

Book 2

Suggested policies in regard to

**SUBURBAN EXPANSION
INTO THE URBAN FRINGE**

(THE CONSTANTIA VALLEY)

B.M. Callaghan

The copyright of this thesis vests in the author. No quotation from it or information derived from it is to be published without full acknowledgement of the source. The thesis is to be used for private study or non-commercial research purposes only.

Published by the University of Cape Town (UCT) in terms of the non-exclusive license granted to UCT by the author.

PART FOUR

Goals and objectives

FORMULATION OF GOALS AND OBJECTIVES

Having established that Constantia exhibits certain problems which are characteristic of the suburbanization of the urban fringe in general, it is necessary to consider how these problems could be resolved.

In seeking such solutions, it is not only useful, but imperative, to determine some framework of what the desired future state of the Valley should be and what role it should perform in the metropolitan context. In other words, what goals should be strived for and what objectives should be aimed at in order to facilitate the resolution of these goals.

In establishing this framework, one returns to the basic underlying reasons for public sector intervention in the free market process - as outlined in Section 7.0 of Part One. This being "to regulate individual activity in the interests of the safety, health, morals and general well-being of the whole population".

This is obviously too broad a concept to give any positive direction and, in this regard, it is useful to reiterate the opening paragraph of the above-mentioned section;....."The need for public sector intervention in the expansion process of suburban development is justified by the need to anticipate the socio-economic and environmental effects of such development both at the local and regional levels and in the short and long term." And moreover....."To devise means and ways of controlling or even preventing such development when not in the interests of the general public or of the environment".

Furthermore, one should consider the need for intervention in the market process as outlined in Section 6.0 of Part One. As stated; from a metropolitan stand-point - the direction and timing of urban expansion plays an all-important role in determining the efficient functioning of the city. While the suburban development of Constantia has, to date, performed a necessary housing function, there is clearly no immediate need for additional land to be made available for development - particularly in regard to the upper income groups. Moreover, Constantia's sole role as a dormitory suburb does little to improve the efficiency of metropolitan Cape Town.

The costs of urban sprawl were identified as being inherent inefficiencies such as the extravagant use of the land and increased service costs. The historic development pattern of Constantia and its present-day problems clearly reflect these costs. For example, the 8000 m² category was land-expansive and the properties are now found to be unrealistically large; overzoning in respect of the proposed civic centre and Constantia Centre sites has proved costly. Because of the large plot-sizes, service costs per unit have been far higher than for more dense development. In a city such as Cape Town, which is heavily weighted in respect of the lower income groups and is therefore characterized by a relatively low tax-base; it is obvious that such extravagances must eventually be borne by the lower income groups in terms of an opportunity cost.

In addition, various other costs are passed on to the lower income groups. For example, the costs of land and the low density zoning of the outer suburbs, together with the lack of public transport facilities, effectively limits the choice of housing location available to these income groups. This suggests that the Constantia residents should, in some way, pay for the privilege of being able to live in the particularly attractive environmental surroundings of the Valley. While this privileged status is to some extent balanced by the property market which places a high premium on both the costs of land and housing; it is nevertheless evident that the rates structure of the metropolitan area is distorted in favour of the Constantia residents. The fact that the local residents do not contribute to the metropolitan account increases the financial burden of the rest of the metropolitan area - again, to the detriment of the lower income groups.

Moreover, the emphasis on car-ownership of the local residents constitutes an extravagant use of energy; and also leads to the less-than-efficient functioning of the public transport system which imposes higher costs on those who are reliant on this system and who can least afford such costs. Furthermore, the beneficiaries of the extremely high costs of implementing a high-standard metropolitan road network are mostly the upper and middle income groups.

All the above basically revolve around public sector allocation of funds and land-use policies. Exploitation of the market system by the private sector also tends to impose costs on the lower income groups. This is evidenced by the withholding of land from the market by both speculators and developers which, in addition to the sub-optimal use of the metropolitan land stock, also tends to restrict the supply of developable land thus pushing up the costs of housing. This cost tends to trickle down through the market and ultimately affects all income groups.

The above, then, sets the necessary framework in the light of which, goals and objectives for the future of Constantia are to be formulated. However, the scope of this study is limited and cannot take into full account the obvious inefficiencies and inequities of the metropolitan area. The following goals and objectives therefore merely take cognizance of these wider issues but are concerned mainly with the malfunctions of the suburban and urban fringe development as they affect the Constantia Valley.

GOALS

- The Constantia Valley should play a more contributory role in the metropolitan area.
- The character of the Valley should be preserved and where possible, enhanced.

RESIDENTIAL OBJECTIVES

- To find the necessary means and ways of alleviating the present hardships experienced by the owners of the 8000 m² properties; without lowering the environmental qualities of these areas. And moreover, to make more optimal use of the land.

- To encourage the more optimal use of vacant land in the 4000 m² and 2400 m² categories without lowering the tone of the neighbourhood.
- To make more positive use of Special Residential forms of development.

COMMERCIAL OBJECTIVES

- To improve the functioning of the Glenstantia and High Constantia centres.
- To establish some alternative use for the proposed Constantia Centre site.
- To lower the too heavy restrictions placed on the establishment and functioning of farm stalls and nurseries.
- To make provision for the establishment of convenience stores of a neighbourhood-serving type.

"FARMING" OBJECTIVES

- To determine which properties constitute both prime and viable farming units.
- To find the means whereby the continuation of farming practices may be facilitated.
- To establish alternative uses for the larger properties zoned for rural purposes, which are not being farmed, or being farmed on a limited scale.

RECREATIONAL OBJECTIVES

- To make more optimal usage of the outdoor-recreational potential of the Valley.
- To make provision for the needs of the horse-riding fraternity.

ENVIRONMENTAL OBJECTIVES

- To protect the immediate surroundings of the historic homesteads.
- To control and eradicate all undesirable species of alien vegetation.
- To protect the existing trees in the Valley and to replace those which are lost.

GENERAL OBJECTIVES

- To achieve greater public participation in the planning process.
- To optimise the role of the C.P.O.A.

- To improve the balance between expenditure and income in the local rates account.
- To make provision for public amenities (civic purposes) in a more efficient manner.
- To adopt more realistic road standards.
- To improve the efficiency of the public sector decision-making process.

PART FIVE

Alternative policy prescriptions for Constantia

ALTERNATIVE POLICY PRESCRIPTIONS FOR CONSTANTIA

For convenience, the analysis of Constantia as it exists today was dealt with in the form of separate components. The major problems were identified in each component and, in seeking ways of resolving these problems, direction has been given by the formulation of goals and objectives.

The following policy prescriptions are thus informed by the relevant objectives; with due cognisance being given to the stated goals for Constantia. These goals being:

- That it should play a more contributory role in the metropolitan area. (1)
- That the character of the Valley should be preserved and, where possible, enhanced.

Other factors which inform the suggestions put forward are the various tried and untried policies which have been formulated, for Constantia in the past and those put forward in the United States context.

The British policies have little to offer in terms of seeking solutions at the local level - these will be more fully explored in Part Six which deals with general prescriptions at a wider level. The various policies and planning tools which have been put forward in the United States, are more applicable to the local level and some are especially appropriate to the particular problems experienced in Constantia.

As with the analysis, the alternative policy prescriptions are presented in the form of components or sections - these being: the residential component, the commercial and civic component the farming component (including the Eagle's Nest/Glen Alpine block), recreation, the environment and, lastly, a general component which deals with the overall functioning of the area.

Alternative suggestions are made for resolving the problems experienced by each component. These alternatives have been evaluated in a very rough manner only - their purpose being merely to indicate the possible alternatives which exist. Detailed proposals have been put forward simply to illustrate how particular problems could be dealt with in a practical sense.

The point to be emphasized is that these alternative suggestions, in most cases, involve changes in existing policy. It is these changes in policy which are of most importance; for they (rather than the detailed proposals) serve to indicate how the intrusion of suburban forces into the urban fringe can be not only controlled, but also guided in an effective manner so as to benefit both the local and metropolitan residents.

(1) Implicit in this goal is that whatever suggestions are put forward for resolving issues in Constantia, they should not impose additional costs on the metropolitan population - either directly or indirectly.

1.0 THE RESIDENTIAL COMPONENT

The two major problems experienced by the residential component (including the land already zoned for such purposes) are:

- the fact that many of the plots are too large to be effectively maintained and there is no longer an assured market for them, and
- the fact that much land which has already been granted development rights is being withheld from the market.

Both problems have been accentuated by the present slump in the property market; but they are nevertheless long-standing rather than short-term problems.

In considering ways of alleviating these problem situations, it is necessary to stress the fact that they are typical accompaniments of the suburbanization of the urban fringe. Whereas the former problem reflects changes in life-style and the general increased costs associated with an outmoded standard of living; the latter problem arises from the over-zoning of land and the manipulation of the market by developers and land owners to the detriment of the general public.

The fact that, in most instances, the means of resolving these problems amounts to the granting of more development rights must be seen in the light of the present lack of need for more housing development in Constantia. The proposals are therefore put forward in the assumption that the property market will revive. If it does not, then the property owners will have to carry on bearing their respective hardships until conditions change. This is not an unreasonable demand as they are not the only sectors of the metropolitan population affected by the current state of the economy.

Higher density forms of housing are discussed as a potential means of resolving many of the problems experienced in Constantia.

1.1 Unrealistically large Plots

In considering the problems associated with the 8000 m² plot-size categories, the Hohenhort area is used as a particular example. This area includes the Hohenhort Township and some of the surrounding properties on the Hohenhort Ridge.

The Hohenhort area, together with the other major areas comprising 8000 m² plots, are indicated on Figure 10.

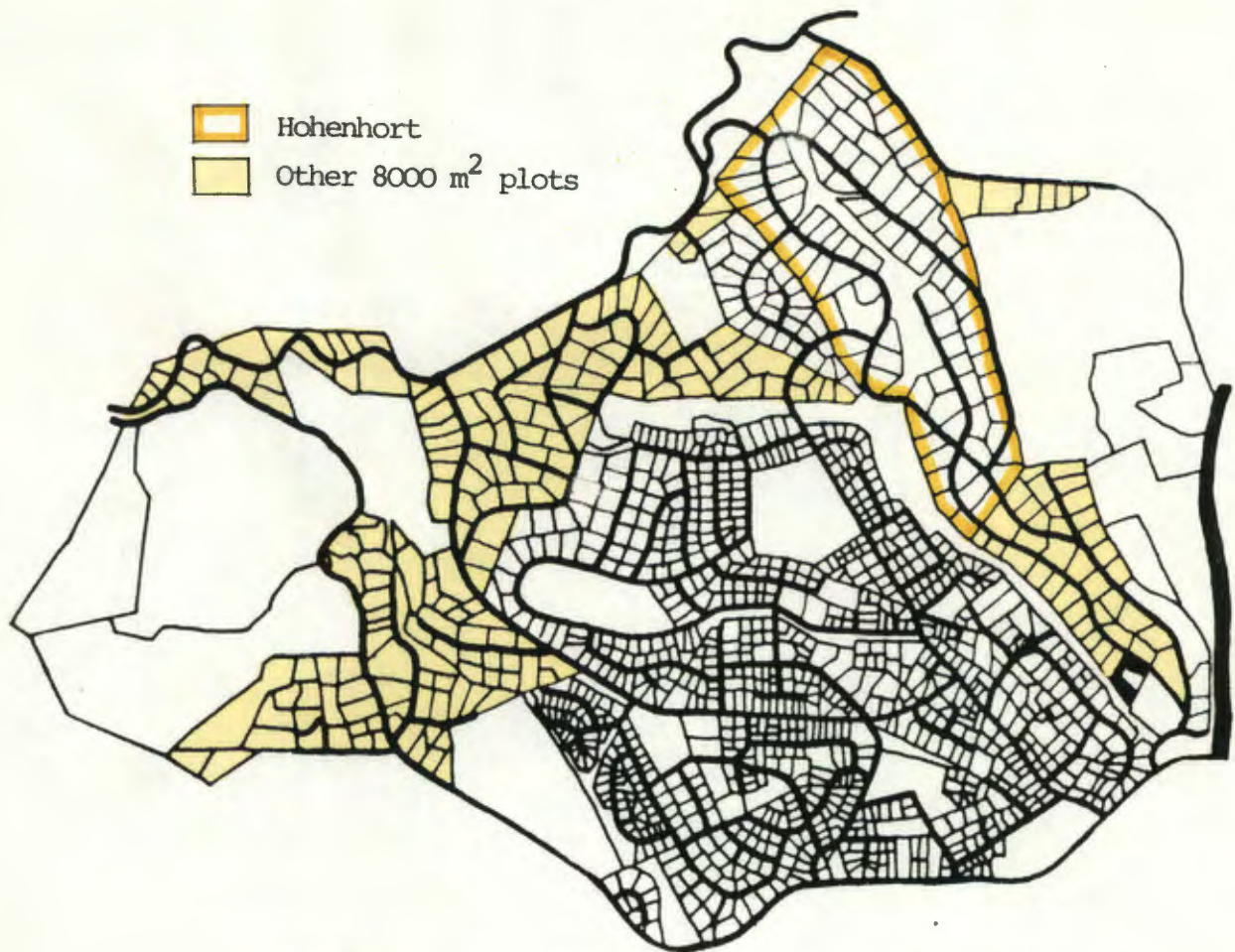


FIGURE 10: THE HOHENHORT AREA AND OTHER 8000 m² PLOTS

The problems experienced are typical of all the larger sized properties and revolve around the following facts: the properties are too large to be effectively gardened or maintained; many of the properties (both developed and vacant) are seriously overgrown with Port Jackson wattle; there is no demand for these properties and the owners are experiencing severe hardships. Moreover, the Hohenhort area is renowned for its environmental beauty (both built and natural) - and this is being threatened by the above problems.

Suggestions to alleviate these problems are informed by the following objectives:

- To make more optimal use of the land.
- To lessen the hardships experienced.
- To preserve the character of the area.

Moreover, these suggestions should not involve the rest of the Constantia ratepayers in additional costs.

In the pursuit of these objectives; it is necessary first of all, to take cognizance of the natural features of the land. Also, to take note of the way in which the land has been used for residential development; to establish where land is not being optimised and where likely problems would occur with future development; and, lastly, to identify opportunities for improving the situation.

The Hohenhort area forms a distinctive topographical entity comprising a central valley line enclosed by two ridge lines. The northern ridge (the Hohenhort Ridge) is fairly steep with a large portion comprising slopes steeper than 1:6. The fact that the upper slopes afford magnificent views of the Constantia Valley means also that they are highly exposed. The summit of this ridge flattens out and is therefore less exposed; moreover, the skyline is well protected by abundant tree growth.

The southern ridge line comprises fewer slopes steeper than 1:6; it is considerably lower-lying than the northern ridge and is therefore less exposed. The valley line comprises an exceptionally dense growth of oak trees, as do the lower slopes. The above features are indicated in Figure 11.

The development of this land is indicated in Figure 12. As seen, it is based on the retention of the valley bottom as public open space, and the layout of large plots leading off the circular road system which conforms largely to the contours of the land. Only one portion has not yet been subdivided - this being the land on the northern ridge where the proposed subdivision has been approved but not implemented. Of the 85 plots, only 7 have not been built upon; and 5 of these are situated on the steeper slopes of the northern ridge. Other than the public open space and the residential plots, the only other use of the land is that of the Hohenhort Hotel.

The houses and plots are shown to scale and Figure 12 clearly indicates the very large amount of garden space. It also gives a clear picture of the potential for subdivision of the majority of plots, and the fact that extravagant use has been made of the land.

Four alternatives are put forward for the possible future subdivision of these plots and the usage of the land.

Alternative One concerns the possibility of lowering the minimum subdivision standard from 8000 m² to 4000 m². The following drawbacks would be experienced in this regard.

- This alternative would merely add to the existing over-supply of plots in the 4000 m² category and would accentuate the problems of vacant unsold and unbuilt-upon plots in this category.
- Difficulties would be experienced in subdividing certain plots in conformance with existing subdivision standards. This is due to the location of the existing dwellings, excessively steep slopes, road access or the shape of the plot. This policy would therefore fail to resolve the problems in respect of these properties.

- Many of the properties are south-facing on slopes steeper than 1:6. These factors severely limit what can be done with the property in regard to the location of a dwelling. In addition, the costs of building and the construction and maintenance of driveways tend to be high. Moreover, these slopes are highly erodible and the soils are not very stable. Further subdivision would necessitate the loss of much vegetation which serves a very necessary binding function. Serious problems could be experienced during the construction period and until costly retaining walls had been constructed and adequate vegetative covering re-established.

Because of the above, the costs to the prospective home-builder would appear to be beyond the means of the normal family wishing to build a house on a 4000 m² plot. In the event of subdivisions being approved but finding no ready market - the problems regarding soil erosion and infestation by alien vegetation would most likely be intensified. This serves to indicate that it would be inadvisable to allow plots on slopes steeper than 1:6 to be subdivided - particularly those on south-facing slopes. Again, this alternative would fail to resolve the problems experienced.

Alternative Two concerns the possibility of introducing a density criterion based on the 4000 m² plot-size category. Basically, this would mean that all the existing properties could be subdivided (where feasible); the major point being that the number of dwelling units or subdivisions would be limited to two per every 8000 m² plot.

Subdivisions would be based on making the best use of the plot and some size limit could be established to control the minimum size of plots - say 1350 m².

This would make far more rational use of the land and could solve the problems of maintenance. Normal subdivision standards tend to be over-restrictive and a more flexible approach should be adopted with more consideration being given to minimising costs to the private individual and to the preservation of the environment. (1) Another factor which this alternative would facilitate, is that of providing a second home on the property. (2)

While this alternative would resolve certain of the problems arising from the above alternative, it would not provide the solution for those properties located on the steeper slopes where subdivision should not be permitted.

-
- (1) An obvious example which comes to mind is that of allowing "reciprocal servitudes" as a general rule rather than as an exception. Basically, this makes provision for two or more property owners to make use of a single driveway or right-of-way.
 - (2) There has been much demand in the last few years for the building of second homes for parents or close relatives. This practice has been provided for in the Transvaal but has been strongly opposed by the Cape Provincial Authorities. Apart from its desirability from a social point of view, it optimises the use of land on these large properties and should be strongly encouraged. Control measures could ensure that these second homes are located in such a manner that they could be subdivided off when they are no longer required or when the property is sold.

Alternative Three concerns only those properties which could not easily be subdivided and those where subdivision should not be permitted. The remainder of the properties could be subdivided along the lines of the second alternative.

This alternative is based on the following principles in regard to all the properties on slopes steeper than 1"6. Portions of those plots abutting the public open space could be consolidated with this open space (the owners thereby being relieved of their maintenance costs); furthermore their homestead environment would be retained and they would have full usage of the public open space. A portion (say half) of these properties not abutting public open space could be maintained by Council whilst remaining under the ownership and private usage of the existing owners.

In addition, certain properties abutting the public open space (on its southern side) - whilst not being affected by steep slopes, would nevertheless experience difficulty in subdividing without undue cost to the environment. Portions of these plots could also be consolidated with the open space.

The properties affected by this alternative are shown on Figure 13.

Those properties on the steeper slopes of the southern ridge have a north-facing aspect and could therefore be subdivided more beneficially than the other steep properties.

To ensure equity between all the Hohenhort property owners, the following system of funding could be applied. Firstly, some percentage of the sales price derived from subdivision could be paid into a special fund held by Council. Secondly, the acquisition of land to be consolidated with the public open space could be paid for out of this fund. Thirdly, some percentage of the annual rates of the Hohenhort residents could be used to cover the costs of maintaining those properties not abutting the open space.

This system would be similar to that of the transfer of development rights as applied in the United States - the only difference being that it would be administered by the local authority rather than through the open market. The basis being that those owners who could subdivide their properties would be obliged, in effect, to purchase the subdivisional rights of those not able to subdivide.

The following gives some indication of the possible funds involved. Of the 91 properties; 61 could be subdivided. Assuming the sale price of these subdivided portions to be R15 000; if 20% of the sale price were paid into the fund, it would realize R183 000. (1)

(1) The average prices paid for vacant plots in the 1350, 2400 and 4000 m² categories between 1973 and June 1978 was R14 265. (Source: D.C. Data Bank). A figure of R15 000 seems reasonable in that the majority of the subdivisions which would take place would tend to be closer to 4000 m² than 1350 m².

Of the 30 properties who would not be able to subdivide, 18 abut the open space. The owners of these properties could be paid R10 000 each for the acquisition of the "unused" portions of their properties - a total of R180 000. This would seem a reasonable price to pay; for as pointed out, these owners would retain their homestead environment and would have full usage of the open space.

Similarly, the fact that the owners of the subdivisible properties would realize R12 000 (on average) instead of R15 000 on the subdivision of their plots, seems reasonable in that their present maintenance costs would be considerably lowered. Furthermore, they would still be in a position to retain more of their existing homestead environment than if subdivision sizes of 4000 m² were insisted upon.

To cover the maintenance costs of those portions of the properties not abutting the open space and not being subdivisible; 2% of the annual rates of all the properties could be set aside for this purpose. Assuming annual rates to be R1000 for all the existing properties once subdivided (that is, 91 properties); and R760 for the additional properties realized through subdivision (61) - the annual sum would amount to + R2 750 which should cover these costs. (1)

Moreover, the Hohenhort Hotel has been excluded from this calculation. As its residents benefit both from the visual amenity of Hohenhort in general and from the public open space in particular, the owners should also be called upon to contribute in some way.


The above theoretical exercise presupposes two necessary conditions. Firstly, that the subdivided properties will find a ready market. This is not unreasonable to assume - provided the property market revives; many of the subdivided plots could be considerably smaller than 4000 m² and therefore be more in demand. Furthermore, Hohenhort would offer a more attractive living environment than most other alternatives. Secondly, it presupposes that the property owners would be willing to participate in such a proposal.


The success of this proposal would hinge on this second condition and strong liaison between Council and these property owners would be necessitated. The only way in which this policy would have a cost bearing on the rest of the Constantia ratepayers, is in the form of the 2% loss of rates to the general account. This would not seem an unreasonable cost to bear in order to prevent the Hohenhort area from despoiling the character of this portion of the Valley.


(1) This figure is based on two assumptions; firstly that the value of the existing properties is + R40 000 and that the valuation of those realized through subdivision would be approximately R30 000. The annual rates are based on 2,53c/R which is applicable in Constantia at present.

Alternative Four would be to permit higher density forms of housing on the 6 as yet unsubdivided plots. The slopes are not excessive but the site is visually exposed from across the valley.

A well designed complex (comprising + 15 units), together with an effective landscaping programme, could be visually pleasing and result in the more attractive and efficient use of the land than conventional single residential housing. Nevertheless, the local residents would almost certainly be strongly opposed to any such suggestion; and, in view of the existing character of the area and the sensitivity of the site, it would seem inadvisable to consider this as a serious alternative.

 Slopes steeper than 1:6

 Visually exposed

 Stream

(5 foot contour interval)

0 200 600 feet

N

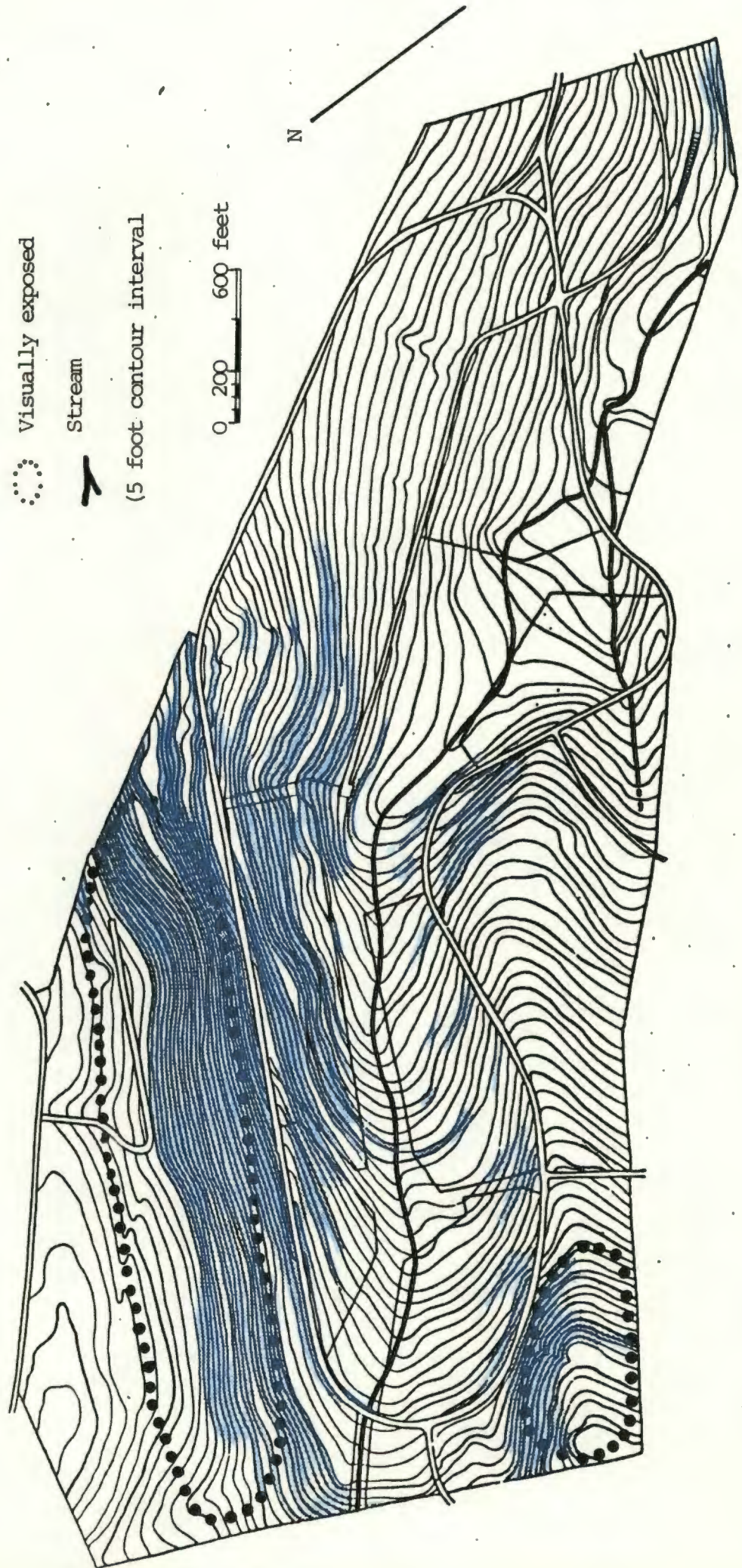


FIGURE 11 : HOHENHORT LANDFORMS

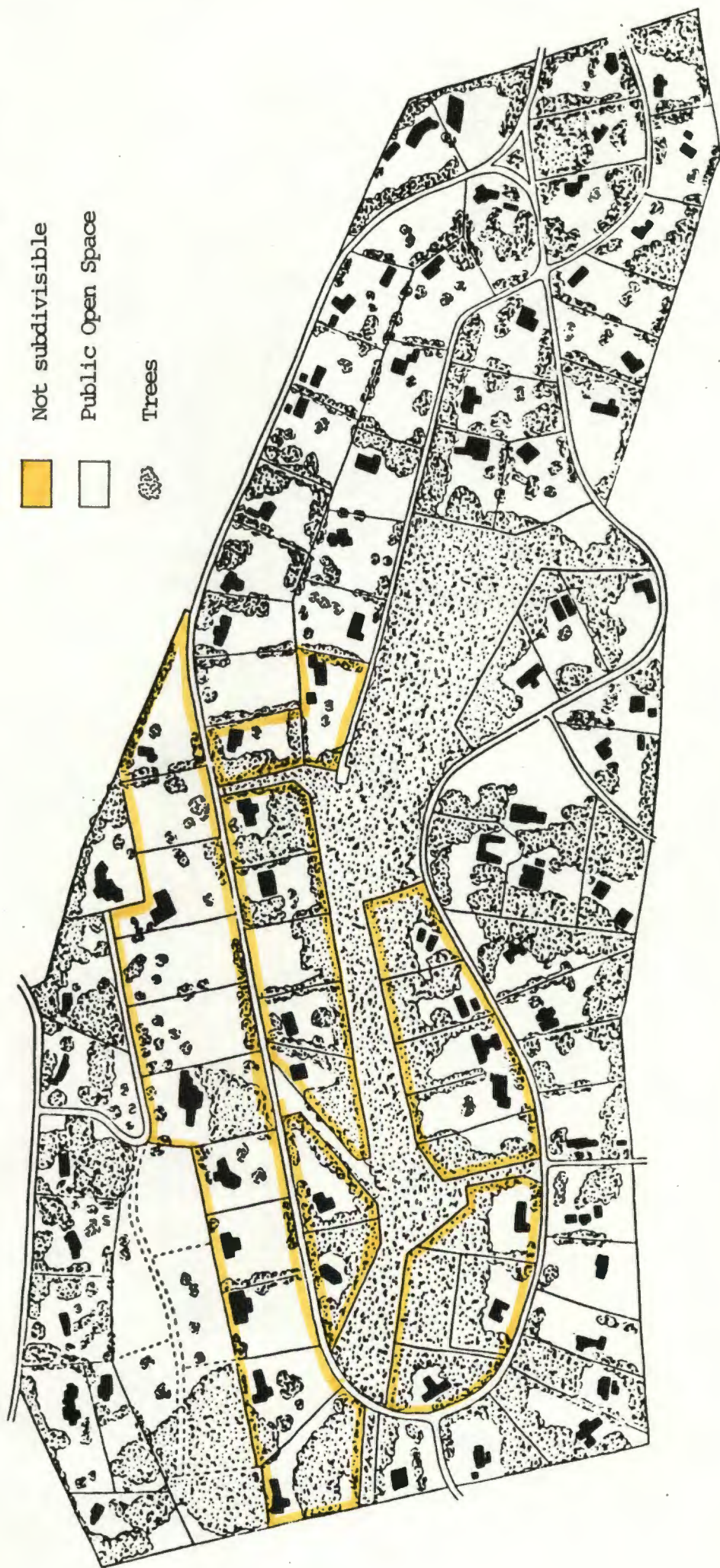


FIGURE 12 : HOHENHORT
EXISTING DEVELOPMENT

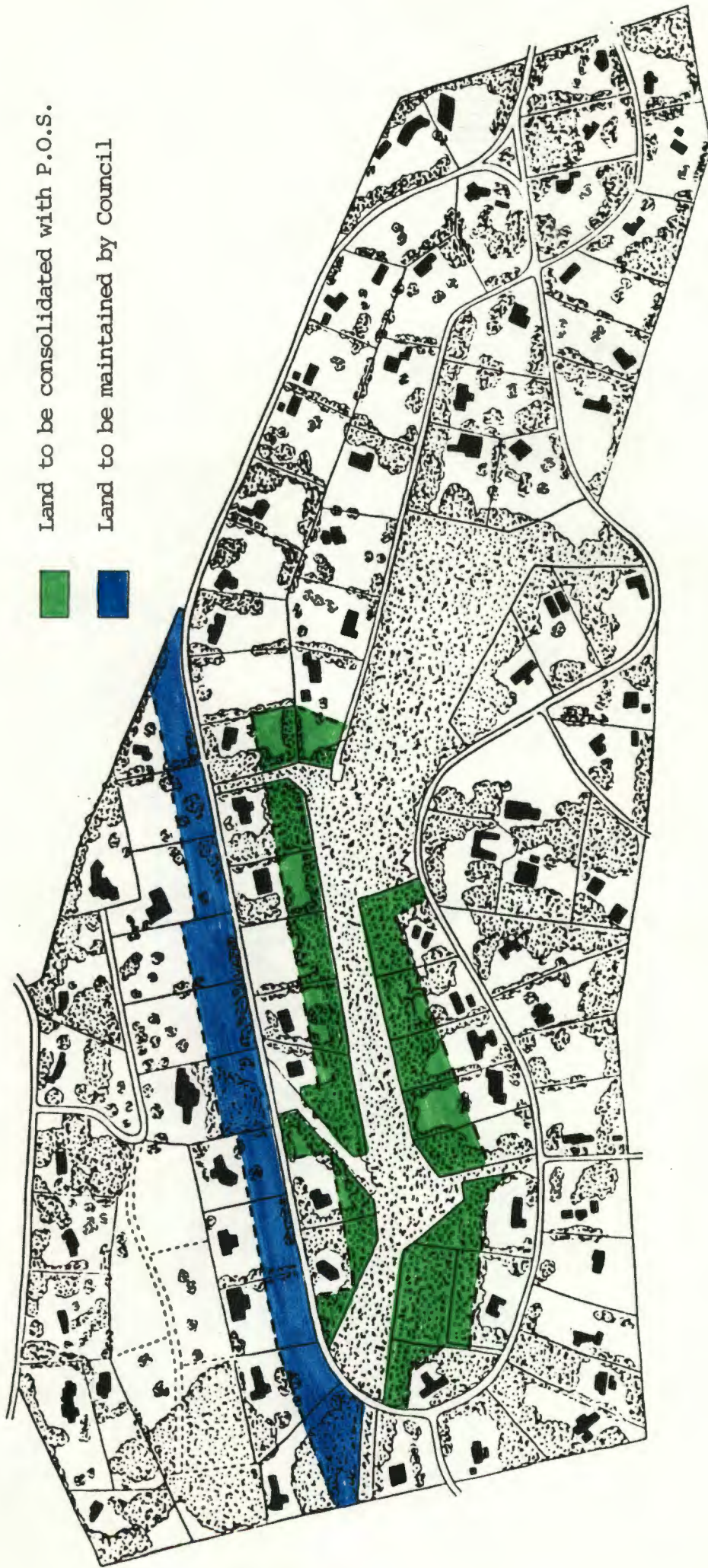


FIGURE 13 : HOHENHORT
ALTERNATIVE TWO

1.2 Vacant Residential Land (1)

Most of the vacant residential land falls within the 4000 m² and 2400 m² categories. This represents a sub-optimal use of the land, distorts the property market and lowers the tone of the neighbourhood.

As seen from Figure 14, this land comprises isolated pockets spread throughout Constantia and results in discontinuous or leap-frog development. These pockets of land are divided into three categories:

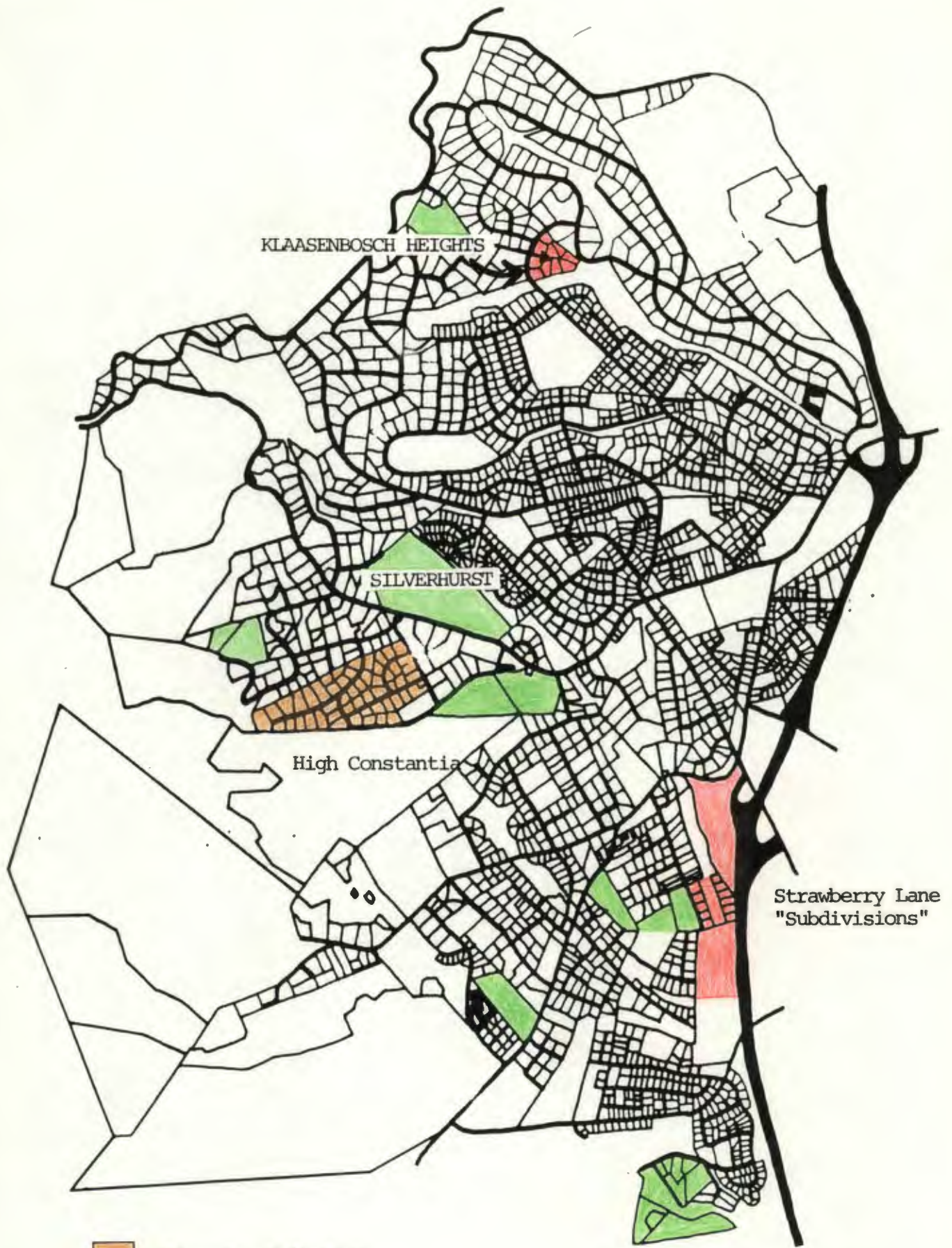
- Land which is already subdivided, but has remained undeveloped - largely because the owners/developers have withheld it from the market through unrealistically high asking prices. High Constantia Township Ext. 1 is used as the prime example.
- Land which has already been granted subdivisional rights, but which has not yet been subdivided. This is partly due to expectations for greater development rights being granted. Some of these properties are currently being farmed; some efficiently, and others not. Examples of such properties are the Klaasenbosch Heights Township, the two Kreupelbosch extensions and the Strawberry Lane subdivisions.
- Farming land which is totally surrounded by residential development - the prime example being Silverhurst Farm.

The objectives in regard to the resolving of the problems experienced by these properties are as follows:

- To make more optimal use of the land without lowering the tone of these areas.
- To discourage developers/landowners from holding onto the land.
- To encourage the continuation of genuine farming practices where they constitute an environmental asset to the Valley.

Again, whatever suggestions are put forward to meet these objectives, they should not involve the general ratepayers in additional costs.

(1) This includes farmland whose continued viability is questioned.



- Already subdivided
- Subdivisions approved but not effectuated
- Farming land.

FIGURE 14 : VACANT RESIDENTIAL LAND.

1.2.1 High Constantia Township Ext. 1

This township was approved in 1966 and its plots have been on the market for close on 10 years. Of the 51 plots, only four have been developed. Eleven of the plots are still being held by the developers; while a number of others are clearly being held for speculative purposes.

The township was fully serviced; roads, stormwater drainage and sewerage reticulation comply with municipal standards. Public Open Space was provided above the township. The plot sizes range from 9600 m² to 3700 m²; the majority being + 4000 m² in extent. The plots which have been built upon are among the larger.

Because of its location alongside Groot Constantia, the approval of this township was governed by certain title conditions regarding building lines and the texture and colouring of building materials. It was intended that the development of the township would impinge as little as possible on the visual surroundings of Groot Constantia.

The Bertrams Winery, which has now been taken over by Groot Constantia, has already been renovated and is shortly due to begin operating once again. Apart from its connections with the Groot Constantia wine industry, it is by no means a displeasing structure and adds to the character of the area.

In addition to its prominent location alongside Groot Constantia the township forms part of the visual backdrop to the Constantia Valley. Its location on the lower mountain slopes is indicated on Photograph No.1. The quality or form of development (or the non-development) of this township will therefore have an important effect on the character of the Valley.

Apart from the fact that the vacant plots represent a sub-optimal use of the land and tend to distort the supply side of the housing market; the township has become heavily overgrown with Port Jackson and Stinkbean. It constitutes a serious fire hazard, a refuge for vagrants and tends to despoil the environmental qualities of the general neighbourhood.

A close investigation of the township in relation to its landforms and the likely impact on the visual qualities from the approach road to the Groot Constantia homestead reveals certain disturbing factors which are indicated on Figure 15. The full development of the township will almost certainly impinge on the rural atmosphere of Groot Constantia - despite the conditions imposed to safeguard against this.

A portion of the township comprises extremely steep slopes. The clearing of alien vegetation on these slopes could result in either soil erosion or soil creep. Moreover, one or two of the plots are extremely low-lying and problems could be experienced in winter. Both the steep slopes and the low-

lying land should have been excluded from the developable portions of the property. Another factor is that the development of the plots leading off the very attractive tree-lined internal road, will most certainly necessitate the removal of some of these trees for driveway-construction purposes. In addition, those plots on the southern side of this road are located well below the road level and access off the road will be difficult to achieve without major construction works.

It is almost certain that these factors have contributed to the fact that no development has taken place on these plots. Two of the plots which have never been sold are affected by these factors.

In seeking solutions to the problems experienced with this township, the following criteria are applicable. No additional costs should be imposed on the Constantia ratepayers; the lowering of the environmental character of the area must be guarded against - especially in relation to Groot Constantia; and lastly, some means should be sought to lessen the difficulties relating to the development of the properties. Three alternative solutions are considered.

Alternative One is based on the simple principle of lowering the plot sizes (to 2000-2400 m²) and setting aside an area for public open space purposes. This alternative appears on Figure 16 and constitutes the following elements:

- To compensate for the public open space, the developers could be given the opportunity of realizing 8 more plots. The smaller plots would be more saleable as has been evidenced by the sales trends in Constantia.

The average asking price of the plots in this township has been R24 000, compared to R18 400 for 4000 m² plots in Constantia generally.(1) This is clear evidence of the unrealistically high asking prices. The average price of 2400 m² plots in Constantia (over the 1973-1978 period) has been + R13 000.

An amount of + R45 000 could be obtained by the more assured sale of the 2000-2400 m² plots - this is based on the calculation shown below.(2)

- A redistribution of ownership in respect of those persons already owning plots could be achieved through the swapping of land. The R45 000 that could be realized through the

(1) Source: D.C. Data Bank.

(2) 11 4000 m² plots at R18 400 = R202 400
 19 2000-2400 m² plots at R13 000 = R247 000

However, it must be borne in mind that there is an over-supply of 4000 m² plots and their sale is less likely than were the plot size to be lowered.

effectuation of this alternative, could be divided amongst these 27 plot owners to compensate them in part for the smaller plot sizes or the change in location. This is obviously not much of a compensation, but certain benefits would also accrue to these plot owners. The plots would be a more manageable size, they would have the benefit of the public open space, and certain plot owners would be relieved of the high driveway construction costs and the possible problems that could have arisen from the low-lying nature of the land.

- The only extra costs the developers would have to bear would be those associated with survey fees and the relayout of the township. These would be minimal compared to the greater prospects of being able to sell the plots.
- The land set aside for public open space would not only benefit the residents of the township, but would serve as a useful environmental buffer between the development and the road leading to the Groot Constantia homestead.

This alternative could improve the situation to some extent, but problems are likely to arise in the future in regard to the remainder of the township which comprises the larger plots. It would not be unreasonable to anticipate that pressures for subdivision will arise - as has happened in respect of all the larger plots in Constantia. Such subdivision could endanger the views from Groot Constantia and lower the visual quality of the mountain slopes in general. Moreover, problems in regard to development on the steep slopes have not been resolved.

Alternative Two is based upon making fuller use of the land; on anticipating future pressures for subdivision; and on attempting to resolve, more effectively, the problems being experienced or likely to be experienced in the future.

This alternative is indicated on Figure 17. The plot sizes are in the order of 1350 m² and the layout is based on certain design principles which are indicated on the overlay. The layout of the plots, siting of the houses, building materials permitted, siting and construction of access roads and the very necessary planting of trees and other vegetation would have to be carefully controlled, specified and implemented.

This alternative revolves around maximising the use of the site while minimising the visual impact of development; both internally and externally - especially from Groot Constantia. As indicated, to take advantage of the lie of the land, development would be stepped or terraced with trees being planted in between the rows of housing. The elevation should be one of a predominance of vegetation rather than development. Glimpses of development would give added interest, but no overdue exposure of development should be permitted. Moreover, where visual exposure of development would be unavoidable, building materials should be specified and should concentrate on darker-toned bricks and roofing materials.

Despite the existence of the oak avenue abutting Groot Constantia, existing and future development would be visible simply because of the single row of trees and their height which means that the bottom half of these trees provides no barrier to sight lines. Furthermore, many of these trees are old and some are already dying. The planting of vegetation in the form of a loose hedge (say 4-5 metres high) along the boundary of the public open space strip could effectively block these sight lines; while at the same time provide privacy to the houses abutting this pedestrian way. Priority should be given to the planting of all trees and vegetation; including replenishing the loss of existing trees.

In regard to the public open space not affected by tree planting; the emphasis should be on eradicating all alien vegetation and establishing a low profile vegetative covering which would require the minimum amount of subsequent maintenance. Indigenous forms of vegetation such as fynbos and protea would serve an ideal purpose on the steeper slopes. The vegetation of the low-lying public open space area abutting Bertrams Winery is typical of such a valley line and should be retained as it is.

Where development is permitted on slopes steeper than 1:3, the developer should either construct driveways to the specification of the prospective home-builders, or should make a cash contribution to the costs of such construction. The developer should also be responsible for the costs of constructing the necessary access roads as indicated on the overlay. These roads should be hardened and curbed; the width of the carriageway including gutters should be in the order of 5 metres with no pavements being provided.

The eradication of alien vegetation, tree planting and the propagation of indigenous vegetation should be carried out by Council - but the costs should be borne by the developer. Moreover, a special contribution should be made to Council by the developer for the future maintenance of the public open space.

The following indicates the financial feasibility of such a project with emphasis being given to the fact that all the costs should be borne by the developer.

- Total number of plots = 109
- Less 4 existing developed plots - 105
- Less 27 plots already owned - 69
- Assuming the sale price of these 69 plots to be R11 200, (1)
the realized income would be R772 800.

(1) Average selling price of 1350 m² plots in Constantia (D.C. Data Bank)

- Out of this, the developer would have to pay the following costs:

Compensation of R10 000 to each of the 40 existing plot owners - R400 000 (1)

Contribution of R2000 to each of the 9 owners of plots on land steeper than 1:3 - R 18 000

Road construction costs - R14 000 (2)

Total costs - R432 000.

- Were the developer to sell the existing unsold plots for R18 400 each, this would realize R202 400. This sum should be subtracted from the above income (less total costs) to give an effective income to the developer over and above what he could obtain were this alternative not to be implemented.
i.e. (R772 800 - R432 000) - R202 400 = R138 400
- Subtracting from the effective income, the necessary survey costs and other fees relating to the re-layout of the township; it is obvious that a substantial amount would be left over. This amount, the developer would pay to Council to cover the costs of eradicating alien vegetation, planting of trees and other vegetation, and as a contribution to the costs of maintaining the public open space.

This alternative would, if correctly implemented, serve to resolve the problems experienced and thereby realise the sought-after objectives. In essence (and comparing it to the first alternative), it implies that effective environmental preservation could possibly only be achieved through allowing more development coupled work with the judicious use of vegetation.

Alternative Three concerns the possibility of a portion of this township being consolidated with Groot Constantia. This alternative would satisfactorily resolve many of the problems experienced - including that of necessary land acquisition of the Estate. It would enhance the environment of this area and would ensure the retention of a rural atmosphere.

-
- (1) The R10 000/plot owner is an arbitrary sum. On the one hand these owners should be compensated for the smaller plots, the possible change in location, and the changing character of the township. On the other hand, however, real benefits would be experienced in the form of more manageable (or salable) plots and the very high amenity value of the public open space.
 - (2) The road construction costs are based on R4,00/m² of road surface. The total surface area being + 3480 m², which is based on the length of these 6 metre roads.

The portion most suited to such consolidation would be the 31 lower-lying plots; however, some of these would most likely be too wet for vineyards. In addition to the existing homesteads on the remainder of the township, the land steeper than 1:3 would not be suitable for vineyards. Assuming the 31 plots were to be consolidated; two methods of financing could be applied.

Firstly, the Control Board could purchase all the plots from the respective owners at market value. Plots owned by unwilling sellers could be expropriated by Council and thereafter transferred to the Control Board. Such an action could be justified by the benefit to the general public. Assuming the market value of 4000 m² plots to be R18 400 - the sum involved would be R570 000.

Secondly, Council could compensate the plot owners for the loss of development rights on the 31 plots, by granting additional rights on the remainder of the property. Such rights could take the form of group or cluster housing or maisonette development. A fair portion of the proceeds of such development could be shared amongst the individual property owners or, alternatively, they could be given shares in the company. This alternative would be similar to that of bonus or incentive zoning as outlined in Part Three.

The land could then be acquired by the Control Board at its existing use value. To compensate the general public and especially the existing residents in the neighbourhood, the Control Board could be called upon to introduce effective screening vegetation so as to lessen the visual impact of such development.

Nevertheless, for the project to be viable for the developer, such development would have to comprise approximately 60 units. The nature of the landform would make such development costly and it would be more difficult to effectively camouflage than conventional single residential development - particularly as the slopes are visually exposed.

In addition, many of the problems likely to be experienced in the future development of the remainder of the township would still remain unresolved.

Assessment of Alternatives

The first alternative would fail to resolve many of the problems likely to be experienced in the future development of the township. It would also fail to fully optimise the development potential of the site.

The third alternative would probably be the easiest to implement; but again, it would fail to resolve the likely problems to be experienced in the remainder of the township. Moreover, despite the farming possibilities of the lower portion of the township, it could result in the lowering of the environmental character of the area - unless the plots were purchased at their market value.

The second alternative offers the most potential for resolving the existing and likely future problems experienced in the development of this township; as well as effectively meeting the stated objectives regarding the use of vacant land - this being to make more optimal use of the land without lowering the tone of the area.

In regard to the objective of discouraging developers/land-owners from holding onto the land; all three alternatives are essentially palliative measures. They all serve to indicate how the existing situation could be remedied; but they fail to resolve the causal factor. The problem whereby such fully subdivided townships remain in an undeveloped state has thus not been resolved.

It would appear that the problems have arisen partly from the layout of the township itself - some of the land should not have been included in the land to be developed. This is partly the fault of Council in not fully understanding the implications of such development. Nevertheless, the major blame lies in the hands of the developer. This is a very real problem in the development of environmentally sensitive areas and emphasises the fact that such development is costly - if only in respect of the burden placed on the authorities in having to duplicate (in order to validate) much of the background work done by the developers. This amounts to an additional cost to the general public.

The other problem lies in the actual marketing and development of vacant plots. In regard to marketing, the responsibility of establishing the viability of a township rests with the developer. This results in numerous analyses being undertaken by the various developers and their consultants. These analyses are jealously guarded and leads to a wastage of manpower and ultimately results in increased housing costs.

The obvious solution is for a single metropolitan authority to undertake these analyses and sell such information to developers at a reasonable cost. This would enable developers to more accurately assess the viability of any envisaged development from a demand side. It would also give a broader, and therefore more accurate basis from which the various authorities could assess the supply side of the market and thus the need for such development.

The situation, as found in this township, whereby developers withhold land from the market for an unduly long period in anticipation of increased development rights or of an upturn in the market - must be guarded against. As pointed out, such a situation results in various external costs being imposed on the general public and the residents in the neighbourhood in particular.

One way of possibly resolving this situation would be to impose some time limit whereby a certain percentage of the plots must be sold to individuals who genuinely wish to build on the plot. If they have not been sold, the land could be expropriated by the authorities at

some price lower than the established market value and thereafter be auctioned off. This could be justified in terms of the benefit to the general public. This would obviously have to be gone into in more detail to prevent loopholes and inequities arising.

Alternatively, the authority could hand over the expropriated land to some developer for a specific purpose such as higher density forms of housing. The costs of expropriation could be covered by the sale price of this land to pay an enhancement levy. This would, in some respects, be similar to the concept of Transfer of Development Rights as has been adopted in the United States; the difference being that the authority would act as a go-between.

Another possibility would be to impose a bank guarantee on the developer at the time of approval to ensure that if the plots are not all sold, the costs arising from the associated problems (such as infestation by alien vegetation) could at least be covered.

The final possibility would be to actually penalise the developer after some given period. The problem with this, however, is that such penalties would almost certainly result in higher asking prices - thus leading back to the original problem.

In regard to ensuring a more rapid rate of development, the only solution appears to be the imposition of a far stricter building clause than is presently applicable. The clause as it stands, imposes rates as if a building to the value of R7000 had been constructed - if, after a period of 2 years after the date of sale, no dwelling had been constructed. This could be increased to, say, three times the above amount until such time as a dwelling has been constructed.

Having dealt solely with the High Constantia Township Ext. 1, it must be pointed out that this is not an exceptional case - other townships in Constantia exhibit much the same situation. Belle Ombre Township, for example, has experienced an extremely low rate of development and exhibits many of the associated problems.

The problems are made more critical in the High Constantia Township because of its vulnerable position alongside Groot Constantia.

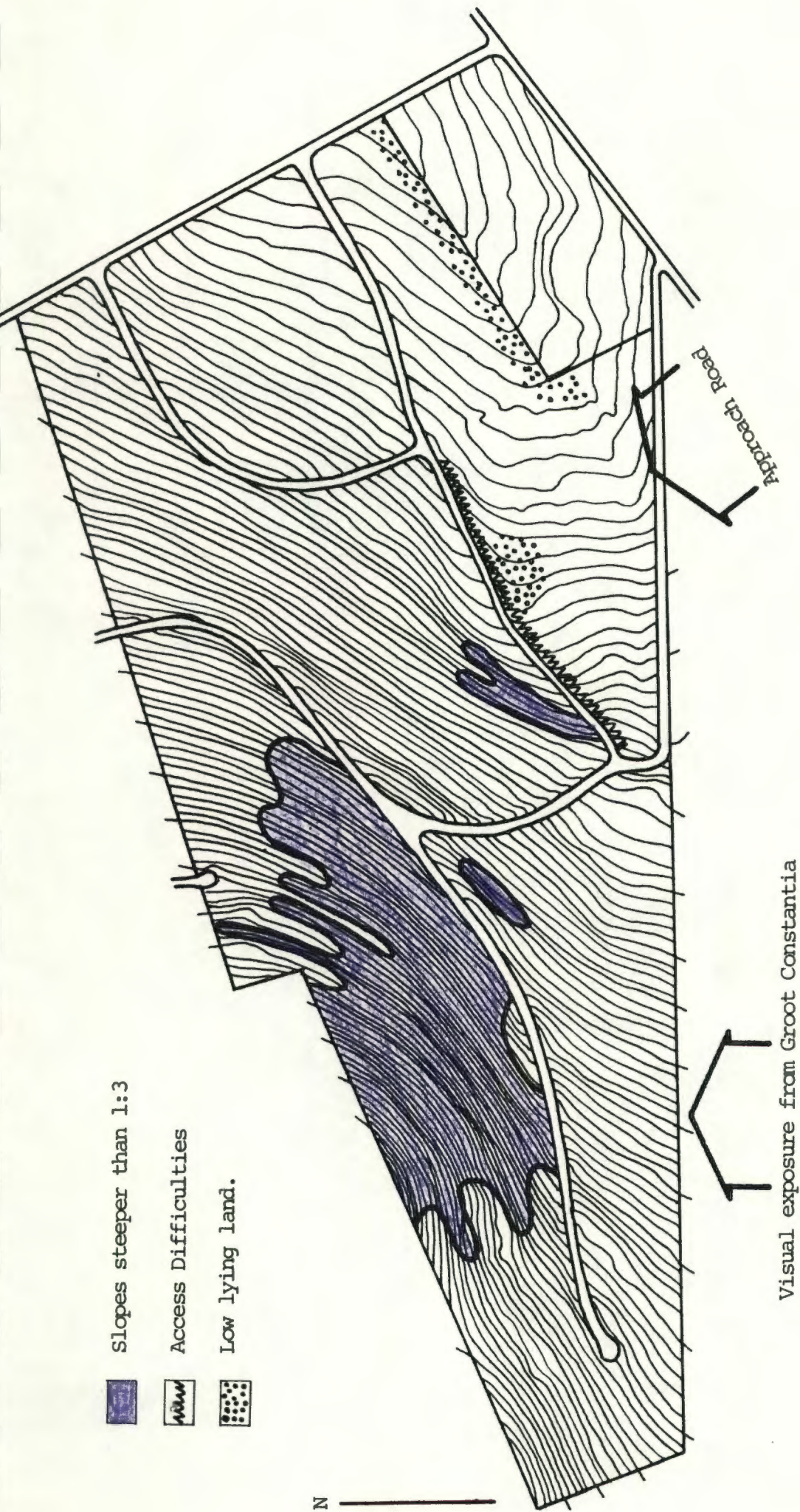


FIGURE 15 ; HIGH CONSTANTIA
SITE CHARACTERISTICS.

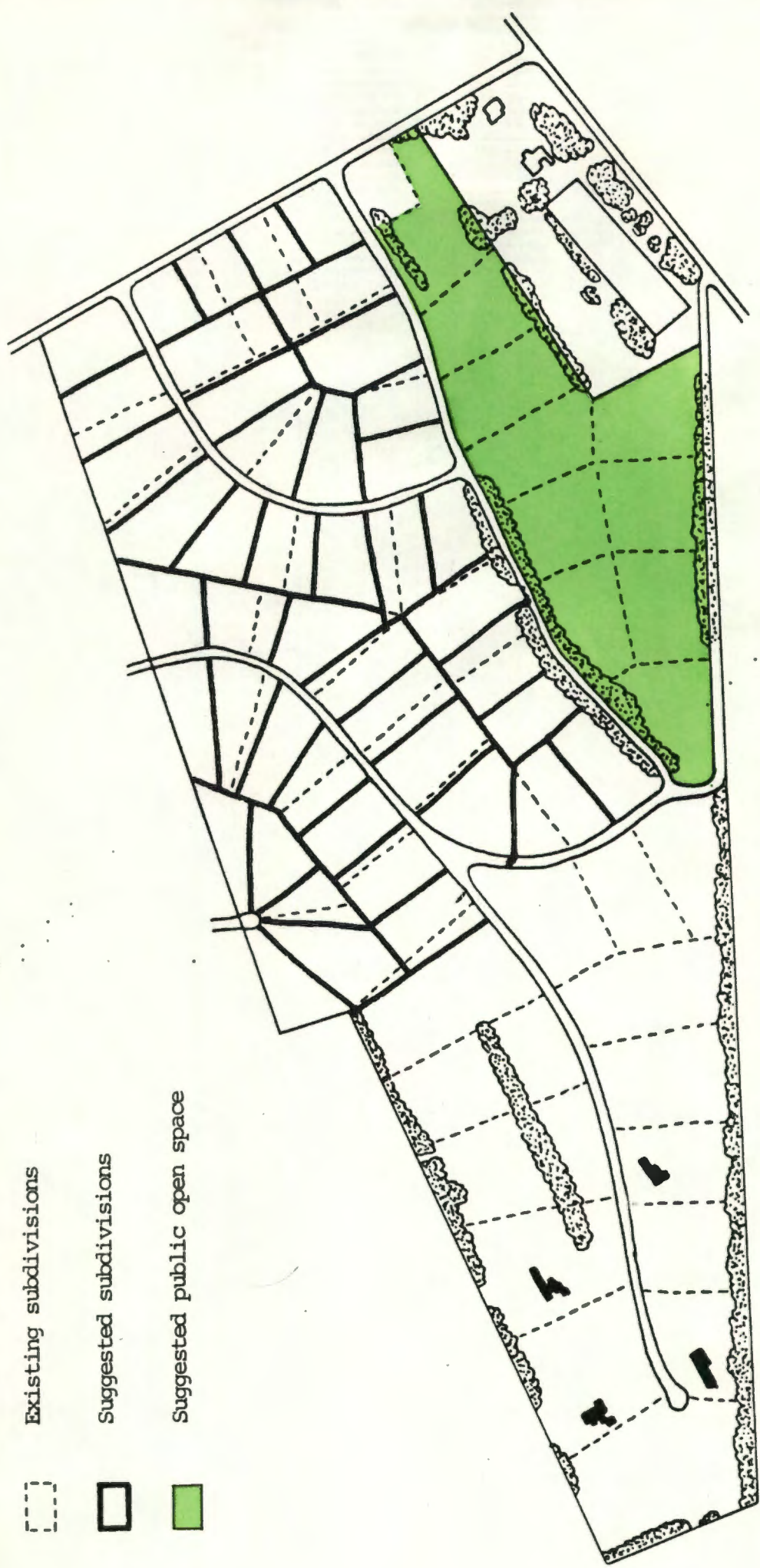


FIGURE 16 : HIGH CONSTANTIA
ALTERNATIVE ONE.

Siting from
the Valley



Sightlines enclosed by trees.

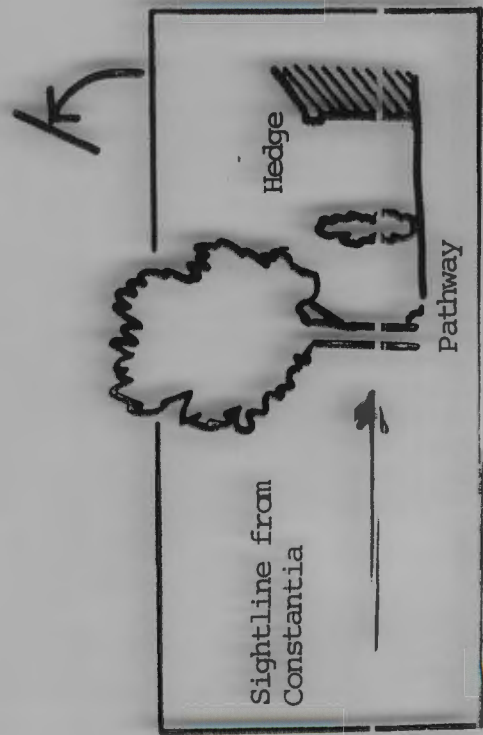




FIGURE 17 : HIGH CONSTANTIA
ALTERNATIVE TWO.

1.2.2 Approved but not yet subdivided townships

Township approval does not necessarily mean the implementation of a township. Despite the fact that such approvals lapse if not taken up within 2 years, the re-instatement of this approval is in practice a mere formality.

The reasons for this non-implementation could be due to the developers deciding not to subdivide in view of a perceived lack of demand. This could be caused by either an existing over-supply or a downturn in the economy and thus the market.

Another, and probably the most pertinent factor in regard to the Klaassenbosch Heights Township and those in the vicinity of Strawberry Lane, is the fact that proposals for Cluster Housing were put forward by Council. In anticipation of these increased development rights, the developers have naturally held back their development proposals.

Already, 2½ years have passed since these proposals were put forward and now - due to the objections received - the proposals in regard to Cluster housing are most likely to be dropped. The holding costs in regard to these properties are likely to be enormous - and the risks involved in the anticipation of additional rights will have been to no benefit. These costs will almost certainly be reflected in unrealistically high asking prices for the subdivided plots and could result in a duplication of the High Constantia Township situation.

In the meantime, only one of these properties is being productively farmed; one is being farmed in a half-hearted way, while the remainder have become overgrown with Port Jackson. As stated in Section 5.2.8 of Part Two, the state of the properties in the vicinity of Strawberry Lane has lowered the tone of the neighbourhood and has proved a dis-incentive to prospective home-owners moving into the area.

An additional problem, which arises from the fact that these townships have not been implemented, is that they tend to seriously distort the supply side of the market. Because they cannot be considered to be "on the market", to meet housing demands, Council could be placed in a position where, in the intervening period, township approval elsewhere in the Valley may have to be given consideration. The situation could then arise that when these townships are implemented - a gross over-supply of plots could be experienced. (1)

In regard to the future development of these properties, group or cluster housing, if sensitively designed and implemented, could serve to retain the character of this valley line to a greater extent than conventional single residential development. (2)

-
- (1) The present lack of demand in regard to these plot sizes, does tend to suggest that such a situation is not likely to arise. Nevertheless, the principle still applies - particularly under a more buoyant economic climate.
 - (2) Group and cluster housing will be discussed in Section 1.3

1.2.3 Silverhurst Farm

This property represents a prime example of farmland in a suburbanized context. It is completely surrounded by residential land and this fact has already served to curtail the immediate future of the existing farming practices. Other than the fly nuisance associated with the existing chicken batteries (which are due to be demolished due to their danger to public health), this property adds much to the environmental beauty of the area.

The existing farming practices consist also of a fair amount of market gardening and it would seem highly desirable that, once the chicken batteries are demolished, continued market gardening be encouraged over the whole property. Such usage would greatly benefit the local residents. The site is highly visible from the lower slopes of the mountain and any development of the upper portion of the site would be exposed - see Photograph No.1. The existing use of the property is indicated on Figure 18.

The two basic questions in regard to the future of this property are:

- how to encourage continued market gardening, and if this proves not to be viable,
- what form of development should be permitted.

In regard to the former, the possibility of imposing some form of rates relief is the only means available to Council for lowering the costs of farming. But as the annual rates are not particularly high (R1200) it is apparent that even total rates relief would not increase the viability of farming to any meaningful extent. Were the present owner to indicate beyond any doubt, that he could no longer afford to farm the property on market gardening lines alone; Council would then be faced with the alternative of either allowing development rights on the land or of purchasing the land.

Were the land to be purchased by Council, its future usage would have to be justified in terms of the expenditure of ratepayers' funds. As the property is still zoned for rural purposes, the costs of acquisition would be based on the existing use value of the land.(1) In the event of Council purchasing the land, the following uses could be specified.

The northern boundary of the property runs along the valley bottom and a considerable portion of the site should be used for public open space purposes. The property comprises two homesteads of considerable value which could be sold. About 12 additional plots could be subdivided without affecting the bulk of the farming land. The major feature of the property

(1) This emphasizes the possible repercussions of zoning land well in advance of the need to develop it. Many properties which are currently being farmed are already zoned for single residential development - and this has, in effect, committed their future usage.

is its oak-lined avenue - it being imperative that this be retained. The remainder of the property could be leased out for market gardening purposes.

The adoption of this alternative would have to be weighed up through comparing the costs of acquisition (less the proceeds from the sale of the subdivided plots and the leasing of the farming area) to the costs that would accompany the loss of visual amenity, were the property to be developed.

The granting of development rights (through the rezoning of the land) should only take place if Council considers that a demand exists for additional land for housing. In addition, Council should grant such development rights only after it has investigated the above possibility and has established that it would not be in the interests of the ratepayers to purchase the land. In this regard, it would be essential to involve both the property owner and the C.P.O.A. in coming to this decision.

The site is ideally suited for residential development; the slopes are fairly gentle but sufficiently steep to add interest to such development. The bulk of the property is north-facing and affords magnificent views of the mountains.

Were the property to be developed, the proposals put forward in the 1970 scheme would appear to be most appropriate. To reiterate, the proposed development would centre on the retention of the valley bottom as public open space, with residential development surrounding it. An internal road circulation pattern with limited access to the surrounding road network would form the major structural element, and development would be based on a gradation of plot sizes in relation to the slope of the land and proximity to the open space. To compensate for the greater-than-normal provision of public open space, higher density forms of housing would be permitted.

The interpretation of these proposals are indicated on Figure 20 which constitutes the second alternative. This development would be informed by the following criteria.

The major drawback to the development of the property would be the exposure of the upper portion of the site. Development on this portion should therefore be fairly loose to allow for the planting of vegetation to break up the impact of such development. Nevertheless, in view of the lack of demand for 4000 m² plots (unless, of course, the market changes dramatically prior to the development of the site), plot sizes should be in the order of 1-2000 m²; with the larger plots being sited on the higher ground.

The oak avenue should be retained as an internal road with great care being given to the retention of the trees. To facilitate this, no plots should gain direct access from this road. The internal roads should conform to the contours and should only cut across the slope where unavoidable.

Some form of higher density development (preferably group housing or maisonettes) should be permitted on the northern side of the oak avenue - above the open space.(1) In this location such development would be concealed from all sides - whilst still retaining the views of the mountain. This is illustrated in the cross-section on Figure 20.

If it is considered that the owner or developer is not being sufficiently compensated for the amount of public open space given over; then some additional form of compensation should be sought. For instance, the enhancement levy applicable to the rezoning of the site could be lowered. However, it must be borne in mind that much of the land included in the public open space is low-lying and would, in any event, be excluded from the normal 10% public open space requirement.

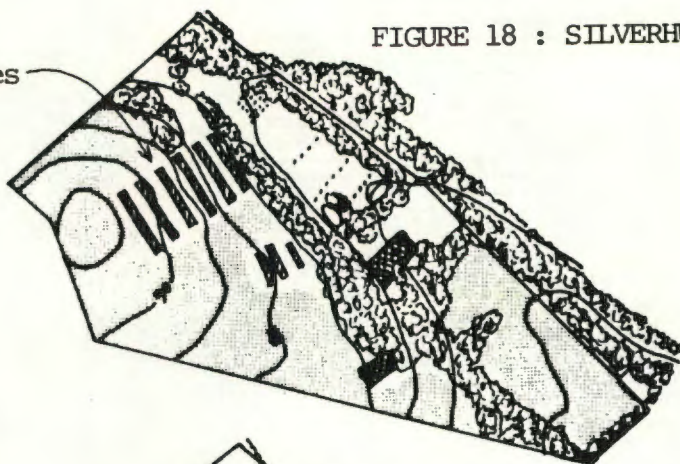
Silverhurst Township Ext. 1 is also indicated on Figure 20 and a repeat of this form of development should be avoided at all costs.

While Silverhurst Farm serves as the prime example of farmland in a suburban context, various other properties currently being farmed are indicated on Figure 14. The alternatives in regard to the future usage of these properties should be informed by the above alternatives. A major drawback to the application of the former alternative in regard to these properties, is that they are all already zoned for residential purposes.

(1) This, of course, presupposes that the residents of Constantia can be made to appreciate the opportunities offered by such development.

FIGURE 18 : SILVERHURST - EXISTING USES

Chicken batteries









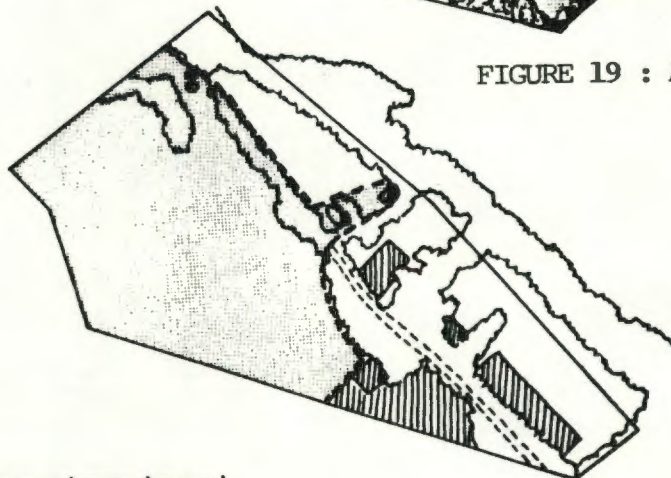
-  Homestead units
-  Market gardening
-  Fallow land
-  Oak trees
-  Lombardy poplars
-  Dam and reservoir

FIGURE 19 : ALTERNATIVE ONE




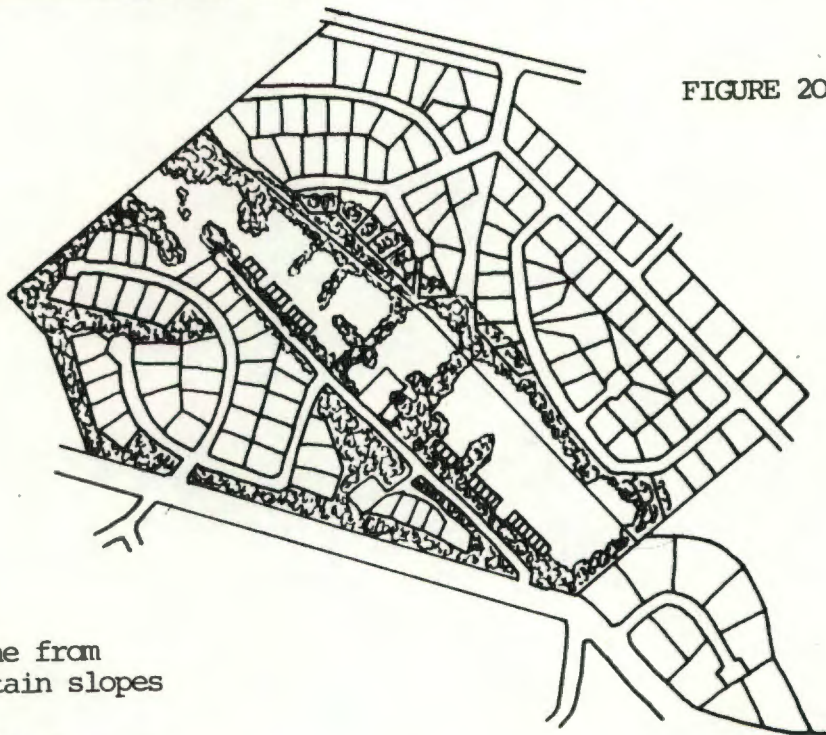
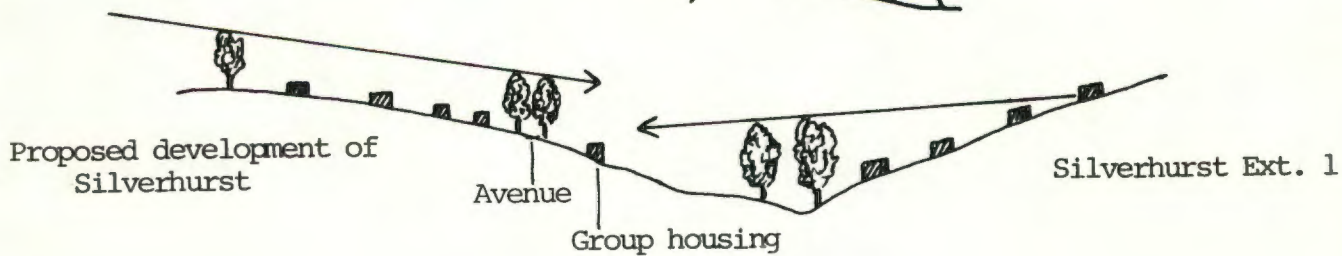
-  Public open space
-  Land to be leased out for market gardening
-  Homestead units and additional housing development

FIGURE 20 ALTERNATIVE TWO



Sight line from the mountain slopes



A CONCEPTUAL SECTION ACROSS THE VALLEY

Other than retaining the existing minimum plot size, these plot sizes could be lowered in exchange for the provision of more public open space (as suggested for the High Constantia Township). Alternatively, a density criterion as suggested for Hohenhort could be applied.

Nevertheless, this is not the intent of discussing the problems related to these properties - the issue being that of ensuring that township approvals are not indefinitely confined to upper.

The problem is thus not so much one of what can be done on this land (or rather what form development should take); but rather how to encourage subdivision and hence development - once approval has been granted.

However, the unfortunate fact of the matter is that there is not much that could be done to improve the situation beyond the following changes in the system:

- A far stricter policy could be adopted whereby developers are penalised for not implementing an approved township after a given period. The problem, however, remains that economic conditions (and thus housing demands) may change thus making it inopportune for the developer to enter the market at that particular time. Furthermore, as mentioned in regard to the High Constantia Township, the imposition of penalties would be passed on to the ultimate housing recipients.
- A more reasonable and effective approach would be to retain the present system whereby approvals lapse if not taken up within two years; but that unless extenuating circumstances can be proved - such as an evident cyclical downturn in the market. The problem then arises of what happens to the land if such re-approval is refused. The one alternative usage is that of market gardening.
- There is definitely much room for improvement in the time spent in the public sector decision-making process. The non-implementation of these particular townships has clearly been largely due to the excessive delays in formulating a clear policy for the future rights applicable to the land. This will be discussed in Section 6.0.

1.3 Higher Density Housing

Group and Cluster housing represents an under-utilised development tool. As outlined in section 6.3 of Part Two, it could be beneficially used to provide for the more optimal use of the land, while at the same time add to the attractiveness of the built environment. It furthermore offers greater opportunities for the preservation of the natural environment than conventional single residential development.

The major obstacle to its usage is that of opposition from the local residents. The fault appears to lie in the fact that existing schemes have not complied fully with the intent of its usage and furthermore, have been poorly located and insufficient control has been exercised over aesthetic appearances and landscaping.

It has been suggested that higher density forms of development such as group housing or maisonettes could serve a most useful purpose in regard to the development of the properties in the vicinity of Strawberry Lane and Silverhurst Farm.

The fact that the 1976 proposals gave rise to such strong opposition that these proposals are likely to be withdrawn; poses a highly debatable question. This being - how much regard should be given to individual objections when it is strongly considered that such forms of development would enhance rather than detract from the environmental qualities of the area, and moreover, would benefit the public through the greater-than-normal provision of public open space. The issue thus boils down to a conflict of opinions which, being qualitative and highly emotive, are difficult to reconcile.

Although such conflicts between the public and private sectors will be further discussed in section 6.0, it is appropriate to stress the point that much stronger liaison between the two sectors, through the C.P.O.A., should be established as a matter of priority. Nevertheless, no amount of discussion could replace the effectiveness of a tangible example. In this regard, it may be of benefit to all concerned that Council ignore the objections and permit a single scheme to serve as a model. It requires no emphasis to say that such a scheme should be extremely well located and its implementation strictly controlled so as to optimise the potentials offered by the concept.

The Nova Constantia cluster scheme has clearly failed to enhance the concept, and in fact has been largely responsible for the general antagonism towards cluster housing. The development of Alphen Mews is itself attractive, but was not accompanied by the amount of public open space expected of such development. The most reliable indicator of the success of a scheme is its saleability. The Nova Constantia scheme has not sold well, whereas Alphen Mews has - despite the fact that the prices are considerably higher.

The site earmarked for maisonette development in the Belle Ombre township would serve as an ideal location for such a model development project. Alternatively, were development permitted on Silverhurst Farm; the group housing as suggested could serve as a model.

The most appropriate location for cluster housing (which, by nature, tends to be more space extensive than group housing or maisonette development) would be on the lower mountain slopes - provided it was effectively concealed. This was the intention of the 1970 proposal of introducing this concept to the Valley.

As described in Section 6.3 of Part Two, alternative uses such as cluster housing could serve to alleviate many of the problems being experienced on both the farmlands and the large properties such as Eagles Nest and Glen Alpine - where applications have already been received for such development. The consideration of possible sites where cluster housing could be effectively concealed will be dealt with in Section 3.0.

The approval of a development project to serve as a model would depend on the established need for such housing and on gaining the co-operation of the C.P.O.A. As suggested in section 1.2.4, once a need has been established, the selection of a project to serve as a model could be based on the lines of the Petulana proposals. (1)

Other than the normal regulations applicable to higher density forms of housing, the implementation of the model scheme should be governed by very strict additional controls relating to the preservation and enhancement of the environment. The use of vegetation and landform as integral parts of the scheme should be stressed; and the developer should be held responsible for all such landscaping.

An important aspect of such development (with the model and thereafter) is that close contact between the developer and Council should be established at an early stage to prevent the too-frequent submission of schemes which conflict with the views of the authorities. The situation whereby a developer (through his consultants) attempts to optimise the development potential of the site - possibly to the cost of the surrounding area, should be strongly avoided. Invariably, such applications elicit a negative reaction from the authorities and negotiation at this stage is generally non-productive. Strong liaison at an early stage could prevent such a situation from occurring thereby effectively lowering the costs to the developer and providing the opportunity to optimise the use of such development to the benefit of the general public.

-
- (1) The essence of the Petulana proposals (Annexure, 5.0) is that, based on the established demand for housing, a certain number of units would be approved each year. Approval of submissions would be based on an evaluation of the schemes in terms of their quality of design, and their likely contribution to public welfare and amenity - including their visual impact and their contribution to environmental preservation and enhancement.

2.0 THE COMMERCIAL AND CIVIC COMPONENTS

At present, both commercial and civic facilities are insufficient to cater for local population needs. There is, however, an excess of land set aside and zoned for these purposes. The shopping facilities at the Glenstantia and High Constantia Centres do not function efficiently. Too heavy restrictions are placed on the establishment and functioning of farmstalls and nurseries; and there is a need for more convenience stores of a neighbourhood-serving type.

To resolve these problems, the following objectives have been put forward:

- To improve the functioning of the Glenstantia and High Constantia centres.
- To establish some alternative use for the proposed Constantia Centre site.
- To make provision for public amenities (civic purposes) in a more efficient manner.
- To lower the restrictions placed on farmstalls and nurseries.
- To make provision for the establishment of convenience stores.

The first 3 objectives (with the exception of the High Constantia Centre) are dealt with as a single problem for they are inseparably interrelated. (1)

2.1 The Constantia Centre/Civic Centre sites

As outlined in section 5.3 of Part Two, the existing Glenstantia shopping centre comprises virtually all the facilities required of a small neighbourhood centre; yet does not function as effectively as might be expected. It clearly requires re-vitalising.

The proposed shopping centre, if implemented, would necessitate the demolition of the existing centre; and would provide 25 times as much floor space as the existing centre. It is also envisaged, by both the developers and Council, that the Alphen Farm stall would be relocated in the new centre.

The existing service station would be considerably enlarged and the Dairy Den would be relocated on the site to serve its function as a road-house. Nine dwellings, all in reasonable condition, would also have to be demolished to make way for the proposed centre. These dwellings all belong to the developers and are leased out. As previously mentioned, a portion of the site is being used as a riding school for disabled children.

(1) The only means of alleviating the problems experienced by the High Constantia Centre would be to re-open the old High Constantia entrance gate to incoming traffic. This would increase accessibility to the site and, for safety reasons, this gate would be restricted to incoming traffic only.

The site earmarked for a future civic centre was purchased by Council some years ago. No concrete plans have ever been put forward for the use of the site; future road proposals have, however, already been approved to cater for the development of both the shopping and civic sites.

Eight dwellings exist on the site. They, also, are in reasonable condition and leased out. Apart from a small riding arena, the remainder of the site is being employed as Council's waterworks depot. A large number of old sheds, stables and cottages (mostly in a poor state of repair) are being used for storage purposes.

Plans have, in the meantime, already been drawn up for converting the Old Alphen Winery into a theatre cum general hall; and a library is to be constructed alongside it.

The existing uses in the area are indicated on Figure 21 which depicts also the extent of the proposed centre together with the proposed roads.

Despite attempts by the developers to lessen the likely impact of the proposed centre through certain design features; little can in fact be done to lessen the impact of a complex larger than the existing Blue Route Centre, and an expanse of parking areas which would cater for some 1400 cars. From a desirability aspect alone, this centre would be totally alien to the character of Constantia.

In terms of need, the existing regional and sub-regional shopping facilities in Tokai, Wynberg and Claremont would appear to invalidate the justification of this centre - even in the long term. As stated, however, this cannot be proved without a full investigation of the long-term shopping requirements of the southern suburbs population.

In the absence of such an investigation, the assumption is made that the full development of the proposed centre cannot be justified - both from a need and a desirability point of view. Alternative uses for the site are therefore required; both to optimise the use of the land and to revitalise the existing centre.

The most obvious solution to the problem of the civic centre site (namely its redundancy) would be to sell all the land; the homestead units could be sold to the existing tenants or be auctioned off.

In addition, it would be desirable to focus both the commercial and civic activities on one site. In this regard, the proposed plans for the library should be scrapped and instead, the library should form part of the Constantia Centre complex.

2.1.1 The future of the Constantia Centre Site

In considering the future role of this combined centre, the following criteria should be adopted.

Firstly, the centre should function as an identifiable focus of activity in the Valley,. Secondly, it should serve both the short- and long-term communal needs of the local residents. Thirdly, it should not lower the character of the area to any great extent. Fourthly, it should optimise the use of the land to the full benefit of the community. Fifthly, cognizance should be taken of the existing homestead units.

The first requirement in considering alternative uses for the site would be to establish an effective working relationship between the developers and Council. At present neither party is aware of what the other may have in mind. For example, various individuals or bodies have either made formal applications to Council, or have made tentative enquiries, regarding the establishment of various uses such as restaurants, shops selling fresh produce, small home bakeries and refrigerator- and stove-repair shops. These have all been refused for some or other reason; but it is these very uses which are obviously in demand and would serve to enliven the existing centre.

Another usage which is desperately required in the metropolitan area generally, is that of housing facilities catering specifically for the aged. There are no such facilities in Constantia. Various other uses such as adult education facilities, art and handiwork classes or a creche would fit in very well with the commercial component on this site; as would the library. The other possibility would be that of providing a small office component which could serve to tap the ever-increasing demand for half-day jobs sought by housewives.

Council should adopt a far more active role in communicating these needs to the developers. Moreover, a flexible and adventurous attitude should be adopted in trading-off development rights through bonus or incentive zoning. For example, to encourage the provision of an old age home; a small group housing or maisonette scheme could be permitted without the developer having to pay an enhancement levy. Another example would be that, in exchange for the old age home, all internal roadworks could be funded by Council. Obviously, such trading would also require much liaison with the C.P.O.A.

Certain requirements, however, should be made of the developer. These revolve around the aesthetics of the site and its development, and the provision and treatment of public open space.

- All new buildings should preferably be single-storied; the only two-storey buildings should be set well inside the site.
- The exterior finishes of all buildings should be visually pleasing and should be designed so as to provide an effective, external as well as internal image.
- The buildings and their uses should be so located as to interrelate one with the other - both functionally and visually.
- Their location and interrelationship should enhance the sense of communality.
- Much public open space should be provided and this should provide for both enclosure and inter-connectivity.
- Public open space linkages should be provided to the Civic Centre site and Nirvana Township.
- The planting of trees, lawns and other vegetation is stressed; both to lessen the impact of development and to provide a meaningful public amenity.
- Efficient use of parking areas must be made and these, especially, must be visually screened by vegetation. An informal pattern, interspersed with vegetation should replace the existing large expanse of parking.

2.1.2 The future of the Civic Centre Site

The uses to which the civic centre site could be put should not only be compatible, but functionally interrelated with the Constantia Centre. Housing development would appear to be the most appropriate use - any other major usage such as the much needed equestrian centre would be incompatible with the surrounding residential plots and moreover, the effective area of the site would be too small for such a purpose.

Because the site is already owned by Council, it represents an ideal opportunity for providing housing for the lower-middle income group. The land could be ceded to some non-profit making housing company such as the Citizens Housing League or Garden Cities for some nominal fee. Alternatively, Council itself could construct the dwellings. The possible price range of the dwellings could be between R15-20 000.

This would represent some means of getting away from the exclusionary housing trend which characterises Constantia. In this way, Constantia would contribute (if only to a small degree) to the resolution of the metropolitan housing problem.

One of the drawbacks to this usage of the site would be the lack of effective public transport facilities. Apart from the fact that one would have to drive to the nearest rail station, the local bus service is inadequate and has no direct route to the major work places. When developed, the Park and Ride facility would resolve this problem - it being only 5 minutes walk from the site.

The other possible drawback is that of opposition from the existing residents in the vicinity. This poses the largely unresolved questions of firstly, whether or not the introduction of lower income families would lower the tone of the neighbourhood; and secondly, whether or not cognizance should be taken of opposition by existing residents - particularly as such housing would be in the welfare interests of the general metropolitan population.

An alternative use for the site would be for Council to swap this land for approximately half of the proposed Park and Ride site. This would effectively lower the costs of purchasing the Park and Ride site; which would be of benefit to the metropolitan ratepayers as this acquisition is to be paid out of metropolitan funds. Were this alternative to be adopted, the type of housing would be consistent with the general 1350 m² zoning of the area.

Whichever alternative were to be adopted, it would be necessary to prepare certain guidelines and restrictions as to the form of development and its desired layout. The development of some form of low-rise high-density housing (preferably group housing or maisonettes) would certainly make fuller use of the site than conventional single residential development; but to appease the surrounding residents, such development should only be permitted if the site were to be ceded to the owners of the Park and Ride site. (1) The argument being that the quality of such development would be higher than lower-priced housing.

Whatever the form of development, the layout should be informed by the following:

- The proposed road between Spaanschemat River Road and Ladies Mile Extension should be scrapped. Instead, a more informal internal road system should be implemented - with either one or two linkages with the Constantia Centre site. The road widths should be in the order of 10 metres or less; depending on the likely amount of traffic and its relationship with pedestrian movement.

(1) An application for cluster housing was submitted by these owners some years ago.

- A sizeable amount of meaningful public open space should be provided. This should comprise considerably more than 10% of the effective site area. This open space should serve three purposes; it should firstly provide for the needs of the residents; secondly, it should serve as an effective buffer between existing and proposed development; and thirdly, it should form strong linkages with the public open space in Nirvana Township and with the Constantia Centre site.
- Effective landscaping of the public open space will be a necessary requirement; the aim being to lessen the impact of proposed development.

2.1.3 General

Because the Park and Ride site will not be developed for some time, some alternative uses must be found for the site during the intervening period. Where possible, these uses should be ultimately integrated into the park and ride facilities. (1)

Apart from a service station, the existing road-house in the Glenstantia Centre could be better relocated to the Park and Ride site where it could continue to cater for passing traffic without imposing on the communal nature of the future Constantia Centre. (2)

The existing riding school for disabled children could well be moved to this site until a more permanent venue is established. Similarly, a portion of the site could be employed for the displaced waterworks depot.

2.2 Farmstalls and Nurseries

The continued operation of farmstalls and nurseries should be encouraged and the consideration of establishing new ones should be treated with more leniency. As mentioned, they serve a useful function and add to the character of the Valley. A more flexible attitude should be adopted in regulating and restricting their functioning.

Only where their functioning poses a definite safety hazard or where they clearly constitute a nuisance factor on the surrounding residential area, should their establishment be not allowed or their activities curtailed. In this regard, Council should play a more active and positive role in attempting to reconcile areas of conflict. Liaison between all the parties concerned should be encouraged.

-
- (1) The term "Park and Ride" is perhaps a misnomer as the functioning of the site would probably (and preferably) be more in the nature of a "Kiss and Ride" concept.
 - (2) Its replacement by a restaurant cum tea-garden would be far more desirable.

Where existing conflicts cannot be satisfactorily resolved (as in the case of the Ferndale Nursery on Brommersvlei Road) Council should adopt a more positive attitude in seeking alternative, more desirable, locations to house such activities. The relocation of this nursery to the Constantia Centre site would serve a most useful purpose.

2.3 Convenience Stores

Large portions of the Valley are devoid of any such shopping facility, and various complaints have in the past been lodged in regard to their non-existence. Despite the fact that the Constantia residents are, by choice, car-oriented; the usefulness of such facilities cannot be over-emphasized - particularly when taking into account the ineffectiveness of the local bus service. It must also be borne in mind that the population of Constantia includes the fairly large number of labourers and servants who do not possess cars.

The provision of convenience stores could either be left to the private entrepreneur to decide where and when such stores could take advantage of a captive market; or, alternatively, Council could specify certain locations and perhaps even construct the building and lease it out.

The location of these stores would be determined by the number of dwellings in the effective catchment area. This catchment area would, in turn, be determined by existing shopping facilities and by some convenient time-distance factor. Figure 22 indicates two examples.

Were a store to be located on the corner of the proposed school site abutting Southern Cross Drive - the ultimate number of families falling within a five-minute walking radius (400 m) would be + 140. The other example indicates a location on Klaassenbosch Heights Township (on Brommersvlei Road); the ultimate number of families (under the existing subdivision pattern) falling within a 400 m radius would be + 70, while + 250 would fall within an 800m (or ten-minute walking) radius.

Assuming that a R750/m² annual turnover would be necessary for such a store to be viable; the annual turnover for a shop of 25 m² floor area would need to be R18 750. Assuming each family would spend R200 per annum on convenience goods (a conservative estimate); 94 families would be required to support such a store. This indicates that the Southern Cross Drive location would most certainly be viable; whereas the Brommersvlei Road location would probably only be viable (under the above assumptions) if the 800 m radius catchment area applied. Nevertheless, the spending power of servants and children (both locations would cater also for school children) could also be taken into account.

The location of these stores should optimise the public open space system and the various school sites. The store and its activities should, moreover, be compatible with the surrounding area. Their establishment should coincide with existing captive markets.

These stores would provide a most useful alternative usage for a portion of the vacant properties such as Klaasenbosch Heights and also possibly the vacant land at the southern end of Strawberry Lane. Liaison between Council and the property owners would be necessary in this regard; and some form of incentive could be employed.

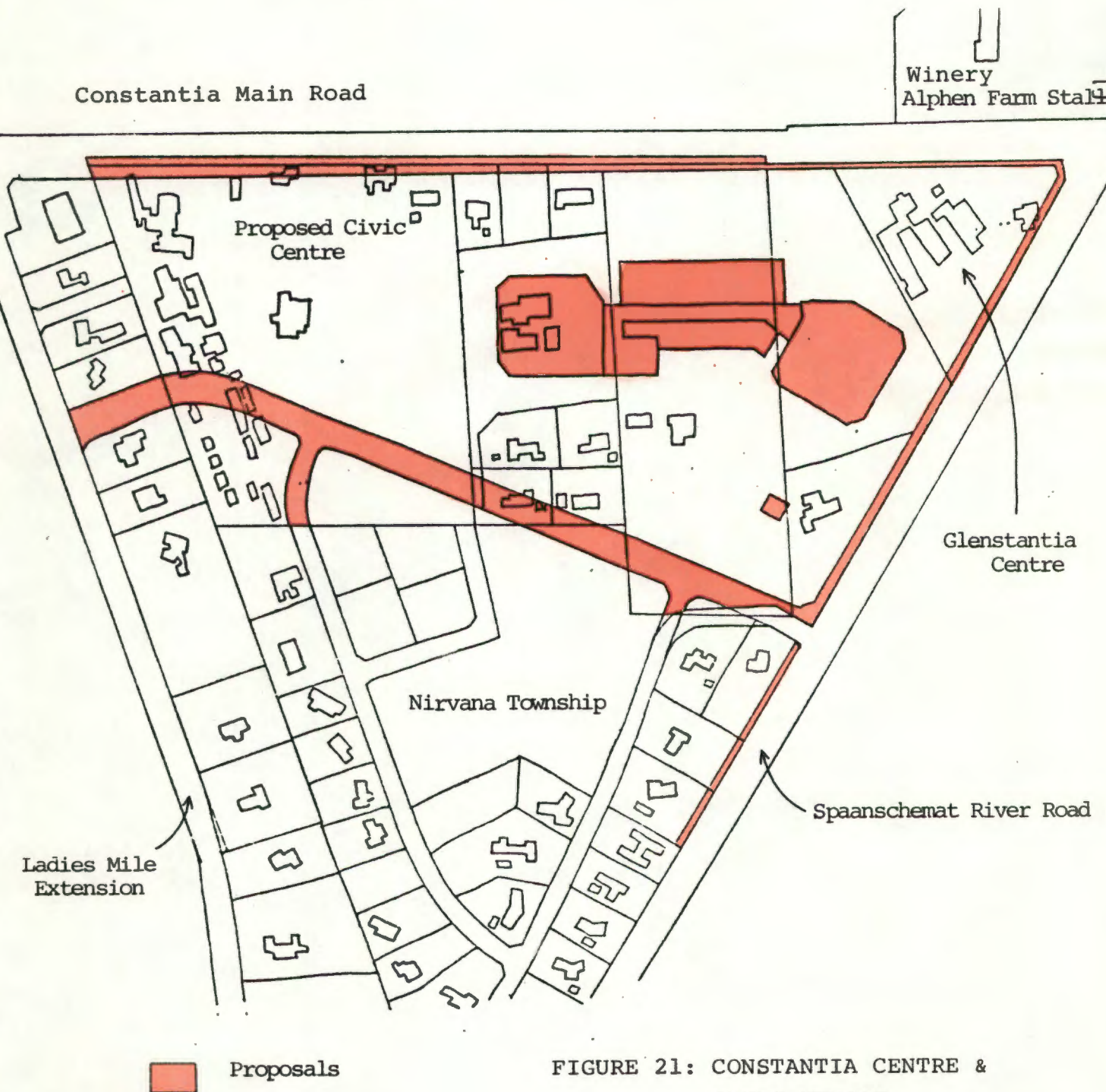


FIGURE 21: CONSTANTIA CENTRE & CIVIC CENTRE.

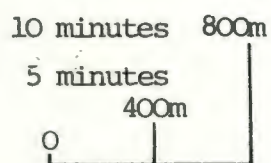


FIGURE 22: CONVENIENCE STORES.
POSSIBLE CATCHMENT AREAS.

3:0 THE FARMING COMPONENT

Continued farming practices in Constantia are a very much unresolved issue. On the one hand, many farms are highly productive; but, in the face of the increased costs which have arisen from their location on the urban fringe, their continued viability is being seriously questioned. On the other hand, the large properties such as those in the Eagles Nest/Glen Alpine block, have never been farmed on a large scale - but being zoned for rural purposes, they have no alternative uses available to them.

Despite these factors, the D.A.T.S. claim that all the land zoned for rural purposes, constitutes prime farmland and has the potential for being farmed in a viable manner - provided the land is properly managed.

The major problems facing the Constantia farmers are the cost and lack of suitable labour; the fact that they cannot successfully compete with other grape farmers in the Western Cape due both to the labour problem and the increased costs. These extra costs take the form of increased rates, the uncertainty which faces the future of farming practices in the Valley and the costs of eradicating alien vegetation. Those additional costs which face farming in South Africa in general (such as estate duties and increased rail tariffs) are beyond the scope of this study.

The problems facing those properties which are not being farmed, or being farmed on a limited scale only, basically revolve around the fact that the income derived from the land is negligible (if not non-existent) compared with the costs such as labour, rates and the control and eradication of alien vegetation.

The stated objectives in respect of these properties are:

- To determine which properties constitute both prime and viable farming units.
- To find the means whereby the continuation of farming practices may be facilitated.
- To establish alternative uses for those properties in the Eagles Nest/Glen Alpine block.

3.1 Prime and Viable farming land

The D.A.T.S.'s definition of prime farming land is based solely on the results of a soil survey which was undertaken. This survey classified the potential of the soil into three categories - good, moderate and poor; in respect of both perennial (including forestry) and annual crops (including market gardening).

These classifications are indicated on Figures 23 and 24, together with all the properties referred to. These indicate that, with certain exceptions, all the properties are classified as "good" in terms of suitability for both perennial (vineyards) and annual (market gardening) crops. These exceptions are:

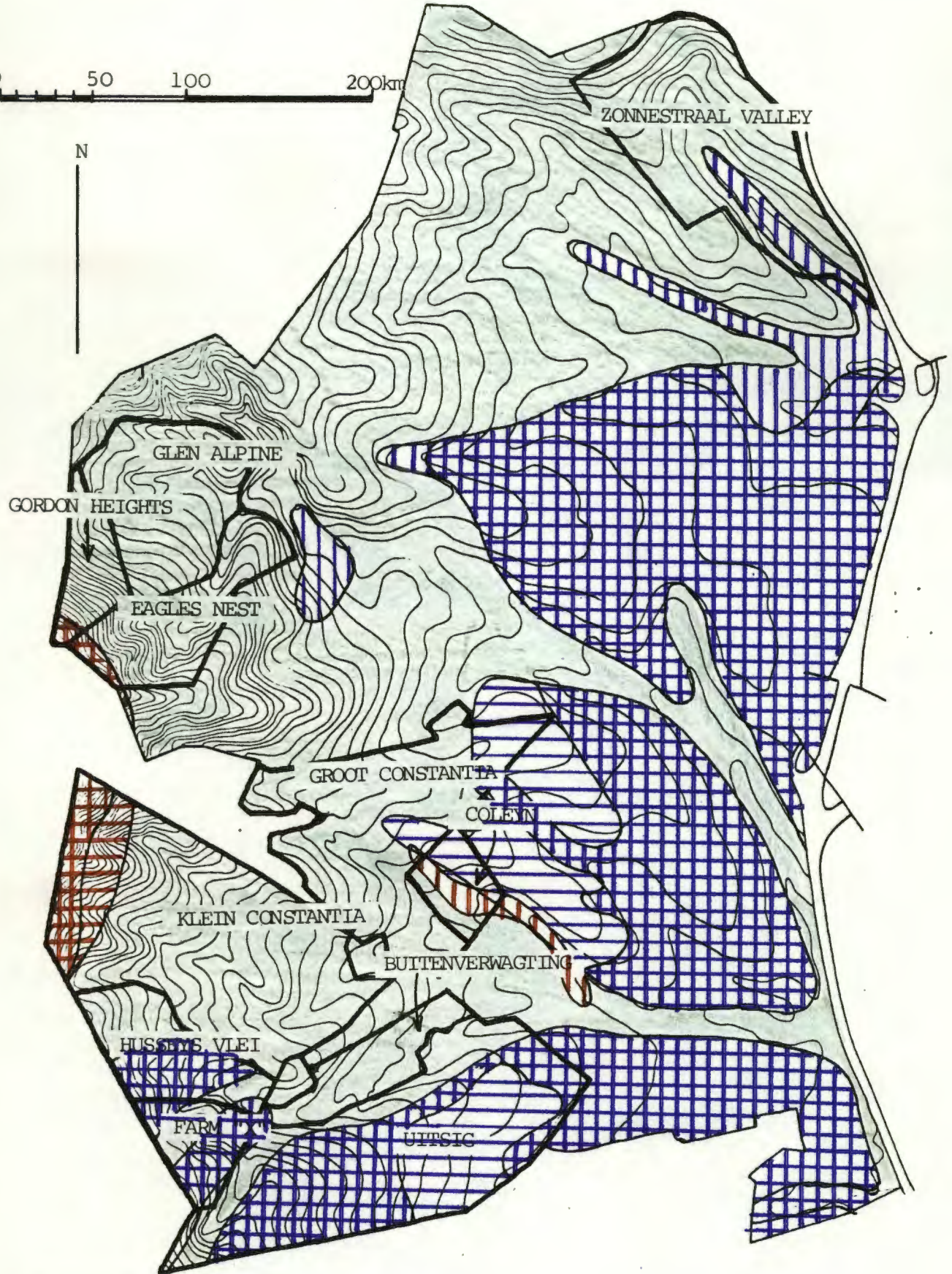
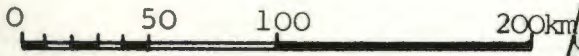
- The major portion of both Hussey's Vlei and Farm "X" together with a large portion of Uitsig and the valley bottom of the Zonnestraal block, are classified as "moderate" with regard to perennial crops.
- Virtually the whole of Hussey's Vlei, Farm "X" and Uitsig are considered "moderate" with regard to annual crops.
- The upper portion of Klein Constantia and a very small portion of the Eagles Nest/Glen Alpine block is considered "poor" in respect of both perennial and annual crops.

The definition of prime farmland took no cognizance of the lie of the land; and this would appear to be a major drawback in classifying these properties. For example, the owner of Eagles Nest has emphasized the obvious fact that slopes constitute a major limiting factor in determining what can or cannot be cultivated at reasonable costs.

In this regard the manager of the Groot Constantia Estate, has intimated that vineyards are a viable proposition on all slopes less than 1:3. His opinion is based on practical experience involving the clearing of vegetation and the planting of vineyards on the mountainside. Moreover, with regard to aspect, new strains can now be successfully propagated on south-facing slopes.

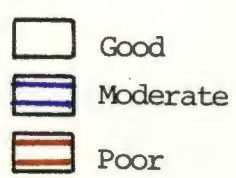
Slopes steeper than 1:3, together with the valley bottoms (which are too wet for vineyards) are indicated on Figure 25, which also shows the existing use of the land. Large portions of the Eagles Nest/Glen Alpine block comprise such slopes, as does the top portion of Klein Constantia and portions of Farm "X". Much of the public open space separating Groot Constantia from Eagles Nest is also very steep.

The viability of farming practices in the Constantia Valley is determined by many factors. It is not known on what basis the D.A.T.S. based its statement that all the properties could be farmed in a viable manner; but certainly no in-depth investigation of the various pertinent factors has ever been undertaken. The availability of labour, the fixed costs of farming, the potential productivity of the properties in relation to these costs, and the competitive marketability of the products, are factors which must certainly be taken into account in establishing viability.

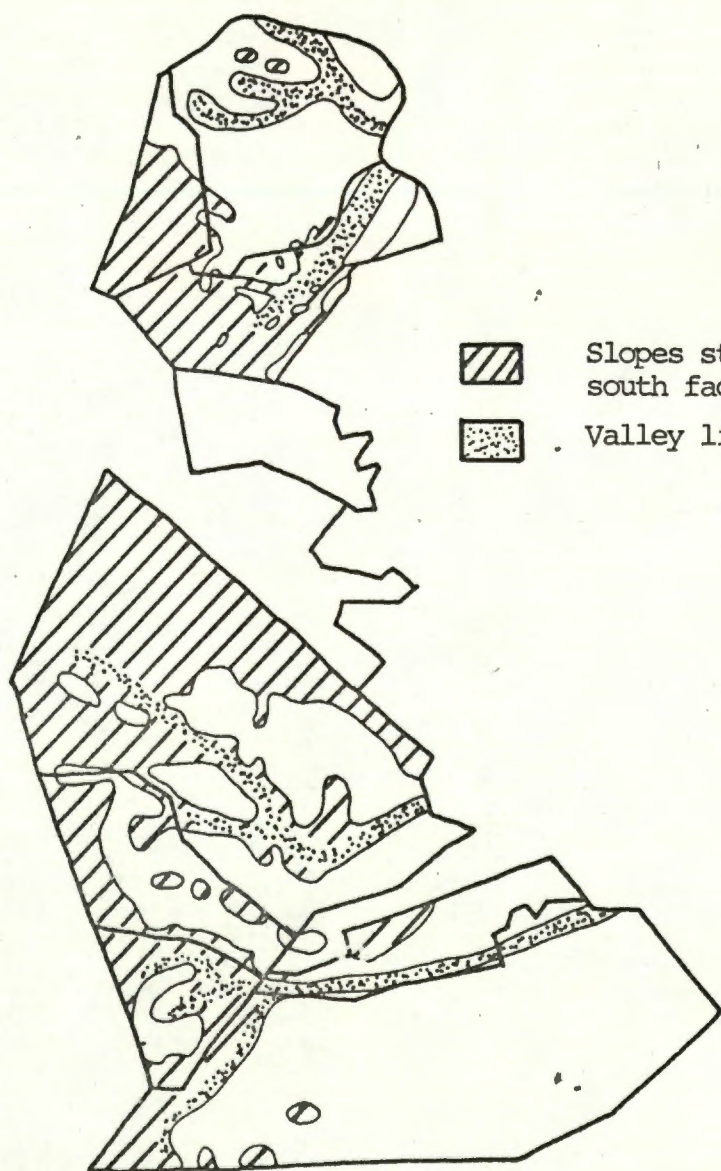




Perennial Crops

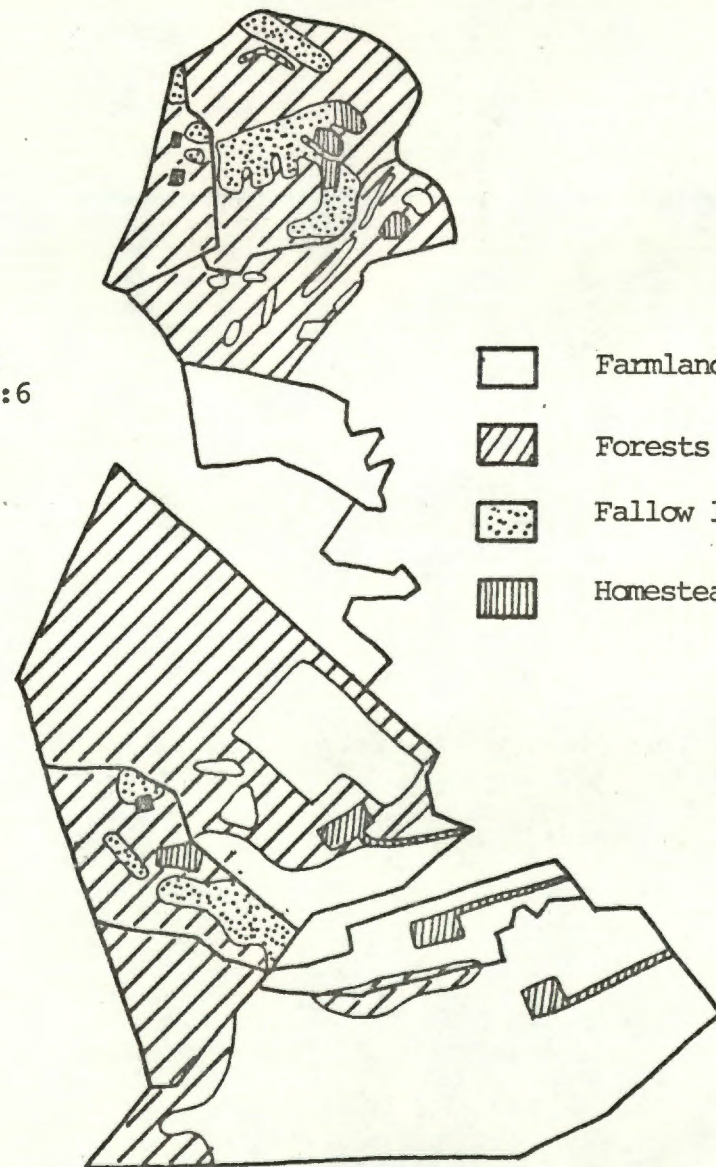
Annual Crops



FIGURES 23 & 24 (COMBINED)
 AGRICULTURAL PRODUCTIVITY
 BASED ON SOIL TYPES.
 Source: D.A.T.S.



-  Slopes steeper than 1:3 and south facing steeper than 1:6
-  Valley lines







-  Farmland
-  Forests
-  Fallow land
-  Homestead Units

FIGURE 25: FARMING AREAS DELIMITING FACTORS IN REGARD TO DEVELOPMENT.

3.2 Continued Farming Practices

Beyond stressing the point that an agro-economic investigation of the factors listed above should be carried out as a matter of priority; and that strong liaison with the property owners should be established - this study is limited in respect of what it can offer in terms of seeking solutions to the problems being experienced.

Nevertheless, it is imperative that these problems be resolved - both to alleviate the hardships experienced by these property owners and to retain the character of the Valley. Another, most important factor, is that these properties constitute an important resource in terms of both existing and potential grape production, and also (in respect of Eagles Nest and Glen Alpine) of market gardening. To a very large extent, such resolution lies in the hands of the governmental bodies involved.

The most obvious means of relieving present hardships is through some form of rates relief. The property owners were clearly disenchanted with the prospect of the rates relief offered by the 1976 proposal. It was not that they would not have welcomed such a remission, but the general feeling was that such a remission would be negligible in comparison with the present costs of farming and that they would rather forego such savings than be controlled under Act 70 of 1970 (as amended). (1)

Were a similar rating system to that of the farming areas in Paarl, to be applied in respect of these properties (as outlined in section 6.4 of Part Two), the average annual saving for each property owner would be ± R3 000. While this may be negligible in comparison to total costs, it nevertheless could well be used to aid in the costs of eradicating alien vegetation.

The application of this form of rating system would mean that the Constantia rates account would be lowered by ± R32 000 per annum. This is not an exorbitant cost when spread amongst the beneficiaries who include not only the local ratepayers, but the metropolitan population as a whole. A simple and rational way of apportioning this cost would be to share it amongst the local ratepayers and the more wealthy families of the metropolitan area. To give some idea of the cost per family; were one percent of the total families in the metropolitan area to be responsible for sharing this cost - it would amount to ± R3 per annum. The one percent would comprise the most wealthy families; and would thus presumably include a fair number of Constantia residents.

(1) The basis of the 1976 proposal was that these properties would be excluded from the local area (and so not have to pay local area rates); but under Act 70 of 1970 (as amended), these properties would then fall under the direct control of the Minister of Agriculture. The fear being that the properties would then be "frozen" for all time.

With regard to the question of labour; it has been previously suggested that the present quota system applying to the prison labour force is in urgent need of revision. At present the only contact between the prison authorities and the farmers is on an individual basis. It is suggested that these property owners should form an official body with a spokesman to represent their co-ordinated interests. This body would also liaise with Council and the D.A.T.S. in regard to resolving the problems facing the farmers in general rather than on an individual basis.

The most pertinent means of resolving these problems would seem to be in the form of alternative forms of usage on portions of these properties.

3.3 Alternative Uses. (1)

It is most important to stress at the outset that, whatever alternative usages are considered - they must be of benefit to the community as a whole (both local and metropolitan). Furthermore, they must be compatible with both continued farming practices and the environmental character of the mountainside - including its visual aspect.

However, before considering alternative usages, it should be pointed out that a very real potential solution to the problems faced by many of the individual property owners, is that of incorporation into the Groot Constantia Estate. This has been discussed in section 6.4 of Part Two, and all that needs to be said in this regard is that such consolidation should be encouraged as, generally speaking, it seems to offer the only solution to viable long-term farming practices in the Valley.

Nevertheless, an important qualification needs to be stressed; and that is that such consolidation should not be at the expense of the recreational potential of the mountainside. Particularly as this constitutes the major potential contribution of Constantia to the outdoor recreation needs of the metropolitan population - which will increase over time.

As mentioned, the Control Board's consolidation programme involves the immediate acquisition of two sites which would conflict with such recreational usage. These being the land at Nova Constantia and the public open space separating Groot Constantia from Eagles Nest. Their importance in regard to recreation will be discussed in section 4.0 Suffice to say at this stage, that the Control Board should not be given the

-
- (1) Only the Klein Constantia block is examined, for the following reasons:
- The Zonnestraal Valley is isolated from the major body of farmlands. It is anticipated that once farming practices prove no longer viable, select residential development will be allowed to intrude from the west and north-east; the valley bottom being retained as public open space.
 - The Eagles Nest/Glen Alpine block is given special examination in the following section (3.4)
 - No alternative uses are considered for Groot Constantia.

opportunity of acquiring these two sites. The obvious attraction of these sites to the Control Board, is that they represent the most easily acquirable land - being owned by Council. Moreover, the acquisition of the public open space would constitute a necessary and vital acquisition in regard to the long term consolidation plans for the Eagles Nest/Glen Alpine block.

Alternative means of expanding Groot Constantia were suggested - these being the Coleyn property and portions, at least, of Klein Constantia. Additional alternatives would be those properties lying to the north-east of Groot Constantia which are at present being farmed on a fairly limited scale. The other possibility, of course, is that of incorporating a portion of High Constantia Ext. 1 - but as pointed out in Section 1.2.1; this would not be desirable.

The possible short and long term acquisition programme for Groot Constantia is indicated on Figure 26.

Although two of the properties comprising the Klein Constantia block (namely Hussey's Vlei and Farm "X") are not being farmed; the other three, together with Groot Constantia, constitute the major farmlands of Constantia. It is quite obvious that the Control Board's long term consolidation programme should look to this block of land as its prime target. However, two factors must be taken into account.

The first concerns the recreational usage of the upper slopes of these properties; and their incorporation into the South Peninsula Mountain Reserve. The second factor concerns the continuation of viable farming practices during the intervening period prior to consolidation - assuming that, in time, such consolidation will occur.

To facilitate continued farming practices, it has been stressed that an alternative source of income should be sought in the form of alternative uses on portions of these properties. The recommendations of the Hey Commission were that those portions lying above the 152 m contour should be incorporated in the proposed mountain reserve. The acquisition of such land would be primarily to prevent the encroachment of development. It was suggested that the land should remain under private ownership until acquired, but that some form of rates relief should be granted to those owners who were prepared to allow the general public to make use of the recreational potential of such land - on a limited scale.

It has already been established that even total rates relief would contribute little to the alleviation of the hardships being experienced. In view of this fact, it would seem reasonable to suggest that the acquisition of the land falling above the 152 m contour should be treated as a matter of priority in regard to these properties. As seen from Figure 27

the 152 m contour coincides fairly closely with the general line of existing forests. This would mean that no farming land as such would be affected; but also that two farms (Uitsig and Buitenverwagting) would experience very little, or no, monetary gain from such acquisition.

It would also, however, mean that the two properties which are not farmed (Hussey's Vlei and Farm "X") would gain appreciably from such acquisition; as would Klein Constantia. The existing and potential uses of the properties would not be affected as they are considered to be only "moderate" in terms of their suitability for both annual and perennial crops; and moreover, the 152 m contour line falls just above the two existing homesteads on Hussey's Vlei.

In considering what other forms of usage could be found for these properties (particularly Uitsig and Buitenverwagting) a rough analysis was undertaken to determine what land could potentially be used for some form of development along the lines of cluster housing as was suggested by the 1970 scheme proposals. This analysis was based on a very simple elimination process whereby certain factors relating to the land were deemed undesirable from the point of view of such development.

These factors included both the nature of the landforms and the existing use of the land. Slopes steeper than 1:3, south-facing slopes steeper than 1:6, together with the Valley bottoms were considered undesirable from the point of view of buildability and aspect. Existing cultivated land and homesteads (including the approach roads to the historic homesteads) were also excluded. These factors are shown on Figure 28, which indicates certain pockets which constitute potential land for such development.

However, a most important criterion in regard to such development, is that it should not be visually exposed. Each pocket was then roughly evaluated in terms of its degree of concealment or exposure; and also in terms of its impingement on the homestead surroundings. Where the slopes were inherently exposed, the pockets were evaluated on the effectiveness of the existing tree growth to conceal such development. These evaluations are indicated on Figure 29.

Only one pocket of land would be totally concealed: this being a small hollow on Hussey's Vlei. It is at present fallow land and lends itself particularly well to some form of development in a limited scale. The area of the site is approximately two hectares - which is slightly larger than the Alphen Mews site which comprises 21 units. Although it is located well away from the existing homesteads on the property, it would be visible from them; but as these homesteads have no particular merit (historic or architecturally), this would not negate the potential of this site. There is an already existing road leading to the site.

Those pockets where it is considered that the existing trees could effectively conceal development, offer less potential. Any development would have to be extremely introvert in character as the clearing of trees to obtain views would immediately result in visual exposure. Moreover, with the exception of the pocket on Farm "X" (which is abutted by a forestry road on its western boundary), road access would have to be provided to these pockets. This suggests that these sites would not be suitable for permanent living accommodation, but could provide some form of overnight accommodation for youth clubs or hikers.

For construction and maintenance purposes, the site on Farm "X" appears to be the only reasonable site for such development. Although the site falls above the 152 m contour, and would therefore be included in the mountain reserve, its suggested usage would be entirely appropriate to the envisaged purpose of the reserve. Accommodation facilities (possibly in the form of cabins) could be constructed and controlled by the Department of Forestry. Despite the proposed policy that no overnight accommodation be permitted in the reserve; an exception could be made in respect of this site.

The owners of Hussey's Vlei and Farm "X" would thus retain the land lying below the 152 m contour; and in regard to Farm "X" the owner could, if he so wished, erect a dwelling on this portion of the property.

From the above, it is apparent that the problems experienced on Hussey's Vlei and Farm "X" could be satisfactorily resolved; and, to a lesser extent, those of Klein Constantia. Nevertheless, the problem in regard to Uitsig and Buitenverwagting would remain unresolved.

Some form of equity could be considered through the distribution of some portion of the proceeds gained from the increased development rights (in respect of Hussey's Vlei and Farm "X"), together with the acquisition of land for the reserve. But even such a contribution would be unlikely to resolve the problems in regard to Uitsig and Buitenverwagting.

In view of this fact, it would seem imperative that the Groot Constantia consolidation programme be extended to these properties as a matter of priority - even if it means the reliance on some form of governmental funding.






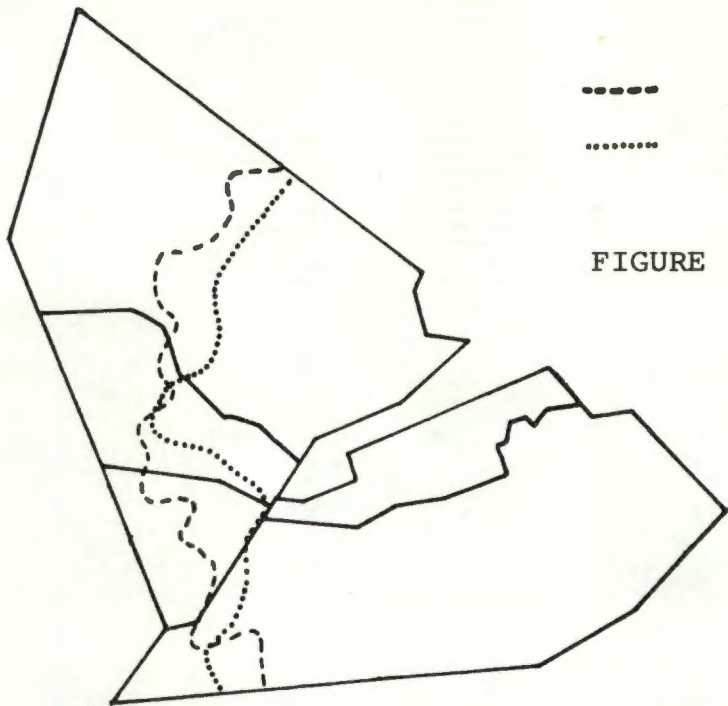
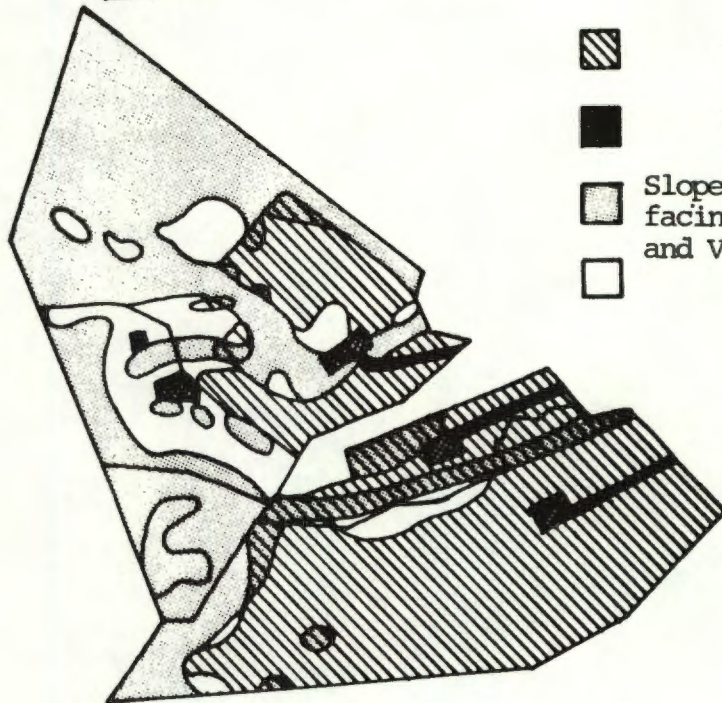
-  Short term
-  Long term
-  Undesirable

FIGURE 26 : GROOT CONSTANTIA
 POSSIBLE FUTURE
 CONSOLIDATION.



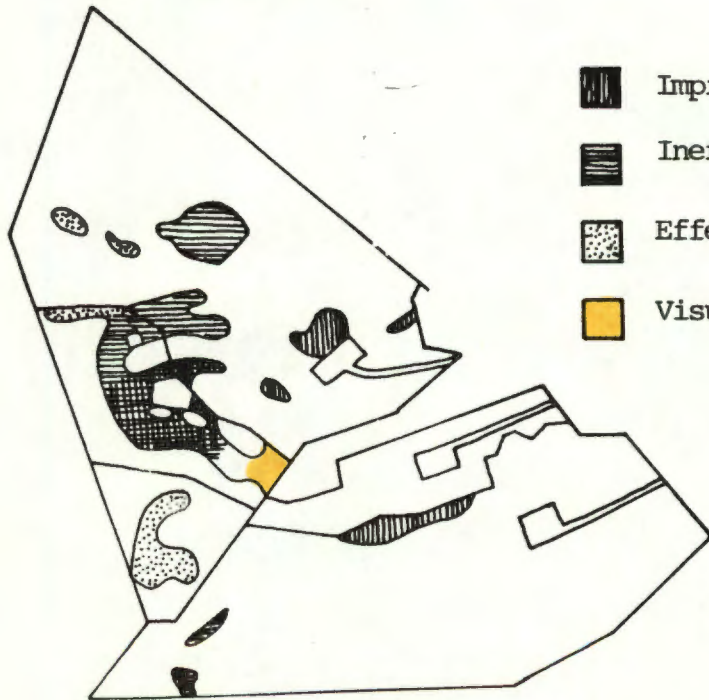
----- 152 m contour
 Forest line

FIGURE 27.



▨ Farmland
 ■ Homestead units
 ▨ Slopes steeper than 1:3, south facing; Slopes steeper than 1:6 and Valley lines.
 □ Potential alternative use areas.

FIGURE 28



■ Impinge on homestead surroundings.
 ▨ Ineffective tree cover
 ▨ Effective tree cover.
 ■ Visually concealed.

FIGURE 29

3.4 Eagles Nest, Glen Alpine and Gordon Heights

Constantia Nek constitutes the focal point of three major scenic drives as well as the already intensively used pathway system along the mountain slopes. The implementation of the mountain reserve proposals will serve to increase the intensity of usage in this area.

The location of the above three properties on the slopes of Constantia Nek, places them very much in the public eye. If for no other reason, these properties require very special treatment.

Another major reason does, however, exist; and that is, due to the inherent environmental qualities of these properties - their use-potential is extremely high. Photographs Nos. 1 and 8 serve to indicate their physical relationship to the rest of the Valley and to the mountainside. These photographs also indicate the various landforms of the properties, as well as the vegetative covering.

3.4.1 Site Description

Figure 30 depicts the existing uses of the land, together with the quality of the vegetation. The photographs are fairly deceptive in that much of what appears to be an extremely rich vegetative covering, does in fact comprise undesirable forms of vegetation. The steeper slopes, in particular, are overgrown by alien species such as Port Jackson, Stinkbean and hakea. The yellow-flowering vegetation in Photograph No. 1 is in fact Port Jackson.

The land is extremely steep in parts (Photograph No.8 is somewhat misleading because of the elevation) and comprises two major valley systems. The most prominent valley line is that on Eagles Nest, while that on Glen Alpine is split into three. The valley bottom on Eagles Nest is intensively used for market gardening, while those on Glen Alpine are ravine-like and thickly vegetated with impressive stands of indigenous trees. Such indigenous stands are rarely found in the Peninsula and should therefore be preserved at all costs. It is noted that they are already being threatened by the intrusion of undesirable vegetation. A few remaining stands of indigenous fynbos, proteas and silver trees are also being threatened - these are mainly found on Eagles Nest.

Pine plantations are found on Eagles Nest and Glen Alpine; and, in addition, both properties exhibit an abundant, extremely attractive and varied tree growth in the form of oaks, eucalyptus, poplars and chestnut. From an external and internal point of view, both properties display very high environmental qualities. In contrast, Gordon Heights is situated on the mountain slope and most of the vegetation is undesirable. Its major asset is the view it affords across the other properties, the Constantia Valley and the Cape Flats.



PHOTOGRAPH 8.

Apart from market gardening on Eagles Nest, no other farming use is made of the land (other than forestry); although a 1954 aerial photograph of the properties reveals that large portions of Glen Alpine were cultivated at that time - most of these portions now being overgrown by undesirable vegetation. In addition, abandoned fruit orchards and vineyards are still very much in evidence on Glen Alpine.

The major use of all three properties is that of residential accommodation. Numerous homesteads and cottages are scattered about. Major homestead units are found on each property; and Glen Alpine comprises two such units (one of which previously housed the Austrian Embassy), together with a small recreation area comprising tennis courts and a swimming pool in a well-landscaped environment.

3.4.2 Unresolved Problems

Severe hardships are being experienced by the owners in that no income is derived from the land - other than that from limited farming and the renting-out of cottages. Moreover, the costs of controlling the infestation of undesirable vegetation are prohibitive; and it is apparent that such control has been ineffective. (1)

It is imperative that some policy be established for alternative uses to be made of these properties in order to facilitate their more effective management, to preserve the indigenous and desirable forms of alien vegetation and to optimise their recreational potential from a metropolitan stand-point.

As mentioned, applications for cluster housing have already been submitted for all three properties - none of which have as yet been granted approval. The design of these schemes has been strongly informed by the environmental qualities of these properties; but they have been geared to the full optimisation of the development potential of the land rather than to the consideration of the impact of such development. The proposals are depicted on Figure 31.

3.4.3 Development Potential

In considering alternative uses for these properties, emphasis has been placed on establishing the potential for putting into practice the concept of higher density housing as outlined by the 1970 scheme proposals. The following criteria have been used in a similar way to that of establishing potential land for development in the Klein Constantia block. Slopes steeper than 1:3, south-facing slopes steeper than 1:6, together with the valley bottoms, were excluded as constituting non-buildable land. Areas which are visually exposed were also excluded; as were the major homestead units and their effective surroundings.

(1) This is seen from comparing aerial photographs of the properties taken in 1954, 1961 and 1975.

The slopes are indicated on Figure 32, while the exposed portions of the properties, together with the valley bottoms are indicated on Figure 33. Visual exposure/concealment was based on sight-lines from Rhodes Drive (and thus the residential properties alongside it and the lower mountain slopes immediately above it); and from the residential properties off Southern Cross Drive. No portions of the land (other than the valley bottoms) would be concealed from the upper mountain slopes. Nevertheless, it was considered that the expansiveness of the landscape from these vantage points could adequately absorb limited amounts of development - provided such development related to a vegetative backcloth. A good example of what should be avoided is that of the "free-standing" shed on Glen Alpine as depicted in Photograph No. 8.

Three pockets are depicted on Figure 33 as being concealed by tree growth. As with the site on Farm "X", limited development could be effectively concealed provided no trees were cut down to afford views. The resulting living environment would be extremely claustrophobic.

In determining what sites could be used for limited forms of development, two steps of delimitation were employed. Firstly, various factors were superimposed; these being:

- Prohibitive building land (as determined by slopes and the valley bottoms).
- Visually exposed areas.
- Existing homestead units together with their effective surroundings and approach roads. Existing cottages were not taken into account as they were considered to be expendable in relation to such development.
- Stands of indigenous vegetation.

Secondly, each of the sites so identified, was evaluated in terms of its desirability for development. This was based on the environmental qualities of the respective areas as determined by the quality of the existing tree cover. Those sites which are not "tree-related" or those which are completely surrounded by undesirable vegetation were classified as "undesirable" as the impact of development would be too noticeable from the higher mountain slopes. Sites considered to be "desirable" are essentially those which comprise existing trees of a high quality which could be employed to break up the impact of development. Development on these sites would be introvert in character, but not as claustrophobic as those in the three pockets mentioned. The identification of these sites is shown on Figure 34.

In comparing the sites identified as being desirable for development, with the envisaged development as proposed; it is evident that only a small portion of the development on all three properties would be desirable as determined by the above delimiting factors. This emphasizes the stress that has been put on optimising the full development potential of these properties to the cost of the environmental qualities of the area. It also highlights the importance of establishing strong liaison with the authorities at an early stage, so as to establish guidelines as to what portions of the site should or should not be used for development.

Having determined which sites lend themselves to development, only three sites will be considered; these being the ones marked 1, 2 and 3 on Figure 34. The reasons for limiting the number of possible sites is due to three factors. Firstly, these sites comprise the largest pockets which means that greater freedom could be obtained in layout design. Secondly, it is considered that development should not be scattered, but rather concentrated in discrete pockets. Thirdly, the amount of development should be limited. Another factor, which has strong practical implications, is that one pocket has been selected on each property - this would serve to prevent a very real situation from occurring whereby one owner may claim he was being hard done by because another had been granted more development rights.

The respective merits of the three sites are as follows:

The northern portion of Site No. 1 is located alongside an old disused road leading off Constantia Main Road. The reconstruction of this road would present no problems. Because development on the site should be concentrated; all development should be restricted to this northern portion. The reason being that the southern portion is bordered on both sides by the two ravine-like valley lines, the sides of which are extremely erodable. This would not necessarily affect development (which could be sited well away from these edges), but these ravines should be protected as much as possible and the usage of the land in the immediate vicinity should be restricted.

The site is fairly level (gradient of $\pm 1:12$), and lends itself well to development. Its only drawback is the fact that, while trees of a high quality immediately abut it; the site is, on the western side, bordered by an impenetrable stand of Port Jackson. The eradication of this vegetation will leave a barren slope until such time as newly-introduced vegetation has established itself. No development should be contemplated until such time as this new vegetation has reached a height sufficient to break the impact of development.

Site No. 2 is at present inaccessible and the construction of a road could prove fairly costly. Although the site is only about 100 metres from an existing road, the connecting road would have to traverse fairly steep slopes and the existing road would have to be reconstructed as its present carrying capacity is limited. The slopes of the site are fairly steep (1:6-1:8) and development could be less introspective (but more costly) than that of Site No. 1.

As with site No. 1, much of the vegetation beyond its immediate vicinity, is undesirable and would have to be eradicated. Nevertheless, because of the steeper slopes, the eradication of such vegetation would not result in development being as exposed from the upper mountain slopes as on Site No. 1. The slopes would also serve to limit the amount of development on this site as the orientation of dwellings would pose some difficulty in that the existing tree cover would tend to block the north-facing aspect. Sensitive siting of units would be necessary to overcome this difficulty.

Although the site lies within + 70 metres and in full view of an existing cottage; this is not considered to be a critical factor as the site lies approximately 20 metres below the level of this cottage and the views would in no way be obstructed.

Site No. 3 is abutted by a road in good condition. Nevertheless, its carrying capacity is also limited and reconstruction in certain sections (particularly on the slopes lying to the east of the main homestead) could prove fairly costly. The eastern portion of the site comprises an existing cottage (which houses the farm manager) and its associated garden area, together with stables and a riding paddock. A narrow track separating these uses leads up to the western (higher) portion of the site - which is particularly well covered in mature oaks, eucalyptus and pine trees. The environmental qualities of this site are particularly pleasing. The slope of the land is approximately 1:6 - 1:8. The major drawback to the development of this site would be its functional, rather than visual, impact on the existing activities in the vicinity - unless, of course, the development was allied to these activities.

Before commenting any further on the possible form of development, it is necessary to consider these three sites in their wider perspective - namely in regard to the existing and future alternative uses of these properties i.e. farming and recreation.

3.4.4 Alternative Uses

The future of these properties rests largely with the policies in regard to the acquisition programmes of the mountain reserve and the Groot Constantia Control Board. As pointed

out in section 5.7 of Part Two, the delineation of the mountain reserve in this area is likely to be determined by slopes steeper than 1:3, rather than the 152 metre contour line. Obviously, in using the slope as a criterion, the boundary line would necessarily be arbitrary; the likely delineation is indicated on Figure 32 together with the 152 m contour.

The question of whether or not the Control Board should be permitted to acquire the public open space separating Groot Constantia from Eagles Nest, depends very much on the policy in regard to the future usage of these three properties. The alternative uses are as follows:

- Firstly, the properties could be consolidated with Groot Constantia; in which case it can fairly safely be assumed that far more optimal use would be made of the land, that undesirable vegetation would be eradicated, and that the farming activities would be visually pleasing.

Nevertheless, much of the existing high quality tree cover would most probably be lost to vineyards; and because of the slopes, the Control Board would probably not be interested in acquiring Gordon Heights. No other forms of development (such as high density housing) could then be considered on Eagles Nest and Glen Alpine, and the existing problems experienced would then tend to escalate until such time as the Control Board purchased these properties.

- Secondly, the continuation of the existing situation (and ownership) could be encouraged by the granting of development rights in regard to the sites identified. These development rights could take the form of high density housing or of holiday cottages.
- Thirdly, the major portions of these properties could be acquired for general public usage. Such usage could take the form of open parkland with picnic spots in select locations. Holiday accommodation in the form of cottages, or even a caravan park would be compatible with such usage; so also would permanent living accommodation in the form of a small cluster of units - provided they were sensitively located so as not to obstruct the freedom and enjoyment of the parkland; and similarly, so as to maintain a level of privacy from the general public.

3.4.5 Evaluation of Alternatives

In evaluating these alternatives, the prime criteria adopted, are that these properties should be maximised in terms of their usage by the general metropolitan population, and that the environmental qualities of the area should be preserved and, where possible, enhanced.

The first alternative would only resolve the present problems experienced once the properties were actually acquired by the

Control Board; moreover, the Board would probably not be interested in purchasing Gordon Heights. The only usage to the general public would be that of a visual amenity; unless the public were to be allowed entry into and through the property via some pathway system. In any event, the acquisition of these properties would not appear to be a priority in the Board's consolidation programme; particularly as the more viable farmlands lie to the south of Groot Constantia.

The second alternative would cater for a relatively small number of select families. Based on the ability to pay, the lower income groups would be effectively excluded; unless the holiday accommodation rentals were subsidized. As the remainder of the properties would remain under private ownership, the only benefit to the general public would be that of scenic beauty; unless some public rights-of-way were acquired across these properties.

The third alternative would maximise the potential of the properties in terms of usage by the metropolitan population; while at the same time, provide some means of making a profitable use of portions of the land. As parkland, the properties could be better managed, and the preservation of desirable forms of vegetation could be more assured than in the case of the other alternatives.

The third alternative would, without doubt, best meet the above criteria. The problem would then be one of acquisition and of establishing what portions should be acquired for parkland, and also, of determining what alternative uses the remainder of the land could be put to.

3.4.6 Policy determinants

In considering what land should be purchased for parkland usage; various criteria are applicable:

- Only those portions of the land which could be beneficially used for parkland should be acquired.
- Alternative uses should be sought for the remainder of the land. These uses should be compatible with the parkland.
- All the existing homestead units should be excluded; as should those cottages which serve a useful purpose and which would not detract from the usage of the parkland and its scenic qualities.
- The acquisition programme should be staged, so that in the short term only that land which is not being profitably used, and which would serve as immediate parkland, should be acquired. This refers specifically to Eagles Nest

where continued market gardening and forestry should be encouraged, and where some alternative use of the property should be considered - provided such usage would be compatible with the possible long-term extension of the parkland to include this property.

3.4.7 Policy Suggestion

In accordance with these criteria, the following policy suggestions are made. The proposed short-term use of the land is indicated on Figure 35.

- The general line of slopes steeper than 1:3 on Eagles Nest and Gordon Heights (together with a very small portion of Glen Alpine) should be acquired for effective inclusion into the mountain reserve.
- The whole of Glen Alpine (with the exception of the homestead units together with the approach road and allied recreation area) should be purchased for general parkland purposes).
- The remainder of Eagles Nest should be retained under its private ownership and usage. To encourage and facilitate continued market gardening and forestry purposes, a small cluster of holiday cottages (+ 20) should be permitted on the site as indicated - with no enhancement levy being imposed. Such accommodation could be compatible with the existing uses on the property.

Being a low intensity use; no reconstruction of the existing road would be necessary, and sewerage disposal could be handled by a shared ablution block served by septic tanks. The owner would be further recompensed by the acquisition of land for the mountain reserve; and moreover, the homestead units and cottages could be subdivided-off and sold - with the exception of that which houses the farm manager who could act in a supervisory capacity for the holiday cottages.

- A small cluster housing scheme (comprising + 20 units) should be permitted on Gordon Heights in the location as indicated. This would be subject to an enhancement levy being paid. The owner or developer would have to construct a road connection to the existing road which would have to be reconstructed.

No public open space would be required to serve this cluster scheme, and all the surrounding land (with the exception of the two existing cottages which could be subdivided-off) would remain under the ownership of the existing owner or the cluster scheme's homeowners association. Only the land in the immediate vicinity of the scheme would require landscaping to Council's requirements. Strict control would be applied in regard to what, if any, trees could be removed.

Undesirable vegetation on this land should be eradicated and indigenous forms of vegetation be re-introduced by Council (who would bear the costs), and thereafter maintained by Council - but at the cost of the owner and the homeowner's association.

- To facilitate the parkland usage of Glen Alpine, a number of public facilities should be constructed and maintained by Council. These would comprise three picnic spots; two of which would be directly accessible by road. Ablution facilities, water points and refuse bins would be provided; while braai facilities would only be provided at those sites served by the proposed roads.

A clearly defined pathway system should be established with "steps" constructed on the steeper slopes. These pathways should meander through the site and linkages should be established to the mountain reserve and the public open space to the south. On the mountain slopes, the pathway should follow the contour lines as closely as possible to avoid soil erosion and the scarring of the landscape. Use should be made of the existing footbridge over the stream alongside the homestead units; and an additional footbridge should be constructed as indicated.

Great care should be taken to preserve the edges of the ravines and their indigenous vegetation. If necessary, these may even have to be fenced-off. All undesirable vegetation should be eradicated and a replanting programme consisting of indigenous vegetation on the steeper slopes and a mixed variety of large-growing trees on the more level land.

The existing open character of parts of the site should be retained; with perhaps a scattering of oaks being propagated. Trees should be planted around the perimeter of the homestead units (where none already exist) so as to ensure greater privacy from the general public, and also to screen these units from outside.

In time, and depending on the need, the picnic site in the north-west could be transformed into a small caravan park or camping area - provided sufficient vegetation cover had been re-established. One of the cottages and the old shed should be demolished to improve the scenic qualities of the area. The existing cottage and pottery shed (provided its usage continued) abutting the Eagles Nest boundary could be subdivided-off.

3.4.8 Financial Implications

A rough indication of the costs involved in purchasing the land is as follows:

Land for the mountain reserve - Assuming the purchase price to be double that of the ratable valuation of the land; and assuming half of Gordon Heights and a quarter of the land area of Eagles Nest were incorporated - the purchase price would be in the order of R45 000. (1)

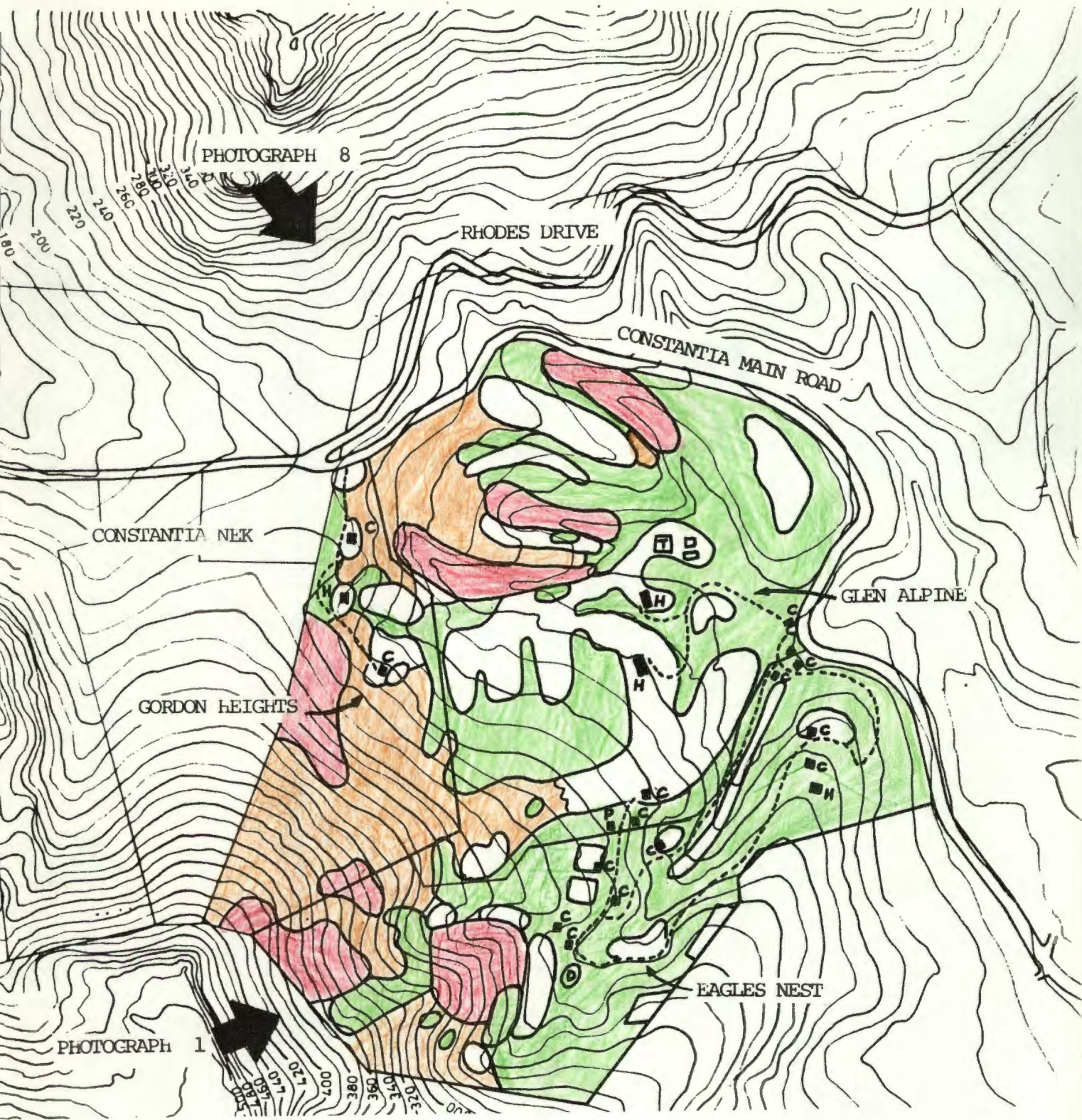
Parkland - Assuming the whole of Glen Alpine (with the exception of the homestead units and their surroundings) were purchased; and again assuming the purchase price to be double that of the ratable value of the land - the cost would be approximately R200 000.

The costs of providing the necessary facilities allied to the usage of the parkland; such as the construction of roads, (which need not be bituminised) and parking areas, ablution facilities, rubbish disposal bins, construction of pathways etc; together with the eradication of alien vegetation and the planting of young trees - could be in the order of R150 000.

Were the above costs (totalling + R400 000) to be borne by the Constantia ratepayers (as their contribution to the metropolitan population's outdoor recreation needs); and assuming that these costs would be spread over ten years - it is found that the annual cost would amount to only 4,3% of the total annual expenditure in the Constantia Local Area. (2)

This would necessitate a relatively small cut-back in the annual expenditure on loan repayments for capital works. To forestall some of the capital works such as road widening proposals, road construction programmes etc., would be a small price to pay in relation to the acquisition of these sites. Particularly as these open spaces would be of considerable benefit not only to the metropolitan population, but the local residents as well.

-
- (1) The assumption that the market value of the land would be double that of the ratable valuation, is an arbitrary figure. Nevertheless, it was noted that, on the average, the larger vacant plots in Constantia had, over the past 5 years, changed hands at prices 3-4 times the ratable valuation. The respective land values, together with the sales prices were obtained from the D.C. Data Bank.
 - (2) Council's total annual expenditure in Constantia was based on the 1976 estimate; as contained in D.C. Report No. 6. It is to be noted that the Constantia Local Area includes Tokai.

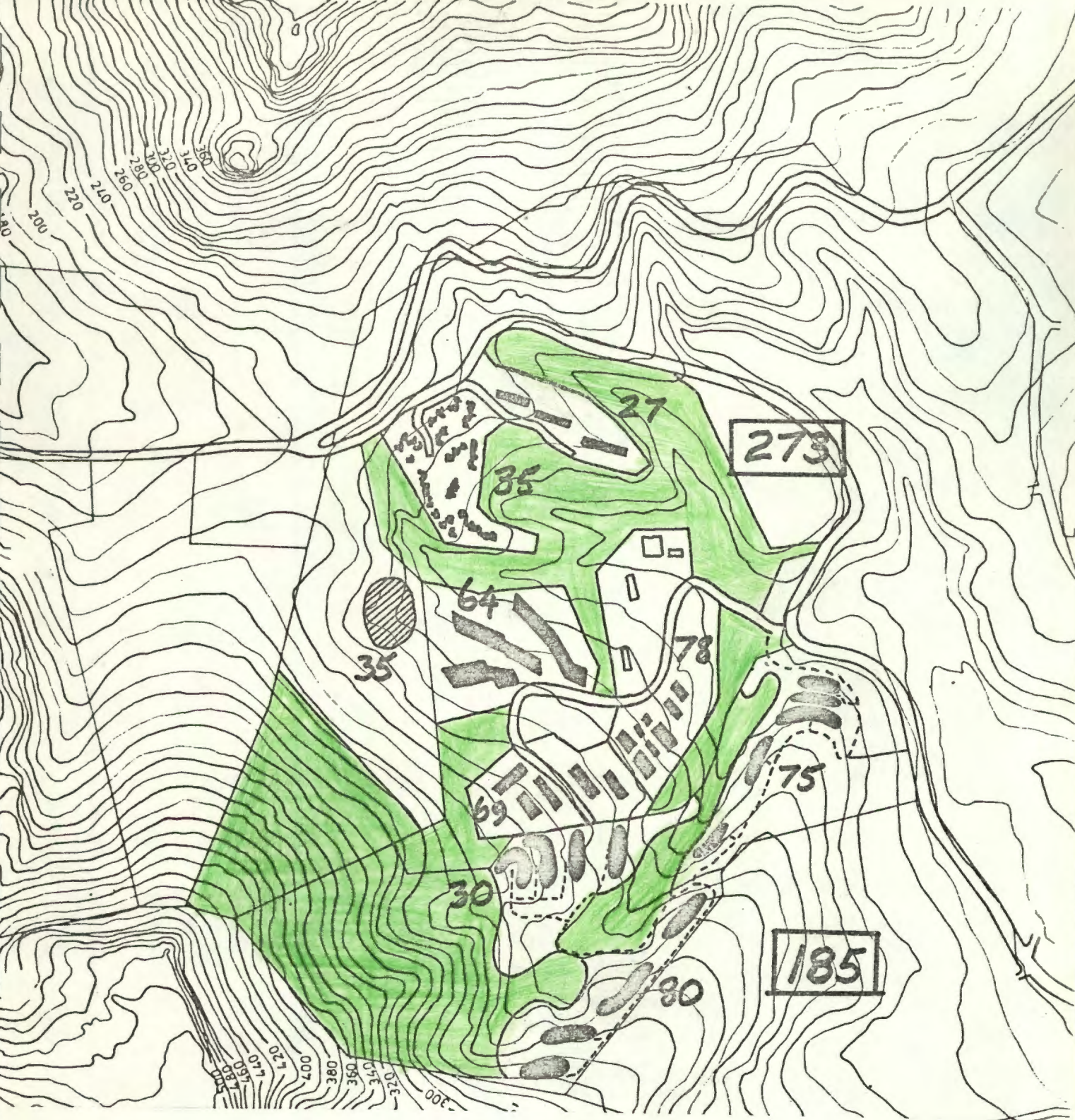



- | | | | |
|------|--------------|---|-------------------|
| ■ H | Homestead | ■ | Indigenous |
| ■ C | Cottage | ■ | Desirable alien |
| ■ P | Pottery | ■ | Undesirable alien |
| ■ T | Tennis court | | |
| ⊙ | Dam | | |
| ---- | Roads | | |

FIGURE 30

EAGLES NEST ETC.
EXISTING USES AND VEGETATION

0 100 500 m



 Public Open Space

(Numbers of units as indicated
- Totals blocked.)

FIGURE 31 : EAGLES NEST ETC.
CONCEPTUAL CLUSTER PROPOSALS.



- Steeper than 1:3
- South facing and steeper than 1:6

FIGURE 32

- Visually exposed
- Concealed by tree growth
- Concealed
- Valley bottoms.

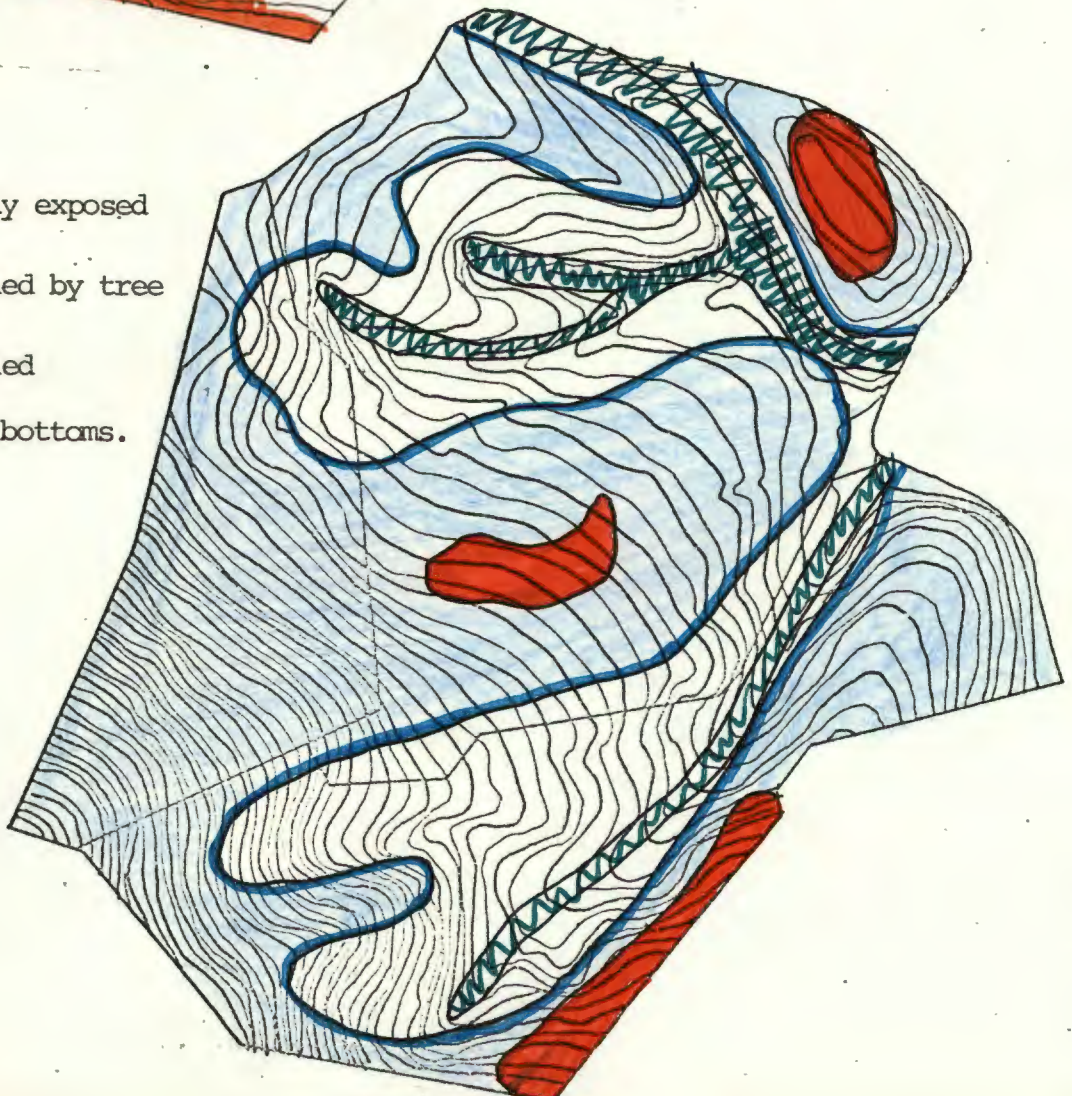


FIGURE 33

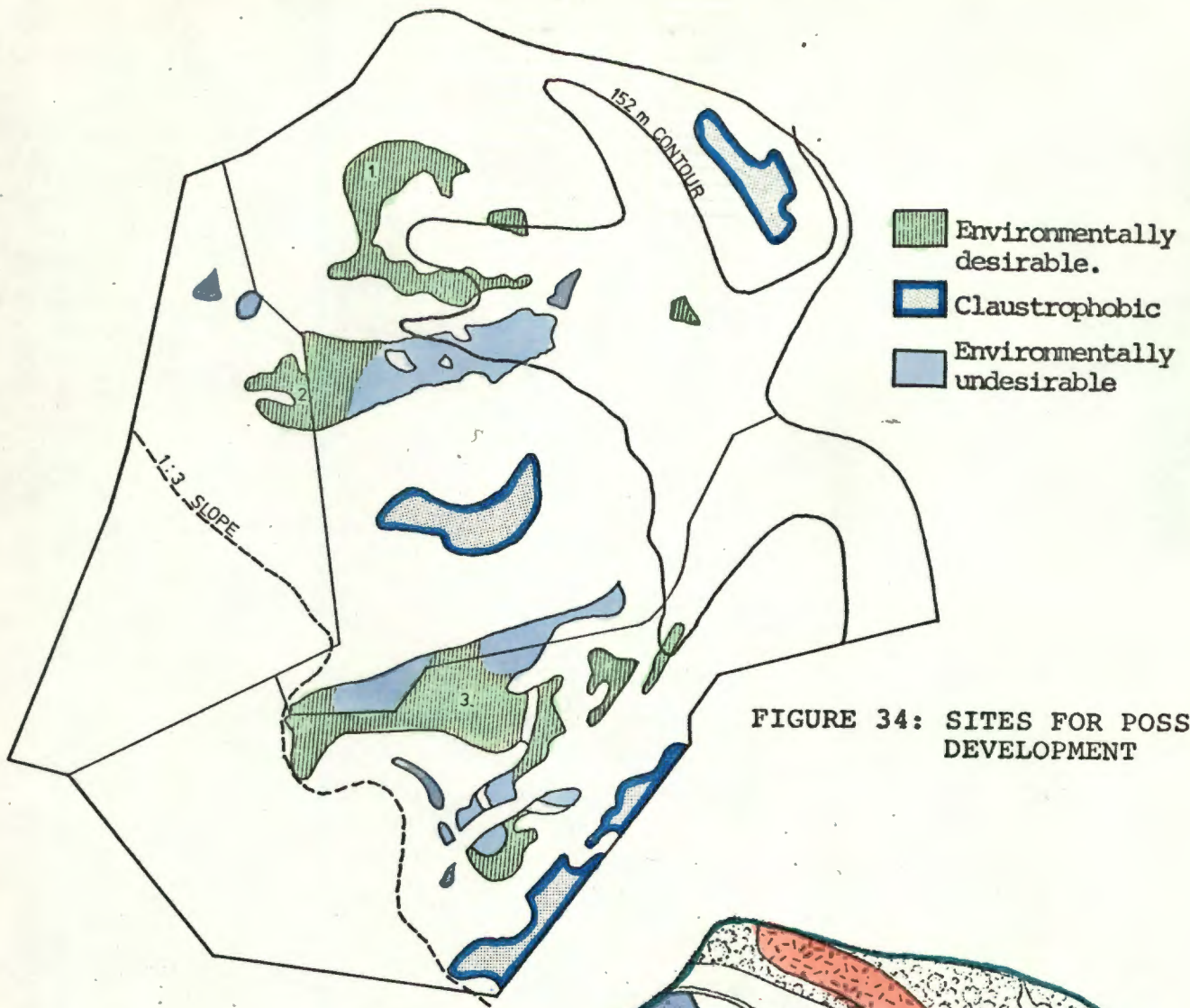
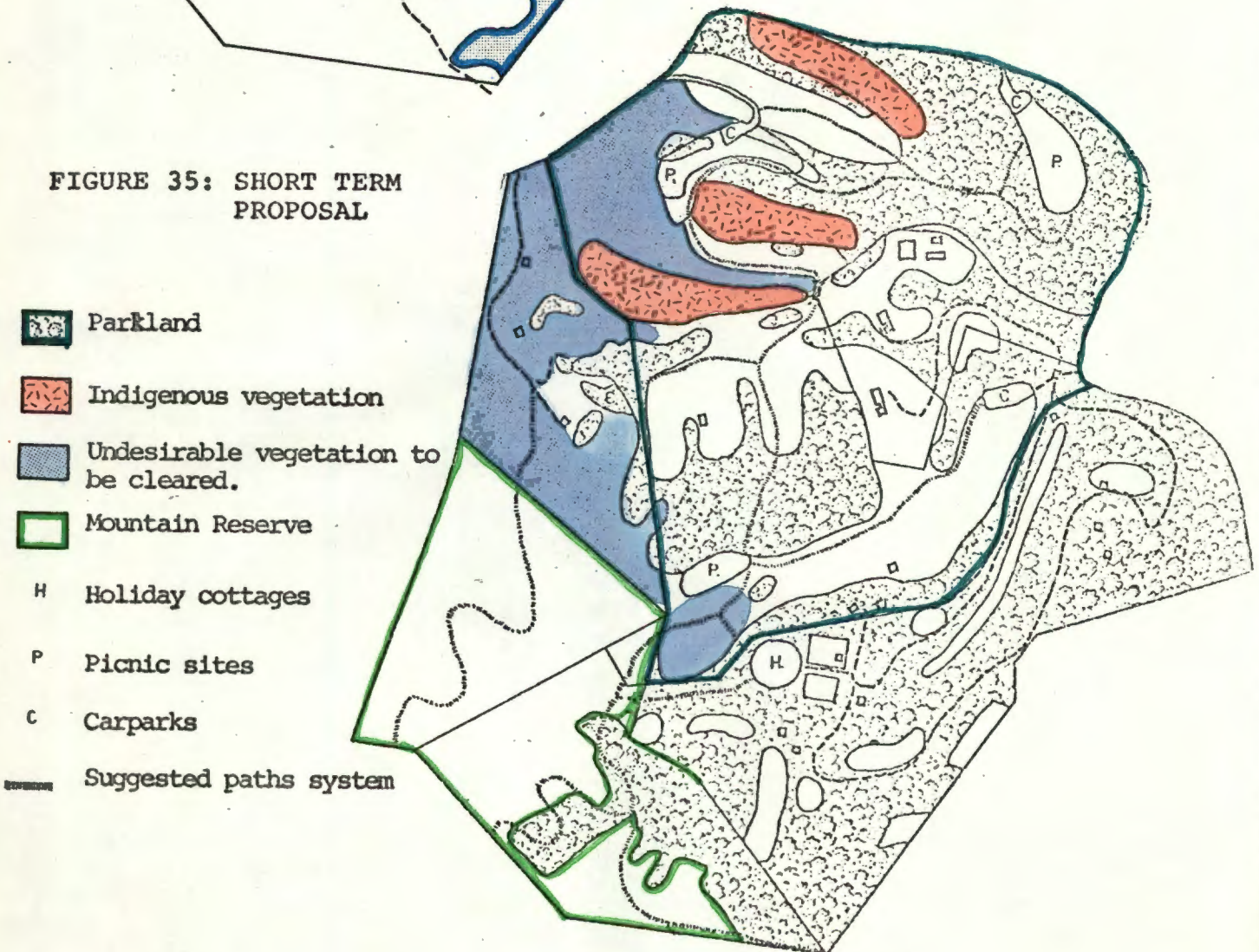


FIGURE 34: SITES FOR POSSIBLE DEVELOPMENT

FIGURE 35: SHORT TERM PROPOSAL



4.0 RECREATION AND THE ENVIRONMENT

Because the resolution of the problems experienced in these two components are in most cases inseparably linked, they are being dealt with as one section.

To reiterate, the objectives outlined, are as follows:

- Recreation - To make more optimal usage of the outdoor recreational potential of the Valley.
 - To make provision for the needs of the horse riding fraternity.
- Environment - To protect the immediate surroundings of the historic homesteads.
 - To control and eradicate all undesirable species of alien vegetation.
 - To protect the existing trees in the Valley and to replace those which are lost.

4.1 Outdoor recreation.

It has been stressed that the outdoor recreational potential of the Valley constitutes the major potential contribution to meet the needs of the metropolitan population.

The major existing and potential recreation elements of the Valley comprise the public open space system, the forests and the mountainside. The form of usage of each element is and will continue to be different.

Whereas the public open space system within the built-up area caters specifically for the local residents, the mountainside and the forests cater for both the local and metropolitan residents.

The suggested recreational system is indicated on Figure 36. The major elements of the implementation of this system comprise the following:

- The acquisition of land to create a continuous public open space system. Such land should only be acquired when it is deemed necessary by the local residents - via the CPOA. Alternatively, it will be given over at the time of subdivision.
- The acquisition of Glen Alpine for the purpose of parkland has already been discussed, as has that of the acquisition of land for the nature reserve.
- An effective pathway system (along the lines indicated) should be laid out. These pathways should be easily identified and care should be taken to conform to contour lines, and to avoid soil erosion. They should be regularly maintained.
- The pathway system should incorporate a separate, but linked, historic walking circuit as indicated.

- Where the pathways lead through existing farmland, care should be taken to avoid the disruption of farming activities. A trial period should be employed to establish the need for imposing some form of control. Instead of acquiring the land for these pathways, only the user-rights of these public-rights-of-way should be acquired.

4.2 Horse riding

- The Nova Constantia site should be employed as a permanent venue for an equestrian centre. Permanent stabling facilities should be provided on site, but they should be located in such a way as to not impose on the surroundings of Nova Constantia or the other homesteads in the vicinity.
- A system of riding trails should be established. This should focus on Nova Constantia and on the usage of the public open space system - with care being given to avoid possible rider/pedestrian conflicts.

4.3 Historic Homesteads

Fortunately, all the homesteads (with the exception of Nova Constantia) fall on existing farmlands. The protection of their surroundings is thus assured as it is not anticipated that any development rights will be granted on these properties - other than limited forms of high density housing; which in, any event, have been so located as to avoid these surroundings.

In regard to Nova Constantia, it is suggested that Council plant appropriate trees alongside the road abutting the cluster scheme so as to effectively screen this development from the homestead. Some form of vegetation should be planted between the homestead and the equestrian centre - to serve much the same purpose as the suggested hedge referred to in Section 1.2.1

4.4 Undesirable and desirable Vegetation

It merely needs to be stressed that as a matter of priority, programmes should be set up to control and eradicate all undesirable species of vegetation in the Valley, as well as to replenish the loss of existing trees.

In addition, however, all development approvals should be subject to the retention of certain specified trees and, where necessary, landscaping requirements should be effectively carried through.

5.0 GENERAL

The following objectives are applicable:

- To achieve greater public participation in the planning process.
- To optimise the role of the C.P.O.A.
- To improve the balance between expenditure and income in the local rates account.
- To make provision for public amenities (civic purposes) in a more efficient manner.
- To adopt more realistic road standards.
- To improve the efficiency of the public sector decision-making process.

The realization of all the above objectives are, to a greater or lesser extent, dependent upon the effective realization of the first objective - namely that of achieving greater public participation.

As the representative body, the CPOA forms the essential link between the residents and Council. It is thus through this body that participation in the decision-making process should be effectuated.

A so-called "Local Areas Committee" already exists, to which the various representative bodies submit certain items for discussion. The problem is that these meetings are generally non-productive; and revolves around questions and answers, rather than on meaningful discussion.

The decision-making process in the Divisional Council is based on the following. Once an application is submitted, analysed and evaluated, it is presented to a small, very informal so-called "Subdivisions Committee". (1) Once a decision has been reached by this committee, its recommendation is thereafter forwarded to a sub-committee of Council and thereafter to the full Council.

It is suggested that a member of the CPOA be present at the meetings, and participate fully in the proceedings.

In this simple way, greater public participation could be achieved, the role of the CPOA would be more effectively employed and the public opinion could be expressed in relation to various issues such as those outlined above. Where conflicts in interest arise, the issue could be aired at a Council sub-committee meeting.

(1) While this was the original intent of this committee (merely to review subdivisions); its present role far surpasses this factor and it now deals with all planning issues. It has over the years developed into a very effective "committee", comprising 6-8 Council officials. It function as a forum for discussion and its effectiveness is based on its informality.

When deemed necessary by the CPOA, Council should be more willing to hold discussions with the full executive committee of this association.

Public meetings serve no useful purpose and should not be encouraged.

Instead, to facilitate the contact between the CPOA and the residents it is suggested that some permanent venue be provided by Council to serve as the local CPOA office. This could well be located in conjunction with the proposals for the Constantia Centre, or in the Old Alphen Winery.

To improve the balance between expenditure and income in the local rates account; an investigation should be undertaken (involving the CPOA) to determine what scheduled expenditures are deemed necessary - for example certain road widening or construction proposals. In this regard, more realistic road standards should be adopted, with greater consideration being given to environmental factors. This will involve liaising with the provincial authorities who subsidize much of the road construction, and who set these unrealistically high standards. The capacity of these roads far exceeds their function.

To improve the efficiency of the public sector decision-making process would involve a total reconstruction of the entire system - involving not only Council, but also the Provincial and other governmental authorities. A simple and effective way of improving the situation to some small degree, would be to delegate more decision-making to the "subdivisions committee" referred to above.



- Public Open Space
- Mountain Reserve
- Forestry
- Additional P.O.S.
- Pathway System
- Historic Homesteads
- Parking Areas.

FIGURE 36: THE OUTDOOR RECREATION SYSTEM.

PART SIX

General policy prescriptions

GENERAL POLICY PRESCRIPTIONS

As stated at the outset of Part One, suburban expansion is a natural concomitant to the growth of the metropolitan population. Over the years, the incremental spreading out of suburban-growth has engulfed more and more of the countryside; and the contact zone (or urban fringe) has thus been steadily pushed further outwards.

Apart from the undesirable aspects of suburban sprawl itself, the land which is being engulfed is very often prime farmland or land with a high scenic or recreational potential.

Suburban expansion into the urban fringe is one of the most characteristic features of city growth. The Constantia Valley has served as a practical, if somewhat special, example of this process. The major problems experienced in the changing role of the urban fringe have been highlighted and various ways of alleviating them have been suggested.

Although these problems and their suggested solutions refer to a specific situation, they have almost universal application - for the underlying forces and principles are to a very large extent common to most fringe areas. The only differentiating factor applicable to Constantia, is its exceptionally beautiful natural and built environment and the fact that portions of the Valley constitute prime farmland with strong historic connotations.

The fact that many of the prescriptive policies or solutions put forward for Constantia are of a palliative nature, emphasises the fact that certain problem situations will invariably occur unless they are anticipated and avoiding measures adopted well in advance of the major forces of suburbanization.

Primarily, however, the Constantia study has clearly indicated the need to establish, at an early stage, goals and policies for the future treatment of fringe land.

It now remains to consider firstly, the lessons learnt from preceding study in terms of the problem of controlling suburban expansion into the fringe on a metropolitan level.⁽¹⁾ Secondly, to consider alternative policies in this regard (together with the means of effectuating them) as formulated in the British and United States contexts. And thirdly, to establish some form of policy statement in regard to urban fringe land on the metropolitan level.

1.0 THE CONSTANTIA STUDY

Even without its exceptional environmental attributes, the Constantia Valley would have been a prime target for suburban expansion - simply because of its location in relation to the existing built-up areas of the southern suburbs.

(1) At the same time, a brief resumé will be given of the major issues pertaining to each component or section.

As previously mentioned, these attributes have, on the one hand, proved an added attraction to residential development; but on the other hand, have given rise to perhaps stricter control measures than are generally applied to the urban fringe. It has thus served as an extreme example of the conflicts between the private and public sectors, and between the development - and environment-oriented groups of the private sector.

As an extreme example, it probably experiences more problems which require more stringent public sector controls than most other fringe areas. It therefore serves as an especially appropriate example, in that the wide range of issues are likely to cover most problems typically found on the fringe.

The fact that the Valley has already experienced a great deal of suburban encroachment, while at the same time, still retaining a strong farming component - emphasises its usefulness as a case study of urban fringe development. It affords the opportunity of investigating typical uses and forces applicable to the fringe, and of viewing the transition from farmland to suburbia.

1.1 The residential component

Housing is, of course, the major element of suburban land use and generally constitutes the first intrusion of suburban pressures. Because of the lack of public transport facilities and the general mobility of the upper income groups (in terms of residential re-location); the practice has in the past been that the subdivision of fringe land has taken the form of large plots. This was encouraged by the authorities due to the fact that such families could afford to internalise many of the normal service costs, and because these properties with their large gardens tended to have less of an impact on the rural or semi-rural nature of fringe land.

The problems in regard to over-sized properties have been experienced for some years in Constantia. The situation has now arisen where it is imperative that some solution be found to lessen the hardships experienced by these property owners and to make more optimal use of the land.

The major drawback to resolving these problems through allowing the subdivision of these plots, is that the environmental qualities of the area must suffer. Furthermore, the impression of development would be increased. Nevertheless, in the interests of the general public, these factors must be accepted, as must the fact that there are considerably less families who can afford to maintain and bear the full costs of the exceptionally high living standards of yesteryear.

The other major residential problem experienced in Constantia is that of skipped-over vacant land. This discontinuity of development is partly due to the lack of sufficient control on the part of the authorities - in that township and minor subdivision

approvals have not been strictly determined by the application of need and desirability criteria. Another, most important, factor is that far too much land is already zoned for residential development.

Speculative land holding is the other cause of discontinuous development; but this practice is only to be expected when such conditions are facilitated through over-zoning. Apart from the increased service costs which accompany discontinuous development the vacant land represents the sub-optimal use of fringe land and also tends to lower the tone of the neighbourhood - with possible deleterious effects on the land values of surrounding properties.

Although the consideration of higher forms of density (such as cluster and group housing) constitutes a problem in Constantia due to its misuse in the local context; it does in fact offer the one real opportunity for rationalising many of the problems in the fringe area.

The lessons to be learnt from these examples are:

- Blanket large-lot zoning is definitely not a practical solution to the use of fringe land.
- Authorities must be aware of the prevailing demand trends for housing, in terms of cost, property size and location.
- Land use zoning in anticipation of future demands must be avoided as it merely tends to increase land values in an unrealistic manner, provides an ideal opportunity for encouraging land speculation; and also tends to lower the efficient use of existing farmlands.
- The granting of township and minor subdivision approvals should be far more strictly controlled in terms of need and desirability - and thereafter be subject to strict but realistic building clauses.
- Great care should be exercised to avoid discontinuous development.
- Strong consideration should be given to the opportunities offered by higher density forms of housing; with strict control being exercised over the quality of development and the provision of public open space.
- A far more flexible and bargaining approach should be adopted by the authorities in regard to these forms of housing. They should be encouraged at an early stage of suburban expansion into the fringe.

1.2 Public Facilities

To avoid the total dependence of the suburbanising area on the rest of the metropolitan area; and to achieve a more self-contained

and thus efficient, neighbourhood - housing should be accompanied by various supporting facilities. These include job opportunities, shopping, education and recreational facilities, essential services and facilities for civic purposes.

The provision of these services must obviously take into account the existing facilities in the metropolitan area and the need for additional facilities. The level or order of facilities must also be taken into account. Economics dictates that the higher-order facilities require a large catchment area of a metropolitan scale. The location of such facilities is determined by maximum accessibility and linkages to similar or supporting facilities - their location is therefore generally, but not necessarily, tied to the central city.

In addition to the lack of necessary services such as education, police and fire-fighting facilities, fringe areas are generally insufficiently provided with job opportunities and low order shopping facilities. The question of job opportunities on the urban fringe is a complex matter and requires a full appreciation of the nature and location of existing metropolitan work-places, of the mobility of the local residents and of the ease of usage and efficiency of both the public and private transport infrastructure.

The Constantia study reveals that there are insufficient shopping facilities to serve local needs. Job opportunities are negligible and, while sufficient land has been acquired for school purposes, none have as yet been built and the Constantia residents are thus dependent on school facilities elsewhere. Constantia is also dependent on other areas for necessary police and fire-fighting facilities.

In regard to local shopping facilities, the peculiar situation is found whereby existing facilities are not only insufficient, but also function inefficiently. At the same time too much land has not only been zoned for shopping facilities, but development approval has already been granted.

As with job opportunities, the provision of shopping facilities is a highly complex matter and requires a full appreciation of the nature and location existing facilities in the metropolitan area, of shopping habits, spending power of the population, accessibility and catchment areas. It is not simply a matter of leaving the decision making process to the private entrepreneurial sector; public sector involvement is essential and there is a very real need for close liaison between both sectors. This is made very evident in the case of the proposed Constantia Centre whose viability was usurped by the development of the Blue Route Centre and other shopping centres in the southern suburbs. This is very much a zoning problem and has led to a situation where alternative uses for the proposed Constantia Centre site have had to be sought.

The provision of civic purposes (such as libraries and general purpose halls) is similarly not merely a question of the determination of needs by the local authorities. Their provision requires strong feedback from the local residents and a clear policy in regard to their efficient provision - including land acquisition. The fault of the Constantia situation, was not so much that too much land was set aside, but rather that when it became evident that facilities serving a public purpose could better be provided elsewhere - no reassessment of the situation was called. This was a clear indication of insufficient forethought or rationalisation of the expenditure of private sector funds.

In regard to those commercial facilities which are by nature allied to the urban fringe (such as the establishing and functioning of nurseries and farm stalls); too little consideration has been given by the local authority to the evident benefits to the local residents afforded by these facilities. Instead, their activities have been over-restricted and the establishment of farm stalls in particular have been actually discouraged. Certain performance standards are, however, necessary for the safe and efficient functioning of these facilities; especially when located on busy roads, or when surrounded by residential development - where their activities could have negative spill-over effects.

Low-order convenience stores should be encouraged; particularly in areas remote from existing shopping facilities and where an adequate captive market exists. As suggested, a degree of public sector participation in the provision of these stores could prove beneficial.

Lessons to be learnt are:

- Firstly, adequate provision for all necessary services must be made after establishing the location of existing services in the near vicinity - obviously services must not be duplicated when not necessary. (This refers to education facilities, police and fire-fighting services).
- Secondly, adequate but realistic provision must be made for a certain amount of job opportunities, sufficient low-order shopping facilities and also for civic purposes. The provision of land for shopping facilities must be informed by both economics and convenience and a more flexible approach needs to be adopted with regard to facilities such as nurseries and farm stalls. It is, however, emphasized that close liaison between the public and private sectors is imperative; together with a full understanding of the demand and supply factors regarding both job opportunities and shopping facilities.

1.3 The Farming Component

Farming activities bear the full brunt of suburban expansion into the urban fringe. These activities cannot compete with residential development on the open market, and the accommodation of metropolitan population growth results in the inevitable loss of farming land.

The importance of farmland on the urban fringe is invariably under-rated. Existing use of farmland is not the best criterion, and its potential usage (both in the short and long term) requires far more investigation and consideration. The metropolitan population must be fed and the urban fringe offers the best opportunity (location-wise) to perform this productive function. Market gardening and dairy production are not necessarily land expansive, but are unfortunately fairly labour intensive. One of the major problems confronting viable market gardening is therefore the competitive labour market of the urban area.

Moreover, in an area where natural conditions are particularly favourable for a particular type of farming which has both local and national importance (such as grape production in the Western Cape); it is imperative that prime land be protected against competing urban uses.

The Constantia Valley offers a prime example of extremely valuable land for both vineyards and market gardening. Suburban encroachment has displaced a large proportion of these farmlands; and the spin-off effects of suburbanization are seriously endangering the viability of the remaining farms.

Although the authorities have recognized the importance of preserving these farmlands, no positive measures have as yet been adopted to alleviate the very obvious plight facing the farmers. The suggestions put forward are based on optimising the existing labour resources in the Valley (prison and reformatory labour); on the application of tax relief measures; on the consideration of alternative, more profitable, uses of portions of the land (in the form of limited pockets of development); and on acquiring for public outdoor recreational purposes, those portions of the land not suitable for farming. The other alternative is that of privately-held land being acquired and farmed by a state-subsidized company; as is the case with Groot Constantia. This alternative appears to offer the most realistic long-term measure to preserve such farmland.

The situation in Constantia is to a very large degree, one of attempting to salvage what has not already been lost. It therefore highlights the importance of establishing the potential of the land for various farming purposes at a very early stage - well before suburban encroachment has had the effect of increasing development expectations and thus imposing an unrealistic value on the land. Thereafter, the farming sector must, through firm policy formulation, be assured of a reasonable amount of support to facilitate the continued viability of farming.

Alternative forms of usage such as pockets of high density housing or holiday cottages need not be incompatible with continued farming. But such uses should be extremely carefully located so as to be effectively concealed. The outdoor recreational potential of farmlands is largely untapped.

1.4 Recreation

The urban fringe is the natural focus for many outdoor recreational activities - particularly when the location and establishment of a city is associated with some land form which lends itself to such usage. Cape Town is in an almost unique position in that it is bordered by both sea and mountains - both of which have a very high recreational potential.

The value of these attributes to the metropolitan population is immeasurable, and for many families they constitute the main reason for living in Cape Town. As the metropolitan population increases, so the use of these attributes will escalate. Already many of the more accessible parts of the mountain are overcrowded, and as they become more so - the quality of the environment will decrease.

In recognition of the need to not only provide more opportunities for outdoor recreation, but also to preserve the environmental state of the mountainside; the Hey Commission has recommended that the South Peninsula Mountain Chain be linked to Table Mountain to form a mountain reserve. The proposed control measures applicable to this reserve will effectively serve as a barrier to further suburban encroachment.

A most important factor regarding the use of the mountain, is that it is the only major resource which is both free and open to all sectors of the population.

While the mountainside offers a more rigorous form of outdoor recreation aimed at the metropolitan population; more casual recreational activities, of a local-serving nature are catered for by the provision of public open space. This is a required accompaniment of township development, but not of minor subdivision - and many fringe areas lack any form of co-ordinated open space system which could serve a meaningful and necessary purpose. In addition, many fringe areas are unfortunately not endowed with landforms which naturally lend themselves to recreational usage.

The topographical setting of the Constantia Valley constitutes one of its major attributes; its recreational potential at both the local and metropolitan levels is enormous. This potential has, to date, been far from optimised.

The study has emphasized the need to make better use of outdoor recreational potential of noteworthy environmental features on the urban fringe as this is possibly the major contribution which the fringe can make to the metropolitan area. In this

regard , apart from walking, hiking, climbing and picnicking; the urban fringe is the logical location for horse riding activities, and it should be ensured that these activities are facilitated to meet the needs of the metropolitan population.

1.5 The Environment

The urban fringe represents the contact zone between man and nature. As urban populations grow, and cities expand, so this linkage becomes weaker - so that many children are aware only of a built-up environment. The pleasure to be derived from contact with nature need no emphasis, but the need to ensure that such linkages remain intact unfortunately frequently needs to be emphasized.

Far too much suburban development is preceded by the indiscriminate use of the bulldozer, and far too little consideration is given to both preserving existing landforms and vegetation and of propogating new vegetative growth. This is partly due to the profit motive on the part of the developer, partly due to the lack of sufficient control which permits developers to make optimal use of the land to the cost of the environment, and partly due to the fact that the authorities tend to apply unrealistically high standards (with regard to roads for example) at the expense of the environment.

The sensitive use of natural landforms and vegetation constitutes the major criterion which differentiates monotonous and sterile suburban development from that which is both interesting and visually pleasing. The camouflaging potential of vegetation cannot be over-emphasized, and developers have in the past been apt to ignore the fact that a built environment which includes trees and other vegetation, has a greater sales potential than one devoid of any vegetation.

Constantia is highly fortunate in being well-endowed with both an undulating topography and an exceptionally rich vegetative covering. The major threat to the local natural environment takes the form of undesirable species of alien vegetation which have infested much of the mountainside and have also intruded into the built environment. The costs of controlling and eradicating this vegetation are exorbitant and generally beyond the means of the private property-owner. Their intrusion into the Valley has clearly been insufficiently controlled by both the public and private sectors.

Two other important factors in regard to vegetation are that no meaningful replacement programme exists to replace the many trees which are old and dying; and that insufficient consideration is given to existing trees in regard to road-widening proposals etc.

Another not so surprising factor associated with the urban fringe of the older cities is that they frequently comprise historic homesteads - these being relics of the farming estates which were established around the city. Because of its farming

potential and its exceptional living environment, Constantia is more well-endowed than most fringe areas. Although the preservation of these homesteads is adequately controlled, their immediate surroundings are particularly vulnerable to suburban pressures and require sensitive and strict preservative action.

1.6 General

The urban fringe is generally acknowledged as being that area or zone which lies beyond the existing suburbs but where forces of suburban expansion have already begun to affect the traditional farming practices and have distorted the existing use values of the land. Such land is usually found to fall within the boundaries of a local authority which is already partially suburbanized.

Local authorities who administer suburban land on the urban fringe are characterised by an unbalanced rates account. Expenditure on necessary services is seldom balanced by the local rates income; this is largely due to the fact that such expenditure is generally spent on providing services in anticipation of future needs.

Because suburban development in these areas is a relatively recent phenomenon, time has not allowed for the establishment of effective communal ties. Consequently, there is usually a lack of any strong and fully representative public body. This is also largely due to the great conflict in interests between the various sectors of the local community - the farmers and the newly arrived suburban residents.

The negative attitude towards public participation which prevails amongst the local authorities, together with above, tends to result in much friction between the public and private sectors. This is intensified by the natural tendencies towards self-interest which characterise the more powerful land-owners.

Because Constantia is to a large extent, already suburbanized (and has been for some time) - a fairly strong community spirit exists. This is to a very large extent due to the environmental characteristics of the Valley which most residents feel strongly about and wish to preserve. Nevertheless, official representative body (the C.P.O.A.) has only very recently managed to gain the support of the majority of the local residents. Its effectiveness is however still hampered by the unwillingness on the part of the authorities to involve the private sector in the decision-making process. Certain recent events have indicated that this situation has improved slightly.

Another, most important factor which is typical of suburban development on the urban fringe, is the tendency to cater for the upper income groups to the exclusion of the lower income groups. Although, this is partly a natural locational aspect of the housing

market, it is also to a large degree actively encouraged by policies adopted by the relevant local authority, which aims at optimising the rates income from development.

This in itself is not a critical factor; provided adequate housing alternatives exist in the inner suburbs. However, the rating policy of the various authorities within the metropolitan area, and the fact that these suburbanizing areas function almost solely as dormitory suburbs, means that the urban fringe houses a privileged sector of the metropolitan population - to the cost of the lower income groups. The outer suburban authorities (and thus the local residents) are not forced to bear the full costs of suburban development in the urban fringe. For example, Constantia clearly caters for only the more wealthy sectors of the metropolitan population and contributes virtually nothing to the costs of the metropolitan area.

The situation is considerably worsened by the inherent inefficiency of the local authorities, by the parochial attitudes which characterise the various metropolitan local authorities, by the lack of liaison between these authorities, and by the inability of most metropolitan authorities to effectively co-ordinate and control suburban development.

The natural result of these factors is that of suburban sprawl. The recent rate of development in the northern suburbs; and the many large properties which were purchased by development companies on the West Coast (in the vicinity of Milnerton, Blouberg and Melkbosstrand); and in the Noordhoek Valley, serve to illustrate the fact that suburban sprawl in the local context is a very real phenomenon. The local planning system has clearly failed to prevent the situation from occurring; and were it not for the fact that economic conditions have, to a very large extent, put a stop to further sprawl - the situation could be alarming.

As it is some development companies have gone bankrupt and a large proportion of the newly constructed houses in the northern suburbs (particularly Kraaifontein) remain vacant. The Kraaifontein municipality itself has gone bankrupt due to the fact that it over-extended its local resources in an effort to attain greater status in the metropolitan area.

The above factors are very much the result of a lack of a meaningful policy at the metropolitan level in regard to the desired form or structure of Metropolitan Cape Town, and the lack of effective liaison between the public and private sectors.

A problem which is almost universal, and of great applicability to local authority administration of the urban fringe, is the inefficient, time-wasting (and therefore costly) nature of the public sector decision-making process. This tends to have adverse repercussions, via the developers and land owners, on all the prospective home-owners and hence, via a trickle-down process, on all sectors of the metropolitan population - and especially the urban poor.

2.0 THE BRITISH AND UNITED STATES CONTROL POLICIES

2.1 The British policies

The British policies regarding land on the urban fringe are very much geared to the ruling parties' attitude to land ownership and the redistribution of profits associated with development. The policies drawn up under the labour government have proved the most effective in considering the various problems arising from suburban expansion and it is basically these policies which have been reviewed and which are pertinent to the issue at hand.

Many of the problems found in South Africa are due to the fact that general planning policies are geared to a capitalistic society which, by nature, inevitably results in a situation where the rich become increasingly richer and the poor increasingly poorer - relatively speaking. The British policies have, over the years, attempted to resolve just this situation through a more equitable and redistributive approach; the various policies culminated in the Community Land Act.

Before considering the applicability of this Act, the preceding policies and ideas are outlined, for they have great applicability to the local fringe situation.

The British planning approach is itself a most important aspect - this being that of a strong philosophy of what the ideal urban structure should be. Apart from the major issue of controlling land values and the distribution of private sector profits, this approach or philosophy is centred around suburban containment.

Suburban containment was informed by three major factors - the efficient functioning of the city, the preservation of farmland and the provision of recreation facilities in the form of green belts.

Apart from the active recreational usage of the green belts, they served as an all-important tool to realize the other two objectives - namely containment and the preservation of the countryside.

The recognition (by the Scott Committee) that prime farmland should occupy a specially privileged place in the (metropolitan) economy, has great relevance to the local situation. As suggested, it should not be regarded as any other industry, subject to the hard rules of economic competition, but should be protected against competition for the land it used. Moreover, the system of land use planning should guarantee that it should never be displaced.

The economic conditions, under which the Community Land Act was adopted, are particularly relevant to the present condition found in the local situation. The accent on making the best use of existing resources, and of adopting a more positive and creative approach to planning are thus highly significant; especially when coupled with the Labour Government's emphasis on improving the welfare levels of the lower income groups.

As stated, the system was designed to move away from a reactive often negative approach towards a more positive consideration of the land needs and how these can best be met. That this should be the aim of the South African planning system is not surprising; as this system was based very largely on the British system.

The system adopted (the Community Land Act) was based on making more effective the previous attempts (as in the 1947 Act) at controlling land values and redistributing private sector profits. The essence of the Act was that all land for development would ultimately be purchased by the local authorities at current use value, and that it would then be sold to developers at its speculative or development value. The profits would then revert back to the authorities and thus to the community in the form of public services and amenities.

The major differences between this Act and the 1947 Act were that instead of merely restricting the supply of land for development, such land was rationed out in a controlled, but positive, manner - according to the perceived land needs of the community. In addition, the attitude towards the private sector was completely different, in that instead of attempting to curb the activities of the developers; the developers were brought into the system as an integral element.

The concept of strong liaison between the public and private sectors, and the recognition that the entrepreneurial skill and experience of the developers represented a resource which should not be wasted - constituted the most important aspects relating to the implementation of this Act. The realization that the cumbersome and inflexible machinery of the public sector could in no way replace the flair of developers, cannot be over-emphasized.

Moreover, the system afforded the opportunity of giving the developer, at an early stage, a clear brief of the broad design aims of the authority. This, together with the fact that "partnership-agreements" between the authorities and the developers were to be encouraged - have great applicability to the improvement of the local system. In addition, the avoidance of uniform standards and too detailed approach to control, together with the encouragement of a more flexible approach whereby the private sector should be given the scope to innovate - are especially pertinent.

It is clear that the above means of implementing the Community Land Act, have considerable relevance to the improvement of the local planning system.

In considering the application of the Act itself, it is apparent that it would involve a drastic re-assessment of the whole concept of land ownership and entrepreneurship which characterises the South African urban land market. It would also involve a

drastic upheaval of the way of life of the more affluent and influential sectors of the population. A major aspect in this regard, is that it would require the support of the upper income sectors of the population, which would depend on their acceptance of a responsibility towards the less fortunate members of the community and their willingness to participate in a redistributive process.

In the South African context, such a drastic change would perhaps be more easily put into practice at the local (metropolitan) level than on the national level - as was the case in Britain.

2.2 The United States policies

The emphasis on a managed growth approach to planning as is currently being practised throughout the United States, represents an alternative way of approaching the same underlying goal in regard to the planning system as that contained in the Community Land Act. To reiterate - the system was designed to move away from a reactive and often negative approach towards a more positive consideration of land needs and how these can best be met.

Whereas the Community Land Act represented a single method of applying the principles of managed growth (at the national level), the various methods adopted or put forward in the United States, represent innovations at the local level.

The adoption of a managed growth policy arose out of the perceived need to control suburban sprawl. The various methods or tools of managing growth are thus particularly relevant to the urban fringe. The fact that the effects of suburban sprawl led to much influential lobbying to stop all growth, is a lesson in itself. The problems arising from urban sprawl in the American context are equally as applicable to the South African situation.

Similarly, the adoption of a more realistic policy - that of managed growth; is also a lesson to be taken note of. It is clear that just such a policy is badly needed in the Cape Metropolitan area. The pattern of suburban intrusion into the urban fringe and the resulting problems experienced in the United States, are remarkably similar to those experienced in Constantia.

Various ways of putting managed growth into practice have been put forward in the United States. Basically, controlling the timing and location of new development together with the desired form of development.

The amount of new development and its location is controlled by various techniques such as the following:

- those based upon the availability of an existing service infrastructure (e.g. the Ramapo points system). By relating

the granting of development rights to the staging of capital works; the authorities can effectively channel development in a desired direction - while at the same time control the amount of development. An important aspect of this technique is that it provides the means for controlling leap frog development.

- The Petulama annual quota system offers great potential for not only controlling the amount of development and channelling it in desired directions, but also for ensuring high quality development - with a strong emphasis on community facilities and the preservation and enhancement of the environment.
- The transfer of development rights represents an effective means of controlling and channelling development while at the same time, compensating the owners of land where development is restricted - thus ensuring the preservation of existing uses on this land in a more equitable manner.

Other techniques used to channel growth away from certain areas such as prime farmland or sensitive environmental areas of a particularly high scenic value or recreational potential are:

- Preferential tax treatment to compensate the owners of prime farmland for the fact that their properties cannot be developed (e.g. as applied in Sacramento).
- The acquisition of land for green belts (e.g. Boulder)
- Environmental controls whereby flood plains and steep slopes are demarcated and no development is permitted (e.g. Boulder)
- The insistence of environmental impact statements being prepared by the developer in respect of any development allied to a particularly sensitive environmental area (e.g. Sacramento).
- The application of easements represented a simple method of obtaining for the public, the usage rights of privately-held land. This also provided the means of preserving scenically-attractive land, while at the same time, financially rewarding the owner either through tax relief or the acquisition of development rights. This tool represents a rational way of optimising the use of large properties on the urban fringe.

Techniques concerning the form of development, are based on various means of "bargaining" with the developer so as to ensure the provision of community facilities or amenities - such as public open space. Incentive and bonus zoning, conditional zoning and PUD were some of the methods used. PUD was aimed at the realization of a self-contained neighbourhood. Some techniques went even further by specifying a certain amount of job opportunities being provided in relation to the number of people housed by the development.

A number of authorities made specific provision for ensuring the provision of housing to cater for low or moderate income families; these took the form of a certain minimum percentage of the total housing development. This represents an effective way of minimising the exclusive nature of urban fringe development. As mentioned, the Petulama quote system provides a most useful tool for ensuring a high quality of development.

The above techniques are characterised by the following factors:

- Firstly, a realistic attitude to suburban containment was adopted. In recognition of the fact that total containment would be both economically and socially undesirable; the techniques employed were geared to limiting and channelling development in a desired direction. In this manner, the environmental and farming attributes of the urban fringe could be preserved; and the costs of such expansion would not be imposed on the existing urban residents.
- Secondly, the techniques employed had of necessity to be equitable. This was ensured by the democracy of the American planning system; and the fact that the law courts were to a very large extent relied upon to ensure that whatever policy was adopted was geared to the welfare interests of the general public.
- Thirdly, the more enlightened attitude adopted by the authorities enabled and encouraged far greater public participation. This was particularly evident in the Boulder case study.
- Fourthly, an innovative and adventurous approach gave rise to the optimisation of the entrepreneurial forces of the private sector - in such a way that private self-interest could be manipulated to the public good.

3.0 A GENERALISED POLICY STATEMENT

In establishing a generalised policy statement in regard to suburban expansion into the urban fringe, the Constantia study has served as an appropriate means of assessing the various forces applicable to suburban expansion.

- the problems which inevitably arise through the market process.
- the role of the public sector and its inability to effectively control such expansion or the costs (on a metropolitan and local scale) which invariably arise from it.

A close examination of the effects of suburban expansion into the Constantia Valley has afforded the opportunity of suggesting certain measures which could alleviate the present situation. These measures are essentially of a palliative nature due to the fact that the Valley has, to a large extent, already been suburbanized. The underlying policies are therefore geared to preserving those attributes which still exist and to establishing some effective means of contributing to the needs of the metropolitan population.

Another most important aspect which was highlighted was that, once the attributes of the urban fringe become threatened by forces of suburbanization, the sole means of preserving them is through permitting more development. The critical factor then being that such development should enhance rather than detract from the character of the urban fringe.

The study emphasized the need to consider the outer suburbs as an integral part of the metropolitan area, and stressed the fact that these areas do not contribute sufficiently to the alleviation of the problems found in the metropolitan area.

The universality of the problems experienced in Constantia is evidenced by their similarities to the problems associated with the urban fringe in Britain and the United States. The policies adopted in these two countries are therefore, in many respects highly applicable to the local situation.

The recent policies adopted by these countries have strongly emphasized a more positive approach to planning (with particular reference to the urban fringe) and the need to channel development in certain desired directions, rather than to simply contain suburbanization. Whether explicit or implicit, managed growth constitutes the present philosophy underlying the planning system of these countries in regard to suburban expansion.

Managed growth is put into practice by the application of various tools or techniques which are essentially geared to the imminent expansion of development into the urban fringe. In this respect, the Constantia example is particularly useful in that many lessons can be learnt from past experience and present inefficiencies and inequities.

The following policies, together with accompanying means to facilitate their implementation are thus suggested by lessons learnt from the Constantia study and the ideas gleaned from the British and American examples. It is assumed that no development has as yet intruded into the fringe zone.

3.1 General Policies

- A very necessary prerequisite to expansion into the fringe is that of treating such land as a metropolitan, rather than local asset. Such land should be therefore placed under the control of the metropolitan authority; and local authorities should only administer already built-up areas. In this way, suburban containment could be far more effectively controlled; and when the need arises for additional land - portions of the fringe could be consolidated with an appropriate municipal area.
- In addition to the take-over of the fringe areas, the metropolitan authority should be given far more effective decision-making powers in the metropolitan area generally. Apart from the essential co-ordination of future development which should be guided by short-term objectives informed by a broad long-term guide plan for the metropolitan area; this authority should function as a centralised information bureau and data bank. All relevant data pertaining to the metropolitan population and its economy should be handled by this data bank on an on-going basis; and information should be made available to the local authorities as well as the private entrepreneurial sector.
- A more equitable rating system should be devised to ensure that all sectors of the metropolitan population contribute to a metropolitan fund. Emphasis should be placed on the redistribution of income - in money or kind.
- Strong liaison should be encouraged between all the local authorities, as well as with representative bodies of the private sector. This liaison should take the form of a formal problem-oriented committee comprising members of the relevant local authorities and the local ratepayers associations. Public participation in the decision-making process should be actively encouraged.
- The private entrepreneurial sector should be looked upon as a resource to be employed in effectuating the metropolitan objectives. A more flexible, positive and even adventurous approach should be adopted in order to encourage developers to give greater consideration to the provision of public facilities, and to the preservation and enhancement of the environment. Encouragement should be given through incentives rather than controls.

3.2 The granting of residential development rights

- Suburban expansion should not be dictated by land use zoning, but should rather be determined by a reasonable interpretation of market forces. Overzoning of land for development should be avoided.

- Nevertheless, in anticipation of possible future expansion, the environmental characteristics and the value of the existing uses on the fringe should be determined. Environmentally-sensitive areas, together with prime farmland or land which offers a high scenic or recreational potential should be identified and when expansion is permitted - these areas should be excluded from the developable land. (1)
- Having established where development could take place, development rights should be granted only when there is an established need for additional land for housing. However, care should be taken not to over-restrict the supply of land.

3.3 Discontinuous Development

- Discontinuous development should be avoided whenever possible. Ways of directing the pattern of growth should be employed in order to ensure continuity of development. (2)

3.4 Protection of existing uses

- Where some property owners has no desire to give up the existing use of the land, and the property becomes totally surrounded by developing land; care should be taken to protect his interests - particularly when they constitute the general public interest as well. (Examples being farmland or land with a particularly high environmental quality.) (3)
- The authorities should ensure that the granting of development rights beyond and around such a property will be such that provision could be made to efficiently extend development into such a property if and when the use of the property is no longer viable or desirable. But it should also be ensured that the granting of these development rights does not in itself lower the viability of such continued usage. (4)

-
- (1) The transfer of development rights, together with easements and tax relief could offer the potential means of maintaining a level of equity amongst landowners. Alternatively, the land could be acquired for green belts, or the usage rights only could be purchased so as to allow the public access to the property which would remain under private ownership.
 - (2) Control techniques such as the Ramapo points system offer great potential for channelling growth in desired directions. The Petulama quota system could also be employed for directing such growth.
 - (3) Various techniques, such as the transfer of development rights, rates relief and easements could be used beneficially in such instances - so as not only to facilitate, but also encourage the continued use of the land. (These techniques could be employed in the case continued farming on Silverhurst).
 - (4) The meaningful use of public open space to serve as an effective buffer could be coupled with greater consideration being given to existing user-rights. Bonus, incentive or conditional zoning could be employed to persuade developers to provide additional open space to serve as the buffer.

3.5 Acquisition of land or of development rights

- Where the retention of the use of such a property (as that above) proves to be no longer viable; if it is considered to be in the interests of the general public that no development should be permitted on it, then effective means should be found for either purchasing the land for general public usage - or of acquiring only the development or user rights of the land. (1)
- A more adventurous and flexible attitude should be adopted in regard to the funding of such expropriation or acquisition of development rights. A bargaining or trading-off approach should be encouraged - involving strong liaison between all the parties concerned e.g. the authorities, the landowner and representatives of the general public. (2)

3.6 Vacant land

- To ensure that development does take place once development rights have been granted; far stricter building clauses should be imposed. (3)
- To prevent the artificial restriction on the supply of land, some method should be found of ensuring that developers do not hold onto land by asking unrealistically high prices. (4)

-
- (1) The acquisition of development or user rights, rather than the expropriation of the land, constitutes a highly effective method of resolving many such problems - particularly in the short or medium term; whereby the land can be retained under its existing ownership - while at the same time, be of benefit to the general public at lower costs.
 - (2) Purchase costs should come out of the metropolitan fund. Alternatively, the use of various methods such as a 1% sales tax on all development and land in the area would be employed.
 - (3) Instead of rating the site after 2 years as if a house to the value of R7000 had been constructed, consideration could be given to increasing the value to say, R20 000 - until such time as a house had actually been constructed.
 - (4) For example, if the plots are not sold within a specified period, the land could be expropriated by the authorities at a more realistic existing use price and thereafter either be auctioned off or handed over to some other developer on a similar basis to the transfer of development rights. The imposition of a bank guarantee pending the sale of the plots could prove a useful means of lowering the costs associated with vacant, unused land - such as the intrusion of undesirable vegetation. Where land has not already been subdivided and services instated, the authorities could purchase the land as part of a land bank programme. Such land could then be leased out for various specified uses such as market gardening.

3.7 Large-lot zoning

- The traditional large-lot zoning of the land for residential purposes is no longer a practical means of retaining a semi-rural character; and should therefore be permitted only if the layout makes provision for easy subdivision and if there is an established demand for such plots .
- Where such development is permitted, the required lack of services should be kept to the minimum. Should the developer or the new homeowner desire a higher level of services, the costs of providing them should not be borne by those not benefiting from them. In other words, the developer should "pay his way", while the property owners should internalise these extra service costs.

3.8 Higher-density housing

- Depending on an established demand, positive use should be made of these forms of housing - such as cluster, group or maisonette development.
- Because they represent a more effective way of rationalising the intrusion of development into the urban fringe, without necessarily lowering the environmental character of such an area; provision for these forms of housing should be made at a very early stage of development on the fringe.
- Possible sites for such development should be identified by the authorities, with emphasis being given to concealment or enhancement of the environment.
- Broad guidelines for the development of these sites should be drawn up by the authorities.
- Developers should liaise with the authorities to establish where such development could take place and thereafter, the design should comply with the guidelines as outlined. A flexible attitude should, however, be adopted by the authorities - so as to allow for innovation by the developer.
- Developers should be encouraged to provide a high quality product, geared to making full use of existing environmental attributes. Where such attributes are limited, effective control should be adopted to ensure adequate landscaping.
- The approval of such schemes should be based upon need and desirability; which should include the quality of design and the environmental aesthetics of the site - both existing and planned. (1)

(1) The Petulama quota system constitutes an extremely rational and fair method of approving only those schemes which conform to certain required standards, with priority being given to those exhibiting the highest quality of development. This in itself ensures that developers would provide a quality product.

3.9 Low or moderate income housing.

- Where appropriate (e.g. if public transport facilities are available), consideration should be given to ensuring that a certain proportion of housing caters for the lower income groups. (1)

3.10 Public Services and Facilities

- Necessary services such as education facilities, police and fire-fighting facilities, shopping facilities and job opportunities should be seen as a necessary accompaniment of housing. Care should be taken to avoid the duplication of such facilities, while at the same time ensuring that excessive demands will not be placed on existing facilities in the metropolitan area.
- The supply and demand forces in relation to shopping facilities and job opportunities, should be determined by the metropolitan authority. Broad catchment areas should also be established.
- Housing developers should contribute in some way to the provision of non-commercial forms of services or facilities. (2)
- The private entrepreneurial sector should be encouraged to liaise with the authorities, at an early stage, to determine the need for shopping facilities; and to discuss broad design principles.
- The provision of facilities such as nurseries, farm stalls and convenience stores should be encouraged. (3)

3.11 Farmland

(Policies have already been drawn up in regard to the protection of existing uses such as farming - see 3.4).

Nevertheless, it should be stressed that the rural character of fringe areas should be retained as far as possible. Alternative uses of portions of land should be given strong consideration. Limited pockets of higher density housing could be compatible with continued farming practices.

-
- (1) Incentive, bonus or conditional zoning; or even contributing costs could be considered to encourage such housing provision. Alternatively, developers could be forced to provide such housing without any compensation being paid (in money or kind). In this regard, a certain percentage of all major housing projects could be specified as being for the lower income groups.
 - (2) Bonus or incentive zoning in the form of more development rights could be used to encourage the provision of these facilities.
 - (3) Where deemed necessary, some contributory measure could be made by the authorities - for example the giving over of endowment even for such uses. Alternatively, the same principle could be applied as (1) above.

3.12 Recreation

- Emphasis should be placed on the provision of outdoor recreation facilities to serve both local and metropolitan population needs.
- Meaningful public open space systems should be planned well in advance of development; and these should relate to topographical features and the preservation of the environment.
- Acquisition of land to serve as effective green belts should be given special consideration well in advance of development; rights. These green belts should be both scenic and functional.

3.13 The Environment

- Special care should be given to the environmental qualities of the fringe area - both natural and built.
- Especially sensitive areas should be identified and excluded from the developable land. Alternatively, developers should be called upon to provide impact statements in regard to any proposed development of the land.
- The authorities should ensure that all undesirable vegetation is both controlled and eradicated; and should preserve or replenish all desirable forms of vegetation.
- All development should be geared to maximising existing vegetation to camouflage such development. Where none exists, landscaping requirements should accompany the granting of all development rights which involve fully constructed projects. In regard to minor subdivisions and conventional township subdivisions - the developers/owners should be called upon to pay a cash endowment over and above that which is normally payable.

Annexure

CASE STUDIES OF MANAGED GROWTH IN THE UNITED STATES (1)

1.0 RAMAPO, NEW YORK

With easy access to New York City, this town experienced very rapid growth between 1960 and 1970 - more than doubling its population. Apart from increased suburban sprawl, the major problems were the very rapid rise in school taxes and the fact that low-income housing was not being provided.

The following goals and objectives were put forward: "(a) To economize on the costs of public facilities and services by carefully phasing residential development with efficient provision of public improvements; (b) To establish and maintain public sector control over the eventual character of development; (c) To establish and maintain a desirable degree of balance among the various uses of the land; and (d) To establish and maintain essential quality of community services and facilities." (2)

The plan (put into effect in 1965) centred on controlling the timing and location of new development by co-ordinating it with staged capital improvements and was based on a point system.

All subdivisions for residential development of two or more lots would require special permit approval from the authorities. An 18 year capital improvement plan (in three 6-year programme periods) scheduled the staging of all sewerage, drainage, recreation and park facilities and improved road works.

The special permit was granted only when it was considered that the particular site was ready for development in terms of the availability of the above services. "Readiness" was judged on a point system based on distance from the service or facility and a certain minimum number of points was required in order to obtain the permit. Developers could advance the date of development by installing and furnishing improvements in order to bring the site up to the required number of points. To encourage the development of low-income housing and other public uses which conformed to the comprehensive plan, the required number of points was reduced in respect of these uses.

The importance of the Ramapo plan was that: (a) it initiated the points system which has subsequently been employed elsewhere in the United States, and (b) it represents the first instance where the law courts upheld the long-term restrictions on development through comprehensive planning or through zoning, without compensation. (3)

-
- (1) Unless stated otherwise, all these case studies have been summarised from Einsweiler and others (Management and Control of Growth Vol. II), pp. 304-325.
 (2) Ibid, p.304
 (3) Freilich (Management and Control of Growth Vol. II)

2.0 MONTGOMERY COUNTY, MARYLAND

Situated north of Washington D.C., since World War II, this county changed from being predominantly rural to being highly urbanised. Approximately half of the land area remains undeveloped. "The impact of growth in driving up the cost of providing urban services was a key factor in seeking greater development control. Additional causes being the fact that suburban sprawl was encroaching more and more into the countryside and that no provision was being made for low- and moderate-income housing." (1)

The 1964 plan was based on controlling the timing and location of development. Development was to be guided into areas that were serviced or scheduled to be served by public facilities.

Developers were required to prove that police and fire facilities, roads, water and sewerage systems and other amenities were available before being granted permission to develop - the adequacy of facilities being based on a broad assessment. No building permits were granted without prior possession of sewer connection points. Certain watersheds were not connected to the sewer system and in other areas a priority system was drawn up for staging connections to existing sewer lines.

The development of low- and moderate-income housing was encouraged through their being granted priority for sewer connections. Moreover, developers of 50 or more units were required to provide 15% in moderately priced categories - a court challenge was expected in this regard.

A new zoning category - called "rural zoning" was introduced whereby houses could only be built on plots of 5 acres or more. A preferential tax assessment system operated for land in these rural zone areas used as farmland. Again, it was expected that these restrictions would be tested in court.

3.0 PRINCE GEORGE'S COUNTY, MARYLAND

Lying east of Washington D.C., this county also changed after World War II from a predominantly rural to a highly urban county. As with Montgomery county, approximately half the land area is still undeveloped.

Particularly rapid growth during the 1960's produced a series of effects which prompted further development control. "Public service costs were rising while the availability of services was declining. Scattered, rapid development created concerns for environmental protection. Development was unbalanced, high on homes and low on jobs resulting in increased commuter congestion in Washington and Baltimore and an unbalanced local tax base. To better manage these problems, the country determined to co-ordinate land use controls to compact urban development in orderly stages." (2)

(1) Einsweiler (op cit) p.312 (2) Ibid, p.316

The strategy employed in the 1964 plan was....."to program services based on annual target population and employment and to channel growth into areas already serviced or programmed for servicing." (1)

The proposed staging policy was based on the division of the county into four classes or areas for development purposes: preferred development areas (where services were available or could be readily extended); economic potential areas (where a more balanced tax base and job/home mix was to be strived for); limited development areas (only minor additions to existing development would be allowed); and deferred development areas comprising about 55% of the country (where, because of health or environmental problems, sewer moratoria were imposed).

The policy also determined so-called population equivalent targets by sewer service area. The annual population in job targets could be adjusted provided the threshold rates of 26 jobs/100 residents was met.

The only aspect of the plan which was tested in court was that of the adequate public services requirement - it being upheld in favour of the county.

4.0 BOULDER, COLORADO

Boulder is situated 45 km from Denver and houses the University of Colorado. It is located in a valley basin surrounded on three sides by plateaux and the foothills of the Rocky Mountains. Due to the fact that much of the rapid growth since 1960 has been in response to white collar economic development, research, governmental offices etc. - there was only a small population of lower-income families.

"The high growth rate, rapid subdivision of the mountain sides, rising cost of services and concern for protecting the way of life led to co-ordinated citizen and public authority intervention in the development process. The essence of the 1967 plan was to control the direction of growth and to give the community the power over this control. The major objectives being to preserve the scenic mountains, restrain and compact development, and to physically separate the growth of Boulder from surrounding suburbs."(2)

The plan was based on (a) to reduce growth from immigration by cutting back industrial research; (b) to restrain and contain growth by acquiring land for green belts and by acquiring development rights in certain scenic areas where development should not be permitted; and (c) to charge the full cost of providing services to permitted development in locations based on the comprehensive plan." (3) Because there was no open land available in Boulder, developers had to negotiate the extension of public services and facilities.

(1) Ibid, p.316

(2) Ibid, p.319

(3) Ibid, p.319

In an attempt to protect the scenic foothills, a so-called "Blue Line" was established around the urban limits; beyond which municipal water would not be extended - as the climate is semi-arid, the availability of water was a prime necessity for any development.

The overwhelming positive response by the residents to a questionnaire on green belt proposals served to ensure that the scenic foothills would be preserved as a green belt - land acquisition was to be through the use of a 1% sales tax. Moreover, development was prohibited in certain areas through environmental controls on flood plains and on steep slopes.

The success of the above schemes, and the alarm caused by the release by the public authority of a population projection based on existing growth trends, resulted in a concerted effort by the residents to stop or limit further growth. An organisation comprising a body of concerned citizens conducted a survey of local residents and found that + 78% favoured a population ceiling of 100 000. As an alternative, the local authority proposed a study to examine the issue of growth and its impact on the area - this alternative was accepted by the residents. The authorities then secured a governmental planning grant for the purpose of conducting this study and placed a citizens' advisory group in charge of the study.

As a result of this study, various control measures were put into operation. Variable building height restrictions were imposed based on the identification of three density zones. Revenue bonds were introduced for the purpose of funding green belt acquisitions. An 8-month moratorium on new subdivisions in the area outside of the urban limits was established to enable the redrafting of subdivision regulations. To fund the acquisition of open space, a set fee was levied on all new residential construction as well as commercial and industrial development based on a percentage of the construction cost. A "pay-as-you-go" policy on all applications for development was put into effect whereby sewer and water connection fees were based on the distance from existing reticulation systems. In the case of an extension to the reticulation systems, the developer was reimbursed for the overprovision of these services as additional development in the area took place.

Where the development charge (service connection fees and open space fees) could prove a deterrent to the construction of low income housing, this charge was to be exempted. Moreover, developers were required to provide low and moderate income housing equivalent to 15% of all major development projects. Where the project was of a minor nature, the percentage was to be aggregated with other projects as part of a larger project.

The only aspect of the control measures which has gone to court is that of a developer from outside the urban limits demanding access to water and sewer services - by 1975 no decision had yet been taken.

5.0 PETULAMA, CALIFORNIA

Petulama was in the 1960's, the centre for an agricultural region; since then it has become more and more a commuter suburb of San Francisco. Much development took place beyond the city limits although there was substantial land available within the urban area.

"Rapid growth caused concern among the residents; leading to a desire to preserve their way of life, prevent irreversible damage to the environment and control the cost and improve the quality of public services. An additional concern was the lack of variety in housing ages and types". (1)

"The following goals were adopted: To limit growth to a certain number of housing units per annum over a certain specified period. To preserve the small town character and surrounding open space by controlling the future rate and distribution of growth. To co-ordinate development rate to school and services capabilities. To provide a permanent green belt of open hills and marshlands, together with adequate open space for intensive and extensive uses. To require Environment Design Plans, Planned Community Districts and PUD procedures to gain the best design possible. To redress a deficiency in multi-family units and ensure a variety of densities and building types and thus a wide range of prices and rents." (2)

The 1971 plan was based on the following strategy: The traditional practice of annexing and providing services and facilities to all new developments outside the city limits, would be stopped. Instead, an annual quota of housing units would be allocated to projects within or outside the urban limits based on the impact on public facilities and on the environment - with design playing an important role. Areas to accommodate short term growth would be identified and further growth would be prevented by the establishment of a green belt.

The plan applied only to the development of 5 or more units. Allocation quotas for various types of dwelling units for each section of the urban area were established each year, based on a 5-year programme. Flexibility in the number of quotas per annum was permitted but the 5-year total remained fixed. At least 10% of the permits issued each year were to be for low- and moderate-income housing.

If the project conformed with the overall plan, it was then judged on the basis of its relation to, or impact upon, local public service facilities - based on a point system. The project was then given a rating based on the quality of design and its likely contribution to public welfare and amenity. Development quotas would then be awarded on the basis of the point and rating systems, with priority being given to the project scoring the highest.

(1) Ibid, p.321

(2) Ibid, p.322

Green belt land was never acquired as it was considered that the above system would adequately serve to control suburban expansion. Nevertheless, the plan was declared unconstitutional and had to be dropped - the reason being that it was considered by the courts that "no city may regulate its population growth so as to preclude residents of any other area from traveling into the region and settling there." (1)

6.0 SACRAMENTO COUNTY, CALIFORNIA

This valley contains extremely productive agricultural land and is located to the north-east of San Francisco - beyond normal commuting distance. The various urban settlements within the county are free standing; and while the rate of growth of these cities is not of primary concern, the location of new development is - as it encroaches on farmland and scattered development results in expensive public services. About 20% of the county falls within the 100-year flood plain which mostly consists of fertile farmland. In addition, the land comprises valuable natural resources such as various forms of industrial clay.

The major stated goals for the future of the county were "to maintain and enhance the agricultural environment; protect and manage the use of land, water and other resources; develop and maintain a balanced ecological system; promote the distinctive character of each community; and a wide range of urban living alternatives; provide a wide range of recreational opportunities, safe and adequate housing, safe and efficient transportation, public services and facilities." (2)

In 1970 a co-ordinated plan was based on a so-called "urban limit line" (or "urban service area") whereby development would be channelled to planned areas adjacent to existing development and would thereby be prevented from occurring on prime agricultural or natural resource lands.

Various means of control were implemented. Agricultural land was subject to preferential tax treatment. Septic tanks were prohibited in the 100-year flood plain. In other areas septic tanks could not be placed within 150 feet from the property boundary - thus restricting the minimum size of plots. This policy was later changed to one where all subdivisions were to have public sewer and water connections.

Furthermore, the granting of development permits for projects located in particularly sensitive areas was to be subject to an environmental impact statement being prepared by the developer.

(1) Ibid, p.322

(2) Ibid, p.324

REFERENCES:

- CARTER, BERT & NOBERT: Article in Management and Control of Growth, Washington D.C.: The Urban Land Institute, 1975. (Editor: Scott, R.W.)
- CLANSON, M. & HALL, P.: Planning and Urban Growth - An Anglo-American comparison. Baltimore & London: John Hopkins University Press, 1973.
- CAPE METROPOLITAN PLANNING COMMITTEE: Draft Guide Plan for the Cape Metropolitan Area. Cape Town. C.M.P.P.C. 1977
- DIVISIONAL COUNCIL OF THE CAPE - unpublished reports
- (1) An interim report on the control of urban settlement in the Constantia Local Srea. Feb. 1963.
 - (2) Constantia 'Green Belt' Area: Proposed Treatment. Feb. 1970 (C.R. Shirley)
 - (3) Proposed replanning of Constantia 'Green Belt' area. March 1970 (Prof. J. Beinart).
 - (4) Report on subdivision of 'Silverhurst' Farm. Jan. 1970 (Prof. J. Beinart)
 - (5) Rezoning of properties and road improvements in the Tokai neighbourhood. 1972.
 - (6) Constantia Local Area - Revised Town Planning Scheme. May 1976.
- EINSWEILER et al. Article in Management and Control of Growth Washington D.C.: The Urban Land Institute, 1975. (Editor, Scott, R.W.)
- FREILICH.: Article in Management and Control of Growth. Washington D.C.: The Urban Land Institute, 1975 (Editor: Scott, R.W.)
- HALL, J.: Forests as Recreational Resources, Recreational Geography, 1971.
- HARRIS, P.: The Land Act in Operation, The Planner, Vol. 62 No. 2 February 1976.
- HEY, Dr. D.: Report on the future control and management of Table Mountain and the South Peninsula Mountain Chain. Cape Town Department of Planning and the Environment, 1978.
- ISBERG : Article in Management and Control of Growth, Washington D.C. The Urban Land Institute, 1975 (Editor: Scott R.W.)
- LICHFIELD : Article in Management and Control of Growth. Washington D.C. The Urban Land Institute, 1975. (Editor: Scott, R.W.)

- LINDEMANN, B.: Anatomy of Land Speculation. Journal of the American Institute of Planners, Vol. 42, No. 2 April 1976.
- LOCK, D.: Who's afraid of DLT. Viewpoint 2. Town and Country Planning. June, 1976.
- McLACHAN, D. & MOLL, E.J.: Table Mountain (A Path and Recreation Survey) Cape Town: Department of Botany, University of Cape Town. 1977.
- OAKES, G.J.: Implementing the Community Land Scheme. The Planner, Vol. 62, No. 1, January 1976.
- RICHARDSON, H.W.: Urban Economics. Middlesex England: Penquin Books, 1971.
- SCOTT, R.W. (Ed.) Management and Control of Growth, Washington D.C. The Urban Land Institute, 1975.
- THOMPSON, W.R. A Preface to Urban Economics, Baltimore and London: The John Hopkins Press, 1972.
- TOMALIN, P.N.: Aspects of Shopping in to Claremont. Unpublished M.U.R.P. Thesis. U.C.T. 1971.
- THE TOWN PLANNING REVIEW: Editorial Notes Vol. 46 1975
Editorial Notes Vol. 47 1976
- WHITE, R.: The Community Land Act. The Planner, Vol. 62, No. 1 January 1976.
- WHITE, W.H.: The Last Landscape, New York: Doubleday & Co. Inc. 1968.