<table>
<thead>
<tr>
<th>Program Elements</th>
<th>Users</th>
<th>Characteristics Of Users</th>
<th>Special Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>MIDDLE AGE PARENTS</td>
<td>* they want to be with their children to play, instruct, and learn from * they watch TV together and play family games * they use a larger amount of space for family activities * all need places to get away from everyone else for a while * private places where they can do their work, hobby, etc. and still be in contact with the happenings of the family</td>
<td>* the setting must be warm and convey a sense of community * it should show personal areas and accomplishments while still giving a family orientation * places in the house should be screened from the noise of outside as well as that of the inside * spaces that belong to an exclusive family member and should not be violated * special requirements become larger with each additional child * smaller spaces will need to be provided off of the family area or in the bedrooms so that there is some personal space for everyone * there should be elements in the house that can be opened or closed or moved so there is flexibility built in to give the option of individuality or family to everyone * main areas of living such as the living, dining and kitchen area are grouped but possibly separated by level changes and movable screens</td>
<td></td>
</tr>
<tr>
<td>ELDERLY</td>
<td>* stairs are a difficulty * will have children and grandchildren around and usually all at once * do not like to walk long distances * need added feeling of security * like to have a lot of their personal effects displayed * like to go and visit their friends often * need to be looked in on every now and then to see if they are all right</td>
<td>* they need a warm and inviting atmosphere that is intricate and interesting enough for someone that stays inside all day * need to be able to modify the space to accommodate all the grandchildren * the space can be tighter for easier elderly management * added storage space * enough room for a small party (card games, teas, etc...) * cabinetry that is easy to get into * having a spare bedroom that can be used as storage or cut off until needed * illuminate unnecessary level changes</td>
<td></td>
</tr>
</tbody>
</table>

* Special thermal needs for the elderly, drafts, etc. avoided * Noise levels around lower.
<table>
<thead>
<tr>
<th>Ambient Conditions</th>
<th>Estimated Size</th>
<th>Generic Form &amp; Examples</th>
</tr>
</thead>
</table>

- Special thermal needs may be required for the elderly. Drafts, etc... should be avoided.
- Noise levels around the unit may need to be lower.
<table>
<thead>
<tr>
<th>Program Elements</th>
<th>Users</th>
<th>Characteristics Of Users</th>
<th>Spacial Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>LIVING ROOM</td>
<td></td>
<td>* the living room should be able to be used for group activities as well as individual activities</td>
<td>* there should be adequate space for the entire family to be together at once</td>
</tr>
<tr>
<td></td>
<td></td>
<td>* the space will be used for listening to music, watching T.V., children playing, reading, writing, talking and entertaining</td>
<td>* storage, display and book shelves should be incorporated into the design</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>* an area with a desk and a telephone should be established as a family workspace</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>* there should be a connection between the living and dining room, the connection may be regulated through the use of moveable cabinetry</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>* the circulation should not cut through the major space in the living room</td>
</tr>
<tr>
<td></td>
<td></td>
<td>* the front entry will be more formal and will be used by family and guests</td>
<td>* there should be enough room to provide for simultaneous different functions</td>
</tr>
<tr>
<td></td>
<td></td>
<td>* the back entry is a private entry used by the family and close friends</td>
<td>* there should be enough wall space and flexibility in the circulation to allow for different furniture and different furniture arrangements</td>
</tr>
<tr>
<td></td>
<td></td>
<td>* the back entry is used when you are coming in from the weather and are dirty from working, etc...</td>
<td></td>
</tr>
</tbody>
</table>

| ENTRY            |       |                           | * the front entry should be adjacent to the public areas of the house (living room) |
|                  |       |                           | * the entry should be a space itself with enclosure, it should not simply be a door in the living room |
|                  |       |                           | * a coat closet should be provided |
|                  |       |                           | * the entry should be adjacent to the circulation so that all areas of the home can be reached without traveling across other spaces |
|                  |       |                           | * the back entry to the house should be located close to the kitchen |
|                  |       |                           | * it should be close to an area such as a half bath or sink where you can clean up |
|                  |       |                           | * there should be a closet where work and seasonal clothes can be stored |
|                  |       |                           | * there should be access to the private areas of the house without going through the public areas |
|                  |       |                           | * both entries should have a water and dirt resistant flooring that is easy to clean |
The lighting in the living room should be very flexible, because of the differing activities in the same space, different lighting levels may be needed in the same space. Natural light should be used as much as possible. Overall low level indirect lighting can be used with supplemental task lighting. Cross ventilation, if possible, would be a good addition.

There should be acoustical separation between it and the private areas of the house. An adjacent to the living room, itself with a door which should be provided, could be a storage, utility, or even a small private office. Built-in storage and flexible work areas such as a table and chairs can clean up where work and living overlap. The private area should be easy to access, and water and electrical connections are easy to make.

<table>
<thead>
<tr>
<th>Ambient Conditions</th>
<th>Estimated Size</th>
<th>Generic Form &amp; Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Living 180sf.</td>
<td></td>
</tr>
</tbody>
</table>

[Diagram of floor plan]
<table>
<thead>
<tr>
<th>Program Elements</th>
<th>Users</th>
<th>Characteristics Of Users</th>
<th>Spacial Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>DINING</td>
<td></td>
<td>* the dining area is used for meals as well as a gathering place for family conversation, games, entertainment, and crafts.</td>
<td>* the dining needs to have a manipulative connection to the living space so that family activities in both areas are not totally segregated and the dining area can be extended into the living room for entertaining and large family meals.</td>
</tr>
<tr>
<td>KITCHEN</td>
<td></td>
<td>* the housewife spends a good deal of the day in the kitchen area. * the kitchen is used to eat snacks and breakfast in. * it is also an area where a lot of family discussions and socializing takes place.</td>
<td>* the kitchen should have views to the outside, preferably to an area where the children can be watched. * there needs to be views into the different gathering areas of the house so that contact with other family members can be maintained while in the kitchen. * an eating area is needed in the kitchen such as a bar for smaller homes or a table in larger ones. * the bar or table is also used as a work and socializing area in the kitchen. * the kitchen should have direct access to the dining room and have close access to the entry where groceries are brought in. * there should be close access to outside dining areas. * the kitchen should be able to be cut off from the more public areas of the house because of the mess sometimes involved and the sound of the dishwasher etc... * the sequence that food preparation goes through should be observed in the equipment layout. * there should be a pantry provided because of the storage space it supplies without the counter cutting through it.</td>
</tr>
<tr>
<td>BEDROOMS</td>
<td>MASTER</td>
<td>* the master bedroom is used for sleeping, reading, watching T.V., listening to music, as a work area, sometimes as a sewing area, etc... * at times a baby crib will need to be in the master bedroom.</td>
<td>* the bedroom should have a bed, night stands, and a couple of chairs. * dressers should be built into the closet as well as shoe storage, etc... so floor space in the bedroom can be free. * space should be provided for a sewing table or a work desk and a chair. * built in shelves should be provided. * wall space should be open so that different sizes and amounts of furniture can be arranged suitably.</td>
</tr>
</tbody>
</table>

* the lighting in the living area should be flexible so that given for playing or reading. Lighting can also allow for dinner. |

* the lighting should be bright. |
* natural light should be possible to cu. dow. feelings kitchens have. |
* cross ventilation is possible. |
* exhaust above the kitchen as well as added vents. |
* the kitchen should be inviting, warm in the summer. |

* Natural light is a different site location and the kind and amount of different activities there should be a set between the bedrooms in the house.
## Ambient Conditions

<table>
<thead>
<tr>
<th>Estimated Size</th>
<th>Generic Form &amp; Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dining - 150sf.</strong></td>
<td></td>
</tr>
<tr>
<td>* the lighting in the dining area needs to be flexible so that an even light can be given for playing cards, etc... and the lighting can also be lowered for a formal dinner</td>
<td></td>
</tr>
</tbody>
</table>

| **Kitchen - 150sf.** |
| * the lighting should be an even work light |
| * natural light should be used as much as possible to cut down on the enclosed feelings kitchens have |
| * cross ventilation should be used if it is possible |
| * exhaust above the cooking area is needed as well as added ventilation to rid the kitchen of heat when cooking |
| * the kitchen should be bright and inviting, warm in the winter and cool in the summer |

| **M. Bedroom - 175sf.** |
| * natural light is a must in the bedrooms, different site locations will determine the kind and amount of natural light |
| * lighting should be task lighting for the different activities in the room |
| * there should be acoustical separation between the bedrooms and all other spaces in the house |

---

* Material selection, night lighting, the bathroom, etc...so the house should be free of a sewing room provided that furniture
<table>
<thead>
<tr>
<th>Program Elements</th>
<th>Users</th>
<th>Characteristics Of Users</th>
<th>Spacial Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHILDREN'S</td>
<td></td>
<td>* the children's bedroom will be used for sleeping, playing, studying, etc... * there will be small children and teenagers using these bedrooms</td>
<td>* all bedrooms should be large enough for double occupancy * with small children there will be two beds, a large single, or bunk beds, these beds will occupy part of the space while a sitting/play area will occupy the other * older children will want to have their own spaces so the beds will be separate and they will each need a portion of the room that is personal * closets will have built in dressers as in the master bedroom * the childrens room will need a work area to do homework in * built in shelves should be supplied * floor and wall area should be made to achieve flexibility in furniture arrangement * a public bathroom only needs to be a half bath * it should be located at the private entry to the house so it can be used for clean up and for children running in and out of the house * a location next to the kitchen is very convenient * there should be no sight lines from the public spaces of the house into the bathroom * if a half bath is not possible there should be an entry into the private bath that does not interfere with the private spaces of the house * the private bath will be used by the entire family so it should be compartmentalized if possible * all three fixtures should be ideally in separate areas, or the bath and the water closet in one area</td>
</tr>
<tr>
<td>BATHROOMS</td>
<td></td>
<td>* there needs to be bathroom facilities that are for public and private use</td>
<td>* the bathroom should be adjusted for make-up * a controlled heated tub area</td>
</tr>
<tr>
<td>Ambient Conditions</td>
<td>Estimated Size</td>
<td>Generic Form &amp; Examples</td>
<td></td>
</tr>
<tr>
<td>--------------------</td>
<td>----------------</td>
<td>------------------------</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2nd Bedroom- 140sf.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1/2 Bath- 40sf. Full Bath- 70sf.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- the bathroom should be well ventilated
- lighting levels should be able to be adjusted for make-up application
- a controlled heater may be needed in the tub area.
<table>
<thead>
<tr>
<th>Program Elements</th>
<th>Users</th>
<th>Characteristics Of Users</th>
<th>Spacial Requirements</th>
</tr>
</thead>
</table>
| PRIVATE OUTSIDE AREA |       | * children like to play games that need some room (such as jump rope), make noise, are adventurous, and need close facilities  
* teenagers like to listen to loud music outside so the world knows that they are there, like to socialize, sit, relax, read, do homework, watch people, and sun bathe  
* adults like to entertain outside by having a cook out etc..., watch children play, watch the activities of the community, and go to the community spaces from their outside areas | * it should be a personalized space  
* there should be a buffer so as not to disturb neighbors and not let them invoke your privacy  
* it should have views to other activities and serve as a stage and as a place for the audience to sit and watch the world go by  
* should be a space that has areas that are open to all views and others that you can hide in  
* there needs to be an articulation of the space to spark the imagination of playing children such as a central area that has a degree of open space and also smaller raised portions that cut the monotony of the space  
* there should be enough space for a small group of people to sit, stand, and talk comfortably ---outside space always looks smaller  
* barriers to keep the children from wandering off are needed, vegetation can be used as a barrier or permanent seating can be used to provide walls that children could not get over  
* there should be views from the inside of the house for supervision  
* the places needed to sit and sun bathe can be integrated into making visual barriers and space definers  
* railings on the outside area can be cushioned or designed so that they are comfortable to sit and lay on  
* there should be a space for cooking that will be safe from the children  
* a built in grill would assure safety and give a definate point of reference to the space  
* the area of the grill could be raised to give it separation and safety  
* movable equipment will give flexibility to the space |
building type analysis

This building type analysis deals with historic examples of the row house as well as current solutions. The first section of the analysis deals with a variety of historic examples in a general format. The second section shows two examples of housing that are more closely related to my project. For this reason these solutions will be analyzed more closely and in greater detail.

SECTION 1

Urban housing took the form of row houses during the industrial revolution in Europe to house the many workers that were flooding the inner city. This form of housing supplied an adequate housing density while still supplying some form of personal home, through private or semi-private entries, and at times a small amount of outside space that could be personalized or used as a garden. Row houses are used today for many of the same reasons.

Row houses are, as a rule, at least two stories in height sometimes including a basement. Limitations of the row house are the shared side walls which cut down on the natural light in the home. Because of only front and rear natural lighting, the length of the row house is limited to the distance that light can penetrate the house, which is shown by the two room limit in fig. 1-A & 1-E. To extend the house, additions can be added to the rear of the units. The extensions are only a partial width of the main body of the house so that there is still light penetration to the interior rooms as well as creating a side wall to admit light. (1-B, 1-D, 1-F). The same use of the rear extension is shown in the sequence of houses in fig. 2. As is shown, bay windows are also used to create a larger glass area to admit light.

The row house usually has two entries. The front entry is in public while the rear entry is private. While the entries are usually placed on a side
The Artizans, Labourers, & General Dwellings Estate at Hornsey.

The circulation within units varies. In the smaller units, the circulation is integrated into the front living space with the vertical being located back in the more private spaces of the house. In this way, the circulation doesn't detract from the livable area of the home (1-A and the forth & fifth class houses in fig.2). In another solution, the vertical circulation takes place in a front hall directly off the front entry. The horizontal circulation being through the livable areas of the home.

In the larger homes of a higher class of people, more area is available and can be used exclusively for circulation. The circulation runs the length of the house along one side wall with all the rooms of the house entering off of the hall. (1-B, C, D, & F and the upper class houses of fig.2)

Fig. 2 houses show the private exterior areas that are provided for each home. The area at the front of the house is separated from the public street area by a low wall that doesn't exclude visual access. The back yard is also walled in, but the wall also prevents visual access for more privacy.

Fig. 3 shows a solution for the row house which was built in Germany in the 1950's. The row house is a single rectangle with no extensions, so light is admitted only from the end walls which are totally glass. This plan also achieves a three-bedroom house with an exterior wall for each bedroom by making the second floor a three bay system over the two bay system of the first floor. The party wall on the second floor becomes a "t" so that two bays on one face of the building are incorporated into one unit.

The entries of the home are at the front and rear. The front entry opens onto a foyer that is adjacent to a small hall and is used solely for circulation to reach the bottom of the stairs located at the opposite end of the house. The stairs open onto a central landing on the second floor that serves all of the bedrooms and the bath.
While row houses are often made to distinguish between the units this type confuses the separation of units. The unit entries that are separate along with the repetitive window pattern distinguish each unit.

Fig. 4 shows that two units share a front entry walk and porch which the separate entries are off of. This, along with the use of a window wall system of glazing, and the fact that the structural bay of the facade doesn't correspond with the actual units is visually confusing. Fig. 5 shows that although the units are all under one longitudinal roof, the hipped roofs protruding over the unit bays give distinction to each unit.

The space taken up exclusively for circulation is average. The horizontal circulation on the first floor takes up 9.7% of the floor area, while only 5.7% is used for circulation on the second floor. Vertical circulation uses 7.9% of the floor area for both floors. Each unit has a single entry that is directly to the street. The front door enters into a foyer that serves a coat closet and a half bath. The foyer also provides access into the kitchen/dining area. From the foyer there is a direct line down a small hallway into the living room of the house. This line continues out to the private outdoor area in the back yard.

The entry vestibule is really the only "purely circulation" area on the first floor. All other circulation is through other spaces. The vertical circulation is entered from the front entry vestibule, towards the living room area. The stairs incorporate a landing at its middle point. The stairs empty out onto a landing area on the second floor. The second floor landing serves all of the three bedrooms and the bath on that level.

Every unit except the end units shares two walls with their neighbors. Because of this, the geometry of the units is rectangular. The spaces inside the units relate to the geometry by also being rectangular, there for utilizing all of the space available. The structure depends on the two party walls for most of its integrity. An interior wall that runs the middle of the unit also supplies support. Where the middle wall is punctured, a cross beam is used and where the exterior wall is punctured a column is used to give support to the middle span. The joists then run from party wall to party wall.

This housing form, or building type, has no unique features. It is very basic in its form layout, and construction but works very simply and very well. A notable quality of the form and layout could be the flexibility that the design has for the adaptability of the unit from three, to four, or five bedrooms without altering the plan drastically. The three bedroom unit is converted to the four by cantilevering the second floor out at the front and eliminating a walk-in closet for the front bedroom. The plan can be converted to a five bedroom house by two five bedroom units sharing an additional bay. One unit has the original single two story bay, plus the bottom level of the additional bay. This eliminates the half bath on the first floor and adds a full bathroom and two bedrooms. The other unit simply utilizes the second story of the additional bay. The bottom level remains the same but the second level adds a bath and two bedrooms.
The row housing scheme depicts a definite urban residential image. The exterior spaces have tried to keep this image. There is parking for most units in the front of the house and the entry to each of the units is off of the public street or path way. There are areas at the entrances of each unit to give a buffer between public and private, and create a territory for the residents. There are common areas that are used as play areas for all the residents but the backyard is also traditionally maintained. as a whole the entire complex has a strong residential image.

AMENITIES:
The use of space in the house is very good. Very little space is purely circulation. The entry serves the kitchen well, one does not have to walk far or through other areas with groceries in ones hands. The kitchen/dining area can also be cut off from the view of the front entry easily and done on the way to answer the front door. The front entry also gives direct access to the upstairs without going through other areas. The half bath and the closet at the entry make it easy to come into the house dirty and change, or for playing children to use the restroom without tracking through the rest of the house. The kitchen also looks out onto the childrens play area which adds to the safety of the neighborhood.

LIABILITIES:
Activities that take place in the back of the house destroy the concept of the front entry. If one is dirty, or has to use the restroom, or is going upstairs one must pass through the formal spaces of the house to get there. Half of the view out the front of the house, half of the possibilities for light, and half of the ventilation possibilities are taken up by the blank wall of the coat closet or the bathroom.
This project is located in Indianapolis, Indiana. The units are walk-up apartments that are combined to form a rigid rectangular housing block. The entries serve six apartments, two on each floor. The entries to the units are made up of a series of air locks. The front entry has an air lock that leads into the area where the stairs are located. This is another air lock and leads to a vestibule that is shared by the two apartments on each floor. The private entry is then off of this space. On the first floor there is a hallway that goes from the vestibule of the bottom apartments to an outside door, leading into the back yard. The entry in each unit leads to a foyer and hall. To one side of the foyer is the dining room which is an extension of the kitchen. To the opposite side of the entry is the living room. The living room has a door on the back wall that leads outside onto a large stair landing on the upper floors and serves as a second exit. If one goes down the short hall from the entry you will encounter a storage/coat closet/laundry room to one side and the bathroom entry straight ahead. To either side of the bathroom is the master bedroom and the children's bedroom. The master bedroom has a walkthrough closet that leads to a private entry into the bathroom.

The horizontal circulation of each apartment is 7.25% of the floor area. The vertical circulation per floor is 10.8%. All six of the units in a block enter off of a single entry that leads to the stairs that serve the upper units. The entry sequence has already been discussed. The vestibule inside each apartment serves all of the living spaces. To one side is a formal space, the living room, and an informal dining/kitchen space opposite it. One must travel through the dining to reach the kitchen so it is not close to the entry, but after climbing three flights of stairs it is a trivial distance. The stair landing off of the living area provides a path of circulation other than the front entry, but brings people through the middle of the living area. The circulation in the unit is very economical because all of the spaces are served off of a central circulation core. This also provides for circulation between rooms that will not disturb other areas.

The unit layout within the building and the units' spatial layouts all correspond to the rectangular geometry of the building mass. Because of this there is an economical use of space. The main structural units are the party walls between the units. The stair core also serves as a structural element where the party wall intersects it. There is a central load bearing wall runs the length of each unit. This wall provides a good separation between the public and private spaces of the house. Beams run between the party walls and across the central wall to provide the roof and floors of the units.
The housing form itself is very generic in its appearance and layout. It does, however, have interesting points that are used and scene that are not taken advantage of. The entry space is unique in its extent of safety. The sequence of air locks provides safety because there are three doors one must travel through before reach the private unit entry. This could also be an annoyance if one is laden with groceries and children and has to maneuver through four separate locked doors. I also believe there is unused potential in the back entrance. The landing for the stairs could be made larger to provide an outdoor living space for the upper units. There is also the potential for creating a private balcony off of the master bedroom. The fact that the buildings have flat roofs and don't have an abundance of surrounding land could lead to the use of the roof as a livable area.

The block, flat roof style of the buildings give them an urban appearance. The on-street parking at the front of the unit also provides an urban image even though the streets don't continue through the site. There are specific areas in the front of the units that are play areas, but the traditional back yards still remain, only each has to serve six families.

AMENITIES:

The security measures at the entry and the efficient use of circulation and the building is good. The use of the dining and kitchen areas as circulation to the living space, and the use of a walk through closet to the bathroom saves suitable living space. Having the entire unit on one floor makes it possible for the elderly to live on the ground floor thus combining elderly and younger residents in the same building. There is a good separation of the noise producing areas from each other and the quiet areas. The entry, where noise is created, is adjacent to the kitchen, wall in each unit where the added noise will not be a factor. The kitchen is also put at the front of the house with views out to the play area, parking, and the neighbors. All of the living areas have the potential for natural light.

LIAABILITIES:

As cited before, the roof and stair landings are not being used to their full potential and the entry causes problems because of too many doors to maneuver through. The entries do not provide any opportunity for personalization as well as the exterior areas surrounding the project. A children's bedroom is located at the front of the unit where there will be noise from the street and from neighbors. For this reason the bedroom positions may need to be switched. There is also very little storage in the units.
III. PROJECT
concept

Pierson Street will become an edge to the residential area and the commercial area on Meridian Street, thus stopping the erosion of the residential area by Meridian Street fronting businesses. Pierson Street will also act as the circulation spine of the neighborhood, the path to the revitalized Fall Creek banks, and as the access to the community areas from the residential areas. The commercial businesses will front on Meridian Street to take advantage of its exposure, while the community areas will be in between the commercial and residential area to provide a transition from the public to private. The residential area will front on streets running perpendicular to Illinois Street and Pierson Street, thus avoiding the negative impact of traffic on Illinois Street and taking advantage of the exposure to southern and northern light. The residential, community, and commercial areas should have an image that is unique, but compatible with the surrounding area.
COMMUNITY/COMMERCIAL SITE & BUILDING PLAN

The plan shows the site plan and the schematic plans of the buildings. A schematic design is shown for each building so that relationships of buildings to each other and to the surroundings can be established. These designs are schematic and are, by no means, final.

The site plan shows the relationships between the residential, commercial, and the community area. The buildings which are to serve a larger area than the immediate neighborhood; the fitness center, commercial area, and the auditorium, are located facing Meridian Street to take advantage of its large amount of exposure. The community areas that are primarily to serve the surrounding neighborhoods are placed closer to the residential area. The community area, made up of the teen center, adult/elderly center, the nursery/day care center, and the common space, act as a transition between the commercial and residential areas. This creates a gradation of very public space along Meridian back to the private residential area. The nursery/day care center is located across Pierson to create a common area between the community buildings. This also puts the smaller children on the residential side of Pierson. The common area has a special paving that is carried across Pierson Street to alert drivers to the pedestrian crossing. This paving pattern is also used in the commercial area to provide continuity between the commercial and community spaces.

The parking for the area has been spread over the site to eliminate a large parking lot. The street that serves the parking around the community space does not continue through the site, but has a cul-de-sac that serves as a covered drop-off area for both centers. This eliminates cars crossing the pedestrian paths. Where a large amount of concentrated parking is required, such as the mortuary parking the visual impact of the parking can be lowered by intermittently planting vegetation to break the line of cars. The use of a three feet retaining wall with a berm and plantings around the parking will screen the parking from the sidewalk.

The area that serves the outdoor stage is an open area that is partially paved. Chairs can be set up for performances or the grass can be used to sit on. This area is screened from the street by trees and crosses Fall Creek Parkway to form a tie with the proposed pedestrian walkway.
COMMERCIAL/COMMUNITY SITE AND BUILDING PLAN
MERIDIAN STREET ELEVATION

The Meridian Street elevation is designed to create a unique image for the commercial/community area. The buildings' designs are only schematic. The facades of the buildings have elements that are taken from storefronts that exist in the area. As you proceed from the downtown area you encounter the fitness center. The facade is a transition between the 1950's office buildings and the fast-food establishments that line Meridian in this area and the more nostalgic storefronts of the commercial area. The facade uses the bays of the commercial storefront and the window style of the office buildings. The mass of the gymnasium is located fifty feet from the street so it will not have a visually overwhelming impact on the pedestrian. The commercial area uses a system of old storefronts to create a unique image for the area. The entry to the auditorium continues with the storefront image of the commercial area. The auditorium and stage space is then set back from the sidewalk and lined with trees. This breaks down the impact of the flat wall of the auditorium and stage. It also works as a transition to the outside stage and the landscaped walk along Fall Creek.

MERIDIAN STREET SECTION

The stores and activity areas fronting on Meridian Street should bring about pedestrian traffic. The store fronts are interesting in their detail and will provide a pleasant walk along the street. Street trees will be used to separate the vehicular traffic from the pedestrians.
GREENHOUSE & OUTSIDE DINING

The commercial buildings create an image of the store fronts that used to line Meridian Street. The greenhouse dining area is a glass connection between the commercial shops that is in contrast to the older image. The greenhouse is an area that is used by all of the businesses to provide an area that you can dine "outside in the winter." The glassed-in area starts between the two commercial building masses and extends across the backs of all of the businesses. The greenhouse supplies a controlled environment in the winter and can be opened up in the summertime through the use of large sliding glass doors. The area outside of the greenhouse is outside dining and is a community space that is paved and provided with tables and chairs so that people can use it as a social area.
TEEN & ADULT/ELDERLY CENTER

The teen center and the adult/elderly center are located on either side of a common open space. The open space has areas that are to serve all the users. The adult/elderly center has an even paved area in front of it that has furniture supplied so that there is a place for everyone to sit and socialize. There is another seating area that is paved in an amorphic shape, berm'd around, and heavily planted. This is for the elderly people that need to be in a place that is more natural than an open paved common and provides enclosure and separation from other activities. Since many elderly people are unable to maneuver on grass this area provides the natural setting while still having a safe means of mobility in it.

Because the community area is a transitional area between the commercial and residential areas there are aspects of both in the image the buildings portray. The buildings are brick as the commercial buildings are and also incorporate a two story wood and glass curtain wall at the entry which is set out for emphasis. The buildings borrow from the neighborhood image with the use of pitched roofs and gables over the entries and upper windows. The window panes also become divided at the top, even in the curtain wall, as do the residential windows in the area.

The area in front of the teen center is made up of a basketball court where impromptu games may take place, as well as, volleyball and other uses for a court. The court is lowered to give definition from the rest of the area and to provide a barrier so that nothing will accidentally go into the street. There is also an open grassy area where frisbee can be played or people can just relax on the grass. This common area is connected to the common area in the commercial section by a pedestrian path so that there is a connection and transition between the commercial and community spaces.
residential design

RESIDENTIAL AREA SITE PLAN

The residential area is designed to reflect the pattern of the existing neighborhood by houses fronting on the street. Each block is made up of four housing masses with two variations, one having seven instead of six units. The masses are staggered on the site so that there is not visual access clear through the site between the masses. This eliminates the image of an alley cutting across the block. Each street is a one-way street and alternates direction by block. On-street parking is allowed on both sides of the street with a wide access to pass safely. The backs of the houses, units are served by an alley that does not go through to Illinois Street to provide off-street parking at the back. Pierson street is kept two-way to serve the residential streets and the community area. The sides of the blocks which face Illinois Street are shielded from the noise and danger of the heavy traffic by a wall. The wall extends around the neighborhood to provide a unique image and define its edge. There are 106 units in the community with a density ratio of 13.8 units per acre which matches the figures of thirteen units per acre proposed by the Metropolitan development plan.
EXISTING BRICK APARTMENTS

The existing apartments that face Fall Creek will be renovated to their original condition. Each building makes up four apartment units that will add twenty-four units to the residential area. Parking on Fall Creek Parkway will be used as well as the addition of two parking lots at the rear of the units. The lots are divided to limit the impact of a large parking lot and to keep the parking close to the rear entrances. Each building will have a private backyard area that will be enclosed with either fences or vegetation to create privacy and to screen the parking. The four units in the building will share the enclosed backyard space as a semi-private community space.
TYPICAL RESIDENTIAL BLOCK

The typical residential block is made up of two building masses, one with six units and the other with seven. The end units are three bedrooms and have rear extensions and garages to form an enclosure around the back yards. Each building mass contains two one-bedroom units, with the remainder being two bedroom units. Each block has four three-bedroom units, five two-bedroom units, and four one-bedroom units to compose an even mix of family sizes. All units face a one-way street that has on-street parking, as well as, being served by an alley that supplies backyard parking. Each unit has two parking spaces with the three bedroom units having three spaces if the garage itself and the driveway are counted. The garages are supplied to add incentive to the resident with a large family to remain in the neighborhood, as well as, to bring definition to the end of the block and provide a streetscape image for Illinois Street (see Illinois Street View). There is a pedestrian pathway between the building masses so that there is access to the backyards without using private yards or going to the end of the block. The walk is angled so that
each end unit will not have a very long, thin yard but will have either a large side yard and small back yard or a large back and small side yard.

The streets are lined with street trees to provide a separation of sidewalk and street, as well as to provide an urban street image. The front yards are lightly landscaped with a single tree and foundation plantings so that the house fronts appear open and inviting. The back yard landscaping provides denotation of property lines, separation of private and public areas, and also gives open areas to promote interaction. Each unit has a private patio that is screened from the neighbors by fences or vegetation which can be regulated by the user. The back yard in front of the patio is a semi-private area and its openness and use is manipulated by the user as needed. The walks to the back of the units are staggered so that a double wide space can be created for children to have a larger open space to play in. The parking in the back is directly off of the alley and should not come closer to the back of the units so as not to disrupt the continuity of the back yard. The parking can be partially screened using low vegetation.
As the section shows there is a graduation from the public areas of the site to the private areas of the home. The street and sidewalk are the most public area of the site. A two step level change, or a sloping entry walk for elderly people, is used to denote a transition between the public street and the semi-public front yard. Further denotation is given at the front porch with the change of level, as well as, the enclosure of the porch which defines a semi-private area. The rear of the unit is served by an alley which will be used primarily by the residents of that block. It is a public area, but less public than the front street. The personalization that a car gives, as well as, the use of vegetation makes a separation between the alley and the backyard. A change of level and an enclosure is used at the rear of the house, in the way of a deck, to form a transition into the private house. The amount of denotation that a resident wants can be regulated by them through the use of territorial markers such as gardens, lawn ornaments, bushes, etc...
BASIC HOUSING UNIT

Each housing unit is based on a forty
foot by eighteen feet block. The units
are manipulated differently within
this area. The main mass is covered by
a pitched roof that runs the length of
the building mass. Each unit then has
a gabled roof at the front and the
rear. The gabled roof is set at the
five feet level of the second floor so
that the pitches of the roofs bevel
the four corners of the unit three
feet in on the second floor.

Each unit is based on a separation of
the public from the private spaces. In
the two and three-bedroom units the
separation is by floor. In the
one-bedroom unit a door is supplied in
the hall to literally close the
private area off from the public.

TWO BEDROOM UNIT

The two-bedroom unit is reduced to
thirty-five feet long with the
structural wall still extending the
full length of the unit in the back.
The front entry is a foyer that is
served by a coat closet and has a
lowered ceiling and a short wall to
create enclosure. The foyer enters
into the living room which is adjacent
to the dining room followed by the
kitchen to create a sequence of public
to private spaces. The separation
between the living and dining room can
be controlled by the use of movable
shelves, which can be between the
rooms or against the wall. The back
entry is off of the rear patio and
enters the kitchen. There is a closet
to hold seasonal clothing which can
also be used as a pantry. The kitchen
is connected to the dining room
through the use of an open bar to be
used for casual dining and
entertaining. The opening into the
kitchen can be controlled by louvers
or folding doors. In this way, if the
moveable shelves between the living
room and dining room are against the
wall, there is a clear view from the
kitchen to the living room. A half
bath for public use is located near
the back entry so that it can be used
by all areas of the first level. The
location supplies an area for clean up
from the kitchen or back yard before
entering other spaces of the house. A
half basement will be used for the
furnace, hot water heater, washer &
dryer, and as storage. The resident
also has the option of using the
basement as a living space. The stairs
leading to the second level are
located near the front entry and
through the use of two landings form a
small area at the base of the stairs
for a desk and chair.

The stairs open onto a landing on the
second level that serves both bedrooms
and the bathroom. The bathroom is
compartmentalized and has a private
entry into the master bedroom. The
master bedroom has a balcony that
looks onto the backyard and is served
by French doors. The balcony is formed
by the area that is remaining from the
five feet reduction of living area.
The second bedroom is designed for two
occupants. The space is large enough
to provide a sleeping area and a play
area for younger children. Two older
children will be able to establish a
territory of their own within the
room.
Sections A & B

The sections shown here are through a two-bedroom unit, but are used to show common elements in all of the units.

Section A illustrates the entry that is formed with the use of a short wall and a lowered ceiling. The coat closet also provides enclosure and in this way the entry is a space that does not just spill into the living room. The stairs are partially open so that there is not a solid railing. It is, however, partially enclosed to create a railing that will be sturdy and wear well.

Section B illustrates the connection between the kitchen and living room that is used in the one and two bedroom units. A bar that can be used for light lunches, breakfast, or entertaining is provided. This link between the rooms provides interaction between the front and rear spaces and also supplies the interior space with natural light. The opening can be closed off through the use of louvers or blinds so that the kitchen can become a private space and cannot be seen by visitors.
TWO BEDROOM UNIT SECTIONS A B
THREE BEDROOM UNIT

The three bedroom unit is an end unit so it can become longer because of the addition of side lighting. The front entry that is similar to the two-bedroom unit's entry, opens into the living room. The connection between the living and dining room can be controlled as in the two bedroom unit also. The arrangement of the stairs that serve the second floor also provide for a desk and chair, as well as, built in shelves. The back entry off of the rear patio is a small hall that serves a half bath, the kitchen entry, and a closet. The kitchen is large to serve the larger family and includes a kitchen table, built in shelves, and a desk. The kitchen is an extension from the basic forty feet length of the unit and also shifts eighteen inches out from the building mass. This is to give the building mass a sense of enclosure and provides an urban street-scape image for Illinois Street (see Illinois Street View). The projection of the kitchen also provides enclosure for the back patio. Bay windows are used in the kitchen and in the living room. The kitchen's bay window is above the sink and provides a wide view, as well as, a well lighted shelf for growing plants and herbs.

The upstairs is served by a hall off of the stairs. The master bedroom has built in shelves and a large walk-in closet that has a make-up vanity and sink included. The front bedroom is large enough for double occupancy with the same considerations as the two-bedroom unit's second bedroom. The middle bedroom is smaller and can be used by one child or two young children if bunk beds are utilized. The bathroom is compartmentalized and is located directly off of the stairs so that visitors can use it without invading the private bedrooms.
ONE BEDROOM UNITS

The one bedroom units are stacked units. The units share a common entry to reinforce the image of the one unit row house on the exterior then have private entries off of the foyer.

The bottom unit has an entry area that serves the living/dining area. A hall then serves the other spaces of the unit and leads to the private back entry. The living room and the dining area share a space, with the kitchen opening into these areas through a open bar that can be regulated with shutters. The hall has a storage/coat closet off of it and leads first to the bathroom. The hall can be closed off by a door here so that visitors using the bathroom do not enter the private bedroom. The bedroom is supplied with built in shelves and a walk-in closet. The back entry has a patio that is covered by the upper unit's deck and is enclosed by the wall of the stair tower.

The upper unit has a similar arrangement as the lower unit except that it is served by a straight stair on the interior wall. The stair is open so that it becomes a part of the unit and the front door is seen as the entry, instead of the top of the stairs. The unit is then served by a hall that leads to the back entry.

A deck that extends over the patio of the lower unit is provided for the upper unit. It is served by a set of covered stairs. (See one bedroom unit rear isometric).

A half basement with laundry and storage facilities is provided for the units to share. The basement is entered from the exterior using the lower stairs of the back stair tower that serve the back entry of the upper unit.
The one bedroom unit rear entry is made up of a stair to the basement, a stair to the upper level, a deck for the lower level, and a balcony for the upper level. The stairs for the basement and upper level consist of a two-story four-landing stair that creates a tower, half above and half below ground level. The stairs are served by the back walk and create a privacy wall on either side of them. The stairs open onto the balcony on the second level which is covered by wood slates as a sun screen. The wall of the stair tower forms an enclosed area for the deck of the first level. Both units share the stairs that lead to the basement from the exterior.

The two bedroom unit has a partially enclosed first and second floor area. Because the unit is shortened and the structural walls remain their original length there is an enclosed area on the first level that is augmented by the wall of the stair tower of the adjacent unit. By shortening the length, a balcony is also produced on the second level. This area is covered by the back gable and is accessible from the master bedroom through a set of French doors.
TYPICAL RESIDENTIAL STREET VIEW

The housing fronts are made unique through the manipulation of a set of elements. Although the floor plan of the units are essentially the same, the placement of windows on both floors can be varied among the units to add distinction. The gables above each unit can be varied in their placement in relationship to the front wall of the unit. If the gable is shifted back, the upper story windows can remain flush with the front skin as dormers. The windows can also be punched into the exterior skin to provide another variation. The most obvious distinction among units is the front porch. The porch changes size, as well as, using a variety of roof forms. The trim around windows, gable details, porch columns, etc... can be varied to solidify the image of a residential street.
Because of the amount and speed of cars on Illinois Street, the housing was not fronted on it as it did historically. The image of a street front is still maintained, though. The large gable of the main roof of the building mass provides a house front image that is in scale to the fast moving cars. The kitchen that is extended from the main building mass provides another gable, as well as, the gable of the garage. The repetitive gables of each residential block provides a street front image all along Illinois Street. A wall is used along the residential area adjacent to Illinois Street that serves as a separation visually and acoustically from the traffic on the street. It also supplies a definer of the edge of the neighborhood. At the street entries the wall curves in to denote entry into the neighborhood.
The back yards of the housing units that are the more private outdoor living spaces, will be more personalized with play equipment, flower gardens, and vegetable gardens. Each unit has a private outdoor living space off of the back entrances to the houses and are raised in level and visually screened by trees, fences, or trellises. The amount of privacy or exposure is regulated by the resident. The area in back of the patio is open with trees or bushes being used to define property while visual access to one's neighbor should be left open to promote interaction.
ALLEY VIEW

The parking for each of the units is directly off of the alley. One parking space is given so that there is an alternating green and paved space along the alley. The green space is planted to break up the visual impact of a long line of parked cars. The parking spaces are paved so that they may be used as play areas when the cars are absent. There are plantings in front of the parking spaces to reduce the possibility of people parking their cars closer to the house in the back yard causing a visual nuisance. Visually restrictive fences and vegetation are not used between parking spaces so there can be interaction between people going out to their cars everyday.
PIERSON STREET

Pierson Street will be returned to a residential street as it originally was. It will act as an edge for both the residential and commercial areas. Pierson is a two-way street that will serve as the artery for the neighborhood because of the size of Illinois prohibiting its use as one. It serves all of the streets and alleys as well as being the major street to the community area. The street also acts as the major pedestrian circulation to the community areas. The wall that is used along Illinois to screen the traffic will also be used on the East side of Pierson Street to screen the backs of the commercial businesses.
residential construction

Wood frame construction will be used throughout the residential area to limit the range of construction personnel needed.

The party wall between the units will consist of a double wall system so that each unit is structurally independent. This provides an excellent sound rating, meets fire code regulations, and makes it possible to build each unit one at a time to a near finished state. Each wall will be made up of staggered studs, 7-1/2" layers of gypsum board, and a layer of 11/2" sound blanket. Caulking and tape should be used around all sides of the party wall and around outlets. This system gives a 55 stc rating. The extra materials used to acquire this rating will be cost effective because a reduction in sound transmission will bring greater satisfaction from the residents resulting in a lower turn-over rate and a more stable community. Exterior walls will be typical wall construction with clapboard siding and wood trim to respond to the surrounding residential areas. The party wall will extend up to the pitch of the roof which will also have a two hour fire rating. This system eliminates the need for fire walls extending above the roof line.

The floors of the units will be constructed of 12" deep open web wood joists. The ceiling between the lower one-bedroom unit and the upper one-bedroom unit will need to incorporate resilient clips and sound blankets to cut sound transmission. The open web joists allow HVAC to be run through the structure. The furnaces located in the basements will have ducts extending up into the unit. The major duct will run parallel to the joists with flexible ducts extending to the outside areas of the house through the joists. In this way, no bulkheads are needed. Plumbing can also be run through the joists.
conclusions

There are many conclusions that I have come to from this thesis, both about the project itself and about myself. At the beginning of the thesis when the proposal was presented, I was told by my colleagues that I could not possibly put the different factions of society together and create a successful community. I believed that through a variety of housing, to fit the needs of many people, I could accomplish this. As my research continued and the design of the project started, I realized that housing itself could not accomplish what I thought was needed for a strong community, and a project to support my thesis. People need to be taken away from the display of their material possessions and their private territory and put on a common ground for social separation to be eliminated at this level. Once that is accomplished these people can interact on an equal level, thus, breaking down social barriers. They can then return to their homes without feeling the need for segregation.

Because of this discovery, my project grew to include a community/commercial area that would serve as the common area to eliminate the barriers between the social stratifications.

My project grew too large for me to design all of the different elements to a high level of detail. For this reason, I concentrated on the residential area and provided only schematic design for the commercial/community areas. With so large a project in front of me I needed an organizing element that could be used as a design guide or checklist. I had never worked with a program that had gone any further than giving square footage. I now know the value of a very thorough program. I spent a great deal of time on the development of the thesis criteria and project program. These two guides were indispensable in the organization and development of the thesis.

I believe that I have also learned what everyone does during their thesis
year: there is never enough time, the design process never ends because you can always add just one more thing, and you never know if it really works. I believe that I have designed a project to the best of my abilities that follows the criteria set and the project program, thus proving my thesis correct. Yet there is no absolute way to prove it. You never know if a building you design will work the way you planned. No matter how thorough your research and development people are not totally predictable, and the world changes every day so there are no absolutes. It must be built and studied over several years before a true conclusion can be drawn. Architecture is an art form, but is different in that an artist can finish a sculpture, display it, or sell it and get immediate feedback. A potter can throw a vase and see immediately the fruits of his efforts. The architect can realize the sculptural effect of a design but is forced to wait in anticipation to realize the effects of his efforts on society.

I have also come to conclusions about myself. I have for the first time in my educational career been exposed to all aspects of a project. From this thesis I have learned what my personal strengths and weaknesses are. I have also realized how idealistic I am. In the preface I told my feelings of the responsibilities of the architect society. After working on the project and being caught up in the praeceans of it I stepped back and realized that I was beginning to place the people that I would be affecting in the back of my mind, much like I accused other architects of doing. I have realized that there is a limit to the influence you have and the responsibility you can accept. I will not lessen the firmness of what I do believe in but will try to plant my feet on the ground when I defend those beliefs.
bibliography

Action Program, City of Indianapolis, Department of Metropolitan Development, Division of Planning and Zoning.


Data Inventory / 725 Methodist Hospital Vicinity Plan, City of Indianapolis, Department of Metropolitan Development, Division of Planning and Zoning, and, Methodist Hospital.


North Meridian Corridor Development Plan, City of Indianapolis, Division of Metropolitan Development, Division of Planning and Zoning, and North Meridian Corridor Steering Committee, 1981.


Soulard Restoration Plan, Community Development Commission: St. Louis, Missouri, 1975.


