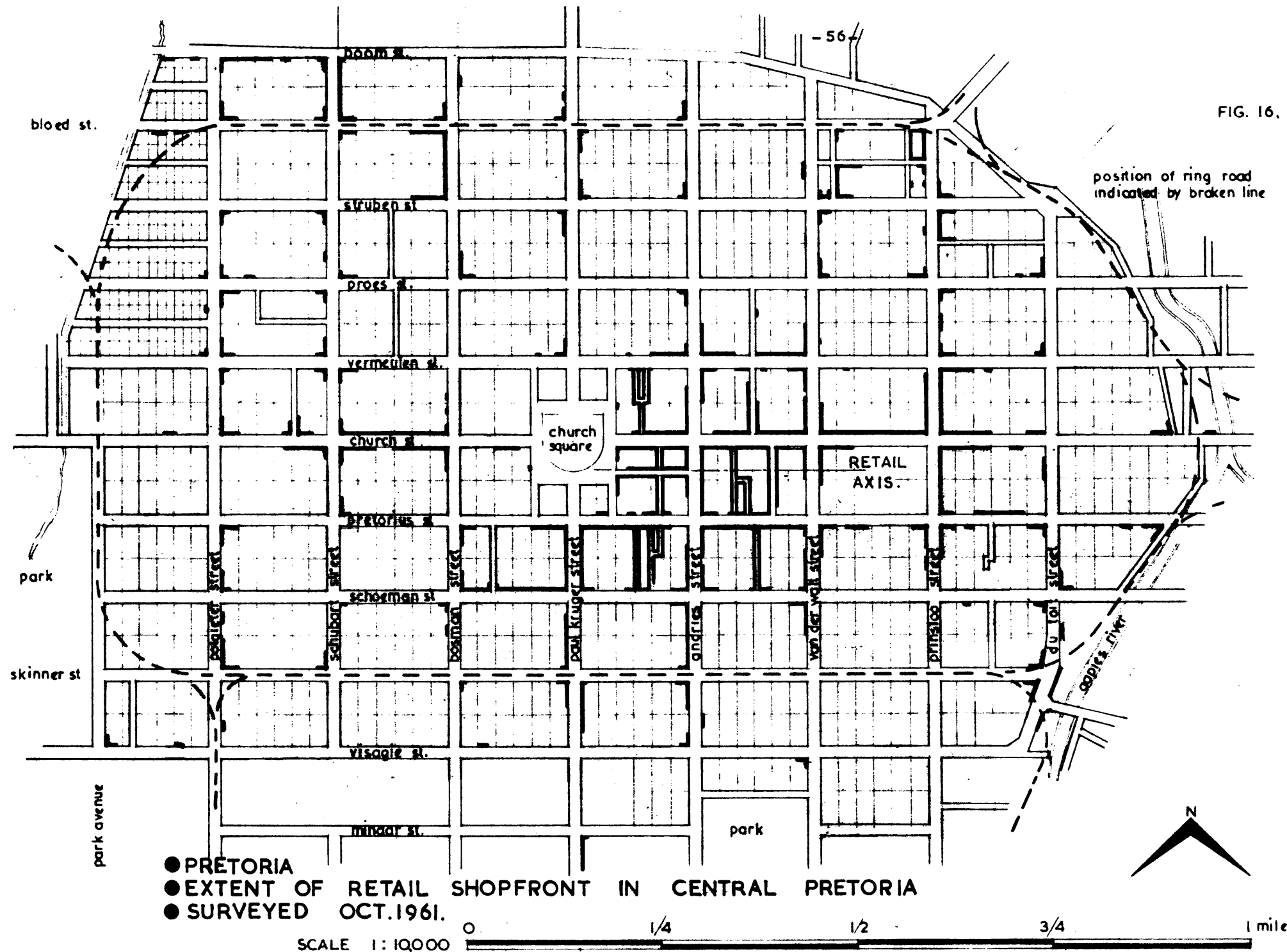


FIG. 16.

- PRETORIA
- EXTENT OF RETAIL SHOPFRONT IN CENTRAL PRETORIA
- SURVEYED OCT. 1961.

SCALE 1:10000 0 1/4 1/2 3/4 1 mile

department stores are in Church Street east which, as the survey shows, represents the longest unbroken stretch of shop window. However, there is a greater concentration south of Church Street than there is to the north. Therefore, Church Street east is not, strictly speaking, the axis of Pretoria's retail shopping. This would appear to run east-west about in line with Bureau Lane, as indicated on the map.

West of Church Square in Church Street two opposite blocks have practically unbroken shopfront but, as has been indicated, this "shopping area" has a rundown and dingy appearance. The only other area, apart from the area of recent development, which has fairly continuous shopfront is the Indian quarter in Prinsloo Street. This has been broken into by the Blackwood Villa development scheme. As previously indicated, the majority of these premises are also degenerating.

No economic function has been more subject to recent locational change than retailing. The extent to which redistribution of the retail trade occurs depends on a number of factors. These will be discussed in a future chapter when arguments for and against the strengthening of the central shopping area will be presented.

In central Pretoria there are at present a full measure of retailing and office space and also many other functions surrounding the core. The future pattern will depend

largely on the movements of the key functions and also on the development programme of the government.

CHAPTER IV.

TRANSIT AND PARKING.

4. 1. TRANSIT.

As a means of conveying people to and from the Central Business District, mass transportation has traditionally performed a more important service than private automobiles. Although a high percentage of employed people and shoppers still rely heavily on mass transportation for their daily Central Business District trips, this percentage is slowly decreasing. Nevertheless, there is a steady increase in the total number of people using mass transportation. As the Central Business District is the only shopping area well served by buses reaching into all surrounding areas, it has this advantage over any suburban centre (6, page 84). Normally the two main means of access to the centre of a town or city, using mass transportation, are train and bus travel. Both of these services exist in Pretoria.

4.1.1. Train Travel.

The Pretoria suburban train service is not an economical one as far as Whites are concerned. Very few suburbs are served and the terminal is over half a mile from the centre of the city. That the train service does not serve Pretoria suburbs adequately, is evident in the fact that a municipal survey showed that 81% of regular daily bus trips

to town have the railway station as the desired destination. The figure is 8 $\frac{3}{4}$ % for all trips. Thus it is evident that many of the people who wish to travel to the station do not have the facility of a suburban rail service.

Another pointer to the inadequacy of the railway system as a means of access to the central area is shown in the large number of workers who, once they arrive at the railway station from out of town, have to rely on the bus service to actually reach the centre. This is no insinuation that Pretoria would be a better city if the rail-head reached into the heart of town, but rather an indication that, in Pretoria, the bus service has a doubly important mass transportation role to fulfil.

Recently the Non-White rail service to the outlying townships has been greatly improved and electrified. There is a great flow of Non-White pedestrians from the railway station into the central area in the early morning, which indicates that the township rail service is being well used.

1.1.4. Bus Travel.

In 1956, in conjunction with the municipal traffic survey, a survey of bus trips was made to determine the desired destinations of White bus users on an average weekday. The survey counts have never been developed by the municipality. The author was fortunate

enough to be given access to the survey figures and has developed percentages, which are plotted on figure 17, page 62. Fractions of less than 1/4% have been ignored.

A breakdown into regular daily trips and casual trips was made and percentages of the regular and total trips with desired destination within each central block were calculated. Of the two types of figures given, the regular trip data is probably more indicative of bus transport requirements as it is more constant. However, as can be seen, the regular and total percentages for each block remain fairly constant, which indicates that casual visitors are drawn to any area in proportion to the regular daily population. A noticeable exception to this is the four blocks east of Church Square, where total percentages, show an increase over regular percentages, coinciding with the main retail area.

From the diagram it will be seen that, within the area bounded by Vermeulen, Andries, Pretorius and Bosman Streets, 30% of all regular, and 30½% of the total number of trips have their destination. If this area were increased by two blocks to the east, that is to Vermeulen, van der Walt, Pretorius and Bosman Streets, it will be seen that these six blocks contain the destinations of 40½% of regular and 43¾% of all passengers. The core of the city is, thus, once more clearly defined.

It must be borne in mind that at the time of the survey, the Provincial Administration building was only beginning to reach ground level. Therefore, it is probable that

the present percentages for the areas mentioned are greater than at the time of survey.

On a larger scale map where accurate plotting of trips is possible, an interesting feature emerges. This is that high percentages of trips end where there are large government buildings. From this it appears that a larger percentage of civil servants rely on mass transportation and people employed by private concerns use automobiles to a larger degree. This indicates that the location of government buildings has an important bearing on destination desires.

In the light of this survey data, the question of a central bus terminal arises. City Transport Management feels that a central terminal is desirable, but at present unobtainable, in the six blocks within which it must obviously fall. Hence the distribution of starting points for the various routes around the vicinity of Church Square. The majority of these are east of Paul Kruger Street.

It is clear from this that the authorities are aware of the best location for the bus terminal but, under the existing circumstances, are not able to improve upon the existing position, which has some undesirable features. There is very little cover for waiting passengers, certain streets are often partially blocked by waiting buses loading passengers at the start of a trip and, due to the dispersal of initial boarding points, passengers who have a choice of routes cannot easily move to the alternative boarding point,

and thus, the missing of two buses is not an uncommon occurrence.

The author could not locate any survey data on Non-White bus usage. With the improvement in Non-White rail services, a reduction in bus service was possible. The intersection of Prinsloo and Vermeulen Streets was the terminal of the Non-White bus service and there was great traffic congestion at peak hours. From the point of view of vehicular traffic flow the position has greatly improved. The terminal has moved to the intersection of Proes and Prinsloo Streets, and with the reduction in buses, congestion has been practically eliminated.

4.1.3. Future Requirements.

The municipal survey figures did not progress to the stage of calculating future mass transportation requirements. However, it is clear that should further initial loading points be required, these will have to be situated even further from the desired location of Church Square than the remotest of the present points. In view of the present discussions, which are taking place, with regard to the possible incorporation of some of the Peri-Urban townships into the municipal area, speculation as to future requirements is unwise. If townships are incorporated, all municipal services, including buses, would have to serve them.

A central terminal would mean more efficient management and, therefore, a more efficient service with, possibly, more buses loading from fewer points. However, should a suitable terminal site be found, it would be prudent to provide more loading points than there are in the centre of town.

4. 2. PARKING.

4.2.1. The Existing Position.

A considerable amount of space in "The Pretoria Traffic Plan" is devoted to the parking problem, of which a thorough survey and analysis were made. The number of parking spaces available in the core area in 1956 were - kerbside 3,850; off-street 4,331 (6, page 41). It was calculated that there was a shortage of 2,000 parking spaces in 1956 and it was determined that in each sub-area surveyed, demand was directly proportional to the floor space of buildings in the same sub-area (6, page 49).

Figures obtained from the City Engineer's department indicate that in Pretoria the demand for parking is one space for every 800 to 1,600 square feet of floor space, with an average of approximately 1300 square feet. Further, kerbside space does not contribute greatly to meeting this demand. Only 57% of the kerbside of the normal central block is available for parking. The remainder is taken up by loading zones, bus stops, no-parking areas, entrances, hydrants and corners.

4.2.2. Future Requirements.

The traffic report intimates that the total floor space in the central area has increased in recent years in direct relation to the total metropolitan area population, that is, at about 2.6% per annum (6, page 49). On this basis parking requirements and deficiencies were calculated for 1966 and these are shown on figure 18 page 67. It will be seen that, within the proposed ring road, a considerable deficiency of both long and short term spaces is anticipated in almost every sub-area, and that demand is greatest in that area previously shown to be the business heart.

It may be assumed that when the stage represented in the diagram is reached, many of those prepared to pay for parking space within office buildings, will not be able to obtain this facility.

From the figures quoted in the previous chapter it is possible to calculate the parking demand for a fully developed city block.

A typical block measures 720 x 454 English feet. With sidewalks fifteen feet wide the total length of kerb is 2,448 feet. Of this, 57% or 1395 feet is available for public parking. At 22 feet per parking space a single block will provide 63 spaces.

The author has found that due to coverage and height limitations, it is very rarely possible to reach the allowable floor space ratio in the central area and a figure

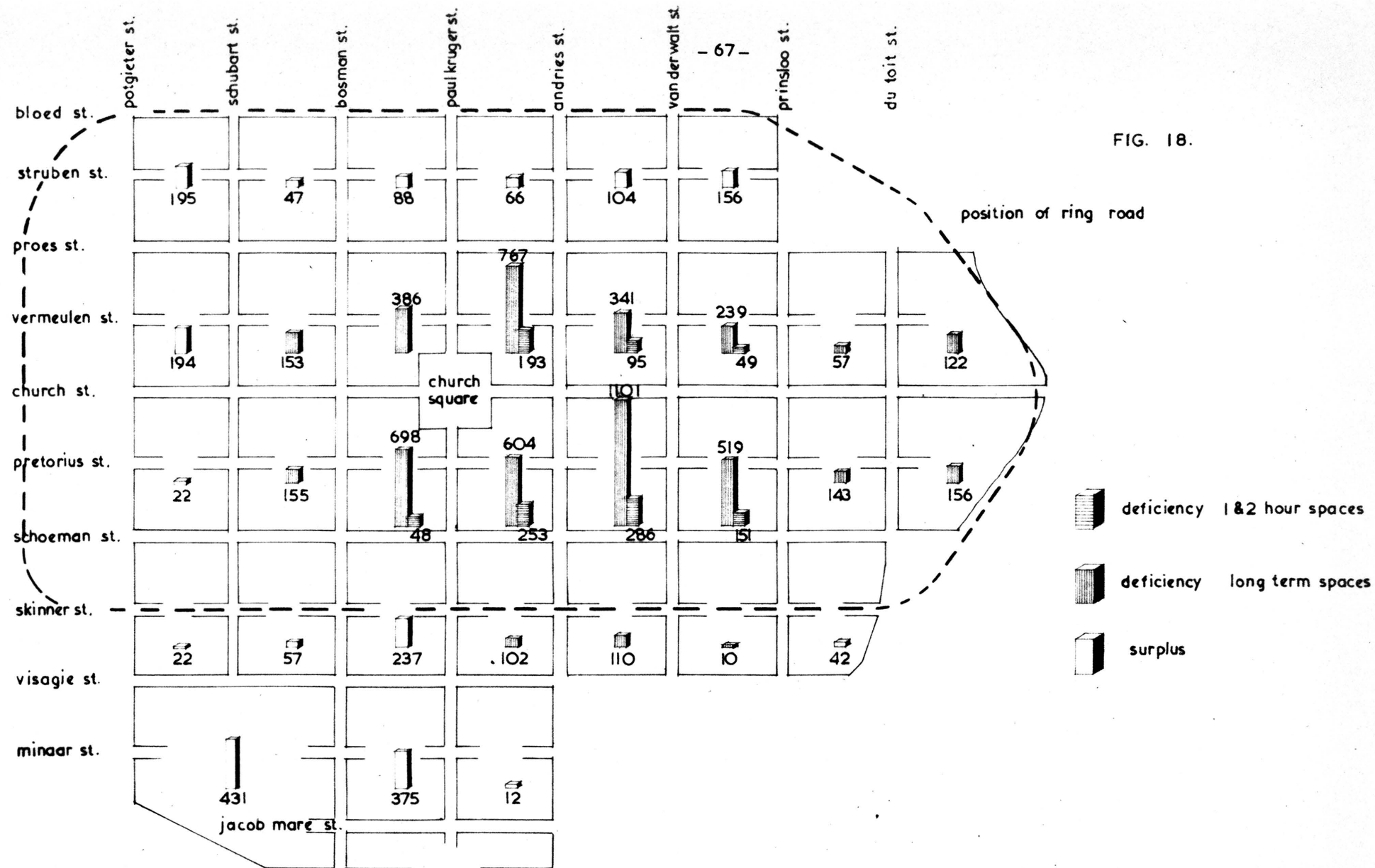


FIG. 18.

● DIAGRAMATIC REPRESENTATION OF THE ESTIMATED SURPLUSES AND DEFICIENCIES OF PARKING SPACES IN 1966.

SOURCE: THE PRETORIA TRAFFIC PLAN.



of 5.0 would be more realistic.

On this basis if a block were fully built up, the total number of spaces required would be $\frac{720 \times 454 \times 5.0}{1300} = 1367$ parking spaces.

63 Short term spaces, giving the greatest turnover, are available around the kerb, leaving a shortfall of 1304 spaces. Assuming that 300 square feet gross per space is required which is absolutely minimal, then a six storey parking garage would occupy $\frac{1304 \times 300}{6} = 65,200$ square feet of ground or 18 $\frac{1}{2}$ % of the total area of the block.

While no block in the central area is, in fact, completely built up, these figures do, nevertheless, indicate that some solution to the parking problem is urgently needed. Furthermore, the greater the density of development, the nearer the demand will approach to one space per 800 square feet, which will present an even more critical shortage.

4.2.3. Possible Solutions.

If every building within the central area was required to have one full floor of parking, 1185 spaces would be provided. With the 63 kerbside spaces the shortfall would amount to only 119 spaces per block. This would virtually solve the parking problem.

The Town Planning office of the Pretoria City Engineer's department which was alive to the need for making provision for parking in the central area and relating parking

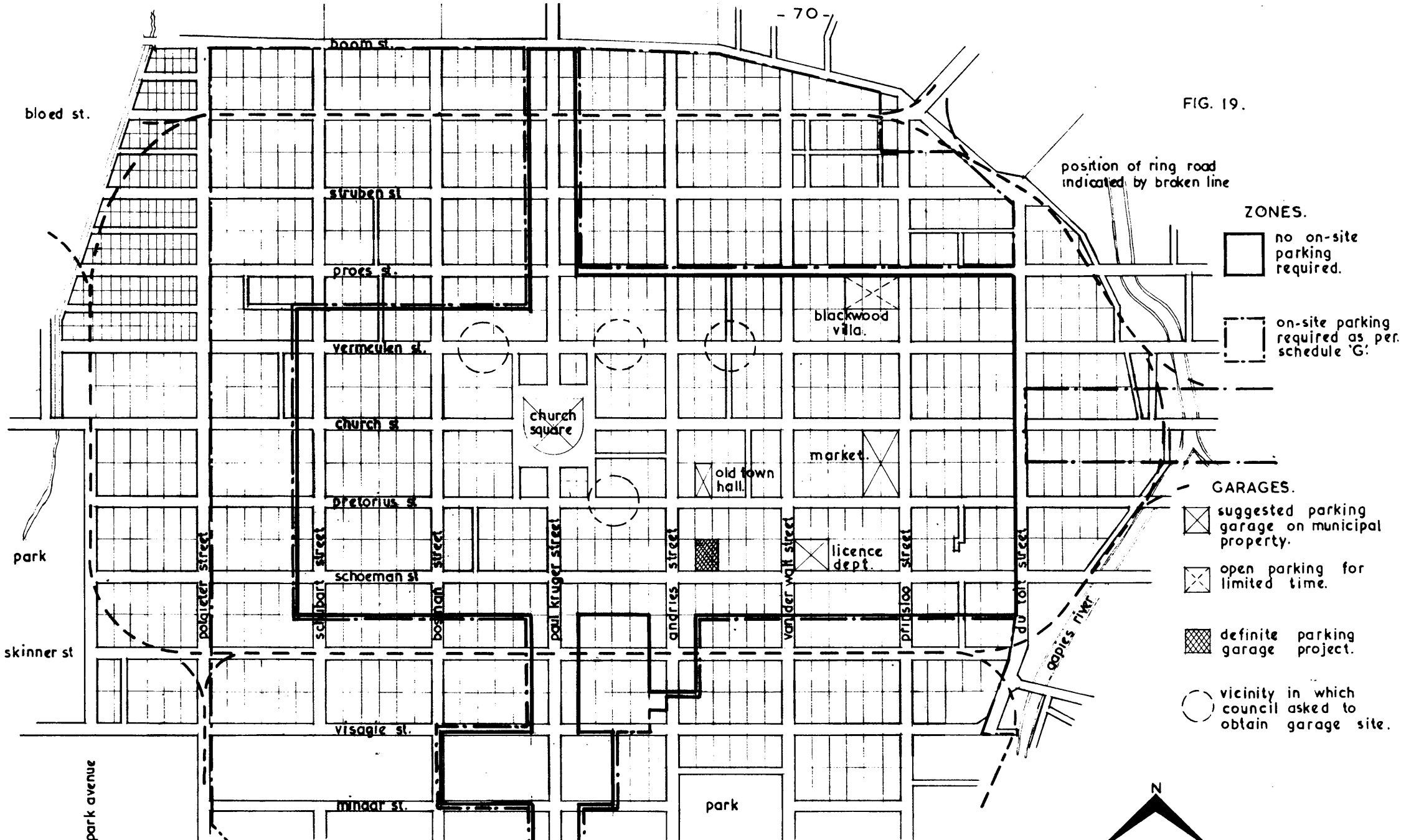
to floor area, drew up a schedule called "Schedule G". Except for the most densely developed areas where the entry and exit of vehicles would be severely hampered by pedestrians, this schedule was to be applied. However, very strong opposition was forthcoming from the Chamber of Commerce and, ultimately, a compromise was reached with the municipality. How successful the municipality was, may be gauged from figure 19, page 70. Within the solid line no off-street parking is required to be provided. Within those areas bordered by broken lines, parking shall be provided to the extent required in "Table G" for all uses except shops. In the case of shops, the number of parking spaces required shall be one parking space per 1250 square feet of gross floor area of the shops.

TABLE 2 "SCHEDULE G" OF THE TOWN PLANNING OFFICE.

Property Use.	Location of Parking Spaces	Number of Spaces Required.
Shops	On the site on which the building is to be erected.	1 per 600 sq. ft. gross area of the shops.
Offices	On the site on which the building is to be erected.	1 per 1,250 square feet gross floor area of the building used as offices and their appurtenances.
Flats	On the site on which the building is to be erected	1 per 1,600 sq. ft. of gross floor area of the building used as flats and their appurtenances.

- 70 -

FIG. 19.



- ZONES.**
- no on-site parking required.
 - on-site parking required as per schedule 'G'.
- GARAGES.**
- suggested parking garage on municipal property.
 - open parking for limited time.
 - definite parking garage project.
 - vicinity in which council asked to obtain garage site.

● PRETORIA - PARKING ZONES & GARAGES.

SOURCE : TRAFFIC PLAN PROPOSALS AND MUNICIPAL REGULATIONS.



"SCHEDULE G" (continued).

Residential Buildings excluding dwelling houses and flats.	On the site on which the building is to be erected.	1 per 1,600 sq. ft. of bedroom and bathroom accommodation only.
Industrial and Service industrial buildings and warehouses.	On the site on which the building is to be erected.	1 per 5 European employ- ees including manage- ment.

It must be stressed that the objections were not raised on the grounds of too many properties. This is evident in the fact that property owners may provide off-street parking if they wish. The grounds were that land was too valuable to erect casual parking facilities. Having achieved only partial success with the enforcement of "Schedule G", the municipality then had to devise an alternative method of providing adequate parking in the core area.

The solution proposed by the Traffic Engineering branch of the City Engineer's department is a system of multi-storey parking garages. As it was felt that the municipality could not be expected to provide parking facilities so that the commercial houses, which refused to provide them may prosper, a means of having private enterprise erect and maintain the garages on lease-hold was devised.

The conditions originally set down in the Traffic Plan report (6, page 56) were

not found to be attractive to investors and have had to be revised. The author has not been able to obtain details of the revised conditions.

Municipal owned sites on which parking garages were suggested are shown in the diagram. These are:-

Church Square - 700 spaces; old Town Hall - 500 spaces; Four erven of the market - 1,500 spaces and two erven of the Licence and Electricity department's land - 600 spaces. In addition, three erven of the Blackwood Villa Site are available for uncovered parking until the buildings are completed in September, 1965. When complete, adequate basement parking will be provided to serve the whole block.

In addition to the municipal properties, the report recommended that the City Council obtain four sites in the following areas:-

1. The zone bounded by Church, Proes, Andries and van der Walt Streets;
2. The zone bounded by Church, Schoeman, Andries and Paul Kruger Streets;
3. The **zone** bounded by Church, Proes, Paul Kruger and Andries Streets;
4. The **zone** bounded by Church, Proes, Paul Kruger and Bosman Streets.

4. 3. SUITABILITY OF PARKING PROPOSALS.

Considering that these suggestions were made for the ten years following 1956, they appear adequate. However, half of that period has already passed and to date nothing

has been done, although the construction of the first parking garage to be erected on land obtained by the municipality will soon begin. This will be in Schoeman Street, just east of Andries Street. This has given rise to possible changes in the location of other garages. It is now almost certain that the proposed old Town Hall garage will fall away and the necessity of having another parking garage as close as on the Licence department site, is being reconsidered.

There have been other developments since the publication of the Traffic Plan which have caused re-thinking to take place. The Church Square underground garage was to have been a priority project. Due to influences outside of the Municipality, the scheme has now been shelved indefinitely.

Likewise, the use of the market site for parking has been roundly criticized. As this development is still in the future, it has not received as much attention as the Church Square scheme. There is a strong body of opinion that, if parking is to be provided on the market site, it should be underground.

The provision of parking facilities is not progressing as rapidly as the Traffic Engineering department would wish. It would appear that the revised conditions are still not acceptable or that private enterprise does not consider parking garage investment to be sufficiently rewarding. As the Pretoria City Council is to invest very large sums of

money in the construction of the ring road, which in the words of their own engineers may prove to be a failure if adequate parking is not available (6, page 58) it would seem necessary to take steps to ensure that this facility is provided, and in this direction the municipality may have to play a larger role than is at present anticipated.

CHAPTER V.

DETAILED SURVEY OF CHURCH SQUARE.

The traditional heart of Pretoria, Church Square, fulfils several important functions. Although, as has been shown, the business heart of the city has moved away from the square, it may be regarded as the historical heart of Pretoria, for it represents the area which was once the centre of activities of the town and the Transvaal Republic; it is the point of contact between commerce and government land uses; it is the nodal point of mass transportation; it is a natural meeting place for political and other meetings and it is the only open space which we have at present in the central area.

The present form of Church Square is the result of an architectural competition held in 1912. The square is quartered into four patches of unshaded grass with a little border flower colour and some bougainvillea and two small fountain pools on the curved southern half. There is a rise of approximately ten feet from north to south but the square itself rises only a matter of thirty inches, the remainder of the rise being accomplished by a monumental flight of stairs. For traffic circling the perimeter the rise and fall is very gradual. The southern half of the Square has a stone balustrade. The northern portion has a balustrade of chain on stone piers.

In the centre of the square stands the Van Wouw statue of President Kruger sur-

rounded by four burghers. This fine work has stood on many sites in Pretoria, and has only occupied its present position - the site for which it was intended - since 1954 (13 page 10). The statue is intended to form a central visual climax to the Church and Paul Kruger Street vistas. This it does from the north, east and west, but is somewhat lost from the south (railway station) approach due to the fall of the ground.

Church Square is at present the subject of discussion which has been carried on principally through the medium of the press by many individuals and associations, both official and unofficial, which are interested in its reconstruction. There are many who, mainly on the ground of sentiment, abhor the idea of any change, and strong representations have been made to the City Council to have the square declared a national monument. If this were done it would preclude any change, except with the authority of the National Monuments Commission and the Council has wisely shelved the suggestion so that thorough investigation may proceed.

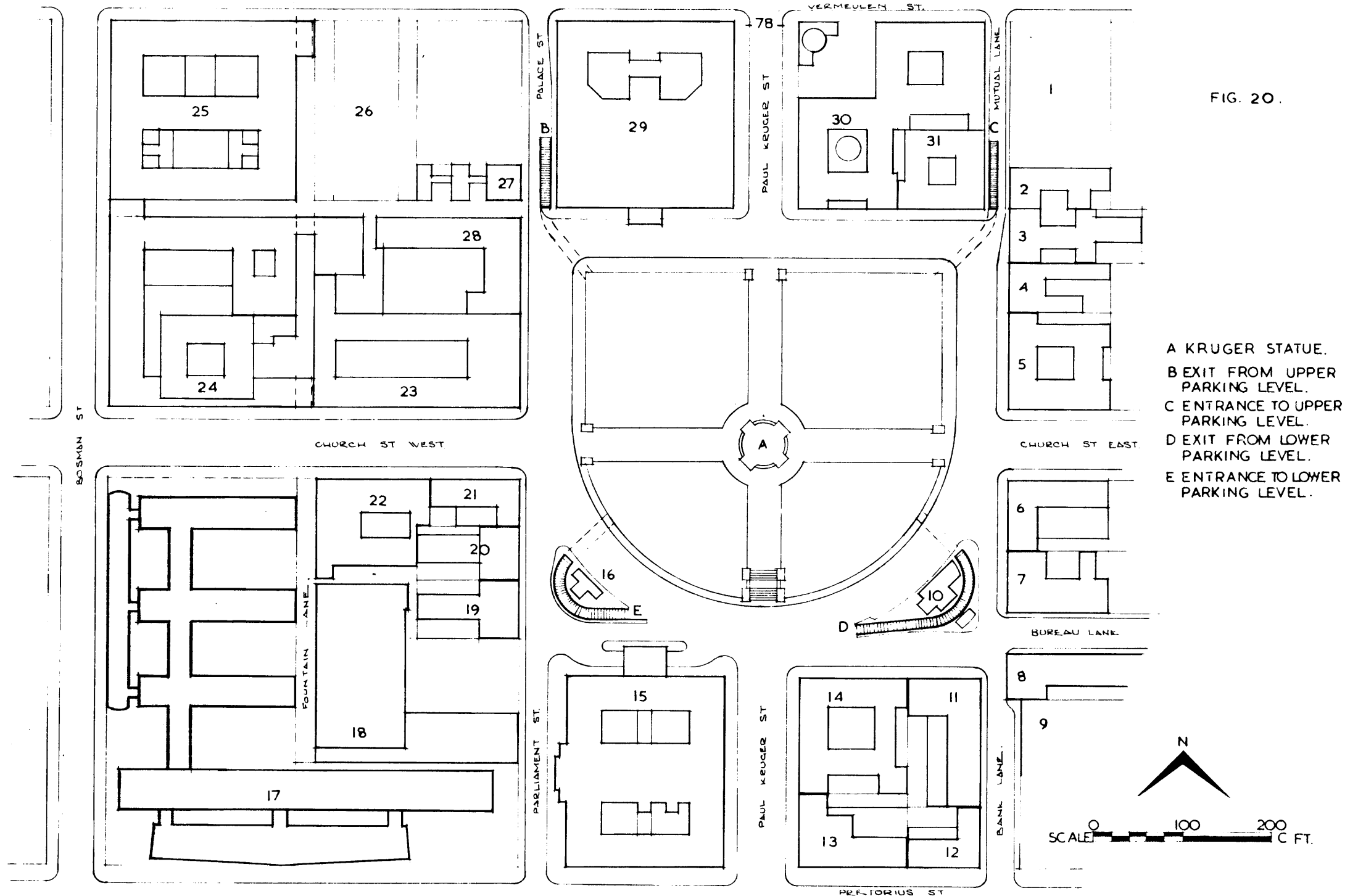
As is typical of those showing interest in a project of this nature, the full implications were never considered, but only the point which interested each individual was stressed. To the knowledge of the author no plan for Church Square has yet been presented which has taken proper consideration of all aspects of the problem. This is true even of

the municipality's own parking plan, but here one must remember that what was being tackled was the traffic problem and nothing else.

5. 1. THE EXISTING PATTERN.

Figure 20 on page 78 shows the existing layout of the square and the buildings in the immediate vicinity numbered from 1 to 31. A brief description of each follows:

1. Open ground at present used for a car park and run by an ex-serviceman's league.
2. Two storey Volksbank building of red facebrick and in good condition. This is one of the older buildings on the eastern side of the square having been erected shortly after the turn of the century.
3. The United Dominion Finance Building erected 1960 - 1961. The financial house is on the ground floor with seven floors of offices above.
4. An old two storey structure housing a bookshop, a café and a pharmacy. Some of the ground floor offices are rented to Barclays Bank. The building has a humble nature but is fairly well maintained.
5. Barclays Bank main branch, built 1937 - 1938, seven storeys high. The building is massive, in the tradition of bank buildings of the period.
6. A three storey structure, Tudor Chambers, having shops on the ground floor and offices



● CHURCH SQUARE AS EXISTING WITH TRAFFIC PLAN GARAGE RAMPS INDICATED.
 SOURCE: AERIAL PHOTOGRAPHS AND SITE SURVEY.

above. Estimated time of construction is approximately 1905. The building is old and as the site is not fully developed it may be expected that rebuilding may occur before long.

7. The Johannesburg Building Society building, built 1957 - 1958, an eight storey structure.
8. Centenary Buildings, an eight storey structure built 1952 - 1953, having shops on the ground floor and offices on the upper floors. This is probably the most successful of the contemporary buildings on the eastern side of the square.
9. Plaza Buildings, three storeys high, in good repair. There are shops and a building society on the ground floor and offices above. The Plaza Cinema is contained within the building.
10. The Pretoria Publicity and Information Bureau building which also houses a busmen's rest room and bus ticket sales cubicle. It is a single storey structure of peculiar shape set off by a small garden.
11. The new National Building Society building completed in 1962. It is eight storeys high.
12. A double storey building with offices over small shops. The condition of the building is fair.
13. The Permanent Building Society building, eight storeys and built 1950 - 1951. It is

in good condition.

14. The main branch of the Standard Bank, an extremely solid looking building, similar in appearance to Barclays Bank. There are six floors of offices over the banking hall and the building is in good condition. Estimated date of erection approximately 1936
15. The old Raadsaal, seat of Government of the Transvaal Republic and still used as the council chamber of the Provincial Administration. The building is undergoing restoration and is one of Pretoria's most beautiful old buildings. It is three storeys high and has an atmosphere of dignity.
16. Public convenience block. The conveniences are partly in a basement floor.
17. The new Provincial Buildings, a new landmark in Pretoria. The main block, fourteen storeys high, forms a fine backdrop to the Raadsaal when viewed from Barclays Bank corner. This building is a prestige structure of expensive finishes. The building is partially occupied and when completed will considerably raise the day-time population density on the western side of the square.
18. The Capitol Theatre, now owned by the Provincial Administration and due to be demolished in the future when provincial finances permit further building operations.

The proposal is that a new debating hall be erected on this site and the Raadsaal become a museum building. The advisability of this will be discussed later.

19. Another of the square's older buildings, being the original Netherlands Bank building. There has been some talk of proclaiming it a monument. Although it has an extremely pleasant facade the building has suffered from additions and adaptations. It is presently used by the Provincial Department of Pensions and is now a labyrinth of passages and temporary screens. It is owned by the Provincial Administration and is in reasonable condition.
20. Another older building, owned by the Provincial Administration. It is used as an annexe to the Pensions building but its condition is not as good. Again there have been rather clumsy alterations.
21. The Cafè Richè building, a three storey structure owned by the Provincial Administration, in somewhat poor condition. On the ground floor there are a public house, a tobacconist, cafè, hairdresser and pharmacy. The age of this building is difficult to determine. It is certainly one of the oldest of the buildings surrounding the square.
22. A post-war shop and office block, Poynton's Buildings, in good condition. This is the only property on the block not owned by the Transvaal Provincial Administration. The

- building is seven storeys high.
23. The General Post Office building, varying between four to six floors in height, built just after the turn of the century and massive in appearance. The post office needs have outgrown the capacity of the building and further accommodation is on the Public Works Department programme.
 24. Known as the Central Government offices, this building houses a number of government departments including some overflow from the post office. The building has five storeys. The original structure, it is estimated, must have been built in the 1920's but there have been so many alterations and additions that, viewed from the many courtyards, it has lost its original dignity.
 25. The other half of the Central Government Buildings. Among the more notable departments housed here are the Department of Public Works and the Department of Inland Revenue. This building has not suffered through alterations to the same extent as Number 24, with which, from the street fronts, it forms a massive face brick and stone mass.
 26. Open ground with wood and iron lean-to's along the east and west boundaries which provide a limited amount of covered parking for government officials.
 27. The original Old Mutual Building, now taken over by the Postmaster. Viewed from Church

Square this structure has an extremely pleasant facade, but there have been face brick additions to the original stone and much of its charm has been lost. The original portion of the building is in good condition.

28. The original building of the State Mint and National Bank and has been adapted for post office use. It has five storeys and is in fair condition but not really suited to its present use.
29. The Palace of Justice or Supreme Court building. The foundation stone was laid by President Paul Kruger in 1897. Despite the later installation of air-conditioning, which is not everywhere properly concealed, this building has a dignity and atmosphere all its own.
30. The South African Reserve Bank, four storeys high and in excellent condition. It is a building with its own atmosphere of national financial strength and the very considerable additions have been carried out in such a way that they do not detract from the original building.
31. The Old Mutual building. Erected just prior to the 1939 - 1945 war it has dated a little and rather badly done interior alterations have been carried out in an endeavour to compete with other office buildings. The finance company is on the

ground and first floors with medical and dental suites occupying most of the remaining five floors.

It will be seen that the majority of the buildings on the eastern side of the square have finance as the ground floor use, while on the western side the buildings are of a governmental nature.

The relationship of the Palace of Justice and Raadsaal buildings is a feature of the square. One has only to stand on the balcony of either or at any point between them to appreciate how strong this is. In addition to the common axis these buildings have a similar character. Although not yet a century old they seem to whisper of a bygone era.

The relationship between the Raadsaal and new Provincial Building is marred by the presence of the Capitol Theatre but could be a very pleasant feature of the square.

The requirements of the courts have outgrown the Palace of Justice building but it is unthinkable that it be left unused or torn down when the new courts - which are on the drawing boards - have been completed.

5. 2. EXISTING RECONSTRUCTION PROPOSALS.

From the many suggestions put forward for improving the present layout, the following are the three which have given rise to the greatest interest.

5.2.1. The Traffic Plan Garage.

Superimposed on figure 20 are the entrance and exit ramps to the basement garage proposed in the municipal traffic plan report. In the circumstances and purely from a traffic point of view these ramps are well positioned. Two are in very quiet one-way streets and the other two would not unduly disturb the one way flow of traffic around the square although they would probably require the removal of the Information Bureau and public conveniences.

The City Engineer's Department had a scale model of the project made and put on display as part of a public relations drive.

It must be appreciated that this project did not aim at a full reconstruction of the square. It represents an acceptance of the existing layout and suggests a practical means of achieving the facility of mass parking in a position which the survey indicated as being desirable.

The municipality was to have proceeded with the construction of this parking garage as the first step in implementing its parking programme but due to vigorous protests from individuals and corporate bodies, the project has been indefinitely shelved.

5.2.2. The Holford Scheme.

When preparing his report on Pretoria in 1949, Holford prepared a suggested recon-

struction of Church Square with the main object of turning it from a traffic place of very mixed character and appearance into a town centre of a dignified kind, disturbed only by local and service traffic and providing a pleasant and more tranquil setting for the buildings that surround it. (4. page 50).

Holford's suggested reconstruction is shown in figure 21 on page 87 and has been prepared on the assumption that an alternative bus station can be found.

The carriageways have been narrowed and the amount of space available to pedestrians consequently increased. Not only has the central square been extended outwards but some surrounding sidewalks have been widened to allow for tree planting.

The Kruger Statue, at that time sited in front of the railway station, has been positioned on high ground and would form satisfactory north-south vista climaxes. To give some termination to the Church Street vistas Holford suggests single storey structures as entrances to the square proper. These could form bases for statuary if desired.

The layout envisaged is very symmetrical and formal. The occasional use of the square as an open air forum is stressed. The square would be grassed at three levels, the top one being on the roof of covered accommodation. This accommodation would include public lavatories, rest rooms, information bureau, and refreshment counters to serve the

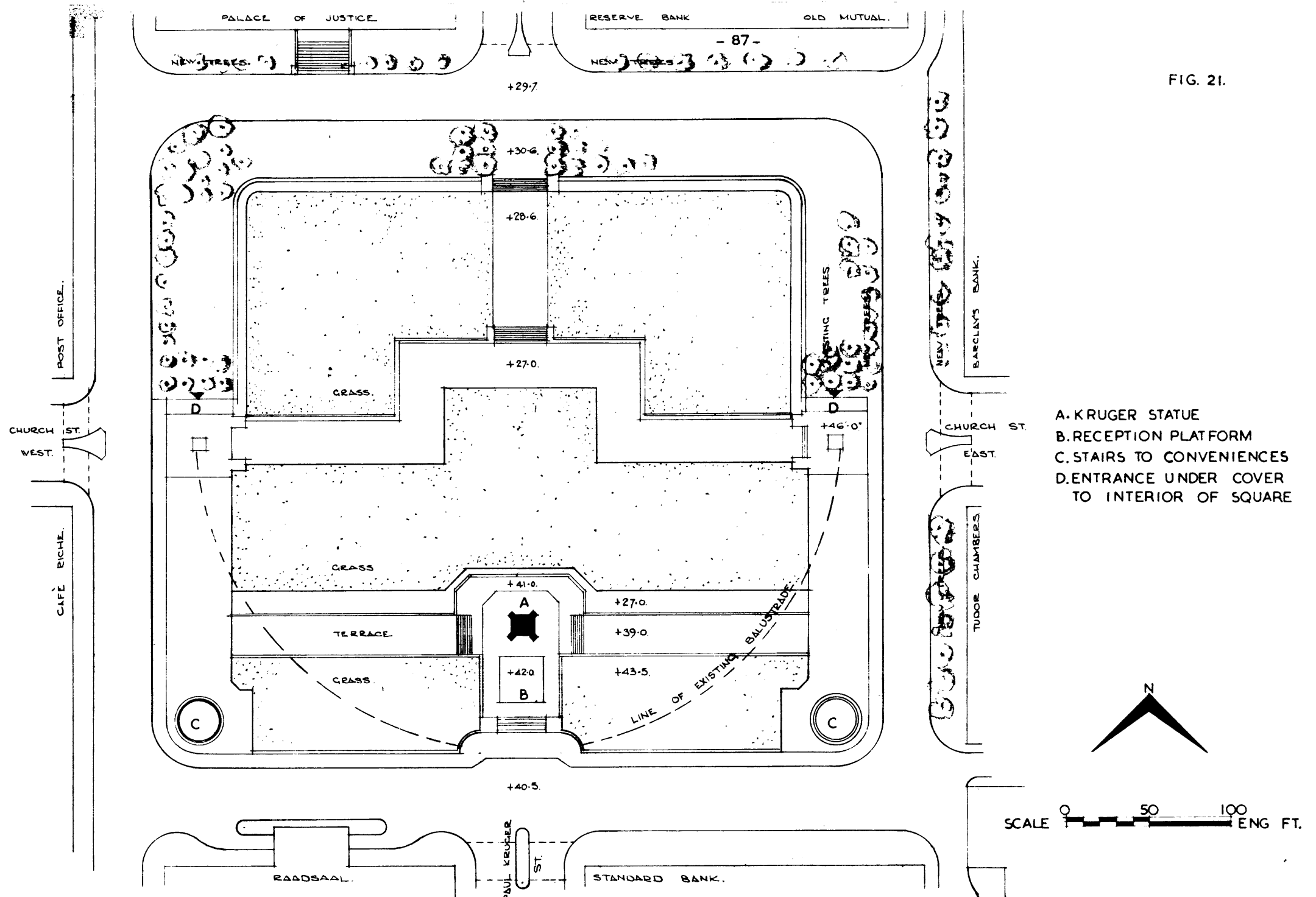


FIG. 21.

- A. KRUGER STATUE
- B. RECEPTION PLATFORM
- C. STAIRS TO CONVENIENCES
- D. ENTRANCE UNDER COVER TO INTERIOR OF SQUARE

● CHURCH SQUARE RECONSTRUCTION PROPOSED BY PROF. HOLFORD SOURCE: THE HOLFORD REPORT.

every-day use of the square by office workers for recreation. The raised terrace would admit clerestory light to the interior and would be about eleven feet above the main grassed area.

Holford intended that the amount of shade around the northern boundary of the square be doubled by further planting, but the original trees have since been removed.

Although Holford stressed that this is, in his own words, "A provisional layout showing one method of converting it into a pedestrian square", the following criticisms are nevertheless justified.

- (a) It is not feasible to remove the bus station unless it can be proved that the new site is at least as suitable as the present one. To banish buses for ^eesthetic reasons alone while ignoring economic factors of location is not realistic planning.
- (b) The rigid formality and symmetry of the scheme does not lend itself to the everyday use of worker recreation. While some degree of formality should be maintained in the interests of civic dignity and public meetings, part of the space available should be developed informally with large shade trees. Not only would this break the rigidity of the scheme but it would provide an area of repose and relaxation in the only

green area in central Pretoria.

(c) There are no water features.

On the other hand there is much to commend the scheme. The additional trees, the placing of the statue and above all the development of a pedestrian square are very good features.

5.2.3. The Planning Committee Scheme.

As a result of a symposium organised by members of the Transvaal Institute of Architects in 1962, to explain the municipal traffic plan to Pretoria members of the profession, a body of four architects banded together to consider the reconstruction of Church Square, and took for themselves the name of "The Planning Committee". On 17th October, 1962, this body presented the results of their deliberations to another meeting of Pretoria Architects for consideration and discussion.

The scheme, shown in figure 22 on page 90, accompanied by a typewritten memorandum was to have been submitted to the City Council and the Pretoria Forum, a body interested in the welfare of the capital. The approval of the architects was sought.

The main object of the scheme is to bring people back to Church Square and thus to restore its original function of business, social and civic centre of Pretoria. The

vermeulen street

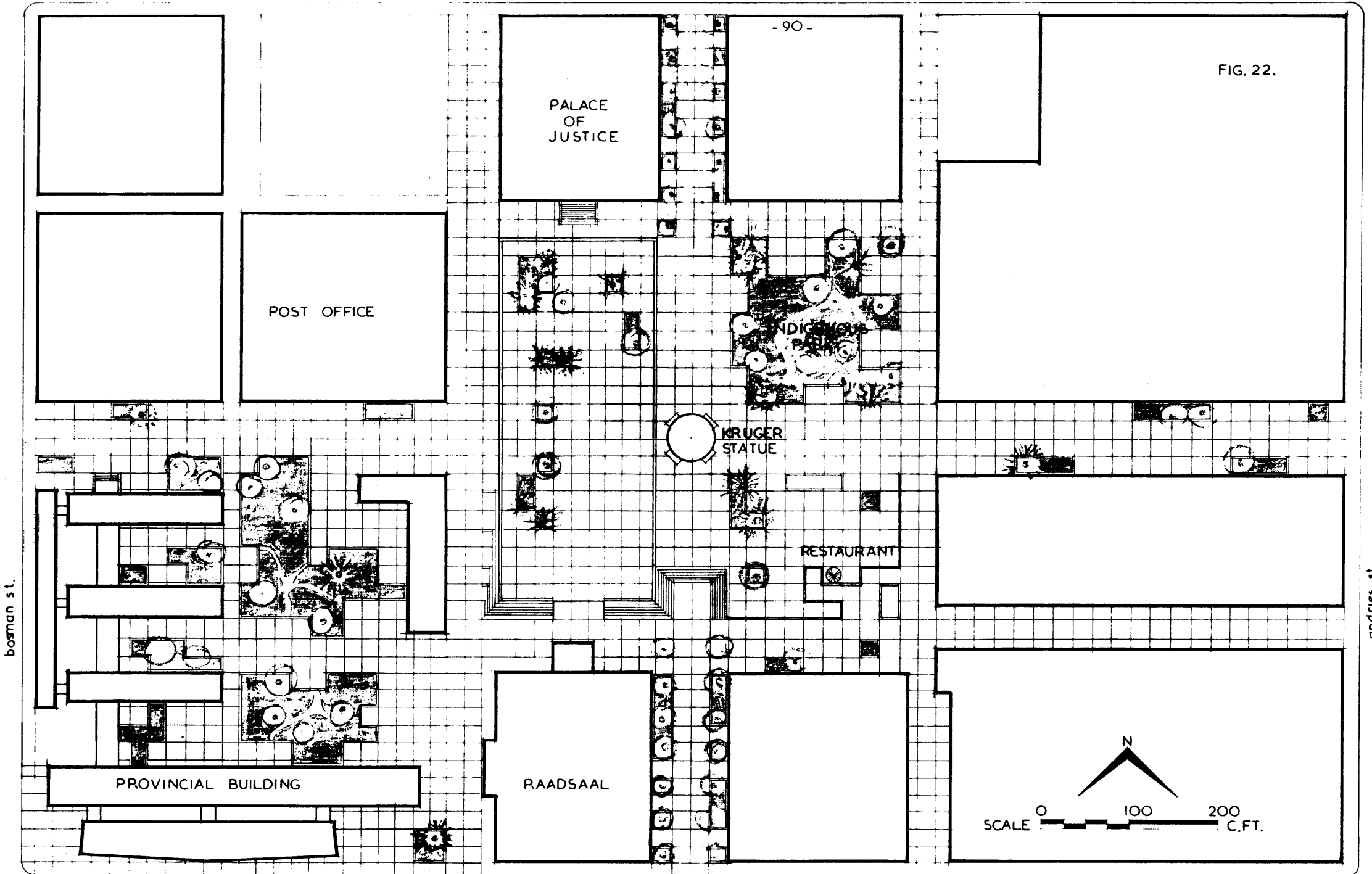


FIG. 22.

● CHURCH SQUARE - PLANNING COMMITTEE SCHEME. SOURCE : PRETORIA PLANNING COMMITTEE. pretorius street

committee rightly contends that the city is fortunate in possessing such an open area and that it is the duty of Pretoria and its City Fathers to make Church Square a useful and beautiful area for posterity.

The scheme did not, however, win approval from Pretoria's architects. When the meeting was thrown open for discussion there was no lack of speakers, and generally these rose to criticise. For the Planning Committee to have submitted their scheme to a body of individuals, each one of whom has his own ideas of design, may have been foolhardy or it may have been courageous. Criticism was to be expected. However, it cannot be denied that in instigating this discussion, the committee has rendered a service.

The establishment of a pedestrian precinct was warmly approved but it was felt that the main aim - to draw people back to the traditional heart of the city - will surely not be accomplished, as the square will be an area of hot textured paving, as grass has not been extensively used. Thus it appears that the detailed planning will defeat the primary aim. A small indigenous park would not suffice to replace the present expanse of lawn, unshaded though this latter is.

The members of the planning committee explained that the paving, while intended for pedestrians, would permit the passage of certain vehicles such as for processions.

The absence of water features was criticised, as was the non-incorporation of the sub-surface parking garage, which the traffic plan report had proposed. The meeting unanimously voted for a garage to be incorporated.

The contention that by creating a pedestrian precinct the people would be "drawn back to Church Square", was hotly contested as it was an established fact that concentration of people was greatest at the business centre and as Church Square was no longer the business centre, the people would not return unless there was an increase of commerce on the square.

An attempt to obtain majority opinion on all the points raised, proved abortive and it was agreed that it was impossible for a body of 60 to 70 persons to draw up a single plan as there were so many varying opinions and so much disagreement.

Nevertheless, the Planning Committee carried out its intention and submitted a slightly amended scheme to the Pretoria City Council. This consisted of an expanded memorandum running to 28 pages and five drawings, some of which have since been published in the press.

The introduction to the report states that it was drawn up with the co-operation of "many individuals and organizations" but does not enlarge upon this. The historical

chapter mentions the many activities which have taken place on Church Square, including education, entertainments, sporting, military, religious, commercial, administrative, etc., and is written in sentimental vein. One reads of the scent of "die wag-h-bietjie en witbuffelpeerse blomme" (13, page 5), of a cricket ball landing in the debating chamber of the government building and of dignitaries sailing paper ships on the stream which flowed around the square (13, page 7). The object of this chapter appears to be to prove that the square was in fact the centre of all activity and to indicate how pleasant were the days when this was the case. Mention is made of the large role the square still plays in the daily life of Pretoria through the staging of such functions as the yearly Kruger celebrations, University rags, jacaranda carnivals and the induction of the State President. Regarding this latter point, the report records the thought that through this the square now has more than local importance and has now become "the meeting place of a nation"(13 page 2).

The succeeding chapter describes Church Square as it is today and points out that it serves as a traffic circle to which all vehicles have free access, but that when the Pretoria Traffic Plan becomes effective that there will be a great reduction in through traffic. The principles for reconstruction of the square are given as:

1. That the open space available must be made available to pedestrians.

2. That it function as a heart of the city for passive recreation and social intercourse and to this end refreshments, flower sellers, art exhibitions and the like should be provided for.
3. That it be the meeting place on occasions of national importance.
4. That the historical character be retained and expanded.
5. That private traffic be limited.
6. That there be no entrances to underground garages.

(13, page 20).

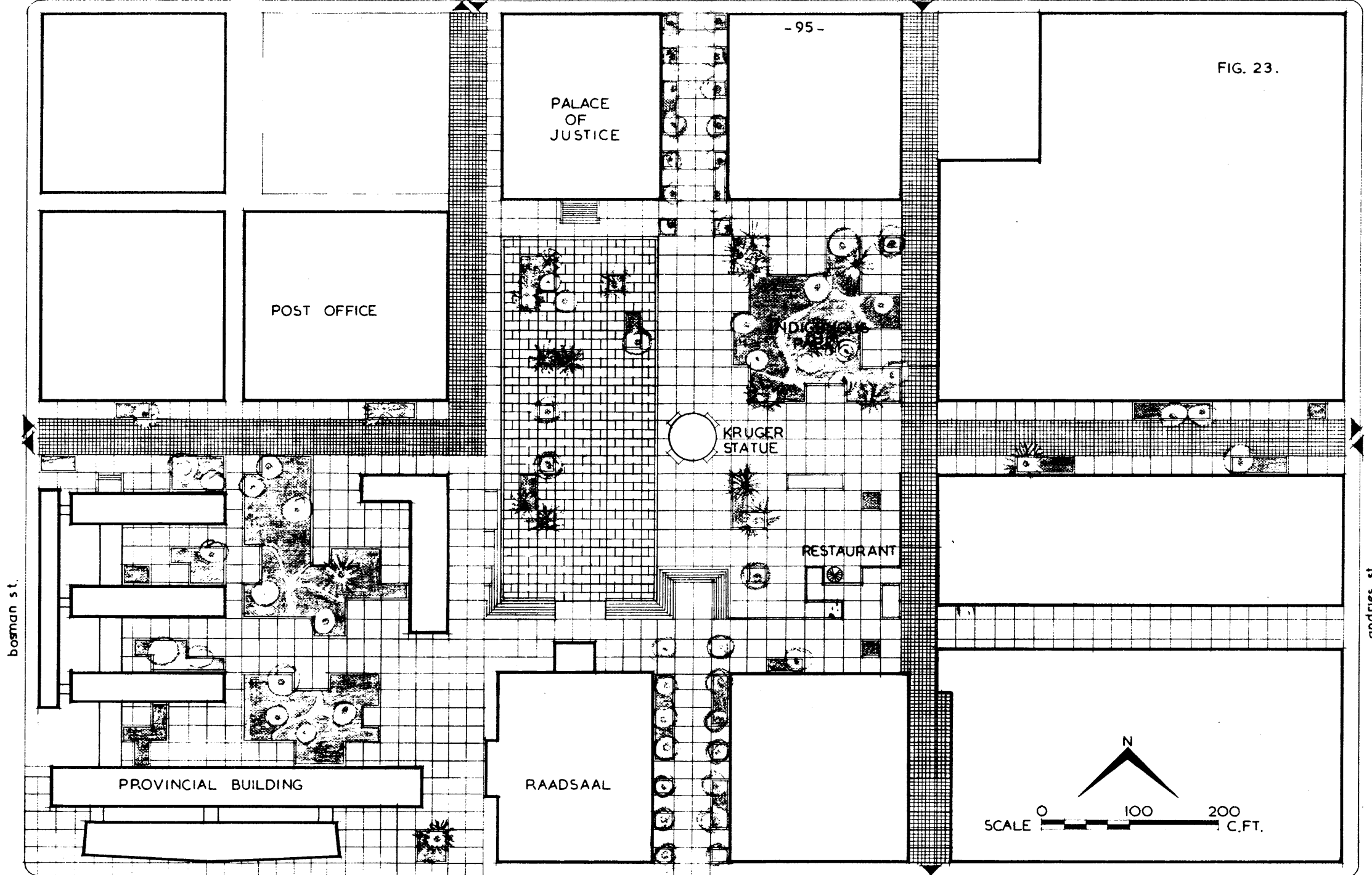
The suggested reconstruction submitted to the City Council is shown in figure 23, on page 95, and varies from that presented to the architects only in that greater definition has been given to the public meeting place between the Raadsaal and Palace of Justice, and that specific vehicular traffic ways have been introduced.

To effect a more direct link between the square and the provincial buildings, an open space has been created on the ground where the Capitol Theatre now stands. A group of buildings including the old Netherlands Bank and the Cafè Richè has been retained for historical interest.

Flickering lights in the form of advertisements, neon signs and news flashes are

vermeulen street

FIG. 23.



● CHURCH SQUARE - PLANNING COMMITTEE SCHEME

SOURCE: PROPOSALS SUBMITTED TO CITY COUNCIL.

recommended to give the effect of a busy pedestrian thoroughfare.

Buses have been completely eliminated, and it is suggested that there be no bus station in the central area, but that buses should continually move around the area formed by Pretorius, Bosman, Vermeulen and Andries Streets. (13 page 25).

The report rejects the sub-surface parking garage on the grounds that a garage with ingress and egress from the square will nullify all possibility of replanning. The garage would only fit in if the access points were from Pretorius, Bosman, Vermeulen and Andries Streets.

In wishing to make the most of the open area of the square, the committee has a commendable end in view, but the statement that the square is at the centre of the city's business area is incorrect. As has been shown, the business node has now moved eastwards. The square is, however, the historical centre of Pretoria. It is important to realise that a city may have more than one centre, e.g. business, cultural, civic or historical. This is brought about by natural growth, and an area which once was large enough to house a multiplicity of uses is no longer adequate. With expansion a single function predominates in the old and new areas and they acquire particular characters, such as retail shopping, finance or motor town. Much of the Planning Committee's attention has been given to the

problem of bringing people back to the square. But as it is business which attracts people and, as the square is no longer the business hub, this problem appears to have been a little overstressed. When the town was small, in the days before the automobile, the square was the general meeting place for people from all walks of life. It was the social centre, and with good reason:- the townsfolk lived in close proximity. The church stood on the square and the square itself was the commercial centre. In those days it was natural for people to walk out of an evening. Everything happened on the square. Today this cannot be so, and to try to turn back the clock will prove futile.

The square is indeed used by Pretorians today, but not in the same capacity as formerly. There are too many factors such as the advent of the automobile, the decentralization of residential areas, the diversity of entertainments and financial forces, to ever expect - as the Committee would wish - that past traditions will be restored.

On the other hand an attractive square will attract people, but this will occur out of contemporary desires and not from any reverence to history. Therefore, the reconstruction of the square into a pedestrian precinct is commendable. However, its uses, such as for the Presidential induction and the University rag, quoted as being part of Pretoria's

"daily life" are by no means daily occurrences. While these are important functions, they have, in the opinion of the author, been overstressed and the genuine daily requirements of the people who are present in the centre of Pretoria have received scant attention.

The development of an area for public gatherings between the Palace of Justice and the Raadsaal is excellent. The speakers' platform would be at the Raadsaal end, and this is more comfortable from the public viewpoint than the Palace of Justice steps. The area between these two buildings ties them together very satisfactorily and sets them off with a dignity which they deserve.

The two areas of informal park to the east of the Provincial building in the space created by the removal of the Capitol Theatre and Poynton's building is a good feature, and these green areas should be well used by office workers.

The retention of the Café Riche, the old Netherlands Bank and adjoining building, as shown, is not strictly accurate. Figure 20 (page 78) to the same scale, shows the actual outline of these buildings. As they stand, this group of buildings would not form a unified or dignified freestanding whole. If they were reduced to the size shown on the drawing, they could not function as they do at present. While it is commendable to endeavour to retain examples of the architecture, this particular case appears to be unfeasible as

suggested.

The memorandum suggests flower sellers and night signs to brighten the square. These are things which cannot be forced. If it is profitable, flower sellers will apply for permission to trade, and if the square develops into a night time rendezvous, then flickering signs will appear.

The Kruger statue is retained in its present position as a central focal feature. Although from the south approach the statue is not well placed, it would not be realistic to imagine that its resiting would be permitted.

It would appear that aesthetics has been the overriding consideration in this reconstruction. For example, it is felt that buses and an underground garage would mar the beauty of the square, therefore, buses are summarily removed and the garage omitted.

The Committee contends that the buses should follow the ring Vermeulen, Andries, Pretorius and Bosman Streets and that the buses should continually move, thus eliminating the need for a bus station. This suggestion cannot possibly be based on research nor on consultation with traffic or mass transportations experts. It has been shown that Church Square is the optimum location for the bus station, and, while it is agreed that this may not exactly be a beautification, it is an important link in the all important aspect of city planning -

finance. The removal of buses to an inferior site is bad economics, and will not be considered. Again, it has been proved that parking facilities are urgently required in the vicinity of Church Square. For a panel of architects to consider that an underground garage would mar the square is surprising, for this is tantamount to admitting that here is a design problem which cannot be solved. Surely it is planning at cross purposes to attempt to bring people back to the square but to exclude their favoured means of locomotion to get there.

Briefly, then, the author's criticism is that there has been insufficient survey and that aesthetics, and a leaning towards sentiment and history, have taken precedence over practical things such as public desires and financial considerations. Planning does not consist of arbitrarily banishing that which offends. It is the planners task to strive for a suitable arrangement of functions which may be aesth^{et}ically incompatible but which are nevertheless functionally necessary.

5. 3. THE FUNCTIONS OF THE SQUARE.

Before setting out to replan Church Square, it is necessary to establish whether replanning is required and what the square's functions are to be.

One point which emerges very clearly from the controversy which raged about the

removal of the trees from the northern periphery for the induction of the State President, is that, in its present form, the square is unsuited for large public gatherings. The answer to the question whether the square should be used for large gatherings is obvious, because there is no alternative central open area. In view of the fact that large formal gatherings are not frequent occurrences, this particular use may be considered to be secondary although the holding of formal or informal gatherings should be able to take place in an open air forum, and when these occur drastic adaption of the square should not be necessary.

The fact that there are many official buildings in the vicinity of the square make one of its functions the point of contact between the administration of the province and country and the citizens of Pretoria. Coupled with this is the fact that some of the official buildings are of a bygone era and are of delightful dignity and atmosphere. This brings the historical value of the square into perspective and its function as a dignified historical centre of the city is of front rank importance. The amount of sentiment which exists about certain events which have occurred on the square is considerable. These factors demand a dignified layout, particularly with respect to the Palace of Justice and Raadsaal, which are the two most prominent and important of the older buildings.

A major function of the square is certainly not for use as a central traffic circle

or roundabout for by-passable private automobiles. At present there is an absolute minimum of casual parking on the square, so the vast majority of private vehicles present at any one time are en route from an origin outside of the square to a destination outside of the square. However, as has been shown from municipal surveys, it is desirable that parking facilities be included in any reconstruction of the square. This is desirable, and it would help to "bring people back to the square" which is the aim of the Planning Committee. The parking garage, therefore, is a very desirable function. Obviously the in-and-out ramps would have to be discreetly placed.

The position with regard to the location of a central bus station is dictated by financial considerations flowing from public desires. The possibility of using the market site for a bus station, when it becomes available, was considered by the municipality. Their survey proved that this is not a logical location. While the square is available and the day-time population densities remain as presently distributed, then buses will remain on Church Square. While agreeing that a bus station is no aesthetic gem, particularly if an electrified system is used with its inevitable "wirescape" it is only realistic to include a mass transportation node as a major function in the replanning of Church Square.

Another existing function of the square is that of financial centre. As we have

seen, the majority of the buildings on the eastern side, house financial concerns. Many of the people who visit the square do so to reach one or other of these financial institutions. They play a considerable part in the generation of pedestrian traffic as many shoppers first visit the financial houses before proceeding to the retail zone.

Another major function of the square as the only open area in the central area, is to provide a place of relaxation for those who visit it, be they office workers, other citizens of Pretoria, or tourists. The square should be a usable pedestrian precinct. The square as a central focal point fulfils for Pretoria, a place to arrive at. For a traveller visiting Pretoria, a terminal is most satisfying. Once he has reached Church Square the visitor has a feeling of having "arrived."

Placed in order of importance, the following appear to be the functions of Church Square:-

1. The dignified historical centre of Pretoria.
2. A usable pedestrian precinct.
3. A mass transportation terminal.
4. An administrative centre.
5. An open air forum or meeting place.

6. A financial centre.
7. A place where automobiles can be temporarily stored.
8. The travellers point of arrival.

Viewing the square in the light of these functions it appears that:-

- (a) Far from being a usable pedestrian precinct, the pedestrian would appear to be most unwelcome. There is no shade for him, he is prohibited from using the four squares of lawn, and he is encircled by moving traffic. In truth, it may be said that the tranquility of Church Square was one of the sacrifices made to the automobile.
- (b) As a dignified historical centre, Church Square leaves much to be desired. The Kurger Statue has a reasonable setting, but the Palace of Justice and Raadsaal - the two buildings which must figure prominently in any reconstruction of the square - are not as fortunate. The steps of the Palace of Justice end in the tar of the traffic circle, and the Raadsaal faces onto - of all things - the public conveniences.
- (c) As a bus station the square is also a failure. Buses compete with other traffic and pedestrians and the boarding points have spread away from the square. A compact terminal would be more efficient both from the municipal and public viewpoints.
- (d) The traveller arriving at the square is presently unable to park his car and view

what he has arrived to see, and if he wishes to consult the Information Bureau, he takes his life in his hands.

- (e) Those wishing to visit the square by automobile, are limited to a choice of a dozen parking meters, which, in turn, limit the visit to a maximum of 30 minutes without penalty.

From the above it will be seen that, at present, Church Square is not satisfactorily fulfilling any of its main functions and, therefore, there are strong and valid reasons for reconstruction.

Although many of the functions are incompatible, we cannot escape their necessity. It, therefore, demands that a careful study of development possibilities be made before proceeding with a new design. This has been done and a suggested reconstruction follows.

CHAPTER VI.

CHURCH SQUARE: RECONSTRUCTION.

Although the central city area forms one functional unit and should be dealt with as such, this unit is built up of distinctly discernable elements. For an effective synthesis of the central area it is proposed to deal with the various elements separately and subsequently to integrate them into a complete functional pattern. In this chapter it is proposed to deal with Church Square as the obvious starting point for the replanning of the central area.

Church Square has national, provincial and municipal importance and the National Government and Provincial Administration should, therefore, contribute, in cash or in kind to any reconstruction scheme. The whole block to the north-west of the square is government owned, and that to the south-west is owned by the Provincial Administration, with the present exception of Poynton's Building, and this will also ultimately be purchased. Before attempting a reconstruction, all possibilities should be investigated to determine what land is available.

6. 1. LAND AVAILABLE FOR RECONSTRUCTION.

6.1.1. Government Property.

Referring to figure 20, page 78, the land numbered 26 and the open ground north

of the building numbered 27, have already been allocated by the Public Works Department to post office construction. This development in the immediate vicinity of Church Square holds important possibilities. Buildings 23 and 28 (figure 20) house the General Post Office at present. The plan to construct additional post office accommodation does not mention the removal or redundancy of the existing building. From discussions with senior officials, it was apparent that the matter had received no thought whatever.

There are sound arguments both for and against entire rebuilding of the post office. Basically, the arguments against rebuilding are that the existing buildings have some historic value and that greater than anticipated financial outlay would be required.

Although the buildings do have some historical value, this is not great as there are better examples of the architecture of their period around the square. However, the main argument against retaining the buildings is that they are inefficient and, as the post office is a revenue earning concern, this argument is a strong one. Efficiency makes for sound government economics and, in the long run, the revenue lost due to discomfort, maintaining large volumes of building with comparatively little usable floor space (for example, only two floors in a height of 33 feet), poor lines of circulation, etc., will mean unnecessary wastage over a long period of time.

If the redevelopment of Church Square is to be regarded as a matter of national importance it is clear that the co-operation of the government departments concerned must be sought in order to explore the various possibilities and to ensure sympathetic treatment of the reconstruction programme.

6.1.2. Provincial Property.

When the new provincial building was originally mooted, there were arguments against its present location. These were that it would become a physical barrier to the retail trade of Pretoria west. This has proved to have been a valid argument, but the arguments for civic architecture in the centre of town and the link with the Raadsaal prevailed.

This latter point is of interest regarding future proposals. The ultimate design envisages the demolition of the Capitol Theatre and the erection of a new council chamber, to replace the Raadsaal, between the Raadsaal itself and the new building. Thus the Raadsaal, which would become a museum, would have no tie with the provincial buildings and the strongest argument for the siting of this complex would then fall away. The restoration of the Raadsaal, now in progress, is being accompanied by the installation of a complete range of modernised services and thus the restored debating chamber will be an excellent one with

genuine historical character.

In South Africa, particularly in the newer cities, there is a curious mania for regarding any building as "old" and as a museum piece after it has seen about 50 years of service. While in the world of commerce the so-called "economic life" of a building is nowhere near 50 years, civic architecture cannot be measured against the same set of principles. The argument of efficiency does not apply in the same measure as it does for the existing post office buildings. When restored, the debating chamber will be efficient for its purpose, and will be surrounded by rest rooms and a certain amount of public space. The Raadsaal with its historic associations should, therefore, continue to serve as the council chamber.

Two pertinent observations apply here:-

1. That there is a limit to which the creation of museums can be taken due to maintenance costs;
2. That the best way to maintain a building is by use of that building by people who respect it.

The administration building, new and efficient, stands to the west. This building is not yet complete, but is already inadequate. This is evident in the request - during

construction - that the main south block be raised by an additional two floors. As the foundations were not designed to carry this extra load, the request could not be met. The point of interest is that the Transvaal Provincial Administration requires additional accommodation and, while the costs of the existing building prohibit this being provided as part of the present programme, that further construction will ultimately take place is certain and the old buildings on the same block will have to make way for this.

6.1.3. Municipal Property.

The actual land occupied by Church Square itself, together with all the roadways, is in the care of the Pretoria Municipality. As the Pretoria City Council would, in all probability, sponsor any reconstruction, all of this land would be available. The two small islands to the south have buildings housing the Municipal Information Bureau and public conveniences. However the main use to which the square is put by the municipality is for a rather scattered bus terminal.

6.1.4. Private Property.

From the Old Mutual building in the north-east corner the arc of buildings around to the Standard Bank opposite the Raadsaal in Paul Kruger Street are predominantly of a financial nature and all are owned and operated by private enterprise. If any or all of

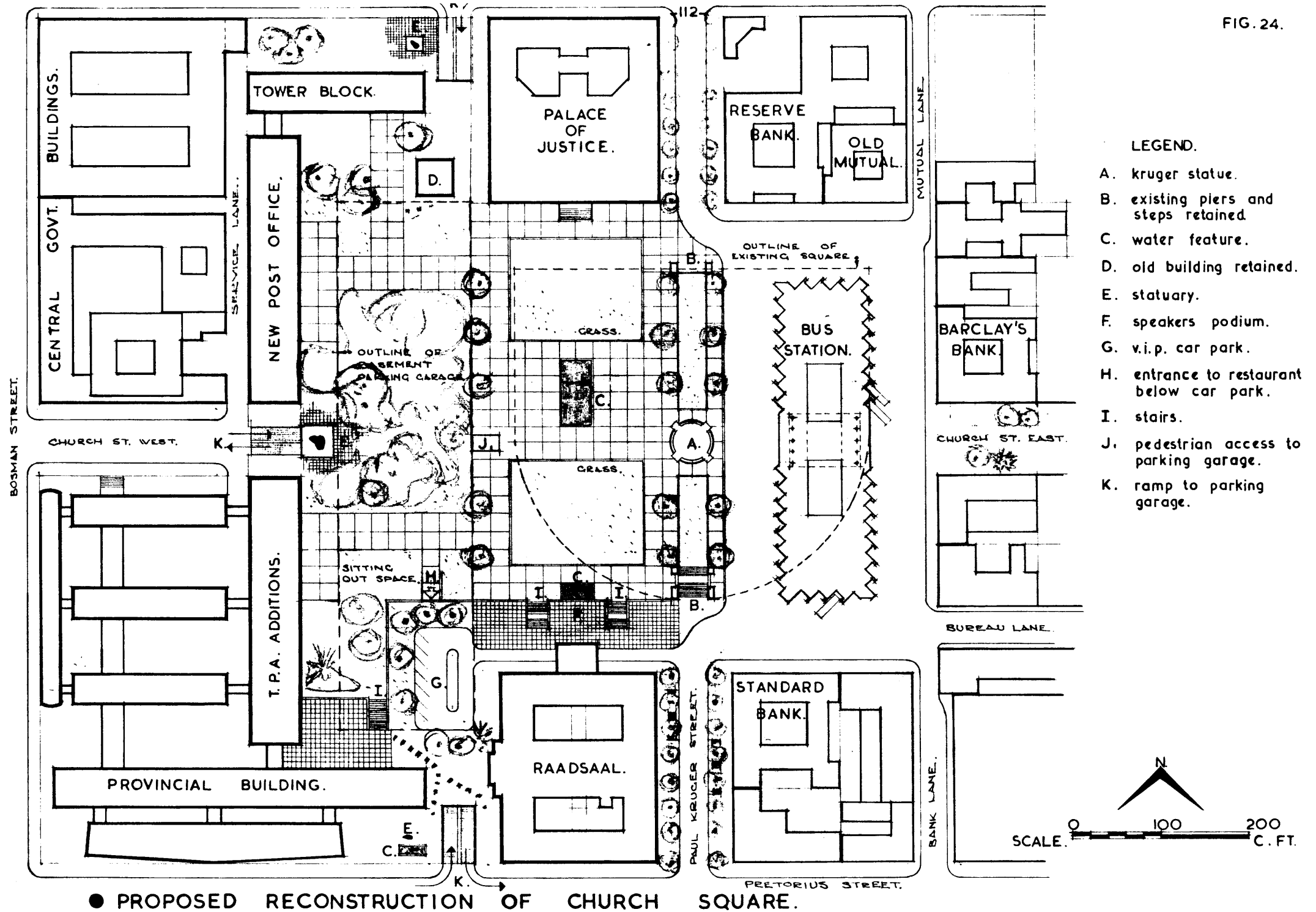
this land were required for reconstruction it would probably have to be acquired by means of expropriation and this would be costly.

6. 2. A NEW FRAMEWORK.

From the foregoing it will be seen that major construction projects to the west of the existing square will be undertaken by both the Provincial Government and the National Government. Through the co-operation of these bodies with the Pretoria Municipality, an increased area for replanning can be obtained. The author's suggestions in this regard are shown in figure 24, page 112.

The post office is shown as being entirely rebuilt. The suggestion for the basic concept of the new structure is a tall northern tower block, to house administration offices, of some twenty floors to balance the tall south block of the provincial building and a ten storey block facing onto the square and screening off the existing government buildings. This latter block is shown wider than the normal office block width. Although this is architectural detail, it is done with a dual purpose. Firstly, it represents the latest American trends in office design where a central core of utilities, artificially served with light and air, is surrounded by offices, which results in a more efficient building through a higher use factor, and secondly this width - in the region of 70 feet - might well prove ade-

FIG. 24.



quate to house the public space and, therefore, would eliminate the need of a building projection on the ground floor.

It is important that the use of the mid-block service lane be retained to serve the new building.

It is recommended that no new provincial debating chamber be built, but that the additional office accommodation required be housed in a block matching that proposed for the post office. This is entirely feasible as the property required for this already belongs, or shortly will belong, to the Provincial Administration.

Thus, with the construction of a north tower block on the post office site and two ten-storey office blocks the new framework in which to reconstruct Church Square is obtained. It need hardly be pointed out that the ten-storey blocks would form a very definite and pleasing western "back-drop" to the square.

As the complete rebuilding of the General Post Office is by no means improbable the reconstruction scheme is based on the premise that it will occur. This may be considered a bold step but, in order to comfortably house all of Church Square's functions, more land is desirable, and a bold approach is required. The acquisition of more space on the western side of the existing square is the most prominent feature in the reconstruction.

Thus, the contributions of the central Government and Provincial Administration would be through the use of land presently owned by these bodies, and by co-operation in plan effectuation. The land need not be donated to the city but, for the purpose of obtaining uniformity of layout, agreement on gardening would have to be reached. Preferably garden maintenance should be turned over to the local authority.

6. 3. HOUSING THE FUNCTIONS.

Having framed the reconstruction area, the next step is to allocate areas for the various functions which Church Square should fulfil.

6.3.1. Formal Square.

As the Raadsaal and Palace of Justice have a very strong relationship a linking by means of a square, as suggested by the Planning Committee, is adopted. This area is uninterrupted by trees which are used only to accentuate its eastern and western boundaries but is softened by the introduction of usable grassed areas, floral borders and water features.

Having, as it does, the two finest historic buildings at its northern and southern extremities and the fine Kruger statue to the east, this area will have a dignity and simple formality suited to its prominent position in the capital city.

6.3.2. Bus Station.

As has been shown, the optimum location for the bus station is on the eastern side of the existing square, and this site has been allocated for this use. It is suggested that instead of tarmacadam, the area be paved with granite setts.

As it is generally agreed that a bus terminal is an undesirable feature from the aesthetic point of view, great care will have to be taken with the detailed design.

At present there are 34 boarding points spread around the vicinity of Church Square, and even allowing for islands and full length kerb parking, or side-on loading there is enough space available for 36 boarding points. This increase of two may seem very small, but with the advantages of compacting the bus station, should prove adequate.

The system proposed is similar to that used for the New York suburban bus service and has many advantages. There is a single passenger concourse, thus eliminating pedestrian traffic from island to island; longitudinally the buses only require 17 feet 8 inches of kerb space (in the diagram they have been allocated slightly more); there is only one way traffic around the island, which gives a built-in measure of safety.

The bus station, as drawn, indicates 40 loading places and not all the kerb has been used. In addition to being a bus passenger concourse, the buildings on the island

should house the ticket office, information bureau, busmen's rest room, public toilets and air terminal lounge. Thus a small amount of unbroken kerbside is required for occasional taxi service and the airways bus to and from Jan Smuts airport. Also, although the construction of subways are possible and even desirable, it is doubtful whether they will be used very much, as the area will be a particularly safe one. However it would be wise to form some sort of recognised crossing place for the pedestrians. This is accomplished by providing unbroken sections of kerb. Pads set in the road, would control pedestrian robots. These would only operate when a bus approached, and by riding over the pads would set the "stop" and "go" lights in motion.

When private automobiles are excluded, the factor of pedestrian safety rises considerably. Slow-moving one-way traffic with especially trained drivers, makes the terminal a comparatively safe pedestrian area without any further robots.

The scheme can only be used if all buses used are front loaders. Present municipal policy is to purchase only front loaders. This is not a point of great consequence as only those buses which will be suitable will be purchased. For reversing to start a trip, a reversing tail light warns drivers proceeding around the station of intended movement. As drawn, a double track and a track with branches to the loading bays are possible

around the perimeter.

The concourse should be as attractive as possible with greenery in the form of shrubs in pots. Demarcation and passenger control will be assisted by strategically placed crush barriers and these should be roofed. The building will provide a suitable visual climax to the Church Street east vista.

By centralising the services for the traveller, an efficient overall picture is presented to visitors.

There is one further traveller service which should be located near the central bus station and that is the long distance bus service, particularly the Public Utility Transport Company service to and from Johannesburg. As this service carries a good deal of luggage - apart from passenger luggage - it would be prudent to separate this service. It is suggested that the present B.E.S.L. car park site be earmarked for the long distance bus terminal.

A bus station, as indicated, should prove adequate for Pretoria with its present distribution of day population and, in fact, should suffice for many years to come. It is possible that the relocation of the bus station may eventually become desirable, but to serve the present needs of the city, there can be no doubt that the position allocated is

the optimum one. As the buildings on the eastern half of the square are generally not of a civic nature whereas those to the west are, the location of the bus station on the east side appears even more suitable.

6.3.3. Area of Repose.

With two of the main functions virtually suggesting their own location, the western portion of the square becomes available for a green area for the everyday use of office workers. All minor structures on the land owned by the Provincial Administration, and Poynton's Building, are indicated as having been removed. This is, to some extent, already anticipated, and will be in the overall interests of the square and of Pretoria.

Due to the rather rigid framework created by the buildings, the area into which the "place of repose" must fit, demands a fairly formal setting. As rigid formality does not induce relaxation, a compromise has been reached with regular main pathways dividing the ground up into informal park areas.

Thus three incompatible, but necessary, major functions - a transit node, a formal square, and a green area of relaxation - have been blended into a whole which should be both dignified and functional.

6.3.4. Parking Garage.

Municipal survey figures show that there is a demand for automobile parking in the vicinity of Church Square. There has been much feeling against permitting this. Opposition to the scheme has been based mainly on arguments that the concentration of automobiles will increase the peak hour traffic problem, that exit and entry points will be unsightly, and that the historical centre of the city should not be "dug up" to provide for automobiles.

An underground parking garage has been included in the proposed reconstruction as the author believes that these objections can be largely overcome and that the desires of the public and economic forces make the provision of parking imperative.

It will be seen from figure 24 that the proposed garage is to be below the land previously occupied by the post office and other buildings. Thus, the land of the old original square is not affected. This should satisfy the sentimentalists.

The in/out ramps have been discreetly placed, none being visible from the main body of the square. The Church Street west ramp presents a problem as the ramp cannot be allowed to obstruct the entrances for official vehicles to the Transvaal Provincial Administration building and the government buildings and post office, and at the same time it cannot project into the park. However, these difficulties can be obviated by a raised platform suit-

able for a sculpture base concealing the end of the motor ramp. The north and south access points will be unobtrusive and do not obstruct any function of square or buildings. One-way entry and exit control, as indicated, should obviate danger to the traffic in Vermeulen and Pretorius Streets.

There remains the question of peak hour congestion. The peak hours in Pretoria are from approximately 4.10 p.m. to 5.10 p.m. and 7.45 a.m. to 8.45 a.m., but for any one motorist the period of slow travel in the central part of town does not exceed 15 minutes. But a great increase in car ownership is expected and, therefore, anything which would aggravate the position should be avoided.

The municipal Traffic Plan scheme recommended a garage for 700 cars below the existing square. The garage shown would house 400 cars and it is suggested that these exclude all-day parking but allow a full morning or afternoon session.

The purpose of this garage would be to meet the demands of the shopper but exclude the worker. It is highly desirable that a fair measure of shopper parking be provided in conjunction with the financial establishments to the east of the square. If the garage was not open around the clock, but opened at 9.00 a.m. each day, the worker would be discouraged. It is possible, through control manipulation, to restrict parkers to only those who are

desired. This garage would fall into line with the Baltimore scheme, where parking is provided in conjunction with banks and shopping, (11, page 70). Further with the elimination of the all day parker, the peak hour traffic would not be affected.

6.3.5. Public Gatherings.

The formal square between the Raadsaal and Palace of Justice would form an open air forum for public gatherings and the area as allocated on the drawing (figure 24) is capable of holding over 9,000 seated persons. The speakers' podium will be at the southern end, and here the existing Raadsaal building and topography lend themselves to this function most admirably. For public speaking there are two main approaches. The first is that the celebrity shall remain aloof from the crowd and the second is that the crowd shall approach very close to the speaker and shall feel that he is one of them. The existing balcony of the Raadsaal will serve the former requirement while the latter is met by creating a raised platform immediately north of the Raadsaal, with enough side space for seating additional dignitaries, guard of honour and the like.

A V.I.P. chauffeur's waiting area is shown to the west of the Raadsaal. A turning circle is necessary and has been enlarged to permit waiting for short periods:

6.3.6. Refreshments.

The turning circle is over a proposed restaurant which will flow outdoors onto an area of lawn and shrubs. This is similar to that recommended by Professor Holford and the Planning Committee, but has been moved over to the west side of the square to be in conjunction with the park area. Extremely strict control of the restaurant is suggested. High standards of hygiene, service and dignity should be demanded, and it should not be permitted to develop into a typical café. Sale of malts and wines should be permitted.

6.3.7. Historical Centre.

The reconstruction as envisaged has a very strong historical character. The retention of some of the architecture of bygone days is responsible for this. Obviously the Raadsaal and Palace of Justice are the prime examples of architecture at the turn of the century and they will remain for posterity. It would be sad if the present square - which has served for 50 years - were to disappear entirely. The retention of the north and south gate piers and the monumental southern steps to the existing square is suggested.

The Kruger statue has been retained in its present position. Although a position in front of the Raadsaal might be a better siting it is not realistic to imagine that the controlling powers would permit another move. Although the statue is "lost" from the

south approach its retention does break Paul Kruger Street, which otherwise would be a monumental vista with no visual terminal at all, and would appear to the private motorist as the most direct route through town. The north and south approaches to the statue will be grassed.

The group of buildings presently between the provincial buildings and the square has been removed. While the facade of the old Netherlands Bank building is attractive, the group would not present an attractive freestanding whole, and not every old building can be retained on the grounds of sentiment.

The original Mutual building, just west of the Palace of Justice, "D" in figure 24, has been retained. As previously mentioned the original building has charm and a pleasant facade. Bereft of its face brick additions this building could be restored to a highly presentable freestanding structure and act as a "tourist" post office. As the proposed reconstruction is of a fairly symmetrical nature, the retention of this building would balance the restaurant.

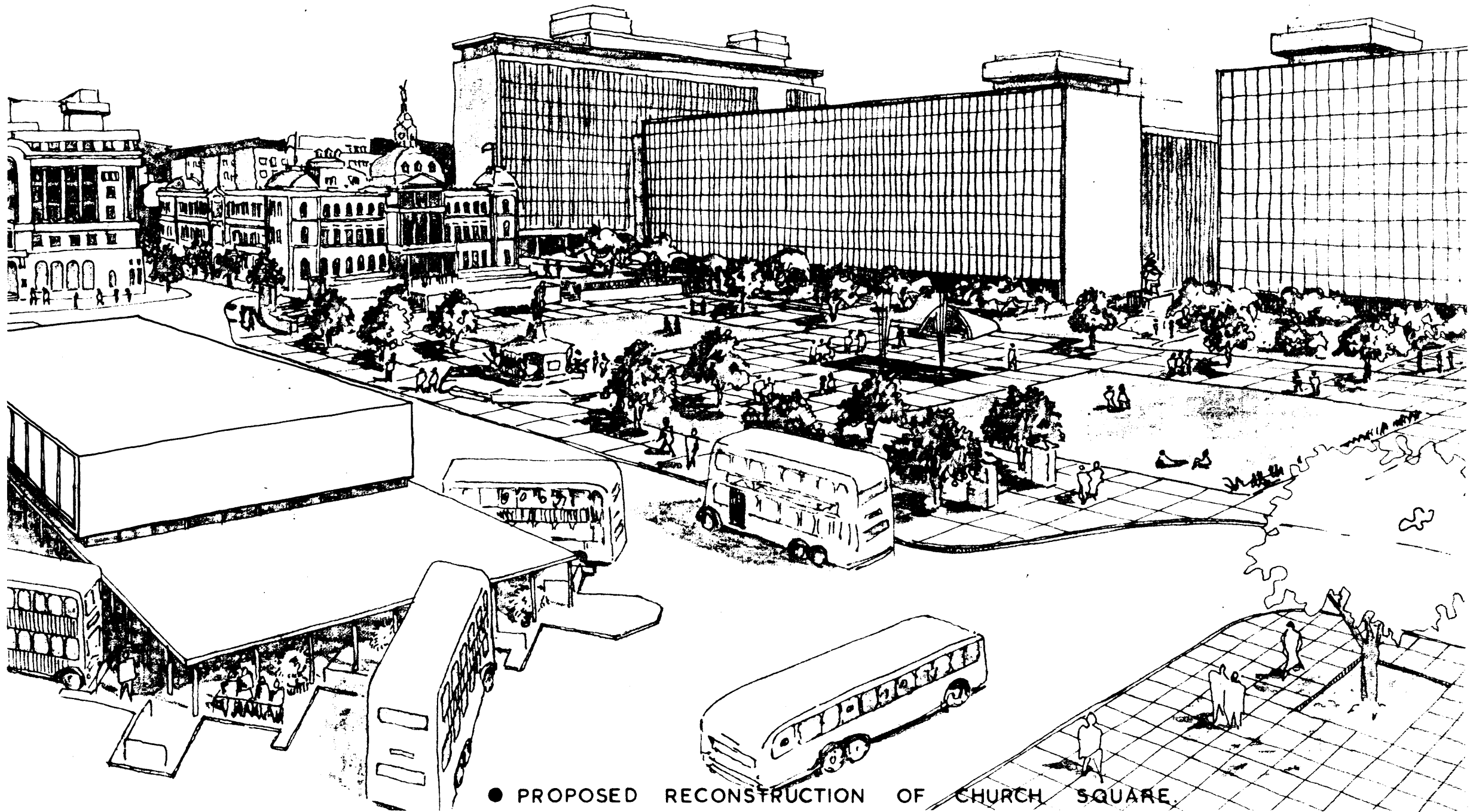
6. 4. OVERALL CONCEPT.

Private traffic will be totally excluded from the new Church Square which now becomes basically a pedestrian precinct with transit services. Buses only will be permitted past the Vermeulen - Paul Kruger and Pretorius - Paul Kruger Street robot controlled junc-

tions, and these two bus entry and exit points should prove adequate if all other traffic is excluded. If proved necessary in the detailed design Mutual and Bank lanes can be used for buses, Bank lane also being used as an exit for service vehicles from Bureau Lane.

It is suggested that the Palace of Justice be the only old building to become a museum. This would occur when the law courts move and become the first structure on the new government boulevard. Pretoria already has four museums, but of these only the Kruger museum will fall inside the ring road. It is fitting to have a museum in conjunction with the historical centre of the city, in fact, the presence of a museum might enhance the historical nature of the square.

All functions which should be provided have been allowed for in the proposed reconstruction. Basically the success of the scheme hinges on co-operation not only between municipal departments but between the local, Provincial and National Governments. The proposals for reconstruction may be bold, but they are feasible. With co-operation of the organisations concerned, redevelopment on these lines could give the capital city a functional and dignified square. A perspective sketch of the scheme appears on page 125.



● PROPOSED RECONSTRUCTION OF CHURCH SQUARE.

CHAPTER VII.

RECONSTRUCTION OF THE CENTRAL BUSINESS DISTRICT.

The data extracted from surveys and recorded in chapter III indicates that the Central Business District of Pretoria lies east and south-east of Church Square, roughly within the core rebuilding zone shown in figure 12, page 43. The position with regard to office space has been discussed and was found to be adequate. The other primary Central Business District function - retailing - will now be considered.

7. 1. THE ROLE OF CENTRAL BUSINESS DISTRICT RETAILING.

The Central Business District is, by virtue of its location, the point which the greatest number of people can reach economically. It is the place for the transaction of business - the commercial core of the metropolitan area.

The maintaining of the vitality and vigour of the Central Business District has been the object of many replanning projects in various cities. There are valid financial reasons for maintaining a vigorous Central Business District. If a high tax return cannot be obtained from the central area then the city will not be able to fulfil its obligations in the provision of services. As one of the two primary Central Business District functions, retailing has an important role to play in stabilising city economics. As a

function, therefore, retailing must continue to attract people to the central area.

7. 2. RELOCATIONAL TRENDS.

According to Wallace, no economic function has been more subject to recent locational change than retailing. The extent to which a redistribution of retail trade occurs within a given metropolitan area depends on a complex of factors including convenience of public transit and traffic, convenience of parking, the size of the metropolitan area, location and timing of suburban shopping centre developments and the relative size and nearness of the Central Business District daytime population to the main shopping centre (11, page 56).

It is important to distinguish between relocation of shopping at points away from the Central Business District and expansion of business for, as McKeever states (28, page 7), "..... if a downtown store opens up in the suburbs while still maintaining its volume in the downtown location, this is not decentralization but expansion". Retailing in the suburbs falls into two distinct categories; those groups of shops which serve purely local needs and those which serve larger areas and have a wide variety of goods. These latter shopping centres compete for business with the Central Business District and normally have the advantage of adequate parking facilities. When the Central Business District becomes too con-

gested for comfortable circulation the outlying shopping centres can draw off custom and thus pose a threat to continued Central Business District prosperity. This is happening in many American cities and has given rise to such reconstruction schemes as the Baltimore plan (ref. book 11).

In Pretoria there are several large shopping centres which carry a range of goods almost equal to that which the Central Business District has to offer but many of these are today suffering from lack of a master plan. For example, in Esselen Street, Sunnyside, ribbon development has occurred spreading the shops over almost a mile stretch, and the Hatfield development has outgrown the parking facilities.

As there are no figures available, the author endeavoured to obtain information on the effect these large outlying shopping centres are having on Central Business District retailing by means of interview. It would appear that the suburban centres are capturing the lion's share of new business. All of Pretoria's department stores have indulged in suburban development where turnovers have been good and overheads approximately 10% lower. Thus, providing the volume of business is large enough, it is more profitable to locate in the suburbs. That there is hesitancy in developing the central retail zone is evident in that the O.K. Bazaars, the biggest retailing concern in the country and with its finger on the retail pulse, has not

developed central property fully but has indulged in a great deal of suburban building.

7. 3. THE NEED OF A STIMULUS.

While those interviewed were in general agreement that adequate parking is necessary for the success of any shopping centre, there was no unanimity on the question of whether or not central retailing in Pretoria needed a stimulus. The lessee shopkeeper is not perturbed about central congestion for if this results in retrogression, he will relocate at short notice to the position which is most convenient to the customer. The ultimate stage of this approach is described by Vance and Murphy (21, page 45) "... perhaps the Central Business District of the future will be a central office district, an area in which the business enterprises of the city will maintain their offices, accompanied by only enough retailing to serve the people who work in office buildings".

The owner shopkeeper cannot adopt this attitude as he stands to lose if the customer is drawn or driven away. That the Central Business District will not disintegrate appears to be an opinion held by many planners. Beckett (18, page 25) states "In both theory and fact Central Business Districts have attractions that will ensure their continued importance". Corroboratory opinions have been expressed by Lynch (27, pages 56 and 60), Kelly (30, page 430), Vance and Murphy (21 page 45) and Wallace (11, page 60).

If, then, retailing is to remain as a major Central Business District function it should fulfil its role to the utmost of its capacity. In determining how this shall be brought about, the desires of the shoppers must be considered.

The actual shop to shop process of retail buying is a pedestrian one. There are two basic groups of shoppers, those who are daily in or near the Central Business District by virtue of their employment in the central area or "downtown" and those who visit for the purpose of shopping. Whether the central retail area will continue to thrive depends on its ability to serve the "crowd" adequately. The crowd is the real resource of the downtown. The crowd is important to retailers, the newspapers, the banks, the property owners, to the community as a whole. To hold this asset in an era of individual mobility means that the Central Business District cannot rely on tradition but must make deliberate improvements. The required improvements include freedom from congestion, convenient access and elimination of impediments to easy circulation (28, page 7).

A key factor in attracting the shopper to the Central Business District is access to the shopping centre. The shopper wants to alight as close to the shops as possible and, therefore, the question of parking is paramount. While the worker is prepared to walk a fair distance to his daily employ, the shopper has attractive alternatives, and will select

the centre offering greatest convenience.

The role of mass transport is also important and must be considered as a means of access for shoppers. Many developers have been severely underestimating the strength of mass transit. The best of formulas is upset by the number of people who ride the buses and are walk-in customers. (18, page 162).

While considering the traffic requirements of the shopper, two conflicting requirements must be met:-

1. The shoppers' chosen means of locomotion should be able to penetrate to the desired shopping place.
2. Vehicular traffic should be excluded from the shopping precinct.

These points resolve into grade separation at the actual shopping area and an endeavour to obtain the shortest possible walking distance from both transit points and private motor vehicle parking areas.

When the Pretoria Traffic Plan has been completed, the expressways reaching out into the suburbs will enable the automobile owning shopper to reach the central area far more speedily and comfortably than is at present possible. Thus, customer access is being improved. Hand in hand with this improvement must go improvement in parking and the actual

shop to shop purchasing routine. If these factors can be provided in reasonable measure then central retailing should regain some of the business lost to the suburbs particularly as, as has been mentioned, the suburban centres are experiencing the very problems we are endeavouring to remedy, albeit in smaller measure.

7. 4. A PEDESTRIAN SHOPPING MALL.

As with the acceptance of the Pretoria Traffic Plan access and parking are receiving attention, the provision of attractive shopping conditions remains for attention. Many planners have seen the solution to this in the creation of shopping areas devoid of all vehicular traffic. The desirability and functions of such an area in Pretoria will now be considered.

7.4.1. Desirability.

As the survey mentioned in chapter IV has shown, the longest unbroken shop-front in Pretoria is in Church Street, just east of Church Square (see figure 16, page 56). At present Church Street carries the largest volume of vehicular traffic in the central area. There is such a clash of wheeled and pedestrian traffic that the position is satisfactory to neither.

Secondly there is the question of attractive conditions for the shopper. A mall

creates a pleasant shopping atmosphere. When decorated with planting and bits of landscaping the attractiveness is multiplied immeasurably. The volume of foot traffic passing along in front of stores is increased (28, page 24).

With the exclusion of vehicles, therefore, comes an increase in pedestrians. This represents an increase in spending power and consequently a more vigorous retail area. In addition to the convenience of the buying public, the economic interests of the local authority would also be served by ensuring the stability of the retail function in the central area.

7.4.2. Functions.

In addition to providing more congenial surroundings for the shoppers, the construction of a pedestrian shopping mall presumes to permanently fix the heart of a city's retail area. If the development of a city can be strictly controlled as in the case of Coventry (7, page 477) then the position for the permanent establishment of the shopping node is easily decided, but where the economic forces of private enterprise have full play then further factors have to be considered.

All central business districts show evidences of advancing along certain fronts and retreating along other fronts (21, page 42). Thus the node is always moving with new

development drawing custom from existing premises. Aaron I. Cohen has conducted a thorough survey of shopping in Johannesburg which shows that, in principle, it is bad to allow development which will draw custom away from an area which is functioning healthily, as the degeneration thus created causes problems both for the municipality, the owners and the tenants. (25, page 15).

The present trend in Pretoria retailing is to develop east of Church Square with the centre of gravity just south of Church Street. The node is moving eastwards and this trend is expected to continue. If unchecked, degeneration will occur in those areas which lose custom.

Therefore, the first function of a mall would be to prevent degeneration by preventing further eastward movement.

With the development of the Struben Street government boulevard the 'pull' exercised by the relocation of a large body of workers on retailing will be considerable. The second function of the mall would be to prevent degeneration of those shops at present located on the southern shopping fringe by stabilizing the centre of gravity. That a northwards move will come is certain. If the mall can remain as the most attractive shopping area it will reduce the effect.

Therefore, from the point of view of the public, real estate investors and the municipality, a pedestrian shopping precinct would improve the existing Pretoria downtown pattern.

7.4.3. Locality.

The author's proposed location of a pedestrian shopping precinct for Pretoria is in Church Street east, from Church Square to the present municipal market site where a cultural civic centre building will form a terminal.

Church Street is the street with the greatest amount of unbroken shopfront. Therefore, from the point of view of use of existing sidewalk frontage the choice of Church Street is more suitable than any other.

The establishment of Church Street as a mall will limit the degeneration of property to the south in the event of a strong 'pull' being exercised by the government boulevard development. A shift of centre of gravity of one third of a block is allowed and if further movement is indeed arrested by the establishment of an attractive mall then development on both sides of Church Street should continue. That to the north will be mainly government development while that to the south will be undertaken by private enterprise.

The question of whether the eastward movement of the node can be arrested by

placing a terminal building across Church Street remains to be answered. The greatest expansion in the suburbs and surrounding areas is taking place to the east of the city and this will continue. This development may well result in a 'pull' large enough to eventually move the node east of any barrier which may be created today. Should this occur then a new shopping area would have to develop east of Prinsloo Street and the area to the west of it would degenerate.

However, the eastern sweep of the proposed ring road, over the Aapies river, provides a very definite limitation to the extent to which the retail node can move and to ribbon development. This is clearly illustrated in the photograph in figure 26, page 137. An eight lane highway crosses Church Street forming a barrier more than 300 feet wide and east of this one is no longer in the central area. The area within which a new shopping centre would, therefore, have to be established - from Prinsloo Street to the ring road - is smaller than the area to the west of Church Square which is already degenerating as a retail centre as it is not large enough to generate enough custom to keep the shops healthy.

This illustrates how the planner and the traffic engineer can work together for the good of the city as a whole. It may be anticipated that the proposed mall will confine eastward movement absolutely and limit the expected northwards pull.



- CENTRAL PRETORIA.
- VIEW FROM SOUTH - EAST.

PHOTOGRAPH OF RING ROAD MODEL BY STAFF OF CITY ENGINEERS' DEPARTMENT.

Church Street east has fulfilled the role of Pretoria's processional way for many years. With the development of Struben Street according to the Holford recommendations a new and more obvious processional way will develop. The present route is normally along Church Street east to Church Square and then up Paul Kruger Street to the City Hall. However, as this latter will also fall outside of the ring road the new processional route would be along the Struben Street boulevard and up Paul Kruger Street to Church Square. This point is of minor consequence but it does eliminate the argument that Church Street cannot be blocked off on account of occasional processions.

In broad concept, therefore, the establishment of a pedestrian shopping mall in Church Street east is both desirable and feasible. Matters of detail remain.

7. 5. SERVICING AND ACCESS.

7.5.1. Truck Servicing.

Another strong point favouring the use of a mall is the possibility of complete separation of pedestrian shoppers and truck servicing (28, page 25).

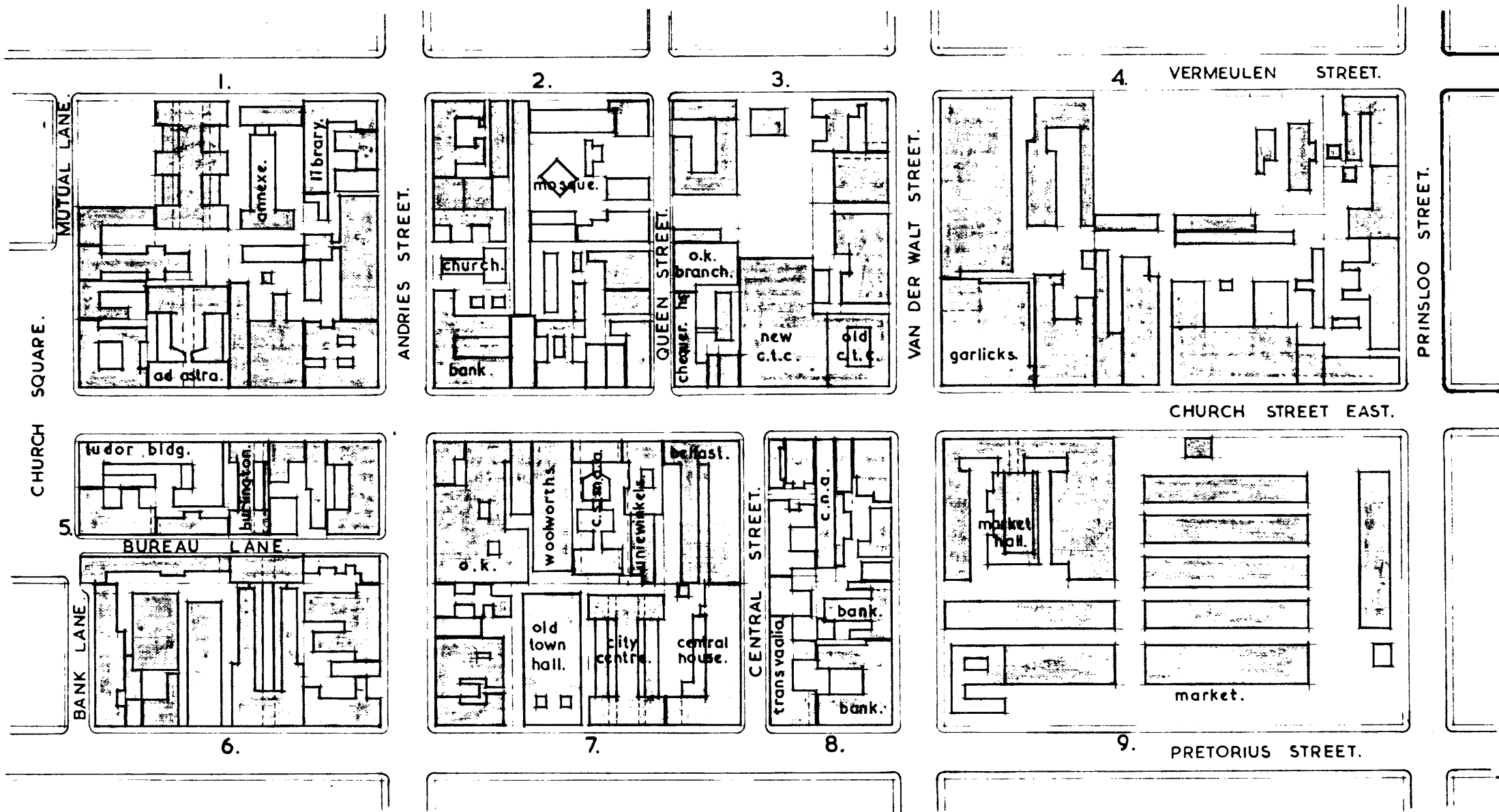
Truck traffic is one of the most difficult types of traffic to handle within a regional centre. The trucks should not cross pedestrian, automobile or bus traffic if possible. The trend away from the truck tunnel, because of financing, makes the problem

even more serious. Service courts, strategically located, can replace the truck tunnel and are often much more satisfactory (18, page 166).

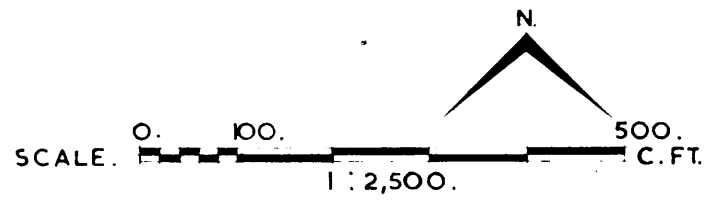
If deliveries from Church Street are to be prohibited then some other means of servicing must be substituted. To determine whether alternative supply routes to the effected shops are available a survey of the area in question was made. The results are recorded on figure 27, page 140. The existing buildings are shown shaded, which makes the available open ground stand out. The effect of closing Church Street to vehicular traffic will be considered block by block.

Block 1. Those buildings facing Church Square are of a financial nature. Large delivery vehicles do not call and guarded vans are on and off-loaded off the Street. These service vehicles will be permitted in Church Square. Similarly those buildings facing Vermeulen and Andries Streets have no service problems. There is an existing service lane capable of taking large delivery vehicles to the west of the State Library annexe which can reach to all shops now relying on Church Street for servicing.

Block 2. Penetration of traffic up Queen Street as far as Church Street is anticipated but forming a traffic crossing from Queen Street to Central Street is undesirable. As indicated there is a service lane in the centre of the block which can reach all those build-



● PRETORIA.
● AREA EAST OF CHURCH SQUARE. SURVEYED OCT. 1962.



ings facing on to Church Street. Due to the narrowness of Queen Street only light vehicles are capable of manoeuvring in and out. The buildings to be served require access of medium service vehicles and thus, if the central service yard could be enlarged by the removal of some of the old existing storage buildings, a very satisfactory solution could be developed.

Block 3. The O.K. and C.T.C. bazaars are in reality a single retailing concern and before the construction of the new store, which is still in progress, the municipality insisted on off-street loading facilities and these are to be provided from Vermeulen Street. This existing arrangement takes care of all heavy duty vehicles which will be required to serve the shops facing Church Street. Chequer House, the building on the south west corner of this block has a service yard below the rear wing and from Central Street delivery vehicles, of a size sufficient to serve the needs of the shops in the building, already use this. Thus, the only buildings which require a new method of servicing are the two small shops between Chequer House and the new C.T.C. building. These require only light delivery being a shoe store and jewellery shop and, with the removal of a fence, access is possible from the Chequer House service yard.

Block 4. It is clear that access to all the shops which would be effected by alternate means

would be available and for heavy duty vehicles too. The two open stands are at present used for a drive-in restaurant and parking lot. They are leased by the municipality to a tenant who is contemplating further development.

Block 5. With Bureau Lane being available for servicing the only buildings which present problems are Tudor Buildings and the one immediately east of it.. Both of these are old buildings and redevelopment on the sites they occupy in the foreseeable future is a distinct probability. When this occurs, off-street loading with access onto Church Square should be a condition. At present the alternatives appear to be through the Johannesburg Building Society service lane, which is shown dotted, or forming an access lane to Church Square. The Johannesburg Building Society building is on the south-west corner of the block.

Block 6. There are no problems as the streets remain for servicing.

Block 7. This block has the heaviest concentration of department stores and, therefore, the greatest need of service by large vehicles. The O.K. Bazaars is at present served from Andries Street. During major renovations the municipality erred in not enforcing off-street loading. Woolworths has been renovated recently and the C.S.M.A.A. and Uniewinkels buildings are new. The Belfast will soon be rebuilt on the same site.

However, servicing from Pretorius Street would be a comparatively simple matter when the old town hall is demolished and redevelopment on this site occurs. As this is municipal property the provision of loading facilities on the rear portion of the site would be a simple matter. This would serve the C.S.M.A.A. building and everything west of it.

Due to the narrowness of Central Street, heavy duty vehicles will not be able to turn in and out of the new Belfast premises from this approach unless the owners build to a self-imposed setback. This is to be done and trucks will exit through the service yard to Central House which could also be used to serve Uniewinkels. Large vehicles already use this yard from Pretorius Street and a 20 foot wide right-of-way for servicing is registered.

Block 8. Of the shops which face onto Church Street, only the store to the east of the new Central News Agency building is at present served from Church Street. This is an old building used as temporary premises by the Belfast while redevelopment is taking place on the existing site. It will soon be vacated and so the possibility of rebuilding is very great. If this were to occur, access to Van der Walt Street could easily be enforced. If not, this access could still be provided but, as vehicles could not enter the building, goods

would have to be carried a short distance. The two lanes from Central Street, serving the Central News Agency and its western neighbours, might conceivably be combined to the advantage of all parties. It would then be possible for light service vehicles to enter, turn, and exit from Central Street, as would be the case with Queen Street, eliminating the necessity for crossing Church Street.

Block 9. This block is scheduled for redevelopment, being the present market site with some retailing in the north-west corner either side of the market hall. The building on the south-west corner is also a City Council property and houses the City Health Department which is to be relocated in the new Blackwood Villa Scheme. When redevelopment of this block occurs, servicing by a means other than from Church Street could very easily be achieved.

Thus, from detailed study of the present position it is apparent that there are no insurmountable servicing obstacles to the establishment of a shopping mall in Church Street east. The majority of modifications require municipal direction. The few cases where co-operation of property owners is required are not vital and when compensation is paid and it is realised that the establishment of the mall is to the benefit of all by its attraction to the shopper, co-operation may be expected.

The view of officials of the City Engineer's Department on the problems arising from prohibiting servicing from Church Street is that where a special scheme is to be carried out special bye-laws are required. If the scheme is agreed to, then the necessary bye-laws required for plan effectuation will also be agreed to. In this case these will entail the combining of open spaces by the removal of party walls and fences, and, when rebuilding occurs, the registration of some service lanes.

7.5.2. Parking.

One of the most important requirements for a retail mall is that the car-owner shoppers should have ready access to the shops.

The car owner has already been provided with a 400 car garage in conjunction with banks and shopping in the proposed Church Square reconstruction but this is too remote from the eastern end of the mall. A further short-term-only garage, on portion of the present market site and working in conjunction with the financial establishments located on the block bounded by Central, Church, Van der Walt and Pretorius Streets should provide adequately for car-owner shoppers.

7.5.3. Transit.

Provision must be made for penetration of buses to the mall. Data obtained from

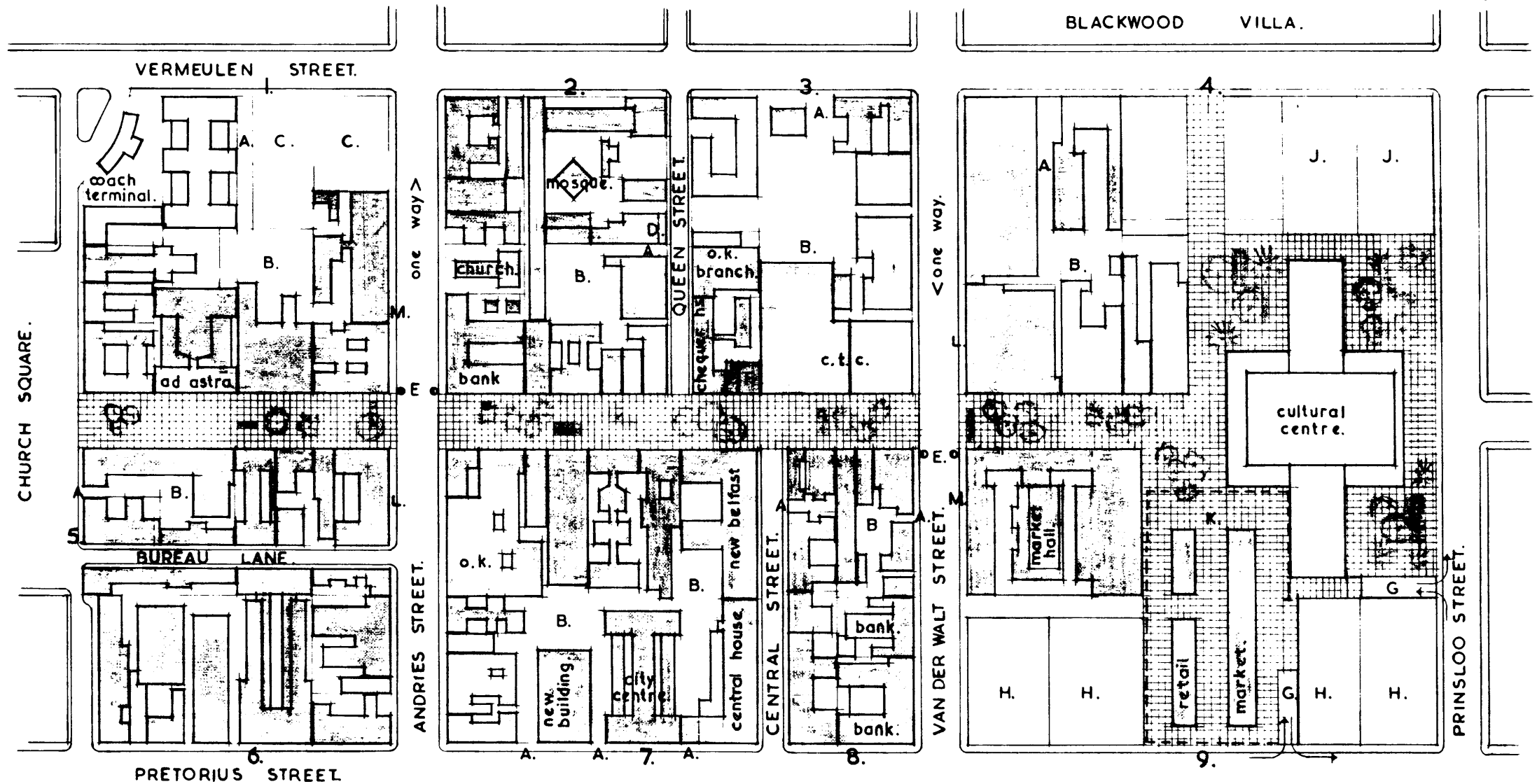
the Pretoria City Engineer's Department reveals that no sewer or drain pipe is less than eleven feet below the Church/Andries and Church/Van der Walt Street intersections, and it would be a simple engineering matter to provide subways for private motor cars beneath Church Street at these points. In fact if the pedestrian mall was to be raised at these points, provision could be made for the passage of small trucks. As the relaying of large portions of the city's main stormwater and sewerage drains would involve heavy expenditure, and this is not a realistic approach, the provision of bus sub-ways is rejected. If the mall were to be entirely unbroken the transit riding shoppers could not alight less than four hundred and fifty feet (one short block) from the mall unless they alighted at the bus station on Church Square. This would be unsatisfactory and some means of allowing bus shoppers better access to the mall will have to be incorporated in the scheme.

7. 6. PROPOSALS.

The proposals for the establishment of a shopping mall are shown in Figure 28, page 147.

7.6.1. Pedestrian Freedom.

Church Street itself will be converted into a garden strip with attractive paving, grassed areas, water features and tree and shrub planting for shade. This would permit



- A. common service lane.
- B. common service yard.
- C. government land for resale.
- D. future building setback.
- PRETORIA.
- PROPOSED PEDESTRIAN SHOPPING MALL.

- E. traffic lights.
- F. served from chequer house yard.
- G. ramp to parking garage.
- H. municipal land for resale.

- J. expropriated land for resale.
- K. basement garage for 300 cars.
- L. bus disembarcation point.
- M. bus boarding point

SCALE. 0 100 500.
1:2.500. C.F.T.

free pedestrian movement and also the development of dignified rest areas and open air restaurants such as those encountered in continental cities. The transit and cultural buildings provide visual climax terminals.

The mall is bisected by Andries and Van der Walt Streets which become one-way streets. Where they cross the mall are the points of contact between pedestrian and vehicular traffic. Pedestrian subways have not been shown because the simplification of traffic control would make these crossings far safer than those presently in existence. Vehicles would approach from one direction only and thus at each intersection the only control required is to indicate to this traffic stream when it is to halt. Pedestrian movement would be controlled by the same set of traffic lights.

7.6.2. Transit and Parking Provisions.

Bus passengers would be deposited practically right on the mall and due to one way traffic in Van der Walt and Andries Streets, these should not become congested even if a considerable amount of bus traffic were present.

An underground short-term parking garage capable of housing 300 motor cars on one level is shown below portion of the present market site and provides the same facility to the shopper as the Church Square garage does at the western end of the mall. A single

level garage is proposed but if necessary this could be multi-level with 300 parking spaces per floor.

7.6.3. Servicing.

Considering each block individually the following arrangements are suggested.

Block 1. The long distance bus terminal is indicated in the north-west corner. The positioning of this service has been discussed in the previous chapter. The existing service lane from Vermeulen Street is now to be used for all those shops facing on to the mall.

A common service yard is formed by the removal of two single storey store-rooms. To ensure equal common usage it is suggested that this land be expropriated by the municipality. The State Library and annexe have not been indicated as it is suggested that a better position in the Central Business District could be found for this cultural service.

Block 2. Queen Street becomes a cul-de-sac at the mall and this will discourage private vehicles and only service vehicles will enter. These will have to turn off the street in order to exit. The removal of single storey stores again makes a common service yard available to all shops facing onto the mall. These buildings are at present in poor condition. If the full width of Queen Street were available for turning (that is no kerb-side parking) and a setback were required when the property to the north of the service lane was re-developed,

larger vehicles could use the service yard than is now possible.

Block 3. There are no problems here apart from the two small shops between Chequer House and the new C.T.C. Bazaars. It is suggested that municipal approval be given to the removal of the northern fences to these sites and that they be serviced from the Chequer House yard.

Block 4. The proposed cultural centre causes fairly large scale alteration to the block. The western half of the block remains as at present with service from Vermeulen Street. A lane bisects the block connecting the proposed cultural centre with the new municipal administrative centre now rising on the Blackwood Villa site. This will require an adjustment in the lease-hold agreement of the two sites concerned but this should not prove unduly difficult as, at present, a right of way is called for at ground level. The other sites affected are, with one exception, occupied by Indians who will have to vacate by government order in the near future. It is suggested that the municipality purchase these sites, by expropriation if necessary. Two full erven on the north-east corner of the block may be re-sold for commercial development. The exception is an old three storey brick building to the east of the mid block right-of-way. This property would have to be acquired by the City Council.

Block 5. As mentioned previously, the servicing of Tudor Buildings and the building to the

east of it does present a problem. Both of these are old structures and, if any new lease of life were to be given to central retailing, they would assuredly be among the first structures to be demolished to make way for re-development. When this occurs the provision of a service access from Church Square would be a comparatively simple matter. Until re-building takes place there are two alternatives namely:

- (a) the use of the Johannesburg Building Society service alley to Bureau Lane with co-operation of the company concerned.
- (b) the sacrifice of a portion of the western shopfront to obtain a service lane.

This is the more likely course and is recommended.

Block 6. The mall in no way affects this block.

Block 7. Two off-street service courts are formed, one by reducing the land available for re-development on the old town hall site and the other by limiting the plan form of the building which will soon be erected on the north-east corner. A twenty foot wide service lane in favour of this property is already registered on the Central House site. The creation of a common service yard in this position is the logical extension of this facility.

Block 8. The two service lanes to Ackermans and the Central News Agency have been combined to form a single service lane which will be large enough to permit the penetration

of light delivery vehicles. This will enable these vehicles to turn and exit thus eliminating the need of making Central Street a through street. To the east of the Central News Agency building an off street service yard is formed by the removal of a single storey store room. This will permit servicing of all the other shops facing onto the mall.

Block 9. This is mostly municipal property and, therefore, re-development presents no problems. The retailing on the north-west portion of the block, including the market hall, will remain. This hall is a retail market for dairy products, meat, and other produce which require indoor sales facilities.

The title deeds of the market site require that a market shall continue to function. The market hall provides this to some measure. The suggestion is that a retail market be established in the position shown. This could develop into a most interesting and attractive retail feature. Land to the extent of four full erven remains for sale by the municipality for commercial development.

7.6.4. The Cultural Centre.

In an earlier chapter the efforts of the municipality to stage cultural festivals, and the lack of cultural facilities worthy of the capital city, was discussed. That the City Council is serious in its intent to overcome this weakness is evident in the building

of an art museum some two miles to the east of the centre of town.

The purpose of establishing a cultural centre in the position indicated, in addition to forming an eastern terminal to the mall, is to group cultural facilities within reach of the bulk of the citizens. It is anticipated that the State Library be housed in this complex. As the present library buildings are rambling adaptations and inefficient, the suggestion is that the state co-operate in the establishment of the cultural building. This would make the existing library sites available for commercial development and the sale of this property should go some way towards covering the costs of the new building. The manner in which the library would become portion of this civic amenity; whether by providing the funds for its own portion of the complex or by paying a rental to the local authority, would be a matter for discussion between the state and the municipality.

Other facilities would include a theatre, a concert hall, and display space for travelling exhibitions. A centre housing such facilities would form a fine nucleus for the development of an indigenous culture in the heart of the capital city.

With the establishment of the mall, with sufficient short term parking to satisfy the needs of the shopper, grade separation is achieved. Church Street becomes the domain of the pedestrian while Vermeulen and Pretorius Streets will carry heavy vehicular traffic

volumes.

7. 7. COMPARISONS WITH OVERSEAS EXAMPLES.

In seeking cities for comparison with solutions arrived at, the author has selected Coventry and Baltimore which are probably the most lauded examples of central area reconstruction in the United Kingdom and United States respectively. The habits and customs of South Africa are based largely on the example of these two countries and for this reason these comparisons are apt. Holford says (7, page 480) that among all the badly war damaged towns of Britain, Coventry has achieved the strongest measure of unity and integrity in its reconstruction, and the Baltimore "Downtown" Plan was, on publication, hailed as being the most advanced and workable solution for central area re-development yet reached in the United States. Both of these schemes incorporate shopping malls.

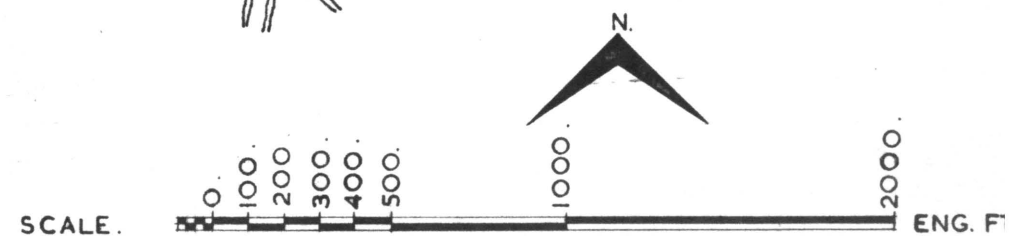
7.7.1. Coventry.

Figure 29, on page 155, shows the new design for the central area of Coventry. When post war reconstruction began the local authority, with government aid and approval, obtained wide powers. As a result Coventry is one of the few examples of comprehensive planning and design in which an effort is being made to deal with problems of pedestrian and traffic circulation and parking, as well as providing new commercial quarters, all



1. shops and offices.
 2. public houses and hotels.
 3. churches.
 4. cinemas.
 5. theatres.
 6. cathedral.
 7. council house.
 8. bus station.
 9. retail market.
 10. post office.
 11. local government offices.
 12. law courts.
 13. police headquarters.
 14. government offices.
 15. residential.
 16. central hall.
 17. college of art and technology.
 18. library.
 19. art gallery and museum.
 20. public swimming bath.
 21. clubs.
 22. health centre.
 23. community centre.
 24. broadgate.
 25. old cathedral.
 26. new cathedral.
- P. parking garage or lot.
S. pedestrian subway.

● COVENTRY.
● CENTRAL AREA REDEVELOPMENT.
SOURCE : 'COVENTRY REBUILDS' REF. WORK NO. 7



integrated into a unified whole (7, page 473).

The pedestrian shopping mall, called simply "The Precinct" is grouped around two intersecting axes. This is shown hatched with squares in the illustration. Both axes have visual terminals at both ends (shown by shadow lines), the eastern climax to the short axis being the spire of the old cathedral.

There are two large car parks adjacent to the precinct and in addition 200 cars can be parked on the roof of the retail market which is linked to the long axis just beyond the extent of the vista sight line.

Bus passengers alight in Queen Victoria Road. There are three pedestrian subways below this inner main thoroughfare. The short axis precinct has been completed for some years and the success of this project led to work on the completion of the whole mall being put in hand.

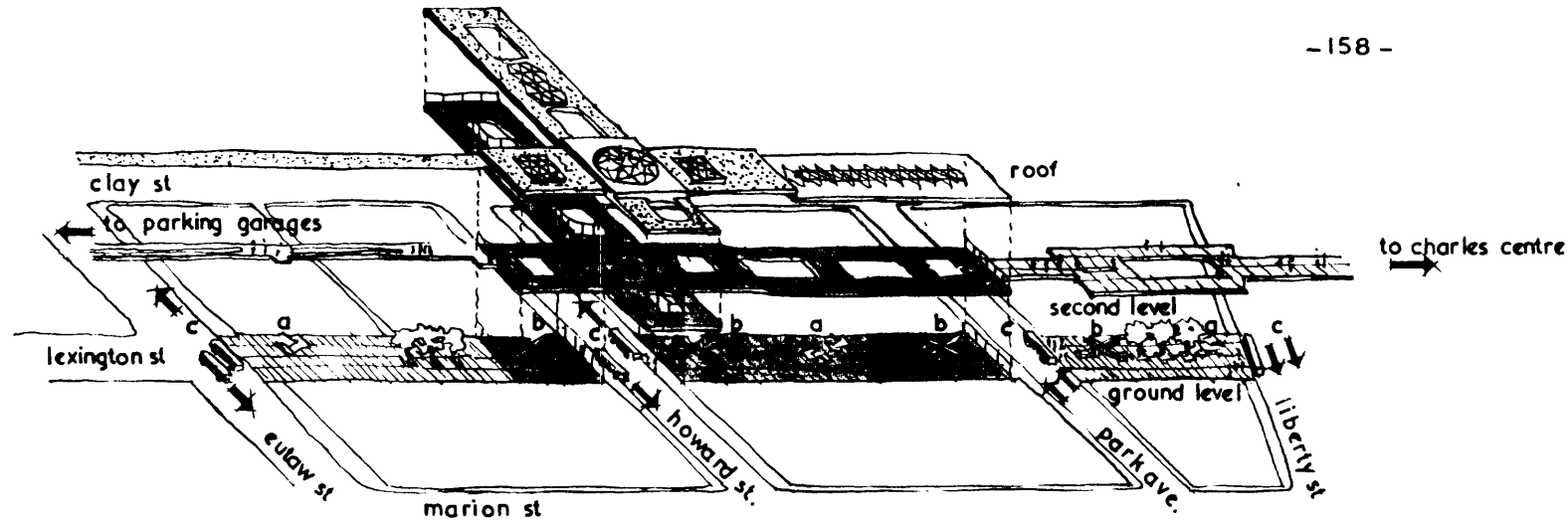
Features of the author's proposals for Pretoria which compare with this successful scheme are, in addition to the creation of a pedestrian precinct, visual terminals at either end of the mall, shopper parking in close proximity to the pedestrian area, a retail market working in conjunction with the shops and ready access for bus shoppers. Coventry has a population of just over 300,000 which is very close to that of Pretoria.

7.7.2. Baltimore.


Baltimore has a larger population than Pretoria - 1,637,000 in 1958, estimated 2,400,000 by 1980 (11, page 11). The proposals of the Baltimore Planning Council arose because of degeneration of the central area and private enterprise, rather than government aid, is to be used to re-develop although the City Council will assist in giving the scheme its initial impetus.

The two major features of the initial stages of re-development are the establishment of a new business core, to be called "Charles Center" and a shopping mall leading off this. The mall was decided on to tie stores together so that they can work together to maximise the "pull" of central retailing (11, page 68). An exploded sketch of the proposed Baltimore mall is shown in figure 30, page 158. The proposal is that a limited liability company of shop owners and tenants be formed to implement the construction. It is to be a two storey, two axis, mall, 1,300 feet long, air-conditioned and incorporating no less than five sets of escalators. The scheme would involve the company in considerable capital outlay.

The advantage of the Baltimore mall is that it provides two floors of shopfront and the upper floor is unbroken by traffic. Thus, pedestrians can shop in complete safe-

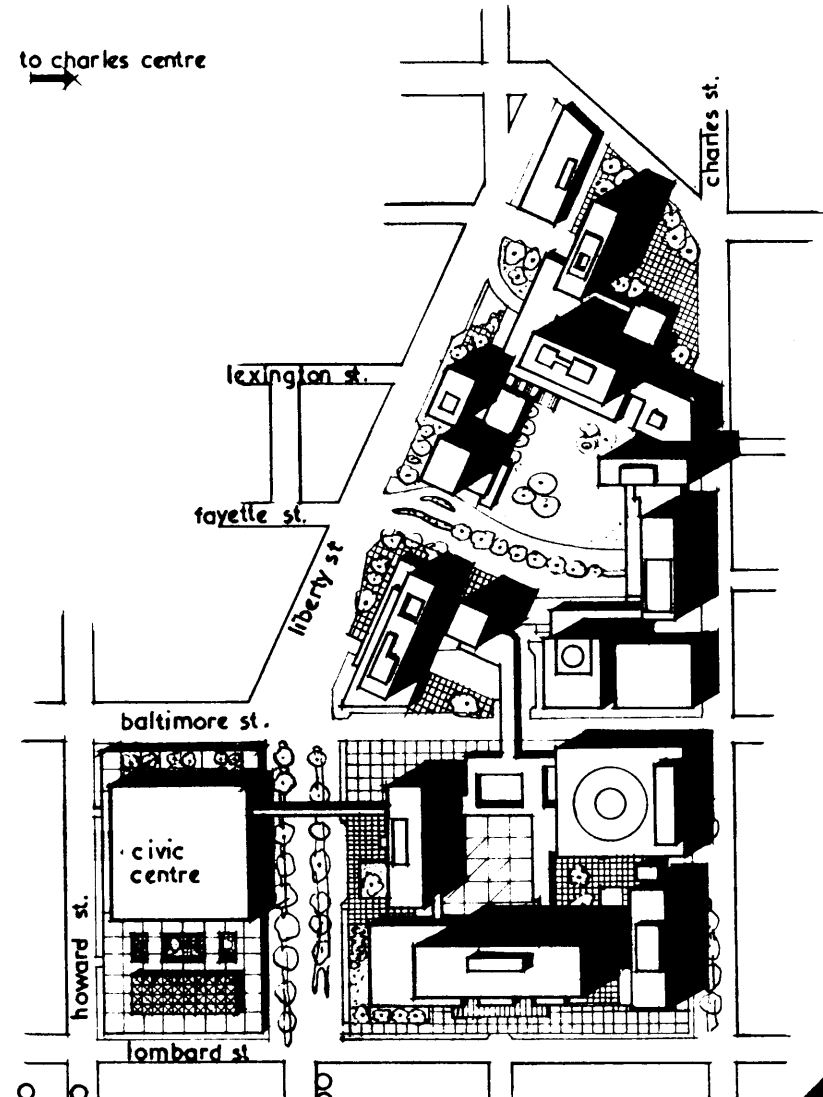


- HOWARD & LEXINGTON PEDESTRIAN MALL
- EXPLODED SKETCH

-  indicates air conditioned portion of mall.
- a stair
- b escalator
- c transit point

- CHARLES CENTRE
- BIRDSEYE

- BALTIMORE
- SOURCE : THE BALTIMORE PLAN.



SCALE



ty with no effort to reach safety, as this work is done by escalators. Bus passengers alight at points on the lower level where Eutaw Street, Howard Street and Park Avenue intersect the mall.

A 1,500 space parking garage to serve the mall is to be constructed. Considering the smaller population, the proposals for shopper parking for Pretoria are slightly more generous. Other similarities in the two schemes are the introduction of greenery, the direct access of bus shoppers, and the civic centre which is to be incorporated in the downtown renewal.

As the Baltimore mall is only in the proposal stage as yet and not a proven success, it is considered unwise to contemplate any project as ambitious and costly for Pretoria. It is the opinion of the author that the establishment of the two level mall is extremely doubtful as the scheme relies on the co-operation of a large number of shop owners and tenants and immediately the problem of non-participation arises. In addition shopkeepers who have refused to provide one floor of parking to attract custom to their own specific establishment are not likely to invest in an expensive structure which is also for the good of competitors. The upkeep and running costs would be considerable and this could mean an increase in prices and if prices rise the sales advantage lies with the competitor whose over-heads are not as great, assuming parking facilities to be equal, and

this could develop into a trend away from the mall. This is all speculation based on local interview but it does indicate that there are economic limitations to be considered with the construction of each mall.

The mall proposed for Pretoria would be maintained by the municipality and money for upkeep would be derived from a slightly higher taxation for those properties with mall frontage. This is a feasible suggestion as the mall sites would be the plum retailing positions and the municipality by creating the mall, would be creating a greater sales volume for the shopkeepers who may reasonably be expected to pay for this through municipal taxation.

The mall, as proposed, would be a big factor in ensuring a vigorous Central Business District. It would provide the facilities which pedestrian shoppers desire, a certain amount of civic dignity and in addition stabilise the municipal tax base to a large degree. From all points of view it would be a great asset to the city.

CHAPTER VIII.

DEVELOPMENT PROPOSALS.

8. 1. THE SCOPE OF THE PLAN.

The Baltimore plan was hailed largely on account of the flexibility allowed for future development. The plan proposed projects, where their development appeared feasible, and suggested further proposals as part of a longer range programme offering possible future opportunities for additional action. The latter require detailed re-examination when their timing becomes more imminent. The plan demurred from concrete proposals where projects had doubtful practical feasibility (11, page 8). The only concrete proposals made were the construction of Charles Centre which is principally a large office space renewal project and the shopping mall.

A similar approach was adopted for the rebuilding of Coventry. After working upon the project for some time it was found necessary to have a servant plan rather than a master plan, servant in the sense that it would be adaptable to the situation at the time of carrying out particular projects. (7, page 478). There were, however, special replanning opportunities at Coventry.

According to Lynch a big city resists rapid and sweeping changes. The physi-

cal and social investment is too high. Yet growth and change occur perpetually. There is constant opportunity for decisions which in time could completely re-organise the shape of the city (27, page 61).

In view of the foregoing a detailed plan for the central area of Pretoria will not be attempted but rather a possible arrangement of functions around certain major elements.

8. 2. BOUNDARIES OF THE PLAN.

When deliberating the Pretoria Traffic Plan the City Council rejected the possibility of adopting Boom Street as the northern boundary of the ring road scheme because it was felt that the central area would be too big. However, in the plan proposed here, it is recommended that Boom Street be adopted as the boundary for the following reasons:-

- (a) The land use survey - figure 10, page 40 - shows that Bloed Street is not a natural boundary as there is a similarity of land use on either side of this thoroughfare.
- (b) Figures 4 and 5, on pages 19 and 21, which record the present municipal development zoning, show that the land on either side of Bloed Street has similar conditions of use, coverage and bulk factor.
- (c) The properties which would remain to the north of the ring road which have business

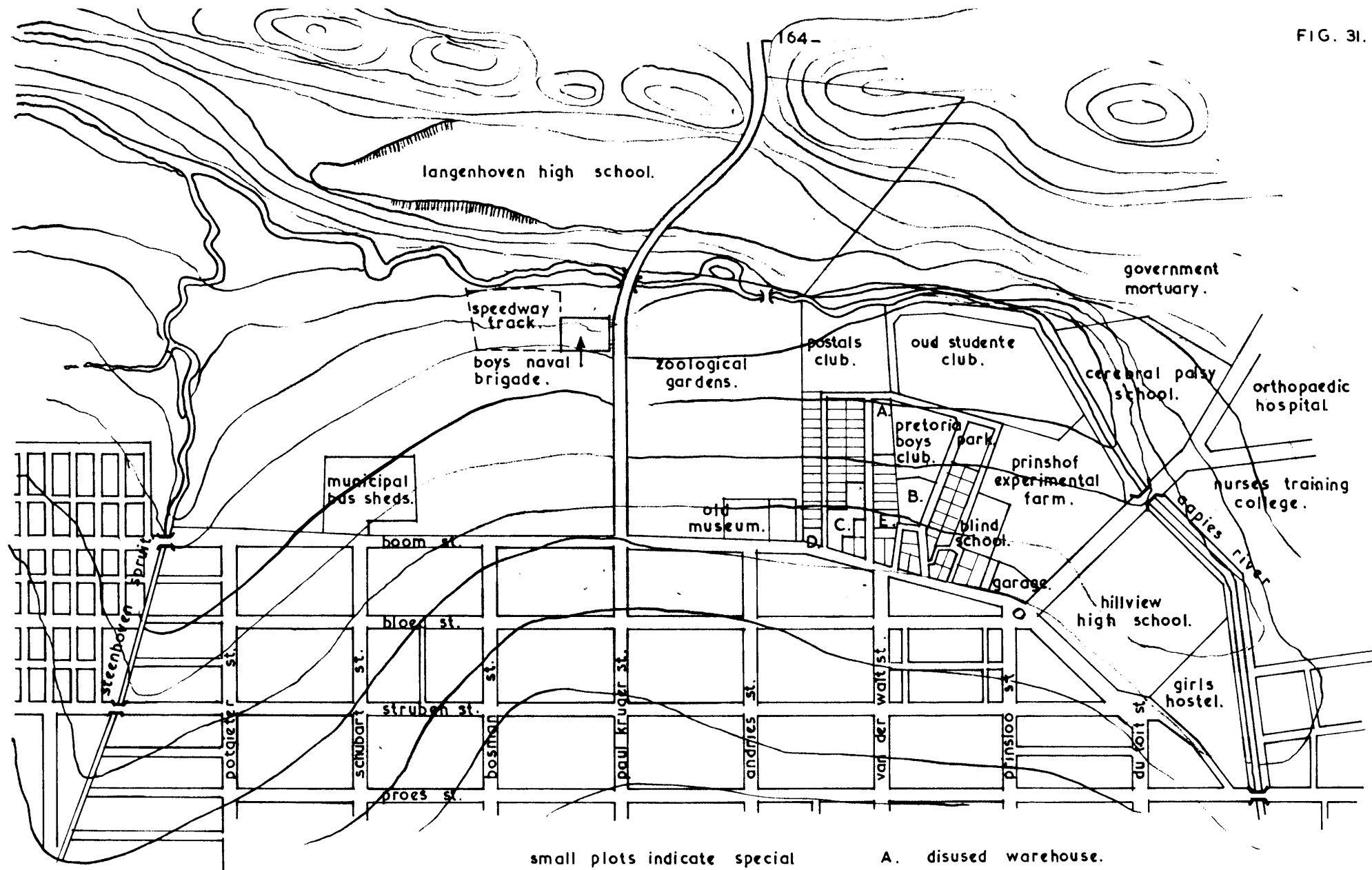
rights would be cut off from the central area business core and cannot form a business unit with the properties further north. A survey of this area made by the author is recorded in figure 31, page 164. The vacant land north-west of the Boom Street, Paul Kruger Street, junction is zoned as "undetermined" while the land use to the north-east of this junction is mainly institutional. It is not the intention of the Pretoria Municipal Town Planning Department to extend business rights in this area; in fact the City Council is to intensify the institutional nature of the area by granting land to the Civilian Blind association as the present property occupied by this institution is required for ring road construction.

The complete isolation of the properties which would remain between Boom Street and the ring road, as planned, is illustrated in figure 32 page 165. The development which has been modelled is, in the opinion of the author, wishful thinking, as this area will surely degenerate.

- (d) The buildings along the government boulevard, to be developed in Struben Street, would be "back-up" onto the ring road. This important civic feature would then be on the outskirts of the central area, which is undesirable.

It is, therefore, recommended that Boom Street become the northern periphery of

FIG. 31.

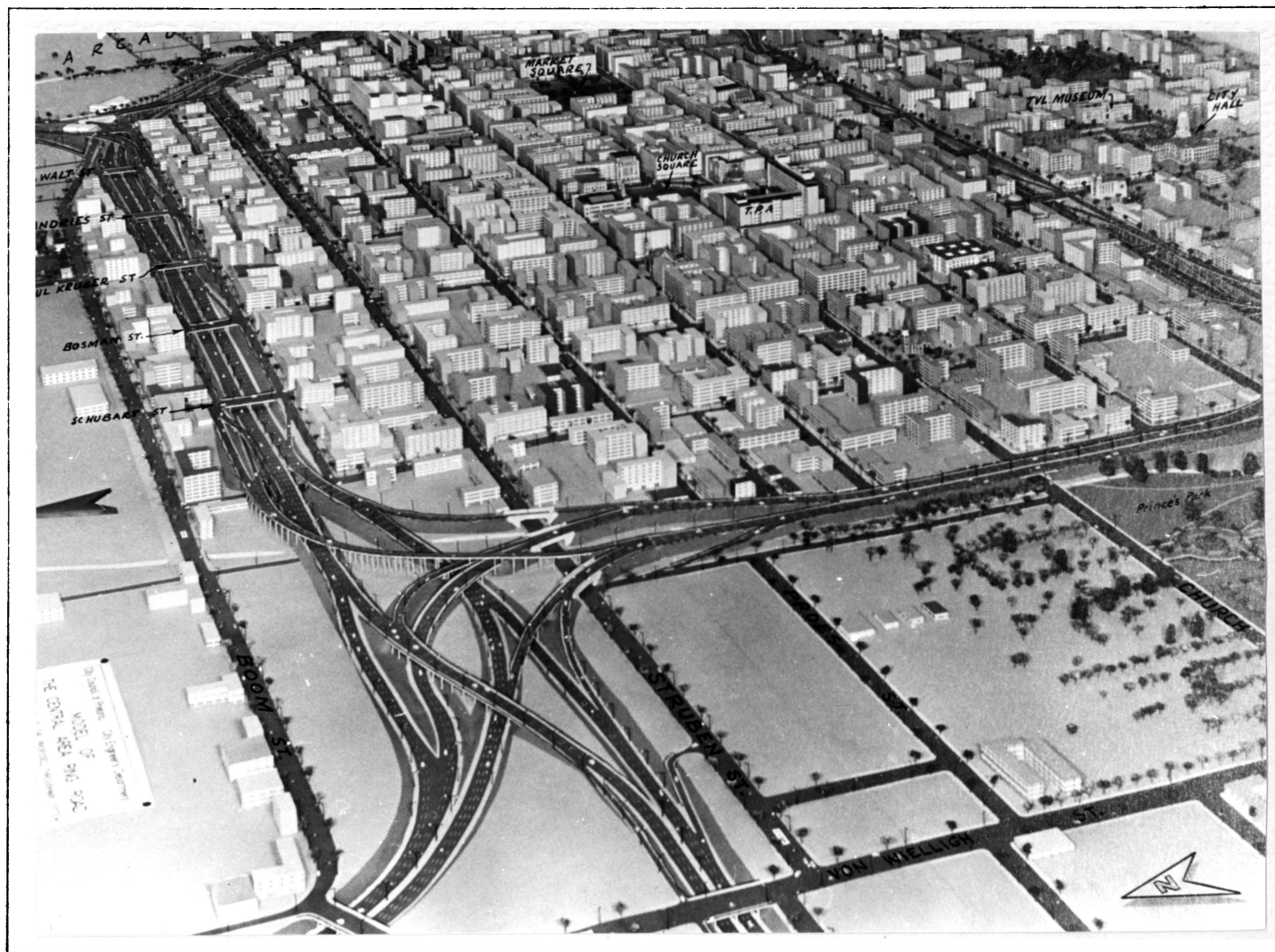


● PRETORIA.
● LAND USE NORTH OF BOOM STREET.

small plots indicate special residential at one house per plot.

- A. disused warehouse.
- B. katje kagan creche.
- C. ice cream factory.
- D. s.a. council for the blind.
- E. welding works.





● CENTRAL PRETORIA.

● VIEW FROM NORTH - WEST.

PHOTOGRAPH OF RING ROAD MODEL BY STAFF OF CITY ENGINEER'S DEPARTMENT.

the ring road. From the point of view of distance, the length of the ring road will only be increased by some 400 feet. The government boulevard will no longer be hard against the ring road but will appear to be more centrally placed, and there will be no isolated land left to "die".

The choice of Skinner Street as the southern boundary of the ring road, while it does exclude some established office buildings, is satisfactory as there is a large area of land to the south with business rights and this should continue to develop as briskly as it is doing at present. The development proposals contained in this thesis, therefore, lie within the ring road as re-defined, namely Boom Street in the north, the Apies river in the east, Skinner Street in the south and Park Avenue in the west.

8. 3. INTEGRATING THE PLAN.

The major elements of the proposed plan are shown in figure 33 on page 167, within the framework of the amended ring road. The re-development of Church Square and the creation of the pedestrian mall have already been dealt with in detail. The principal use zones are the government boulevard, private office space and retailing.

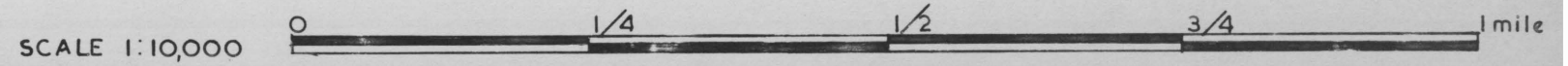
8.3.1. Government and Other Office Space.

While the development of government offices along Struben Street will give emphasis

FIG. 33.



● PRETORIA
● THE MAIN ELEMENTS OF THE PROPOSED PLAN



to the status of Pretoria as the capital of the Republic, it would not be realistic to assume that all government departments will be relocated here and, therefore, a minor government zone, centred about the present Government Printing Works is shown.

The boulevard has been indicated as continuing eastwards beyond the ring road as was Holford's intention. This will eventually link up with the Union Buildings, housing the ministerial offices and may eventually include the Houses of Parliament.

The office space zone remains where this development is presently taking place. In view of the "pull" likely to be exerted by the government boulevard development some counter measure should be allowed for in the office zone. It is suggested that those properties to the north of Schoeman Street have the present height limit relaxed for office buildings while retaining the present bulk factor. While in principle this would lead to better office building architecture, the elimination of height restrictions on all sites would not be wise from a civic architecture point of view. If this were done then existing civic buildings would be blotted out. However, by relaxing height control only on the centre row of sites two purposes are served. Firstly the erection of prestige buildings will be encouraged to counter the "pull" of the government development thus stabilizing the "private office" zone. Secondly the central "spine" of taller

buildings in this zone will in itself form a feature of civic design.

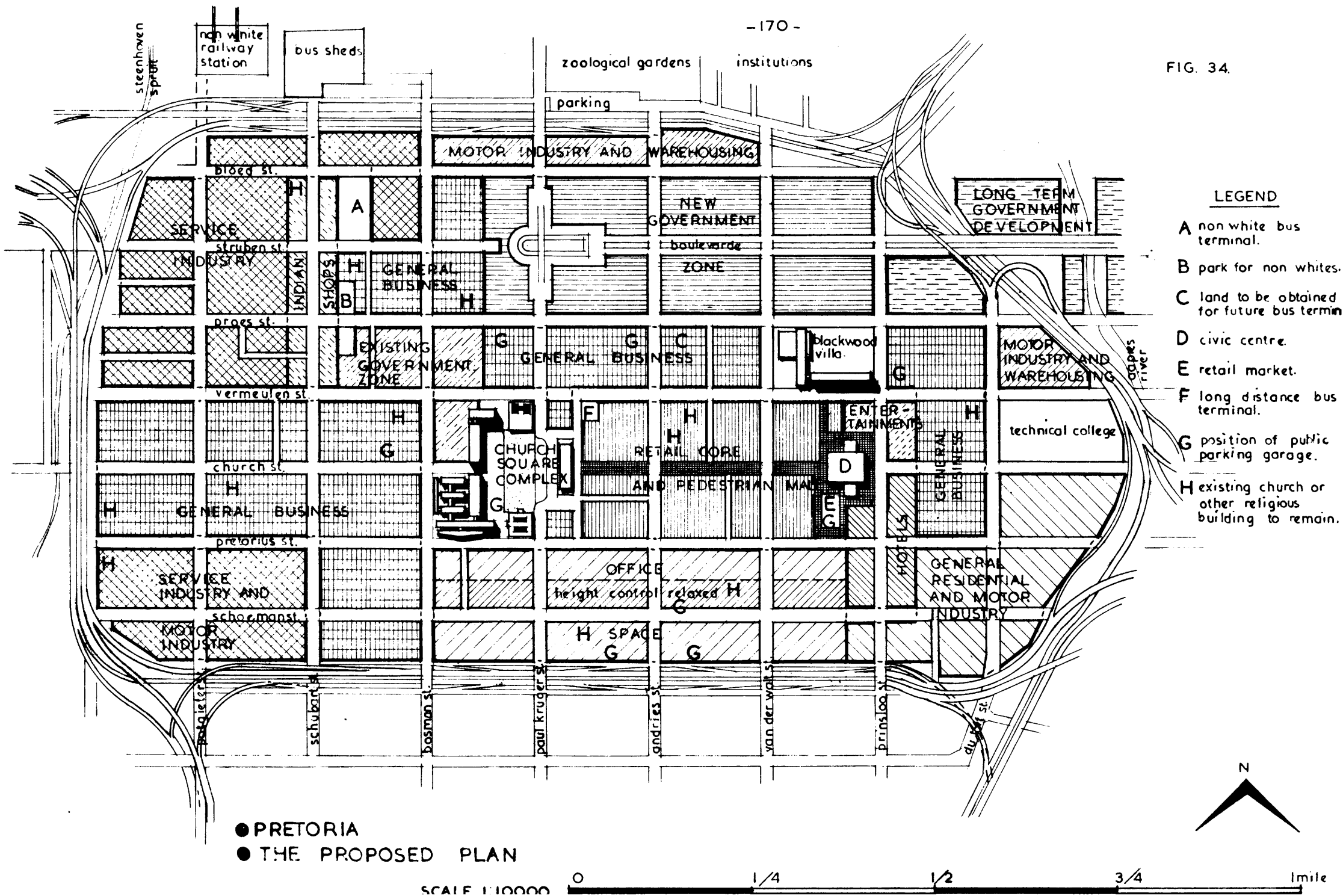
Although there will be a certain amount of overlap between the office space and retail functions, these have been allocated separate zones in which each function will pre-dominate.

8.3.2. The Retail Zone.

The retail zone has been centred about the proposed retail mall. Whereas small shops will, in all probability, occupy the ground floor of the majority of office buildings, it may be expected that the department stores will remain on the mall. It is proposed that the municipal bye-laws be amended for those properties facing onto the mall without increasing the bulk factor. If the centre of the present pavements were to become the building lines and a coverage on all floors of 95% was allowed the height limit could be reduced to five storeys. This would encourage lower buildings of higher floor use factor than is at present possible. The lower buildings would ensure sunlight in the mall and the extended building lines would bring the shopfronts closer together. The above amendments would apply to shops only and would encourage retail development.

The major use zones having been established it remains to fill in the remaining uses in the most suitable localities. Figure 34 on page 170 shows the complete plan.

FIG. 34.



8.3.3. Public Transportation Terminals.

(a) Non-White Bus Terminal.

There is, at present, no non-white bus terminal station. Due to a fine rail service a large terminal is not required and buses leave from the vicinity of the Prinsloo Street, Struben Street intersection, but in view of the proposed boulevard development this will have to be relocated.

A new site has been selected, as shown, near the present service industry zone, (indicated by the letter "A" on the plan). This will tie in with other proposals. The land will have to be purchased but it is some of the lowest valued land in the central area and as shown in figure 12, page 43, the buildings are generally in a state of disrepair.

(b) Non-White Railway Station.

As mentioned in chapter II and shown in figure 6, page 24, Holford proposed a non-white railway station north-west of the Boom Street, Paul Kruger Street junction. At the time this was rejected and improvements were made to the existing station to provide the non-whites with their own separate facilities. However, re-examining the position in the light of subsequent developments, the provision of this station

would appear to be both sound and advisable.

Figure 35 on page 174 shows the area under consideration. The establishment of the new municipal market west of Von Wielligh Street is a development of great significance. It would appear to be a logical and simple step to extend a rail head from the market site to a position convenient to the central area, for non-white passengers. As shown in the diagram, the land contouring is very favourable. Furthermore, the station would be near the central industrial zone, the zone requiring more non-white labour than any other in the central area.

The Holford proposal is, therefore, supported by the author and included as a recommendation in the author's plan but the station has been repositioned slightly.

(c) New Bus Terminus for Whites.

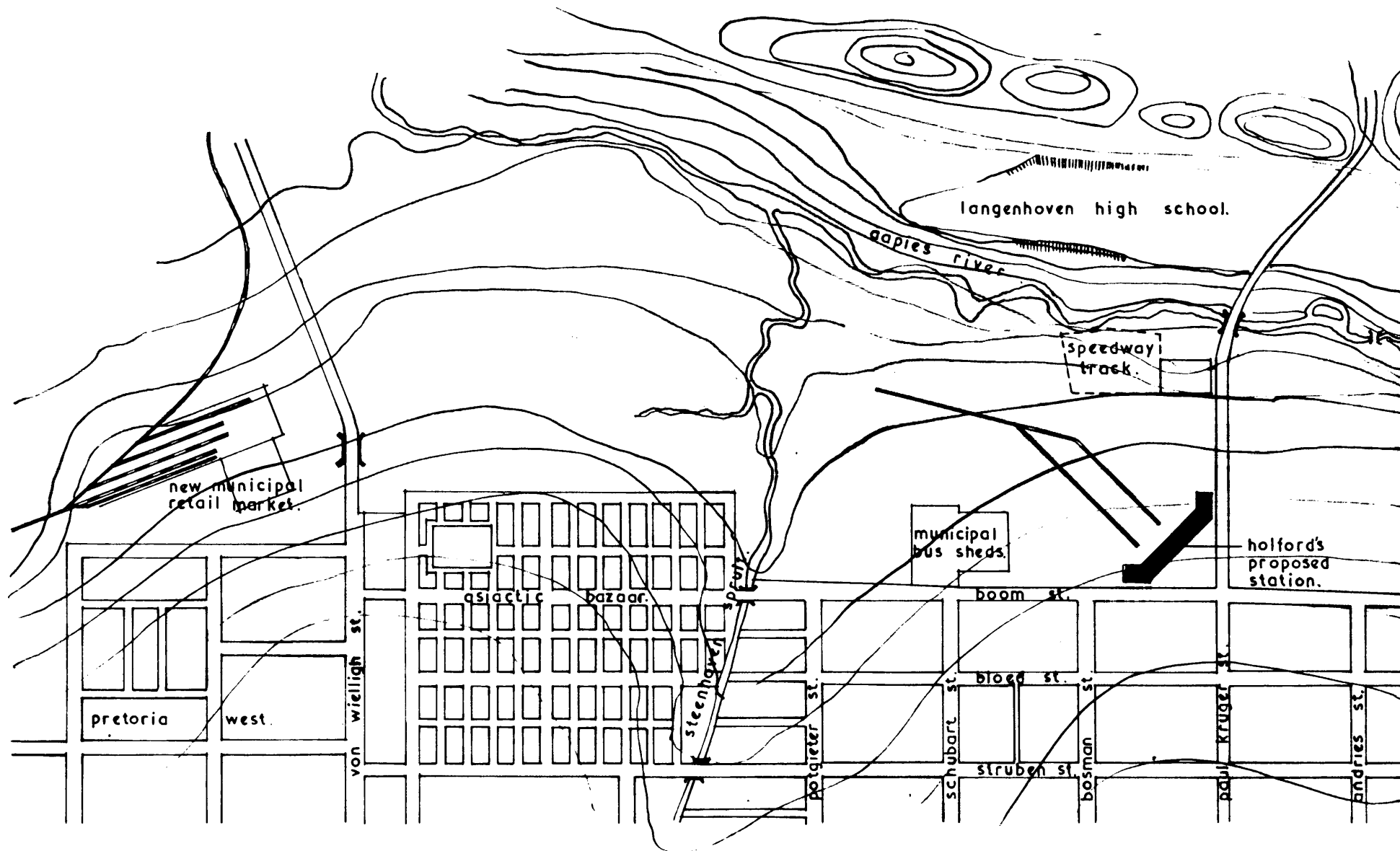
Government workers include a high percentage of bus users and it follows that when the government boulevard has been built-up, the bus destination desire pattern shown in figure 17, page 62, will change considerably and the optimal location for the bus terminal will move from Church Square to a point between the government and retail zones. The site for the future bus terminus is indicated by the letter "C" on the plan. While the government boulevard is itself a long term project, the reloca-

tion of the transit node will not become desirable for some considerable time. Nevertheless it would be prudent to obtain the land for such a project as soon as practicable in order to avoid rising land valuations.

When the relocation of the bus terminal does eventually occur - and thorough survey must be undertaken before anything is done, the terminal on Church Square will not become redundant. It may be anticipated that the needs of the information bureau, air terminal and long distance transit will have increased considerably and could then fill the building. This is a matter of detail. It may be possible to extend the greenery of Church Square. However, nothing obscures the fact that the present optimal location of the transit node is Church Square and will continue to be for many years.

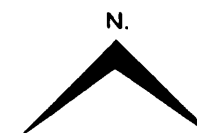
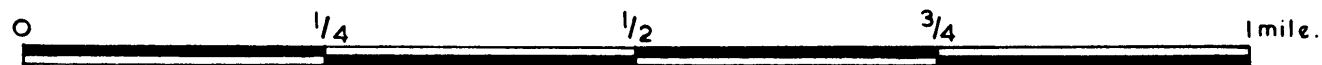
8.3.4. The Automobile Industry Zone.

As shown in figure 14, page 49, there are two existing zones in which the motor industry features strongly. This function does not lend itself to multi-storey development unless offices are built over the motor ground floor use. If the ground floor use is anything other than motor showroom, the offices are unpopular on account of the noise emanating from the workshops. For this reason one or two storey development is the general rule.



- PRETORIA.
 - NON - WHITE RAILWAY STATION PROPOSED BY HOLFORD.
- SOURCE : THE HOLFORD REPORT.

SCALE 1 : 10,000



It follows that the more valuable land cannot economically be used for "motor town" development and while the motor industry will not necessarily be forced completely out of the central area, as it performs a necessary service to the commercial world located in the core, it will ultimately become a fringe land use.

Relocation will, therefore, be brought about by economics and not legislation. It is suggested that without increasing the bulk factor that in the zones suggested for motor industry on the plan, site coverage be increased to 95% for the industry only. As low buildings of maximum area are the type required, this amendment should act as an inducement to motor concerns to move to the zone desired by the planners when economics dictate that relocation is necessary.

8.3.5. The General Business Zone.

The existing town planning scheme zoning for this function has been adopted for the plan. Generally these areas form buffers between those zones in which particular land uses are to be encouraged to predominate. They are not intended as zones of transition but they do represent the areas most likely to take the overflow of any specific zone which outgrows its land allocation. These areas should be the subject of regular five yearly surveys to determine whether any single land use should be encouraged. This is particularly important

in the large area west of Bosman Street in which commercial business is dying and from which government uses will ultimately be transferred.

8.3.6. The Indian Shopping Zone.

It is not the author's intention to delve into the ramifications or consequences of the Group Areas Act. The suggestion of the ^{et}re~~n~~tion of an Indian shopping centre within the central area, but relocated, is devoid of any political implication. The present Indian shopping area in Prinsloo Street, as mentioned in chapter II, is popular with both whites and non-whites, is an area of the city with a character all its own but is unfortunately rather in the nature of an eyesore.

If a well maintained Indian shopping area could be provided, a colourful city feature and a shopping area mainly for the non-white central area workers would result. A locality has been chosen which is near both the proposed non-white mass transportation terminals and the industrial zone, and yet links up with the rest of the city.

In this case, relocation will, it is suggested, be accomplished by inducement. In addition to the existing rights - which may not be violated - the sites in question would be granted retail rights for Indian occupation only.

The Indian shopkeepers are desperately keen to continue trading in the central

area and occupancy of the shops would be a certainty. By withholding ownership and residential occupancy from the Indians an increase in the standard of maintenance would be "built-in". The shops would be merely leased and the question of neglect would be eliminated as the Indian tenant would surely keep his landlord up to scratch in this regard.

From the point of view of the property owners and developers the virtual guarantee of tenants for shops would be a great opportunity. The rental rate per square foot for shops is the highest for all types of building occupancy. Good rentals would be assured and the assessment rates would be far lower than in the Central Business District proper. The open ground at present adjacent to the proposed shopping area would be retained as a park for non-whites.

8.3.7. The Entertainments and Hotel Zones.

These two functions are grouped under one head as they work in close association with each other.

(a) Entertainments.

Unlike other large South African cities the cinemas and theatres in Pretoria do not cluster in one area but are spread throughout the central area. In Durban the entertainments centre about Smith Street, in Johannesburg about Commissioner Street

and in Cape Town about St. George's Street, each area forming a bright centre of night life. The lack of concentration in Pretoria could possibly be a potent factor in the allegation that after dark central Pretoria is "half the size of the Johannesburg Cemetery but twice as dead".

The establishment of a zone for entertainments by encouraging supporting entertainments in the vicinity of the proposed civic theatre and cultural centre is suggested. The parking garage proposals in this area were made partly with this end in view and should prove adequate.

(b) Hotels.

From recent press reports it is evident that the hotel industry is one which is having difficulty in justifying locations near the heart of large cities on grounds of economics. Nevertheless, it is a function which provides a definite service, particularly in a capital city such as Pretoria which, despite not being a holiday resort, has a steady stream of visitors on political business, among which are many dignitaries. It is, therefore, important that the city be able to offer a fair measure of well appointed hotel accommodation of a high standard.

The area selected for the encouragement of the hotel industry is south of the

cultural area and between the office and general residential zone which, as has been mentioned, is an incision into the central area from the flat development in Sunnyside. (figure 14, page 43).

The suggested means of inducing the cultural and hotel buildings to locate in the desired areas is by waiving assessment rates on the valuation of the land and taxing only improvements for hotels, theatres or cinemas. While this will mean a loss in municipal revenue the sacrifice will be justified in the creation of a balanced central area. The compensatory item has already been dealt with. This is the inclusion of the Boom Street properties into the central area. Thus central area taxes which would have been lost, will now be an additional source of revenue.

8.3.8. The Service Industry Zone.

The present location of industry in the central area is very satisfactory. Adjustments of zone boundaries have been made in order to allow for the Indian retail proposals. The degenerate special residential zone, west of Potgieter Street, is largely allocated to the proposed industrial zone. The granting of service industrial rights to these sites will be the resale stimulus for which their owners have been waiting.

The existing controls for service industry would apply.

8.3.9. Other Use Zones.

(a) Religion.

All the existing religious establishments have been retained in the proposed plan.

(b) Education.

As it is anticipated that the special residential function will be the first to disappear entirely from the central area, ordinary schools have not been shown in the proposals. The Technical College which provides a very valuable service to the community remains and is indicated in its present location. The Pretoria University extramural building, at present just north of the Blackwood Villa site, will eventually be bought by the government and will have to relocate. As the University is run on business lines a suitable alternative site will have to be acquired on the commercial market.

In all the above proposals no rights held would be withdrawn and the present densities would not be increased. Rather the plan seeks to make development of particular functions in particular areas the obvious line of action to investors and real estate developers, by making the conditions for each function more attractive in the areas of desired location than in any other zone within the ring road.

8. 4. PARKING RECOMMENDATIONS.

The provision of adequate parking space is a prime service which must be provided if the vigour of the central area is to be safeguarded.

The estimates based on the Pretoria Traffic Plan survey were that by 1966 there would be a shortage of 980 short term spaces and 5,723 long term spaces in the central area (6, page 55). In order to overcome these shortages parking garages on the old town hall site, present market, Schoeman Street property and below Church Square were to provide 3,300 parking spaces and further sites for other garages were to be purchased. (See figure 19, page 70).

In the six years since the survey, not one of the proposed garages has been built and yet, as survey has shown, parking space is available at present for those who are prepared to pay for it. Two factors are mainly responsible for this. Firstly a large proportion of all day parkers have shown that they are prepared to walk from outside the ever increasing parking meter zone and secondly, since 1956, private enterprise and the completion of the Transvaal Provincial Administration building has provided approximately 1350 off-street parking spaces.

In view of these factors it would appear that the traffic plan recommendations were

based on desire rather than demand, and that it is difficult to plan in detail for parking garages as the role private enterprise will play cannot be assessed in advance.

An additional 650 spaces will be provided by private investors when buildings presently under construction are completed, including the city's first multi-storey parking garage.

The original conditions for such garages did not attract investors and generally parking garages represent a risk to the investor unless conditions of demand are such that high tariffs are assured. Therefore, the position where parkers are forced to walk considerable distances, while certain commercial buildings provide a certain quantity of parking in order to ensure the letting of the offices above, is not satisfactory by any means. More parking must be made available within the central area. As private enterprise will only supply this facility in the form of parking garages in conditions of heavy demand, it is suggested that the municipality itself provide it by undertaking the construction and management of garages. These would be run at a small profit, but not at the rate of profit expected by the private investor, and, therefore, the tariffs would be more attractive. In this way the central area would attract people, which is the basic necessity for maintaining of a sound tax base.

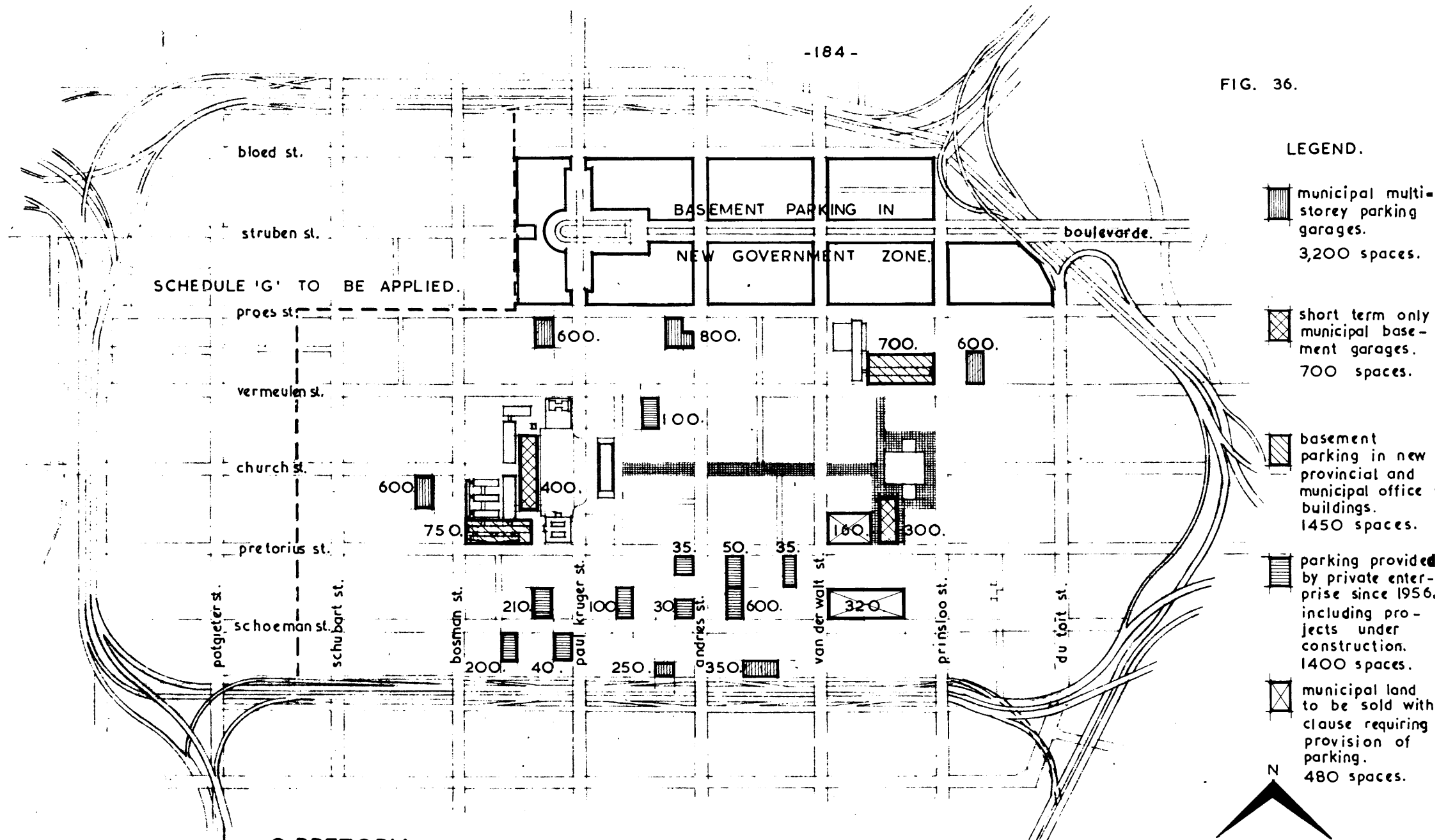
It would not be reasonable for the municipality to compete with private investors, whose contribution, although based on monetary gain, is considerably assisting to provide adequate parking in the central area. Therefore, municipal garages should not be located in the area where private enterprise is providing parking, which is chiefly in the area allocated to the private office space function.

In view of the unmeasurable factors connected with the provision of parking space it is difficult to determine the amount of parking or the rate at which it should be provided. Figure 35, page 184, shows the development of facilities since the 1956 survey together with further parking proposals which will, at least, meet the recommendations set out in the Pretoria Traffic Plan.

The location of the parking provided by real estate developers can be clearly seen. Including buildings under construction 1,400 spaces have been provided in this manner. In addition the basements of the provincial building and new municipal offices will provide a further 1,450 spaces. The shopping mall and Church Square, as redesigned, will provide for 700 short-term spaces closely related to the retail function.

It is further proposed that the buildings lining the government boulevard should provide parking to the extent of at least one floor of each building. This procedure would

FIG. 36.



SCHEDULE 'G' TO BE APPLIED.

BASEMENT PARKING IN

NEW GOVERNMENT ZONE.

boulevard.

LEGEND.

municipal multi-storey parking garages.
3,200 spaces.

short term only municipal basement garages.
700 spaces.

basement parking in new provincial and municipal office buildings.
1,450 spaces.

parking provided by private enterprise since 1956, including projects under construction.
1,400 spaces.

municipal land to be sold with clause requiring provision of parking.
480 spaces.

● PRETORIA

● POST 1956 PARKING DEVELOPMENT AND FURTHER RECOMMENDATIONS



virtually eliminate the parking problem on any city block where it could be applied. As the proposed government boulevard development covers 16% of the area within the amended ring road freeway, the provision of parking on these sites would provide 16% of the shortfall of 5,723 long-term parking spaces, thus reducing the amount to be provided by 917 spaces, to 4,806. Of these 2,850 have already been accounted for through private, municipal and provincial construction.

The system of parking garages shown in figure 36 would provide 3,200 spaces for both long and short-term parkers. Most of these are to the north of Church Street and meet the Traffic Plan request for parking in this area. Two small garages are shown on the southern periphery of the ring road. These are to supplement, rather than compete with, the facilities provided by private investors in the office zone.

From the survey on page 43 (figure 12) it will be seen that the sites selected for garages do not house recent development. They have either old buildings or functions which will disappear with Central Business District expansion.

The total Traffic Plan parking requirement of 6,703 short and long term spaces has thus far been met as 6,750 spaces have been provided for. This represents a slight oversupply even if parking is not provided in conjunction with the government boulevard

development. In view of the loss of kerbside parking along the shopping mall and long-term space when the long distance bus terminal is built, the over supply is justified.

The application of the municipality's "Schedule G" (see page 69) in the western portion of the central area will also provide a certain amount of parking.

If, furthermore, the municipal land which will become available for sale for commercial development, is sold with the condition of the provision of one floor of parking, then 480 further spaces will definitely become available in the central business core.

The scheme, as proposed, discards the proposed garage on the old town hall site, reduces the size of the Church Square and market proposals and ensures the provision of a certain amount of parking on the Schoeman Street property. Basically the scheme attempts to create a position which will allow garaging when required.

The amendments to the municipal proposals as set out in the Traffic Plan are, therefore, not great. The most significant changes are that the role of commerce in this field is recognised and encouraged, that the co-operation of the national government through the Department of Public Works is sought and that the municipality itself construct and manage the multi-storey garages.

A definite programme for the construction of these garages cannot be given.

They should be erected as and when survey indicates the necessity for each. However it would be prudent to acquire the properties before land valuations rise any further. If the properties are obtained then the alternatives of resale, at a profit, to private enterprise for garage development, or the application of the original recommendations, exist. The garage projects proposed are, however, intended to exclude filling stations and to be for parking only.

8. 5. SUMMARY OF RECOMMENDATIONS.

The following are the main planning proposals:-

- (i) The enlargement of the ring road by making Boom Street the northern boundary. This will prevent those properties with business rights which would have been isolated, from "dying" and the retention of the high values on these sites will assist in maintaining a strong tax base. It will also prevent the government boulevard, which is an accepted development project, from becoming a fringe feature.
- (ii) The reconstruction of Church Square so that the essential functions can take place without overlap. The lesser functions are also suitably provided for.
- (iii) The construction of a pedestrian shopping mall in east Church Street to stabilize and revitalise the essential retail function of the Central Business District to

the benefit of the city as a whole.

- (iv) The establishment of a civic centre at the eastern end of the mall in order to place cultural facilities in a position where they can serve the maximum number of Pretoria citizens. This centre is suitably linked to the administrative centre on the Blackwood Villa site; it forms a visual and physical terminal to the mall vista thus stabilizing the eastwards trend of development and could become a feature of Pretoria's growing tourist industry.
- (v) The establishment of an office space zone discernable as such, embodying a row of tall prestige buildings in the form of a stabilizing "spine".
- (vi) The relocation and improvement of an interesting Indian shopping centre and its retention within the central area to serve the non-white daily population, principally, but linking through to the areas inhabited mainly by white workers.
- (vii) In conjunction with the Indian shopping area, a non-white bus terminus and park. A non-white railway station, closely linked, is also suggested.
- (viii) A parking programme which should meet the increasing demand for this facility. The management of garages is to become the responsibility of the municipality thus ensuring tariffs lower than would be demanded by private enterprise. This would encourage a

- . higher day-time population in the centre of town. Short-term parking is provided in conjunction with the shopping mall.
- (ix) The establishment of more definite zoning of functions within the central area without reducing the rights on any property and without increasing densities. Not only will zones become more clearly discernable and their juxtaposition ensure a more balanced and improved arrangement of the elements in the central area, but this is done in such a manner that there will be maximum flexibility for amendments, based on future survey, if necessary.

8. 6. FINANCIAL IMPLICATIONS.

The proposals covering all aspects of the plan will involve the National Government, the Provincial Administration and the Pretoria Municipality in financial outlay.

The financial implications concerning each of these bodies must be considered separately.

8.6.1. Existing Commitments.

(a) National Government.

As the Holford Plan for the government boulevard has been accepted in principle, the construction of the buildings along east Struben Street does not entail any expenditure over and above that already envisaged for this project.

As major additions to the General Post office are already on the Public Works Department's programme, portion, at least, of the cost of the rebuilding project may justifiably be considered as having been provided for.

(b) Provincial Administration.

As additional office accommodation will soon be required for the provincial buildings, the construction of the office wing as recommended does not constitute expenditure over and above normal development.

(c) Pretoria Municipality.

As mentioned at the outset, the Pretoria Municipality is already committed to the expenditure of large sums of money for the construction of the ring road. To this may be added the roadwork required for the government boulevard and the completion of the Blackwood Villa scheme.

The short term basement garages at either end of the pedestrian mall contain a total of 700 parking spaces. This is equal to the size of the garage originally proposed in the Traffic Plan, to be situate beneath Church Square. The estimated cost of this was R600,000 and this should cover the two smaller projects. As this expenditure was included in the R40,000,000 required for all aspects of the traffic plan it

does not constitute additional expenditure over and above that already anticipated for municipal capital works.

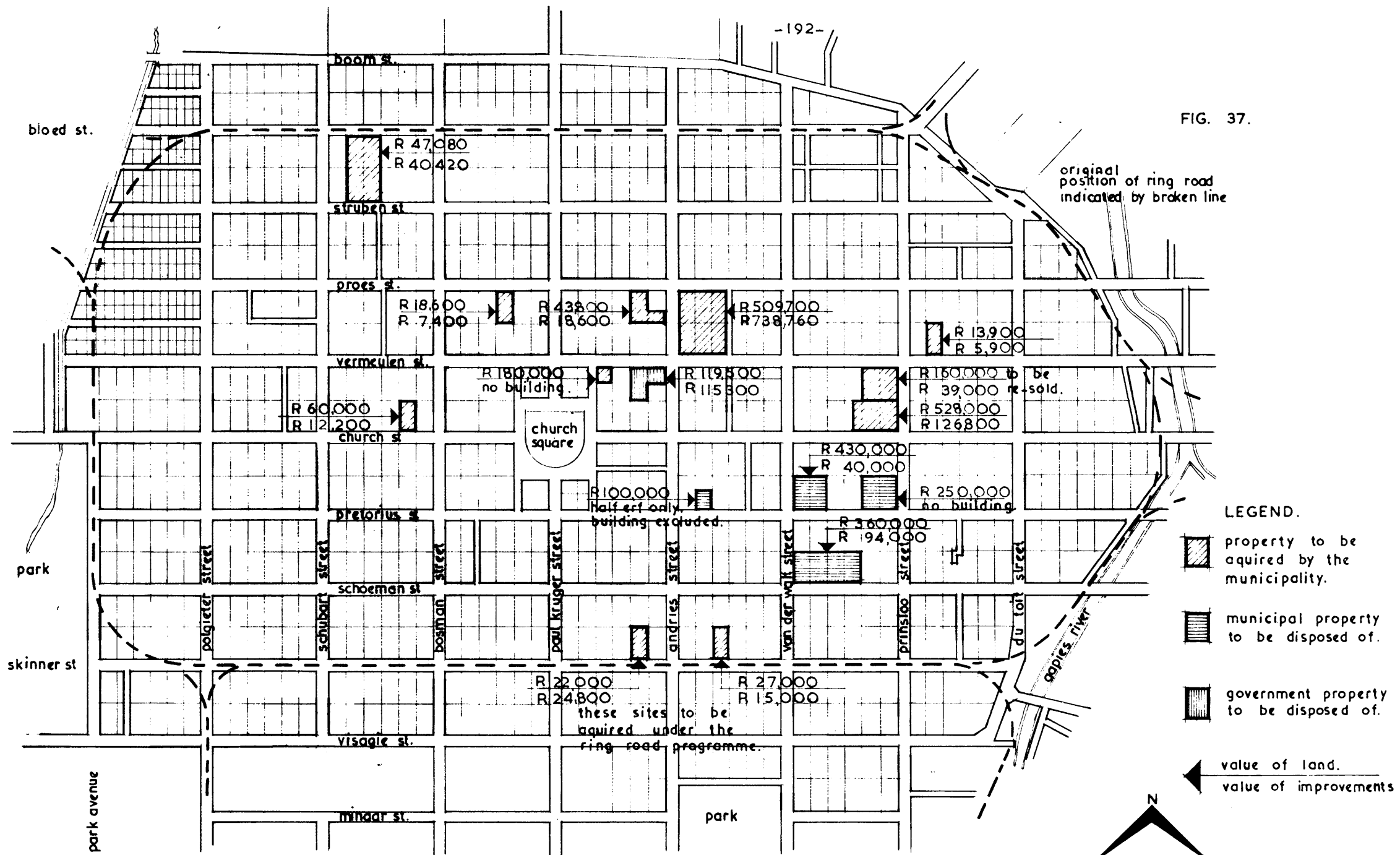
8.6.2. New Commitments.

(a) National Government.

The donation of land for the improvement of Church Square is an important requirement for the implementation of the plan. The entire rebuilding of the post office, as opposed to the present programme of additions only, is not, in the opinion of high ranking officials, improbable. The additional monies for this would have to be voted. The greatest cost to the National Government would be the provision of some three-quarter mile of railway track plus the necessary buildings for the creation of the non-white railway station. This project is not vital to the success of the plan. It is recommended because conditions will become favourable with the implementation of other parts of the plan.

The incorporation of the existing library in the new cultural building, on whatever basis, will be a government responsibility. As will be seen from figure 37, page 192, the sale of the existing library properties at municipal valuation figures will result in an amount of R234,800 being available for the relocation of this service.

FIG. 37.



● MUNICIPAL VALUATION OF PROPERTIES CONCERNED IN THE PROPOSED PLAN. SOURCE: MUNICIPAL VALUATION ROLL.

SCALE 1:10000

When it is considered that the city is the seat of the National Government it is not unreasonable to expect that Parliament would sympathetically consider moderate expenditure which would enhance the appearance and functioning of central Pretoria.

(b) Provincial Administration.

The only contribution which will be asked of the Provincial Administration is the donation of land for increasing the size and amenities of Church Square. The land concerned will actually be landscaped to set off the provincial buildings and Raadsaal.

(c) Pretoria Municipality.

The majority of the proposals would have to be carried out by the municipality.

These are:-

- (i) The increase in the length of the ring road.
- (ii) The municipal civic centre.
- (iii) The parking garage programme.
- (iv) The retail market.
- (v) The pedestrian mall.
- (vi) The remodelling of Church Square.

(vii) Transit buildings.

(viii) New bus services.

In view of the municipality's heavy financial commitments, the methods of achieving the implementation of these projects must be carefully considered.

8.6.3. Offsets and Recoveries on Municipal Projects.

(a) Land Transactions.

Figure 37, page 192, shows the latest municipal valuations of land and improvements (where applicable) for the various properties concerned in the proposal projects.

It will be seen that those properties at present owned by the municipality and which become available for sale on the open market, are particularly well appointed and have high valuations. The total value is R1,274,000 and as market prices will be considerably higher, a 20% increase may be anticipated. Thus the expected income to the municipality from the sale of property will be in the region of R1,564,000.

The land which the municipality would have to acquire may be obtained by expropriation. "A fair price" will have to be paid, but this is not usually as much as would have to be paid when competing on the open market. Nevertheless for the sake of uniformity 20% will be added to the valuation figures. The expenditure on

property will, therefore, be:-

(i) For parking garge sites	R216,480.
(ii) For non-white bus terminal site	R105,000.
(iii) Long distance transit site.....	R210,000.
(iv) Land for civic centre.....	<u>R786,000.</u>
	<u>R1,317,480.</u>

Therefore, excluding the future bus terminus site, as far as property dealings are concerned there would be an estimated R246,000 income over expenditure and including this site, a shortfall of R365,980. It may be expected that the difference between expropriation and buying on the open market would be in the region of this latter figure but this cannot be relied upon.

It is suggested that the buildings on the future bus terminus site continue under their present ownership and usage until such time as the municipality buys them in the distant future. While the value of the land will increase the value of the buildings will not. Therefore, it is to the advantage of the City Council to acquire the land now. The advantages to the owners are that assessment rates on land would no longer be payable and that a buyer for the buildings, some time in the future, is

assured. While this arrangement is unusual, it is virtually the same as that originally recommended by the municipality for having parking garages erected by private enterprise on municipal land.

(b) Construction Projects.

Of the projects proposed, the increase in the length of the ring road is the only one which, although it entails additional construction, will not entail additional expenditure. The relocation of the northern periphery of the ring road in Boom Street entails a lengthening of the dual carriageway by some 400 feet. The length of the original ring road was approximately three and three-quarter miles and the estimated cost of actual construction R20,000,000 including flyovers, bridges, etcetera. The costs of lengthening this by 400 feet could easily come from the monies allocated for contingencies on an undertaking of this size, in fact it has been estimated by the municipality that the choice of Boom Street would not be any more costly than the Bloed Street Scheme.

Some of the projects could be financed by means other than the raising of taxation rates.

These are:-

(i) The Parking Garages.

If these are economically planned and the 3,200 parking spaces can be provided for at 350 square feet each, at R3.25 per square foot cost of construction, the total cost of the garaging programme would be R3,650,000. the cost of a 600 space garage being just under R700,000. As these garages are to be run on a profit making basis this outlay is not in the nature of non-recoverable expenditure. In view of this it is suggested that low interest long-term loans, repayable from profits, be raised to cover construction costs.

(ii) The Municipal Civic Centre.

The detailed programming of this project would considerably affect the costs. For the purposes of this estimate a theatre to seat 1,000 persons at R220 per seat, plus other cultural facilities, excluding the state library section, would cost in the region of R800,000.

At present the City Council is engaged in the construction of an art museum and this is costing in the vicinity of R220,000. per year over a three year period. It is the opinion of senior municipal officials that this expenditure does not place any strain on city finances. Therefore, by continuing to allocate the same amount

annually for a further four years for culture, the money for the civic centre would become available.

Whereas the pedestrian mall would incur expenditure of approximately R31,680 for paving and planting - based on an estimate of six Rand per square yard - the recovery of this outlay (and maintenance costs) is immediately and justifiably available through higher assessment rates on those properties with mall frontage. This is feasible as additional buying power will be drawn to the mall.

The cost of the retail market could well fall under the head of anticipated expenditure as reconstruction, to some degree, is inevitable when the wholesale market is moved. 15,000 square feet of building at five Rand per square foot would incur an outlay of R75,000. for which no method of financing - other than increased taxation - would appear to be available. There are other projects in this category, the programming and estimating of which is a little nebulous at this stage but the following provisional sums have been allocated:-

- (i) Remodelling of Church Square R50,000.
- (ii) Transit building on Church Square
30,000 square feet at R5.00 R150,000.

(iii) Long distance bus terminal, 3,000 square feet at R5.00	R15,000.
(iv) Buildings for non-white terminal	R20,000.
(v) Two miles of bus route at R22,000 per mile....	R44,000.
(vi) Double bus track plus loading branches on Church Square.....	R20,000.

The figures quoted for bus services are based on an electrified system. Whether diesel or electrically powered buses shall in future be purchased is a matter of policy which has not been finalised. The absence of overhead wires would be highly desirable in the reconstruction of Church Square. If the proposed reconstruction were, in fact, accepted, it would surely be a strong argument against the electrified system.

8.6.4. Summary of Municipal Costs.

As has been shown there are means of finding funds to finance the majority of the various items which together constitute the proposed re-planning of central Pretoria. The figures and methods of financing have been described in broad outline only. Briefly these are:-

(a) <u>Land.</u>	Expenditure on sites required (including new bus terminal)	R1,929,980.
	Income from sale of municipal properties	R1,564,000.
	Shortfall on income over expenditure.....	R 365,980.

(b) Projects for which the means of financing are presently available.			
	<u>Project.</u>	<u>Means of financing.</u>	<u>Cost.</u>
(i)	Increasing length of ring road.	Existing Traffic Plan expenditure.	Nil
(ii)	Short term basement garages.	Existing Traffic Plan expenditure.	R600,000.
(iii)	Municipal civic centre.	Existing taxation.	R800,000.
(iv)	Parking Garages.	Raise low interest loans.	R3,650,000.
(v)	Pedestrian mall.	Justifiable increase in property values.	R 31,680.
		Total	<u>R5,081,680</u>
(c) Projects for which means of financing are not presently available:-			
(i)	New retail market	R 75,000	
(ii)	Remodelling of Church Square.....	R 50,000	
(iii)	Various transit buildings	R185,000	
(iv)	Bus services	R 64,000	
	Total.....	<u>R374,000</u>	

Adding the shortfall on land transactions of R365,980 to this latter group of projects an amount of R739,980 will have to be found by the municipality.

If this expenditure were to be added to the city budget and spread over a ten year period, an amount of R74,000. per annum would have to be added which is less than $4\frac{1}{2}\%$ of the present annual capital expenditure figure of R17,000,000. However, it would be preferable if the items mentioned above could be completed within a five year period, thus incurring expenditure at the rate of R148,000. per annum.

There is yet one more means of income which, with justification, could be utilised for the proposals put forward in this treatise and that is the annual income from parking meters. The Traffic Plan recommendation that this income be used for the purchase of land for parking garages was agreed to when the plan was accepted. As the parking programme has been amended in the proposals now put forward and, as an alternative method of financing the programme is available, the parking meter income of R90,000. per annum can now be re-routed to the above projects. Thus, assuming a five year expenditure programme for these items, the yearly amount to be added to the capital expenditure estimates would be R148,000. less meter income of R90,000. - an amount of R58,000. which is less than $3\frac{1}{2}\%$ increase on present estimates. Taking into consideration the large amount of central area reconstruction occurring in Pretoria the value of taxable property is steadily rising and with the stimulus gained from the proposals contained in this thesis, this should increase. There-

fore, the R58,000. per annum should easily be forthcoming from the normal assessment rate taxation process.

8. 7. IMPLEMENTATION OF THE PLAN.

The suggestions put forward in this thesis, if implemented, will create a more orderly and dignified centre to the capital city. As Pretoria is both a national and provincial capital the co-operation of both the national and provincial governments with the municipality is to be sought in the implementation of the plan, particularly in view of the exemption from municipal control, of land owned by the Provincial Administration or National Government.

The following measures should be adopted for the implementation of the development programme.

- (a) At an early date an ad-hoc committee to be set up comprising representatives of the Public Works Department, Provincial Works Department and Pretoria City Council for the joint planning of those projects which concern all three bodies and for general liaison.
- (b) The framing of amendments to bye-laws necessary to stimulate the rezoning of functions, to be put in hand as soon as possible.

- (c) The completion of the reconstruction of Church Square and the pedestrian mall to be accomplished within five years; that is, by 1968.
- (d) The parking programme to follow a schedule dictated by constant and thorough municipal survey.
- (e) The civic centre to become a prestige project for the whole city and to form the nucleus of an intensive public relations programme aimed on explaining the programme for the whole central area and gaining general public support for it.

8. 8. CONCLUSIONS.

Surveys, carried out by the author, indicated a confusion of land use, certain definite trends of development and danger of decay in some areas. The need for reconstructing Church Square was proved as was the need of a stimulus to the retail trade within the central area. The considerable influence of concentrations of government employees was clearly illustrated, particularly as regards bus travel. Attention was drawn to the efforts made to date in the field of culture and the desire to improve the present position.

The solutions offered in this thesis are in some instances bold but are by no means so revolutionary as to be impracticable. The most vital single element for the success of the whole scheme is the acceptance by the Provincial Administration and National Govern-

ment of a share in the improvement in the city which acts as headquarters to both. Their share is not the major one but their co-operation is essential.

The proposals as set out need further detailed study and periodical survey to measure trends and movements which are always present. From the point of view of economics they are entirely feasible and it is the sincere wish of the author that this thesis be considered not only as a necessary item in an academic curriculum, but as a genuine and positive contribution to the establishment of the dignified cultural and administrative centre which the capital city of the Republic, by its very designation, deserves.

THE CONSIDERATION OF A PLAN FOR CENTRAL PRETORIA
WITHIN THE FRAMEWORK OF THE PRETORIA TRAFFIC PLAN.

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