

JOURNAL

ROYAL ARCHITECTURAL INSTITUTE OF CANADA

Serial No. 251

TORONTO, JULY, 1946

Vol. 23, No. 7

PRESIDENT CHARLES DAVID (F)

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Editorial and Advertising Offices - - - - - 57 Queen Street West, Toronto 1

SUBSCRIPTION RATES

Canada and Newfoundland—Three Dollars per year. Great Britain, British Possessions, United States and Mexico—Five Dollars per year. All Other Countries—Six Dollars per year. Single Copies—Canada 50 Cents; Other Countries 75 Cents.

LIKE every other reader of the *Journal*, we were greatly impressed, in the last issue of the *Journal*, with Mrs. Driscoll's description of her work on the Ile d'Orleans. We were equally impressed with the beauty of the island as it appeared in the excellent photographs by her husband. We like to think that the villages, which we did not see, are as beautiful as the farm houses and churches which were illustrated, and as simple and charming as the honest, kindly people among whom Mrs. Driscoll worked. We have a suspicion that they are not, or a person with Mr. Driscoll's eye for the picturesque would have given us some village street architecture. We wonder whether anywhere in Canada or the United States (with the expensive exception of Williamsburg, Virginia) are there villages or hamlets that can be called unspoiled examples of the period in which they had their origin. Niagara-on-the-Lake was once such a village. A few miles from where we live in the country is a charming hamlet of about two hundred people. Our favourite building was a frame group of three attached stores with dwellings above. A verandah sheltered the front and hitching posts still stood as a reminder of a past equestrian age. A year ago the shops burnt down, and recently were replaced by a grim "emporium" in imitation brick, with "modernistic" trimmings.

WE are witnessing the decay of popular art in rural Canada — the art that produced the carriage, the cottage, the churn, the cider press, the horses on a merry-go-round and a hundred other things that once delighted the eye. Industry has improved the churn, though not the cider press; the motor car has replaced the carriage. The farmer's life has become easier, but the old skills, and the pride that a man had in building, or in making a useful object, are fast disappearing. The village builder with a family tradition in his craft behind him, or one who takes up building as he would keeping a store, is equally confused in the vast maze of new materials and new techniques with which he has to deal. The economy of the village has changed also, and that has had its harmful effect on the conscientious builder. Life is more rushed and more competitive than it was one hundred years, or even half a century ago. His customer, with a small store, may be struggling against a chain store on the same street, and he will want something cheap, quickly built and "jazzy". The chances are that it will be in the worst taste; not improved by the signs which city agents give him of drinks, ice creams and tobaccos, and other things he has for sale. When his shop and dwelling are finished, he has something that time will not mellow, and paint will not improve. He has unwittingly, and with the best intentions in the world, added one more blemish to the country-side.

AGAINST this tide of cheap and shoddy building, the architect is powerless to offer help. He could ask only a fraction of the fee that he should receive for his services, and he could not give the time for supervision of his work. We take a pessimistic view of the hope that popular art can ever flourish in a semi-prefabricated world, or that the tastes of rural builders and their customers can ever rise above the plethora of ready-made materials that at present confound them.

IT is clearly the responsibility of government departments of planning and development to take cognizance of what is happening. In Great Britain the ruination of the face of the historic village is looked upon as a national disaster, and steps are being taken to correct it. We are more likely to wake up to our loss when every main street is commercialized, when the village drug store becomes the criterion of taste — and then it will be too late.

Editor.

THE AUDITORIUM AND STAGE IN YOUR COMMUNITY CENTRE

By JOHN A. RUSSELL

At the request of the Western Canada Theatre Conference, I have attempted to assemble some information and to make some suggestions about the auditoriums and stages to be built in Canada's Community Centres of tomorrow. The material presented herewith is based upon a paper presented at the Conference held in Banff in August, 1945.

The charts and diagrams included are designed merely to indicate ideal relationships which should, if possible, exist within the small community theatre or auditorium. There is no intended suggestion that they are designed for actual construction. The Organization Chart, taken from an article on Community Theatres, by Maynard Lyndon (Architectural Record, July, 1938) indicates very clearly the organization set-up of a typical community theatre; obviously, many small theatres would follow a very simplified version of this chart.

Introduction

THE present need for exposition of the broad, basic principles of planning, as well as for detailed planning information, based on the best and most up-to-date practice, is very great. Already, communities are setting aside funds, creating community centre committees, even commencing to build. In spite of their determined desire to create the ideal community centre, many of these communities have little or no conception of the way to go about achieving that aim. Several communities which have already built "halls" are now faced with the difficult problem of trying to provide for the various community interests and activities within the completed shells of these structures.

Such a "cart-before-the-horse" procedure emphasizes the importance of consulting and employing the services of a specialist trained to plan efficient buildings of this sort. In other words, every community should avail itself of the services of an architect, the professional technician who is trained to analyze your needs, to plan for their adequate and efficient housing, and to supervise the erection of the building itself. It is to be hoped that the Provincial governments will employ an architectural staff as consultant designers, whose services will be made available to those smaller communities in which such services do not already exist.

Furthermore, although excellent material describing and illustrating types of ideal community centres will probably be published by both Dominion and Provincial organizations, their reading public should be reminded

that these ideas and plans are intended only as guides to community centre committees, not as blueprints to be chosen and copied. It would be most unfortunate were such publications to become "mail-order catalogues" presenting a dozen or so community centre schemes from which to select the one most nearly answering your community's individual requirements. Such a procedure could never produce really satisfactory results.

The Centre

It is obvious, then, that each centre should be tailored especially for its individual community. To do this, your committee and its designer must analyze your community—its needs, its habits, its desires in the way of entertainment and recreation—and then seek to provide for these requirements in a carefully integrated, well organized building or group of buildings. It has been stated very pointedly that "a community centre is not a gymnasium, a fine stage, a swimming pool or a glorified orchestra pit." To create a true community centre you must start from the fundamental point of view that "a community is an aggregation of people, not of institutions or buildings."

You need to know the existing resources of the district, both human and material; the size of the community, its life pattern and interests, its climate and geography; the history of its environment; and, above all, what the people themselves want. This latter item will vary greatly in different parts of the country. Obviously, then, it is only by planning for the human element, its collective desires and habits, that you can hope to create a community centre which will function efficiently and fulfil its every need. Merely to plan for those elements which one thinks a community ought to have in its recreational centre will not necessarily achieve the perfect solution of a specific community's needs.

"The community centre, to justify its name, must make available space, equipment and accommodation, and provide the necessary leadership of highly skilled and thoroughly trained counsellors to meet the needs of people of all ages and both sexes." (Lionel Scott, in the February, 1945, issue of the Journal of the Royal Architectural Institute of Canada).

Your community centre may have to fulfil as many as a hundred, or a hundred and fifty different uses. Broadly speaking, however, it must meet the educational, social and recreational needs of your community. The function of such a centre can never be static; every allowance

for growth, for change, for adaptability and for multiple use of areas for several different purposes must be made to ensure maximum efficiency and flexibility.

The Auditorium

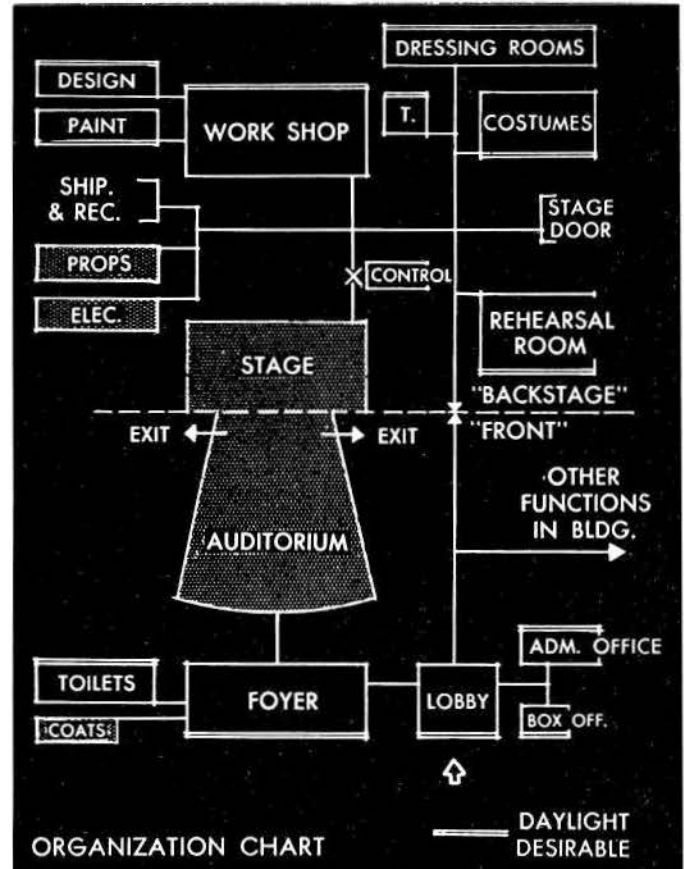
The heart of the community centre will be its auditorium, the large hall or area in which so many communal activities take place. The planning of this auditorium and its accessory areas will require great care and foresight to enable them to meet the many and varied requirements of town meetings, concerts, theatrical performances, lectures, dances, suppers and, perhaps, even athletic and recreational activities.

Often one finds the functions of auditorium and gymnasium combined into one large room. Such a combination is very feasible and can be made to function quite well, but there are several disadvantages in such a combination which would definitely argue for their separation into two areas. The auditorium stage will prove to be a nuisance in the gymnasium; the types of flooring for gymnastics and for dancing are entirely different in finish; both rooms require fairly large storage areas; and, perhaps the greatest drawback to this combination is the resultant limitation placed on both activities by the bookings and practices required by each. Unless the size of the building (dictated by the limitations of budget or of site) necessitates such a combination, the two should be separated.

Wherever possible, the gymnasium—with a size and shape usually different to and smaller than those of an auditorium, because of being planned for specific organized games and their spectators—should provide for mass activities of children, smaller meetings and conferences, informal gatherings of all ages, especially the teen-agers. Then the auditorium can be relieved of such activities and can therefore function more effectively for larger meetings, lectures, concerts, little theatre productions, banquets and suppers, dances, etc.

A high degree of flexibility in the plan is most desirable so that easy and rapid changes in its form and equipment can be made to provide for these many and varied activities. Far too often, a hall is planned with only one or two major purposes in mind, assuming that other activities can be accommodated in some way or other. This usually results in many hours of labour being expended in effecting the necessary changes, as well as in restricted accommodation for certain types of activities. Foresight in planning, based on a careful analysis of present and possible future needs, will avoid such difficulties.

A second and highly desirable characteristic of the auditorium plan is audience comfort and safety. The former involves not only comfortable seats arranged for easy access and egress as well as for ample leg room, but also arranged to ensure good sight and good audition from every seat. Audience comfort further implies surroundings that are pleasant to look at, that are well lighted, efficiently heated, adequately ventilated. Both mental and bodily comfort are involved in the designing



A BLUE PRINT FOR THE ORGANIZATION OF YOUR COMMUNITY THEATRE PLAN

THE COMMUNITY THEATRE usually contains 300 to 1,000 seats and serves amateurs, semi-professionals, and visiting professional groups. Most of the scenery and costumes are designed and made at the theatre and require a special type of workshop. Because of its varied use, and the rather indeterminate responsibility of its management, its planning should be as simple and as foolproof as possible.

FRONT, or public areas, and BACKSTAGE, or work areas, constitute the two major elements. Spectators should find everything necessary for their needs accessible from the foyer once they have presented tickets. Included are toilets, coatrooms, drinking fountain, lounges and smoking areas. The lobby should provide waiting space and circulation to other areas in the building. The manager's office is convenient if adjacent to the box office and accessible from the lobby.

In the work group, control of the stage entrance will avoid interference from unauthorized persons and will facilitate accounting of players, properties and scenery. Rehearsal rooms are part of the work area and should be near other work elements. Movement of heavy furniture and other properties demands close relation between work spaces and stage proper. Dressing rooms may be more remote but within supervisory distance.

(This chart and analysis of the organization of the community theatre areas is based largely upon a similar one in *The Architectural Record*, July, 1938.)

of an auditorium which will function both convivially and efficiently.

The average seating accommodation for the community centre auditorium is from 300 to 800 people, depending of course upon the size of the neighbourhood which is being served. The usual allowance is 7 or 8 square feet per person for the floor area of the hall, including both aisles and seating. Where the seating is to be removable, as it might be in a majority of community halls, the former figure might be adequate.

In proportion, the hall should be neither too long and narrow (for the obvious reasons of good sight and audi-

tion) nor too square. If it must serve as a gymnasium as well, the sizes and proportions of basketball floors will determine its shape and minimum size: the ideal basketball court is 48' x 84' (for elementary schools 40' x 60' is considered sufficient), plus a clear space of from 3 to 10 feet surrounding the playing area on all sides. This would indicate a hall between 50 and 60 feet wide and between 70 and 95 feet long. Thus a hall 50' x 70', the minimum for basketball, is adequate as an auditorium for about 450; while a hall 60' x 95', suitable for senior basketball, will accommodate an audience of about 725 comfortably.

Structurally, the auditorium must not only be sound and logical in its structural system, but that system must avoid any features such as posts and other obstructions which may interfere with free and easy circulation or with clear vision. The use of fire-proof or fire-resistant materials in the construction has obvious advantages.

Ample entrance and exit doors must be provided, not only from the entrance lobby, but also at either side near the stage end of the hall. These latter doors should open directly out of doors, or into passages leading directly out of the building. Building codes usually require a double door (equipped with panic bolts and opening out) for every 300 people in the audience. In a non-fireproof building there should be a greater number of exits than this minimum would require. A suggested minimum for the average community centre auditorium would be at least two pairs of doors between the auditorium and the lobby, and similarly between the lobby and the street, plus the double-door emergency exit at either side at the front of the hall.

Removable seats present a problem of easily accessible storage which must be provided in an area immediately adjacent to the hall. One excellent suggestion is the use of the space between the auditorium and stage floors (assuming there is no basement under the stage). Patented hanging devices or frames which slide out from under the stage accommodate collapsible chairs with great efficiency, and involve a minimum effort in packing the chairs.

If the auditorium forms a part of a community centre which is designed to accommodate a great variety of different sorts of community activities, some of which may be quite noisy, special attention must be paid to the matter of sound insulation between the various parts of the building. For instance, should there be bowling alleys beneath the auditorium, or near it, the floor and walls must be carefully insulated to insure a minimum of disturbing sounds within the hall.

Good lighting, easily controlled, restful on the eyes, should be provided. No exposed bulbs should be allowed to shine into the audience's eyes. Unless some specific use of the room requires natural outside light, it is wise to consider seriously the elimination of all outside windows in the auditorium. Such a solution will provide perfect daytime conditions for illustrated lectures,

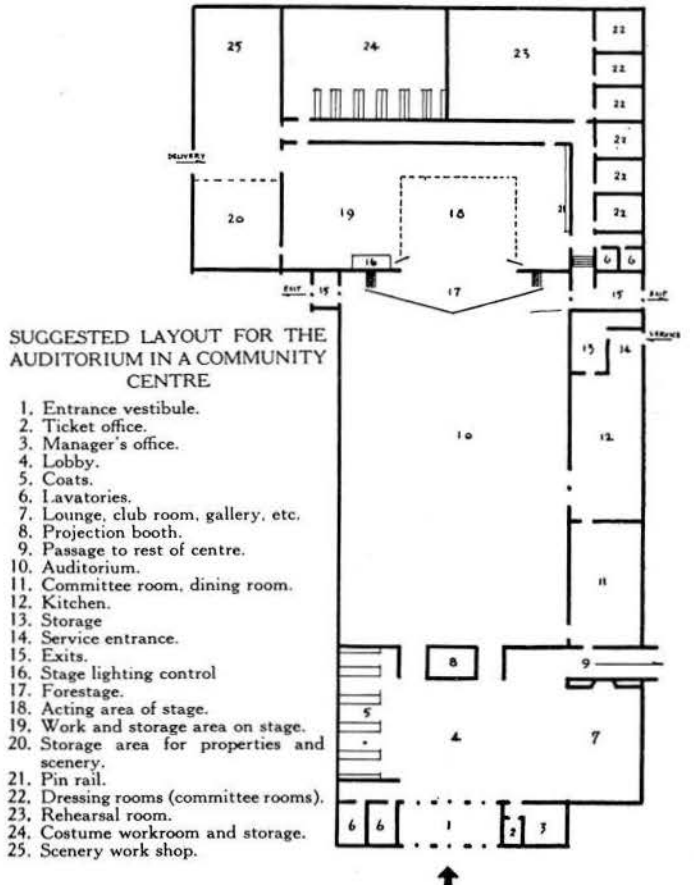
movies or stage productions. However, the all-purpose auditorium may require windows because of its possible daytime activities. These windows should be equipped with solid, light-proof blinds or curtains which will create the necessary blackout in the interior when the occasion demands.

Adequate louvred grilles for ventilation should be provided, equipped with insulated shutters for cold weather. A hall that is to be used for summer dancing might well have removable, well-insulated wall-panels to allow for adequate ventilation. It is to be hoped that the day is not far distant when ventilating and air-conditioning equipment will be made easily available at reasonable costs; for audience comfort depends to a great extent upon the maintenance of the freshness, temperature and humidity of the air in a hall.

SUGGESTED TYPICAL SPACE REQUIREMENTS FOR A COMMUNITY CENTRE AUDITORIUM AND STAGE DESIGNED FOR AN AUDIENCE OF 400

Vestibule	160 sq. ft.
Tickets and Office	100 sq. ft.
Lobby and Gallery	800 sq. ft.
Coats	240 sq. ft.
Lavatories	200 sq. ft.
Auditorium	3200 sq. ft.
Projection and spot booth	100 sq. ft.
Stage	1300 sq. ft.
Dressing Rooms (2 or more)	300 sq. ft.
Stage Lavatories	50 sq. ft.
Rehearsal Room	500 sq. ft.
Workshop (scenery)	500 sq. ft.
Storage (scenery)	as much as possible
Workshop and Storage (costumes)	400 sq. ft.

NOTE—Although these are suggested minima for an auditorium seating 400, special circumstances may indicate the cutting down or elimination of some of the items.



The Entrance Features

The entrance features should centre about a spacious lobby, not just a small, cramped vestibule. This lobby should be preceded by a vestibule in cold localities, one incidentally which is an integral part of the design and not just an afterthought stuck on the front of the building. The lobby will serve as a distribution area for ticket holders entering the relatively restricted control point through which they must pass; and, what is more important perhaps, the lobby will serve as a social area during intermissions, before and after performances, etc. Possible daytime uses of the auditorium would suggest that the foyer should be well lighted, with well placed windows of attractive and appropriate design. Such a spacious attractive foyer might be further enhanced by an open fireplace. Many centres have treated such a foyer as a lounge or club room, with comfortable sitting areas planned so as not to interfere with the direct line of traffic through the lobby to the auditorium. Another equally successful and highly effective suggestion is the design of the foyer with ample, well-lighted wall space on which can be displayed various exhibitions of colour prints, travelling art shows, local art and crafts exhibits, or stage and costume designs for the current production. Such attractive uses of the lobby help to make the community theatre all the more a communal affair, as opposed to the stilted formality of the typical overdecorated lounges and lobbies of commercial theatres.

Opening directly from this lobby should be adequate coat space, with ample provision for queues after performances. If adequate coat space cannot be provided, it is better to omit it altogether. Men's and women's lavatories, preferably opening out of a small corridor which leads from the lobby, are of course essential. If they are to be placed in the basement, stairs should lead directly from the lobby. A box office, and perhaps a small office for the manager, will complete the entrance requirements.

In halls which will require kitchen facilities, the kitchen should be carefully placed so as to provide for the maximum efficiency of traffic flow between it and the dining area. The self-service type of meals will necessitate a wall-opening between the kitchen and the auditorium. Otherwise, some planners suggest that a small room be planned between the two to serve as a serving room on the occasions of large suppers, and as a dining room for smaller groups. The type and quantity of meals to be served will of course indicate the size and equipment to be planned for in the kitchen. One important item to include is a direct service entrance for deliveries and garbage disposal.

Another desirable accessory for the auditorium is a projection booth, a fireproof compartment equipped with either permanent projection equipment, or with power plugs for portable 16mm. projectors and for theatrical spotlights. If the hall has a high ceiling, such a room

can be placed over the entrance doors leading from the foyer to the auditorium. If not, the booth might well be placed between two such pairs of doors and raised a few feet above the main floor level to allow for unobstructed projection to the screen on the stage.

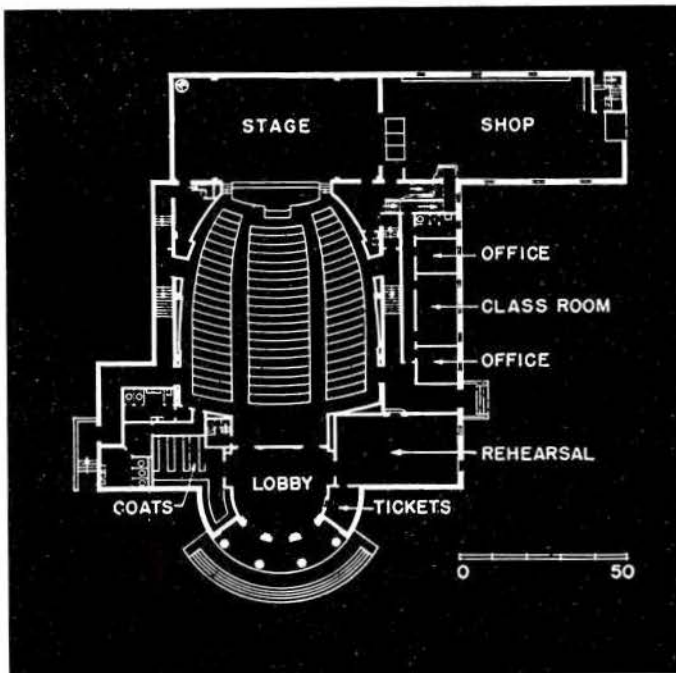
The Stage

Most of these suggestions for the accommodation and comfort of the audience "out front" will seem quite logical even to those not accustomed to thinking along architectural or theatrical lines. When, however, we come to the consideration of the backstage areas, we find that most building committee members labour under the delusion that the acting space, that portion of the stage visible from the audience, a couple of dressing rooms and a few lights are all that any community theatre should need in the way of stage facilities. In fact, the inefficiency of a majority of the school and community stages throughout Canada is due largely to a failure to appreciate the vital importance of a properly equipped and planned stage, or to the injudicious limiting of stage space and equipment in order to cut building costs, or to a combination of both.

For instance, the Civic Auditorium in Winnipeg is a splendid example of just this sort of lack of foresight in cutting the stage facilities to an absurd minimum. To most people, this Auditorium with its two halls seating 4,200 and 800 seems to be an ideal civic meeting place for concerts, opera, stage productions, conventions, athletic contests, music festivals, etc. However, behind the footlights, one finds much to be desired, in spite of an acting area of fairly adequate size: there is practically no off-stage space and absolutely no storage space; the lighting system, without any dimmers or spotlights, was so pared down by the building committee that the resulting equipment is wholly inadequate except for the creation of a "blaze of light." The gridiron is so low that the asbestos curtain cannot be raised completely out of sight and so inadequately equipped that many travelling shows are unable to install their complete settings.

Of course, the small intimate theatre, appropriate for community centres, need not be concerned with the elaborate settings for road shows and operas. But its natural lack of efficiently trained stage personnel and elaborate stage equipment necessitates greater flexibility and simplicity in its planning. In order that it may be adaptable to all kinds of presentations, ample floor and storage space and adequate dressing and work rooms must be provided, along with a simple but efficient and flexible lighting system.

Obviously the commercial stage with its elaborate equipment solves many presentation problems in a very efficient manner. Nevertheless, its traditional stage loft towering anywhere from 70 to 90 feet above the stage floor is not considered to be an absolute "must" for all types of theatres. In fact, its prohibitive cost would



KIRBY MEMORIAL THEATRE, Amherst College, Amherst, Mass., McKim, Mead & White, Architects.

Although designed for a college theatre, this plan embodies many good ideas for a typical community theatre. The auditorium seats 430 persons. The dressing rooms are above the offices and class rooms at the right.

suggest that, in smaller towns where real estate is not so expensive, the stage facilities should expand in a horizontal rather than a vertical direction.

The stage, although a limited working area, should have the maximum space possible. Its width, at least twice that of the proscenium opening, is usually equal to or greater than that of the auditorium at its widest point. A proscenium opening 20 to 25 feet wide and 10 or 12 feet high seems logical for the typical small community centre with a flat-floored auditorium. In this case, the stage floor would be raised about 4 feet above the auditorium floor. In depth, the stage may vary considerably. A minimum desirable depth would seem to be 20 feet, although many shallower stages exist in little theatres today to test the ingenuity of scenic designers in their attempt to create an effect of spaciousness. A stage 25 or 30 feet deep is of course much more flexible especially for crowd or pageant scenes, or for those settings in which an attempt is made to create the effect of illimitable space on a back-cloth by means of lights. For this latter purpose a cyclorama cloth (or plaster wall) is ideal. But, wherever the back set of lines is located, provision should be made for a 3-foot cross-over between it and the rear wall of the stage. Or, better yet, the stage should be planned with an actual corridor or work room running all across behind its rear wall, connected with this passage-way by doors to the off-stage areas at either side. Such a scheme avoids that disturbing movement of the backdrop caused by actors rushing across behind the scenes.

There is a great advantage in having a forestage in

front of the proscenium curtain of the community centre hall: it adds greatly to the flexibility of theatrical production, and is admirably suited for lecturers and soloists, for it brings them right out into the hall itself where their voices are not muffled by curtain settings or lost in the vast loft space above the stage.

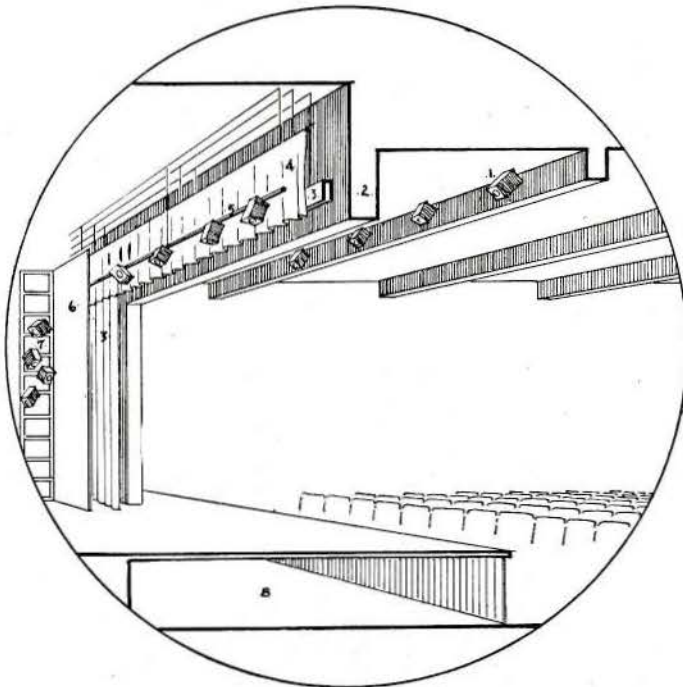
The gridiron, as already indicated, need not be placed at a great height above the proscenium opening in the smaller theatre stage. Only in the theatre where the front curtain is to be raised out of sight must the height of the grid above the stage floor be equal to more than twice the height of the proscenium opening. (The usual minimum for the commercial theatre is 70 feet between stage floor and grid.) In the community theatre in which simple scenic presentations do not involve the "flying" of painted drops and wings, the grid (or framework containing the series of pulleys through which the hanging lines are run) need not be more than about 6 feet above the top of the proscenium opening. Then, by means of traveller-tracks the front curtain, the back curtain and any intermediate close-in curtains can be moved out of sight at the sides. Curtain borders, curtain wings, cyclorama cloth, light battens, etc., can be hung easily at will. It is suggested that a 4-line system of grid suspension be used (that is, four lines for suspending each batten), although a 3-line system might seem to be quite sufficient for most small stages. However, the obvious flexibility of the 4-line system in providing separate controls for wings at each side of the stage, coupled with the fact that battens bend less with four-point suspension, would warrant the slightly added expense involved. As a suggested minimum, there should be a set of lines every 9 inches from the front batten of lights to the backdrop. For those who might be interested in an efficient and inexpensive substitute for the rope and pulley system of grid suspension, it might be suggested that heavy chicken wire be nailed firmly over the entire ceiling of a stage whose height is no more than 12 or 15 feet. Then, light curtains, equipped with hooks in their tops, light-weight electrical equipment, etc., can be hung at will anywhere above the stage. For the small stage this provides the maximum in flexibility, although it may entail more time and labour in the actual process of hanging.

The stage lighting system should be made up of a number of small, light-weight units (short troughs of lights, baby spotlights, small floodlights, etc.) to ensure easy movement and rapid installation and change, as well as the greatest possible variety of light effects to be created. The old, stereotyped troughs and footlights of lights "in a variety of colours—red, white and blue" should be avoided. In fact, most authorities in the little theatre field will agree and recommend that footlights be eliminated entirely, and that the acting space be lighted by units above and at the sides of the front of the stage. The best lighting practice specifies the installation of spotlights on the auditorium ceiling a few feet out in front of the proscenium opening, these lights hidden

from audience view by an actual or fake beam and directed toward the front acting area and the forestage. Immediately behind the proscenium curtain, a light batten overhead and vertical tormentor-ladders at each side should be equipped with a number of outlets on several individually controlled circuits to allow for the plugging-in of spots, floods and small troughs. Similarly a good number of outlets should be provided for auxiliary overhead spots, wing floods and floor floods across the back of the acting area. All of the light outlets should be controlled by a series of dimmers capable of handling them singly or collectively.

Several dressing rooms, arranged perhaps on the pinrail side of the stage (where the ropes for hanging scenery are tied), together with two small lavatories, will provide for the usual acting personnel. If these dressing rooms can be made large enough (perhaps two rooms, one for actors, one for actresses), they might then serve on numerous occasions as committee rooms.

Adequate storage space for properties and scenery used in any one performance should be provided on the stage, presumably at the side opposite to that containing the pinrail. Additional storage space for props and scenery is most desirable, especially if there is a continuing little theatre group which would find it desirable to have such a group of accessories always at hand.



**SUGGESTED LAYOUT FOR LIGHTING OF ACTING AREA
ON A STAGE**

1. Spots concealed behind beam near front of auditorium ceiling.
2. Proscenium arch.
3. Proscenium curtain on traveller track.
4. "Grand drapery."
5. Spots on batten.
6. "Tormentor."
7. Spots on Tormentor ladder.
8. Chair storage under stage.

If the community theatre is to encourage communal enterprise in the whole field of the creative arts (which is the accepted purpose of any community centre), large workshops for scenery and property construction and painting, as well as a costume shop and wardrobe storage area are most essential. Each should have good daylight facilities. The scene shop should open directly onto the stage through a large door at least 8 feet square. This shop should be as high as the anticipated scenery to be used on the stage (probably a minimum of 14 feet).

If the theatre is to be used by several, or even only one, producing groups, there should be at least one room large enough for rehearsals; in other words, a room whose dimensions are equal to, but preferably a bit larger than, those of the acting area on the stage. This room should also be well lighted. If near the stage, it would serve as additional dressing or make-up area, or as a green room for actor discussion of the performance. If near the front of the building, it could serve as a meeting room or perhaps as a dance studio in addition to its role as a rehearsal room.

The matter of fireproof construction, although not mandatory in many smaller towns, is nevertheless very desirable. Where budget will allow, the building of a fireproof proscenium wall and the installation of an asbestos curtain is a great protection. However, every precaution for easy and rapid exit from the backstage area (as well as from the auditorium itself) should be taken. The location of the dressing rooms in a wing or "lean-to" building adjacent to the stage itself is one good precaution, as the burning cigarette in a dressing room is so often the cause of the backstage fire. Certainly, all curtains and scenery should be sprayed with a fire-retardent solution to ensure against flash conflagrations. However, the local organization and control backstage, enforcing strictly a few simple rules, are doubtless the best fire preventatives.

All stages should have a smoke vent in the roof overhead—one that automatically falls open in a fire due to the melting of a fusible link. In this way the fire on the stage is confined to that area for a greater length of time, thus allowing for the safe evacuation of the audience.

Conclusion

In this survey of requirements for the auditorium and stage of a community centre, I have attempted to touch on the salient features which should be considered during the early stages in planning such a centre. Obviously, detailed study of specific community requirements and development of the plan to meet those requirements may omit some of these ideas and very likely will include others. The information given has been purposely limited to basic essentials in order not to prejudice or preclude the careful analysis and solution of each community's requirements by its community centre committee.

(Continued on page 180)

R.I.B.A. PRIZES AND STUDENTSHIPS

I AM writing to tell you that the Council have decided to resume the Competitions for the R.I.B.A. Prizes and Studentships for 1946-1947. The full conditions for the Prizes and Studentships to be offered in 1946 will be contained in the R.I.B.A. Prizes and Studentships Pamphlet, at present in the hands of the printers but I shall send you two copies as soon as I can.

In the meanwhile I think you will wish to be reminded of the conditions applicable for the Competitions for the Tite Prize and the Victory Scholarship for they vary from those which obtain for the other Prizes.

The Tite Prize

This is a Certificate and the sum of £35 and it is confined to Probationers and elected Students of the R.I.B.A. and elected Students of Dominion Allied Societies who have passed the R.I.B.A. Intermediate Examination or equivalent examination or who produce certificates from responsible architects to the effect that they have reached the required standard. Students who have passed the R.I.B.A. Final Examination or equivalent examination at the time of the Final En Loge Competition are not eligible to compete.

The Competition for the Tite Prize is conducted in two stages, a Preliminary En Loge Competition followed after an interval by a Final En Loge Competition, the competitors in which are allowed a further period of six weeks within which to complete their finished drawings.

I enclose a copy of the rules for the conduct of En Loge Competitions together with a specimen of the programme set for the Preliminary En Loge Competition for the Tite Prize held in the year 1938.

The arrangements for the Preliminary Competition for the Tite Prize are entirely in the hands of your Society. Your Society are asked to receive applications for admission to the Competition from eligible candidates, to arrange for them to take a Preliminary En Loge Competition in accordance with the regulations, and as a result of that Preliminary Competition to select certain candidates who may proceed with the Final Competition.

When competitors sit for the Preliminary Competition they should be advised of the bare title of the subject for the Final Competition which I will forward to reach you by May. In the U.K. competitors for the Tite Prize are advised of the title of the subject for the Final Competition about 3 months before they may be required to take the Final Competition. Your Tite Prize Preliminary En Loge Competition should, therefore, be held as soon as possible after the receipt of this letter.

The Tite Prize Final En Loge Competition will be held on the 16th July, 1946 in the U.K. and the Victory Scholarship En Loge Competition (see below) on the same date. These Competitions should be conducted by your Society as near to these dates as possible. En Loge Competitions are generally conducted where possible at Schools of Architecture.

The Victory Scholarship.

A Silver Medal and the sum of £120. It is confined to members of the R.I.B.A. and of the Allied Societies Overseas and elected Students of the R.I.B.A. and of the Allied Societies Overseas who have passed the R.I.B.A. Final Examination or equivalent examination or who have produced certificates from responsible architects to the effect that they have reached the required standard.

There is no Preliminary En Loge Competition for the Victory Scholarship. There is only one En Loge Competition, that which is part of the Final Competition. Competitors will be furnished with an outline programme of the Competition one month before the En Loge and at the opening of the En Loge they will be handed the complete programme. The outline programme and the complete programme for the Victory Scholarship will be sent to you from the R.I.B.A. The Victory En Loge Competition will be of 12 hours' duration, at the conclusion of which competitors are required to hand in the schemes they have prepared En Loge retaining a tracing of their drawings for their own use.

You should then appoint, as you will have done in the case of the Tite Prize, a Jury to consider the drawings prepared En Loge and to select those candidates to be permitted to proceed with their final drawings. You should notify the competitors selected to proceed, allowing them a period of 10 weeks from the date of the receipt of their notification to develop their final drawings.

You will see, therefore, that it will not be necessary to ask you to set programmes and make arrangements for any Preliminary Competition for the Victory Scholarship. The competitors taking part in the Final Competition for the Tite Prize and those allowed to proceed with their final drawings for the Victory Scholarship should be given a date by which they must submit their final drawings to you. These drawings which may be rolled or flat should then be sent by your Society suitably insured, addressed as follows:

The Secretary, The R.I.B.A.,

66, Portland Place, London, W.1.

and having on the outside the name of the prize for which competed so as to reach here at the latest by 26th November, 1946, in time for the adjudication in London.

EVERARD HAYNES, Secretary to the Board.

N. B.

The Secretary of the Institute has in custody the programmes for Competition in connection with the Tite Prize and the Victory Scholarship. If any students, in Canada, are desirous of competing for these, the Secretary should be informed immediately so that arrangements can be made for En Loge Competitions in centres to be arranged later. It will be noted that the drawings must be in England for judgment early in December, 1946.

RICH'S-PROGRESSIVE ARCHITECTURE COMPETITION

A Realistic House for a Family in Georgia

WATSON BALHARRIE, OTTAWA, SECOND PRIZE WINNER

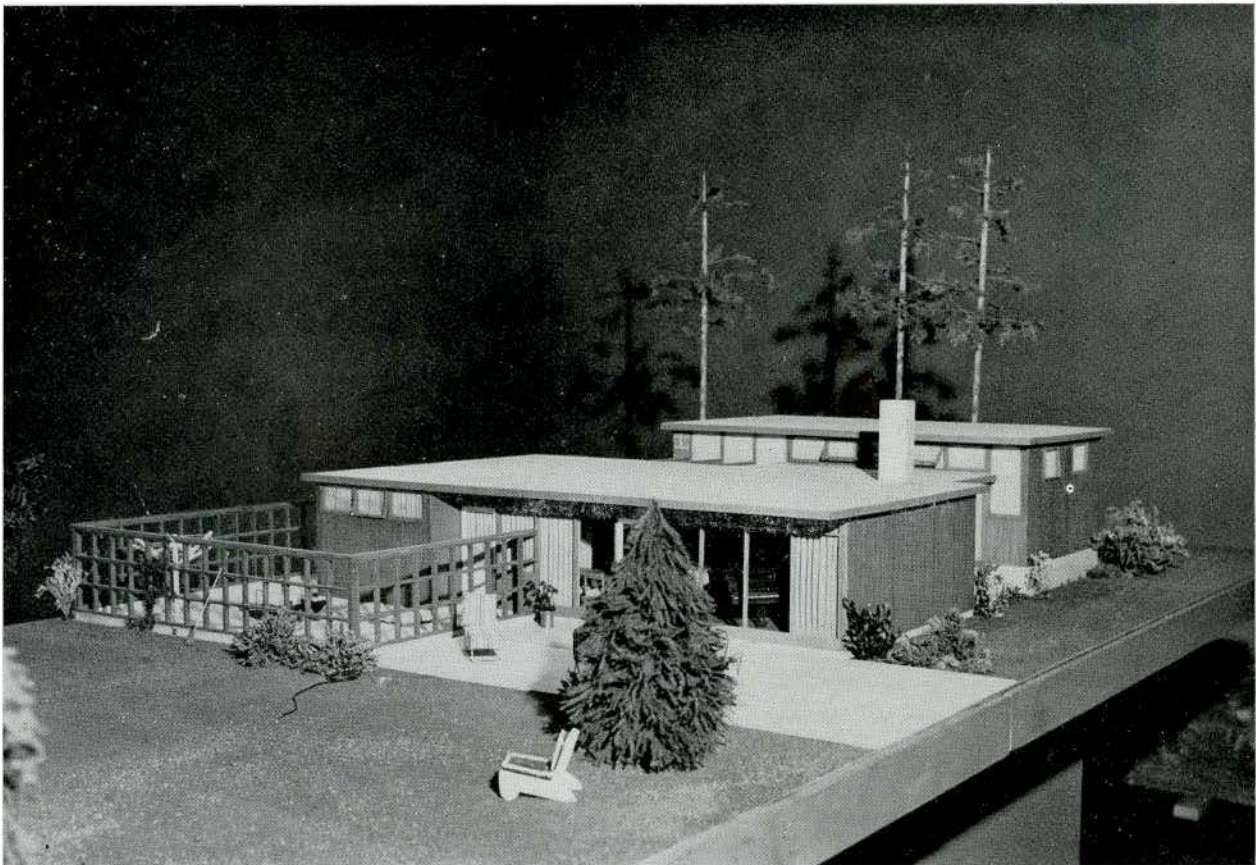
The Competition, which was open to Architects both in the United States and Canada, was sponsored by Rich's Incorporated, a large Departmental Store in Atlanta, Georgia. The object of this sponsor was to endeavour to find an ideal plan for the \$3,000.00 income man in the State of Georgia. Conducted by Pencil Points Progressive Architecture magazine, the Competition closed with almost 600 entries and first prize went to Hugh Stubbins, Jr. of Cambridge, Massachusetts.

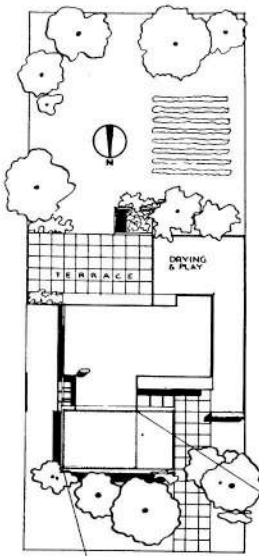
From the jury report, it was evident that some disappointment was felt at what seemed to be a general disregard of the program's stated intentions, i.e., providing a house for a \$3,000.00 a year income man. Solutions to this problem were generally beyond the means of a man in this wage class, but the jury attributed this to the climb in building prices since the program was written.

Regarding the second prize design, the jury were not completely happy about the external appearance, but commented favourably on the subordinated, though practical, placement of the garage, the separation of the living and sleeping areas and provision for combined guest and study.

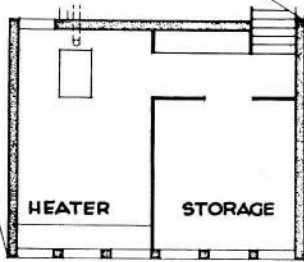
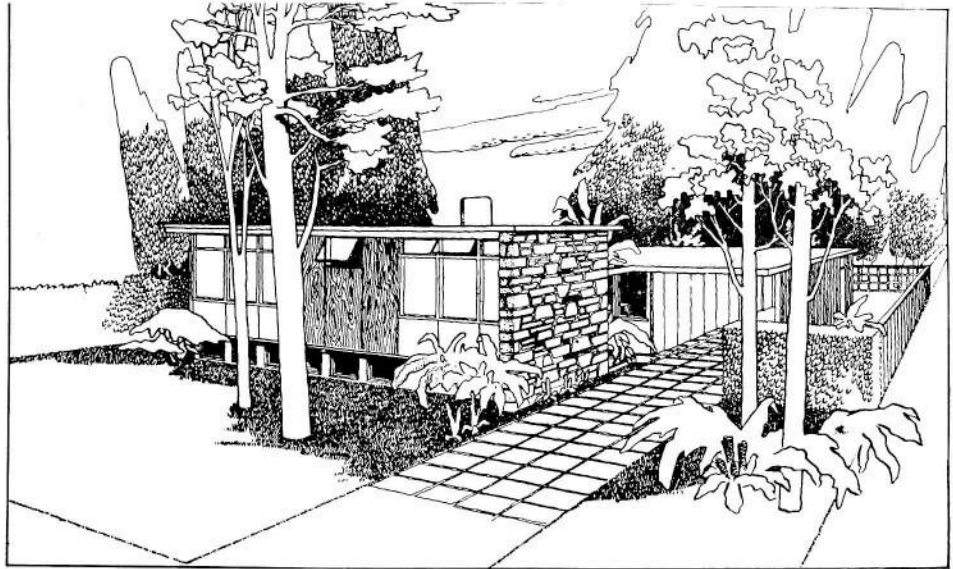
It was interesting to note that all other prize winners had sloping roofs. For the State of Georgia the sloping roof seems to have merit, since it provides for circulation of air in the roof space during the hot summer months.

The first four designs were modelled at 1" scale by Raymond Barger of New York and subsequently displayed by the sponsor at a special "Georgia Builds to Live" Show which was held in Atlanta, and nationally publicized.





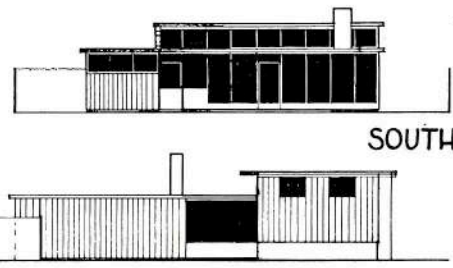
PLOT PLAN



HEATER STORAGE

STORAGE
 $3 \times 9 \times 8' = 216$
 $9 \times 10 \times 6 \times 7' = 698.25$
 TOTAL CU FT 914.25

COMPUTATION OF AREA
 A - $19 \times 29 = 551$
 B - $10 \times 16 = 160$
 C - $10 \times 23 = 230$
 D - $10 \times 15 = 150$
 TOTAL AREA 1325



SOUTH

EAST

BASEMENT

LIVING 8-PLAY 16' x 20'

DINING 6' x 9'

LAUNDRY 6' x 6-6'

STORAGE CARD TABLES CHAIRS PROJECTOR ETC

GARAGE

STUDY GUEST 7-6 x 10'

KITCHEN 9-6 x 13'

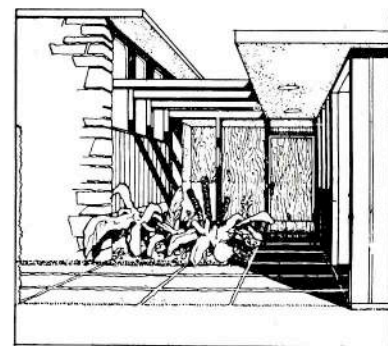
BOY 8' x 11'

RAMP

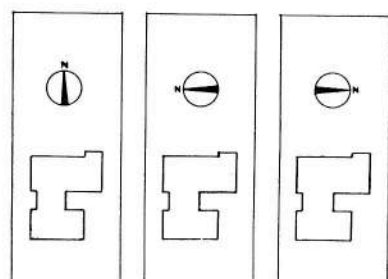
BATH

GIRL 8' x 11'

PARENTS 9-6' x 16'



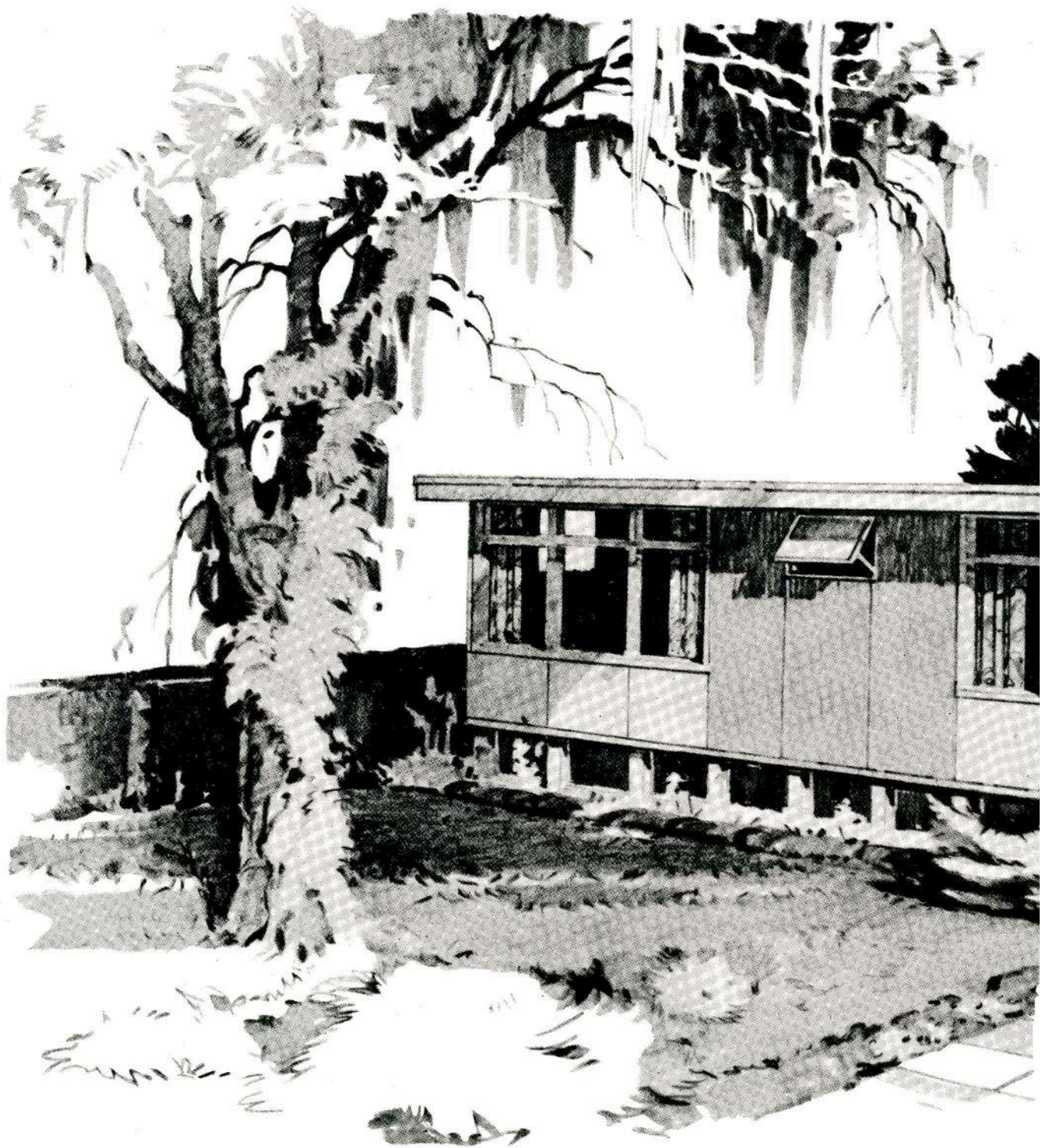
ENTRANCE DETAIL

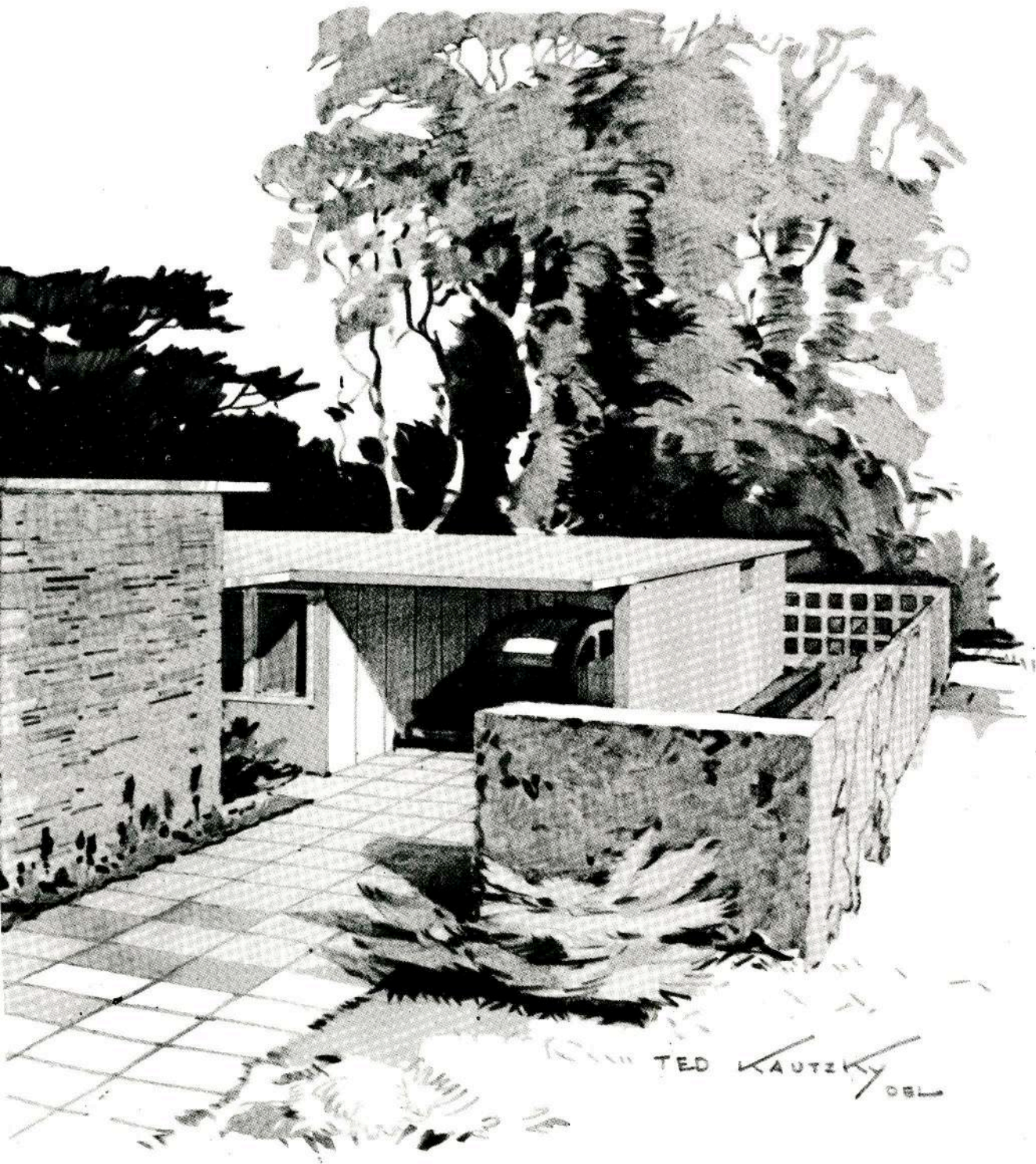


ORIENTATION OF ALTERNATE SITES

FLOOR PLAN

SUBMITTED BY

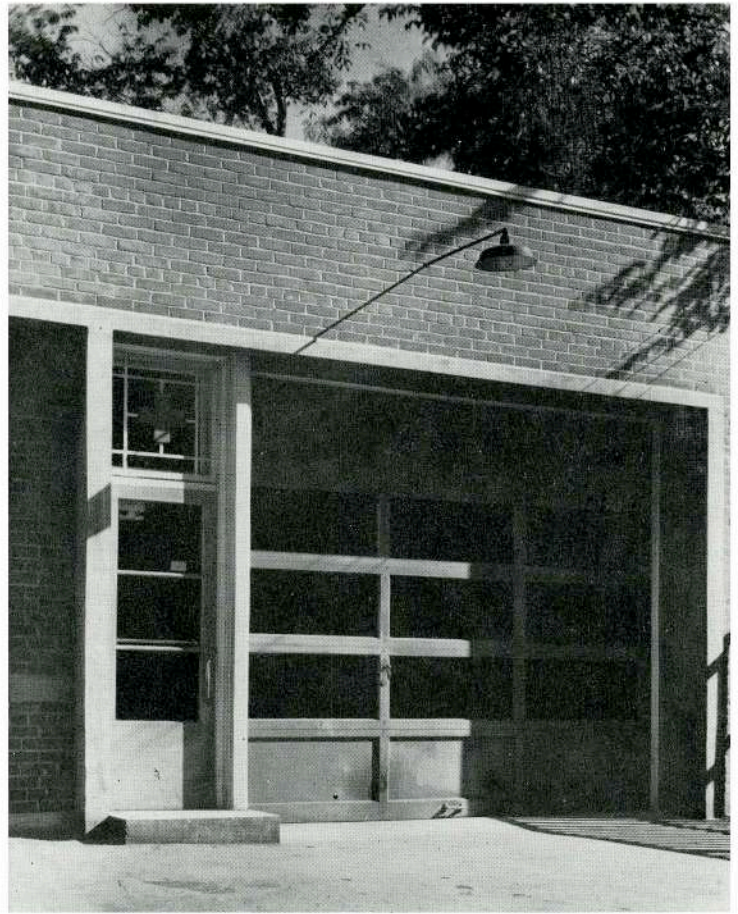




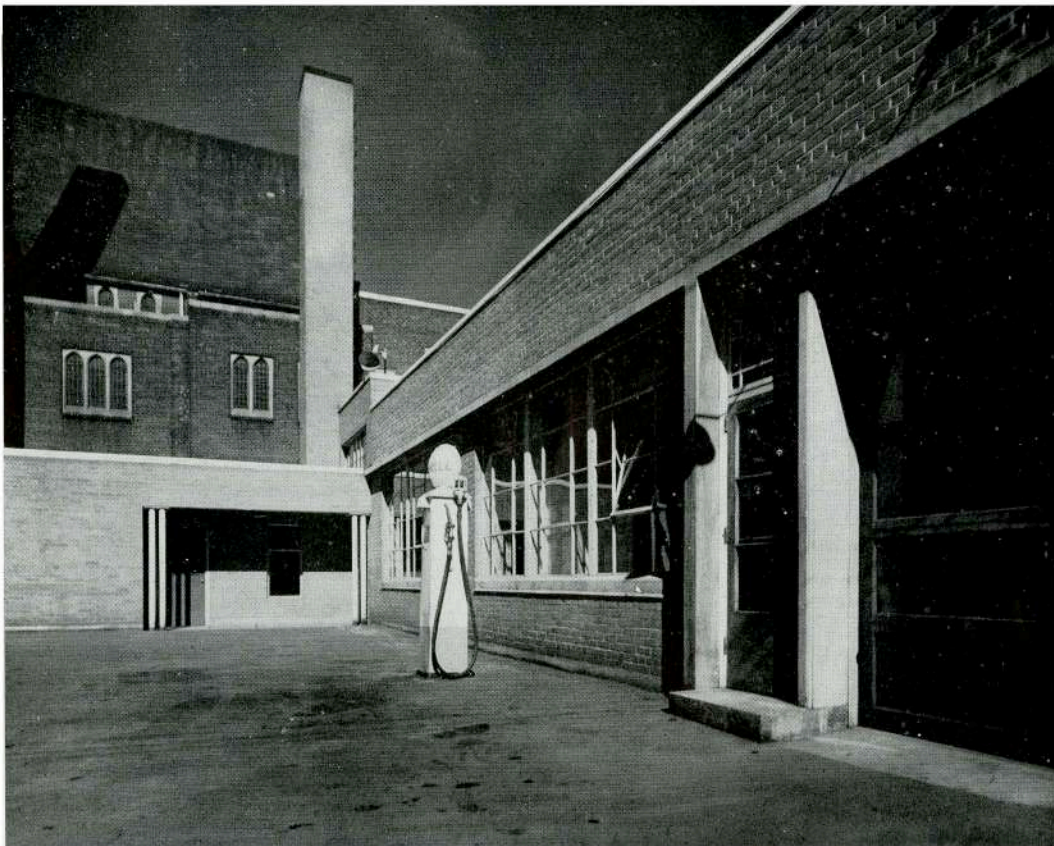


GARAGE, TORONTO BRANCH, THE CANADIAN RED CROSS SOCIETY

PAGE AND STEELE, ARCHITECTS



THE MAIN ENTRANCE



LOOKING EAST TO BOILER ROOM

HOW MUCH HOUSING DOES GREATER TORONTO NEED?

By HUMPHREY CARVER

Humphrey Carver, A.R.I.B.A., was educated in England, both in the social sciences and in architecture, before coming to Canada in 1930. He worked with a Town Planning firm and in partnership with a Landscape Architect. He lectured at the University of Toronto School of Architecture before serving in the Army for 3½ years. To the R.A.I.C. Journal and to many other Canadian periodicals he has contributed articles on Housing and Community Planning.

This is a brief digest of a report prepared by Mr. Humphrey Carver for the Toronto Reconstruction Council. The report itself deals in considerable detail with the reasoning, the calculations and the statistical material on which this summary statement is based. It is the first of a series of reports on the housing problems of metropolitan Toronto to be prepared at the School of Social Work in the University of Toronto. Funds for this research project, which is to continue for a year or more, have been provided by grants from the City of Toronto (through the Reconstruction Council), the Central Mortgage and Housing Corporation and the Department of Planning and Development of the Ontario Government.

It should be pointed out that this is a purely quantitative study of housing requirements, and does not seek to imply either that there will be an effective economic demand for the calculated number of housing units or that the building industry will be capable of filling such a demand. The calculations are simply based on the assumption that a desirable housing condition will exist in Greater Toronto when each family or household can be accommodated in a separate dwelling unit, whether single house, duplex, or apartment.

(Copies of the full report entitled "How Much Housing Does Greater Toronto Need?" (51 pages, XIII tables) can be obtained from the Toronto Reconstruction Council, 522 University Avenue, Toronto. Price 50 cents.)

SINCE the economic collapse of 1930 insufficient housing accommodation has been constructed in the Toronto area to accommodate the continual growth of population. The development of industries during the war accelerated the migration into this metropolitan area at a time when little new housing could be constructed. On returning to their own community the veterans have consequently found that there is no accommodation in which they can establish homes of their own. They were the last to arrive in town, and are the outstanding victims of a shortage that had been stacking up for a long time.

How extensive is this need for housing the families of veterans? And how much housing should be built in the Toronto area during the coming years in order to make up the shortage and to keep pace with the normal requirements of an expanding city? This report attempts to answer these questions.

The Housing Requirements of the Veterans

In order to obtain first-hand knowledge of the housing problem with which returning veterans are faced, a survey was taken in February and March, 1946, of 5,000 men being discharged from the army in Toronto. Almost half the whole number surveyed were single men returning to their parents' homes. Eighteen per cent of the whole number were married men returning to a home that they either owned (8.6 per cent) or rented (9.7 per cent.). The remaining 36 per cent. were married men who are in need of housing. About a third of these have children. Of the whole 5,000 surveyed.

20.8%	had wives at present living with parents.
9.9%	" " " in rented rooms.
2.3%	" " " with another family.
3.0%	" " " overseas.

36.0%

Since July, 1945, veterans have been returning from overseas to the Toronto area at the rate of about 4,000 a month, more than 32,000 having returned to this community by the end of February. If it may be assumed that all of these were faced by the same situation recorded by the 5,000 men surveyed, then it is apparent that the total requirements for housing married veterans in the metropolitan area is about 11,500 housing units, or 36 per cent. of 32,000. This must be regarded as a distinctly conservative estimate, since it does not take account of the 10,000 men who had already returned from overseas between January and July, 1945, nor does it include all those servicemen being discharged from the forces stationed in Canada. And what of the unmarried veterans now returning to their parents' houses, but regarding marriage and the possession of a home of their own as an essential feature of their re-establishment?

How has housing construction been keeping pace with this demand? In July, 1945, the Department of Labour initiated a periodic survey of residential construction. Between July and December, 1945, 3,747 dwelling units were found to be under construction in the Toronto area. By the end of the year 709 of this number had been

completed and the remainder were in various stages of completion.

- 1,360 units were 0 - 25 per cent completed
- 812 units were 26 - 50 per cent completed
- 663 units were 51 - 75 per cent completed
- 384 units were 76 - 99 per cent completed

If it may be assumed that all the 3,747 units under construction during the period will have been completed by July, 1946, then the total requirements of married veterans will theoretically have been reduced from 11,500 to 7,773. This would, of course, only be true if each family that moved into a new house released an equivalent accommodation. But many of those moving into new housing will have been previously doubled up and so the needs of the married veterans will not in fact be filled in direct proportion with the number of new houses built.

How Much Housing Should be Built in the Toronto Metropolitan Area During the Next Ten Years?

The plans of the building industry and of public authorities must be based on some reasonable estimate of the need for housing in order that a steady volume of production may be maintained at a scale that will meet the requirements of the community. It is convenient to arrange the calculations of shortage and of required normal production under five headings; the total may then be summarized and the programme spread over ten years with a quota of annual production established.

TABLE
Increases of Population and Housing —
Toronto Metropolitan Area.

	(A) Increases in Population 1931 - 1945	(B) Increases in Housing Units 1931 - 1945	Ratio of (A) to (B) Number of Persons per Unit
Toronto City	60,278	8,052	7.4
Forest Hill Village	9,421	2,405	3.91
Leaside Town	9,234	2,866	3.22
Long Branch Village	1,683	410	4.10
Mimico Town	2,957	654	4.52
New Toronto Town	3,863	600	*(6.43)
Swansea Village	2,749	694	3.96
Weston Town	1,731	504	3.43
Scarborough Township	7,270	2,132	3.31
York Township	22,546	4,602	4.89
East York Township	14,217	3,778	3.76
North York Township	15,446	4,926	3.13
Etobicoke Township	12,203	3,562	3.56
Suburban			
Municipalities	103,320	27,815	3.71
Metropolitan Area	163,598	35,867	4.56

*Records for residential construction in New Toronto are only available from 1937, and it is not therefore possible to present valid figures for this ratio. There are reasons for believing that this approximation is not far from the truth.

(a) The Accumulated Shortage.

The shortage that has accumulated since 1931 can be measured by recording the number of housing units built during the period and comparing this number with the increases of population as enumerated by the assessment departments.

In the suburban municipalities 27,815 dwelling units were built between 1931 and 1945, while at the same time the population in the suburban area increased by 103,320. This gives a proportion of 3.75 persons to each additional dwelling. In the same period there have been 8,052 units constructed within the limits of the City of Toronto, for an increased population of 60,278, giving a proportion of 7.48 persons per dwelling.

It has been shown by the 1941 Housing Census that the average number of persons in a suburban household is 3.8. It may, therefore, be concluded that in the 1931-1945 period residential construction in the suburban areas kept pace with the spilling of population into those areas. But by the same criterion it is evident that a large surplus population had accumulated within the city limits for which no equivalent amount of housing had been constructed. To house the city's increased population at the rate of 3.75 persons per dwelling would have required 16,076 dwelling units to be constructed between 1931 and 1945. Since only 8,052 were in fact constructed there was an apparent shortage of 8,024 units.

But, unfortunately this by no means completes the calculations of housing shortage, because the enumeration of the civilian population in the area was concluded by the end of August, 1945, and does not therefore include all the servicemen who have returned to the community since that time. An examination of the local ration-book issue indicates that an additional 48,000 should be included in the population figures in order to bring the calculations up to date. Since we know from the 5,000 sample survey that about 18 per cent. of discharged men were already householders and would therefore have been enumerated in the population assessment, this additional number may be reduced to 39,000. If this figure is incorporated in the calculations of housing shortage it must be concluded that the real shortage is not 8,024 but 18,255 housing units. In other words, there was already a calculable shortage of about 8,000 at V-E Day and a further shortage of 10,000 has been revealed as servicemen's families have been reunited during the last nine months. It will be observed that this corresponds closely with the information derived from the survey of 5,000 discharged soldiers.

(b) The Vacancy Rate.

In any community the number of dwelling units must exceed the number of households by a certain margin in order to provide for flexibility of movement as family groups are re-deployed under changing circumstances. Since 1905 the average proportion of vacant single-family dwellings has been 2.95 per cent. For apartments the rate has been 10.05 per cent. since records of such accom-

modation began in 1927. This margin of safety, the "vacancy rate," has been eliminated by the present housing shortage and must be regarded as a requirement additional to the making up of the shortage as calculated above. It is commonly regarded as desirable that the vacancy rate for single-family dwellings should be 2 per cent. and for apartments 6 per cent. In the Toronto metropolitan area the vacancies should therefore be:

2% of the 160,000 single-family dwellings	3,200 units
6% of the 40,000 apartments, duplexes, etc.....	2,400 units
Total	5,600 units

The fact that the City of Toronto has actually been able to absorb a large increase of population, particularly during the war years, has demonstrated that a certain margin of safety has existed. This absorption has been achieved almost entirely by adapting and converting the existing older residential buildings in the city. As a result of this process of improvisation the City Assessment Department was able to report the creation of more than 5,000 additional dwelling units in the 1931-1945 period over and above the number of new dwellings constructed according to the records made by the Commissioner of Buildings. For the immediate future it may be assumed that these improvised units will continue to fulfil their marginal function. In the present calculations, therefore, only the 3,200 single-family dwellings are regarded as an essential part of the building programme.

(c) To House the Expected Increase of the Population.

The population of the metropolitan area is now about 950,000, and appears to be increasing at the rate of about 11.5 per cent. per decade. This is based on the figures of the last Census decade during which the population of the suburban areas increased 30 per cent. while the population within the city increased 4 per cent.

There are some indications that the increase during the next ten years may exceed this proportion. Studies that have been made by the federal Department of Labour indicate that the drift of population towards the large metropolitan centres is characteristic of the present processes of industrialization and urbanization in Canada. The growth of Greater Toronto during the war years should not be regarded as an eccentric or temporary phenomenon, but rather as an acceleration of a continuing trend. Furthermore the economic prosperity of the war years has revitalized the reproductive capacity of the people so that by natural increase as well as by in-migration the population is likely to expand more vigorously than it did during the pre-war decade.

Altogether it seems reasonable to expect an increase of 110,000 in the population during the 1946-1956 period. If 3.8 is accepted as the average number of persons per household, about 29,000 additional housing units will be required to accommodate this number.

(d) Reconstruction of Slum Areas.

A wealth of evidence has been produced over recent years to show that certain blighted residential areas within the city must be reconstructed if Toronto is to maintain proper standards of health for its citizens. During 1944 the City Planning Board examined these areas in considerable detail and made specific recommendations for their re-development. These areas were designated as:

	Area	Population
(1) Regent Park, North	42.2 acres	3,717
(2) Regent Park, South	64.7 acres	3,647
(3) Yorkville	41.2 acres	1,601
(4) Trinity Park	52.6 acres	7,569
Total	200.7 acres	16,534

Assuming that the average number of persons in each household within these areas is 4.3 (the average for the city as a whole), then the number of dwelling units required to re-house this population would be about 3,800.

(e) Replacement of Obsolete Housing.

Quite apart from the special urgency of slum-clearance, it is becoming necessary to plan for the systematic replacement of the city's residential accommodation in order that Toronto may remain a modern city, and adjust itself to contemporary standards of living. During the last ten years 1,712 dwellings have been demolished within the city. At this rate it would take more than a thousand years to replace the existing housing in metropolitan Toronto.

If it may be assumed that the reasonable lifetime of a dwelling unit is 50 years, then it is necessary for a community to replace two per cent. of its housing each year. In Greater Toronto there are now more than 200,000 dwelling units; replacement should therefore be at the rate of 4,000 units a year, or 40,000 in ten years, if the average age of its residential accommodation is not to exceed 50 years.

In its 1944 diagnosis of the city's condition the City Planning Board described 50 per cent. of the residential areas of the city as "declining", and recommended a systematic conversion of those neighbourhoods in order to arrest internal deterioration of the city and check the continued flight to the suburbs. This whole process of replacement and replanning of residential areas is a procedure on which Toronto has hardly yet begun, but which, with the maturity of the city, must now be regarded as an essential part of future housing programmes. While the city's internal industrial areas were expanding there was a spontaneous process of replacement as older residential districts were overtaken by commercial and industrial uses. But the adult metropolis has now germinated new industrial nuclei, and the flexibility of road transport and electric power have made suburban sites more suitable for industrial uses. Mean-

while the older residential areas have become stagnant, and they no longer attract a stable population that can maintain the amenities and values that formerly existed in those parts of the city.

In projecting a replacement programme of 40,000 units during the next decade a distinction should be drawn between

- (1) Housing that must be considered physically obsolescent on measurable standards and whose continued existence might be reasonably regarded as a threat to the welfare of its inhabitants. It should be recalled that the 1941 Housing Census enumerated in the Toronto area 18,000 dwelling units that required external repair and about 25,000 that either had no private flush toilet or no private bathing arrangements.
- (2) Housing in declining neighbourhoods which has not fallen below the accepted minimum standards of shelter but which should be systematically replaced in order that internal neighbourhoods may continue to hold a stable population and not progressively deteriorate in quality and value.

It appears that a replacement of 20,000 units during the next decade should be regarded as essential since this would no more than maintain an average dwelling life-time of 100 years and replace units which were sub-standard by Housing Census criteria in 1941 and by 1956 would be fifteen years older. The replacing of another 20,000 units must be regarded as a matter of community planning policy and civic housekeeping. There are, of course, many dwellings that are structurally sound at the age of 75 years and some even at 250 years; but at our present standard of building there are just as many which are obsolete and unadaptable at the age of 30 years. From a long-term point of view it would therefore probably be wise to anticipate the need to replace at a 50-year cycle.

SUMMARY OF METROPOLITAN TORONTO'S HOUSING REQUIREMENTS

Under normal circumstances any community should be building an amount of housing at least sufficient to accommodate the increase of population and to effect the normal process of replacement. For metropolitan Toronto this represents an annual volume of about 7,000 units (see (c) and (e) below); this may be regarded as the normal scale of production at which Toronto's building

industry should be geared to operate. At the present time, however, a backlog has been allowed to accumulate (see (a), (b) and (d) below), because the industry has not been operating at an adequate volume. It may be argued that the priority obligations to make up the shortage and clear certain slum areas should be fulfilled before the full scale of replacement can be taken in hand. If it is advisable to scale down the programme, it may be necessary to postpone replacement of the 20,000 units referred to in (e) (2) below and thus establish a ten-year goal of 74,000 housing units.

Since the annual average production of housing in metropolitan Toronto over the last fifteen years has been 2,400 units, it is obvious that the placing of such a load upon the economy of the building industry and the community must introduce decisions of high policy. It is not the purpose of this report to recommend that such a programme should be accomplished, but merely to record the conclusions reached by an objective appraisal of Toronto's housing requirements. Lest it be thought, however, that the accomplishment of such a programme is fantastically beyond the potentiality of any community, it may be of interest to view the magnitude of the task against the background of actual housing experience. During the period 1935-1939 the 41,000,000 people of England and Wales produced an average of 334,000 dwelling units a year. To match this record, in proportion with its population, metropolitan Toronto would need to produce 7,330 units each year. The English figures, however, refer to a total urban and rural population, so that it may be presumed that the urban population of a North American city is not incapable of producing at a relatively greater annual volume, if it wished to do so.

Summarizing the requirements that have been calculated above, the following ten-year programme may be composed:

	<i>Number of Housing Units</i>
(a) Accumulated shortage.....	18,000
(b) Restoration of vacancy rate.....	3,200
(c) To house increase of population.....	29,000
(d) Reconstruction in slum areas.....	3,800
(e) Replacement—	
(1) To replace obsolescent housing.....	20,000
(2) To maintain normal process of replacement at 50-year cycle..	20,000
	40,000
Total programme for post-war decade....	94,000



THE HOUSES ARE NOT COMING

By FRED LASSERRE

WHERE are the houses promised the Canadian people? Where are the homes to be built under the National Housing Act? Where are the Limited Dividend Corporations which were to build our low-rental housing and where are the slums which were to have been cleared for this housing? What has happened to the pleasant vision of dream-homes dear to the many veterans planning their return to Civvy Street? Where do these returned heroes and their families find parking space?

The answers are known to everyone. In one word, all of the promises, plans, talks and dreams have gone "phut".

What Is Being Done?

In Montreal, for example, 10,000 dwelling units are required for the next 10 years to keep pace with deterioration and to eradicate shortages and obsolescence. In 1945, less than 4,000 permits were issued; 2,241 dwellings built. Theoretically, of those built, 10% were to rent for less than \$40 per month. Actually no house can be built at present, following National Housing Act standards, to rent at an economic rent of under \$40 per month and the author has not come across any new dwelling rented below that figure outside of houses put up by Wartime Housing Limited, a Crown Company. In any case, when we realize that only some 20% of all family incomes can afford the payment of a rent of over \$40, we will see that what housing is being built is not only insufficient but does not touch those in greatest need of it.

The Toronto City Council is considering proposals for a \$4,000,000 housing development approved by the City's Housing Board. The development by the newly-formed Housing Enterprises of Canada, Ltd., will be under the N.H.A., depending on results of negotiations with the government. If this scheme is passed and approved by all authorities, it will see one of Toronto's slum areas cleared and rebuilt with 967 units but: "Though rented at moderate prices it will not constitute a low rental plan." Again the most needy will not have been attended to.

It is with a sense of horror that we see, on the one hand, an ever-increasing aggravation of the housing situation. Little more than 50% of the 57,000 houses required annually in Canada are being built. On top of that we have a backlog of 600,000 houses needed to bring the housing situation up to minimum standards. At the same time, on the other hand, old houses are adding to our slums and houses already condemned as unfit

for human habitation continue to be lived in. Houses in Ottawa, for example, condemned before the war—seven years ago—are still being lived in.

This is shameful! Still more shameful is the fact that so little is being done other than the pouring of crocodile tears and a lot of talking, a lot of promising and a lot of writing. Very little really helpful and constructive work is to be noted.

Ottawa is busy passing the buck from department to department. One moment Mr. Ilsley, Department of Finance, is on top, the next moment it is Mr. Howe, Department of Reconstruction. The Department of National Health and Welfare is fundamentally and humanly the most concerned, but the money and the power are not in its hands. It can only write good pamphlets on housing.

With blind faith in the power of private enterprise, the government exerted pressure on the lending institutions. They formed Housing Enterprises of Canada and they expect to do something. The government saw that not much could be expected from them so it set up its own Corporation, the Central Mortgage and Housing Corporation whose aim was to co-ordinate all housing activities. So far it is just one more body to accuse of inaction.

At the same time all builders are urged to build more and more. They don't need urging. They know they can sell all they will build. They also know that they can't touch the low-income groups. Mr. J. L. E. Price, M.E.I.C., Past-President of the Home Builder's Association, speaking to the Montreal Branch of the Engineering Institute of Canada on January 24th, 1946, said "It is an economic impossibility for private enterprise to now provide living accommodation within the means of the low-income group". Mr. Price further points out that a house costing \$3,500 to build in 1939 will now cost about \$5,250. "It does not appear to be any reasonable hope that building price will show any tendency to decline for a long time to come. On the contrary, the grave danger is that excessive demands for materials in the next few years, coupled with the scarcity of bricklayers, plasterers, etc., will result in costs going up instead of down."

Wartime Housing's Secret

As mentioned earlier, Wartime Housing Ltd., is building in Montreal 428 houses which will rent at \$22 to \$30 per month. They are being reserved for veterans only. Another 500 units may be undertaken shortly by this company following a petition forwarded to the Montreal City Council asking for further assistance to over 2,000 veterans who have applied for houses. Why is it that

Wartime Housing Ltd. can put up houses to rent so economically? In the answer to this question is the only true guide to the means of solving our housing crisis.

The government's own Reconstruction Advisory Committee's report on Housing in 1943 showed clearly that the government's housing policy was totally inadequate. It further indicated what steps must be taken to provide housing for the low-income groups. It showed how in all European countries, and even in the United States, it was necessary for the government to subsidize the housing for this group.

Wartime Housing can have rents at a low level because of municipal assistance (land and services) and of federal assistance (preparation of plans, overhead costs and the use of interest-free money with close marginal accounting). We have here the principle of subsidy established.

There is another element which contributes to Wartime Housing's success. This can be summed up by *large scale planning and standardization*. The houses are of a few standard types which permit the use of shop or site-fabricated panels. This means that machines in a factory or shop or in sheds on the site can manufacture panels or standard pieces without being influenced by adverse weather conditions. Obviously a greater efficiency can be obtained, with this large-scale planning resulting in the cost of the houses always shading by about \$1,000 or more the houses built speculatively or individually. It is significant that this has all been undertaken by a government company—it could only have been undertaken in this country by the government. One can remember how, at the time of its formation, all parties interested in house construction, from architects to builders, condemned the creation of this Crown Company and they obtained guarantees from the government that it would stop functioning the day hostilities ceased. At present those same interested bodies are doing all in their power to discredit the government housing achievement and yet they themselves show a complete bankruptcy in dealing with the problem. They have been forced to step aside, by popular demand, and see Wartime Housing Ltd. undertaking a vast post-war housing building program.

We don't want to give altogether the impression that this company is beyond criticism. The houses are lacking in imagination, are out-of-date in general design, in appearance and especially in layout on the site. Groups of these houses usually look unbearably dull and lack in social amenities. Rather than being planned as a community in accordance with the latest developments in housing layout and as recommended by the Reconstruction Committee, they are planned in the same individual, inhuman and uneconomical manner as our streets have been developed for years.

Further, there is waste in the system of competitive tendering among private firms for the contracts to build the houses. If the government had its own construction

gangs and its own plants, the cost of construction would be still further cut down. That is, if the government could ensure that materials evolved from the raw product to the finished building product set in place in the shortest possible time, with the least number of intermediary processes, agencies and commissions, and that at no point along its evolution would profit have been made without change in the nature or character of the material, then the government could be certain of having reduced building costs to their rightful level. Of course this is still capable of modification by improved techniques and increased labour skills.

What is the program of action which would see the beginning of the war on housing needs?

Subsidization

First, we must have government subsidy of low-cost housing projects. The money was readily found, and in vast quantities, too, for the abstract ideals of defending our native land, our way of life, our heritage and proud possessions. Most of this money blew up in the air or under the sea. Surely the money can also be found now to create our heritage and possessions?

A subsidy will require protective measures such as a "means" test for those to whom the dwellings will be rented. Also it will require strict supervision of the construction industry to ascertain that it is not making huge profits at the expense of the ratepayers. Often a subsidized housing scheme has acted as a life-belt, bringing bankrupt contractors out of the deep.

Subsidized dwellings, it seems to me, should not be sold. The land should become the property of the community. The houses should be leased by the community on behalf of the government for long terms of, say 99 years (as recommended for London, England). Rather than having a decrease in city-owned property, it would increase, thereby ensuring facilities in carrying through town planning projects and in maintaining and increasing the amenities of the cities and towns. All phases of government would participate in these subsidies, and municipal taxes would be based on the rents rather than on the property.

This is all in accordance with the present tendency in housing—especially in the new Europe. In solving our urgent problem we should be as far-sighted and forward thinking as it is possible. We will thereby find the most lasting and satisfying remedy. We can no longer waste lives, health and money on petty compromises.

Modernization of Construction

Second, we should revise our whole system of building. What is known as the "building industry" is a chaos of organisms. Before this industry is an unparalleled boom but never was an industry so little deserving and so unready to rise to the occasion. For example, this is perhaps the only industry where the manufacturers buy most of their raw materials from a retailer.

Again we must call the government in as we can

expect little help towards a change from this industry. Its conservative constitution runs something like this: "The contractor is a referee among innumerable sub-contractors. The sub-contractors, in turn, are in willing bondage to the ancient customs and restrictive rules of craft labour union. The unions' obsolete and restrictive working customs are in turn frozen into local building codes and licensing laws." (*Life*, December 17, 1945).

Canada is fortunate in having a well worked out National Building Code. So far this code allows a certain freedom in construction as it is a permissive code. However, it is still based on "sound" old-fashioned building practice. The National Research Council on its own and in collaboration with the Departments of National Defence and of Reconstruction has been carrying on experiments and research into different types of building materials and of house construction. Its findings are not receiving the publicity they should. A new house building code should be prepared, based on these and on English and American findings. This code would have as its purpose the enabling of greater use of new materials and methods of construction and the establishment of standards in keeping with the needs of the housing situation and with the new techniques of building and planning.

Still more basic in its scope would be the extension of the work of the National Research Council to cover a thorough survey of the construction industry and of war plants to be reconverted. On the basis of its findings the Council would propose a nation-wide program for the manufacture of materials and building parts and for the actual erection of housing units. It would then be up to some Crown Company such as Wartime Housing Ltd. to put into practice these findings and to extend the scope of its work to cover subsidiary companies handling or supervising the manufacture of materials and the actual erection of the houses.

Planning

In short, the housing situation should be tackled with the same over-all planning that was used for the war. War-trained technicians, war industries, all existing facilities which could be harnessed to a full housing program should be made to fit into a co-ordinated plan of action. We have a need to be met and we must not allow preconceived ideas about house types or house planning or house construction to stand in the way of providing the dwellings required to fill the need.

The existing construction industry will continue to be the backbone of any housing program for some time to come. Prefabricated houses, improved trailers such as built by the Tennessee Valley Authority in the United States and factory-made dwellings will form other steady suppliers of dwellings. As things stand at present, it will still be necessary for the government to step in and handle the large amount of low-cost housing required.

Materials are short, labour is scarce, skilled labour is very scarce and what there is of both labour and material

finds its way into construction other than homes. The scarcity of materials and labour is directly affected by the brutally seasonal character of our methods of building and by the uncertainty of the extent of a construction program. The construction industry and its personnel is hardest hit by depressions and slack periods. A government program of construction will be of greatest importance in bringing stability to workers connected with construction or with materials for construction.

A special Department of Housing and Community Planning with its own cabinet minister or at least under a cabinet minister, preferably the Department of National Health and Welfare, should be set up without delay. Its function would be to undertake all of that is now expected from the Central Mortgage and Housing Corporation, plus all of the steps possible so that housing and community developments will follow the general lines set out in the Reconstruction Advisory Committee's 1943 Report. It would further have to consider the impasse into which the construction industry has led itself and the whole country.

We need to have a powerful central authority to guarantee the planning, research and construction necessary to good and efficient housing, to ensure that labour and materials will be used on housing projects first, that housing — with Federal and other assistance — be made economically available to those who need it most and that codes and standards of design and construction be brought up-to-date enabling the industrialization of the building "industry".

The U.S.A. has a plan for the building of 2,700,000 homes for veterans within the next two years. All materials and labour are harnessed behind this effort. One third of the houses will be prefabricated. They will cost under \$5,000. The government will cover risks in experimentation and in the conversion of war plants. 1,500,000 new building and material operatives will be trained. Wilson Wyatt, the housing administrator, is to be commended on his energetic program! We, in Canada, could have done as much. Now we are in a position to go still further.

In conclusion, let us remember to keep the scale of this enterprise in mind and to keep its importance before us. It involves the lives of some three million Canadians. The large number of dwellings required will make a marked imprint on our towns and cities. We cannot afford to be petty and small-scaled about such an undertaking. We must plan and plan. Our municipalities must have town plans. Housing must be undertaken as a vast all-embracing project with large-scale local developments with social amenities. Finally, the construction of this housing must be thought of in terms of efficiency and economy. It requires far reaching research and sound planning. It requires a new approach — a Twentieth Century approach to designing, to planning and to building. It requires the approach used in the manufacture of atomic bombs.

Reprinted from *The Canadian Railway Employees' Monthly*.

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ALBERTA

Although the question of Community Centres may appear, at first sight, to belong rather to the sphere of the town planner than to that of the architect, yet architects will do well to consider the requirements of such centres since the success of these must depend greatly on their architectural design. They are likely to consist of groups of buildings with open recreational spaces for which the town planner may do little more than provide the required area.

Sporadic development is so much the cause of the disorderly arrangement of our cities that three-fourths of the town planning consists in disentangling that disorder. As cities grow, the residential districts, covering as they do the largest area of occupied land, naturally continue to develop large new areas. The evil sporadic process soon begins to insinuate itself. The first evidence of this is the opening up—with or without express permission—of small provision stores. These are quite evidently local necessities. Small grocery stores therefore appear here and there in isolated situations. These depreciate the value of next-door properties and, since they are operated by small tradesmen, they are apt to occur upon lots that have no more regard to good loca-

tion than that they happen to be owned by these tradesmen. The community is thus poorly served as regards their distribution. The next applications probably come from drug stores. These too are social requirements and are apt to spring up in a similarly sporadic distribution, depreciating still more neighbouring lots. So degradation steadily proceeds.

It would clearly be reasonable to set aside definite well distributed local business centres. These are a type of district well recognized by town planners and commonly employed in their plans. Too frequently, however, these soon become too small and in many cases they become even more restricted owing to a number of the lots becoming occupied by private residences. If sufficient forethought has been exercised, this may be prevented by making the local business areas sufficiently large and restricting the use of the lots to business purposes. As the surrounding residential area gets more completely built up and the population more settled, local requirements steadily grow and in time the area provided becomes insufficient. Service stations, picture shows, etc., begin to look for sites. It will be well therefore to consider all probable developments and to provide areas sufficient for them. These develop-

ments will vary much with the character of the residential district, differing in a district occupied by industrial workers, for example, from one occupied by professional classes or employees of offices. Sufficient area should be reserved in any case for much more than for mere shopping convenience. The school, indoor and outdoor entertainment, and recreation should be included in a larger group which thus becomes not merely local business but a community centre. These should be segregated though not separated from the general residential area. They are intimately related one to the other. Owing to the varied characters of populations in different quarters no set pattern can be applied. Each centre should develop according to the local demands. Some will emphasize indoor entertainment requiring libraries, halls for dramatic displays or galleries for exhibitions. Others will want more of outdoor recreations such as tennis or lawn bowling.

The most essential function of a social centre is furnishing facility for persons of different age groups to meet together to forward the affairs pertinent to their ages and interests. Some may do this as a side issue to their sports, others as being a special purpose in meeting together.

It is probable that a whole block of the all too common gridiron plan would be none too large for such purposes not including the school which requires as much again. It would be well in providing an area for a serviceable local community centre to ignore the general pattern of the district so that it shall offer a pleasant variation in its lay-out. It should include one or two small areas of park with trees and other of the beauties of nature.

It has in the past been somewhat unusual for architects to consider anything farther than the requirements of an individual client or some special committee. It would be well that their interests should have a wider scope and that they should be prepared to act as capable consultants on such matters as above suggested.

Cecil S. Burgess.

ONTARIO

If the general resumption of normal building activity marks the end of the highly contemplative approach to peace time building which prevailed during the war years, it nevertheless seems likely that outstanding architectural problems will continue to be studied in common and that the individual architect will depend to an increasing extent on the results of such study. Architects must recall with satisfaction the earnest preparations made during the war to ensure a worthy post-war architecture, the enthusiasm with which architects, separated for the time being from their normal practice, combined spontaneously to seek ideal solutions to common problems, the readiness with which governments undertook the detailed investigation preliminary to advanced legislation on matters relating to building. It is

too early to seek to evaluate this activity by reference to the construction now in progress but there is no denying that it has all been very stimulating.

That the need for research is likely to increase is evidenced by the acceleration of the interaction between building requirements and the technical means available to provide for them. On the one hand existing limitations are disappearing as developing and multiplying building techniques permit of increasingly radical structural solutions while on the other hand, new limitations arise from the growing tendency to relate architectural solutions to broader social problems and indeed to broaden the basic concept of architecture so that architects are now expected not only to answer but to state problems that would not previously have been considered in any sense architectural. Limitations will appear from unexpected sources and the possibilities are suggested by a recent press report according to which a British commission reporting on the atomic bomb not only advocates reinforced concrete and steel frame construction for all public and semi-public buildings but states that "rules should be drawn up for a reasonable standard of protection against flying debris and glass, heat flash and gamma rays." It can no longer be assumed that such precautions are only of academic interest to Canadian architects.

Research of this nature is quite beyond the resources of the individual architect and the responsibility for such study will fall on the various professional bodies, governmental and civic departments and committees, the universities and such institutions as the National Research Council. The value of such investigations will however depend on the extent to which results find expression in actual building and it is the practising architect who must eventually give effect to the many regulations and recommendations which may be expected to be made by these various bodies.

It is questionable whether the present means of disseminating the knowledge and principles resulting from research is fully efficient. It is true that all such data is available in published form to the architect with the initiative to search it out and digest it but it is extraordinarily difficult for the average architect to keep himself up-to-date and fully conversant with trends in design and construction. The problem is one of education and it is difficult to say who has the major responsibility for ensuring that architects have available the information necessary to keep their work modern in all respects. More frequent lectures, talks and motion pictures arranged by local chapters, perhaps in accordance with a programme studied and suggested by the Institute would be of value. The universities, when they have adjusted themselves to the greatly increased numbers of undergraduate students, might consider whether extension courses designed for architects and others engaged in the building industry would be of benefit. Another possibility would be the provision of short summer

courses for practising architects which could not only prove effective as a means of advancing new ideas and methods but would probably be most enjoyable and stimulating for those architects who might attend.

J. F. Brennan

THE AUDITORIUM AND STAGE IN YOUR COMMUNITY CENTRE

(Continued from page 162)

In any community, large or small, the committee in charge of the financing, the designing and the building of its community centre should have this three-point program:

1. Consult the public—those groups whom the centre is to serve—to ascertain what should be provided. Make the plan a *community plan*.
2. Consider the future as well as the present requirements, and plan both the building for to-day and the additions for tomorrow. If the future expansion is planned now, the building will always maintain a unified appearance, rather than one of haphazard and unpremeditated growth.
3. Consult an architect and employ him to design and supervise the construction of such a building. He is trained to plan buildings to meet your requirements with maximum efficiency and comfort. He is experienced in the methods and materials of sound construction.

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PROFESSIONAL COLUMN

Mr. George K. Pokorny and Mr. George D. Gibson announce the formation of the firm of Gibson and Pokorny for the general practice of architecture, 61 Charles Street, West, Toronto.

Mr. Karel R. Rybka, M.E., D.Sc., who has contributed severally to the *Journal*, has taken over the Consulting Engineering Office of Walter J. Armstrong in Toronto, which he managed since 1935.

OBITUARY

ERNEST IRVING DAVIDSON

It is with much regret that we have to announce the death of Ernest Irving Davidson, 145 Winona Drive, Toronto, widely known in the profession, and who had carried on in private practice for some years in the Excelsior Life Building.

Mr. Davidson was born in Toronto on April 8, 1889. He attended St. Alban's School, Upper Canada College and University of Toronto. Always keenly interested in sports, he took an active part in hockey and cricket in his earlier years, especially during the term at U.C.C.

He practised in Winnipeg, Montreal, Detroit and Toronto. He was Toronto manager for a number of years for T. Pringle & Son, Limited.

Many fine buildings have been erected under his able supervision, one of which is the Forest Insect Laboratory Building in Sault Ste. Marie.

Mr. Davidson served with the R.C.E. in War I, attaining the rank of Captain.

He was a member of the Royal Canadian Institute, Albany Club, Board of Trade, Military Institute and the Art Gallery.

The members of Council, Ontario Association of Architects, passed a resolution at the last meeting expressing their deepest sympathy to Mrs. Davidson in her sad bereavement. He will be missed by all those who were close to him, and his passing away came as a great shock.

S. Lawson

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