

https://dspace.org/

South African Architectural Record: Journal of the Cape, Natal, Orange Free State and Transvaal Provincial Institutes of South African Architects and the Chapter of South African Quantity Surveyors.

1945

Institutes of South African Architects and the Chapter of South African Quantity Surveyors.
http://hdl.handle.net/10539/23355
South African Architectural Record; Journal of the Cape, Natal, Orange Free State and Transvaal Provincial Institutes of South African Architects and the Chapter of South African Quantity Surveyors. 1945. 30:1-12 p1-277

Downloaded from a DSpace repository. https://dspace.org/

SOUTH AFRICAN ARCHITECTURAL RECORD

THE JOURNAL OF THE CAPE, NATAL, ORANGE FREE STATE AND TRANSVAAL PROVINCIAL INSTITUTES OF SOUTH AFRICAN ARCHITECTS AND THE CHAPTER OF SOUTH AFRICAN QUANTITY SURVEYORS.

PHONE 34-2921 VOLUME THIRTY NUMBER TWO

611, KELVIN HOUSE, 75, MARSHALL STREET, JOHANNESBURG.

JOINT EDITORS: PROFESSOR G. E. PEARSE, W. D. HOWIE

CONTENTS FOR FEBRUARY 1945

THE FOUR OFFICIAL TEMPORARY HOUSES IN BRITAIN ... 16

BUILDING COSTS, MATERIAL AND LABOUR, by N. W. Gallagher ... 24

THE NON-EUROPEAN HOUSE COMPETITION, by M. Simon and L. Aronson ... 28

THE INSTITUTE OF SOUTH AFRICAN ARCHITECTS—THE CENTRAL COUNCIL ... 31

PROFESSIONAL NOTES AND NEWS:

Obituary—G. M. J. Geers ... 33

European Housing in Villieria, Pretoria ... 33

Flats for Ex-Soldiers ... 33

The Editors will be glad to consider any MSS., photographs or sketches submitted to them, but they should be accompanied by stamped addressed envelopes for return if unsuitable. In case of loss or injury they cannot hold themselves responsible for MSS., photographs or sketches, and publication in the Journal can alone be taken as evidence of acceptance. The name and address of the owner should be placed on the back of all pictures and MSS. The Institute does not hold itself responsible for the opinions expressed by contributors. Annual subscription £1 1s. direct from the Secretary.

THE FOUR OFFICIAL TEMPORARY HOUSES IN BRITAIN

As recorded in the "Architects Journal" for November 30, 1944, the Housing (Temporary Accommodation) Act became law on the 10th October, and a Memorandum "Temporary Accommodation" has been issued by the Ministries of Health and Works to guide local authorities in the practical application of the Act. It deals with the layout and siting, financing, management and maintenance of the temporary bungalows which have been officially approved (HMSO 6d.).

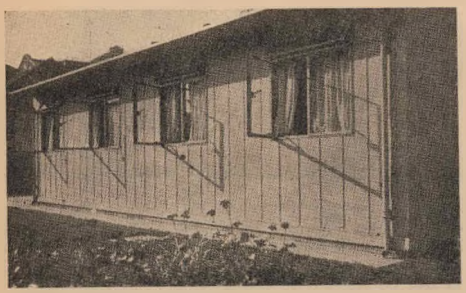
The Memorandum describes the four types of houses so far approved, namely that designed by the Ministry of Works, the Churchill House, to be fabricated in pressed steel; the Uni-Seco, with prefabricated wall and roof units of wood frame covered with asbestos sheeting and insulated with wood wool and cement; the Tarran, with wall units of resin bonded plywood framing, faced externally with ½ in. thick waterproof concrete filling on waterproof paper backing and roof units of timber frame covered with corrugated asbestos cement sheeting; and the Arcon Mark V. of light rolled steel framework in sections, covered externally with two thicknesses of corrugated asbestos cement sheets, and internally with timber framed panels faced with building board backed with insulating material. The plans of the Ministry of Works, the Uni-Seco and the Tarran houses are almost identical, being the official Revised Version. While the standard kitchen and cupboard units are in all cases the same, the Arcon house has a central entrance. The houses will be provided and owned by the Government and erected on sites acquired and developed with necessary services by the local authorities.

The Ministry of Works and the Arcon house are both type houses designed to satisfy a given set of conditions, while the Uni-Seco and Tarran houses as approved are adaptations of special unit systems to the official plan. In this regard, Astragal, in the Architects Journal for November 30, 1944, has written as follows: "... As was feared, the Revised Version of the Portal House (Ministry of Works—Ed.) with its inexcusably bad plan has been accepted, and the steel houses will start rolling off the belt early in the new year. Surely some notice could have been taken of the many excellent suggestions on revised plans which were published in the technical Press, and especially in the "Journal." That fine democratic gesture of inviting the public to comment on the first Authorized Version did not extend very far.

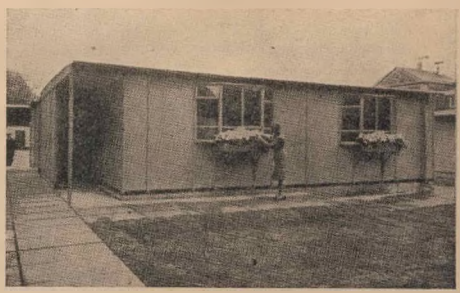
"However, the nice equipment will do something towards compensating the daily irritations of living in a dull and cramped little shack in which to satisfy a Simple Need will mean repeating the same Grand Tour of the premises a thousand times a year, involving the opening and closing of doors some 4,000 unnecessary times per person per annum. . . .

Apart from the Portal Palace, there is the question of the other types of temporary houses developed by private enterprise, of which three have so far been accepted. Of these the Arcon is so remarkably the best of the whole bunch, including the Palace itself, that the cynic will be asking what mysterious powers have caused its official acceptance. In general design, it shows real human and aesthetic feeling, but it is also a very practical job with an excellent plan—one that really does work. . . .

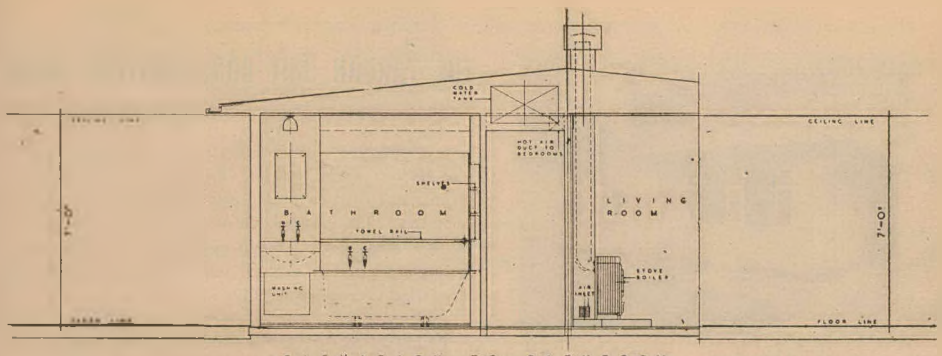
"Why, one wonders, did Messrs. Tarran and Messrs. Uni-Seco adhere to the official Revised Version plan? There could

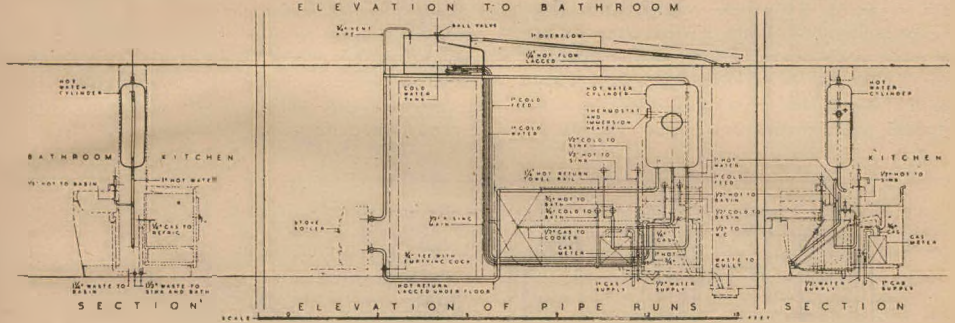


MINISTRY OF WORKS



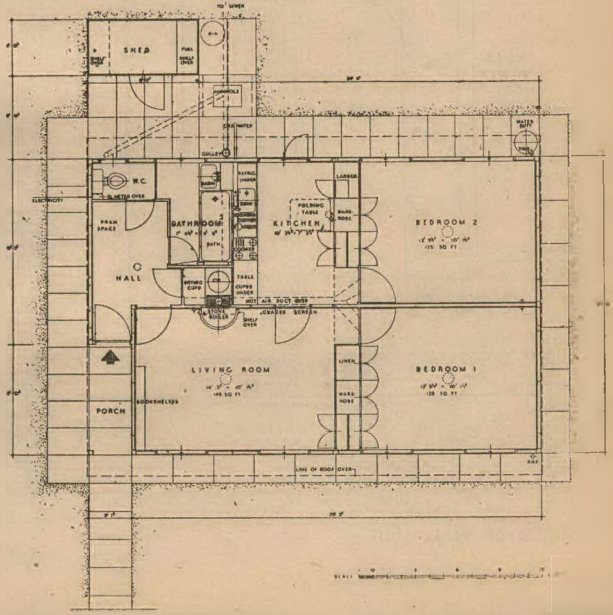
UNI-SECO



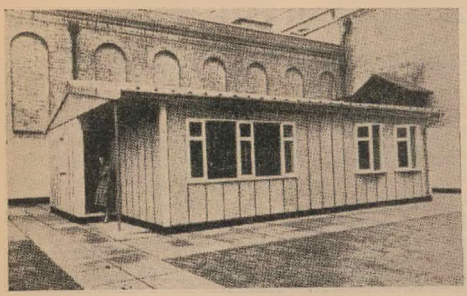


ABOVE: The standardised layout of the steel kitchen and bathroom unit adopted in the four types of temporary house shown, in this case, related to the Ministry of Works house. The unit is extremely compact and efficient. The hot water is provided by the boiler at the back of the living room open heating stove. An electric immersion heater, thermostatically controlled, is fixed in the circulating cistern to heat about seven gallons of water for the sink when the living-room fire is not in use.

RIGHT: The official Revised Version of the original plan for the Ministry of Works house, now also used as the basis for the Tarran and Uni-Seco houses.

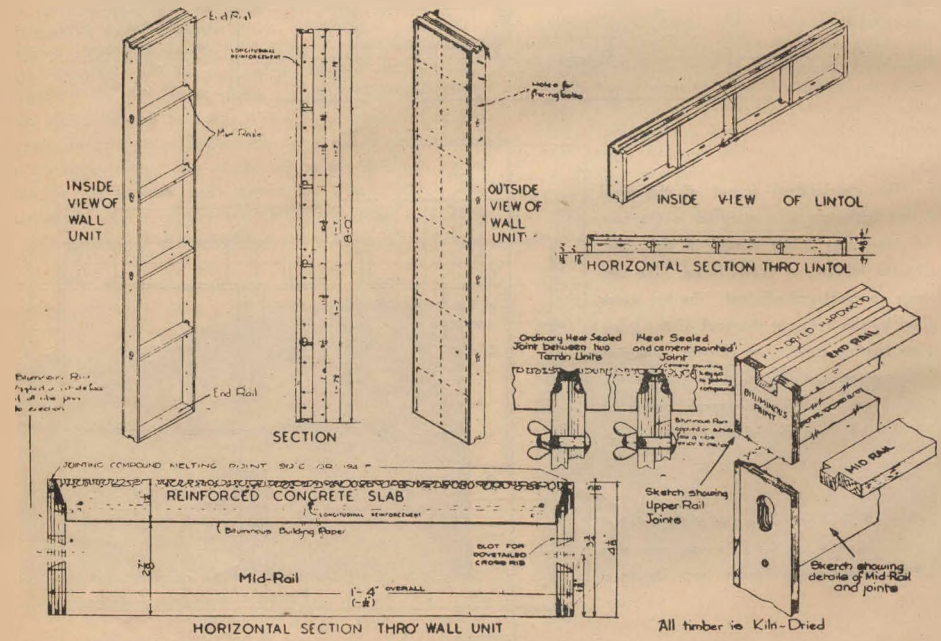


THE TARRAN UNIT CONSTRUCTION HOUSE

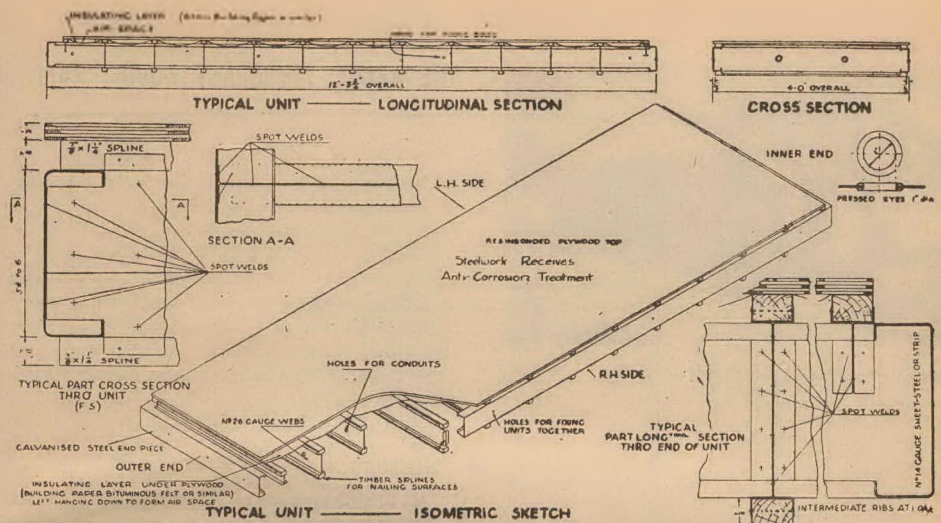


This is an adaption of the Tarron patented system of unit construction to the official Ministry of Works plan. The foundations consist of a 4-inch concrete raft with pier blocks and filler panels. The steel channel-framed floor units (OPPOSITE) have joists of pressed steel or laminated timber covered with resin bonded timber or hard fibre board. The wall units have a reintorced cast stone or concrete panel in laminated resin bonded timber frames. The external finish is waterproofed and may be of any colour with a facing of stone chippings. The joints of the wall units are made with an asphaltic asbestos-wool jointing material which is fixed in the factory and sealed by an electrically heated caulking tool when the walling is complete (BELOW).

The pitched roof units, with a pitch of about 12°, are 4-ft. wide and up to 16-ft. lengths forming half spans. These units consist of a system of rafters and ties formed by glueing and nailing together 6-in strips of $\frac{1}{4}$-in. plywood and $1\frac{1}{2}$-in. timbers, strutted and braced together, with $\frac{1}{4}$-in. plywood gussets. The units may be covered with $\frac{1}{8}$-in. plywood and bituminous felt or, as here, with corrugated asbestos-cement sheets.



DETAILS OF WALL UNIT.



DETAILS OF FLOOR UNIT.

have been no practical need for this—the standard fittings have been incorporated in the Arcon house without any difficulty. One of the main advantages of obtaining different types of temporary house designed by private firms lies just in the possibility of obtaining alternative plans. That they would be reasonably good would be almost certainly guaranteed by the stimulus of competition in an affair of such national importance. Have the producers been compelled to adhere to the official plan, with all its faults? If they were not compelled to adhere to it, why have two of them done so? If they were, how have Messrs. Arcon escaped the ban and produced their admirable alternative? The thing's a mystery."

* * *

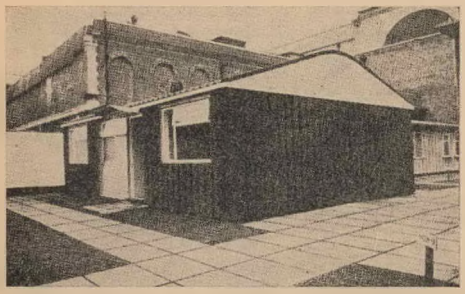
The temporary housing programme was decided upon following the Government review of the potential building capacity of Britain, when it was determined that the urgent demands for separate houses could not be met, for some years, by building permanent houses. The temporary houses are to be purchased by the Government and made available to the local authorities by the Ministry of Works, who will arrange for their transport and erection on the sites provided.

These houses are intended to have an average life of ten years, and financial arrangements have been made on that basis, but may be removed by the Health Departments when the housing situation warrants that course. The supply of these houses authorised by the Bill is limited to those erected by 1st October, 1947, and while no firm estimate of cost or numbers of houses which it will be possible to construct by that time is available, it is anticipated that the amount of £150 million should cover the cost of approximately 250,000 such houses.

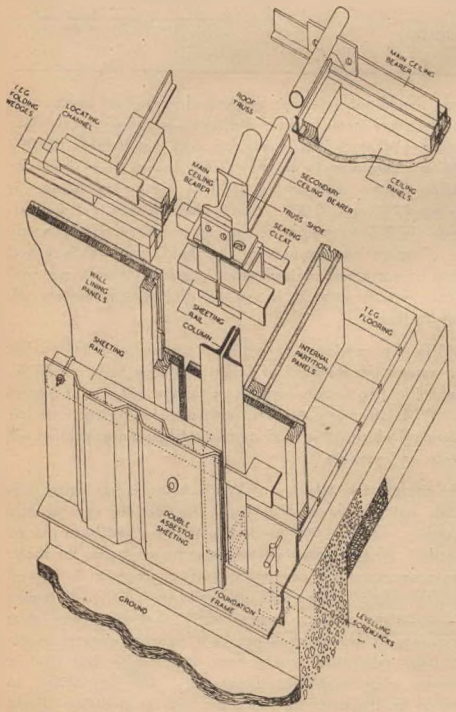
It was a fundamental condition in their design that these houses should not delay the building of permanent houses and, also, that they should make a minimum demand on the building industry. Whereas it is usually reckoned that it takes 100,000 building operatives to build 100,000 houses in a year, the building labour required for 100,000 temporary houses is between 8,000 and 10,000. Also it is anticipated that approximately 100,000 temporary houses can be produced within one year of going into production. As the Tarran, Uni-Seco and Arcon houses have received official blessing since these conditions were framed, it is assumed that similar factors will apply to them.

While the consideration of their purpose and limited life have caused the standard of height and area to be modified, other mitigating factors emerge, for as the Minister of Health said, ". . . . in many respects, particularly in fittings, one has a standard which, I hope, all permanent house construction will imitate and emulate."

At present the Ministry of Works house is not being produced, but the three other types are, and it was recently stated that some 86,000 Arcon houses alone had been placed on order. At the same time the Government, under the short-term programme for permanent houses, proposes to extend the scope of the housing subsidies which were limited to houses for agricultural workers, overcrowding abatement and slum re-housing, to include dwellings built to meet general needs; and local authorities, having been enabled to buy land in advance, using compulsion if necessary, will be invited to proceed on the basis that all preliminary preparations should be made to ensure that, if building resources permit, 100,000 permanent houses can be built during the first year and 200,000 during the second year after hostilities cease in Europe.



Designed by ARCON, Chartered Architects.



An axonometric showing the method of construction.

THE ARCON TEMPORARY HOUSE, MARK V.

This temporary house is not an adaptation of a unit system of construction of a particular plan, but is a system of complete house construction, designed to fulfil a given set of requirements. Interchange of components between one factory and another has been eliminated. The various components are manufactured independently so that they may be transmitted, through a central agency, to the site where the complete assembly takes place. The house can be erected by an ordinary builder using semi-skilled general labour, and the design incorporates provision for accurate levelling and alignment and for manufacturers' tolerances.

CONSTRUCTION.

"The structure consists of a light steel frame of rolled sections with welded tubular steel roof trusses. The exterior is clad with a double layer of asbestos cement sheeting, similar sheeting being employed for the roof, but single layer only. The walls are lined with storey-height panels, 3 feet wide, consisting of $\frac{3}{8}$-inch plasterboard or building board, backed by insulating material to the equivalent of $\frac{1}{2}$-inch wood wool and bonded on to light timber frames. The thermal insulation value of this construction is equal to that of 11-inch cavity brick.

"Internal partitions are in panels of similar dimensions and construction, but without insulating material and faced on both sides with plasterboard or building board. Ceiling panels are formed with $\frac{3}{8}$-inch plasterboard or building board, bonded to light wood frames which are suspended from the trusses and mutually located by a simple system of T-section steel bearers.

"The floor comprises impregnated battens set in 1-inch cement screed on site concrete, the whole being covered with a layer of pitch and tar, to receive $\frac{7}{8}$-inch T and G boarding.

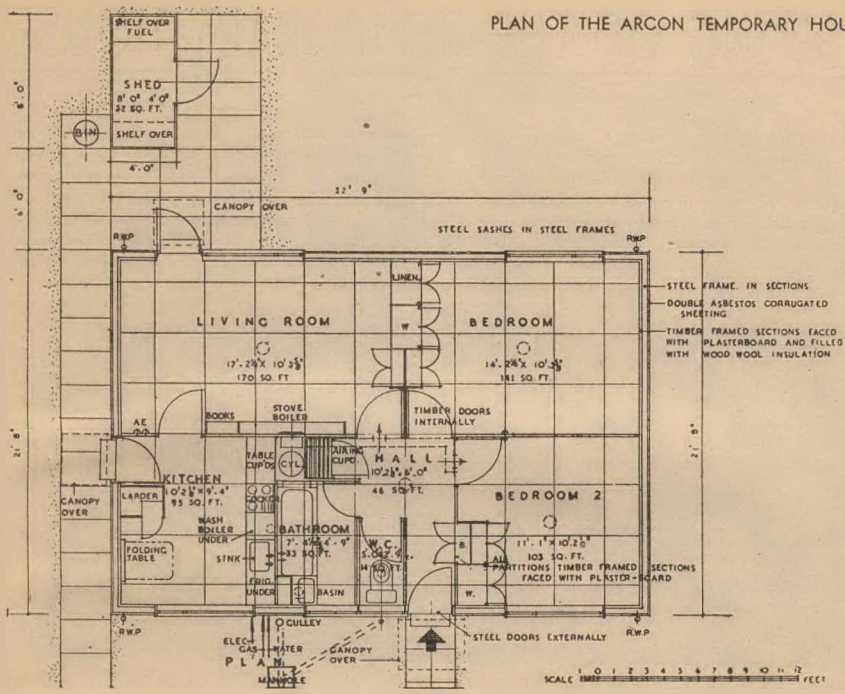
"Internal doors and frames are of wood. External doors and windows are steel, of standard sections and set in steel linings. Skirtings, picture rails, etc., are of steel.

EQUIPMENT.

"Kitchen fittings and appliances, furnishings and sanitary ware are those adopted as standard by the Ministry of Works, whose standard bathroom unit is incorporated. All wiring is in the roof space, with ceiling pull switches. Drops to socket outlets are in the wall panels."*

* *The Architects' Journal" for November 30th, 1944.*

PLAN OF THE ARCON TEMPORARY HOUSE, MARK V.



REFERENCES AND ACKNOWLEDGEMENTS.

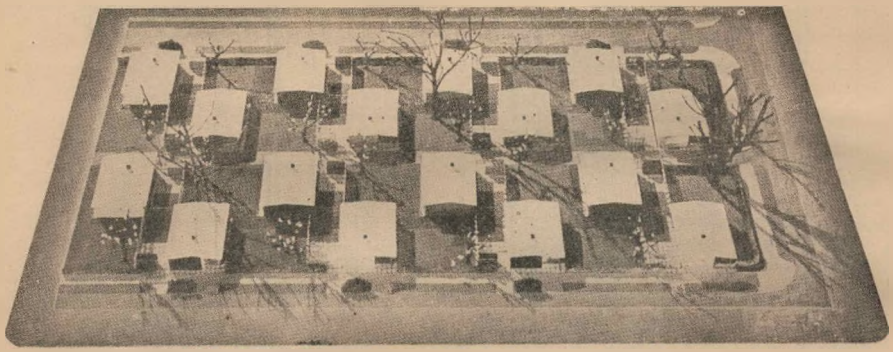
The construction and details of the Ministry of Works house is fully dealt with in "The Architects' Journal" for May 11th, 1944, to which acknowledgement is made for the illustration of the kitchen-bathroom unit on page 17. The Uni-Seco Unit Construction System is illustrated and described in "The Architects' Journal" for February 17th, 1944. The Tarran Unit Construction System is described and illustrated in "The Architects' Journal" for July 27th, 1944, to which acknowledgement is made for the details of construction illustrated on pages 18 and 19.

The Arcon house, Mark V, is fully illustrated and described in "The Architects' Journal" for November 30th, 1944, to which acknowledgements are made for the photographic illustrations on pages 16, 18, 20, 22 and 23, for the plans on pages 17 and 21, and the details on page 20.

THE SITING OF THE TEMPORARY HOUSES

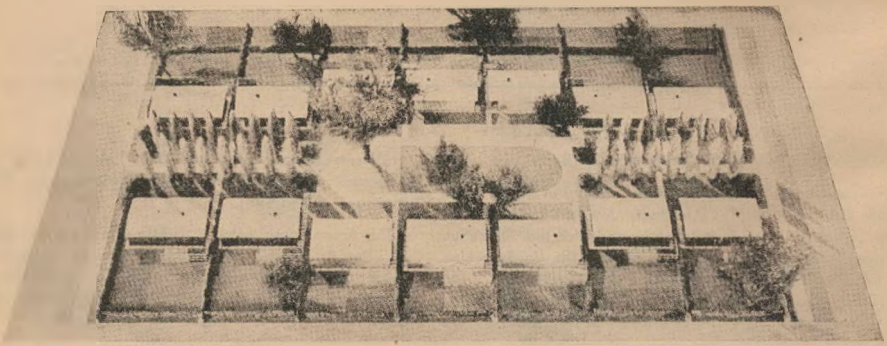
As mentioned before, the Memorandum on Temporary Housing issued by the Ministries of Health and Works deals with the siting of these houses. Fifteen diagrams showing suggested layouts are included in the document, prepared to meet the varying problems of permanent and temporary sites and both permanent and temporary roads. The densities vary from 9½ to as many as 14 houses per acre.

The fundamental purpose of these houses—the doubling of the number of dwellings it would otherwise be possible to provide with the limited amount of skilled labour in the first year after the war—implies that their provision must be considered in relation to the whole housing programme of any authority, and their layout and siting, while being adequate in terms of their relatively short life, must not be permitted to obstruct the immediate programme for the provision of permanent houses.



Houses are placed end on to the approach road, and mutual privacy further ensured to individual houses by trellis screens. A feeling of individuality is suggested by the use of different colours on the houses.

overlooking is avoided by the chequer board layout, with



Houses grouped round a central open space for pedestrian access only, part of which is paved to provide an all-weather play space for children. Note suggested planting and varied colour scheme for the houses.



Houses planned in relation to footpaths leading off the main road at an angle, which permits the houses to be "staggered" to improve the feeling of privacy. Here again the careful placing of the trees and the colours of the houses is important. The Ministry of Town and Country Planning has restricted the range of colour combinations to six for the Ministry of Works house, including red, pink, white and grey. It is assumed that the other types will conform with this choice of standard colours.

These temporary houses may be built on sites or parts of sites which will ultimately be used for permanent houses; on those parts of housing estates such as portions of open spaces which are not likely to be required for recreational purposes during the ten-year period; on land intended to be used ultimately for some other purpose than housing; and on undeveloped land such as marginal strips of agricultural land adjacent to existing housing or war-time sites which may be relinquished by the Services.

* * *

The three models shown illustrated on these pages were prepared by the Research Division of the Ministry of Town and Country Planning for the Ministry of Health, and formed part of an exhibition dealing with aspects of density, access, aspect, desirable spacing and planting.

The layout of these houses and their colour scheme will require considerably more skill and care than permanent buildings, and in respect of economising on site works, the advantages of high density layouts comparable with those normally adopted for two-storey houses will have to be balanced against the advantages of a lower density which will enable as much as possible of the site works and even planting to be preserved when the bungalows are replaced.

It has been suggested that an average spacing of 50 ft. between fronts and backs of bungalows and 7 ft. between gable ends should constitute a standard for the layouts, but natural conditions and local circumstances may modify these distances. Also the distance of a road to the front gate should not exceed 150 ft.

The Arcon house, unlike the others which conform to the same plan, has its living room on the opposite side from its central entrance, which will affect the arrangement of access paths and services.

BUILDING COSTS, MATERIAL AND LABOUR

A PAPER PRESENTED TO THE 39th CONGRESS OF THE NATIONAL FEDERATION OF BUILDING TRADE EMPLOYERS IN SOUTH AFRICA HELD IN OCTOBER, 1944

by Mr. Norman W. Gallagher.

EXECUTIVE MEMBER OF THE FEDERATION AND MEMBER OF THE INSTITUTE OF SOUTH AFRICAN ARCHITECTS

Mr. President, I rise to propose the following :

> " That the Government be asked to co-operate with the National Federation of Building Trade Employers in endeavouring to (a) bring the cost of building back to its economic relation to the basic cost of living, and (b) make available to the industry the requisite materials and man-power to overtake the building back-log with particular reference to housing of all types."

* * *

I am quite concerned that I should sponsor this motion which asks the Government to co-operate with us in doing something upon which we have not yet got a mind ! Perhaps it would have been better for this motion to have been moved after such matters as apprenticeship, registration of both employer and employee, demobilisation and the training of the returned soldier, National Industrial Council, the African worker, control and the various other similar items on the agenda had been thrashed out.

* * *

We all know building costs are higher than in 1939 and also that when the Controller of Building tells the public that these costs have gone up by 65 per cent. his estimate is computed on the austerity basis. In other words, he has left out those finishing materials which we have been unable to secure from the external markets.

Let us try to analyse the reason for this increase in the cost of building. It is so often said that most of our basic building materials are produced in South Africa; this is true, as it is of most countries—nature seems to have made this provision—yet no habitable building can be built in South Africa without a great deal of imported materials being used. In spite of our Government's earnest endeavours to prevent an upward spiral of costs, with few exceptions, most things cost more than they did in 1939—hence the cost of living allowances. This has been the experience of all belligerent countries.

I am not going to labour the cost of materials, whether locally made or imported, except to say that the Price Controller has fixed, wherever it has been humanly possible to do so, either a ceiling price or a ratio of profit. The point I wish to make is that a great percentage of the increase in the cost of building is to be found in the increased cost of the materials used.

* * *

Now let us come to an invisible cost, which I hold to contribute an undue amount to the expense of building. This comes from the difficulties of short supply of the right materials, often entailing days and weeks of delay and finally forcing the builder to use poor substitutes which, in turn, pile up the labour costs to give an entirely unsatisfactory result. This is a factor which I have carefully studied and I am convinced that much of the so-called drop in production is due to the handling of inferior materials after having vainly searched for the standard product.

I feel that in the past the importance of the Building Industry's "ex import" requirements have not been properly rated, with the result that the industry's rightful shipping space has been forfeited to less essential commodities.

I shall dwell here to say how the Government could help with matters already referred to :

> " To facilitate the rapid intake of the best available materials and constructional units required by the Building Industry, the authorities should do all things possible to open up the channels of importation."

If this were done a two-fold purpose would be achieved :

(1) The correct raw materials would be made available to local industrialists who manufacture building industry requirements.

(2) The quality of building would be more in keeping with its cost of construction.

I understand the Director-General of Supplies has sent to America and England a Supplies Mission, and it is of great satisfaction to know that the Government Chief Architect, Mr. Prentice, is its technical adviser; while Mr. W. F. Boustred is its leader. Mr. Boustred is closely connected with the

Building Industry, both as a merchant and an industrialist, so we can be assured he will keep a good appreciation of their relative interests.

* * *

Now we come to the man-power question—perhaps it would be better to call it the productivity of the industry.

The war found most industries with a shortage of skilled workers, which, in the main, was made good by the installation of many units of repetitive machinery and the allocation to skilled men the control of a series of these machine units each fed by partly trained workers—known as operatives.

In this manner industry provided for the fighting forces a fair quota of its fit men from the ranks of its skilled workers, besides stepping up production and giving beneficial employment to a number of people whose energies might otherwise have been lost to the war effort, or shall we say, to the productivity of industry. This condition in industry is known as "diluted labour" in its best sense. I am not over-fond of the expression, but what we of the Building Industry should note is that the machine opened up new avenues of employment and created greater responsibilities for the skilled mechanic and increased the output per man hour.

* * *

Things did not go quite the same way in the Building Industry. A great majority of the best of our younger skilled men joined the Forces early in the war, and this is a matter of great pride to both the trade unions and the Federation, but what is regrettabla is that little was done to make good this loss to the Building Industry. The war did not produce a machine which could be harnessed to do for the Building Industry what was done for the manufacturing industries. It seems that the skill of the artisan in the science of building is still beyond the power of the machine.

In the early stages of the war the Building Industry suffered a great setback, Government and provincial building programmes were curtailed and private owners closed their purses, with the result that the industry saw no need to take up the man-power slack. An industry thus placed, quite naturally, had no desire to commit itself to a great influx of apprentices, and even the Government ruled that indentured boys in the Building Industry were not as essential on the home front as, say, the engineering apprentices.

* * *

Then suddenly came the great Defence programme; fortifications, aerodromes, camps, administrative offices, etc., were demanded at break-neck speed. The industry called for more and more man hours of production, with the inevitable result that the skilled artisans found themselves working alongside half-baked and grossly inefficient fellows who had gatecrashed into the seats of the men who had joined the Forces. Increased production was achieved by the sheer weight of numbers and hours worked, but the "output per man hour" had greatly declined. This was "dilution" in its worst form, and I am afraid many a highly qualified journeyman, giving efficient service, has quite wrongly suffered in prestige because of this general deterioration brought about by the influx of men totally unfitted to rank as tradesmen.

Let us be charitable and say that this state of affairs was "C'est la Guerre," and could not have been avoided. We cannot, however, evade the fact that the Government was in control, and the haphazard way in which the whole of the Defence building programme was handled did a great deal to bring about the unfortunate state of affairs in which this industry now finds itself.

Builders were often called upon to do a job which had not been planned, men and material were brought to the site long before the contractor had an appreciation of the work required of him. Instructions were countered, drawings altered and amended, unending delays by higher authorities withholding decisions, and all the time the contractor told to hold his labour force which for reasons beyond his control had been reduced to marking time.

* * *

Here was inefficiency at its worst, with the result that the men said the masters encouraged the high cost because it meant higher profits, while the masters said the men were not giving a fair output per day of work, and so to-day we find a lacking in confidence between employee and employer in the Building Industry. The Government got its programme completed, but the discontent in industrial relations born of official bungling is now being nursed by the Building Industry.

* * *

I have drawn attention to these things because I think the Government should know that our troubles are not all of our own making, and, further, to bring to its notice the value of planning and co-ordination. I feel that the Building Industry is entitled to get from the Government some sort of orderly direction for the post-war period and that this direction should now be in the making. I would suggest—though I hesitate to do so lest an authority be created to the exclusion of both the professional and industrial sections of our industry—however, I do suggest that a central authority be set up to co-ordinate and schedule the building requirements of Government, provincial, municipal and utility bodies, and, in addition, determine broad priorities governing building by private enterprise.

I think it should schedule on the broadest lines, for at least ten years ahead. Industry would then be able to assess fairly accurately its material and labour requirements and so plan an even spread of employment for years ahead. With a "progressed" ten-year plan, vetted in detail each year, and with a sensible and creative system of apprenticeship training, it should be possible to attract to the ranks of this industry the very best type of youth. In this country blessed as it is with an admirable climate, the productivity of the skilled artisan should be as high as in any country in the world.

If we want efficiency in the ranks of our workers, we must take a greater hand in training the apprentice, who to-day at the most learns his trade and is rarely, if ever, taught it. Backed by a scientific method of training, a liberal supply of apprentices will give to the industry a sound distribution of wage groups, consistent with their various degrees of skill and be a constant source of recruitment of skilled artisans. I have heard it said that this is a veiled form of "dilution," but it is nothing of the sort; it is the real "wine" of the industry, and without it we are lost. Planned continuity of employment is the keynote to its success, and so I appeal to the Government to plan and schedule ahead the major building requirements of the country.

I trust that when we come to item "training of returned soldiers to take their place in the Building Industry," that the accent will be on the "training" to become first-class artisans, and the avoidance of anything designed to create a cheap labouring class of ex-soldiers.

* * *

That we are travelling fast into a new state of industrial relations is foolish to deny; the workers in this and every other industry are out to get the best conditions and wages that their several employments can afford, and some closer liaison will have to be established to satisfy the men that they are getting their full share.

It is, of course, patent that the wealth of an industry such as ours is in its productivity, which is another word for efficiency, it follows, therefore, that to get from the industry the most it can afford "group labour" must be of the highest quality backed by an urge to produce.

On the other hand, employers must be efficient; they have got to show courage and initiative and seek every opportunity to keep their working plant and machinery right up to concert pitch. They must study and put into practice the best methods of industrial and contractural organisation, and let the workers feel that the efforts of each individual is being so closely co-ordinated that the industry is giving the best possible value.

I think we all realise things are changing rapidly, and as the call is for a greater degree of regulation of employment and the avoidance of booms and depressions, we have to face up to a certain amount of closer collaboration of the units of our industry and a more conscious direction from the Government, but it is hoped that in doing so the Government will recognise that the building industrial machine is in existence and at the most it requires regulating—this is best done by men of experience and not theorists.

* * *

I have concentrated on the industry as such and the desire to set it on a broad, long-term basis, but I realise we have an immediate problem—the provision of housing. I have tried to follow the winding course of this much-debated and abused subject, and I am afraid my impression is that the stream of enthusiasm has emptied itself into a bog of finance.

The fact remains that houses are most urgently needed, and with demobilisation the shortage, if not met, will be a national calamity. This delay puzzles me, especially when I think of the manner in which the Defence building programme was despatched—cost then was of little concern—yet to-day the issue seems to hang on half or one per cent. return or loss on capital. I am afraid, too, that if and when the scheme is set going it will be hurried and haphazard, and it is for these reasons I put forward the suggestion that we follow Britain's lead and have a two-fold plan:

(a) Temporary housing to meet the immediate need.

(b) A well-planned long-term scheme to meet the needs of the nation.

The temoprary houses to be dismantled as the more permanent ones are erected.

The long-term scheme to be directed by a central authority which must include the best representation from both the professional and industrial groups of our industry, as well as town planning and other qualified bodies; but again I say, avoid the "amateur theorist," who has a committee loving enthusiasm—let the men of experience do the planning.

Mr. President, if the Government were to lend a hand on the lines I have indicated the building programme of South Africa would be carried out expeditiously and economically by a Building Industry of the highest efficiency. This, sir, would be of inestimable value to the nation.

Reprinted by kind permission from "The South African Builder," November, 1944.

In the course of a subsequent Press interview Mr. Gallagher carried these recommendations regarding the planning and organisation of the building requirements of the country a stage further, and, in crystallising these proposals, put forward positive suggestions for co-ordination and control of the future building requirements, making particular reference to housing and the labour force.

As reported in "The Star," Johannesburg, on January 17th, 1945, Mr. Gallagher, in advocating the establishment of a central authority to co-ordinate and schedule the building requirements of Government, provincial, municipal and utility bodies, and to determine broad priorities governing building by private enterprise, suggested that such a plan to solve the national building problem should be under the direction of the Director-General of Supplies or his organisation. He urged, too, that employment should be scheduled for the next ten years, the position being re-examined and brought up-to-date each year.

" Under these proposals the housing problem should be tackled on a short and a long-term basis. The short-term plan should be treated as National Priority No. 1, and dealt with as a matter of war-time urgency. The main call should be the immediate production of a minimum number of houses required, at this stage, to meet the community's most urgent needs.

" The short-term scheme should be followed by a long-term plan to meet the balance of the country's requirements. This plan should ensure collaboration of all the professional and other interests concerned with housing and town or country planning.

* * *

" A detailed programme of housing should be drawn up to guarantee the employment of an adequate labour force, with the necessary money and materials, in the first ten years. This and other proposals should restore the lost confidence between master builders and workers. Provision should be made to absorb enough new trained workers to meet the country's minimum needs, but care should be taken to avoid the pitfalls of creating an excessive labour force, which would cause widespread unemployment and dislocation after the short-term plan was completed.

* * *

In his paper Mr. Gallagher drew attention to the lack of confidence which exists to-day as between the builders and the men, and has rightly stated that until mutual respect was re-established there was little hope of a sensible and constructive approach to the national housing problem. " The deterioration of friendly relations was largely caused by the handling of the country's defence building expenditure—not to be confused with the Directorate of War Supplies, which was a contrast in efficiency. In an effort to get things done the policy was based on man hours of production, irrespective of the individual worker's degree of skill, with the result that productive labour was watered.

" Was it any wonder that, in these circumstances, the industry did not and could not face the present problems? It was deplorable that a joint statement of constructive policy embracing employers and employees had not been issued. Each side blamed the other for inefficiency and for excessive charges from wages and profits.

" These grave disabilities in the industry had developed, in his opinion, from lack of orderly direction in a war-time scramble to carry out work anywhere and anyhow, so long as it was done.

* * *

" Most other industries of national importance came under the direction, not control, of the Director-General of War Supplies, afterwards the Director-General of Supplies. It was safe to say that in every such case industrial relations had bettered by such direction.

" The building industry was about to face its most momentous years, and he could conceive of nothing more fitting than that at this late hour of the war the industry should be given the same intelligent direction which so successfully embraced the big war industries.

" Regarding his proposal that employment should be scheduled for ten years ahead, Mr. Gallagher said this would ensure a settled state in a building industry able to guarantee employment for many years as a first essential toward re-establishing domestic confidence.

" The production programme should be handled under powers not less favourable than the D.G.S. possessed. ' In fact, the technical side of the D.G.S. organisation is admirably fitted to tackle this task. Naturally, some building industrial experts would be needed to lend a hand, but Dr. van der Bijl has proved his ability to rally to his organisation the best type of professional and industrial brains.'

" This form of organisation would provide for limitation of profits, as in all existing D.G.S. contracts, canalising of skilled labour to priority housing, the best type of factory and other building constructional research, as in war supplies production, and co-ordination of the several units of production, ' a feature sadly lacking in the building industry to-day.'

"Municipal and other by-laws would have to be temporarily sidetracked, subject to expert supervision. Land should be provided as in national defence projects, and no houses built under this authority should become a buying and selling proposition on the property market.

" Private building should be allowed to proceed on scheduled priorities governed also by availability of labour and materials. This was what had been permitted in the engineering industry throughout its munition production.

* * *

" In this way many of the obstacles, real and unreal, which the employers and employees fear, would be overcome. The houses would be provided quickly and efficiently by the best type of craftsmen, working for employers subject to the strictest form of price and profit control. All contributing to this expert production schedule would be assured that their labour was not subject to profit by others.

" By some such clear-cut and just approach the Government could gather and mould into an efficient contracting organisation the several units of people who had the skill and the desire to build the houses so urgently required. The industry would be well on the way to regaining its domestic confidence and a sense of security invaluable to employer and employee.

" Under such a scheme he contemplated a great influx of apprentices, a healthy and buoyant industry to which building workers on active service could return, and a desire for more ex-Service men to be trained as building workers.

" More use would also be made of repetitive processes in factories concerned with the building trade.

" They should, however, avoid the mistake of killing the industry's confidence by increasing the number of workers at

the expense of man-unit efficiency; and should beware of creating an uneconomic and unbalanced labour force which, in meeting an immediate apparent need, burnt up its own long-term employment security. That was why housing should be divided into responsible short and long-term categories.

"We will have to face much manpower adjustment after the war. Workers out of jobs when the munition programme is halted must be absorbed, and I am sure a scheduled building industry would agree to train and adapt this labour force to take its part in an orderly building production programme.

"Coloured and native workers could also be given a more creative part in building work. These adjustments should be scientific and orderly, with due regard to established institutions, but it was quite clear that the country's national economy depended on creative employment of all its people, irrespective of colour.

"Under a D.G.S. system for immediate housing needs all these things would have a flying start, and the war-created labour reserves in the engineering and other industries would be gradually diverted to the building industry, thus avoiding what promises to be a serious unemployment problem when the war ends.

"The long-term housing programme required a different organisation. It was more permanent and needed much professional thought. Town planners, architects, engineers and others would have to combine not only to provide the best kind of houses, but to ensure that our cities and countryside, waterways and highways are designed to serve their functional purposes and to lend beauty to the whole country.

"The whole plan may be likened to a national constructional camp, housing the workers co-operatively engaged on building for themselves cities designed to give the best possible working and living conditions."

("The Star," Johannesburg, January 17th, 1945.)

THE NON-EUROPEAN HOUSE COMPETITION

by M. Simon and L. Aronson

It is with modesty that we contribute this article, for the criticisms levelled in the introduction are applicable equally to the authors themselves and other members of the profession.

The Competition for Non-European Houses, sponsored by the City of Johannesburg, has come and gone. There was no hue; there was no cry among the architects. Apparently the Competition was a mere novelty.

It is hard to understand this attitude, when the profession, through its elected representatives, is striving to establish its claims to be permitted to assist in the Housing Problem. Had many positive contributions been made (in the planning sense) to the problem set, we feel sure that the competition would have enabled architects to insert the thin end of the planning wedge into, at least, municipal housing schemes.

Granting that the possibilities open to architects in the matter of technical improvements were very limited, nevertheless, had it been possible to prove planning ability in the important field of public housing, this would have done much toward strengthening the profession's position.

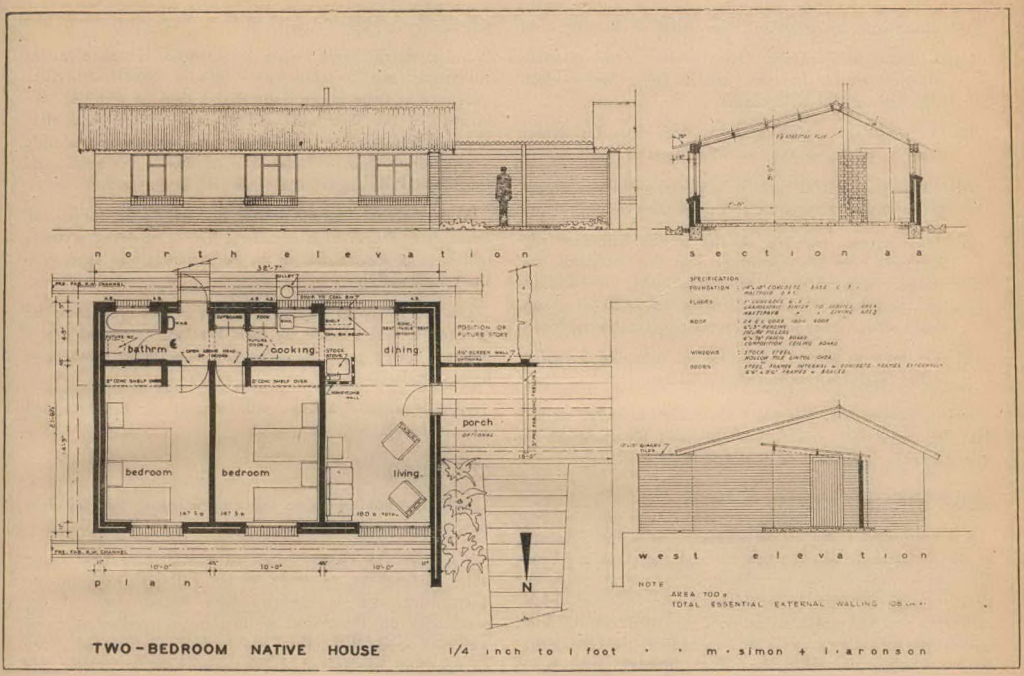
The result of the Competition shows quite clearly that we have let pass this opportunity.

Lack of experience in the sub-economic sphere is inexcusable, for are not architects supposed to be fitted, by their very training, to be able to deal with planning on all architectural levels?

Is it, perhaps, that the profession has been so inured to planning for middle class needs that it is unable to reorientate itself when faced with problems peculiar to the lowest income group?

THE COMPETITION (See "Record" for September, 1944):

Of the entries in the "Type A" Section, only the winning design (No. 16) showed how a thorough study and analysis of the problems involved can result in a significant contribution. Space utilisation is the key to the planning problem of low-



cost housing. Only No. 16 achieved true space economy. But in effecting this, the competitor failed to fulfil many other prerequisites.

The principal defect in No. 16 scheme lies in the zoning and architectural qualities of the plan. The use of the Living Room as the sole means of access to all parts of the house is perhaps justified from the point of view of economy, but should only be accepted where no other alternative exists. The results of this space usage may be noted :

(1) Inadequate living accommodation.

(2) Very few possible arrangements for furniture (e.g., broken-up wall space).

(3) Lack of privacy.

(4) A virtual passage of large area bisecting the Living Zone and consequently unusable floor space.

(5) The dubious value of introducing sink and stove into the Dining Area, without any adequate form of cut-off.

(6) The inconvenience of having to cross the Living Room to get to the bathroom and W.C. (whether E.C. or future W.C.) from the Bedrooms.

(7) The psychologically "minimum" nature of the plan (e.g., the difference in pure space planning between a T.V.A. demountable and the Churchill House).

The fact that the house will be occupied by urbanised Africans is of importance, for such factors as privacy, comfort and home environment have to be catered for.

All these criticisms, of course, would be worthless were they merely destructive. But it is the realisation of these inadequacies in what is otherwise an extremely well-considered scheme, that led us to attempt an alternative approach to the entire problem.

The basic consideration which underlies our approach is the matter of Zoning. In practice, this amounts to the grouping of Living, Eating and Cooking-Workspace together, while Sleeping and Washing are similarly arranged.

The advantages arising out of this method of planning are :

(1) A commodious Living Room with many possible arrangements for furniture, and a Dining Recess which is an extension of Living Space.

(2) The minimum possible unusable floor area for access from the Main entrance to other parts of the house.

(3) North aspect for Living and Sleeping, with South aspect for Bathroom, Kitchen and Workspace.

(4) Direct access from the exterior to the Bathroom and Bedrooms (with the advantage that the occupants can achieve some privacy in the Living Room. In addition, the breadwinner can, on arriving home, have a wash and, perhaps, change, before entering the Living Room.

(5) The stove, as placed, allows for the grouping around it of the family and visitors during winter.

It is important that this has been achieved in 700 square feet floor area, with essential external walls 108 ft. length (if 8 in. concrete walls are used, then 106 ft. external walls).

SOME GENERAL POINTS :

1. Construction : We are in agreement with the Assessors as to the necessity of using conventional and stock materials. The plan is a simple one, and allows for the use of the 4½ in. dividing walls between Bedrooms and Living Space as virtual rafters, so that the roof construction is simplified. 6 in. by 3 in. purlins spaced at centres of 3 ft. 3 in. support the corrugated iron roof, while the ceiling boards are fixed to them (with the additional support of 1¾ in. by 1½ in. fillers). The height of the ceiling in Bedrooms and Living Space is dictated by the Municipal Bye-laws. The floor is concrete, and should be satisfactory (cf. Burt Report).

2. The Porch, which might be omitted, is adequate for sitting out, and is roofed with a lean-to. Should it become necessary at some future stage that a shed be provided, the erection of two short walls and extension of the porch slab, together with the continuation of the lean-to, would provide a satisfactory shed, well placed in relation to the house, and would avoid the appearance of shanties in the yards.

3. All the houses on the site can be north-facing, for if south access from the street is necessary, then it would be a simple matter to provide access to the Porch through an opening in the screen wall.

On 100 ft. by 50 ft. stands, houses of this type could be grouped in pairs, linked by their Porches, as shown; thus a pleasant effect could be achieved where large numbers of houses are involved.

Were it required, a house with reversed plan could be built against the East wall.

CONCLUSION :

We have not submitted this plan in order that invidious comparisons should be made.

We have, of course, benefited considerably from being able, Astragal-like, to study all the entrants' work in the competition, and in addition have based many of our conclusions on the Assessors' Report, an excellent piece of work, on which the authors are to be complimented. The Competition has served as an experiment in a new and potentially promising field. We have merely continued that experiment, in the hope that others will add their contribution to this problem.

MEMORANDUM SUBMITTED TO THE WORKS COMMITTEE OF THE CITY COUNCIL, PRETORIA, BY A DEPUTATION FROM THE INSTITUTE, ON THE ADVISABILITY OF ESTABLISHING THE POST AND DEPARTMENT OF "CITY ARCHITECT," PRETORIA

The Institute submits to the City Council that consideration should be given to the establishment of the post of City Architect in Pretoria.

Arising from a report in the "Pretoria News" wherein it was stated that a City Architect was about to be appointed, the Institute knowing that the reference was to filling the post recently vacated by Mr. Lugg, considered that a suitable time to make representation to your Council proposing that the Architectural Department now under the City Engineer be raised in standing to function as a separate entity responsible to the Works Committee and the Council direct.

The Institute has for some years in public addresses by its Presidents and Chairmen and in its own journal, advocated the establishment of such a separate department in the larger Municipalities of the Union, but the opportunity for urging this upon individual City Councils has been lacking.

Dr. J. H. Dobson, the President of the Associated Scientific and Technical Societies of South Africa in an address to the members of the Institute of South African Architects in April, 1944, said:

> "Speaking as an engineer and an ex-Johannesburg departmental head, and having regard to the tremendous responsibilities that now devolve upon the architectural profession, it is perhaps appropriate that the pros and cons be investigated whether the municipal architect in the larger towns and cities should be raised to a higher status separate and distinct from the City Engineer's Department, but, of course, closely linked with it. This investigation is perhaps all the more necessary when it is recognised that the responsibilities of the City Engineer in the larger towns and cities have been also enormously increased during the last ten years. Prevailing conditions demand prompt decisions by those who are actually specialists in architecture, town planning and housing."

The present critical situation in regard to housing and the magnitude of this particular task emphasizes the need for a separate post and department, as it is generally felt that housing requires the full time architectural service of a head of a department devoted to it.

Public opinion nowadays demands adequate town planning to resolve the difficulties of housing, transport and public utilities, including the proper use of land within the city, into one comprehensive whole.

These facts and the fact that it is well known that the complexities of the Municipal Administration continuously increase, leads the Institute to believe that it will be to the advantage of the Pretoria City Council to have an entirely separate City Architect's Department, directly responsible to the Works Committee for all the design, construction and general work connected with Town Planning, Housing Schemes, the building aspect of Post-war Reconstruction schemes, and building generally.

Dr. Dobson, in his presidential address this year to the Associated Scientific and Technical Societies, emphasised an opinion, with which there is general agreement, that Ministers and Heads of Departments should not be overloaded if they are to cope adequately with the exacting needs of modern civilisation. It is submitted that this view is similarly applicable to a large Local Authority.

It is submitted also that the creation of a separate City Architect's Department will prove of advantage in that it will facilitate a closer and more effective liaison between the City Council and (a) the Building Industry; (b) the various Governmental Authorities (Central and Provincial); and the community at large must benefit by the greater co-operation that would result between Heads of Departments controlling the City's building policy and building work, and the Architectural Profession in the Civil Service and in private practice.

For instance, the important town planning and architectural problems of a modern city would be more sympathetically handled by an independent official trained for and directly

connected with those professions, than by the Head of a Department trained in a different profession and who has many other duties to perform.

Because of the great advance made in modern architectural education, there is now available an ever increasing number of persons trained, and willing to embark upon further training, for such a post as that of City Architect.

It is recommended, therefore, that, as the nucleus of a city architect's department already exists in the building survey and town planning branches of the City Engineer's department, the post of " City Architect " be created. The incumbent of such a post will be directly responsible to the Works Committee of the Council.

The Institute does not consider that this need necessarily involve an immediate radical change in the City's Administration, but urges that the initial step of creating the department should take place as soon as possible so that the machinery will exist to develop with, and take care of the city's needs in the immediate future, and later, the post-war period.

To sum up, it is urged that in view of the great expansion clearly about to take place in Pretoria, involving the establishment of new townships; the building of numbers of new city blocks and the general architectural usage of ground, it is proper, before it is too late, to control these activities and direct them into those channels which will best serve the interests of the community and develop the potentialities of Pretoria in establishing beautiful and fitting surroundings for living and working.

D. S. HADDON,
President-in-Chief.

N. M. EATON,
Member of Central Council.

W. G. McINTOSH (Alt.)
Member of Central Council.

W. A. McDONALD,
Senior Vice-President, Transvaal Provincial Institute.

PROFESSIONAL NOTES AND NEWS

OBITUARY

The sudden death of the late G. M. J. Geers came as a great shock to his relatives, staff, friends and clients throughout South Africa.

He was born in Pretoria on the 13th of May, 1909. In 1928 he became a draughtsman in the P.W.D., and attended architectural classes at the University of Pretoria; subsequently he worked in the office of Mr. Moerdyk until 1932, when he went to London to complete his studies, and visited most of the countries in Europe.

In 1934, he and his father, who was the Provincial Architect for many years, started their practice in Johannesburg.

Since then the name of Geers & Geers has become well known throughout South Africa. Their characteristic yellow brick wall and slated roof Dutch Reformed Churches are to be found on the Rand, the rest of the Transvaal, the Free State and Natal. The Kruis Street branch of the Netherlands Bank of S.A., and several branches in country towns, illustrate their style in bank buildings. Social centres, the Dutch Reformed Orphanage in Krugersdorp and the Transvaal Onderwysers Helpmekaar Building in Johannesburg are other buildings from the office. In May, 1944, it was felt that, in order to cope with their growing practice, an office should be opened in Pretoria.

It was during an inspection to the new "Vaderland Voortrekker Strandfonds" (Seaside Home), at Glenmore, that he went for a swim in the sea, and was drowned, on the morning of the 21st of February, 1945.

He was both an architect and a friend to his clients, whom he was always prepared to assist with advice in their building problems.

He leaves a wife and daughter, to whom we extend our deepest sympathy in their tragic bereavement.

H.V.

EUROPEAN HOUSING IN VILLERIA, PRETORIA

The Pretoria Housing Utility Company invites architects registered in the Union of South Africa to submit, in competition, designs for the Layout and European Housing to be erected on an open site in Villieria, Pretoria. Premiums: £100, £100, and £50. Last day of submitting designs: 15th May, 1945. Last day for questions: 6th April, 1945.

Assessors: Mr. Norman Eaton, A.R.I.B.A., M.I.A.; Professor A. L. Meiring, B.Arch., A.R.I.B.A., M.I.A.

Conditions of competition may be obtained on application to The Secretary, Pretoria Housing Utility Co., 110, Peter Neethling Building, Central Street, Pretoria. Deposit: One guinea.

APPLICATIONS FOR BUILDING FLATS AND HOUSES FOR EX-SOLDIERS

The followings is a letter received by the Institute in response to an enquiry, with reprints of the forms mentioned in the letter printed below.

Office of the D.S.D.C., Johannesburg,
Hut 10, Unions Grounds, Phone 22-6711,
14th February, 1945.

President,
Transvaal Provincial Institute of Architects,
Kelvin House, Marshall Street, Johannesburg.

Dear Sir,

Further to your call upon me in connection with applications for building flats and houses for the benefit of ex-soldiers, the following are the conditions laid down which an applicant would have

to be prepared to agree to before applications of this nature can be considered by the Demobilisation Committee :—

(1) That the buildings would be used solely for the occupation of ex-soldiers for a period of five years after the buildings have been completed.

(2) That the rents must be fixed at an economic rate lower than that determined by the Rent Board. These rents would be arrived at as a result of consultation between this organisation and the owner of the building.

(3) That a special committee will be created by this Department, on which the proprietor of the building or his representative will be appointed, in order to deal with all questions arising out of the letting of the flats. The committee accepts no financial responsibility in connection with these lettings.

It is understood that in the event of the position altering in the course of two or three years to such an extent that there would be no great demand by ex-soldiers for these flats, the reservation re letting to returned ex-soldiers would be relaxed.

I am enclosing two forms which it would be necessary for all applicants wishing to erect buildings under this scheme to complete and return with their application.

Yours faithfully,

VICTOR KENT,
Chairman, D.S.D.C.

Name of Builder .....
Address of Builder .....
Name of Architect .....
Who will collect the Rent .....
Cost of Land ..... £.....
Contract or Cost Price ..... £.....
Architect's Fees ..... £.....
£.....
£.....

ESTIMATED ANNUAL EXPENDITURE :

Native Watchman		£
Service Natives : No.	@ £ p.m. each	£
Water and Light		£
Rates and Municipal Dues		£
Coal and Fuel		£
Natives' Uniforms and Replacements		£
Polish, Cleaning Materials, etc.		£
Garden Maintenance		£
Breakages, Repairs, etc.		£
Agent for Rent Collections		£
Caretaker, including Accommodation		£
Insurance Fire	£	
Lift	£	
Public Liability	£	£
Contingencies:		
		£
		£

Amount of Mortgage £.....
Interest on Mortgage at ..... % p.a. £.....
Amount of Owner's Capital £
Interest sought on Owner's Capital at ..... % p.a. £.....
£.....
£.....

GROSS INCOME :

(a) From Flats	£	
(b) From Car Parking	£	
(c) From Servants' Accommodation	£	
(d)	£	£

FURTHER INFORMATION :

Name of Applicant .....
(Block Letters.)
If the Applicant a Company, Names of Directors .....
.....
.....
Address .....
Telephone Number .....
Stand Number on which Flats are to be built .....
Township .....
Has the Stand been bought by Applicant or under Option .....
Is Transfer passed .....
Is transfer being passed now .....

Number of Flats	Existing	To be Built	Total	Estimated Monthly Rental
(a) Of One Room each				
(b) Of Two Rooms each	Excludes Entrance Hall.			
(c) Of Three or more Rooms each				

Garage Accommodation for ..... Cars.
Native Servants' Accommodation—(a) For Owner No. .....
(b) For Tenants No. .....
.....

AMENITIES :

(a) No. of Refrigerators .....
(b) No. of Stoves. ..... Type : Coal/Gas/Electric.
(c) Hot Water Service. Yes/No.
(d) Service. Yes/No.
(e) Is a Lift proposed. Yes/No.
(f)
(g)

Journal of the SA Architectural Institute

PUBLISHER:

University of the Witwatersrand, Johannesburg

LEGAL NOTICE:

Disclaimer and Terms of Use: Provided that you maintain all copyright and other notices contained therein, you may download material (one machine readable copy and one print copy per page) for your personal and/or educational non-commercial use only.

The University of the Witwatersrand, Johannesburg, is not responsible for any errors or omissions and excludes any and all liability for any errors in or omissions from the information on the Library website.