To the Graduate Council:

I am submitting herewith a a thesis written by Tina Marie Apps entitled "Social/Spatial Reurbanization." I have examined the final copy of this thesis for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Master of Architecture, with a major in Architecture.

George Dodds, Major Professor

We have read this thesis and recommend its acceptance:

Accepted for the Council:

Interim Vice Provost and
Dean of The Graduate School

Social/Spatial Reurbanization

A Thesis
Presented for the
Master of Architecture
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Tina Marie Apps
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Abstract

This thesis explores architecture as a proponent of building community within the context of public housing that engages and contributes to a larger community. It looks at the creation of linkages between a public housing community and its surroundings. This thesis proposes that social and economic diversity are achieved by offering choices in housing typologies and flexible spaces. Moreover, this approach counters the deleterious effects of many long neglected, racially and economically segregated and physically isolated public housing communities. Consequently, the social and cultural dimension of this project were given equal status with its architectural agenda.

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I. Statement of Thesis

This thesis explores architecture as a proponent of community within the context of public housing, which both engages and contributes to the greater community. This thesis looks at the creation of linkages between a public housing community and the larger community in which it is located, in an effort to establish mutually beneficial relationships. It investigates how the built environment creates and contributes to a community's sense of belonging, place, identity and permanence. The thesis examines architecture as it acts to mitigate the potentially deleterious effects often created by public housing "projects."

II. Background

The intention of this thesis is to repair the urban fabric of a neighborhood, which was destroyed in large part by urban renewal efforts of the 1950s and 1960s. By creating housing that is integrated formally, typologically and socially into the fabric of the existing community, it may be possible to challenge the stigma associated with it and to attract residents from a variety of income levels. Formal integration is achieved by combining new structures with the existing ones, focusing particularly on the density of the surrounding area. Typological integration is achieved through the reintroduction of residential and commercial structures. Social integration is realized through the development's diverse program. By determining what types of living arrangements will be attractive to certain populations, it is possible to attract a diverse clientele. This thesis proposes linkages between an existing community and the new residential development that will be mutually beneficial to all parties involved. Lastly, because the aftermath of urban renewal is a common problem across the United States, the residential development should be a model that is able to be adapted to various contexts and sites.

Recent public housing has been linked to innumerable social problems including unemployment, crime, racial, and socioeconomic segregation. The urban renewal efforts of the 1950s and 1960s, in conjunction with slum clearance, sought

to raise the quality of living conditions for the poor. While these efforts initially achieved their goals of improved sanitation, light and air quality, they often led to the demolition of multitudes of affordable housing units that were never replaced, despite policies which required it. Urban renewal also led to the construction of high density and oftentimes high-rise public housing, which was not typically suited to the needs of the impoverished residents whom it served (Fig. 1-3). The high-density public housing blocks were usually physically isolated from the surrounding communities through both their excessive height and their "tower in the park" site plans.

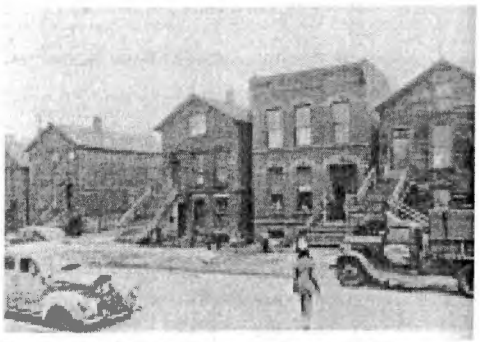


Fig. 1: Southside Chicago Slums, 1950.
Source: Hirsch 242

> "One of the errors made during the urban-renewal programs of the 1950's and 1960's was the wholesale bulldozing of inner-city neighborhoods deemed slums by Modernist planners. Both physical and social fabrics were destroyed. That helped lead to the social instability that ultimately undid projects like Cabrini-Green and Pruitt-Igoe" (Kamin 1997, 65).



Fig. 2: Slum demolition and public housing construction, 1959.
Source: Hirsch 243

Large public housing blocks often served to create isolated enclaves of poor families and in many cases led to the creation of an extremely hostile and ultimately very threatening environment.

The federal highway system, in its search for cheap and easily obtainable land, also forcibly uprooted many urban minority communities because they did not have the political power or financial means to fight for their homes.



Fig. 3: Stateway Gardens public housing, Chicago, 1981.
Source: Hirsch 244

The highways severed viable communities, physically cutting them off from the rest of the city and aiding in the creation of present day ghettos. Furthermore, the Federal Housing Administration permitted and even encouraged racial discrimination and "white flight" through policies and subsidy programs, which facilitated white middle-class movement to the suburbs. Consequently, lower class minorities were trapped in older city neighborhoods that were often the epicenter of slum clearance and consequent public housing. These neighborhoods were essentially cut off from the rest of the city, its people and employment.

In the past, public housing was intended to be a temporary or transitional environment. The buildings were constructed as temporary shelter, and only made permanent "by covering the sides with false brick sheaths, or some other ersatz material, and by putting in as modern equipment as was available" (Wood 65). Additionally, they were also considered a socioeconomic transition point. Public housing was viewed as temporary assistance for largely "traditional" families hurt by the Depression; it was a place to recover financially and eventually move on from (Sprague 210). This assumption of a homogenous population is no longer true. The focus of public housing as well as the population that utilizes it has changed, and in fact is constantly changing in tandem with economic and societal trends. Currently, only 25% of the U.S.

"There must be a commitment to the basic policy that expenditures in subsidized housing must be utilized not just for the construction of buildings, but for the advancement of the occupants, each to the capacity of which he is able" (Wood 70).

population fits the traditional family model, while 20% of the U.S. households with children are headed by single parents (Ahrentzen 62), 87% of which are headed by women (Sprague 7). This thesis proposes a residential development suited to the specialized needs of this new constituency that it is intended to serve.

Toward this end, the inclusion of daycare facilities, health and dental facilities, recreational facilities, retail and commercial establishments as well as alternative housing typologies such as collective and shared housing and live/work units will be necessary considerations. The desired population of the development will be a mixture of clients of low-to-mid-income students, artists, professionals, elderly, singles, single headed families, intact families, handicapped, and small business owners. The thesis proposes a varied housing program that recognizes and supports the variegated needs of this intensely heterogeneous population. Through the provision of services other than simply shelter, the thesis seeks to affect the overall quality of life of the residents. Furthermore, public housing is no longer a temporary assistance program, it in fact is permanent. It is no longer feasible to expect that the residents of public housing will move on. The demand for permanent affordable housing in the United States has never been greater. Public housing serves a vital role in today's society by providing affordable shelter to those who need it. It must be thought of as a valuable element

of our society, being accepted and integrated rather than isolated, if it is expected to function properly. Ultimately, the scope of public housing must be augmented to meet the needs of a changing resident population and society.

III. Primary Issues

Reurbanization

Observing the present condition of public housing in urban areas, it is possible to see the influences of Modernism. Public housing in most large cities in the U.S. is easily identified by its form, organization and location:

> "Visitors to this nation's large cities soon learn where to look for public housing. Public housing can often be found alongside major expressways, near smoke-stacks and factory buildings (now often abandoned) or in desolate reaches of the cities—near rail yards and factory storage areas. When found in residential neighborhoods, public housing tends to be densely clustered in slums. A public housing project is often the signifier of a slum, orienting the visitor to what "type" of neighborhood he or she is in. Public housing is frequently far from places of work, inconvenient for shopping, distant from parks or recreation areas, and far from schools or hospitals" (Thompson 119-120).

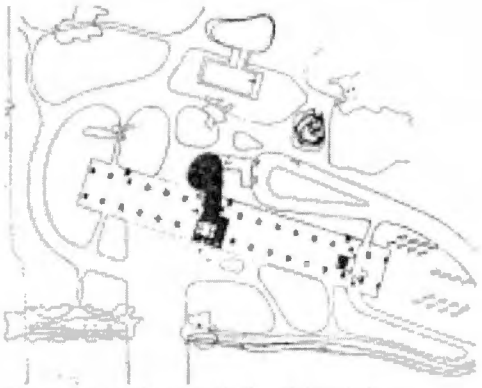


Fig. 4: Le Corbusier: Unite d'Habitation, Marseilles,Site plan.
Source: Sherwood 120

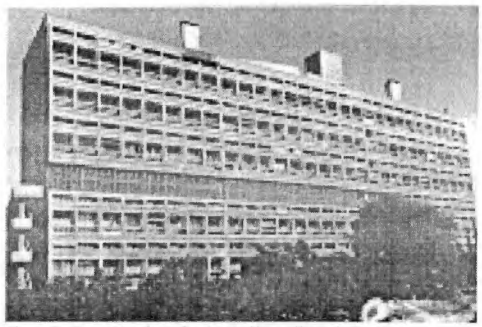


Fig. 5: Le Corbusier: Unite d'Habitation, Marseilles.
Source: Sherwood 121

Housing built in the 1950s and 1960s often took the form of a "tower in the park", closely resembling Le Corbusier's Unitè d'Habitation in Marseilles, France (Fig. 4, 5). "Architects were designing for the ideal man rather than for real people and were seeking to discover universal solutions. They aspired toward the architectural object, a building that stands alone and does not refer to its particular setting either physically or socially"(Ellin 1997, 23). While the Unitè project did successfully create a community within the building, unfortunately it was self-contained and

isolated from the larger community. It made no attempt to connect physically or socially with its surroundings. Such is the case with many high-rise slab structures; they do not relate to their surroundings, rarely attempt to blend into their environs and make no attempt to integrate with the larger community. Rather, they are arranged in geometric patterns, inward looking, and often floating aimlessly around a sea of poorly maintained greenspace (Fig. 6). "Particular emphasis, however, was put on the site plan as an orderly arrangement of buildings responsive to the need for an economy of land use, the functional arrangement of buildings and open spaces, and an appropriate orientation of the sun and prevailing winds" (Brain 213)(Fig. 7), rather than on the human needs of the residents.



Fig. 6: Stateway Gardens public housing, Chicago, Greenspace.
Source: Bowly 116

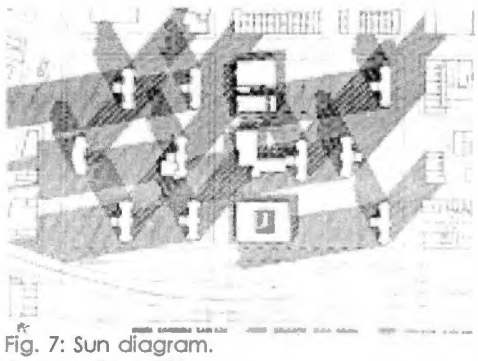


Fig. 7: Sun diagram.
Source: Plunz 224

Modern architecture's focus on economy and the segregation of functions encouraged the formal, typological and social fragmentation and discontinuity of the urban fabric. This thesis attempts to mend the "ruins" of the city. Formal integration occurs by physically rebuilding the urban fabric, integrating new and old structures. Typological integration occurs through the reintroduction of residential and commercial typologies with special attention being paid to the scale of the structures. Humanizing the scale of large developments may be achieved by breaking large all encompassing totalities into much smaller related parts. Lastly, social integration is achieved through a variety of housing

types in an attempt to attract a diverse population with regard to income level, education, occupation and ethnicity.

An attempt will be made to integrate the fragmented elements of an urban area that were created by urban renewal into a totality with a defined hierarchy established by tradition, culture and meaning. Special attention must be paid to the *genius loci* or character and culture of the location, however, "to respect the genius loci does not mean to copy old models. It means to determine the identity of the place and interpret it in ever new ways. Only then we may talk about a living tradition which makes change meaningful by relating it to a set of locally founded parameters" (Norberg-Schulz 1979, 182). This thesis aims not to rebuild or revive the past, but to respect and acknowledge it in a more thoughtful way. By looking at this intervention as an element within a historic continuum, it may be possible to link the scattered elements and to establish a clear identity by integrating existing and new elements. Proposals for the reurbanization of Berlin, Luxembourg, Dacca, Amsterdam, Baltimore and Chicago are clear examples of rebuilding the urban fabric (Fig 8-23). In the case of the Nieuwmarkt area of Amsterdam, a portion of the urban fabric was wiped out entirely to build an underground railroad, but fortunately was rebuilt in harmony with the existing structures (Fig. 10, 11). Another example of reurbanization is the master plan for



Fig. 8 (top): Rob & Leon Krier: Berlin Reurbanization Plan, Existing.
Fig. 9 (above): Berlin Reurbanization Plan, Proposed
Source: Krier 35

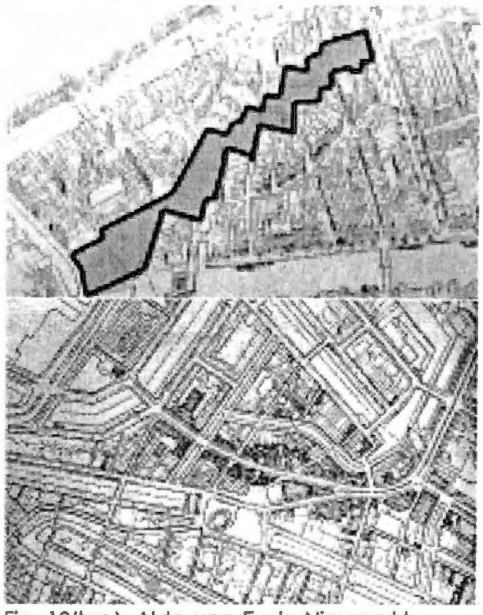
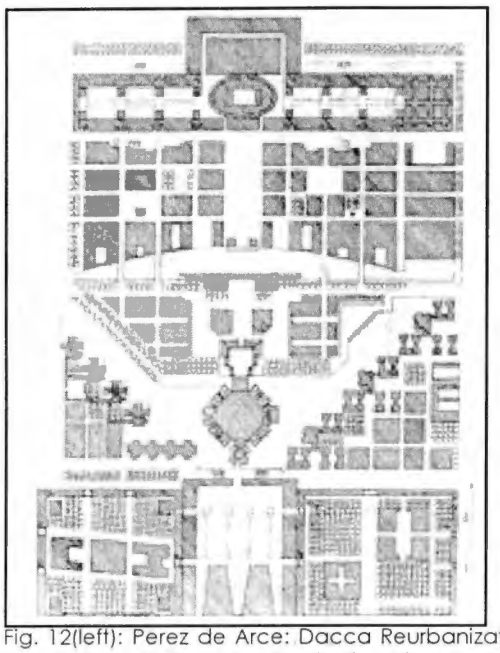


Fig. 10(top): Aldo van Eyck: Nieumarkt, Amsterdam Reurbanization Plan, Existing.
Fig. 11(above): Nieumarkt, Amsterdam Reurbanization Plan, Proposed.
Source: Ligtelijn 176



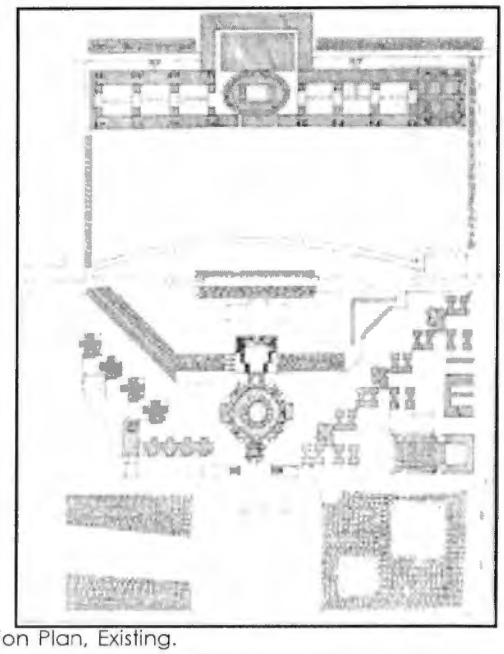


Fig. 12(left): Perez de Arce: Dacca Reurbanization Plan, Existing.
Fig. 13(right): Dacca Reurbanization Plan, Proposed. Source: Perez de Arce 26



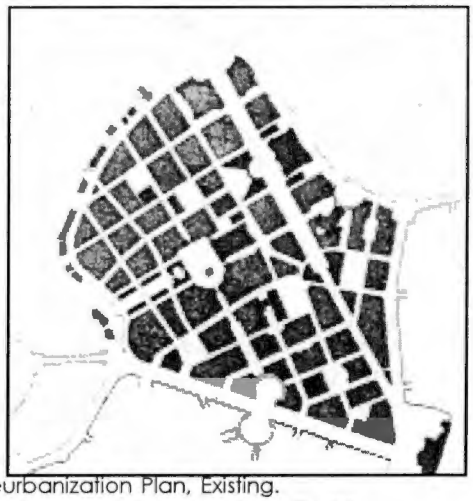


Fig. 14(left): Rob & Leon Krier: Luxembourg Reurbanization Plan, Existing.
Fig. 15(right): Luxembourg Reurbanization Plan, Proposed. Source: AD Profile 80

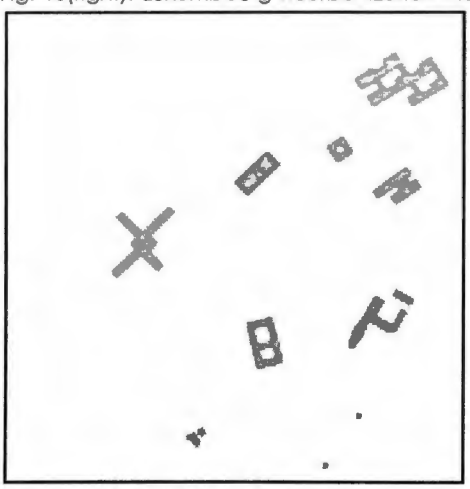




Fig. 16(left): Rob & Leon Krier: Luxembourg Reurbanization Plan, Existing.
Fig. 17(right): Luxembourg Reurbanization Plan, Proposed. Source: AD Profile 80



Fig. 18(above left): Baltimore, MD, Figure Ground, Existing.
Fig. 19(above right): Baltimore, MD, Figure Ground, Proposed. Source: Rowe 44



Fig. 20(below left): Chicago, IL, Figure Ground, Existing.
Fig. 21(below right): Chicago, IL, Figure Ground, Proposed. Source: Rowe 84



Fig. 22: Agrest & Gandelsonas: Deep Ellum, TX, Reurbanization proposal.
Source: Agrest 175

"Spatially the new settlements do not anymore possess enclosure and density. They usually consist of buildings "freely" placed within a park-like space. Streets and squares in the traditional sense are no longer found, and the general result is a scattered assembly of units...Although a general order may be present, particularly when the settlement is seen from an airplane, it usually does not bring about any sense of place... The urban tissue is "opened up," the continuity of the urban "walls" is interrupted, and the coherence of the urban spaces damaged."
(Norberg-Schulz 1979,189)

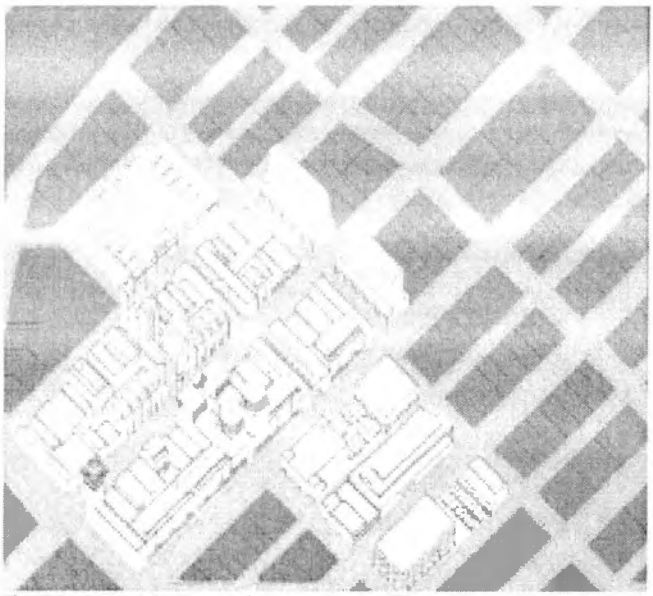


Fig. 23: Agrest & Gandelsonas: Deep Ellum, TX, Reurbanization proposal, Site axon.
Source: Agrest 178

Deep Ellum, Texas by Agrest and Gandelsonas. The plan seeks to reconnect the area with downtown Dallas, which it is physically cut off from by an expressway. The plan employs a variety of typologies, including residential, retail, office and small manufacturing. The plan also endeavors to bring back a pedestrian scale to the area by reducing block size and limiting building size and height. The plan proposes high-rise buildings, with a 140 foot limit, to serve as landmarks within the urban fabric (Fig. 22, 23). Hubertus House, by Aldo van Eyck, is another distinct example of integrating new and old. It fills a gap in the urban fabric and is also consistent with the scale and texture of the surrounding 19th century structures. It also serves as a physical link between new and old, joining an existing structure to a new addition (Fig. 24-26).

Contrary to the Modernist tendency toward the tower in the park or an endless series of unrelated and meaningless monuments, there must be a focus on the consolidation of the

"Culture—the peculiar values, customs, ideas, and religious practices that are always historical—is, in the end, what makes life worth living. In this sense all those who have something to contribute are already what the Korean man said he would always be, a "hyphenated-American," a hybrid of the local and universal, the past and present" (Jencks 224-225).

Fig. 24: Aldo van Eyck: Hubertus House, Amsterdam.
Source: Ligtelijn 185
Fig. 25: Hubertus House, Amsterdam, Facade.
Source: Ligtelijn 184
Fig. 26: Hubertus House, Amsterdam, Site plan.
Source Ligtelijn 191

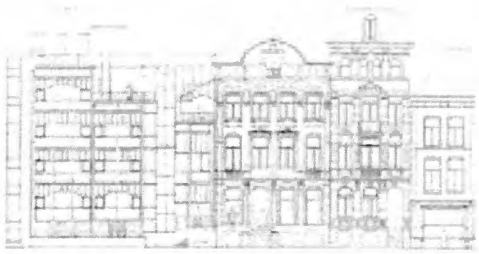


Fig. 25

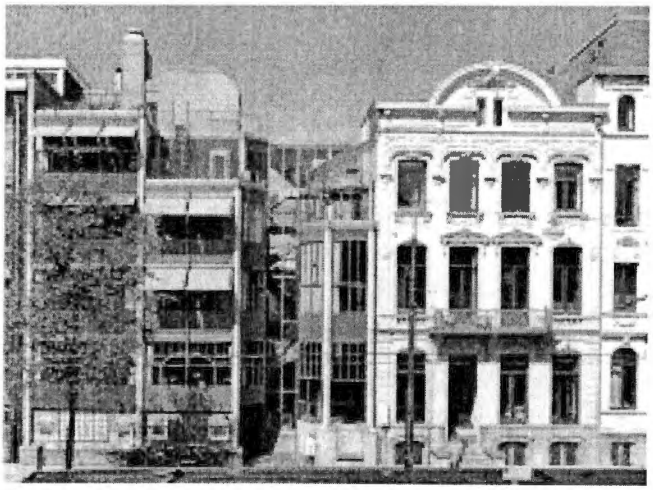


Fig. 24

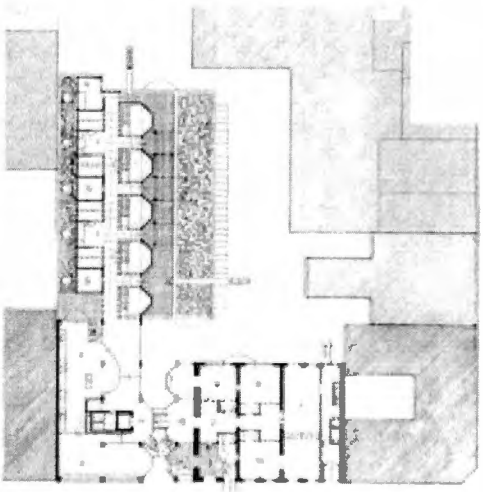


Fig. 26

urban fabric that coincides with an intensification of use. To achieve these goals, the following types of transformation may occur: recycling architectural elements, evaluating "ruins" and urban fragments and finding new uses for them, and through the transformation of currently inhabited buildings (Perez de Arce 2-4). The thesis looks at the existing urban fabric as potentially viable and to reuse existing structure wherever possible. Reurbanization, through the integration of past, present and future, accepts and celebrates the cultural heterogeneity of a city. Urbanity is by definition a collection of differences, it "is that aspect of a place which illustrates, its identity, memory, conflicts, and changes while expressing and nurturing its inhabitants lifestyles and aspirations" (Ellin 1999, 54). Toward this end, a variety of uses as well as typologies will be employed. The Roosevelt Island Housing Competition, the Fukuoka Kashu Redevelopment project, Twin Parks Northeast, Peabody Terrace, IJ Plein, and GWL Terrein will serve as precedents of successful urban planning, mixed use and/or mixed housing typology schemes (Fig. 27-38).



Fig. 27: Agrest & Gandelsonas:Roosevelt Island Housing Competition Submission. Source: Agrest 45

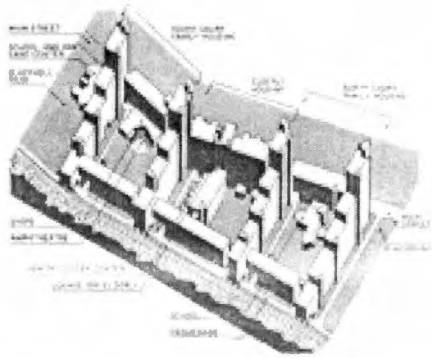


Fig. 28: Sert, Jackson & Associates: Roosevelt Island Housing Competition Submission. Source: Plunz 1990, 300

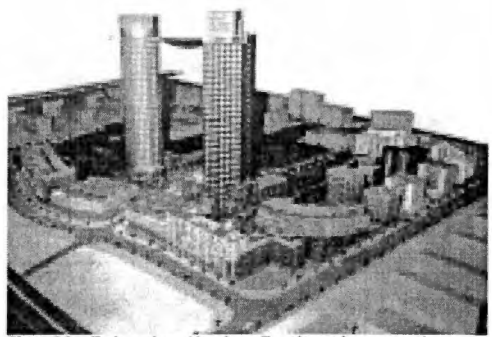


Fig. 29: Fukuoka Kashu Redevelopment. Source: Woodbridge 1989, 34

Due to the magnitude of the project to be undertaken, a phasing plan must also be developed. The aforementioned projects will also serve as precedents for phased growth. At the outset it is crucial to establish a resident base population. While the goal of the thesis focuses on a densification of population, a base popula-

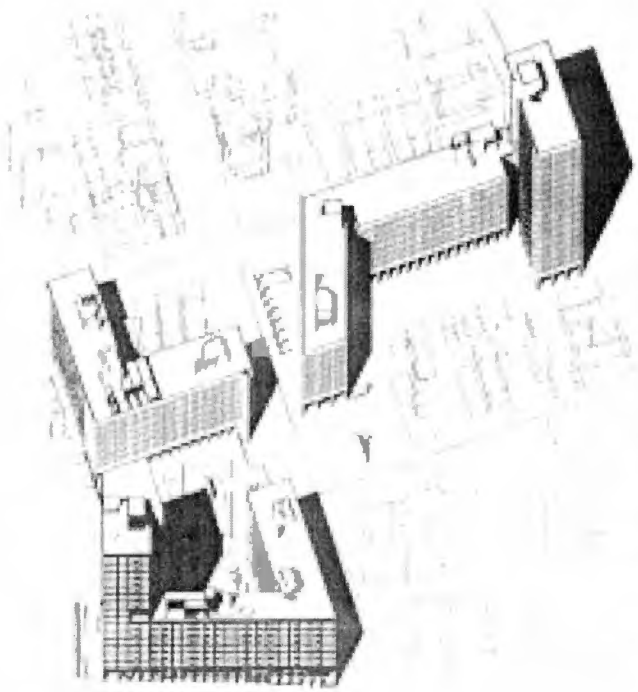


Fig. 30



Fig. 31



Fig. 32

Fig. 30 : Richard Meier Associates: Twin Parks Northeast, Bronx, NY, Axon.
Source: Plunz 1990, 296
Fig. 31 : Twin Parks Northeast, Bronx, NY, Exterior.
Source: Gangneux 4
Fig. 32 : Twin Parks Northeast, Bronx, NY, Entrance.
Source: Gangneux 6
Fig. 33: Sert, Jackson & Gourley: Peabody Terrace, Cambridge, MA.
Source: Sherwood, 160
Fig. 34 : Peabody Terrace, Cambridge, MA, Axon.
Source: Sherwood 161



Fig. 33

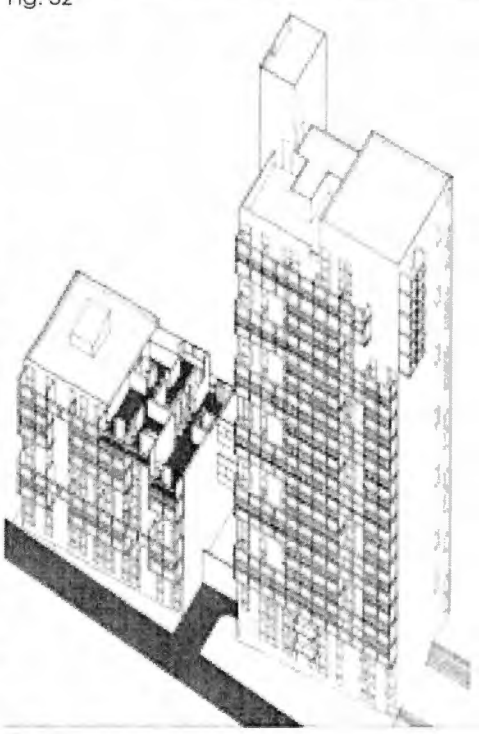


Fig. 34

tion must be established to ensure the economic viability of the area and ultimately to attract more residents. The base population will consist of residents not likely to leave the area for an extended period of time, which are also able to contribute the economic viability of the community, either through investment or support of area businesses. Once a stable base population is established, more businesses may be introduced. Finally, the residential population will gradually be increased, as it is able to be accommodated.

Community

This thesis attempts to provide the means for establishing a community. The employment of collective housing as well as communal and traditional gathering spaces that encourage both formal and informal interaction among people will aid in the establishment of the community. While it is understood that architecture cannot determine behavior, it can enable certain behavior such as positive interaction. Pedestrian streets, inner courtyards, communal gardens and stoops or front porches may be used to encourage this interaction (Fig. 39-43). The com-



Fig. 35: OMA: IJ Plein, Amsterdam, Site plan.
Source: Leupen 76

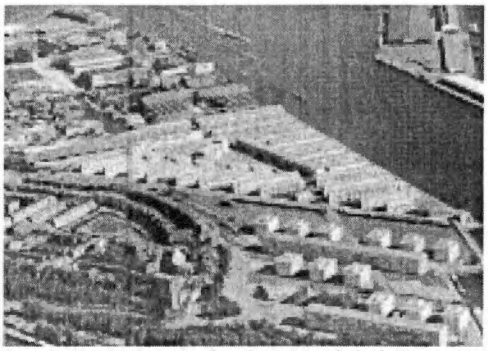


Fig. 36: IJ Plein, Amsterdam, Aerial view.
Source: Yagi & Yashiro 24,25



Fig. 37: Kees Christiaanse: GWL terrein, Amsterdam, Axon.
Source: Tilman 42

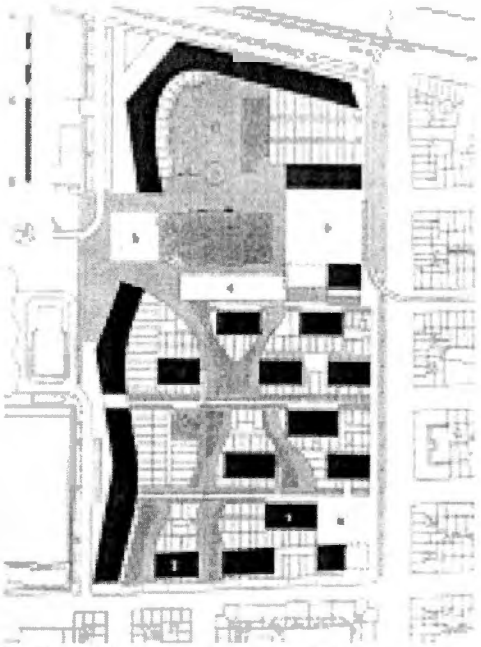


Fig. 38: GWL terrein, Plan. Amsterdam.
Source: Westrik 37

munity will in turn encourage a solid social support network vital to maintaining a stable community. The social support network will contribute to individuals' sense of belonging to the community through the identification of similar interests, experiences and activities. "The sociological conception of neighborhood emphasizes the notion of shared activities, experiences, and values, common loyalties and perspectives, and human networks that give to an area a sense of continuity and persistence over time" (Keller 87).

"We must understand our market [*low-income families*] better. It is a very diverse market, much more difficult to understand and plan for than are the middle- or upper-income families. We have to know what strengths we can count on and what weaknesses we have to work with" (Wood 69). It is important to recognize the existing community, whether or not it conforms to the typical notion of community. It is easy for an outsider to overlook positive aspects of a community when they have no genuine involvement with or attachment to. Even "ghettos are, for all their problems, distinct and diverse communities" (Lindgren 33). The strengths of the existing community, such as the social support networks between friends and kin, unemployed community members which may be relied upon for services such as daycare, and low-income service sector employees need to be considered as vital components of the community. "Cabrini-Green, they claim, *is* a community. It is a place with churches and midnight basketball leagues, summer picnics and block parties. When someone dies, neighbors fix food for the bereaved. When someone else can't pay rent, residents scrape together a few dollars to help out. Here, it is said, residents accept different levels of responsibility for everyone's children, just as extended families always have" (Kamin 1997, 65).



Fig. 39: OMA: IJ Plein, Amsterdam, Pedestrian Street.
Source: Yagi & Yashiro 27



Fig. 40: Herman Hertzberger: Haarlemmer Houttuinen, Amsterdam, Pedestrian street.
Source: Bergeijk 67

munities need all age groups and lifestyles to remain viable places...lack of diversity makes the communities brittle and too easily harmed by a single trauma. A more diverse community can protect itself as each group assists the others" (Blakely and Snyder 98).

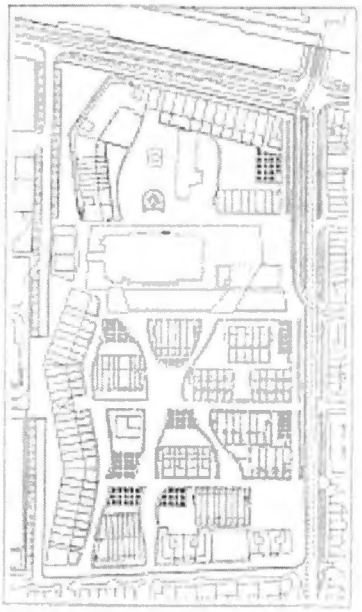


Fig. 42: GWL terrein, Amsterdam, Communal garden.s
Source: Westrik 37



Fig. 41: Kees Christiaanse: GWL terrein, Amsterdam, Aerialview. Source: Assche 2164

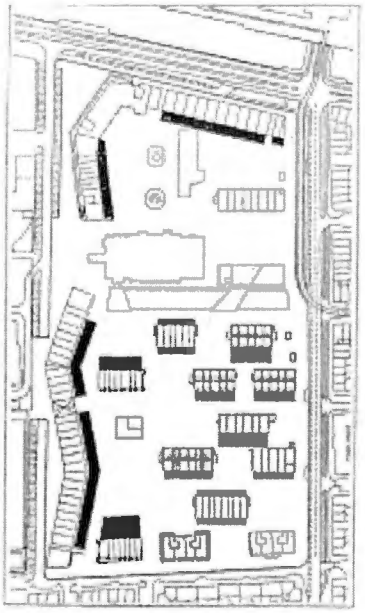


Fig. 43: GWL terrein, Amsterdam, private gardens.
Source: Westrik 37

IV. Secondary Issues

Place Creation and Attachment

Often in construction that is limited by economics, as in the case of public housing, the need to create a universal solution produces a language of repetition. Creating variety within a flexible framework and designing with site specificity may help to resist this tendency. Place creation aims to acknowledge and respect the character and meaning or *genius loci* of a location. Place creation and ensuing attachment to place may encourage a feeling of ownership and responsibility among the residents, depending on the degree of attachment. Factors such as economic and social class or status, stage in life-cycle, length of residence in the neighborhood, housing characteristics, properties of the neighborhood context and the system of social relation of individuals and all residents in the neighborhood affect the degree of attachment to place and sense of community (Cohen and Shinar 18). Responding to these factors when integrating existing residents and new ones will be crucial to creating place, attachment to place, and a strong sense of community.

Place creation can be accomplished in a variety of ways. The physical arrangement of buildings can contribute to place creation by providing semi-public gathering space for the residents through gardens or courtyards. Rather than providing a large unprogrammed greenspace, similar to those typically found at



Fig. 44: Kees Christiaanse: GWL terrein, Amsterdam, Inner courtyard.
Source: Assche 2147

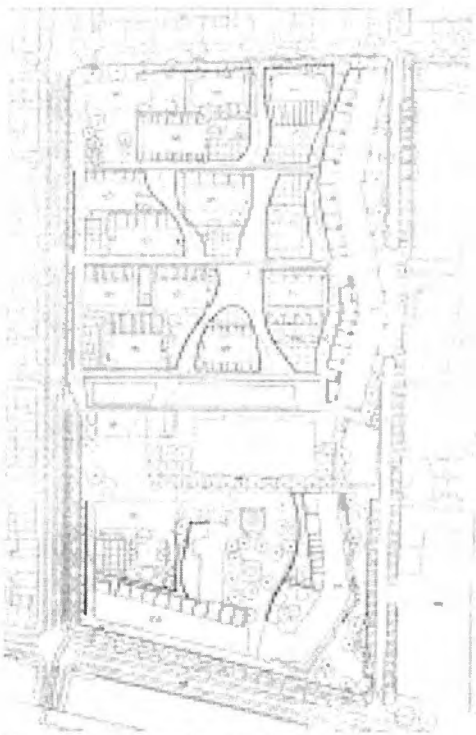


Fig. 45: GWL terrein, Amsterdam, Space defining hedges.
Source: Westrick 37

high-rise public housing project, arranging the buildings to break down the scale of the space to make it more private provides the residents with more opportunity to interact with and to get to know their neighbors (Fig. 41-44, 47-49). In addition, it also helps the residents to take ownership of the space and feel that it is *theirs*. Another means of place creation is utilizing specific architectural elements such as stoops or front porches. A stoop activates the street edge and provides a place for informal gathering and consequent interaction by residents (Fig. 45-46). Interaction by residents is necessary to establish attachment to a particular place.

"Being attached to a place implies that one not only knows and recognizes that place but is oneself known and recognized. When attachment to place exists, the ties to a place turn to care and commitment" (Cohen and Shinar 4). A sense of ownership or responsibility may give residents greater desire to control their space, for example, an active neighborhood watch or informal policing of the community by its residents.

> "The relationship of the concept of territoriality to the deterrence of crime is based on the hypothesis that residents are likely to protect from unwanted intrusion space that they feel belongs to them and over which they have some measure of control. Such areas are in contrast with space which may be close to their dwelling unit but which is considered 'public' i.e. it belongs to no particular person or group,

> "The point is to give public spaces form in such a way that the local community will feel personally responsible for them, so that each member of the community will contribute in his or her own way to an environment that he or she can relate to and can identify with." (Hertzberger 45)

and is not distinguishable from adjoining spaces" (Becker 18).

When an individual or group has a strong attachment to a place, they are likely to become active within the community, thus strengthening social networks and community stability.

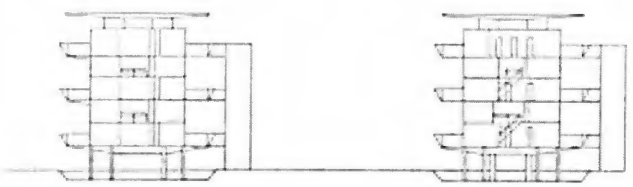


Fig. 46

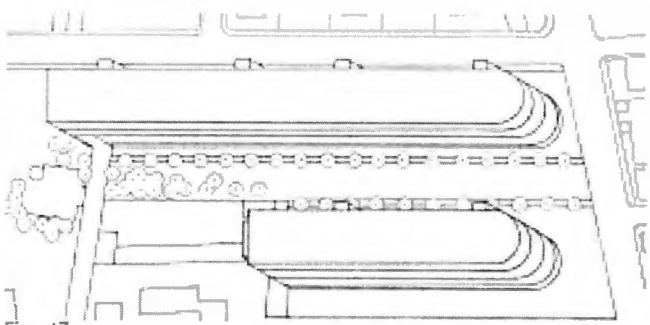


Fig. 47



Fig. 50

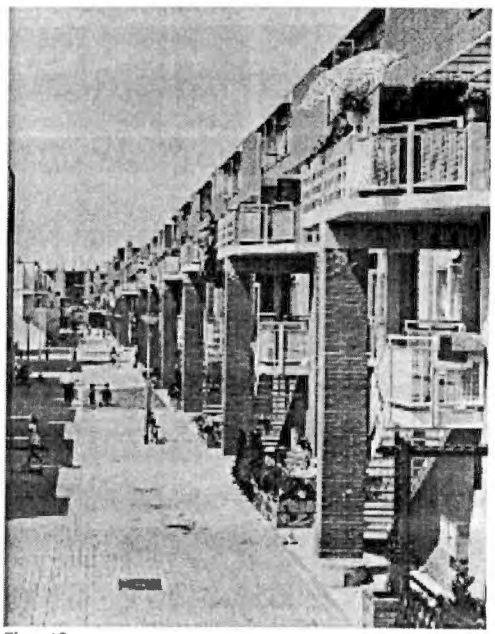


Fig. 48



Fig. 49

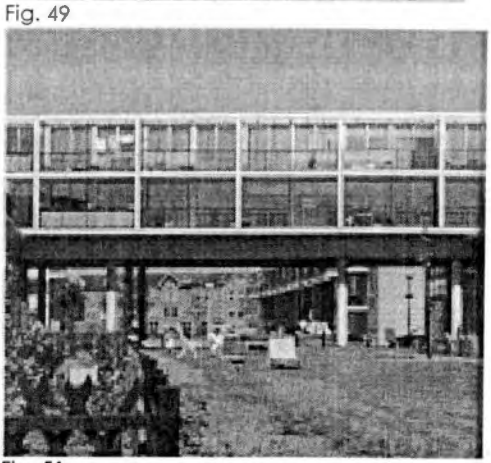


Fig. 51



Fig. 52

Fig. 46: Jean Novel: Nemausus housing, Paris.
Fig. 47: Nemausus housing, Paris. Source: Author
Fig. 48: Hertzberger: Haarlemmer Houttuinen, Amsterdam, Street space.
Fig. 49:Haarlemmer Houttuinen Housing, Amsterdam, Section through street. Source: Bergijk 67
Fig. 50: OMA: IJ Plein, Amsterdam, Axon. Source: Leupen 77
Fig. 51: IJ Plein, Amsterdam, Inner Courtyard.
Fig. 52: IJ Plein, Amsterdam, Pedestrian Street. Yagi & Yashiro 27

Mediation

The thesis explores how architecture can diminish the threat in a hostile environment such as public housing while promoting linkages to the greater community. The intention of mediation is to balance the public and private realm as well as public safety and personal freedom. The thesis explores the concept of dwelling in an effort to define a relationship and consequent balance between home, institution and urban space that promotes a stable, nurturing, and sustainable community. The home being defined as a place away from the world that is secure and encourages personal development and prepares individuals to face the community. Conversely, the urban space is where one goes to meet the world, interact and discover. Lastly, the institution is defined as a public building that is shared by the community and embodies the community's shared set of beliefs or values (Norberg-Schulz 1985).

Layering is a subset of mediation. By layering public, semi-public, semi-private and private spaces, the built environment is able to not only physically protect individuals from harm, but may also afford a feeling of safety within a space. By layering spaces, design can promote a sense of inclusion, in the case of a resident, or exclusion, in the case of a non-resident, within the space. Passage from a street condition to a more private inner courtyard or foyer to the interior of a dwelling is one example of the

A place to be safe in; a place to be warm and dry in; a place to eat in peace and sleep in quiet; a place whose close, familiar limits rest the nerves from the continuous hail of impressions in the changing world outside;...In homes we are all born. In homes we all die or hope to die. In homes we all live or want to live. For homes we all labor, in them or out of them. The home is the centre and circumference, the start and the finish, of most of our lives...We cling to it with the tenacity of every inmost, oldest instict of our animal nature, and with the enthusiasm of every latest word in the unbroken chant of adoration which we have sung to it since first we learned to praise.

-CHARLOTTE PERKINS GILMAN

concept of layering as it is manifested in built form. Layering helps to establish a sequence of spaces, from public to private, where interaction among residents may occur. A small semi-public courtyard gives residents the opportunity to meet and interact with their neighbors (Fig. 50-59). While layering spaces may not always physically prevent intrusion, it may discourage it "by emphasizing a space's 'belonging' to particular dwelling units and making salient the spatial and legal norms against intruding into someone else's space" (Becker 18).

Another manner of layering might entail a building facing the street with a heavy appearance. The heavier structure could enclose an interior courtyard or private garden with a much lighter and penetrable facade (Fig. 60-68). Layering may contribute to the making of defensible spaces, which have the potential to discourage unacceptable behavior such as criminal activity and violence. To ensure safety, it may be necessary to give up or take away certain personal freedoms, such as limiting access for non-residents of a community, in order to gain other choices or freedoms, which may be more beneficial to the residential community as a whole.

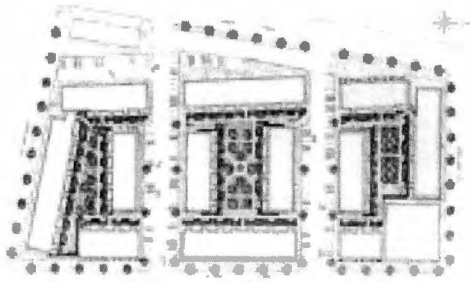


Fig. 53: Marvin H. Meltzer Architects: Melrose Court, Bronx, NY.
Source: Jones, Pettus & Pyatok 188

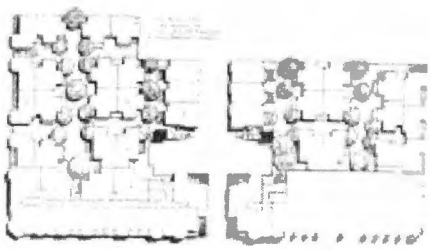


Fig. 54: Pyatok Associates: Hismen Hin-nu Terrace, Oakland, CA.
Source: Jones, Pettus, Pyatok 100

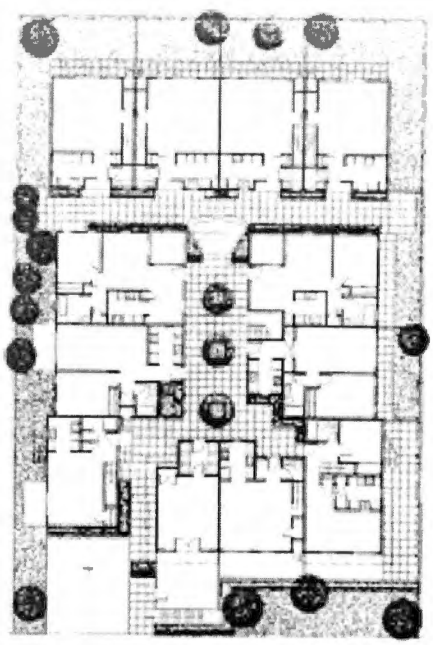


Fig. 55: Appleton Mechur & Associates: Ocean Park Co-op, Santa Monica, CA.
Source: Jones, Pettus & Pyatok 147

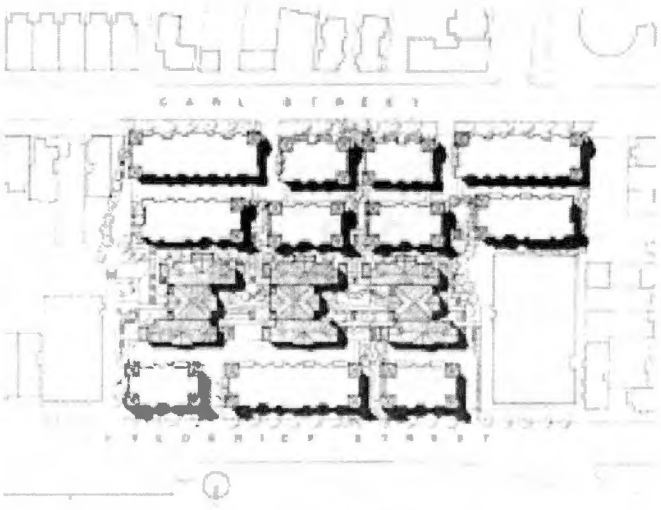


Fig. 56

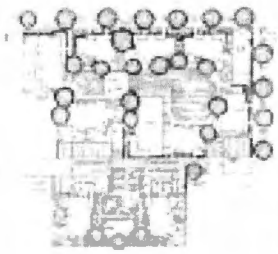


Fig. 57

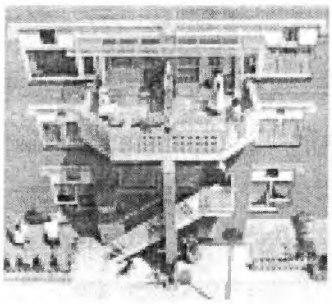


Fig. 58



Fig. 59



Fig. 60: Campi & Pessina: Via Cabione, Massagno, Axon.
Source: Feiriss 70

Fig. 56: David Baker Associates: Parkview Commons, San Francisco, CA. Source: Jones, Pettus & Pyatok 94
Fig. 57: Mogavero Notestine Associates: Southside Park, Sacramento, CA. Source: Jones, Pettus & Pyatok 84
Fig. 58: Hertzberger: Haarlemmer Houttuinen, Amsterdam, Entrance.
Fig. 59: Haarlemmer Houttuinen, Amsterdam, floor plans. Source: Bergeijk 66

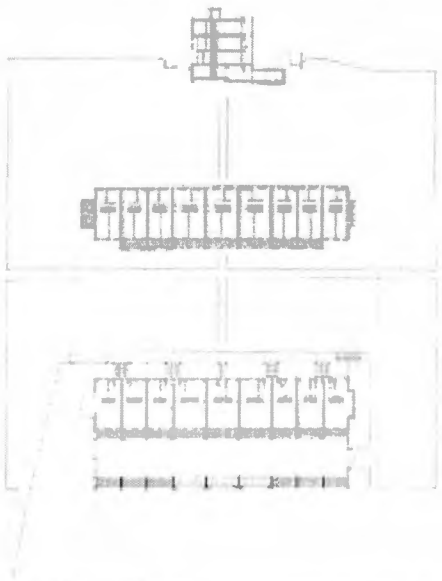
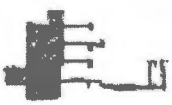


Fig. 61: Via Cabione, Massagno, Sections & floor plans.
Source: Feiriss 70





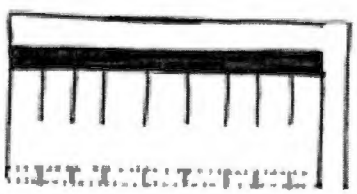


Fig. 62: Campi & Pessina: Via Cabione, Massagno, Spatial layering diagrams.
Source: Author

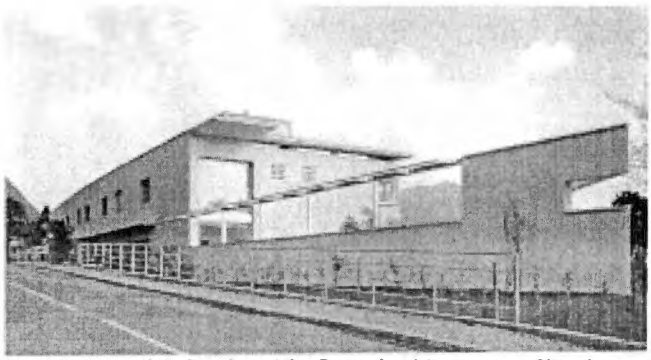


Fig. 63: Campi & Pessina: Via Praccio, Massagno, Street facade.
Source: Feireiss 86

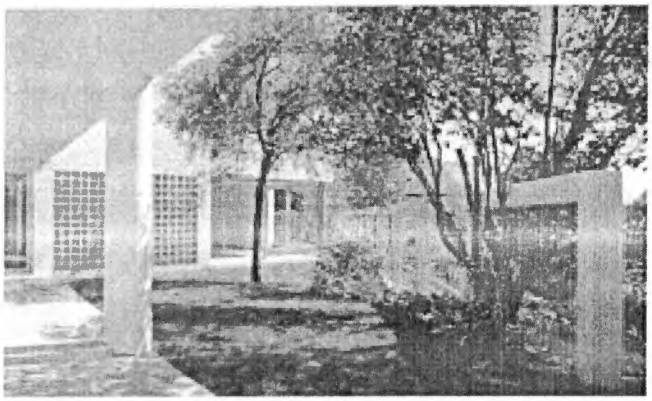


Fig.64: Campi & Pessina: Via Praccio, Massagno, Garden.
Source: Feireiss 87

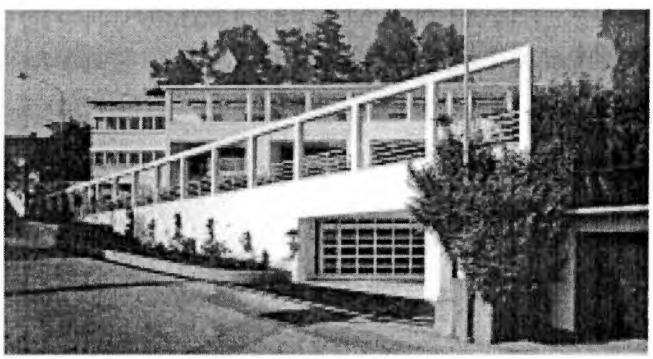


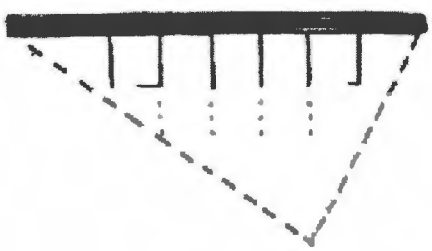
Fig. 65: Via Praccio, Massagno, Entrance.
Source: Feireiss 87



Fig. 66: Via Praccio, Massagno, Elevation & floor plans.
Source: Feireiss 88



Fig. 67: Via Praccio, Massagno, Section & elevations.
Source: Feireiss 88



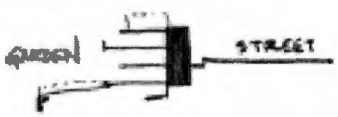


Fig. 68: Via Praccio, Massagno, Spatial diagrams.
Source: A.uthor

V. Tertiary Issues

Permanence

The thesis explores how architecture is able to create a sense of permanence, to aid in the creation of a positive, nurturing, and stable environment, in what has historically been thought of as a temporary or transitional environment. Vulnerable populations such as single women with children need a stable network of support in order to maintain economic stability. Childcare, social services, community support, safety and nearby job opportunities that provide more than subsistence wages, as well as economic and social support (Sprague 35) are crucial to single mothers maintaining permanent housing. If a resident is able to stay within a community for an extended period of time, they are more likely to develop attachment to that place and community and consequently may develop a stronger social network. Development of a strong social network contributes to the cohesiveness and strength of a community. Furthermore, diversity in housing types allows members to stay within a community for increased periods of time by allowing for life changes such as divorce, children, and extended family. By offering a range of housing types, a family is able to relocate within a community when their needs change, rather than needing to uproot themselves and start over in a different community. Residents' length of stay within and community and their subsequent attachment to it aid in the

development of community and its stability.

Materiality

Although most public housing projects have been well built physically, they have a very institutional quality. In other cases, public housing has been stripped down to cut costs or to appear humble in the eyes of the greater public, so as not to appear to be too luxurious for the poor. It is important to choose durable materials that will be blend with the existing urban fabric (Fig. 69, 70). When the community cannot decipher what is public housing versus market rate housing, only then will the stigma of public housing begin to dissolve. To accomplish this, existing buildings will need renovation in an effort to make them consistent with the materiality of the existing fabric as well as the new construction. In the case of Cascade Court, Seattle, WA (Fig. 71), the project is successful in blending into its immediate surroundings, but is inconsistent with the high-rise buildings nearby. The high-rise buildings could be renovated to decrease the degree of disparity.

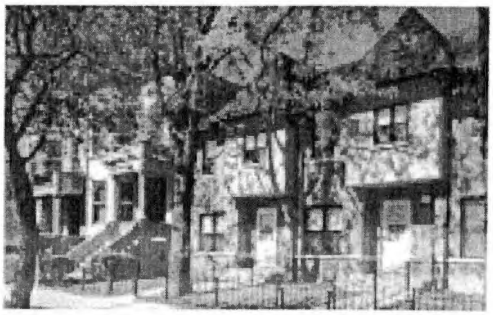


Fig. 69: Weese Langley Weese Architects: West Town II, Chicago, IL.
Source: Jones, Pettus & Pyatok 159



Fig. 70: Hardison Komatsu Ivelich & Tucker: 111 Jones Street, San Francisco, CA.
Source: Jones, Pettus & Pyatok 121



Fig. 71: GGLO Architecture & Interior Design: Cascade Court, Seattle, WA.
Source: Jones, Pettus & Pyatok 116

VI. The Site

The site is located in an urban context and is densely populated. It contains existing structures, namely public housing (in all likelihood needing renovation), and is in close proximity to public transportation. The site has enough open land to develop a residential community without necessitating the clearance of existing structures. The site also needs to accommodate both common and private open spaces as well as commercial/retail space to ensure economic viability and growth in the area. The site of the existing Dearborn Homes (Fig. 73, 74) public housing in Chicago has been chosen as the site for the development. The site contains 16, 6-9 story mid-rise structures and is adjacent to the Illinois Institute of Technology's main campus (to the north)(Fig. 75-79). The site is also directly adjacent to many of the institution's recreation facilities.



Fig. 72: IIT Dorms (surviving slum housing in foreground), Chicago, IL.
Source: Hirsch 118

The site is located within the Douglas neighborhood of Chicago. Historically, it was known as Black Metropolis or Bronzeville. It was the heart and soul of Chicago's African American community, both the cultural and economic center. The community was "literally built from the ground up with its own economic, social, and political establishment, directly supported by black enterprise and capital" (Samuelson). The neighborhood lost its major business interests during the Depression, which contributed to the area's decline. The area was further decimated

by urban renewal and highway construction, which resulted in the demolition of entire blocks for the construction of public housing, the campus of the Illinois Institute of Technology (Fig. 72) and the Dan Ryan and Stevenson expressways. What was once a dense and potentially viable community was virtually obliterated by this land clearance. The newly constructed highways physically isolated the neighborhood and effectively cut it off from the rest of the city.

Today, the community still exists, but it is struggling to build a future. The 1990 census is indicative of the plight of the area (U.S. Census Bureau, 1990):

- Income for Douglas residents was $10,477 or 40% below poverty level.
- Of 32,000 housing units in the area, 10,000 are owned by the Chicago Housing Authority; a majority of these units however, are slated for demolition.
- Thirty-five percent of the Douglas residents did not graduate from high school.
- More than two-thirds of the residents in the community are unemployed while the unemployment rate for the City of Chicago is 4%
- The population of the community is 98.9% African American
- Between 1950 and 1990 the population of the neighborhood declined by 66%

Despite these grim statistics, there is hope. Currently, the area is undergoing revitalization efforts, including a collaborative effort on the

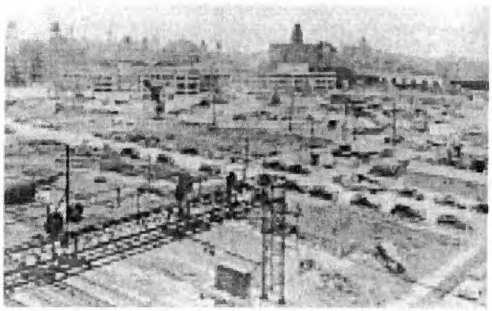


Fig. 73: Loebl Schlossman, Bennet: Dearborn Homes, Chicago, IL, Construction photo, 1949.
Source: Hirsch 124



Fig. 74: Dearborn Homes, Chicago, IL, Inner greenspace.
Source: Bowly 64

Table 1: Site area table.
Source: Author

Approximate square footage:	
Site total:	1,137,102
Dearborn Homes:	140,256
Elementary School:	34,548
Structures to be removed (6):	52,596
Total buildable area:	1,014,894

part of IIT, the Michael Reese Hospital and various community groups. These community revitalization efforts are aimed at improving education, economic development, community development and housing.



Fig. 75: Site map, Chicago vicinity. Source: Terraserver

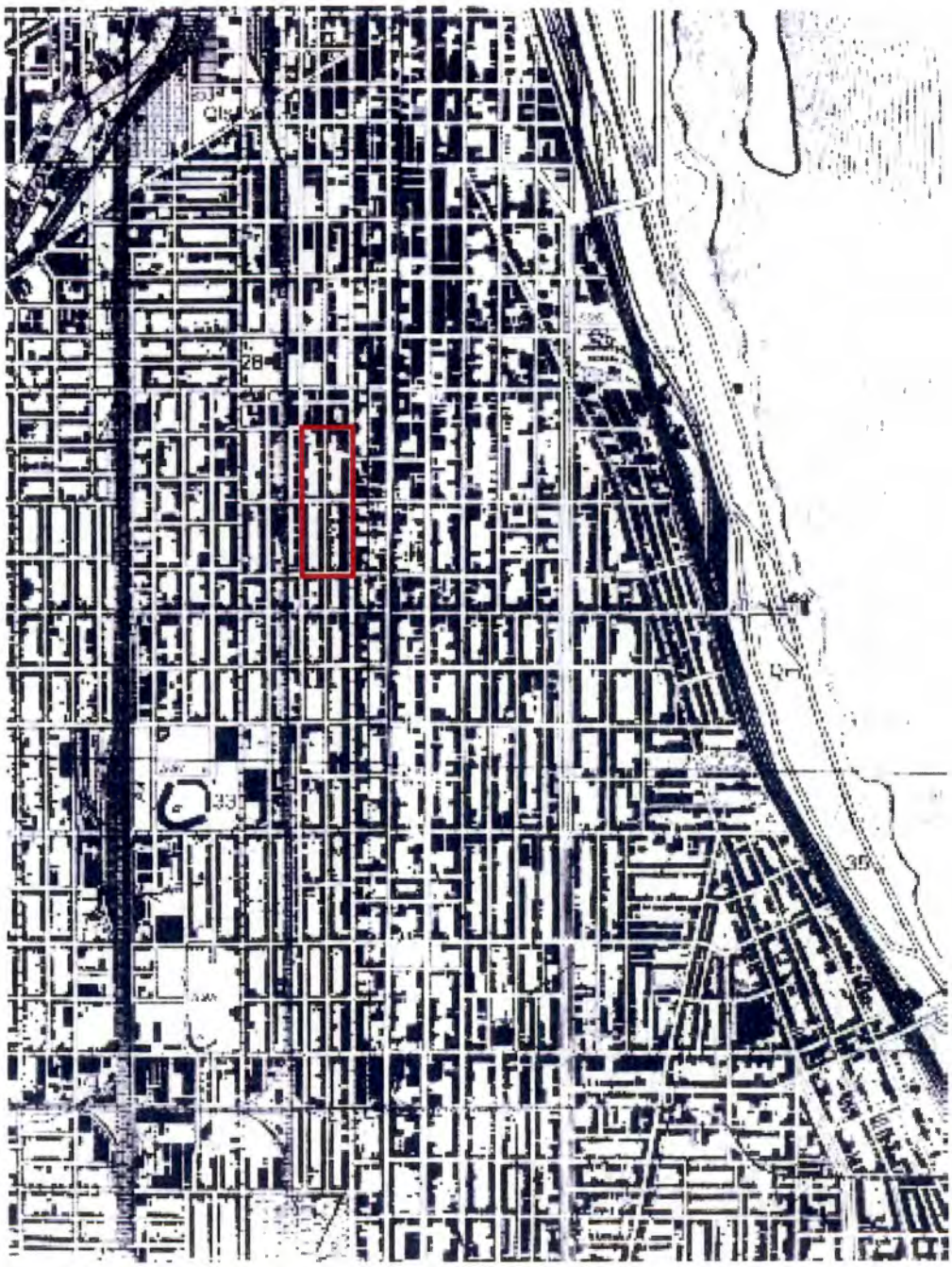


Fig. 76: Site map, Neighborhood context, c. 1920.
Source: Teaching with Historic Places

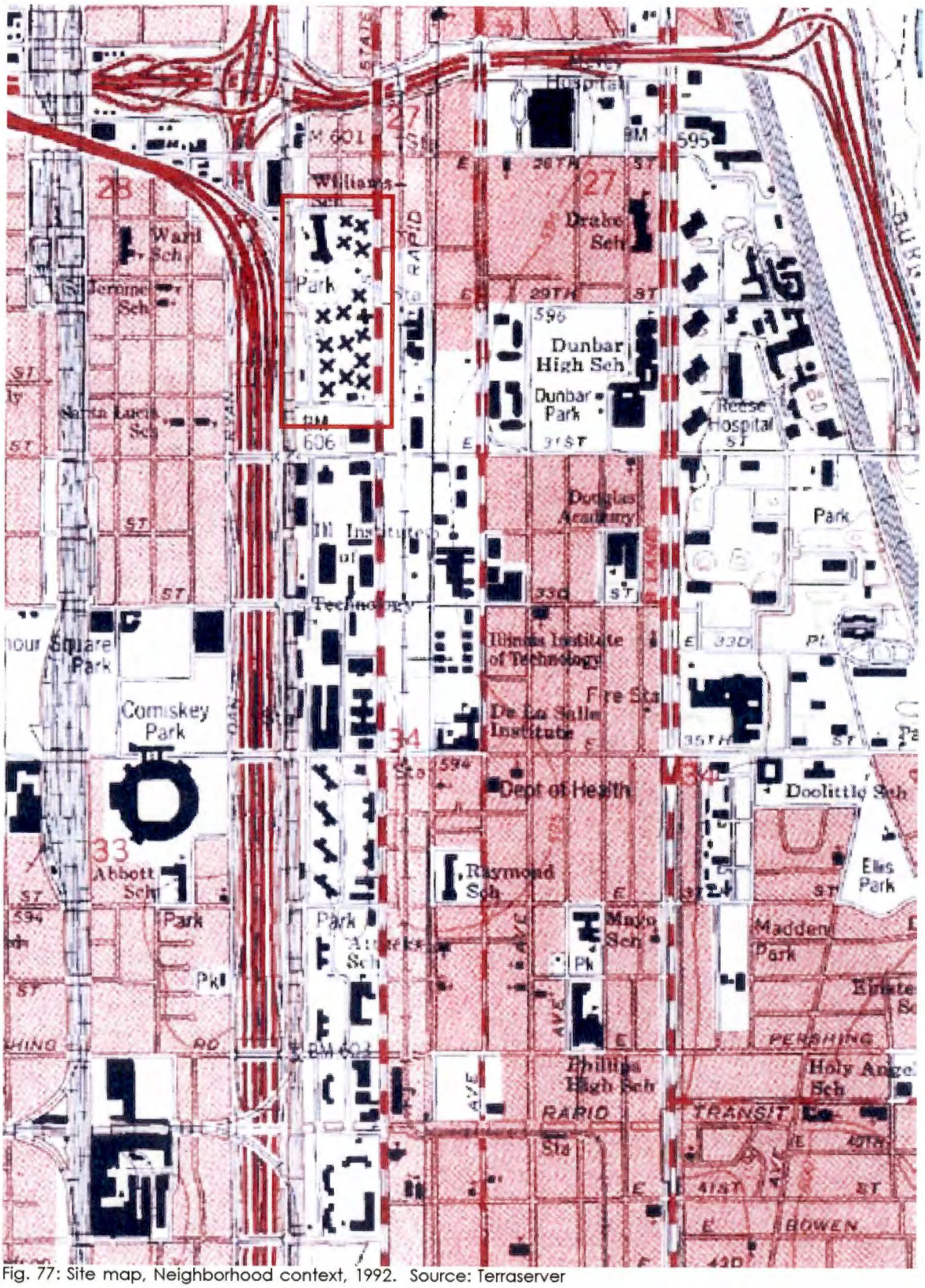


Fig. 77: Site map, Neighborhood context, 1992. Source: Terraserver



Fig. 78: Aerial Photograph. Source: Terraserver

Fig. 79: Site plan, Existing.

VI. The Program

The program is a residential development, but will also include supplementary program such as childcare services, social services, medical/ dental services, recreational facilities and commercial/retail space, as required. Comparing this community with others in the city, there is a disproportionate concentration of minority households, unemployment and extremely low per capita income. In order to bring this area into a more natural equilibrium, it will be necessary to attract residents of a variety of ages, incomes, ethnic backgrounds and social status. By developing a variety of unit types suited to the various needs of different populations, it will be possible to accommodate the existing area residents as well as introducing new groups to the area. Potentially, the proximity of IIT and the Michael Reese Hospital will contribute to the diversity of the area by attracting students, faculty, visiting faculty and staff of IIT as well as employees of all ranks at the hospital to the residential development. Increasing the number of employees of these institutions living in the neighborhood will support the economic and residential stability in the area.

Linking the existing community and the new residential community will be achieved first through the residential development by promoting interaction among a very diverse group of residents in both living quarters through the employment of collective and/or shared housing

types, and communal gathering spaces. Collective housing typologies provide both privacy and a place for interaction. Each resident or family would typically have their own living quarters including bedrooms and bathrooms, while a group of 4-10 residents or families would have common facilities such as a kitchen and living room. Secondly, through sharing of recreational and community spaces such as ball fields, educational facilities, semi-private courtyards, daycare services and community buildings, interaction between community residents and students, faculty and staff of IIT will occur at an informal level. It is also hoped that surrounding businesses and institutions will develop a reciprocal relationship with the housing development through education and job training programs leading to employment.

It is necessary to determine the desired population of the development in order to determine the type of housing to be employed. Preliminary percentages are 40% subsidized units and 60% low-to-moderate income units. The program/population matrix (Table 2) illustrates how the included housing types have been determined. The housing types (Table 3) will include studio, 1-2 bedroom apartments, 3-4 bedroom detached and semi-detached units, live/work units, collective housing and shared housing. The existing Dearborn Homes, which are 16, 6-9 story mid-rise buildings with a total of 800 units, will be renovated and reconfigured to

Table 2: Program/Population Matrix.
Source: Author

	Students	Visiting Faculty	Artists	Small Business Owners	Singles (low-income)	Singles (middle income)	Couples (no children)	Intact families w/children	Single headed fam. w/children	Handicapped individuals	Elderly	
Communal outdoor space	O	O	O	O	O	O	O		O	O	O	
Recreation facilities	O	O	O	O	O	O	O	O	O	O	O	
Private yard				O				O	O			
Elevators										O	O	
Parking						O	O	O				
Daycare				O				O	O			
Social Services					O		O	O	O	O	O	
Health care(frequent)								O	O	O	O	
Proximity to educational fac.	O	O						O	O			
Commercial/Retail	O	O	O	O	O	O	O	O	O	O	O	
Pets							O	O	O	O	O	
Studio/ 1BR	O	O	O		O	O	O			O	O	
2 BR		O				O	O	O				
3-4 BR								O	O			
Detached/Semi-detached unit								O	O			
Collective Housing					O	O	O		O	O	O	
Shared housing - Group Homes					O	O	O		O	O	O	
Shared housing - Quads/Mingle Units	O				O	O				O	O	
Loft Apartments	O		O		O	O						
Live/Work Units			O	O	O	O	O	O	O			

Table 3: Program requirements.
Source: Author

Programmed Space:	**Area:**
Residential	
Studio Apartment	475
1 Bedroom Apartment	600
2 Bedroom Apartment	900
3 Bedroom Apartment	1150
4 Bedroom Apartment	1350
Childcare (Multiple facilities)	3000
Resident Services	4000
Retail/Commercial	11000

bring them up to market standards.

Daycare facilities, social services, medical/dental services, small retail facilities, and educational and recreational facilities for both children and adults will be included in the program, if they do not currently exist in the immediate vicinity of the site, to supplement the housing development. Live/work units will further contribute to community by allowing people of low-to-moderate-income to own a business and earn an income while providing a valuable service to the community. Public transportation is already in place in the immediate vicinity of the site, with the Metra commuter rail line to the west and the CTA elevated rail to both the east and west. The elevated rail system and Metra commuter rail both have stops at 35th Street, which are several blocks from the site. The elevated train service to the site will be improved through the addition of stops at 29th Street on the east and 31st Street on the west. The bus system services the area with three different routes. The State Street route directly services the site with frequent stops along State Street. Two other routes provide service within a short walk from the site. By providing facilities and services to the residents within the community, the establishment of interaction and interdependence with the greater community will be not only possible, but be encouraged.

Unit Types (Fig. 80-101)

Studio- Traditional studio apartment with private living space, bath, and kitchenette. Provides limited opportunity for interaction among residents.

1, 2, 3 & 4 Bedroom Apartments & Townhomes- Traditional apartment types with private living space, bedrooms, baths, and kitchens. May have private or semi-private yards or gardens. Provides limited opportunity for interaction among residents.

Collective Housing- Small 1 and 2 bedroom apartments within a larger building. Each apartment having its own kitchen, bedrooms, bath and living space, with an additional shared kitchen and living room. Provides great opportunity for social interaction and networks. Cost sharing allows for greater shared amenities for the residents.

Group Homes for Single Parents- Parents and children have separate living quarters. Mothers have their own sleeping rooms, while sharing bathrooms and sitting areas. Children are grouped into small apartments, each with its own kitchen, living room, bedrooms, and bath. Common areas for both parents and children include a dining room, kitchen and a meeting room. The house is typically managed by a non-

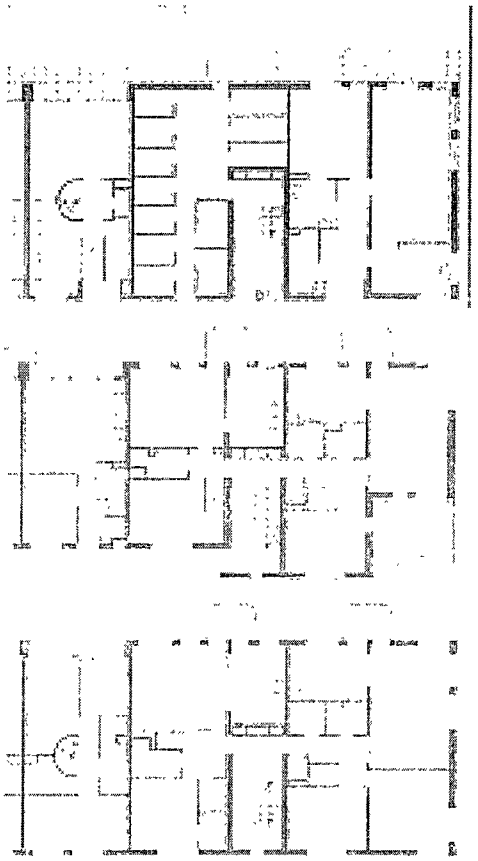


Fig. 80: OMA: IJ Plein, East 1b, Amsterdam.
Source: Yagi & Yashiro 50

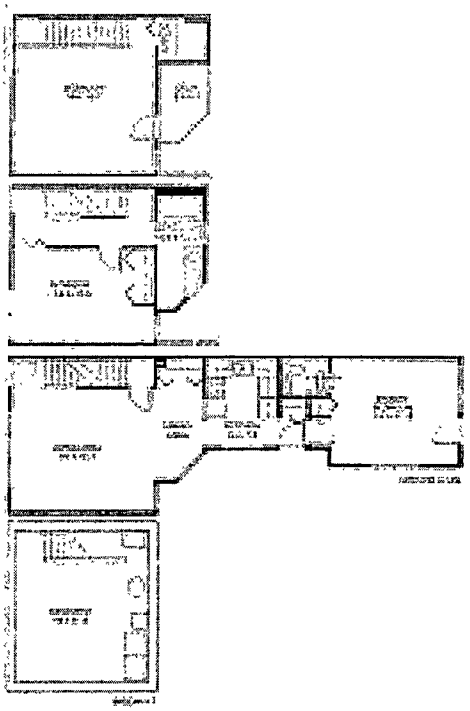


Fig. 81: Jacqueline Leavitt & Troy West: Dayton Hill, Minneapolis/St. Paul, MN.
Source: Franck & Ahrentzen 179

profit agency. Provides great opportunity for social interaction and networks. Due to cost sharing, residents are able to afford more amenities with readily available childcare.

Quads- Typically built to house students, singles or elderly. Four people share a bath and kitchen. Each person has his or her own bedroom, toilet and sink. Provides great opportunity for social interaction and networks and is very affordable.

Mingle Units- Apartments or single family houses which accommodate two individuals. Each has their own bedroom and bath, with shared living spaces and kitchen. Provides opportunity for social interaction with a limited number of people. Cost sharing allows for more amenities.

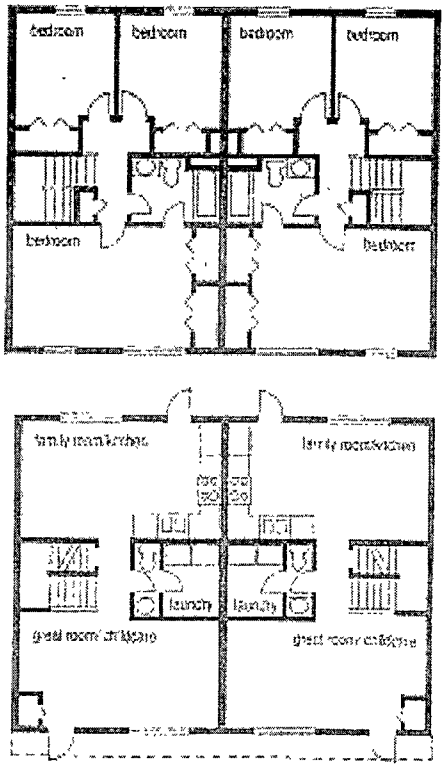
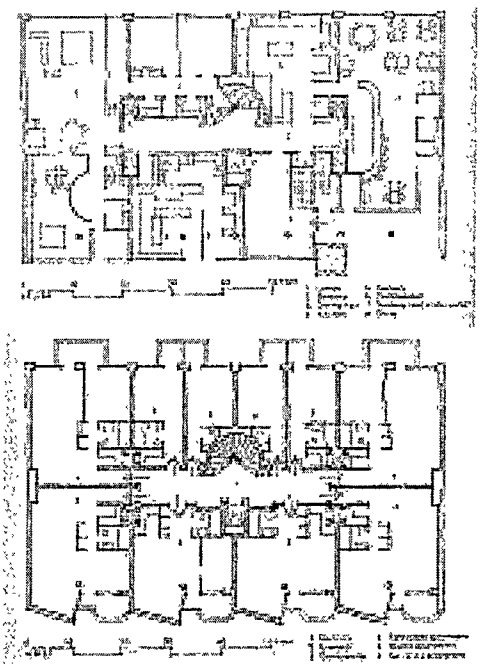


Fig. 82: National Building Systems: Bethel New Life, Chicago, IL.
Source: Sprague 169

Loft Apartments- Private residences with all amenities within a larger building, often a converted warehouse. Work or gallery space for artists is accommodated easily. The public/ private overlap of gallery/work/living space provides for social interaction and networks.

Live/Work Units- Units which accommodate work and living space. Each unit has a private entrance, bedroom, living space, bath and bedroom, with a kitchen shared by 4-6 units. Typically the units are small, with the workspace being primary. In some cases, the workspace may be combined between units (in the case of a com-


Fig. 83: Sven Markelius: 6 John Ericssonsgaten, Stockholm.
Source: Franck & Ahrentzen 64, 65

mon business venture), with only bedroom and bath being completely private. Live/work units provide a great opportunity for interaction with the community by providing a service to it. In the case of 2 or more units sharing a workspace, there is also a high degree of interaction among residents.

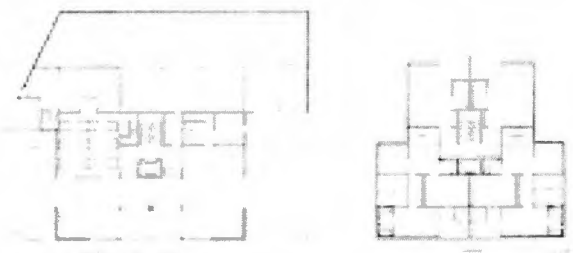


Fig. 84: Galfetti & Antonini: Shared Housing, Lugano-Besso, Switzerland.
Source: Deux Immeubles d'habitation a Lugano 89

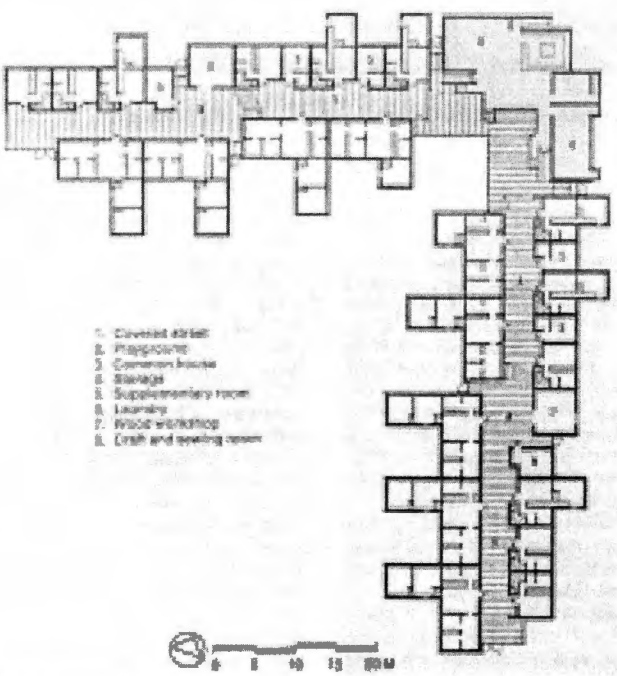
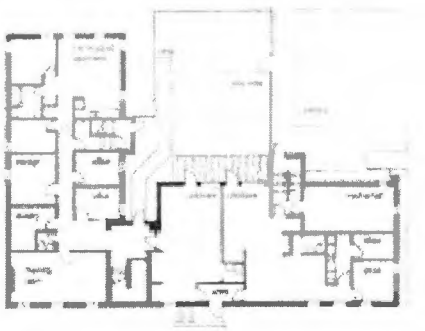


Fig. 85: Vandkunsten Architects: Jystrup Savvaerket, Denmark.
Source: Franck & Ahrentzen 108



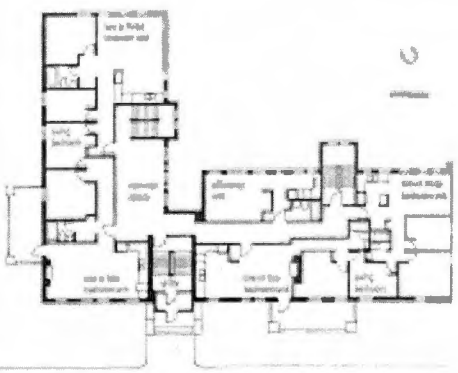


Fig. 86: Bowers, Bryan & Feidt: Passage Community, Minneapolis, MN.
Source: Sprague 116, 117

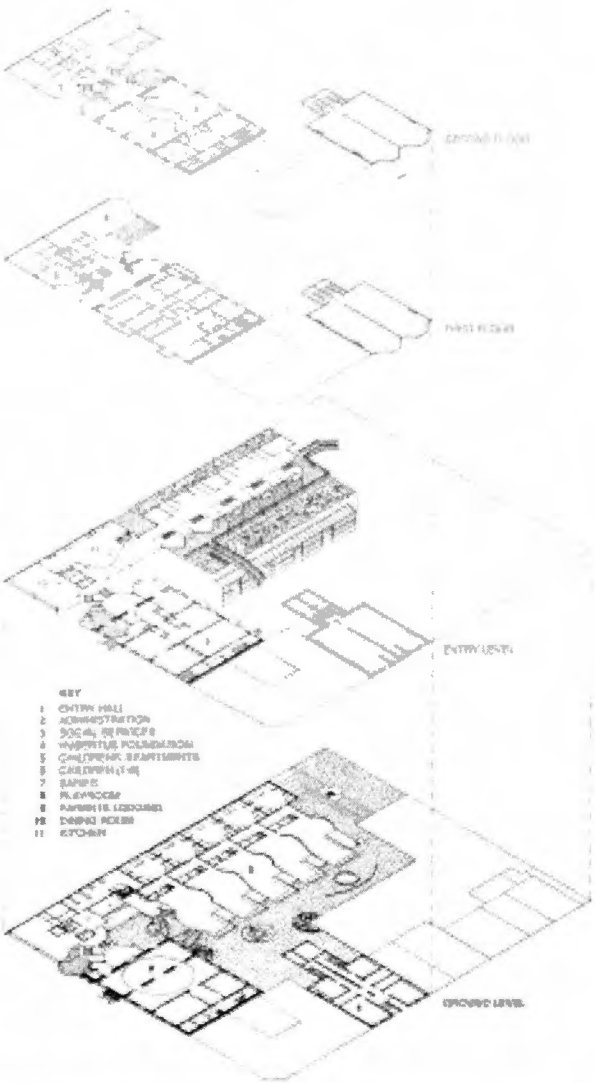


Fig. 87: Aldo van Eyck: Hubertus House, Amsterdam, Axon.
Source: Franck & Ahrentzen 148

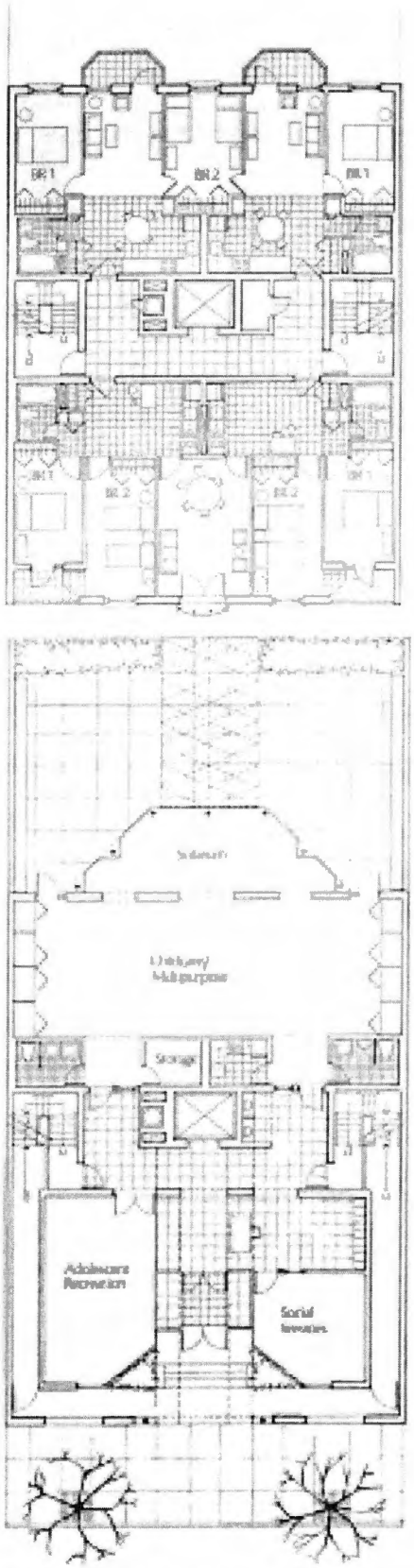


Fig. 88: Conrad Levenson & Marvin Meltzer: Vacant Lots proposal.
Source: Franck & Ahrentzen 154, 155

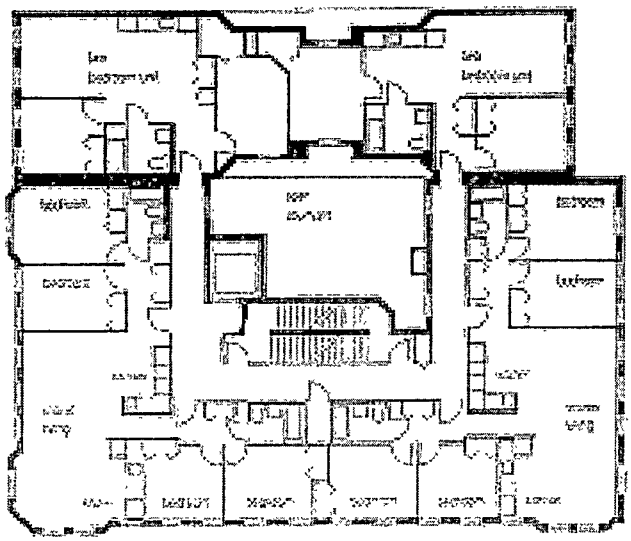


Fig. 89: Stephen Campbell: Sarah P. Huntington House, New York City, NY.
Source: Sprague 110

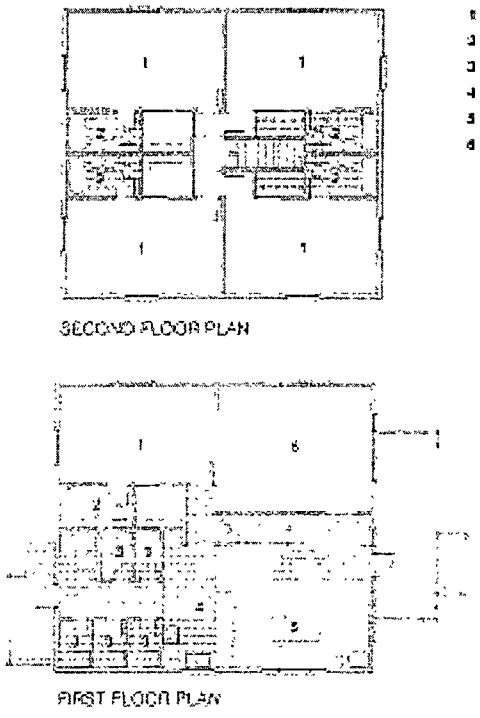


Fig. 91: Portland Community Design: Shared Housing, Portland, OR.
Source: Salmon 87

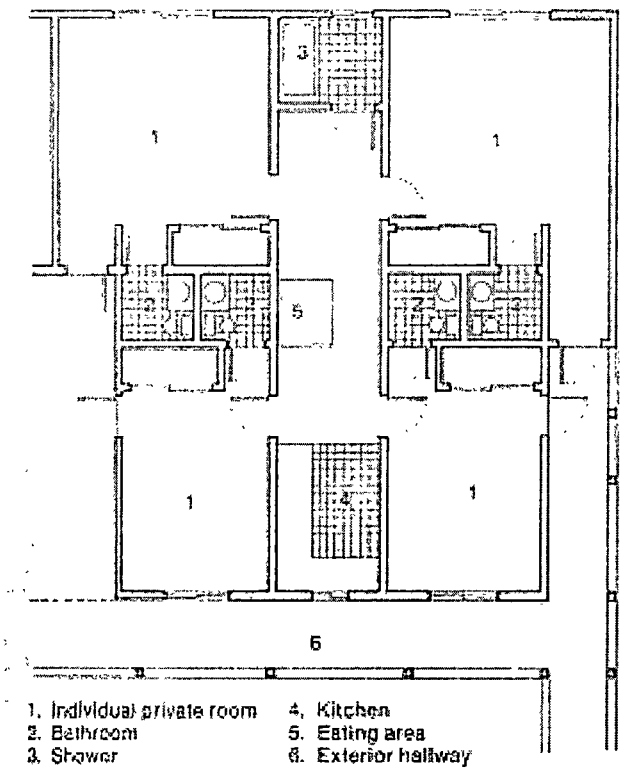


Fig. 90: Campus Court, Eugene, OR.
Source: Franck & Ahrentzen 9

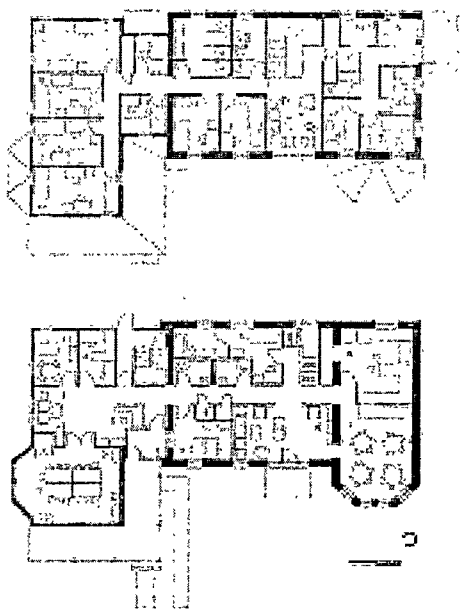


Fig. 92: August Associates: Neil Houston House, Roxbury, MA.
Source: Sprague 148, 149

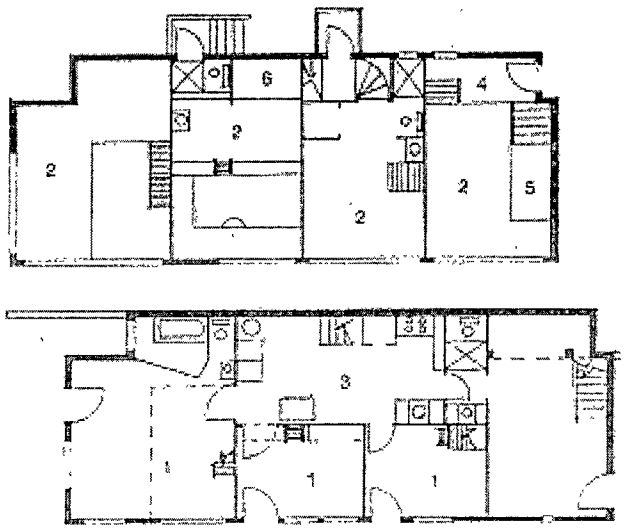


Fig. 93

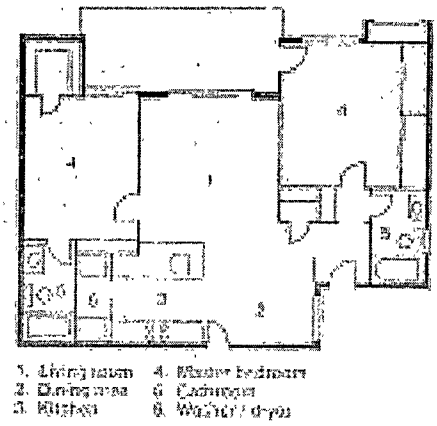


Fig. 96

Fig. 93: Ted Smith: GoHome, Del Mar, CA.
Source: Franck & Ahrentzen 10
Fig. 94: Lewis Homes: Las FLores, Upland, CA.
Source: Franck & Ahrentzen 8
Fig. 95: Mogavero Notestine Associates: Southside Park, Sacramento, CA, Plan.
Source: Jones, Pettus & Pyatok 85
Fig. 96: Berkus Group Associates: Tierra Vista, Serrano Highlands, CA.
Source: Franck & Ahrentzen 8

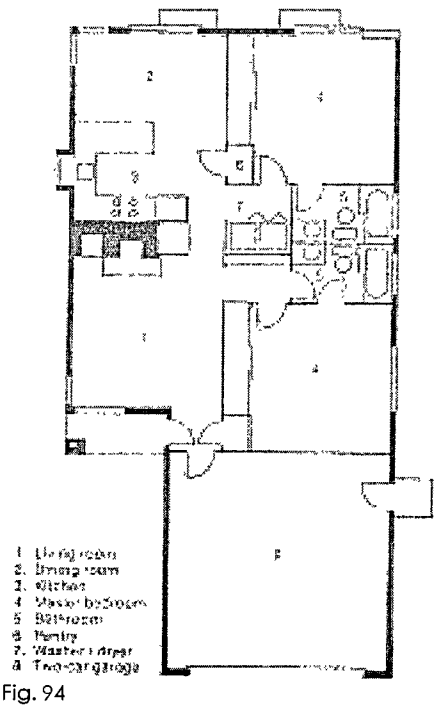


Fig. 94

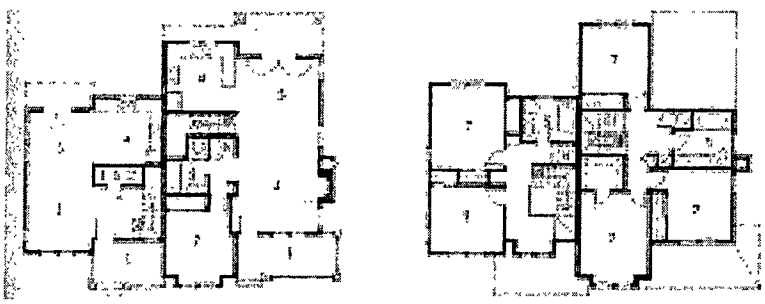


Fig. 95

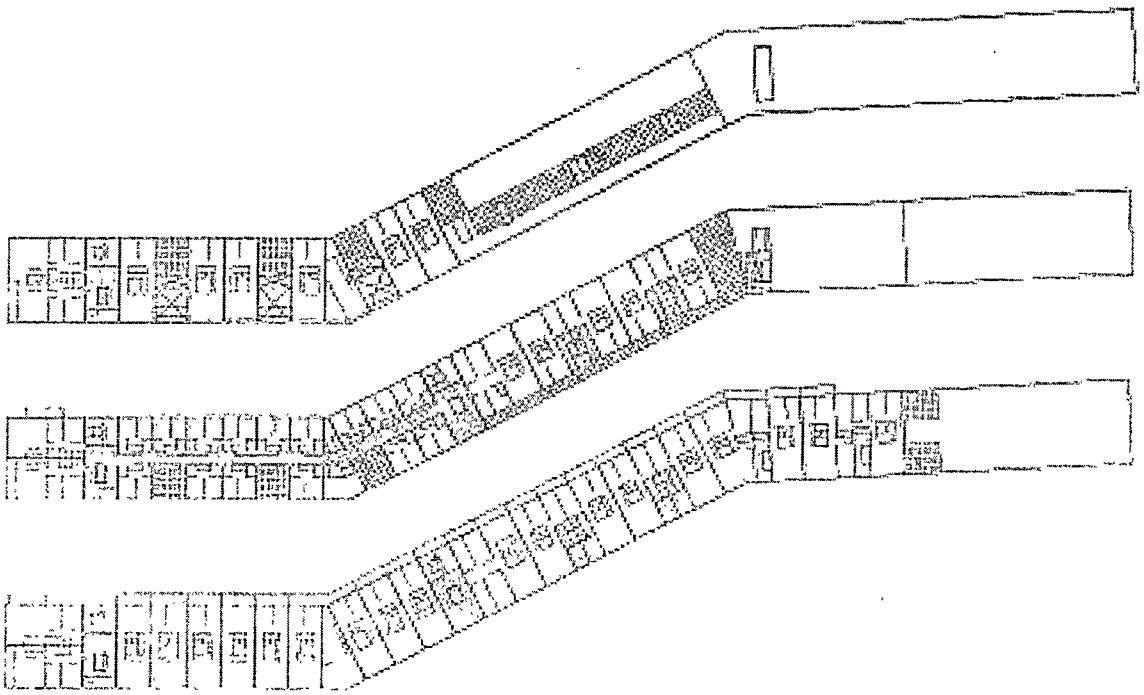


Fig. 97: DKV: GWL terrein, Amsterdam, Floor plans.
Source: Assche 2150

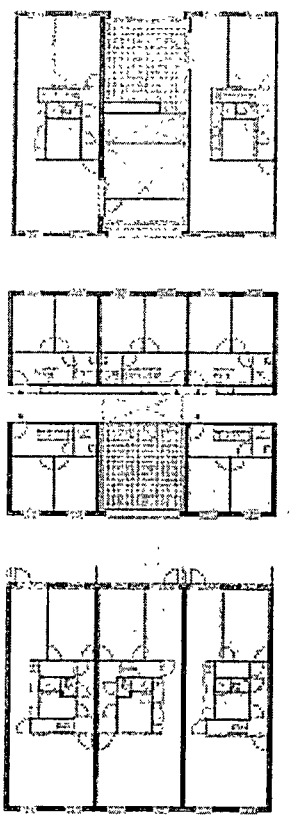


Fig. 98: DKV: GWL terrein,
Amsterdam, Unit floor plans.
Source: Assche 2150

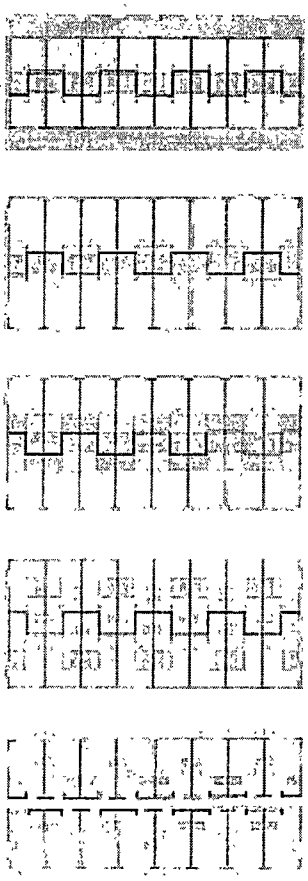


Fig. 99: Liesbeth van der Pol: GWL terrein, Amsterdam, Floor plans.
Source: Assche 2149

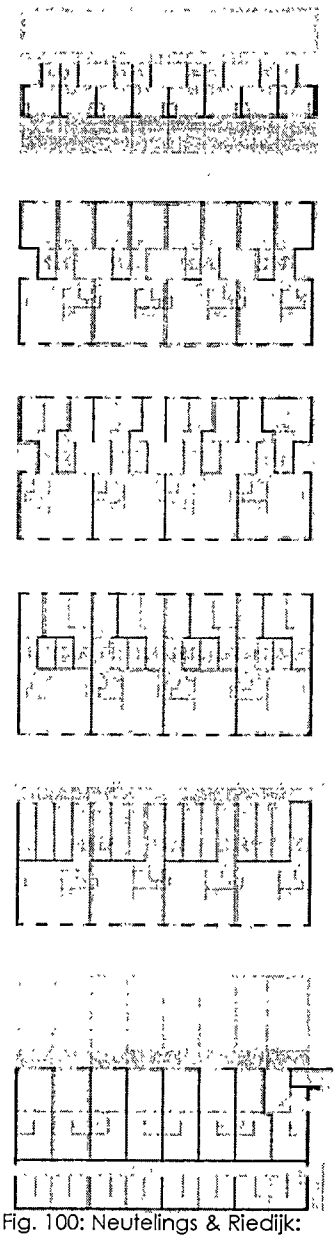


Fig. 100: Neutelings & Riedijk: GWL terrein, Amsterdam, Unit floor plans.
Source: Assche 2148



Fig. 101: Neutelings & Riedijk: GWL terrein, Amsterdam, Floor plans.
Source: Assche 2151

VIII. Public Housing Intervention Precedents



Fig. 102: Lake West, Dallas, TX, Figure ground, Existing. Source: Katz 148



Fig. 103: Lake West, Dallas, TX, Figure ground, proposed.Source: Katz 148



Fig. 104: Lake West, Dallas, TX, Exterior, Existing. Source: Katz 150



Fig. 105: Lake West, Dallas, TX, Exterior, proposed. Source: Katz 151

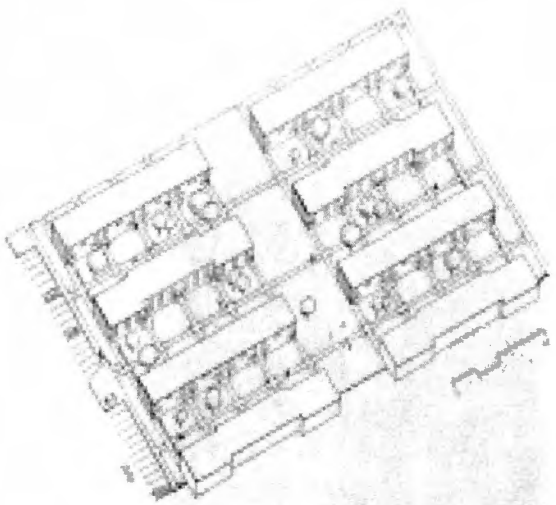


Fig. 106: Lake West, Dallas, TX, Axon, Existing. Source: Katz 150

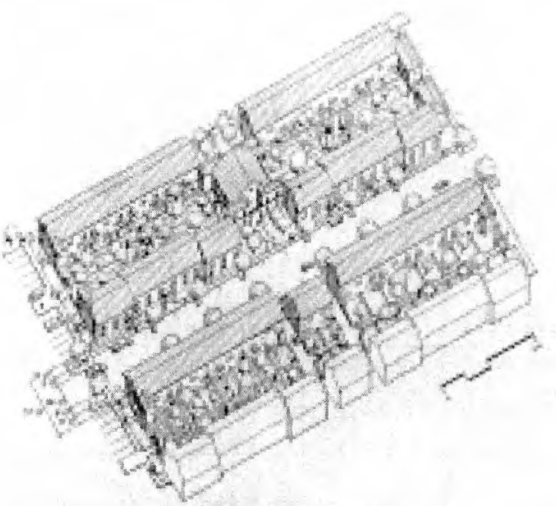


Fig. 107: Lake West, Dallas, TX, Axon, Proposed. Source: Katz 151

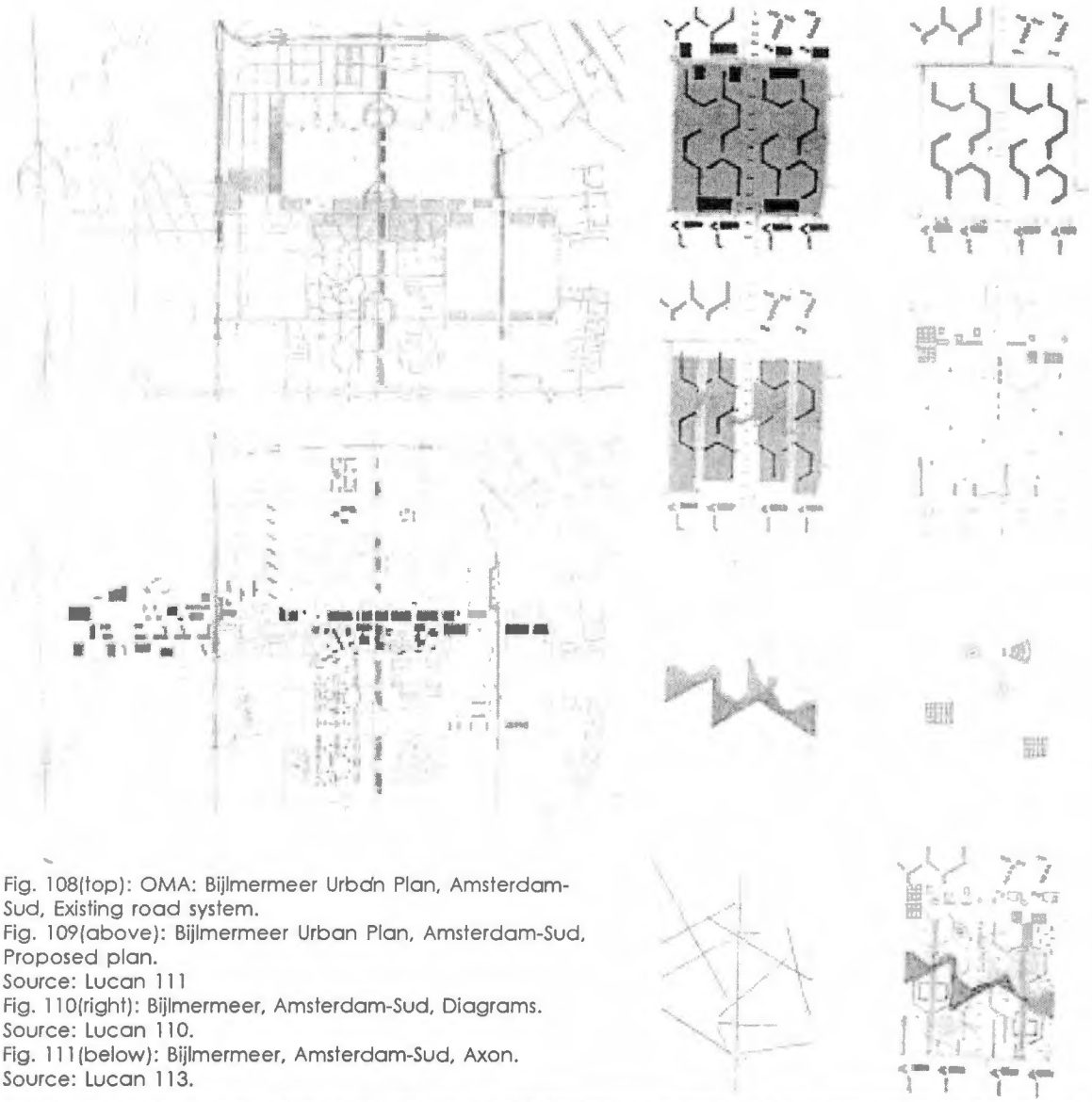
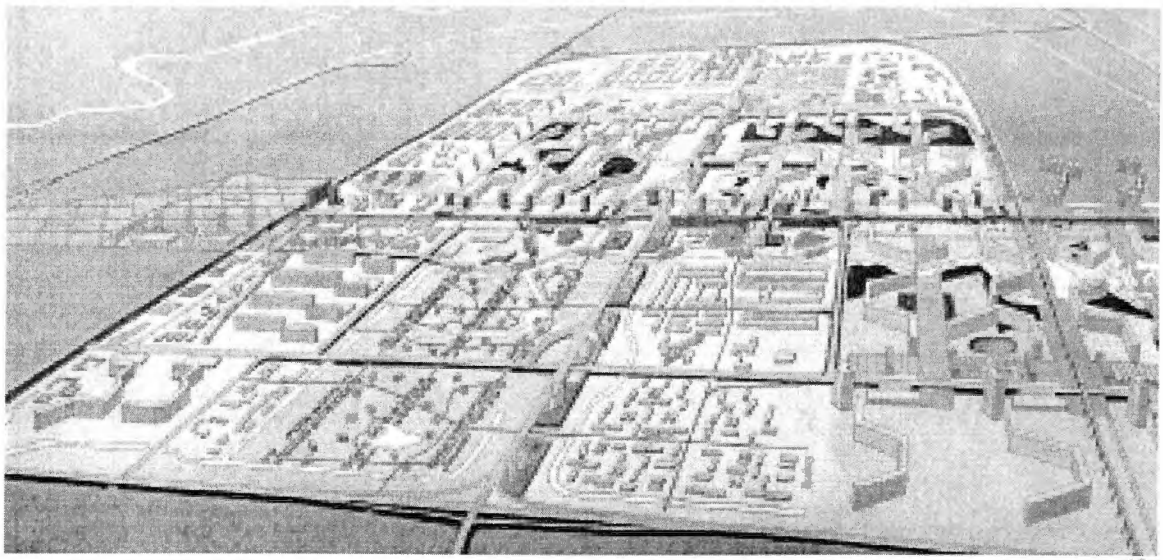


Fig. 108(top): OMA: Bijlmermeer Urban Plan, Amsterdam-Sud, Existing road system.
Fig. 109(above): Bijlmermeer Urban Plan, Amsterdam-Sud, Proposed plan.
Source: Lucan 111
Fig. 110(right): Bijlmermeer, Amsterdam-Sud, Diagrams.
Source: Lucan 110.
Fig. 111(below): Bijlmermeer, Amsterdam-Sud, Axon.
Source: Lucan 113.



IX. Design Summary & Drawings

The site, a superblock, is the Dearborn Homes public housing project in Chicago, IL. When built in the 1949, Elizabeth Woods of the Chicago Housing Authority argued that it rivaled the amenities of suburbs, especially for families with children. Yet, the site is physically isolated from the greater community by railroad and elevated train tracks, Interstates 90 and 94 and State Street (a 125' wide artery through Chicago). Dearborn Homes is the northern neighbor of IIT, with the Michael Reese Hospital to the east. Dearborn Homes is home to an existing community, but one that is physically and socially isolated and in disrepair.

The program consists of various housing typologies to suit the needs of a diverse population, retail and commercial space, day care facilities, a medical/dental clinic, social services, and recreational facilities for residents and the greater community. This mix of typologies and rental/ownership options fosters a diverse group of residents in the community. The proximity of the site to major institutions helps to attract employees of those institutions as residents. Moreover, these institutions provide opportunities for community interaction with the residents of the development through shared educational and recreational programs and facilities.

The making of a civic center was the first step in connecting the site internally and externally. This civic center is located within a datum of modulated structure that includes various housing types, commercial and retail spaces. The housing offers a range of public and private spaces that allow for variety personalization, and choice. The design establishes a clear relationship and interdependence of individual and collective. The existing mid-rise towers have been stripped, reconfigured, and re-presented as adaptable and viable frameworks for housing, retail and programmed public space. The city grid is reintroduced to the site to reconnect it to the greater community as well as to break down the scale of the existing superblock. This required the deletion of six existing mid-rise buildings. Contrary to my original expectations, the focus of the thesis has been as much a question of master planning as well as the development of a limited number of housing typologies (see Fig. 112-136).

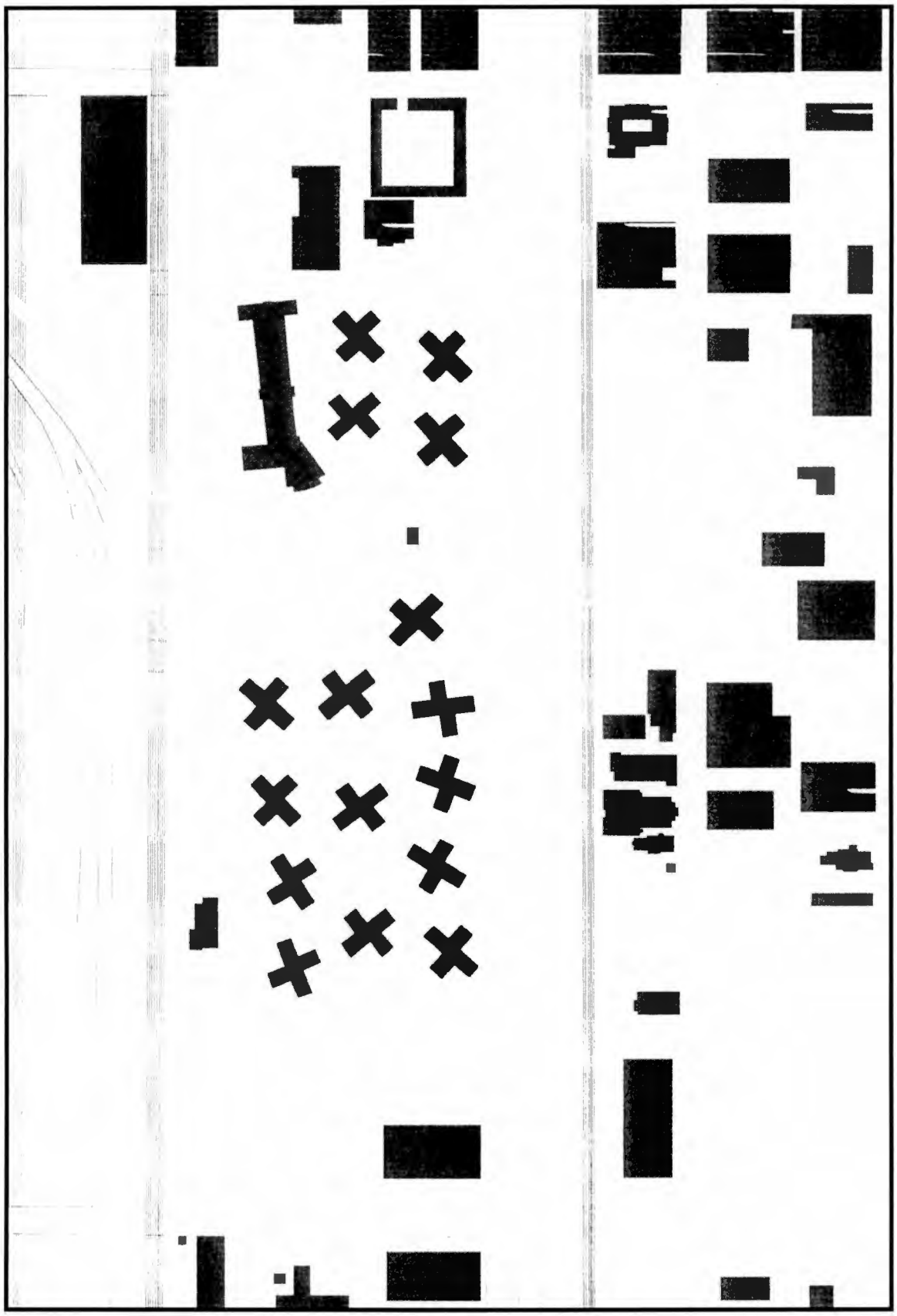


Fig. 112: Existing figure ground. Source: Author



Fig. 113: Proposed figure ground. Source: Author

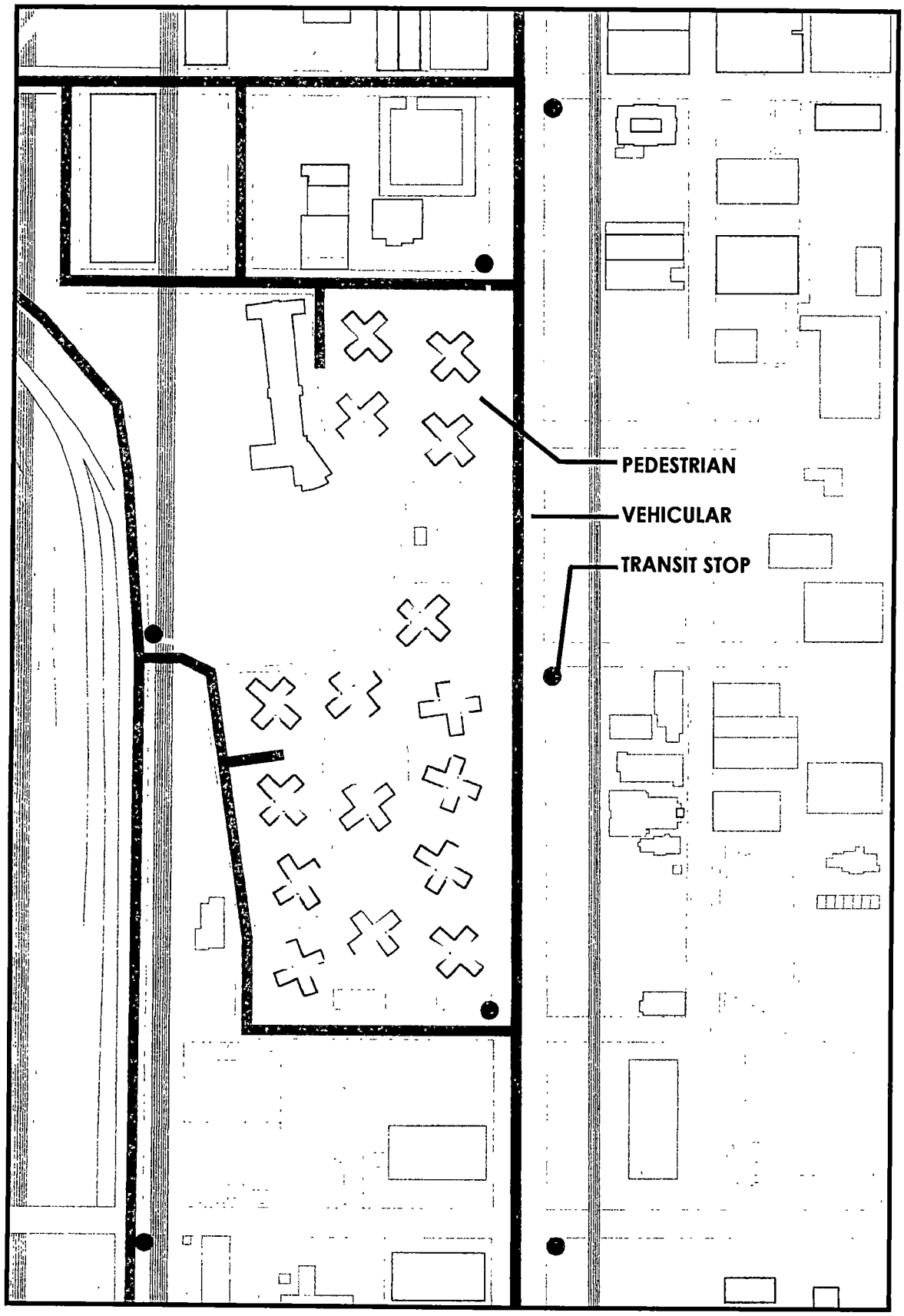


Fig. 114: Existing circulation and transit stops. Source: Author

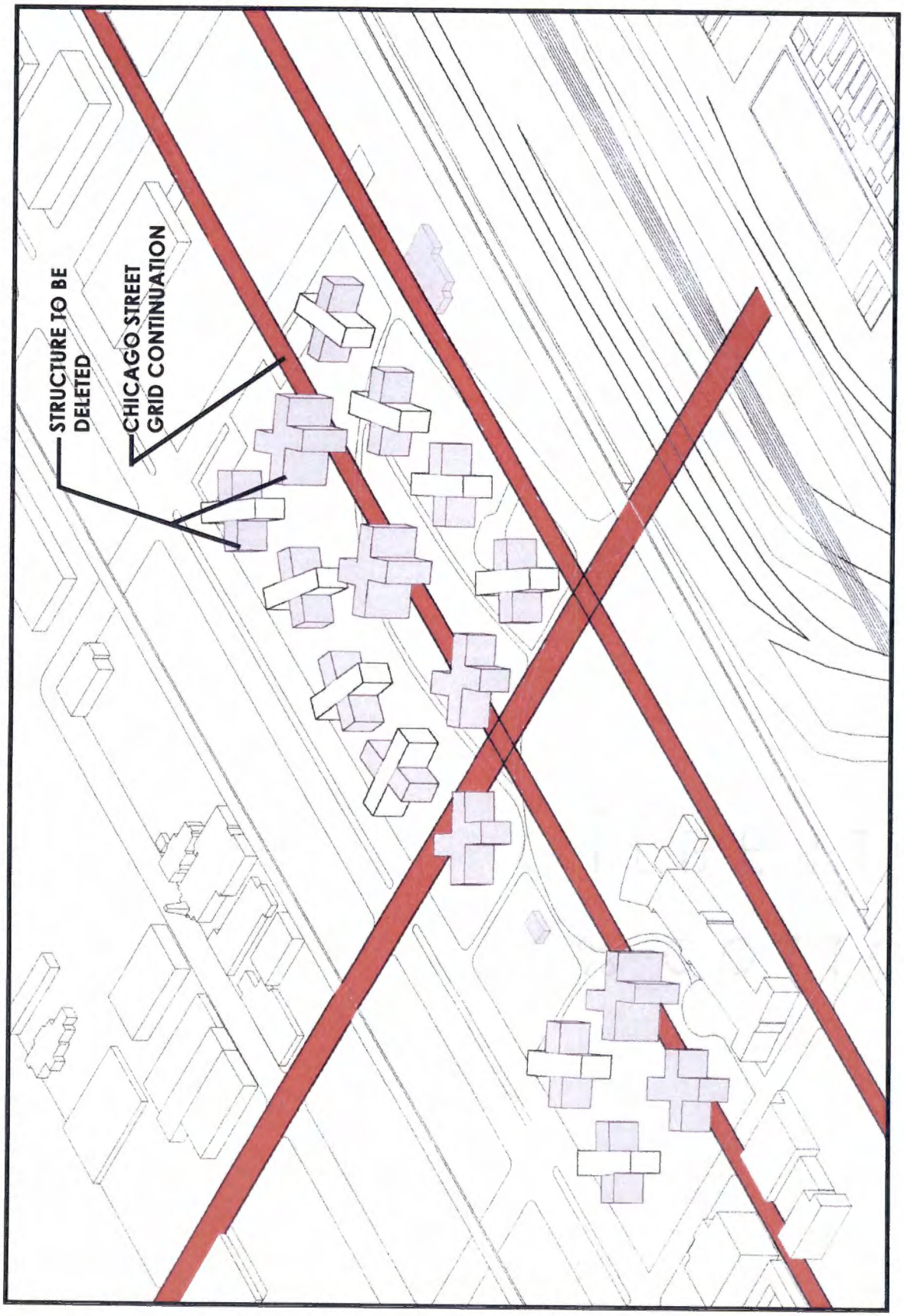


Fig. 115: Existing conditions. Source: Author

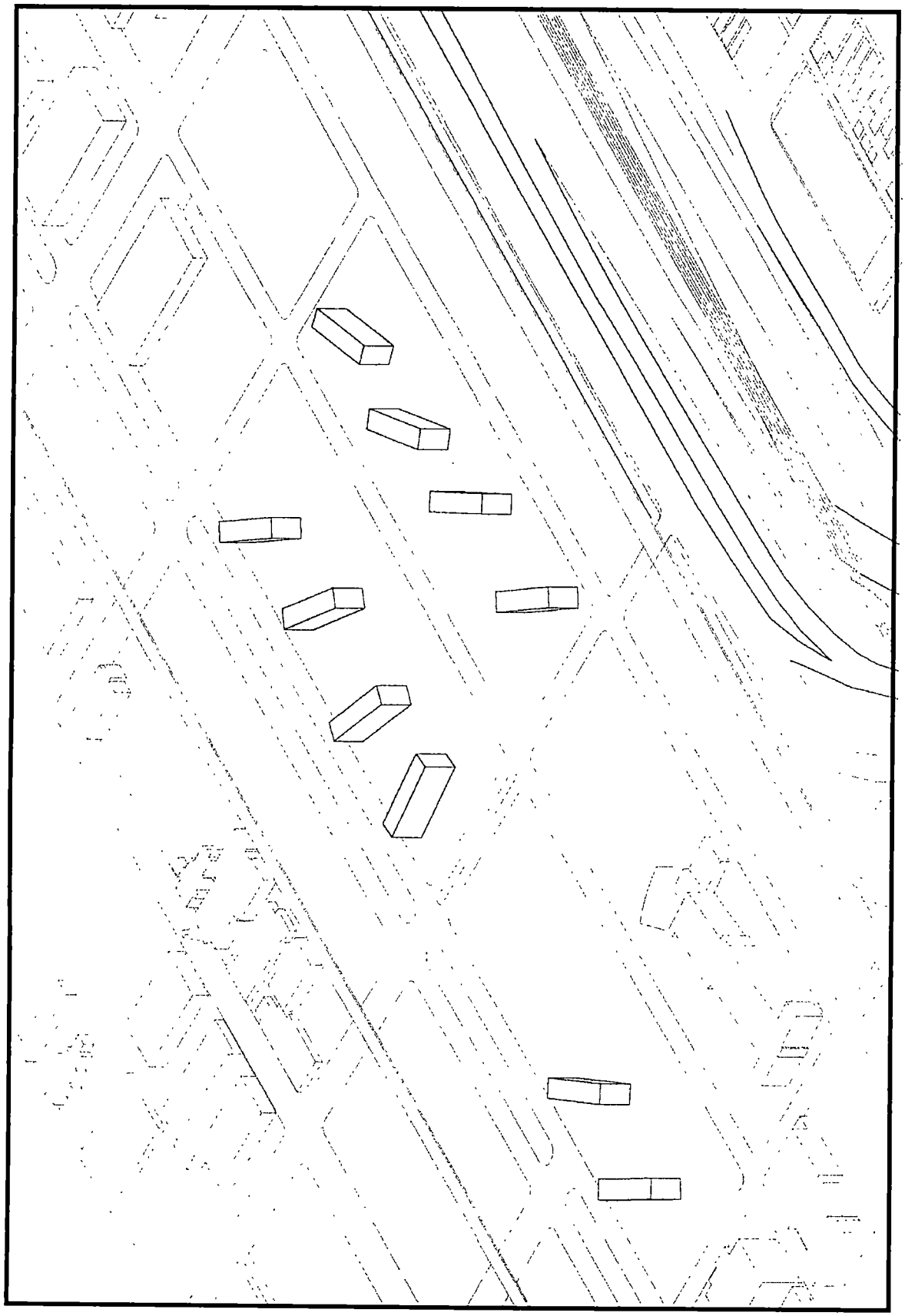


Fig. 116: Existing structures transformed. Source: Author

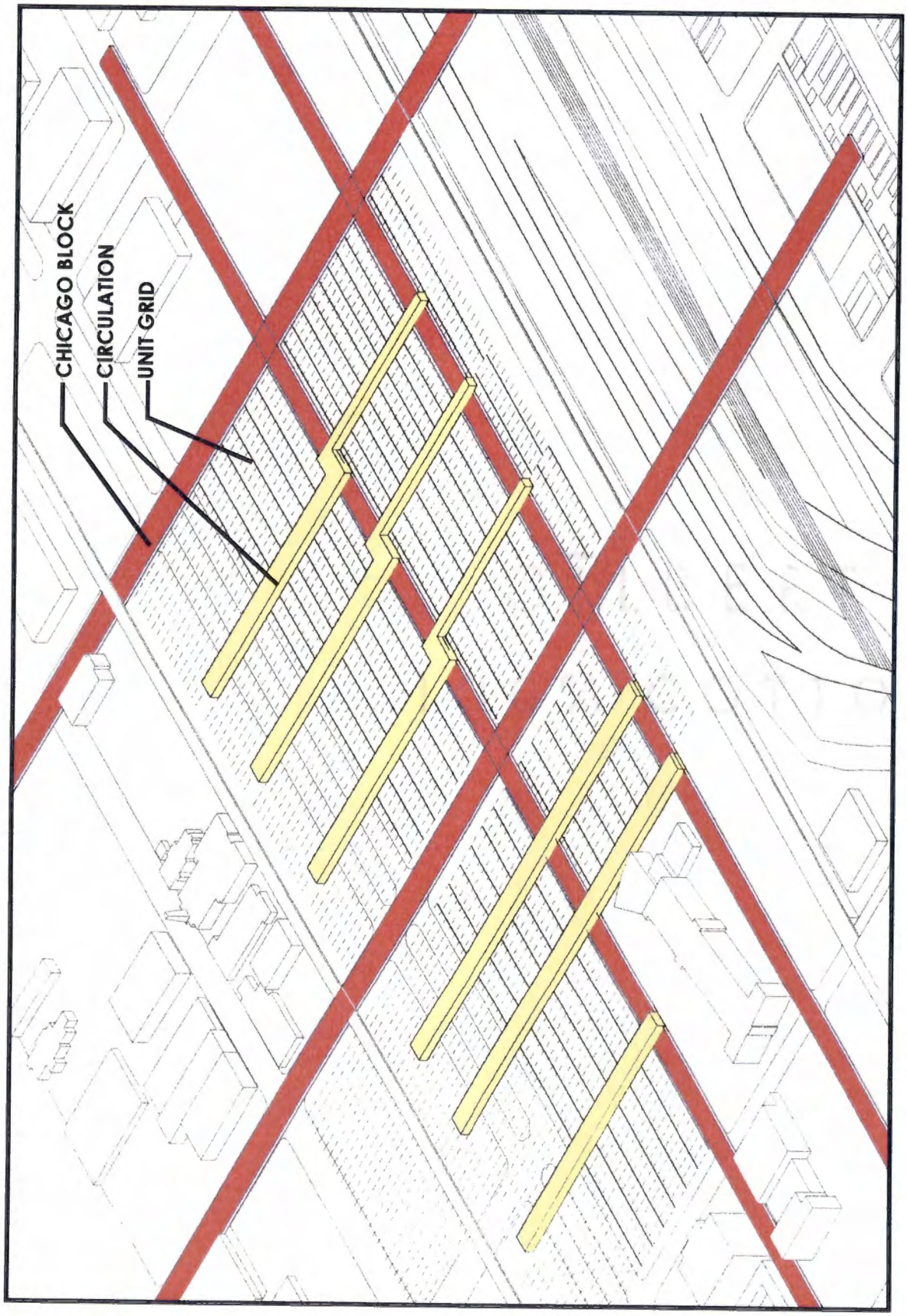


Fig. 117: Ordering grid. Source: Author

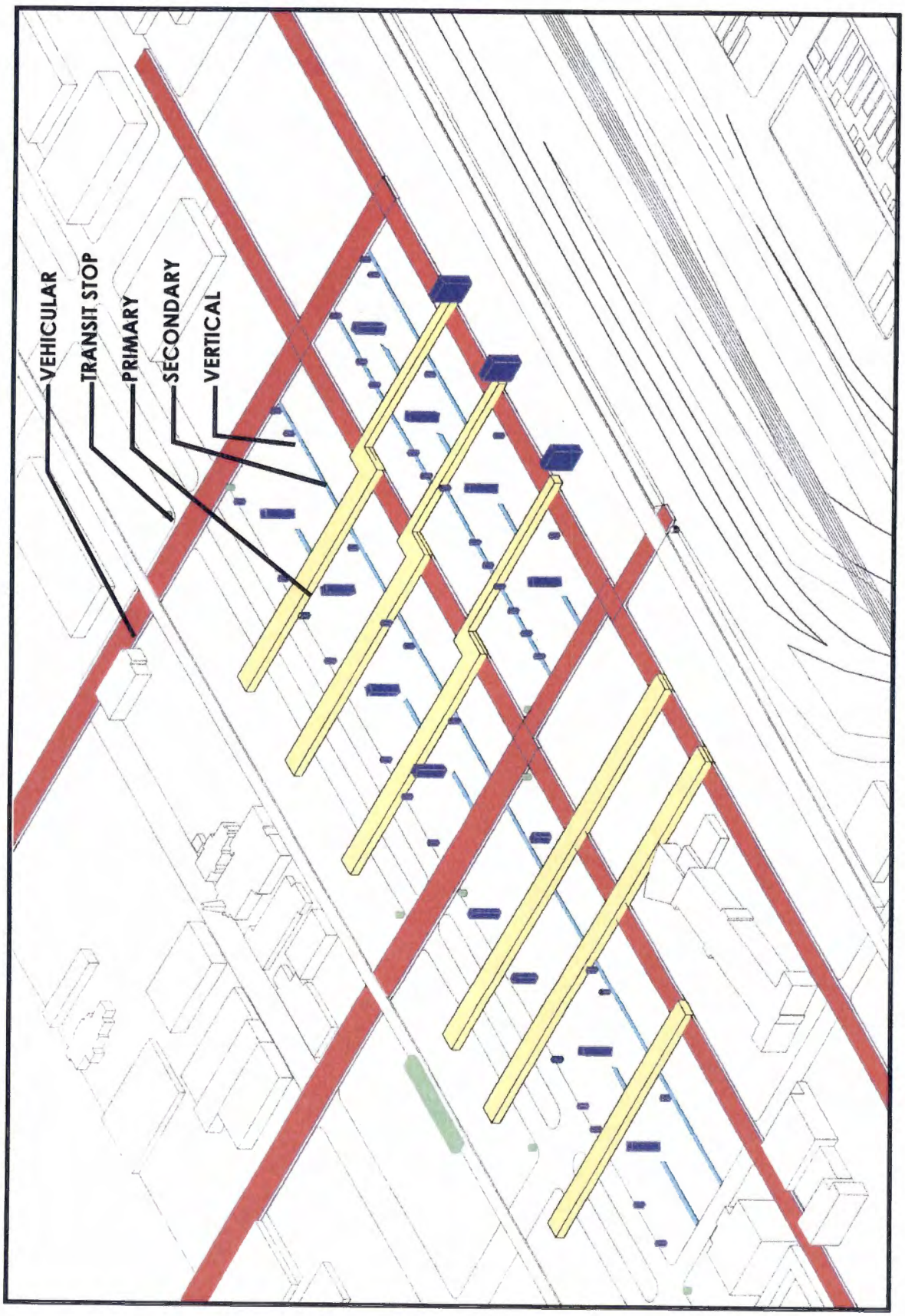


Fig. 118: Circulation. Source: Author

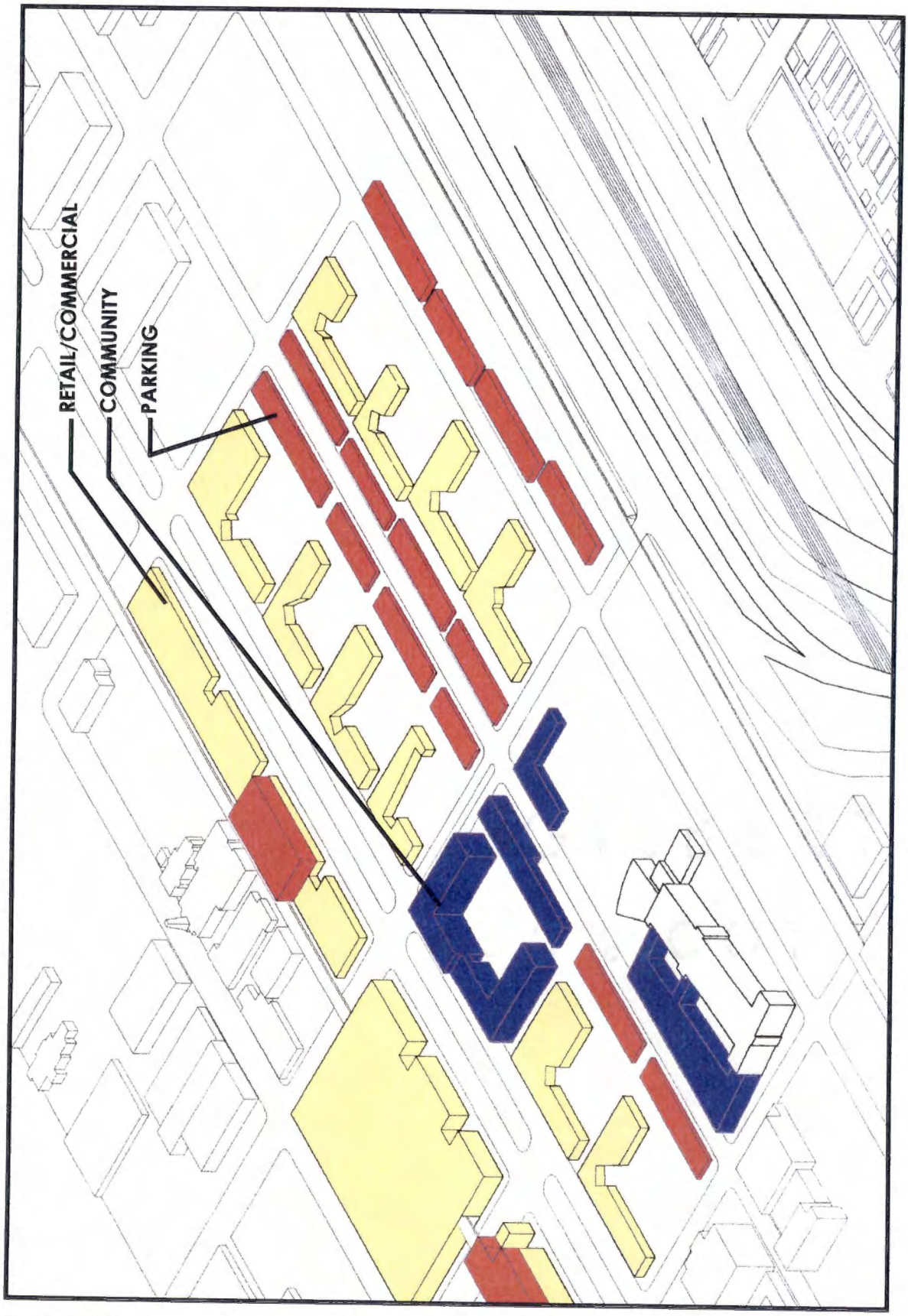


Fig. 119: Public. Source: Author

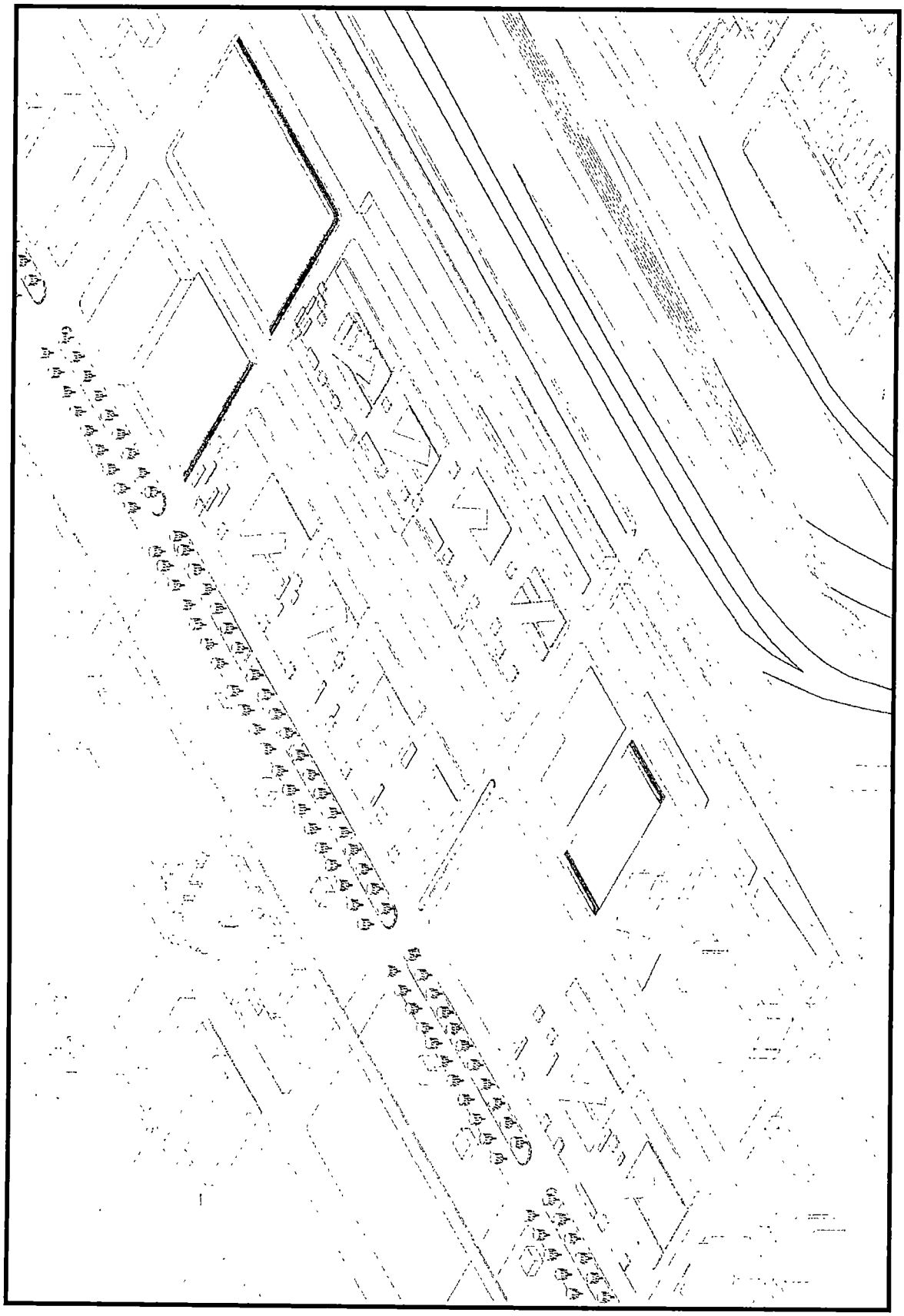


Fig. 120: Greenspace. Source: Author

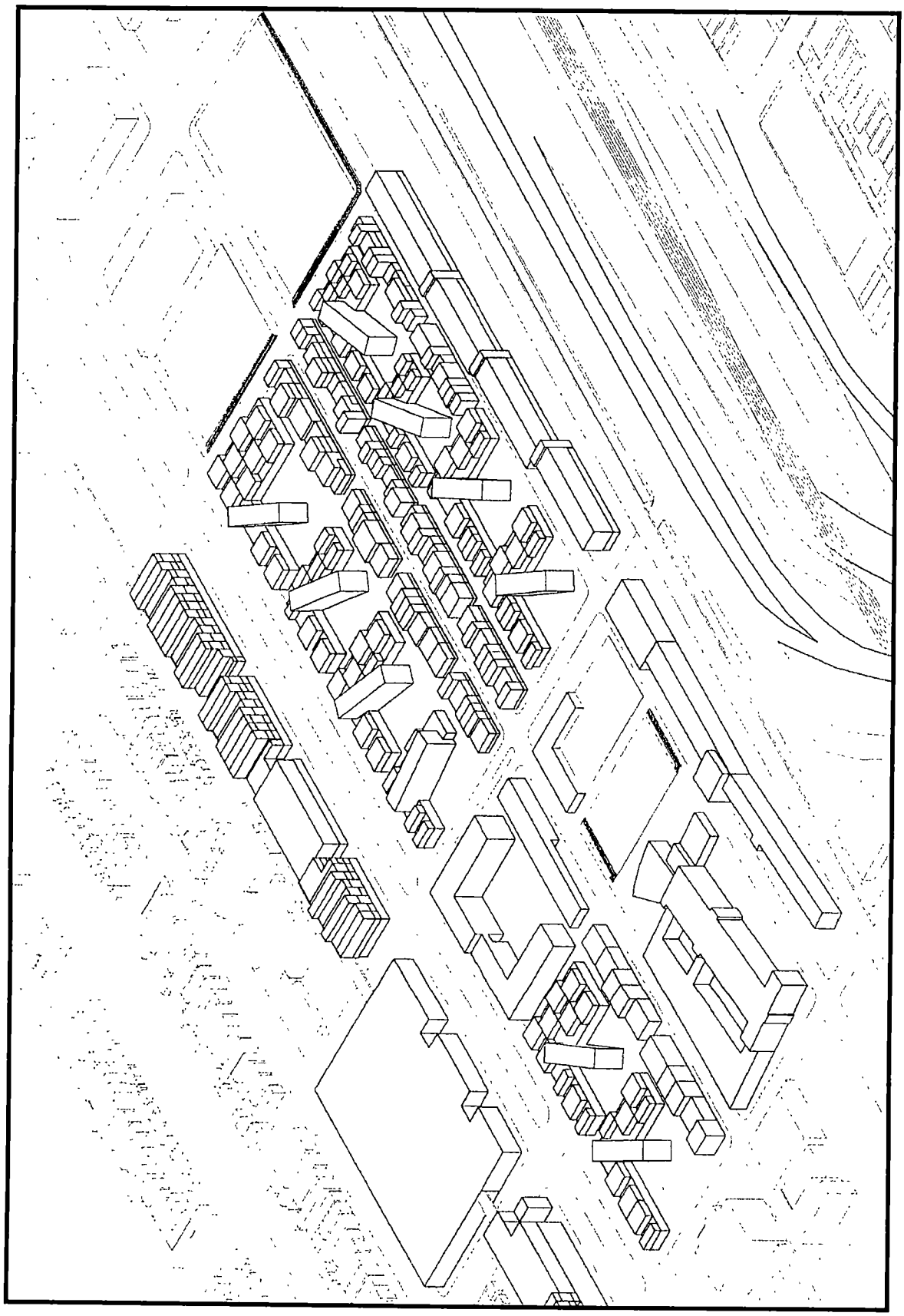


Fig. 121: Project within historic residential context. Source: Author

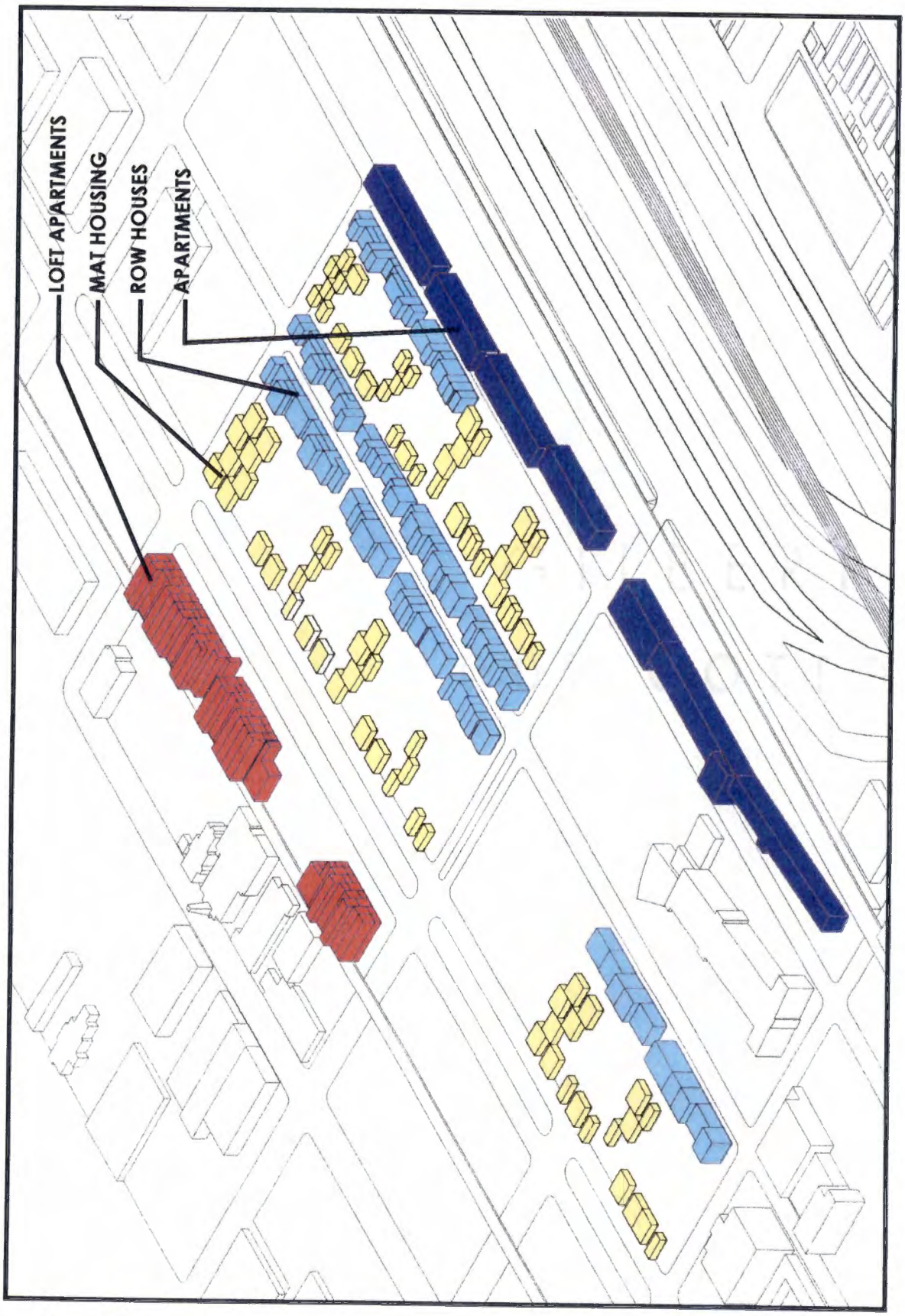


Fig. 122: Housing. Source: Author

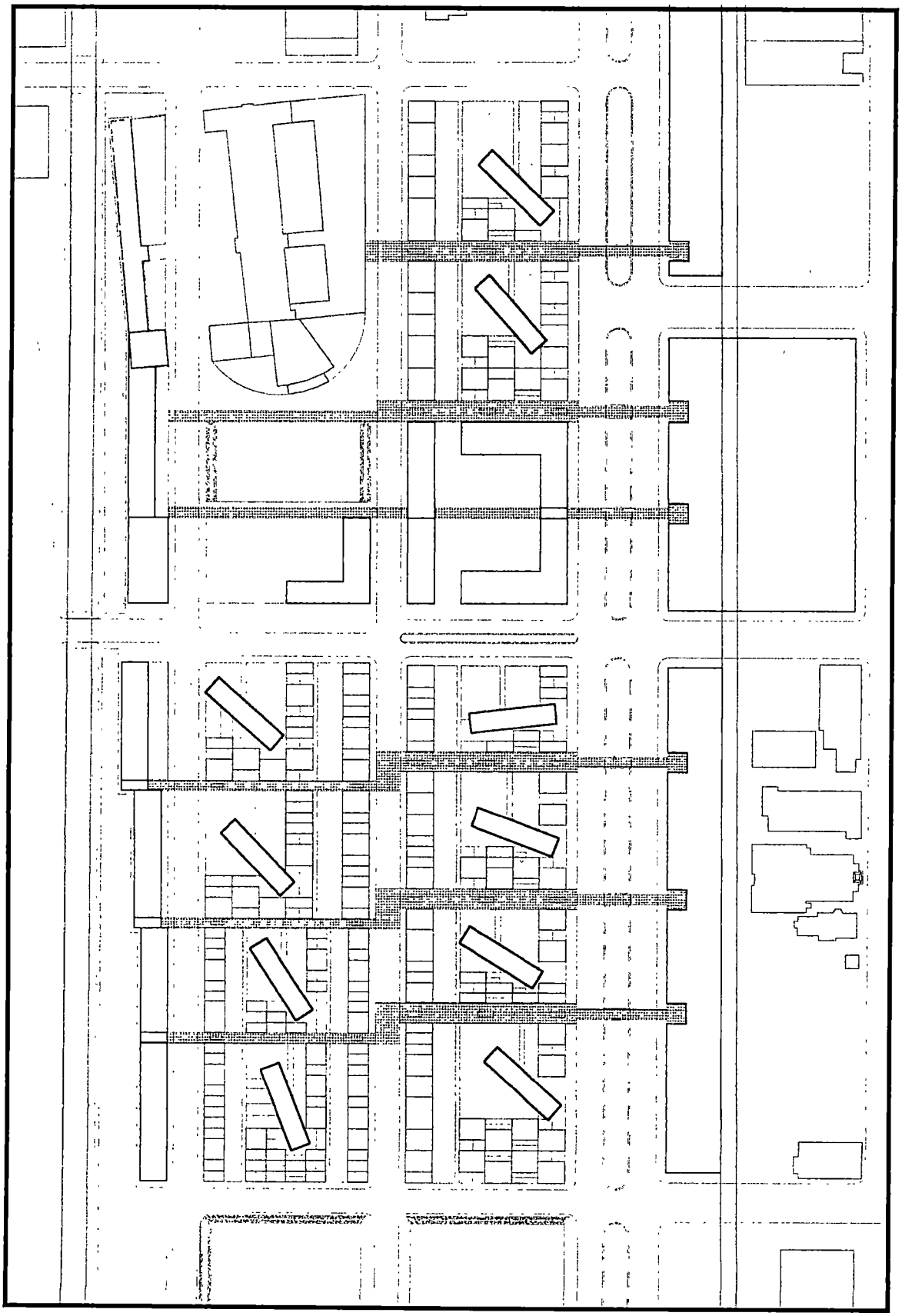


Fig. 123: Site Plan. Source: Author



Fig. 124: Site plan detail. Source: Author

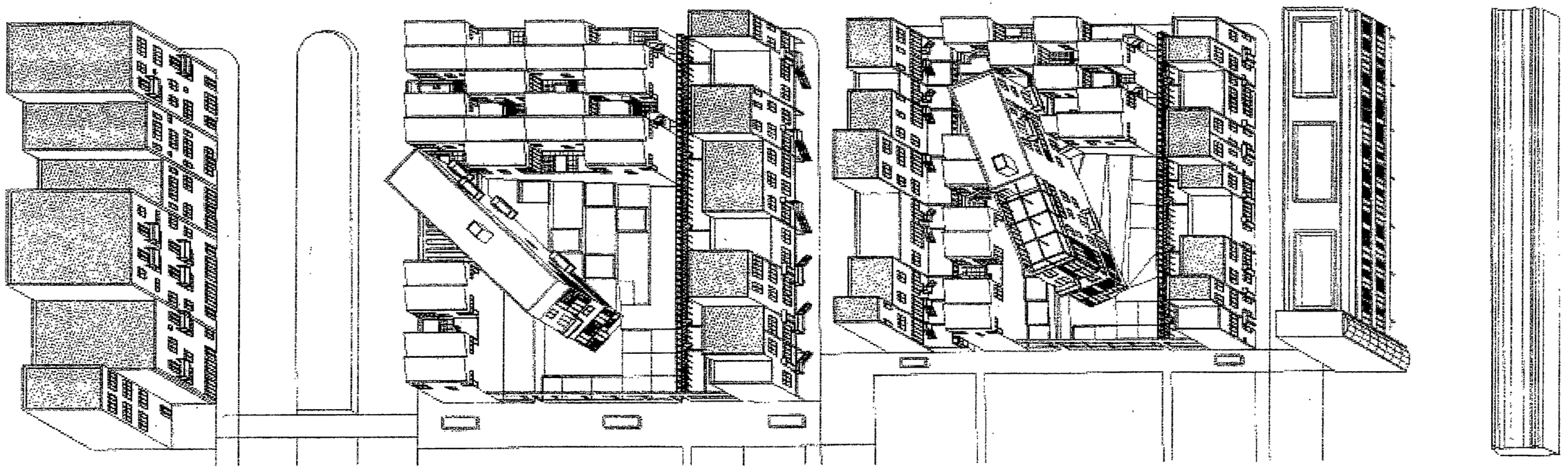


Fig. 125: Partial site axon. Source: Author

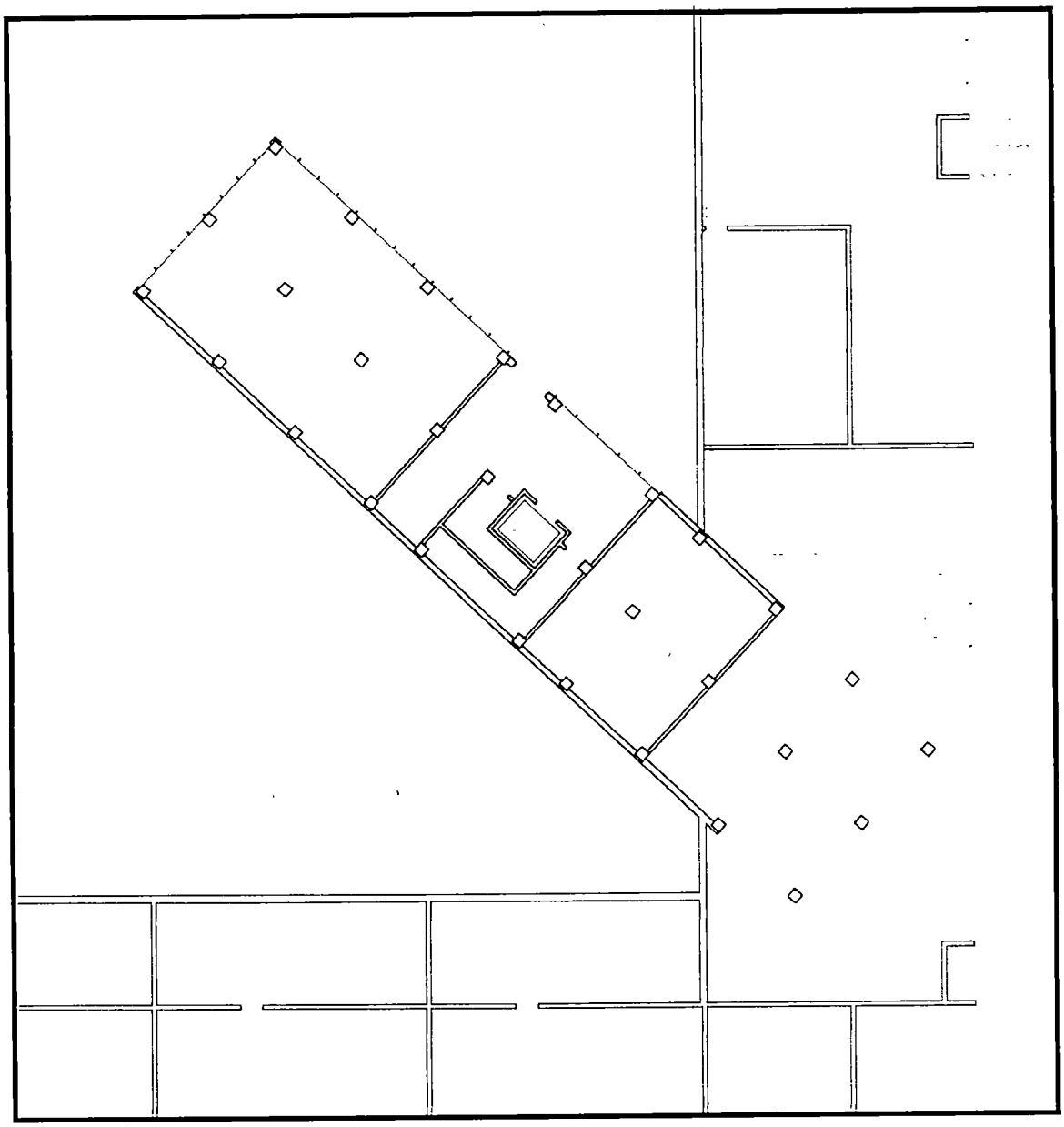


Fig. 126: Existing tower, reconfiguration, level one. Source: Author

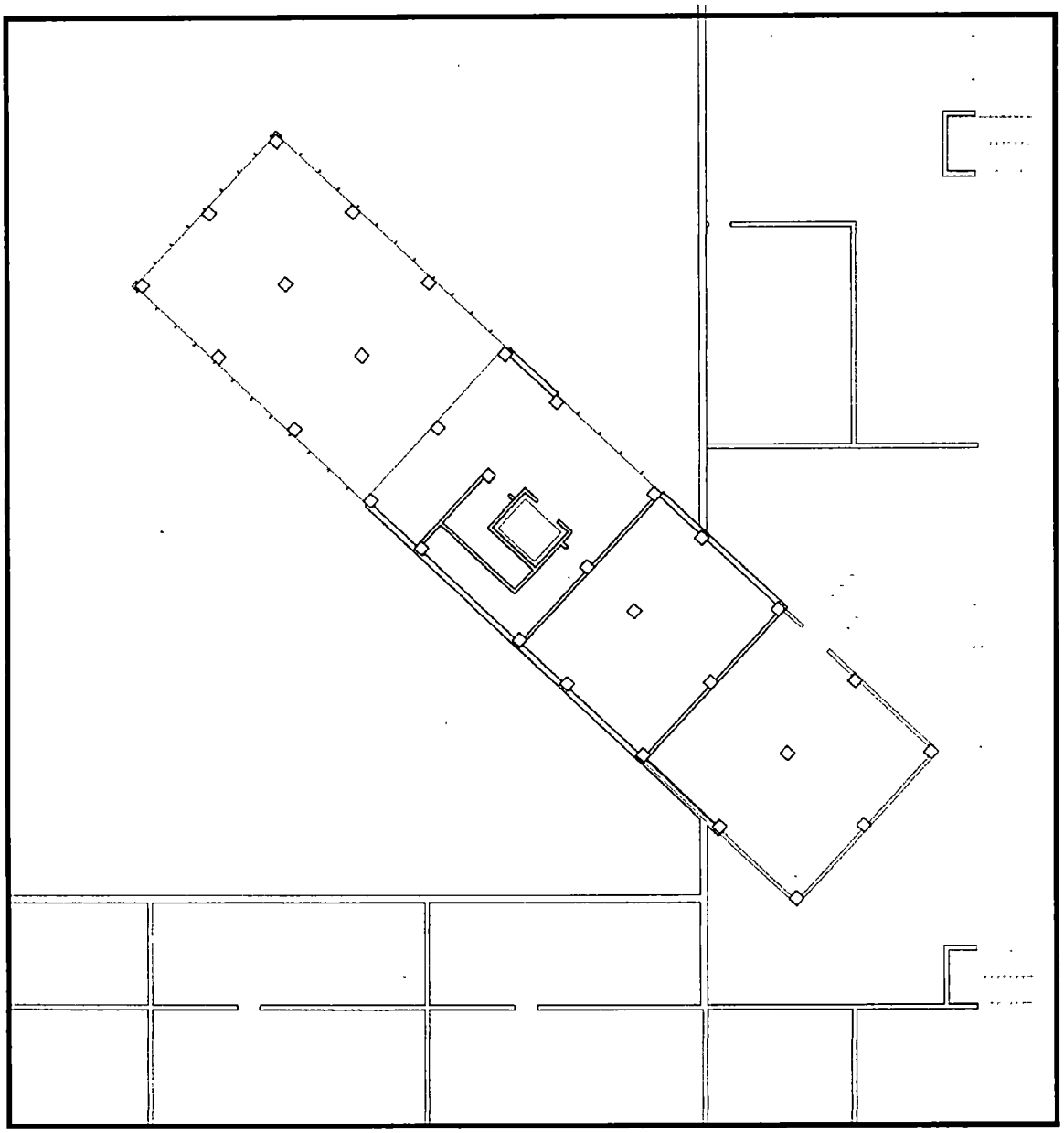


Fig. 127: Existing tower, reconfiguration, level two. Source: Author

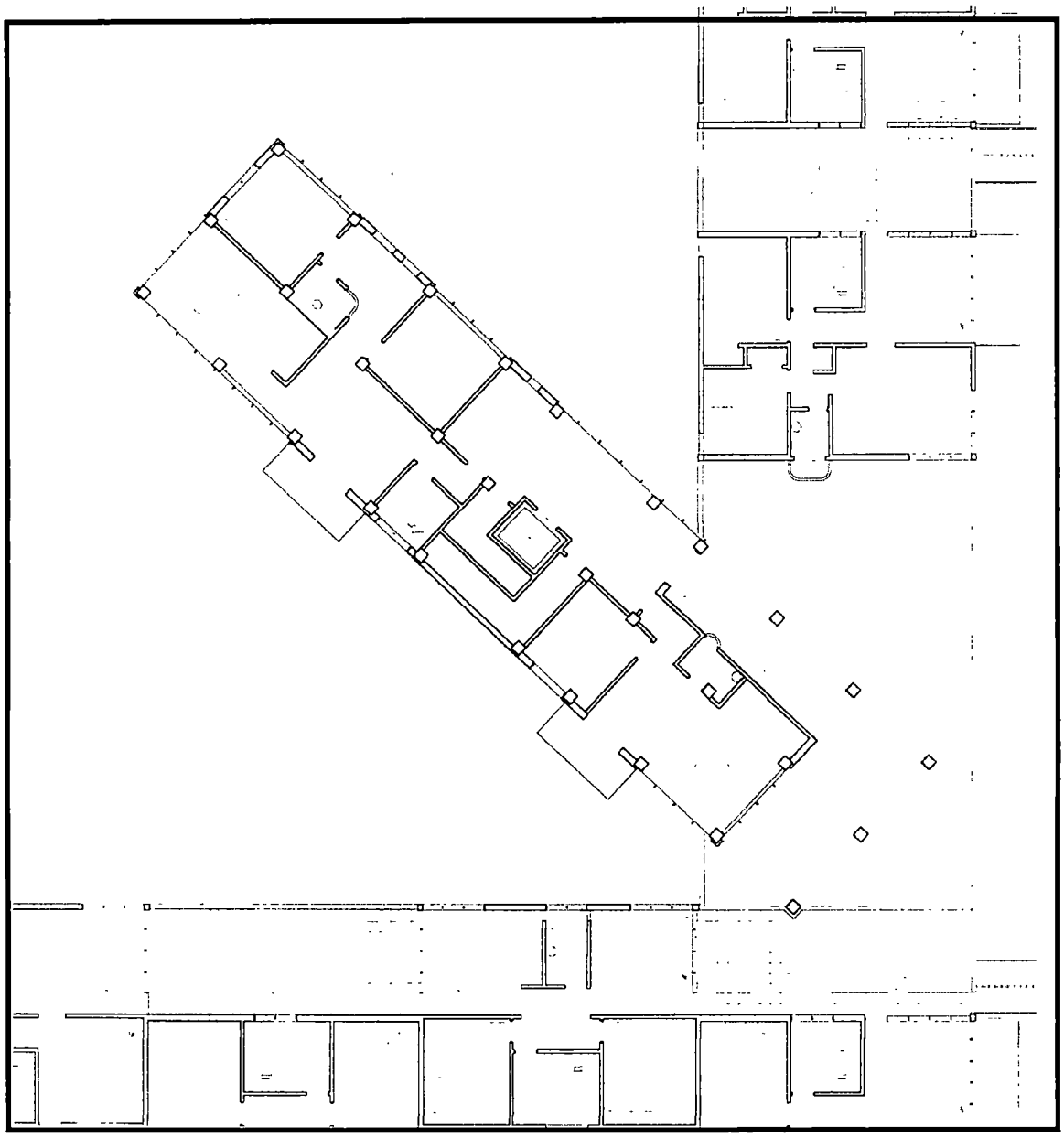


Fig. 128: Existing tower, reconfiguration, level three. Source: Author

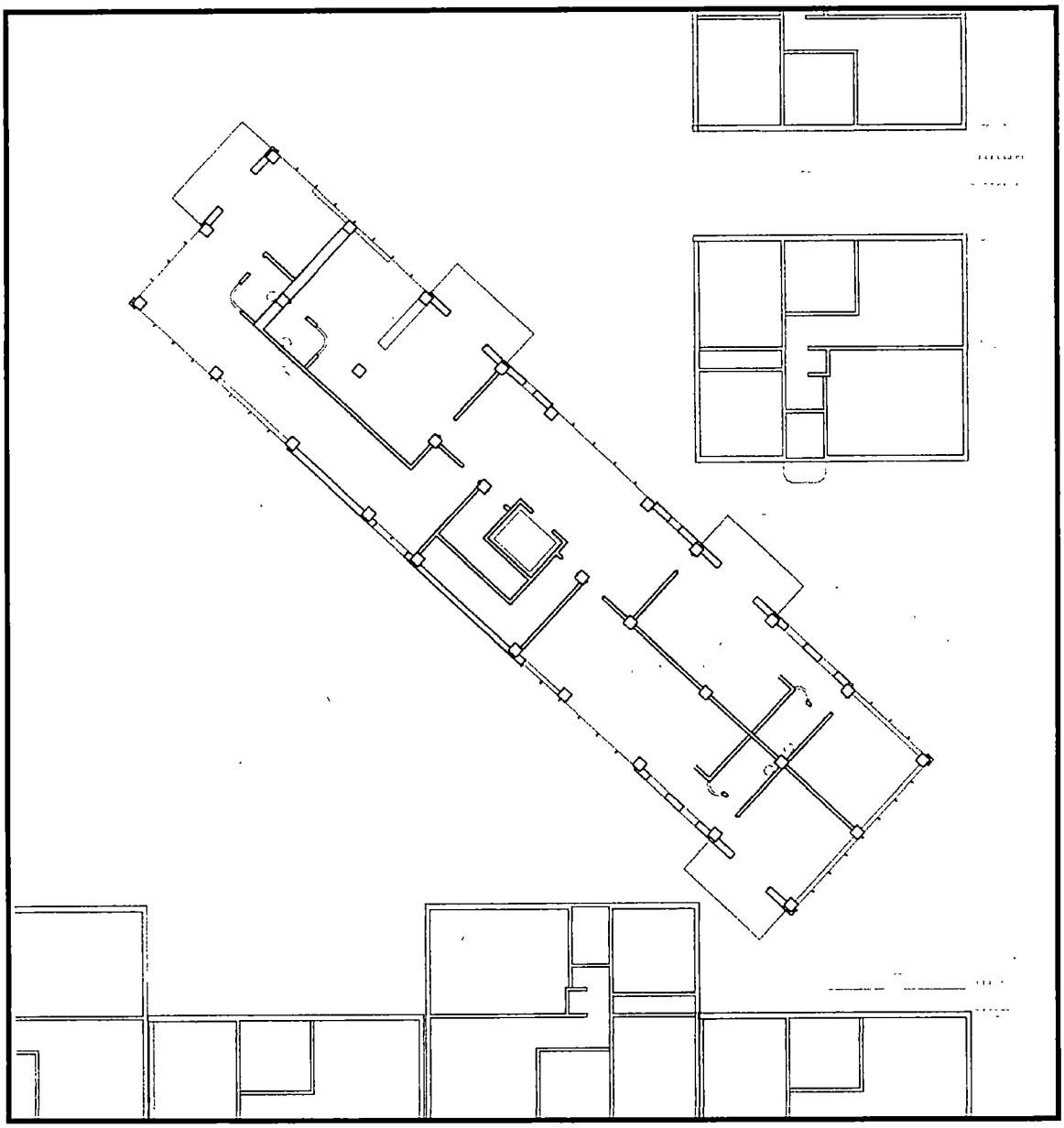


Fig. 129: Existing tower, reconfiguration, level four. Source: Author

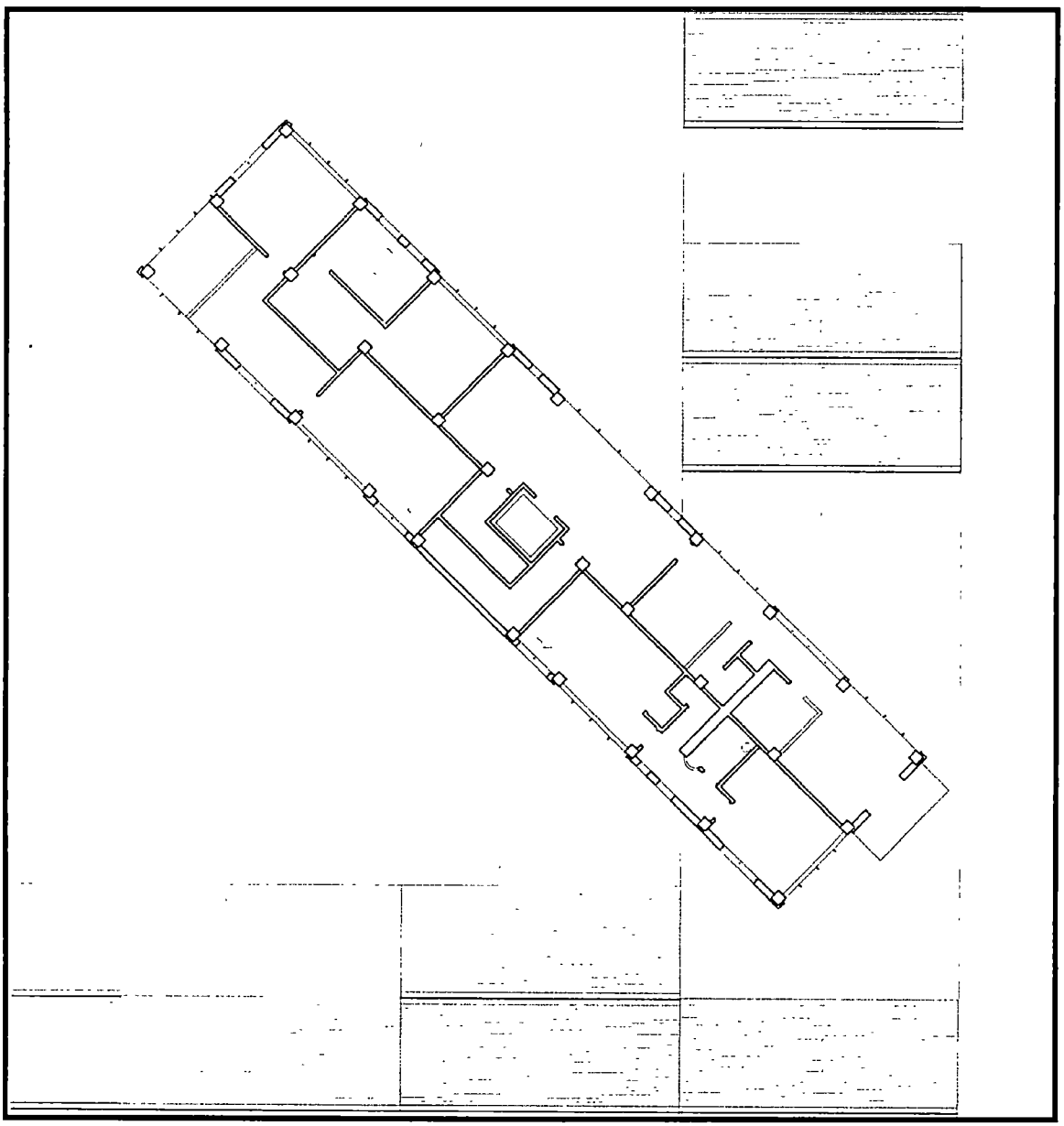


Fig. 130: Existing tower, reconfiguration, level five. Source: Author

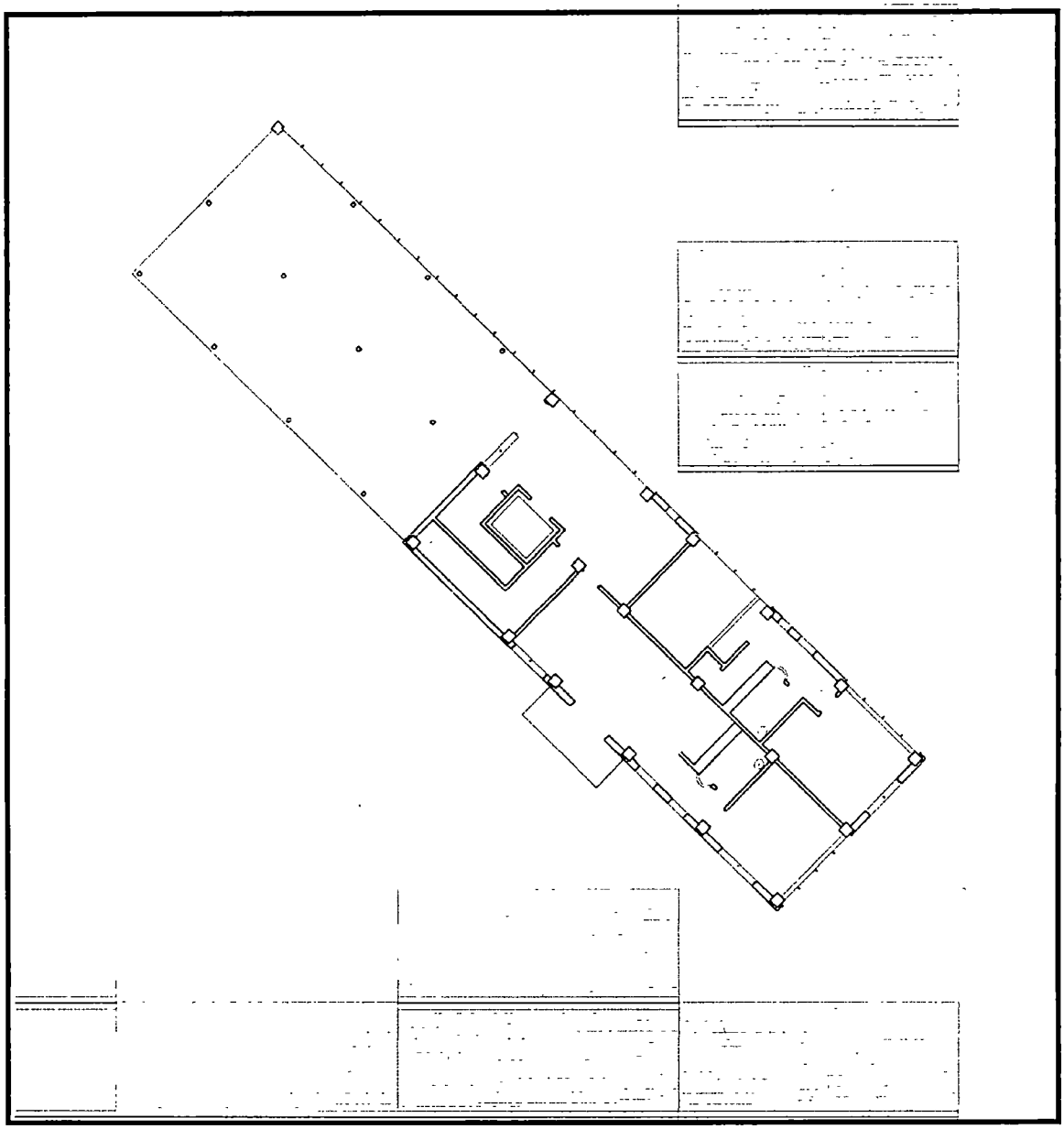


Fig. 131: Existing tower, reconfiguration, level six. Source: Author

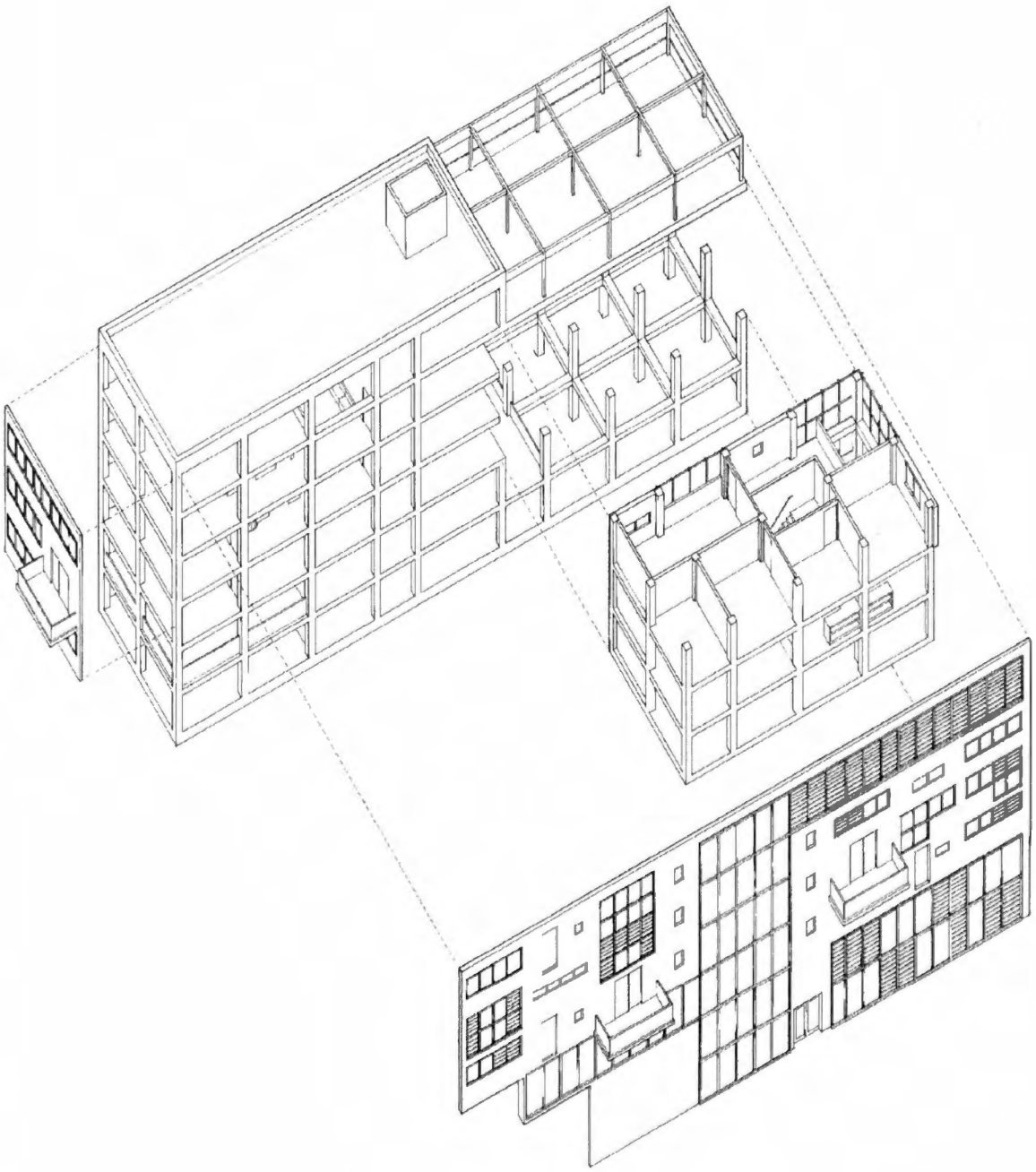


Fig. 132: Existing tower, reconfiguration, exploded axon. Source: Author

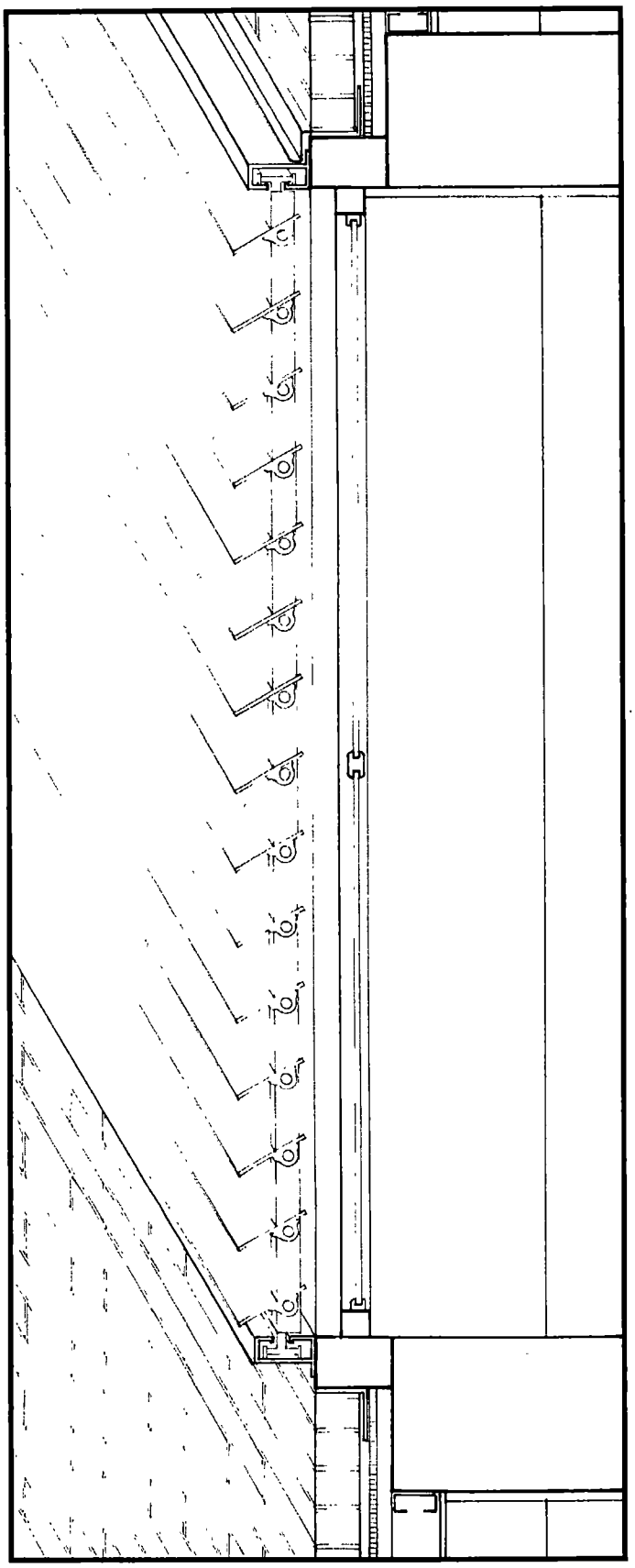


Fig. 133: Exterior louver detail. Source: Author

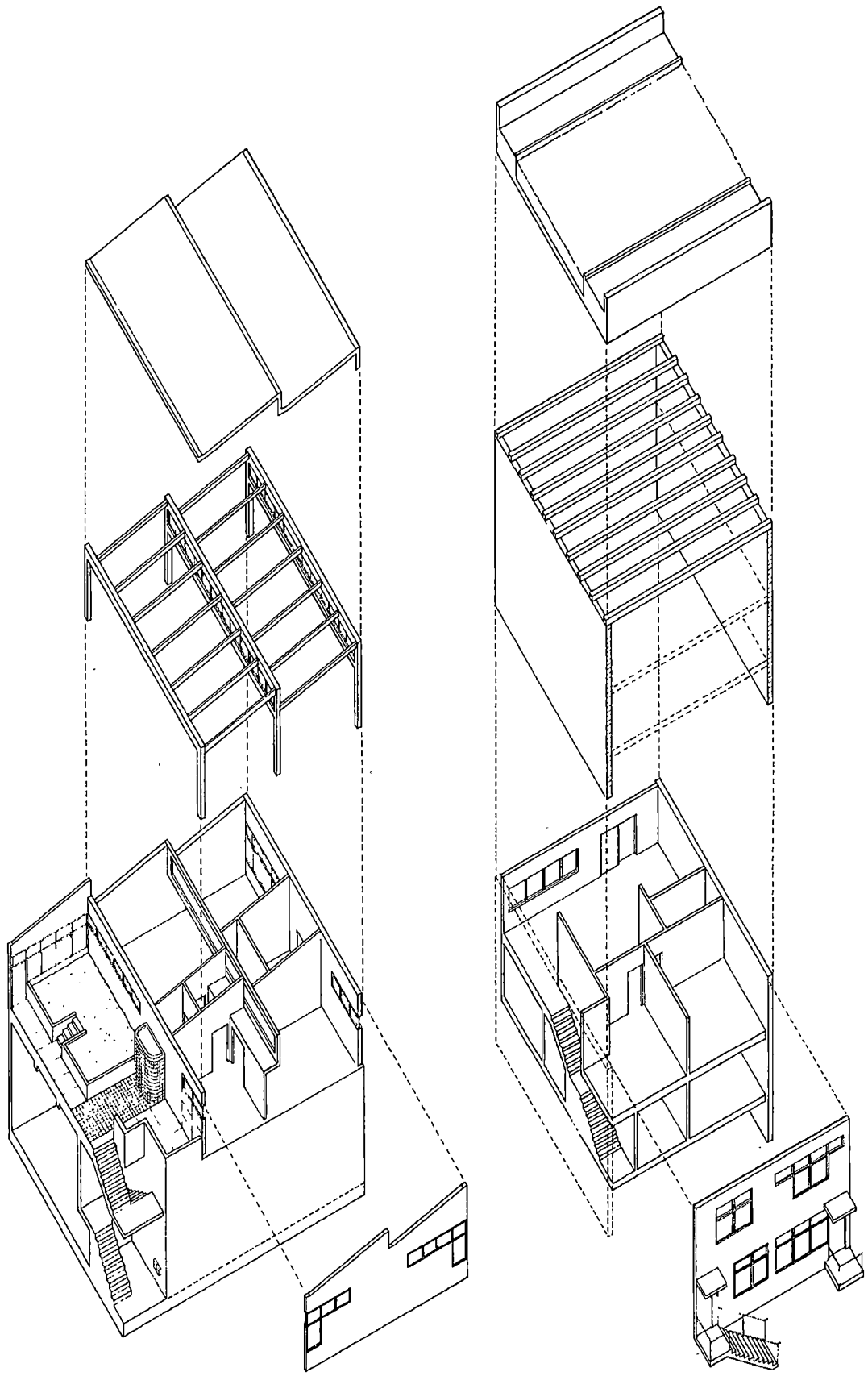


Fig. 134: Typical new housing units, exploded axon. Source: Author

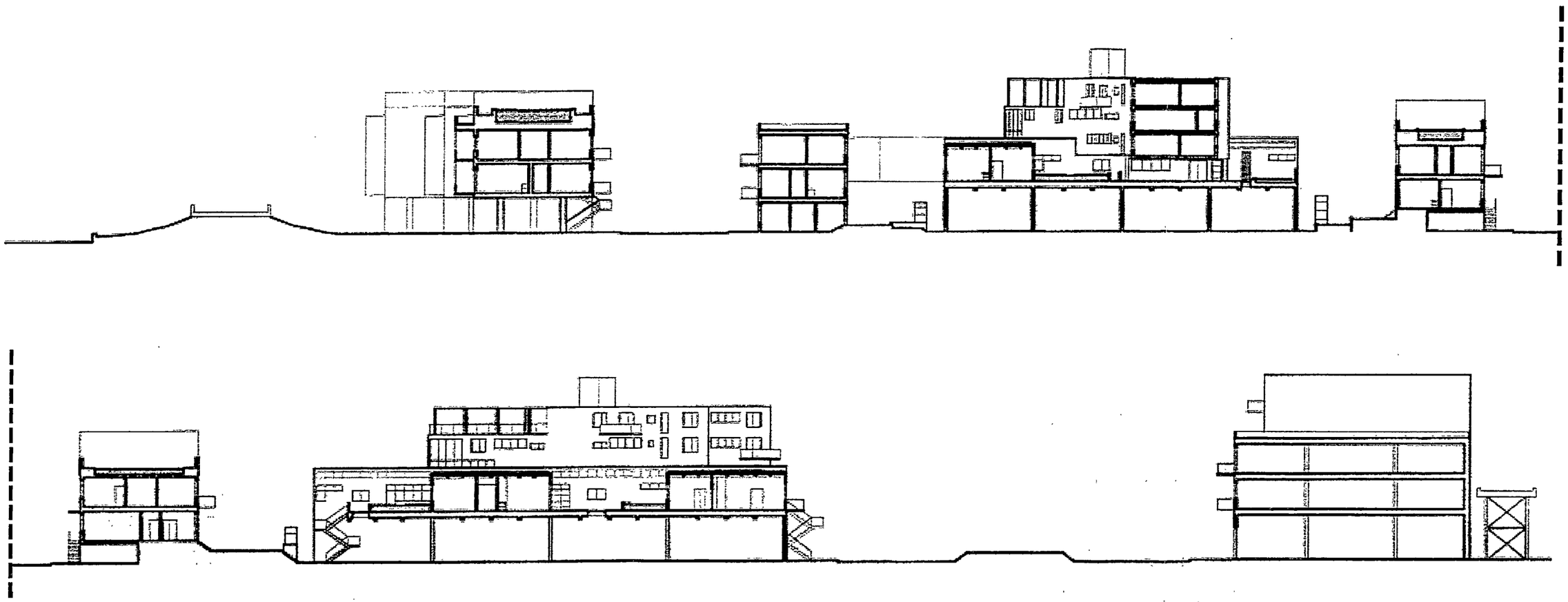


Fig. 135: East/West section through site. Source: Author

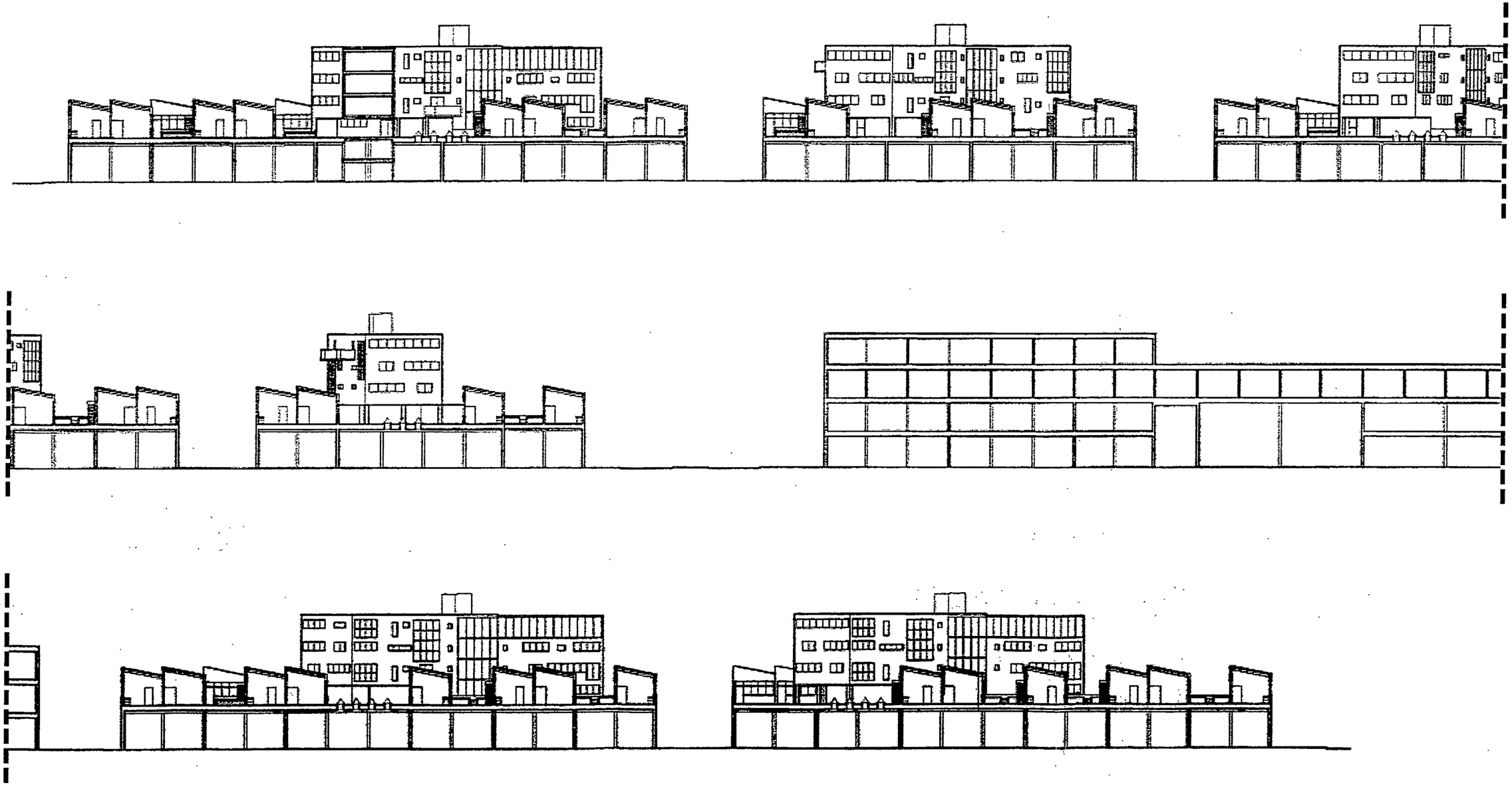


Fig. 136: North/South section through site. Source: Author

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