

**THE STORY OF A HOUSE -  
THREE CHAPTERS OF  
GROWTH**

NOTE: LE RÉSUMÉ EN FRANÇAIS SUIVRA IMMÉDIATEMENT LE RÉSUMÉ EN ANGLAIS.

## **DISCLAIMER**

CANADA MORTGAGE AND HOUSING CORPORATION (CMHC), THE FEDERAL GOVERNMENT'S HOUSING AGENCY, IS RESPONSIBLE FOR ADMINISTERING THE NATIONAL HOUSING ACT.

THIS LEGISLATION IS DESIGNED TO AID IN THE IMPROVEMENT OF HOUSING AND LIVING CONDITIONS IN CANADA. AS A RESULT, CMHC HAS INTERESTS IN ALL ASPECTS OF HOUSING AND URBAN GROWTH AND DEVELOPMENT.

UNDER PART IX OF THIS ACT, THE GOVERNMENT OF CANADA PROVIDES FUNDS TO CMHC TO CONDUCT RESEARCH INTO THE SOCIAL, ECONOMIC AND TECHNICAL ASPECTS OF HOUSING AND RELATED FIELDS, AND TO UNDERTAKE THE PUBLISHING AND DISTRIBUTION OF THE RESULTS OF THIS RESEARCH. CMHC THEREFORE HAS A STATUTORY RESPONSIBILITY TO MAKE WIDELY AVAILABLE, INFORMATION WHICH MAY BE USEFUL IN THE IMPROVEMENT OF HOUSING AND LIVING CONDITIONS.

THIS PUBLICATION IS ONE OF THE MANY ITEMS OF INFORMATION PUBLISHED BY CMHC WITH THE ASSISTANCE OF FEDERAL FUNDS. THE VIEWS EXPRESSED ARE THOSE OF THE AUTHOR(S) AND DO NOT NECESSARILY REPRESENT THE OFFICIAL VIEWS OF CANADA MORTGAGE AND HOUSING CORPORATION.



## THE STORY OF A HOUSE — THREE CHAPTERS OF GROWTH TECHNICAL UNIVERSITY OF NOVA SCOTIA

### Project Highlights

The purpose of the Technical University of Nova Scotia (TUNS) project is to design and construct an innovative suburban housing type that can be expanded and changed according to occupants' evolving lifestyles and needs. Three variations of the small-lot, detached housing type are being developed to illustrate how the house can be modified over time. The three-storey-plus-basement design, which was the winner of a housing design competition sponsored by the Nova Scotia Department of Housing, Canada Mortgage and Housing Corporation, and the Canadian Home Builders' Association, uses the same basic floor plan, footprint (approximately 46.5 square metres [500 square feet] per floor), and exterior design envelope to create:

- a "starter house" with an unfinished basement and third floor, ideal for the first-time home-buyer or for a couple planning to have children in the near future;
- a completed house to accommodate a large family; and
- a house containing an accessory unit to accommodate two households — a single parent and child living with elderly parents, for example.

The houses are being built on three adjacent lots in Dartmouth, Nova Scotia. These lots are in an R1 (single-family) zone. The starter house and the family dwelling are being built first in order to gain public support both for the new housing type and for the third unit, which will have an accessory apartment. The project will address the regulatory issues involved in developing a new zoning category to permit the conversion of a single-family unit to a unit with an accessory unit, and vice versa.

### Cooperation and Partnership

The project team comprises representatives from the Technical University of Nova Scotia, the Nova Scotia Department of Housing, the City of Dartmouth, and representatives from the building industry. Throughout the project, the team will consult with the local building community, and municipal and provincial government officials. Potential residents will participate through design and construction workshops.

The building site and funding for this project have been provided by the Nova Scotia Department of Housing.

### Changes in Regulations

Developing single-family units for easy conversion to two units and back to one unit has design, zoning, and site-planning implications, with significant cost savings at each stage of growth and for the long-term.

The TUNS project demonstrates that municipal land-use regulations related to the number of units per house and to such site-planning

specifications as minimum lot sizes and setbacks can be modified to increase affordability and flexibility without compromising neighbourhood quality.

### Project Impact

The proposed compact design, with its capacity for incremental growth and change and its potential to create an accessory apartment, is expected to appreciably decrease housing costs and better meet changing community needs. It is being designed for the County of Halifax, but the project can be applied throughout Canada.

The project will be documented in booklet form by the publications unit of the Faculty of Architecture at TUNS.

### For more information on the TUNS project, contact:

Professor Thomas Emodi  
Technical University of Nova Scotia  
Tel: (902) 420-7692 or 420-7615 Fax: (902) 423-6672

### The A-C-T Program

*The Affordability and Choice Today (A-C-T) Program stimulates innovative regulatory reform activities to improve housing and communities. It provides grants to municipalities, the building community, and non-profit housing associations to work together on regulatory reform demonstration projects and on projects that streamline the residential development approval process. Case studies of existing regulatory reform initiatives are also being undertaken.*

*Four national housing organizations support the A-C-T Program: the Federation of Canadian Municipalities (FCM); the Canadian Home Builders' Association (CHBA); the Canadian Housing and Renewal Association (CHRA); and Canada Mortgage and Housing Corporation (CMHC), which provides financial support to the program.*

### For more information about A-C-T and upcoming application deadlines, contact:

A-C-T Program Coordinator  
Federation of Canadian Municipalities  
(613) 241-5221

## L'ÉVOLUTION D'UNE MAISON EN TROIS ÉTAPES UNIVERSITÉ TECHNIQUE DE LA NOUVELLE-ÉCOSSE

### Aspects Innovateurs du projet

Le projet de l'Université technique de la Nouvelle-Écosse vise à concevoir et à construire une maison de banlieue innovatrice qui peut être élargie et modifiée en fonction de l'évolution du mode de vie et des besoins des occupants. Trois variations d'une maison de type isolée sise sur un petit terrain seront construites afin de démontrer comment la maison peut évoluer avec le temps. Cette maison de trois étages avec sous-sol, qui a remporté le premier prix d'un concours de conception résidentielle organisé par le ministère du Logement de la Nouvelle-Écosse, la Société canadienne d'hypothèques et de logement et l'Association canadienne des constructeurs d'habitations, utilise le même plan d'étage, la même surface de fondation (environ 46,5 mètres carrés [500 pieds carrés] par étage) et la même enveloppe extérieure en vue de créer :

- une « maison initiale » où le sous-sol et le troisième étage ne sont pas terminés, idéale pour un acheteur de première maison ou un couple prévoyant bientôt avoir des enfants;
- une maison complètement achevée pour loger une grande famille; et
- une maison comportant un logement accessoire permettant de loger deux ménages — une famille monoparentale avec un enfant habitant avec des parents âgés, par exemple.

Ces maisons seront construites à Dartmouth, en Nouvelle-Écosse, sur trois terrains adjacents, situés dans une zone de catégorie R-1 (maisons unifamiliales). La maison initiale et la maison familiale seront construites en premier lieu afin d'obtenir l'appui de la population pour ce nouveau type d'habitation et, éventuellement, pour la troisième maison, qui comportera un appartement accessoire. Le projet nécessitera une modification des règlements de zonage en vue de créer une nouvelle catégorie prévoyant la conversion d'une habitation unifamiliale en une habitation assortie d'un appartement accessoire et vice-versa.

### Coopération et partenariat

L'équipe chargée du projet est composée de représentants de l'Université, du ministère du Logement de la Nouvelle-Écosse, de la Ville de Dartmouth et de l'industrie de la construction. Tout au long du projet, l'équipe consultera les intervenants locaux de l'industrie de la construction ainsi que des responsables des gouvernements municipal et provincial. Les résidents éventuels participeront également en prenant part à des ateliers sur la conception et la construction.

Le terrain et l'aide financière pour ce projet ont été fournis par le ministère du Logement de la Nouvelle-Écosse.

### Modifications aux règlements

La conception de maisons unifamiliales pouvant être converties rapidement en deux logements et reconverties de nouveau en un

logement aura une incidence sur le zonage et l'aménagement urbain, procurant des économies importantes à chacune des étapes évolutives de même qu'à long terme. Ce projet démontre qu'il est possible de modifier les règlements municipaux régissant le nombre de logements par maison ainsi que la grandeur minimale des terrains et la marge de recul en vue d'accroître l'abordabilité et la flexibilité, sans pour autant nuire à la qualité des quartiers.

### Incidence du projet

Cette maison compacte, avec sa capacité évolutive et la possibilité qu'elle offre de créer un appartement accessoire, permettra de réduire de façon appréciable le coût des maisons et de mieux répondre aux besoins de la collectivité. Le projet a été conçu pour le comté d'Halifax, mais il pourrait s'appliquer n'importe où au Canada. Cette initiative sera décrite dans une publication de la faculté d'architecture de l'Université technique de la Nouvelle-Écosse.

Pour de plus amples renseignements sur ce projet, veuillez communiquer avec :

Professeur Thomas Emodi

Université technique de la Nouvelle-Écosse

Tél. : (902) 420-7692 ou 420-7615 Télécopieur : (902) 423-6672

### Le programme A·C·T

Le programme Abordabilité et choix toujours (A·C·T) encourage des réformes réglementaires qui permettent d'améliorer les logements et les collectivités. Dans le cadre de ce programme, des subventions sont accordées aux municipalités, aux intervenants de l'industrie de la construction et aux organismes de logement sans but lucratif pour réaliser conjointement des projets de démonstration prévoyant des réformes réglementaires et la rationalisation du processus d'approbation municipal. Ce programme s'applique également aux études de cas sur les projets de réforme réglementaire existants.

Le programme A·C·T est appuyé par quatre organismes nationaux qui s'intéressent à l'habitation: la Fédération canadienne des municipalités (FCM); l'Association canadienne des constructeurs d'habitations (ACCH); l'Association canadienne d'habitation et de rénovation urbaine (ACHRU); et la Société canadienne d'hypothèques et de logement (SCHL), qui fournit une aide financière.

Pour de plus amples renseignements sur le programme A·C·T, veuillez communiquer avec le :

Coordonnateur du Programme A·C·T

Fédération canadienne des municipalités

(613) 237-5221

# CMHC SCHL

Helping to  
house Canadians

Question habitation,  
comptez sur nous

National Office

Bureau national

700 Montreal Road  
Ottawa, Ontario  
K1A 0P7

700 chemin de Montréal  
Ottawa (Ontario)  
K1A 0P7

Puisqu'on prévoit une demande restreinte pour ce document de recherche, seul le sommaire a été traduit.

La SCHL fera traduire le document si la demande le justifie.

Pour nous aider à déterminer si la demande justifie que ce rapport soit traduit en français, veuillez remplir la partie ci-dessous et la retourner à l'adresse suivante :

Le Centre canadien de documentation sur l'habitation  
La Société canadienne d'hypothèques et de logement  
700, chemin de Montréal, bureau C1-200  
Ottawa (Ontario)  
K1A 0P7

**TITRE DU RAPPORT :** \_\_\_\_\_  
\_\_\_\_\_

Je préférerais que ce rapport soit disponible en français.

**NOM** \_\_\_\_\_

**ADRESSE** \_\_\_\_\_  
rue app.

\_\_\_\_\_ ville province code postal

**No de téléphone** ( ) \_\_\_\_\_

TEL: (613) 748-2000

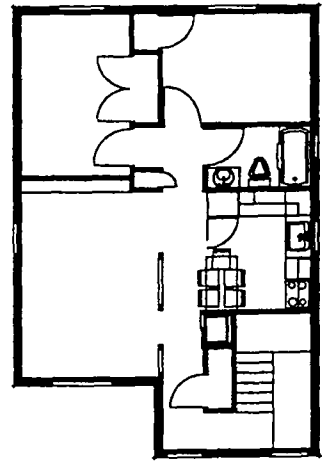
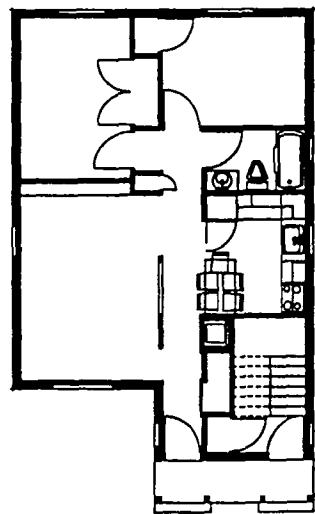
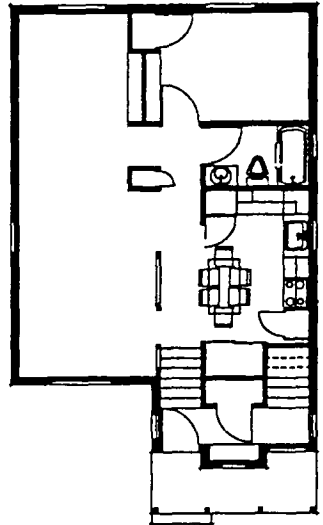
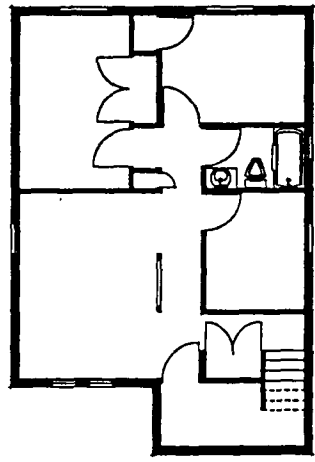
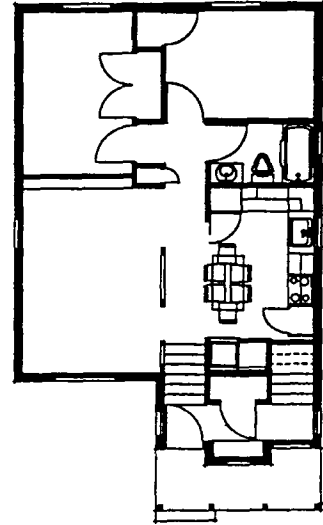
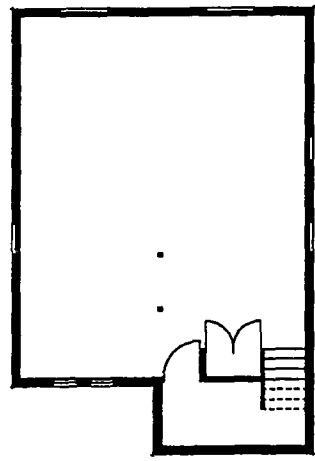
Canada Mortgage and Housing Corporation

Société canadienne d'hypothèques et de logement

Canada



S T O R Y O F A H O U S E



A.C.T  
REPORT 2 OF 4

THOMAS  
EMODI  
ARCHITECTURE  
T.U.N.S

## 1. Background

This is the second of four progress reports on the development of three houses designed to illustrate, in built form, the story of a house. The project, funded in 1991 by the A•C•T Grant Program, will provide built examples to stimulate reform in municipal planning by-laws relating to residential land-use.

In particular, the story is intended to challenge the restrictions imposed by R1 zoning as it is generally practised in Canada. The first house is designed for a small family, the second house for a large family and the third house accommodates two small families. The three houses are seen to correspond with three fundamental stages of family growth: the young family without children, the mature family, and the family after children have left home. The first and third houses can also accommodate prominent new household types such as the single parent family, and the senior couple. The third house also raises the possibility of a household and a place of work (office, workshop, shop) in the same building.

The propositions are

1. that the naturally changing housing needs of traditional families require much more flexible approaches to residential zoning; and
2. that we need to encourage the development of house-types which are explicitly designed to accommodate changing housing needs, including the housing needs of new household types.

Collaborating on the project with the Faculty of Architecture at the Technical University of Nova Scotia (TUNS) are the Nova Scotia Department of Housing (NSDH), the City of Dartmouth, and selected representatives of the construction industry.

The first report on this project described the site selection process. A site at the corners of Main Street, Ridgecrest Drive and Langdon Court in Dartmouth, Nova Scotia has been selected and is currently in the process of being purchased from the City of Dartmouth by the NSDH. The selected site is illustrated in Section 6.



## 2. Introduction

The houses are intended for use throughout Canada. The full range of site topography needed to be considered, from relatively flat to relatively steep sites. Also, the houses are specifically intended for suburban contexts, thus their footprints and proportions needed to fit with typical suburban patterns.

Based on the results of a preliminary design stage (illustrated in section3), it was decided to develop two prototypical houses each of which is capable of internal articulation and subdivision. The two prototypes are a split-entry and a level-entry prototype. The split entry type is suitable for relatively flat sites while the level entry can take better advantage of steep sites, where entrance may occur on the upper floor or the lower floor depending on the particular site conditions. The houses are based on the form of typical suburban bungalows during the 1950's and 1960's.

Fundamental to the design approach for both prototypes is the development of a carefully worked out grid in the plan of the houses so that the addition, connection and subdivision of internal spaces can proceed with maximum variety but within a defined order. In fact both prototypes follow the same external wall configuration and internal grid- they are simply formal and spatial variations on this grid.

A notable point is that there is a 'minimum' version of the prototype which will not be constructed during this project. but which is essential to a full understanding of the concepts on which the project is based. This minimum version can be seen as an attempt to define the most basic affordable house. Since CMHC and NSDH space requirements have guided the development of the plans for the A•C•T project, this 'minimum house' will not be pursued further during this project. It will be further developed in another project, and is illustrated as 'House 0' in Appendix 1.

### 3. Preliminary Design

Three options with different characteristics were developed as a starting point for discussion with NSDH and the City of Dartmouth. A series of discussions with the participating organizations in the project resulted in the selection of one of the three options to pursue for further design development. Meetings were held with the Mayor of Dartmouth, the councillors from the ward where the site is located, and the Director of the Housing Department of the City of Dartmouth. Several other meetings included the Director of Housing and planning officials at the City of Dartmouth, and emphasized in detail the regulatory reform aspects of the project.

Further discussions were held with the NSDH regarding the requirements of their clients and regarding the accepted levels of space, finish, and standards of construction. From these discussions several criteria emerged for the selection of the most promising design alternative. The primary criteria were:

1. suburban massing: since the site is in a suburban neighbourhood comprising predominantly bungalow house forms; the option with the closest resemblance to the bungalow houses was preferred.

2. ease of construction: for reasons of economy and simplicity, the alternative with the potential for the most straight-forward framing of floors and walls was preferred.

3. potential for change: as the house evolves rooms may need to be subdivided or connected with maximum ease. At any stage the the rooms which result from subdivision and re-connection need to be appropriate sizes and shapes, and require the minimum amount of refinishing.

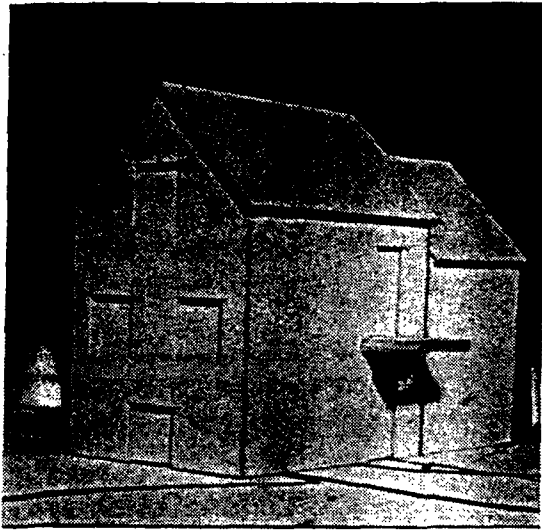
The first of these criteria eliminated alternative B which was thought to be "too urban" and "too tall" to fit well in the chosen setting. The second of these criteria eliminated alternative A which was the most complex in terms of construction. Thus alternative C was taken as the basis of further design development.

Alternative B, eliminated on formal grounds, was recognized as the most promising in terms of the third criterion, that of flexibility to achieve growth and change. The principal reason for this is that alternative B groups the 'fixed' spaces of kitchen, and bathroom along one side of the plan, thus allowing easy subdivision and/or re-connection of 'free' spaces such as living rooms, dining rooms and bedrooms as these change their roles.

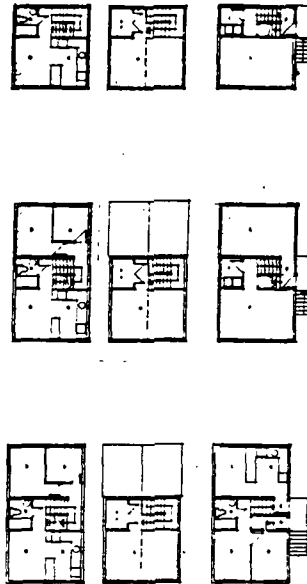
A.C.T  
REPORT 2 OF 4

THOMAS  
EMODI  
ARCHITECTURE  
T.U.N.S

PAGE 3 OF 19



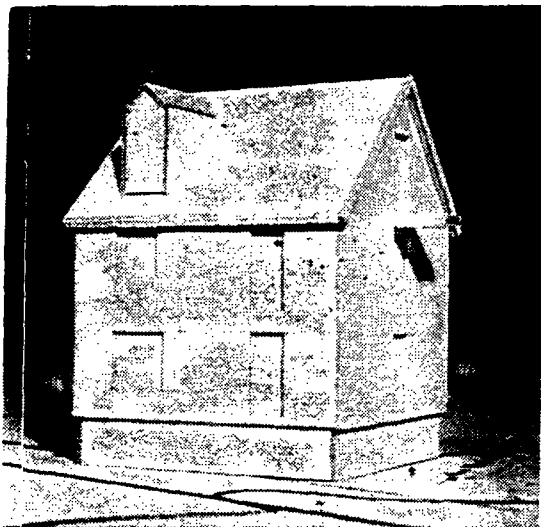
ALTERNATIVE A



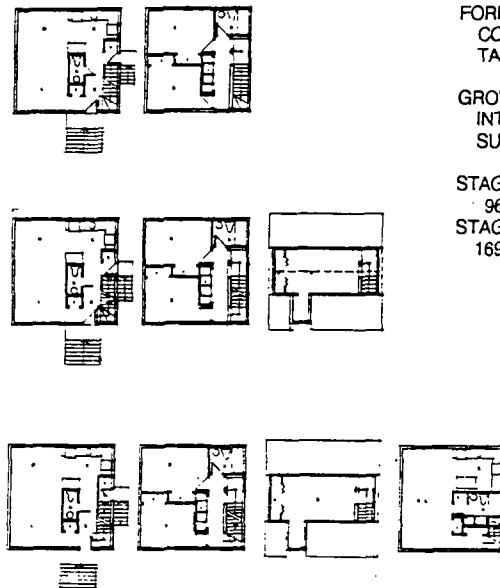
FORM:  
LINEAR  
TALL  
SPLIT-LEVELS

GROWTH:  
EXTERNAL  
ADDITION  
+  
INTERNAL  
SUBDIVISION

STAGE 1:  
864 SQ. FT.  
STAGES 2 & 3:  
1392 SQ. FT.



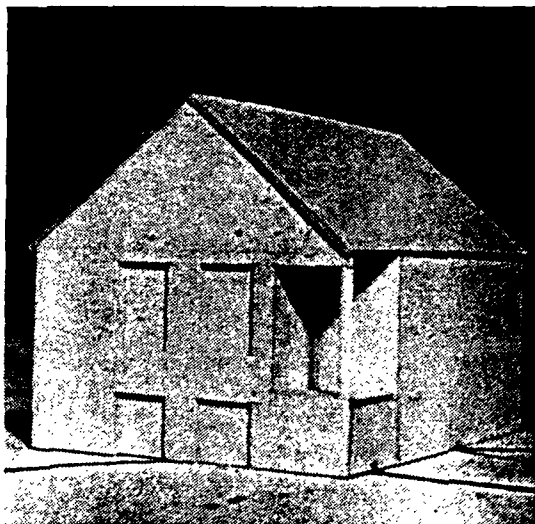
ALTERNATIVE B



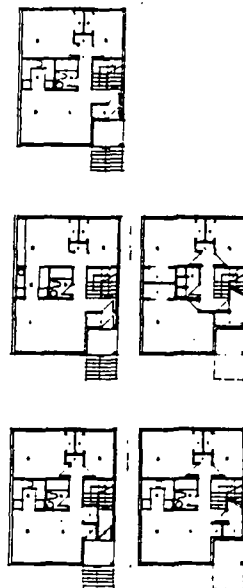
FORM:  
COMPACT  
TALL

GROWTH:  
INTERNAL  
SUBDIVISION

STAGE 1:  
968 SQ. FT.  
STAGES 2 & 3:  
1699 SQ. FT.



ALTERNATIVE C



FORM:  
COMPACT  
LOW

GROWTH:  
INTERNAL  
SUBDIVISION

STAGE 1  
600 SQ. FT.  
STAGES 2 & 3:  
1200 SQ. FT.

THOMAS  
EMODI  
ARCHITECTURE  
T.U.N.S

A-C-T  
REPORT 2

PRELIMINARY  
DESIGN

#### 4. Design Development

Alternative C from the preliminary design stage was redesigned to increase its capability to achieve change. The 'fixed' spaces were arranged along the same side of the plan as the entrance. The plan, (especially the entrance element) was studied in detail to establish the best grid for rooms, stairs, closets, doors and future doors. In addition during preliminary design it had been realised that to achieve maximum flexibility for flat or sloping site conditions a level-entry and a split-entry version would need to be possible within the same external form. These two different entry conditions were developed within the identical external form.

The level-entry version allows the use of steeper sites, where the difference between the front of the house and the back of the house (or between one side of the house and the other) is about a full storey. Split-entry entrances do not work economically in such situations. Also, the level-entry version is advantageous where the sewer system is not deep in the ground, or where foundation conditions are such that the lower level of the house cannot be placed easily into the ground. For example in rural Nova Scotia where septic fields have to be used in rocky ground this may be an important consideration. The level entry version allows development of triplexes or quadriplexes within the same formal language as the single family house.

The split-entry version maximises the effective use of a two level house on relatively flat sites.

To achieve some variety in the body of the house form, the use of a 4:12 simple pitched roof was explored in two ways: one form uses the roof-ridge parallel to the street in the way that contemporary suburban bungalows often do, presenting the street with a roofplane; the other form uses the roof-ridge perpendicular to the street, presenting the street with the gabled-wall-face of the house. By alternating these forms, or by using them in some appropriate rhythm along the street, the same plan type can provide a variety and identity of form.

Both roof forms are capable of expansion, along the line of the roof-ridge. Thus the bungalow-form expands across the width of its lot, ( for example growth from House 0 to House 2 ) and the gable form along the depth of its site. External growth of the forms was not explored beyond the scope of the A•C•T project.

To achieve all of the serviced spaces along the entry side of the house the entrance of alternative C was

# S T O R Y O F A H O U S E

revised from a recessed to a protruding element, eliminating some construction and waterproofing problems but adding approximately 60 sq. ft. of area per floor. The increase in floor area was accepted because, as the design evolved, the new entrance configuration was recognised as an important opportunity.

The entrance is the focus of the design in several ways. Visually the entrance is prominent, reaching towards the street. The entrances make a set of forms which indicates that the houses belong to one urban grouping, a 'family' of forms; at the same time the entrances provide the place to achieve individual identity for each house through detailed treatment of smaller elements, textures and colours. The columns are placed on each house in a way which suggests how the entrance canopy can accommodate growth.

The configuration of the entrance also accommodates the approach to construction of the NSDH. The NSDH usually calls tenders for construction in a way which encourages small local contractors to bid for projects. Therefore the NSDH tends to specify construction quality, while allowing maximum flexibility for contractors to use their own approaches to construction methods and details. Keeping some control on the aesthetics of details can be difficult using the NSDH approach. The design of the entrance allows the main body of the houses to be as simple as possible so that for the bulk of the work contractors can use their own methods. Special attention would only be necessary at the entrance elements which are the highlight of each house. Attention will be focused on the entrance through the use of colour, texture and detail. This provides a clear and controlled strategy to provide individuality to each house while maintaining overall simplicity and economy. As the construction detailing proceeds in the next phase of the project, this will be a primary aim.

Finally it is important to note that the treatment of the entrance is significant because of the Canadian climate. The entrance is one of the places where the design of contemporary affordable housing often fails. Most recent examples of affordable housing (indeed many examples of expensive housing as well) have eliminated the traditional 'mud-room' at the entrance. However snow and slush, combined with the activities of children make this space essential. Removing coats, snowsuits and boots, and storing these items to dry is an important family requirement from Fall to Spring in all parts of Canada. Livability and durability depend on these activities being properly accommodated. We have concentrated on achieving this space in all versions of the prototype.

It is important to note that both the split-level-entry and the level-entry prototypes can accommodate any of the combinations of rooms listed in sections 4.1, 4.2 or 4.3 below.

A.C.T  
REPORT 2 OF 4

THOMAS  
EMODI  
ARCHITECTURE  
T.U.N.S

PAGE 6 OF 19

**4.1 House 1: 2 Bedroom, Split-Entry, Gable Form**

This house comprises a finished upper level with two bedrooms, living/dining room kitchen and bathroom,, and a lower level of raw space. It is intended that the lower level will be gradually finished by the occupants

The upper level plan-grid would be used to lay out the lower level. Using this grid it is possible to achieve, in stages, any of the following combinations of rooms on the lower level:

- a. two bedrooms, bathroom , large family room; or
- b. three bedrooms , bathroom, family room;or
- c. four bedrooms, bathroom, small family room; or
- d. four bedrooms, bathroom.

As the lower level is developed, the following changes are possible on the upper level:

- e. the wall between living/dining and bedroom 1 is removed (it is designed to do this from the outset) thus converting bedroom 1 to a dining room ( some changes to closets are also made in this step); or
- f. at a later stage it is possible to remove the closets between the dining room and bedroom 2, thus making a larger living room and converting bedroom 2 to a dining room.

The drawings illustrate option (b) and (e).

**4.2 House 2: 4 Bedroom Split-Entry Bungalow Form**

This house is a development of the plan of House 1, and also illustrates the 'bungalow' form of the prototypes. The bungalow form is taller and encloses slightly more volume than the gable form, but differences in cost are expected to be negligible.

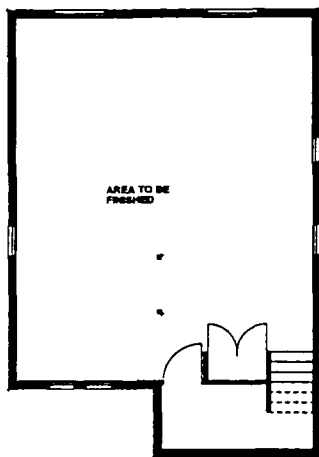
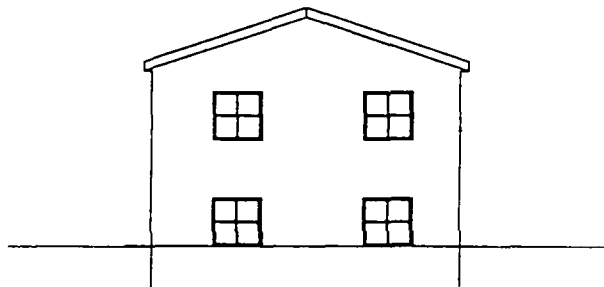
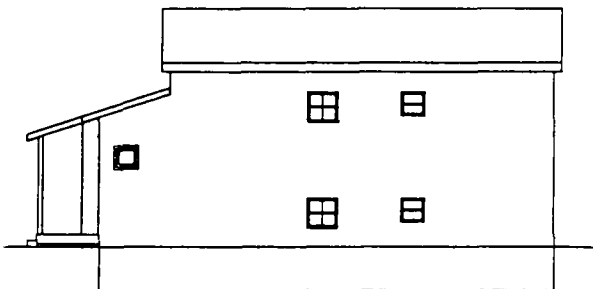
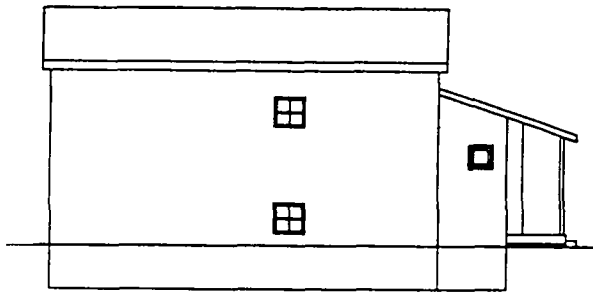
The illustrated version [combination 4.1(d)+(e) above] of the bungalow-form has four bedrooms (three on the lower level and one on the upper level), living room, dining room, family/play room and two bathrooms, with a finished floor area of 1550 sq.ft. Given that it is possible to achieve a five bedroom house, with full living room and dining room, and two bathrooms within this area, the plan works very efficiently.

**4.3 House 3:**        2 X 2 Bedroom, Level Entry, Gable Form.

This house shows the way in which the entry can be divided to achieve two separate front doors, both of which face the street. In addition, each unit has smaller but fully developed 'mud-room', for reasons discussed above. The two unit house in this project will use the level-entry prototype because at this end of the site there will be difficulties with achieving connection to the city sewer system. The sewer line in Ridgecrest Drive is high in relation to the site at the corner of Ridgecrest and Main. The level-entry prototype will allow the lower floor of the house to be set at the necessary level to achieve the sewer connection.

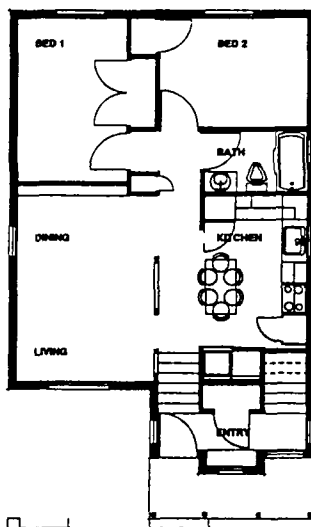
The accommodation in this house includes two almost identical units with two bedrooms, living/dining room, kitchen and bathroom each.

The gable form is used for the level entry prototype because it accommodates the taller stair element much more easily than the bungalow form.



2 BEDROOM  
LOWER LEVEL

SPLIT-ENTRY GABLE FORM  
778 SQ. FT.



2 BEDROOM  
UPPER LEVEL

SPLIT-ENTRY GABLE FORM  
778 SQ. FT.

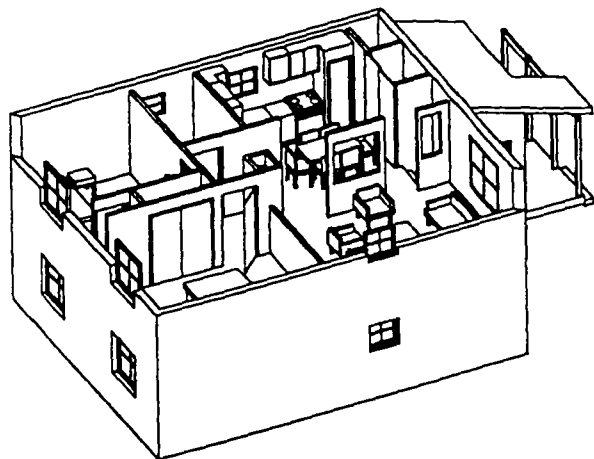
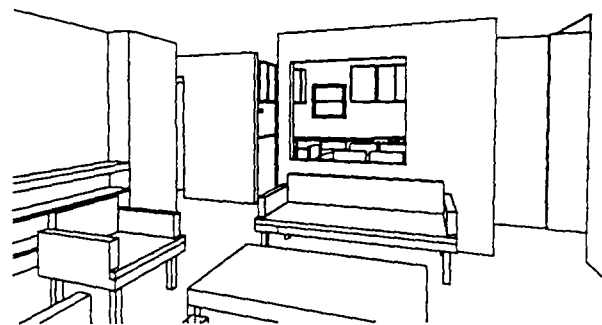
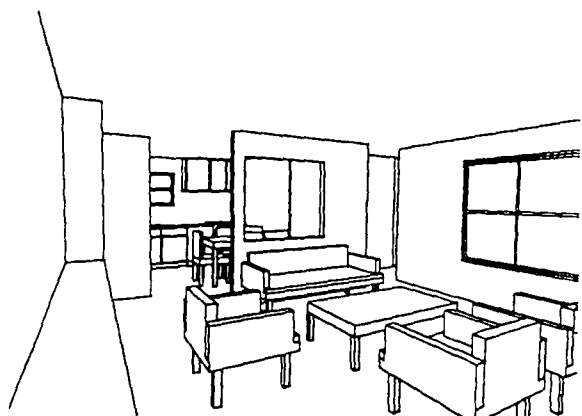
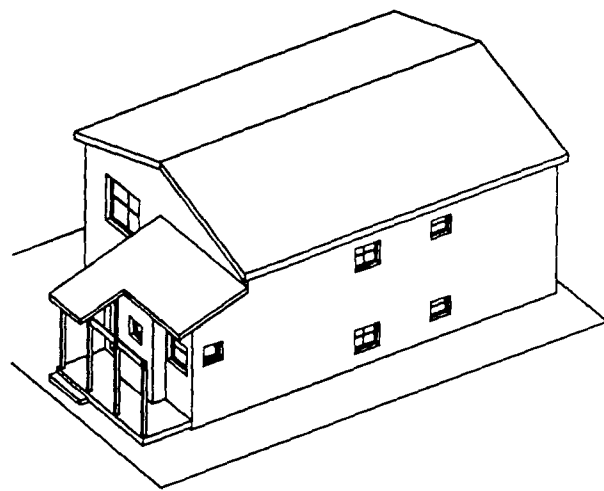
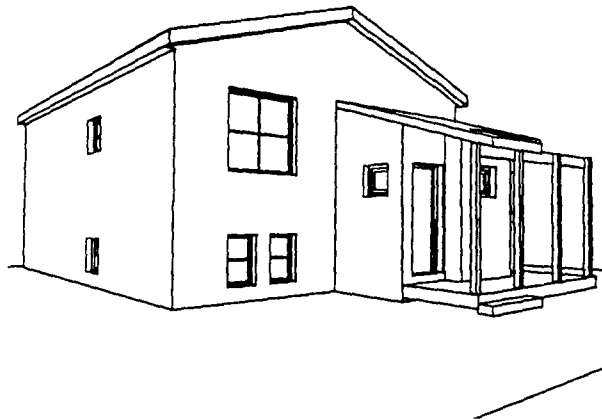
THOMAS  
EMODI  
ARCHITECTURE  
T.U.N.S

A-C-T  
REPORT 2

HOUSE

1

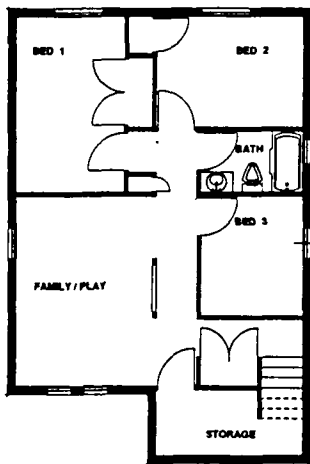
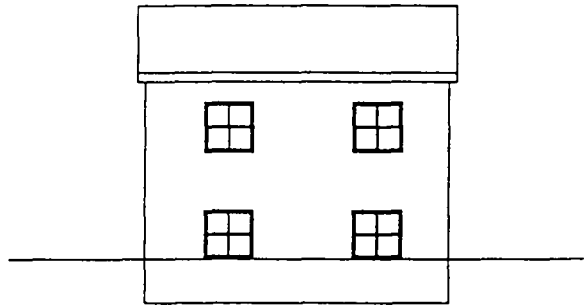
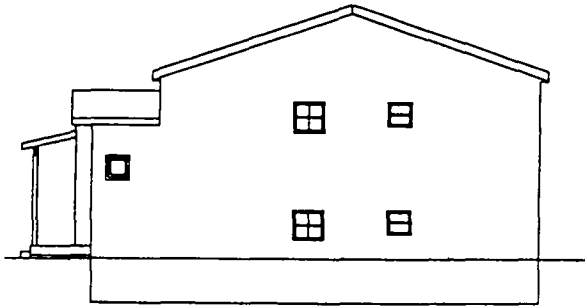
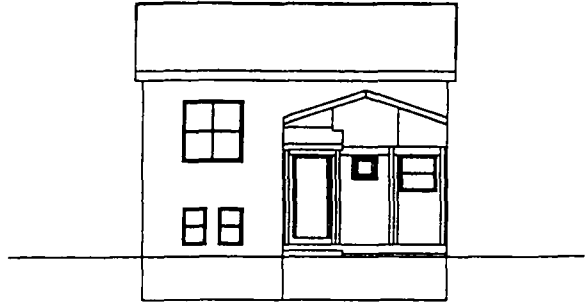
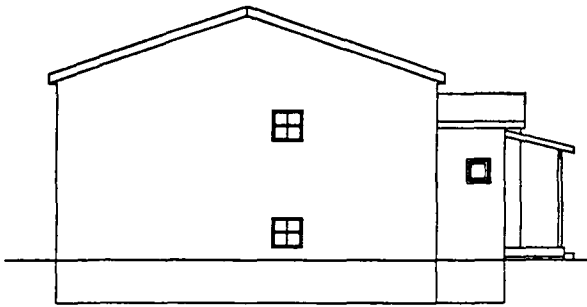




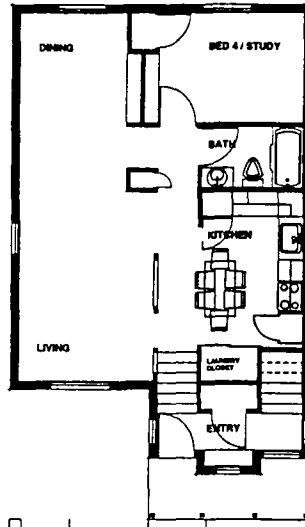
THOMAS  
EMODI  
ARCHITECTURE  
T.U.N.S

A-C-T  
REPORT 2

HOUSE  
1



0' 1' 2' 3' 4'  
 4 BEDROOM SPLIT-ENTRY BUNGALOW FORM  
 LOWER LEVEL. 775 SQ. FT.

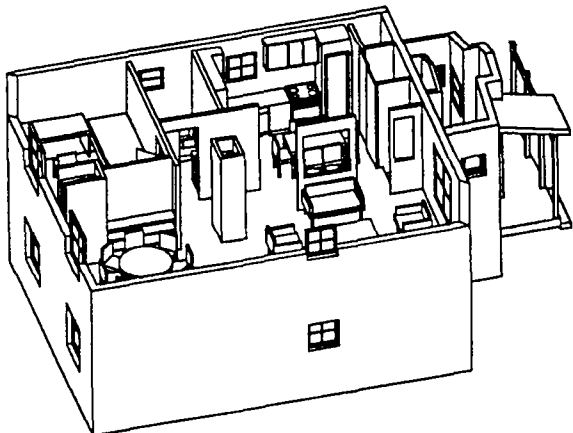
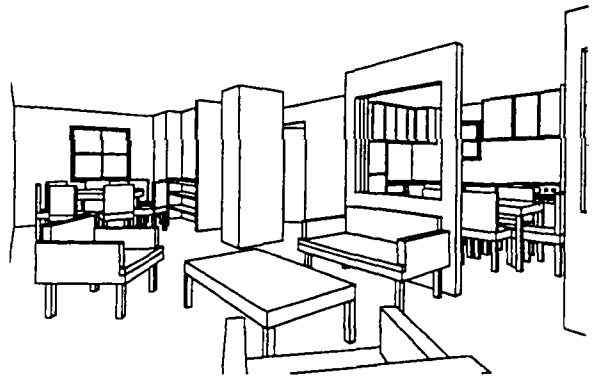
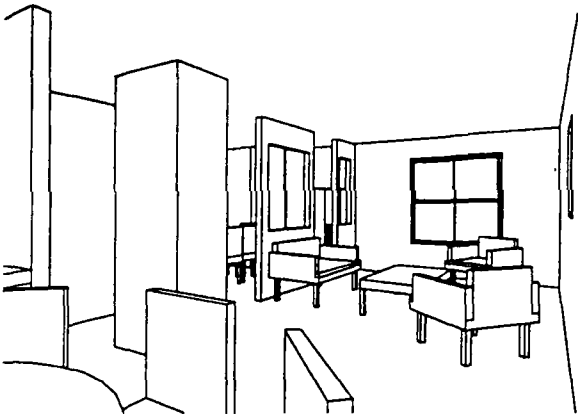
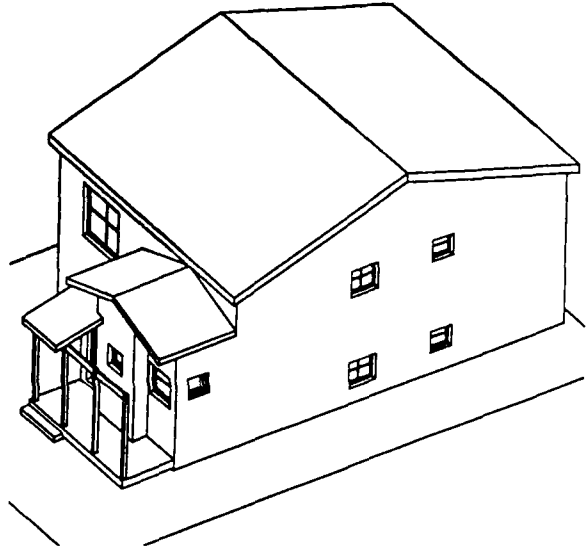
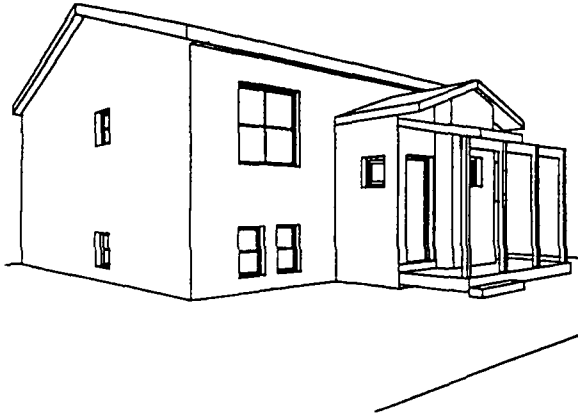


0' 1' 2' 3' 4'  
 4 BEDROOM SPLIT-ENTRY BUNGALOW FORM  
 UPPER LEVEL. 775 SQ. FT.

THOMAS  
 EMODI  
 ARCHITECTURE  
 T.U.N.S

A-C-T  
 REPORT 2

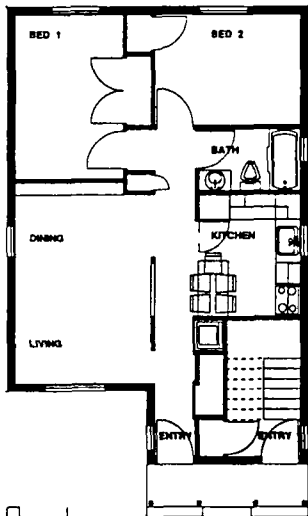
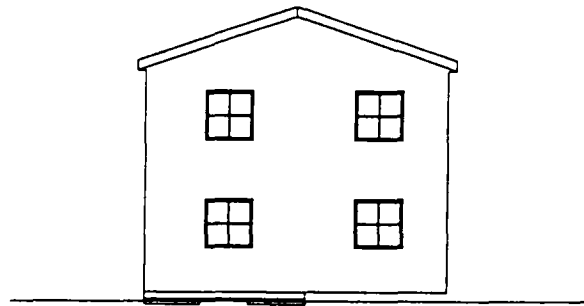
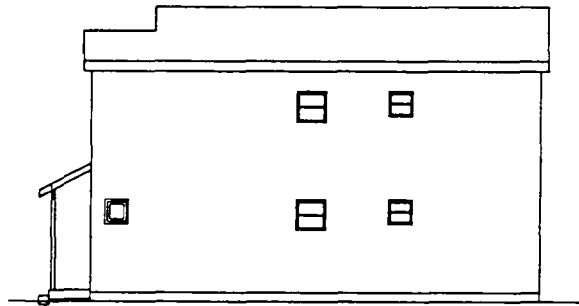
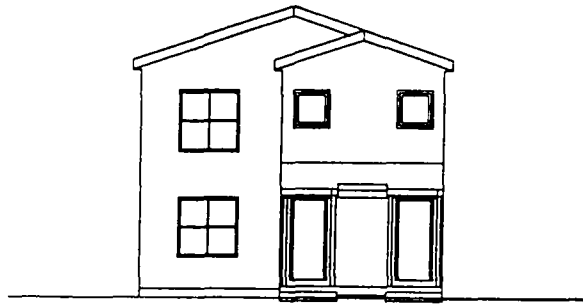
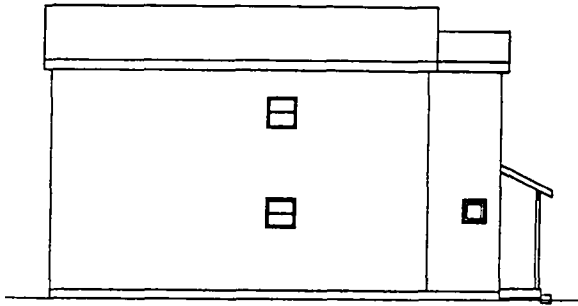
HOUSE  
 2



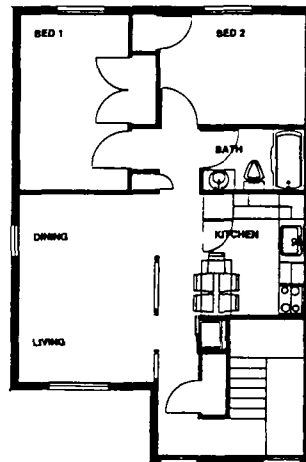
THOMAS  
EMODI  
ARCHITECTURE  
T.U.N.S

A-C-T  
REPORT 2

HOUSE  
2



0 1 2 FT  
 2 X 2 BEDROOM LEVEL-ENTRY GABLE FORM  
 LOWER LEVEL 775 SQ. FT.

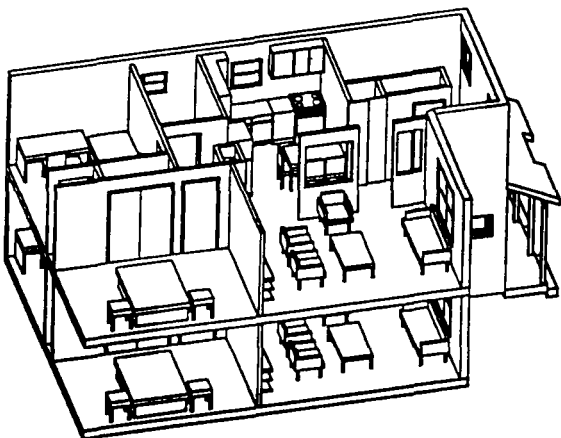
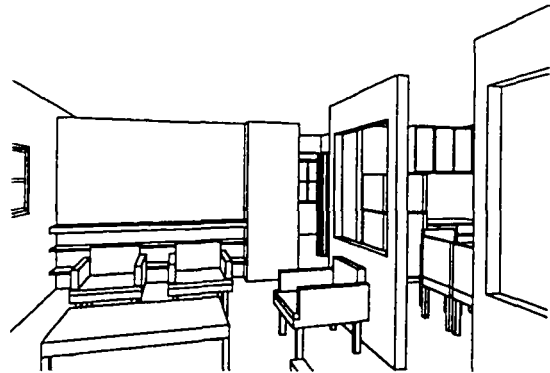
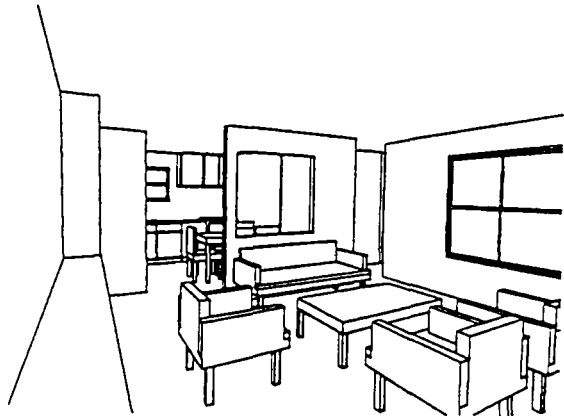
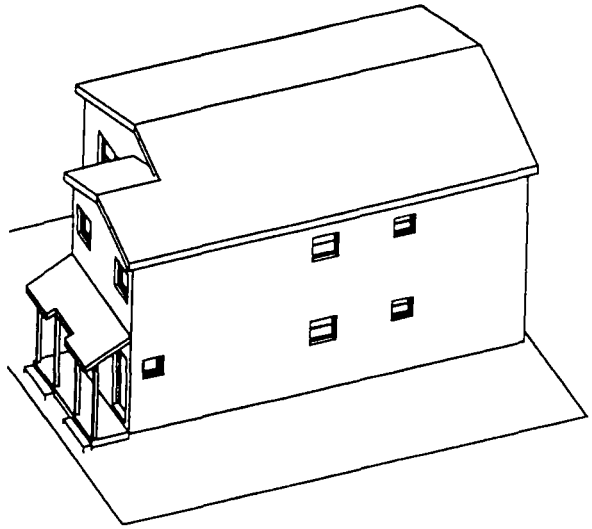
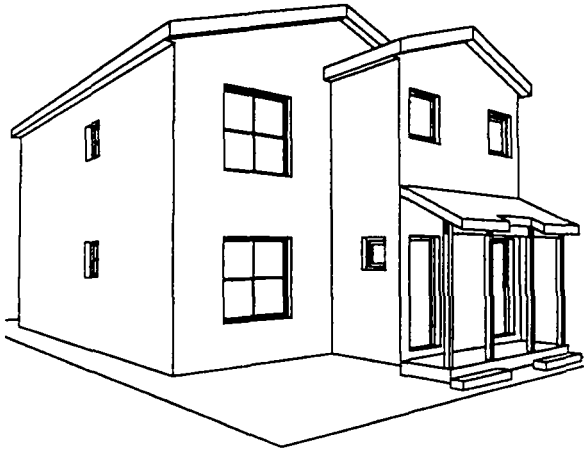


0 1 2 FT  
 2 X 2 BEDROOM LEVEL-ENTRY GABLE FORM  
 UPPER LEVEL 775 SQ. FT.

THOMAS  
 EMODI  
 ARCHITECTURE  
 T.U.N.S

A-C-T  
 REPORT 2

HOUSE  
 3



THOMAS  
EMODI  
ARCHITECTURE  
T.U.N.S

A-C-T  
REPORT 2

HOUSE  
3

## 5. Resident Participation

Originally it was the aim of this phase of the project to involve the future residents of the houses in the design process as far as possible. Due to certain requirements in the resident selection policies and practices of the NSDH this aspect could not be achieved during this stage of the project. However, there are possibilities for including resident participation in forthcoming stages.

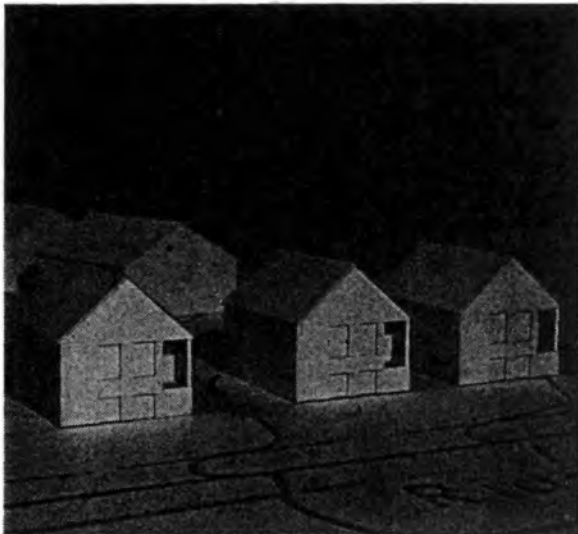
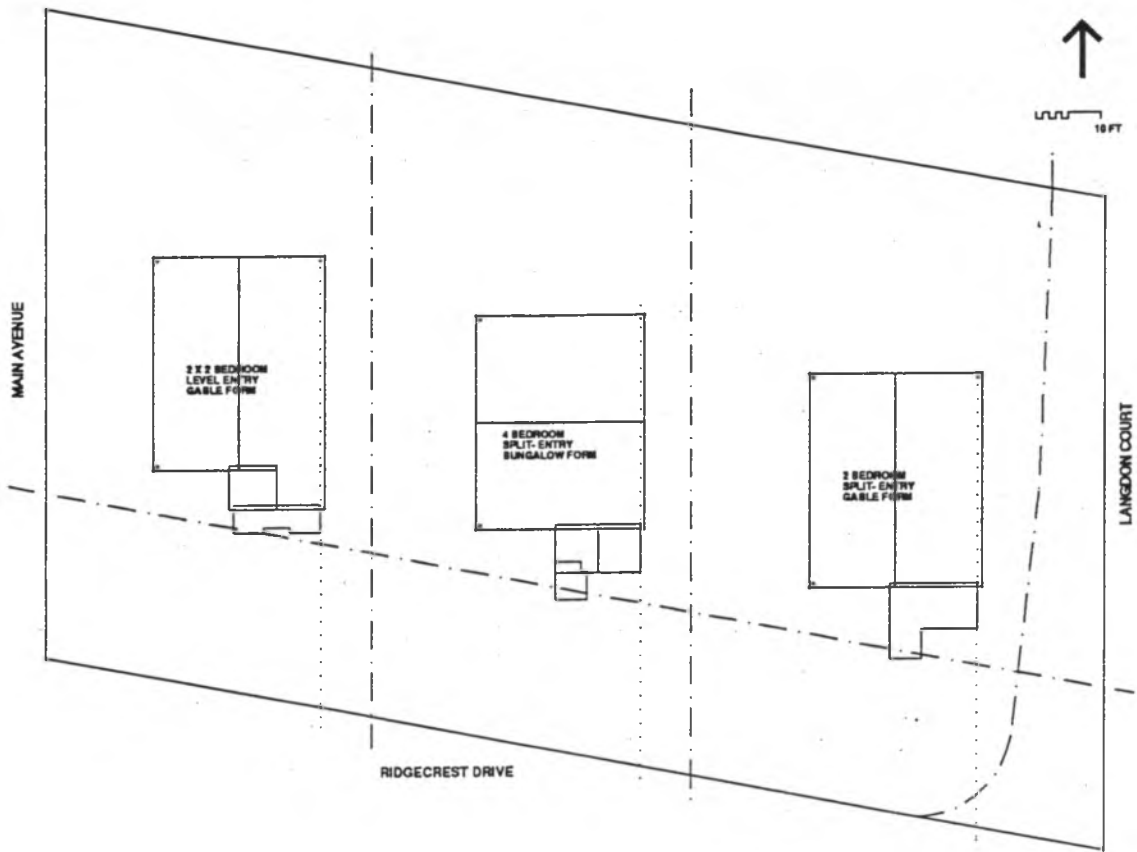
## 6. Site

A diagrammatic site plan is shown. A topographic survey of the site, carried out in October 1991, reveals potential difficulties with sewer connections, especially for the third house. This is a major reason why the third house will use the level-entry prototype

Discussions with councillors and officials at the City of Dartmouth revealed a concern for minimising the traffic on Ridgecrest Drive. Therefore the driveway of the first house will operate from Langdon Drive rather than from Ridgecrest Drive.

The most recent discussions with officials at the City of Dartmouth revealed the possibility of future road-widening of Langdon Drive as it intersects with Ridgecrest Drive. During the construction documentation phase of the project, the issues arising from this possibility will be resolved.

As a result of these discussions it can be said that the house designs have already demonstrated their capability to respond well to a variety of site conditions.



THOMAS  
 EMODI  
 ARCHITECTURE  
 T.U.N.S

A-C-T  
 REPORT 2

SITE

## 7. Next Steps

The NSDH will acquire the land from the City of Dartmouth during the next stage of the project. Dartmouth City Council has to approve the sale of the land. Because of the possibly contentious future step of applying for re-zoning from R1 to R2 for the third house, it is important that the City of Dartmouth Councillors understand from the outset that the question of re-zoning will eventually arise. Thus the aldermen need to know now the neighbourhood's feelings about the re-zoning of the land. For this reason a public meeting will be held to gauge neighbourhood reaction to the proposed houses.

One possibility is that the public meeting will be used to make Dartmouth residents aware that the first two houses in the sequence are available to persons who qualify for the NSDH lease-purchase program. Whether or not this will happen is a subject of discussion at the moment between the NSDH, the City of Dartmouth and the TUNS project team.

Construction documentation for the houses is underway (approximately 25% complete). During this activity the detailed treatment of each house is being further developed. It is possible throughout this stage to work with residents if a selection process which meets the requirements of NSDH can be completed in time.



**Appendix 1:**

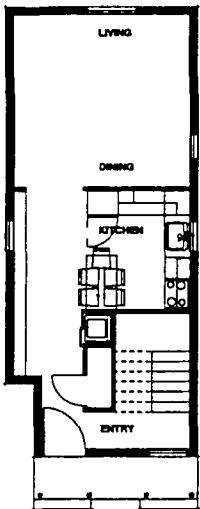
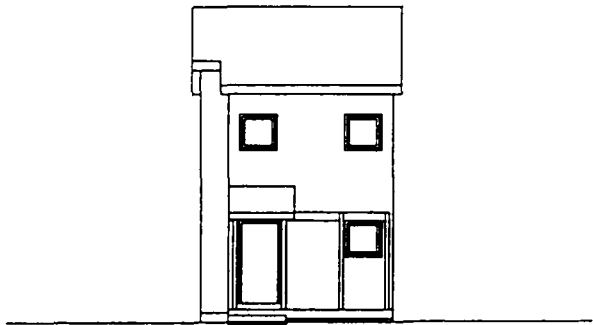
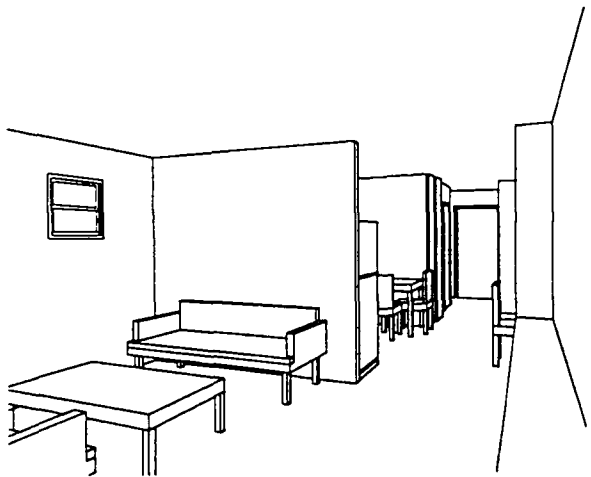
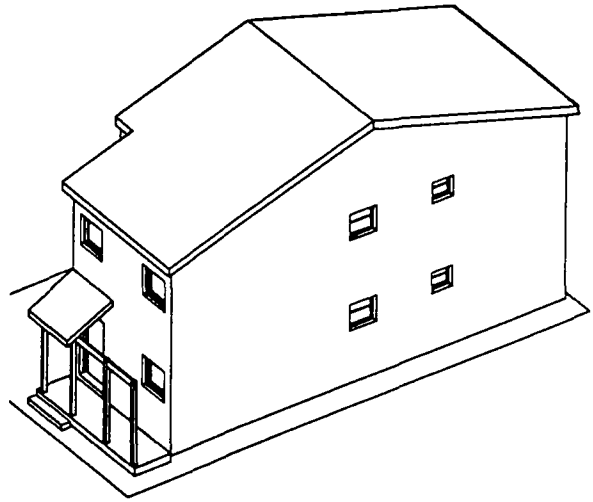
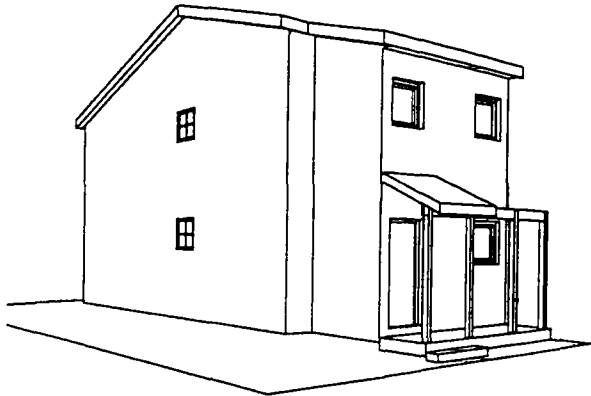
**House 0: Minimum House:**

**Bungalow Form, Level or Split Entry; 2 Bedroom (not to be constructed in the A•C•T Project)**

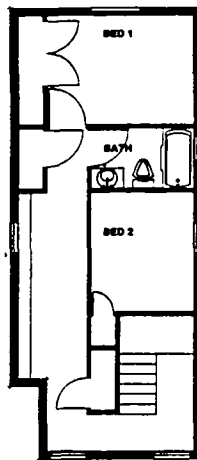
This house represents the smallest version of the prototype developed for the A•C•T Project.

In 1000 sq.ft. it contains two bedrooms, living/dining room, kitchen and bathroom. Storage, work and play- study areas are developed in the passageways next to the kitchen and outside the bedrooms.

The house uses the bungalow form and is capable of growth across the width of the lot.



0 1 2 FT.  
 2 BEDROOM MINIMUM HOUSE  
 BUNGALOW FORM  
 LOWER LEVEL. 508 SQ. FT.



0 1 2 FT.  
 2 BEDROOM MINIMUM HOUSE  
 BUNGALOW FORM  
 UPPER LEVEL. 508 SQ. FT.

THOMAS  
 EMODI  
 ARCHITECTURE  
 T.U.N.S

A-C-T  
 REPORT 2

HOUSE  
 0