

PASADENA ZONING ORDINANCE
FOR
MULTI-FAMILY HOUSING

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DRAFT

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PREFACE

This document contains the backbone of a historic and visionary attempt to bring a beautiful city to order.

In May 1987, the City Board of the City of Pasadena voted to initiate an entirely new kind of zoning ordinance for the City's multi family housing areas: with the hope that this new ordinance will permit high intensity development of Pasadena to continue in a way which is thoroughly in keeping with the city's historic heritage. Above all, the Board directed us to find a way which would bring future development of the city into harmony with the beautiful character of the city, with a guarantee that future development, no matter how intensive, will preserve and protect and extend that beauty for which the city is so famous.

This document is our first draft of an attempt to meet the City Board's request. It contains, we believe, the germ of an entirely new attempt to bring a beautiful city to order, in ways which have not been attempted in the last few decades.

In the late twentieth century many cities in America suffer from a deep seated malaise. The city desires and supports development for economic and social reasons, but the beauty and fabric once loved by their inhabitants is then overwhelmed by widespread high intensity development. One day the inhabitants wake up and ask themselves "Where is our city? Where has it gone?"

No one is directly to blame for the occurrence of this problem. Builders and developers are doing their best, within the fabric of rules which exist, to make decent buildings, and to maintain and improve the city's larger fabric. But within the zoning ordinances that presently exist their task is impossible. The systems of regulations in present-day ordinances are narrow, binding, and short sighted. Unintentionally, they create a set of conditions which simply do not allow developers and builders to make the kind of city which they would like to make.

It is unfortunately common to blame the developers for the troubles which occur. Yet what is at fault, ultimately, is not the developers but the rules themselves. A conventional zoning ordinance is intrinsically not able to provide the framework in which people can make a beautiful city for themselves. As a result, because the zoning rules themselves create impossible conditions, the flurry of high intensity development creates the ugliness and crudity which many people deplore.

In this ordinance, we have been commissioned, by the city board of Pasadena, to construct an entirely new form of document which goes deep enough to the structure of the underlying rules and processes themselves, so that it is capable of giving all the citizens of Pasadena -- developers, citizen groups, local government bodies, and private citizens, the opportunity to contribute to the formation of the great beauty which Pasadena was once famous for.

CHAPTER 1

INTENT OF THE ORDINANCE

1.1

INTRODUCTION

The mandatory standards prescribed by this ordinance are defined in chapter 3. In addition, the ordinance contains other material which creates the context in which the standards are to be understood. Chapter 1 describes intent. Chapter 2 describes the use of the ordinance. Chapter 4 shows by example, what the ordinance is intended to do. These three chapters are as much part of the ordinance as chapter 3 which specifies the standards. They express the intent of the ordinance and give the necessary background within which the specific standards of the ordinance may be interpreted.

Thus the most fundamental way in which this ordinance differs from many existing ordinances is that it relies on understanding and regulation, not regulation alone. All existing ordinances contain standards. But these standards are rarely presented with any clear explanation of the overall vision which they embody. Many zoning ordinances and many individual standards, regrettably, do not embody any overall vision at all.

The organisation of this ordinance is different because it explicitly contains the vision behind the ordinance, as part and parcel of the document. The core of standards which are presented in chapter 3, are specifically intended to create a city according to a certain vision. This vision is explicit and it is intended that the people who follow the ordinance, in preparing projects for development or construction, will specifically understand the overall vision and intent of the city, and will do their best to adhere to it.

Thus the specific standards of the ordinance are to be understood as instruments, within the larger purpose of this vision. The way the ordinance is organised requires that all those who use and administer the standards, must also grasp this larger purpose, and explicitly do their best to contribute to it. Above all, from a legal standpoint, it is this more widely drawn purpose which will provide the legal context for interpretations of the standards.

The four chapters of the ordinance thus together define the legal framework of the ordinance.

1.2

OBSERVATIONS: THE CHARACTER OF PASADENA

As a background to the ordinance, we begin with a series of observations which define those qualities in the city which are vital to its character and quality.

The character of Pasadena is something which people feel, and wish to preserve. Yet it is hard to define in simple quantifiable terms. Also, it cannot be attributed clearly, to any one part of town. The city is varied. It is the sum total of these variations and qualities which make up the unique and precious character that people love and are attached to.

According to our observations, the special character of the city comes from a series of qualities, which may be understood according to the following categories.

1. The character of streets.
2. The quality of open space.
3. The size of open space.
4. Existence of certain key building types.
5. Building height.
6. Building shape.
7. Building density.
8. Quality of parking.
9. Quality of driveways.
10. Identity of individual units.
11. Building materials and color.
12. Roofs and building details.
13. Trees, plants and gardens.
14. Paving and ground surface.

In each of these fourteen categories, we shall now outline what we believe to be the essential characteristics that "make" the character of the city.

1. The character of streets. Important qualities of Pasadena streets: No parking allowed at night, which creates a general absence of cars compared with other cities, and a more slow and graceful character, dominated more by trees and buildings. The canopy of beautiful trees, and avenue-like character of many streets. Green patch of grass between building and sidewalk. A definite long space formed between the line of trees and building fronts. Buildings entering into the street, so that street is enlivened by the buildings, doors and windows, stoops, and entrances.

PHOTOGRAPHS

2. The quality of open space. The most noticeable and important quality of Pasadena neighborhoods is their overall garden character. In the most memorable places, a character dominated by gardens. In a few all-important historical cases, these gardens exist in the form of internal or half enclosed courtyards. In all cases, these courtyards and gardens are rather generous. Magnificent front lawns, or glimpses of hidden gardens or courtyards. In all cases, this beautiful private space (whether in the form of gardens, or courtyards) is visible, and felt, for a person on the street.

PHOTOGRAPHS

3. The size of open space. A crucial factor in the special feeling of the open space and gardens and courtyards in Pasadena is the physical size of the spaces. Interior courtyards of the old Pasadena type, are typically 50x80, 45x85, 45x75 etc, with an average size of 3500 to 4000 sf. Front gardens which achieve a feeling of pleasantness, in relation to the buildings they support, tend to be in the range of 35x75, 40x70, etc, almost never less than 3000 sf. In many cases, small gardens are amplified in their feeling by adjacent gardens. In these cases, the various gardens which work together, even when they appear quite modest, are often 4000, 5000 and up. For instance, four front gardens at Locust and Holliston, are 40x45 each, and together form a valuable part of the street, which has an area of 6-7000 sf. In other cases, small interior gardens are amplified in their feeling, by adjacent setbacks, side yards, other other interior gardens and yards.

PHOTOGRAPHS

4. Existence of certain key building types. The major building types which created the character of Pasadena originally, were all highly respectful of space. The courtyard type, which creates an interior garden, that creates movement in and out, and creates a threshold to the interior of the building. The bungalow type, which creates a small compact volume, with a definite shaped garden next to it. The old apartment type, which creates a single block of apartments, and once again, has one or two gardens, with definite shapes, sometimes trapped between the building and its garages. The mansion type, with a large and beautiful front lawn, going down to the street, this lawn shaped by buildings on either side.

PHOTOGRAPHS

5. Building height. Most of the old and beautiful character of Pasadena is two-story construction. Careful observation of existing streets like Oakland, So El Molino, California, San Pasqual, etc, shows that the special feeling of the street and neighborhood character comes from the one-story and two-story buildings. More particularly, we have identified the following characteristics. In the places with a beautiful feeling, houses and apartments are almost always two-story. In many places a mixture of one-story buildings, even in modest amount, helps to keep the character. Three-story buildings most often do something to destroy the feeling. Occasional three-story buildings in back are not harmful. Three-story buildings scattered here and there are alright too, as long as they do not play a dominant role. It is the two-story scale, with its particular feeling of relationship between window and ground, between a human person and the roofline, that establishes the comfortable and domestic quality of the "old" Pasadena.

PHOTOGRAPHS

6. Building shape. In addition, the actual shape and form of buildings is very important. Some of the older types, have a simple and harmonious character. For example: Buildings with a squarish volume, are common and pleasant. Buildings which are long and narrow, but parallel to the street. Small bungalows, with strongly pitched roofs. On larger buildings, flat roofs with strong cornice details. Buildings with apartments over garages are part of old and pleasant character. Pitched roof buildings, over long narrow buildings, helping to form courtyards where the eave forms the space. By comparison, several newer types utterly destroy neighborhood character. Long buildings at right angles to the street, especially when they have blind fronts, are among the most disrespectful.

PHOTOGRAPHS

7. Building density. The density and texture of the old city, is a principal factor in the beauty which people remember. Buildings and the gardens are in equal balance. It is not a dense conglomeration in which buildings exceed gardens. It is not a suburban texture in which gardens outweigh buildings. Also, within this texture, buildings are of reasonable scale. The massive development projects covering many lots, are totally at odds with this texture. Density is such that most buildings have a direct relation to the ground. It is the equal relationship of building to garden where you feel the ground, you feel the garden, and you feel the building, that is most important. The city has a close grain, of relatively small projects, on lots large enough to contain beautiful gardens, but not large enough to permit "mass development".

PHOTOGRAPHS

8. Quality of parking. The Pasadena quality depends very much on a specific characteristic: Parking is invisible. This is usually because it is behind the buildings. The long lots make this particularly natural and sensible in Pasadena. Parking ratio, especially in those parts of Pasadena which people love the most, was extremely low -- sometimes as low as 0.5, and 1.0 at the most. In beautiful areas, parked cars are never visible. Present day "six-pack" and tuck-under arrangements, where parked cars and driveways dominate the scene, are highly destructive. Underground parking is consistent with the city's character only when it avoids the platform solution, and leaves gardens which are on earth, not over concrete. Podium projects, create an air of artificiality which destroys the old feeling. This is occasionally avoided, when the podium is very carefully graded in, with softly sloping gardens coming from podium height to street. In the old city, many parking lots are pleasant to be in, almost like minor backyards or patios.

PHOTOGRAPHS

9. Quality of driveways. Driveways, like parking, play an important role in the feeling of Pasadena. Driveways in older projects are very modest in width. In addition, the driveways which were built, in the old days, were not only narrow, but also beautifully useful and pleasant, even as places to walk. There were also few curb cuts, and those which exist are small and unobtrusive. Driveways that are beautiful in Pasadena are like mysterious paths, leading through trees or shrubs, to some place in the back. Recent projects like six-pack developments, where a wide aisle and parked cars entirely dominate half of a 50 foot lot with asphalt and cars, completely lose this character.

PHOTOGRAPHS

10. Identity of individual units. In the Pasadena which people remember and love, each part of the space has a human character. This comes partly from the care of craftsmanship; but it comes above all, because places have identity of ownership of individuals and individual families. In recent times, the apartments and condominiums have begun to create an abstract character, caused essentially by the development process. Yet, even in condominiums and apartment buildings, when made old style, one had a comfortable and individual human touch, in each one of these places. In detail, we can pick out the following characteristics. Each person's front door clearly marked. Use of outdoor stairs, leading to one or two units. Plentiful flowers, seats, benches, tables, belonging to individual families. Private outdoor space, earmarked by individual families. Group space, in gardens and courtyards, which is shared by a small number of families, not managed by abstract developer. Spots in the sun, where people can sit outside. Individual colors, paint, etc, on windows and doors, marking individual units.

PHOTOGRAPHS

11. Building materials and color. The actual materials of the "typical" Pasadena are quite different from many of the recently built low-quality developments. Stucco and plaster exterior work is dominant. This does not only include the spanish colonial style, but also a more american stucco, often brown or grey, less pretentiously spanish, but still very much the essence of Pasadena. Tile roofs, flat roofs, slate roofs. Red paving tile on the ground, was often important. Low masonry walls, plastered block. Wooden windows. Flower beds and flowering bushes. Craftsman bungalow construction with redwood, visible beams, small details. All done in a rather informal style, elegant and simple, but not pretentious.

PHOTOGRAPHS

12. Roofs and building details. Some recently imported building materials and details are very destructive to the Pasadena character. Cedar siding, for example, and washed stained wood surfaces are not consistent with the feeling of the town. Cheap stucco is also unsuitable: it should be broomed or trowelled. Aluminium window details should be avoided when possible, or modified. In general window details are crucial: much of the old Pasadena character came from windows and window-sills. Door-surrounds play an important role. Doors to apartments, and doors of passage ways, are marked with a moulding, at the change of surface. Some brick details. The essence of the good details, is not the expense of the details, but the love and care with which they are placed. In the craft tradition, which existed in Pasadena, the individual bits of buildings, were made by people who cared about what they were doing. That is the most easily destroyed by development, that is essentially abstract in character. Concrete block is fine.

13. Trees, plants and gardens. One characteristic of recent developments in Pasadena, is an extremely unintelligent approach to planting. This happens when plants are placed indiscriminately, merely to satisfy a landscaping requirement, and completely fail to create pleasant masses of vegetation, which has any human significance. Typical examples: birch saplings planted along with planter boxes and pebble precast paving. In the Pasadena which people love, the vegetation has a more definite and formal character. Flower beds along buildings. Lawns of definite shape. Trees in groups, forming edges of space. Flowering bushes, in definite masses, which help to enliven a particular garden or courtyard or terrace. Hanging gardens, potted flowers, etc, which again form clear edges to spaces like terraces of definite geometry and shape. Single trees, in courtyards, giving shade and making a center to the space. Hedges, forming edges of lawns or gardens. Small walls, which people can sit on, or walls with doors and windows.

PHOTOGRAPHS

14. Paving and ground surface. The ground surface of the loved Pasadena also has very definite characteristics. Once again, it is not fancy, but elegant and simple. Inexpensive concrete on paths and driveways. Asphalt for people to walk on. Mexican paving tile laid in the earth with grout but not necessarily laid on a slab (this latter is too expensive, and tends to create a false expensive image). What matters is not the price, but the care with which the thing is made.

PHOTOGRAPHS

1.3

TWO FUNDAMENTAL PROBLEMS WHICH MUST BE SOLVED

If we examine the picture of historic and beloved Pasadena, and compare it with contemporary reality and with the buildings that have been built in recent years, it is clear that there is a very great discrepancy between the two. On the face of it, it would seem that it just is not possible, today, to build buildings which are consistent with the great tradition of Pasadena.

Yet the City Board has made it clear that it is precisely this which they have ordered: an ordinance which does indeed make it possible to preserve and extend the city of Pasadena in a manner consistent with the great tradition of the city and in a manner which preserves and protects its neighborhoods, at densities which are consistent with contemporary economic development.

In order to achieve a rebirth of the neighborhoods, and yet maintain the development densities implicit in current practice, two fundamental problems must be solved. (1) The statistics of land coverage must be changed. (2) Individual projects are disrespectful of the neighborhood in which they occur. In the following pages, we define these two problems at greater length.

(1) The statistics of land coverage.

Under present zoning requirements, land coverage is forced to have a distribution of uses which is inconsistent with Pasadena traditions. Here is the distribution of land coverage in projects developed at RM-32 and RM-48 under existing regulations.

Back and side setbacks	17-20%
Front setbacks	10%
Driveways	15%
Parking at grade	43%
Apartments at grade	12%
Usable gardens.	0-3%

	100%

These statistics follow directly from the rules of the present zoning ordinance. Under the circumstances prescribed by these statistics, it is inevitable that open space is mainly concentrated in front setbacks, and therefore useless. It is inevitable that there are no useful interior gardens in the projects. It is inevitable that the overwhelming impression of parking will be created. It is inevitable that parking will be at least partially aggregated in the front of lots, and therefore visible from the street. It is inevitable that narrow lot development will present a grim and unfriendly face to the street. It is also inevitable that buildings are frequently built at three storeys along the street, in such a way as to ravage the street character of the city. And it is inevitable, finally, that developers can in many cases, not reach the theoretical densities prescribed in the present zoning ordinance, because it is just too hard to do, especially on narrow lots.

Perhaps the single most important factor in the destruction of the character of Pasadena is the very high parking ratio and the excessive amount of land devoted to asphalt. When parking is at grade 43% of the land is given to parking. This leads to an almost complete loss of open space, and destruction of the garden character of Pasadena. The place of gardens and courtyards in the older apartment buildings of Pasadena have been replaced by the parking and parking aisles in the newer projects.

The destructive character of parking cannot be altered without changing the currently accepted 2:1 parking ratio. The 2:1 ratio is possible in cities with a lower density: it is not possible in a city with the high densities proposed for Pasadena, without destructive effects. If we wish to maintain high densities, the parking ratio must be reduced. Our studies suggest that 1:1.5 would be an appropriate ratio. This will reduce parking from 43% to 33%.

Driveways also take up an extraordinary amount of the total land. This is aggravated by the narrow lots now typical in Pasadena. If there is a driveway on every 50' lot, and this driveway is built to the current 12' standard, the driveways alone will then consume 20% of all available private land in the city. It is therefore absolutely necessary to reduce the total number of driveways by a gradual introduction of a form of driveway-sharing, to modify the driveway width and curb cut width, and to prohibit all double width driveways. If done correctly, this can reduce land devoted to driveways from 15% to 10%.

Next most damaging are setbacks. The statistics on the previous page show that an immense percentage of open space is used to meet present side and backyard setback requirements: 20% of the lot area. This space is wasted in unusable strips of land. In spite of the huge percentage devoted to this use, no-one appreciates or even notices the presence of these spaces. To avoid the waste back and sideyards must be reduced and some zero lot line construction must be permitted when appropriate. We estimate this can reduce land spent on setbacks from 20% to 10%.

Front setbacks are also wasteful. Although appropriate in some places where they contribute to street quality, in other places these setbacks represent empty formalities which no longer produce the benefits expected. By careful reduction of front setbacks, when appropriate, it is possible to reduce the land spent from 10% to 7%.

We now come to gardens and courtyards. The single most important feature in the layout of Pasadena is its generous gardens, lawns, and courtyards. At the same time, the most noticeable feature of bad current development, is that it rarely takes responsibility for making beautiful and useful space at all. As we see from the land coverage statistics, this comes about because the combination of parking, driveways, and setbacks simply make it impossible to do anything else. Thus present conditions make it all but impossible to make beautiful or generous courtyard and garden space. The set-backs force building volumes to the centers of lots, and leave the front, side and back yards as leftovers which are unpleasant and contribute nothing to the city or the neighborhood.

Yet it is our belief that open space -- its size and character -- is the single most important thing defining the quality of the environment in Pasadena. In order to create a harmonious atmosphere in the city, and in order to preserve the character of the neighborhoods, and enhance their life and pleasantness, it is necessary to provide adequate outdoor space -- and this outdoor space must be organized to form real gardens large enough to have meaning and value.

Careful examination of the real character of Pasadena streets and lots, shows that the gardens and courtyards which have the most beneficial effect on the environment, are in almost all cases much larger than we imagine. For example, the courtyard of the building on California west of South El Molino, has a courtyard which is about 80'x45', almost 3500 sf. The front garden of the grey apartment building at the northwest corner of South El Molino and California is about 45x60 -- 2700 sf. In traditional terms, this is rather a modest garden. It is almost at the low end of something whose space is adequate for emotional "breathing space". By contrast, the typical RM48 development at Holliston just north of Colorado, has a courtyard space perhaps 20x30, and surrounded on 70% of its perimeter with two story buildings. It is a meaningless small space, which feels deserted, and unpleasant. It has no emotional reward.

Even in cases where the scale of some outdoor space seems to be tiny and charming, when it is adequate emotionally, it is almost invariably bigger than we think. For example, the curving lane south of California, with small houses along it, is a case where the open space or garden happens to be street-like in character. At first sight, one would say that it is small, and supports the argument that outdoor space does not have to be large in order to be satisfying. But the actual dimensions are surprising. There are so many ins and outs, and so many secondary spaces which encroach from the sides and form the space, that the overall width varies from 25 to 60', and the length of the perceived space is on the order of 100'. Once again, even taking an average width, the effective size of the thing is on the order of about 3500 - 4500 sf.

Sometimes the essential size of the outdoor garden is hard to see, because it crosses from one lot to another. A good example is the beautiful set of four front lawns at Locust and Holliston. These lawns together make a beautiful space, which gives the life and character to these four houses. It is about 42' deep, and about 180 feet long -- a total size of almost 8000 sf. It does not seem very big. It seems small in scale, intimate, but adequate.

On the basis of these observations we have come to the conclusion that an adequate environment for Pasadena, can only be made of beautiful gardens which are adequate in size, meaningful in character. This will require that every project either provides a single coherent garden space of at least 3000 sf, or at least that it contributes directly to the formation of such a space, in conjunction with some other project.

Finally, we must make a similar observation about the apartments themselves. Under present conditions the great majority of apartments are not on the ground. In order to make sense of a pattern in which larger gardens are provided, it is necessary that the number of apartments at grade is strongly increased.

We may summarise all these observations, by going back to the distribution of land coverage. To avoid the wasteful problems which exist, and to do justice to the environment of Pasadena, the statistics must be adjusted and land coverage redistributed until it reaches a distribution which looks something like this.

Usable gardens	28%
Apartments at grade	25%
Setbacks	5%
Driveways	10%
Parking at grade	32%

	100%

To make this possible, it is not only necessary to find a set of standards which will guarantee this redistribution. It is also necessary to identify an overall pattern of land, buildings and parking which makes it physically feasible.

We now come to the second major problem that stands in the way of any process which can help to maintain the character of Pasadena neighborhoods.

(2) Individual projects are disrespectful of the neighborhood in which they occur, and this disrespect is encouraged by the current ordinance.

The problem here, is one of attitude. Present traditions encourage an attitude that deals only with the individual building project, without emphasizing its relationship to its immediate surroundings and the neighborhood as a whole.

The most dramatic examples of this attitude are familiar. There are innumerable cases where a beautiful small building is swamped and destroyed environmentally, by large buildings, crudely placed, that overpower it, make its gardens unpleasant, overlook its windows, damage its scale. A three story building filling a lot, over underground parking, and next a to a charming bungalow and its garden, is the image which most Pasadenans are familiar with. This is the single effect which is perhaps most sensitive, and which most strongly makes people believe that high intensity development is damaging to neighborhoods.

Other examples are common. Many buildings turn a blind eye to the street (end walls without windows or front doors) and ignore their responsibility to help the street. Individual developments show no respect for trees, for existing beautiful gardens, for the scale or quality of next door houses and older buildings. Buildings come close to the street destroying an established pattern of large front lawns, gardens and so on.

The same thing occurs at an even more subtle level, in the matters of material, color, and overall harmony. If a Pasadena resident had to define, in a few words, what it is about the recent developments that is most disliked, it might simply be said: "Somehow, they dont fit in. Instead of respecting our beautiful city, and making it better, each project ignores its surroundings, sticks out like a sore thumb, somehow makes things worse".

All this is quite understandable. Under prevailing circumstances it is impossible for the neighborhoods to be preserved or enhanced by development because there is no mechanism whatever which helps it to happen. Indeed, present zoning law essentially forces it to happen, by imposing such severe constraints (of the wrong kind) on projects, that they cannot physically adapt themselves to the context of the neighborhood, and cannot make the contribution which their owners would often wish to do. As a result, under present circumstances, each new project tends to show a disrespect for its immediate surroundings and next-door projects.

This problem cannot be solved by a superficial and totalitarian "Santa Barbara solution" in which all buildings are made to conform to a uniform set of materials and building details. The problem lies much much deeper, in the quality of space which forms the environment. The discomfort which Pasadena residents feel, in the presence of new and "unkind" apartment buildings, is not a superficial problem of style or color. It is a real problem caused by the fact that new buildings, as built under present planning law, do not have the opportunity to be helpful to the neighborhood in the space which they create.

The key insight required to solve this problem, lies in the the following fundamental fact: The extent that any building is helpful, or not helpful to its neighborhood depends on the space that it helps to create. The wholesome character of the neighborhood is in the space which is created there.

In short, the fundamental way in which a building can be helpful to a neighborhood, is in the pattern of space which it creates. If it creates a pattern of space which is useful to the neighborhood, the building becomes harmonious and pleasant. For example, if the building helps to create usable garden to one side it is helpful, and the neighborhood becomes enlarged in feeling. If the building continues a beautiful lawn in front, by extending the space of a lawn on a next door building, a significant and beautiful thing happens in the neighborhood. If the building partially encloses parking, a parking lot takes on a positive character as a more contained place. If it helps to form a parking zone with connecting back driveways at the back of several lots, once again the neighborhood is helped. If the building makes a driveway which is a pleasant place to walk, instead of a no-mans land for cars, once again the neighborhood benefits. If the project is similar in scale to the buildings next to it, the community space of the neighborhood is strengthened and the people in the neighborhood will feel confirmed in their movements and habits. If the project preserves beautiful trees which are part of the heritage of the neighborhood again the neighborhood is helped.

Thus all neighborhood space is created by the individual building projects. If the buildings fail to meet their obligations in helping to shape this space, the neighborhood is irreparably damaged. When this happens, no amount of superficial sexing up the details of the buildings can make them work.

It is clear that this second problem is tied directly to the first problem of land coverage statistics. Under present statistics, the developer does not have the opportunity to create space which is helpful to the neighborhood, because he is forced to squander the available space, on parking, driveways, and setbacks. The buildings which he produces are therefore necessarily unhelpful to the neighborhood, because the arithmetic does not provide him with any way of making a useful contribution to the neighborhood space.

This problem is made especially acute, by the unusual size of available lots, in modern Pasadena. One of the most significant facts in the development of Pasadena, is the fact that the majority of developments are made on single parcels. Estimates from city staff indicate that 80-90% of all projects are single lot developments.

The spatial entities which are needed to make a neighborhood comfortable, are simply larger than anything you can do within a single lot. No developer on a single lot, can help the neighborhood if it is occupied only with the internal development of the lot. A single lot can make an adequate contribution to its neighborhood only when it turns its attention outward.

In addition, the statistics described earlier are very much worse on single lots than on double lots. Driveways and setbacks consume an even greater relative percentage on single lots.

Thus at the densities prescribed by RM16, RM32 and RM48, the only way that single lot developments can work spatially, to the benefit of the neighborhood, is if they can find a way of pooling their spatial resources. Careful study of the environment which is desirable on a block, clearly shows that there is a need for more generous gardens, for fewer driveways, and for buildings that respect each other's presence. This translates into a need for a more beneficial and interlocked development, in which formations of parking, driveways, gardens, courtyards, and buildings, introduced by individual developers, extend from lot to lot, in the sense that they respect the space of adjacent developments in a cooperative way and create larger configurations than those which exist today on single lots.

This does not imply any loss of autonomy by individual owners. It is a well established principle of American property, that each property-owner is free to develop his own property, in the way that he sees fit. What is implied here, is that ancient American principles of community responsibility are re-incorporated into law, and form the background and context within a which a developer pursues his private ends.

What is needed is a principle of connection between adjacent projects, which allows each project to take its place within a larger whole and to make a contribution to it, while extending, not hindering, the individuals private rights. In exchange for this community spirit on the part of the private property owner, the city, through this ordinance, must then give the private owner greater freedom in the range of densities and configurations than that which is now permitted.

Without this change of attitude, new projects will continue to create a sense of disruption, and there is no way that modern development can be made to help the neighborhoods.

1.4

THE COHERENCE OF THE NEIGHBORHOOD

Within present concepts of zoning, the fundamental problems defined in section 1.3 might seem to be unsolvable. They pose serious difficulties and it might be said that, at least within the framework of the current zoning, they cannot be solved without forcing unacceptable sacrifices on the users. However, as we shall now see, these problems can be solved, provided that we pay careful attention to their interaction: and provided that we work within a vision of the neighborhood as a whole. This is what we mean by the coherence of the neighborhood.

The solution of the problems has two parts.

First, a vision of the city, in which wasteful driveways, parking and setbacks are transformed into garden and courtyard space. This hinges on a reorganisation of space, which we shall explain, as an archetypal pattern, by means of diagrams. It includes the absolutely fundamental idea that buildings help to shape open space, and must be required to do so. It also hinges on an analysis which shows that prevailing desired densities in the three existing categories (RM16, RM32 and RM48) are all attainable within this pattern, without increasing building heights above two and three storeys.

Second, a clear view of the problem of context sensitivity. The holistic pattern of space in a neighborhood can only work, if each project plays its role in helping to create the larger whole: and this, in turn, requires that each project be context sensitive to an unusual degree. Each project is able to help the creation of the whole, because it makes a variety of small scale internal adaptations within its own structure: and these result in a much more sensitive relation between the individual projects and existing trees, buildings and gardens.

One may express both these ideas together, in a nutshell, by saying that they require that individual projects become more helpful, than they have been in the past. As we shall see, the result of this greater helpfulness, is to improve individual projects so that all private developments clearly benefit from the contribution they are required to make to the neighborhood, because the overall system of rules is more favorable to the creation of a good environment on private lots.

All this means that the ultimate purpose of the ordinance is to establish the neighborhood as its basis and to protect and enhance its character. Within this conceptual framework, each individual project then has the "task" or obligation to do as much as it can to increase the well-being and "wholeness" of the neighborhood in which it is built.

(1) The pattern of the neighborhood.

To solve the problem of land coverage statistics, we have constructed the pattern of an ideal block for a Pasadena multi-family housing neighborhood which has the "right" statistics. This pattern incorporates three structures: (1) Street and gardens (2) Parking and (3) Building forms.

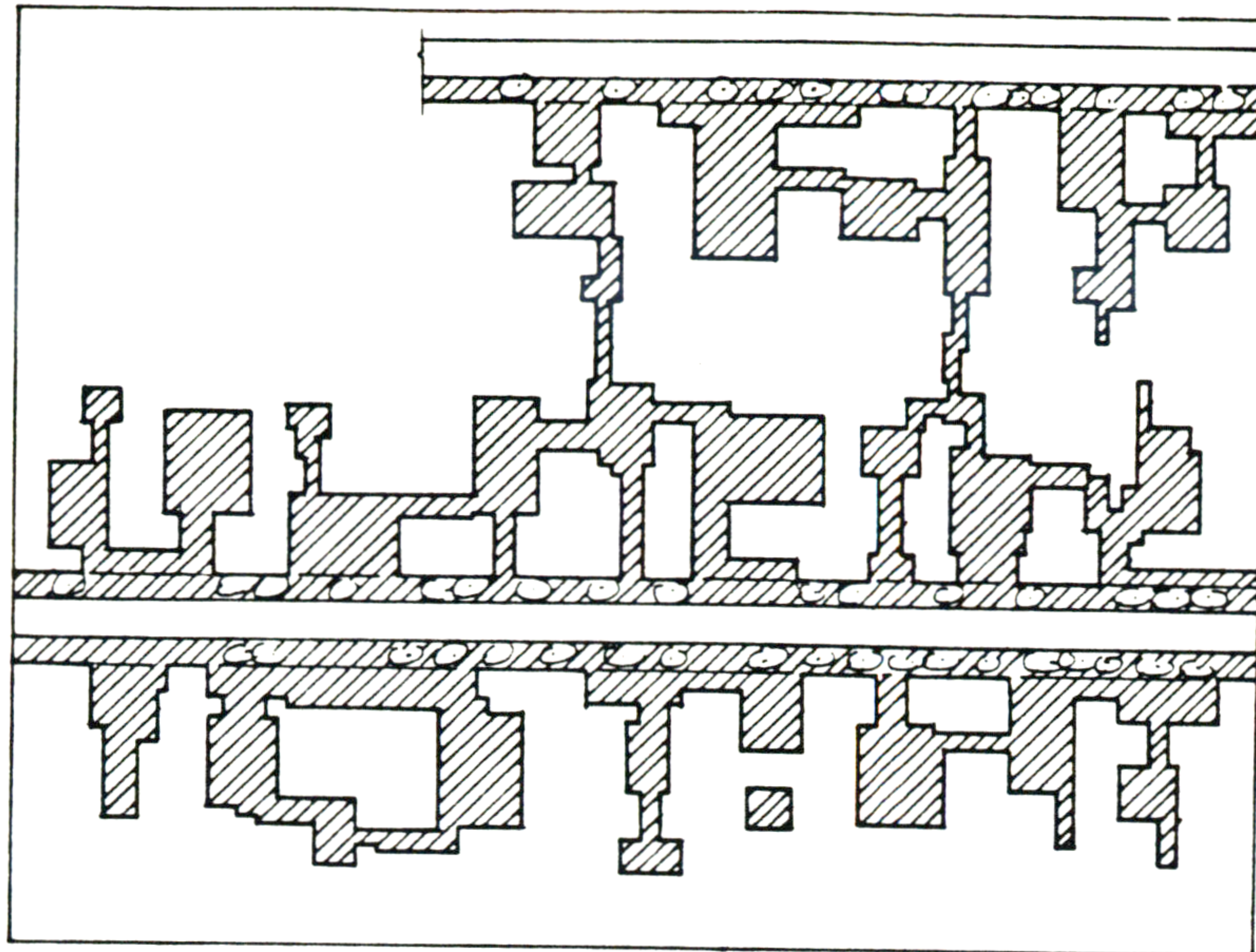
The pattern includes the most beautiful street we can imagine, from the point of view of outdoor space connected to it -- courtyards and gardens. This street has large gardens, courtyards, deep setbacks where the setback has positive value as outdoor space, and shallow setbacks where it does not. There is a pattern of interconnection between these gardens which makes a continuous and beautiful fabric of open space. It is the overall effect and character of this street-plus-gardens, which makes the neighborhood beautiful. The primary obligation of each individual project, is therefore to create beautiful and useful gardens. The buildings, seen from the point of view of the neighborhood, are the means through which gardens are created.

The pattern includes parking which is coherent and beautiful too. In its own terms it has its own integrity as a structure of parking lots and driveways. In case it seems odd to say that parking might be beautiful, we want to emphasise that many of the older buildings in Pasadena do indeed have beautiful parking, where the driveway, and parking lot and garages, themselves form usable and pleasant space, humane in its own terms.

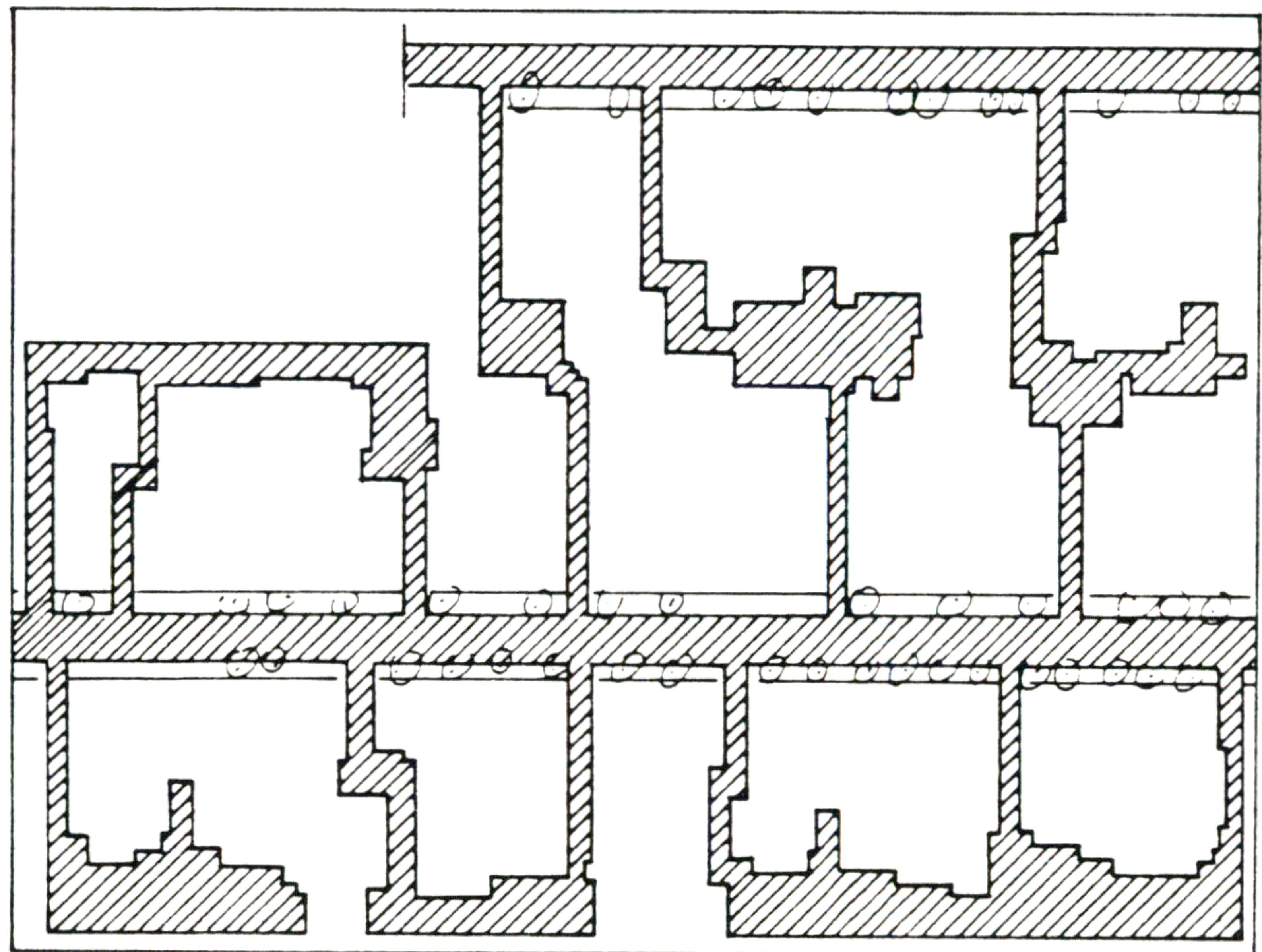
Finally, the building volumes in this pattern also have their own definiteness of shape. They always enclose gardens and shape them as positive space. Each building volume, as a structure, lays at the "head" of its garden, with most apartments opening directly into the garden or courtyard. There are small passageways through the buildings connecting parking with the inner garden. Buildings are placed in such a way so that gardens and driveways, though most often separate, could sometimes cross, or run side by side. Because of their relative narrowness, all the building volumes guarantee good daylight and sunlight in the buildings.

These three components of the pattern and their interrelationships are shown in the following sequence of diagrams. It is important to notice that the pattern of space in each diagram has a coherent structure: and that the three structures are deeply interlocked to make each one positive.

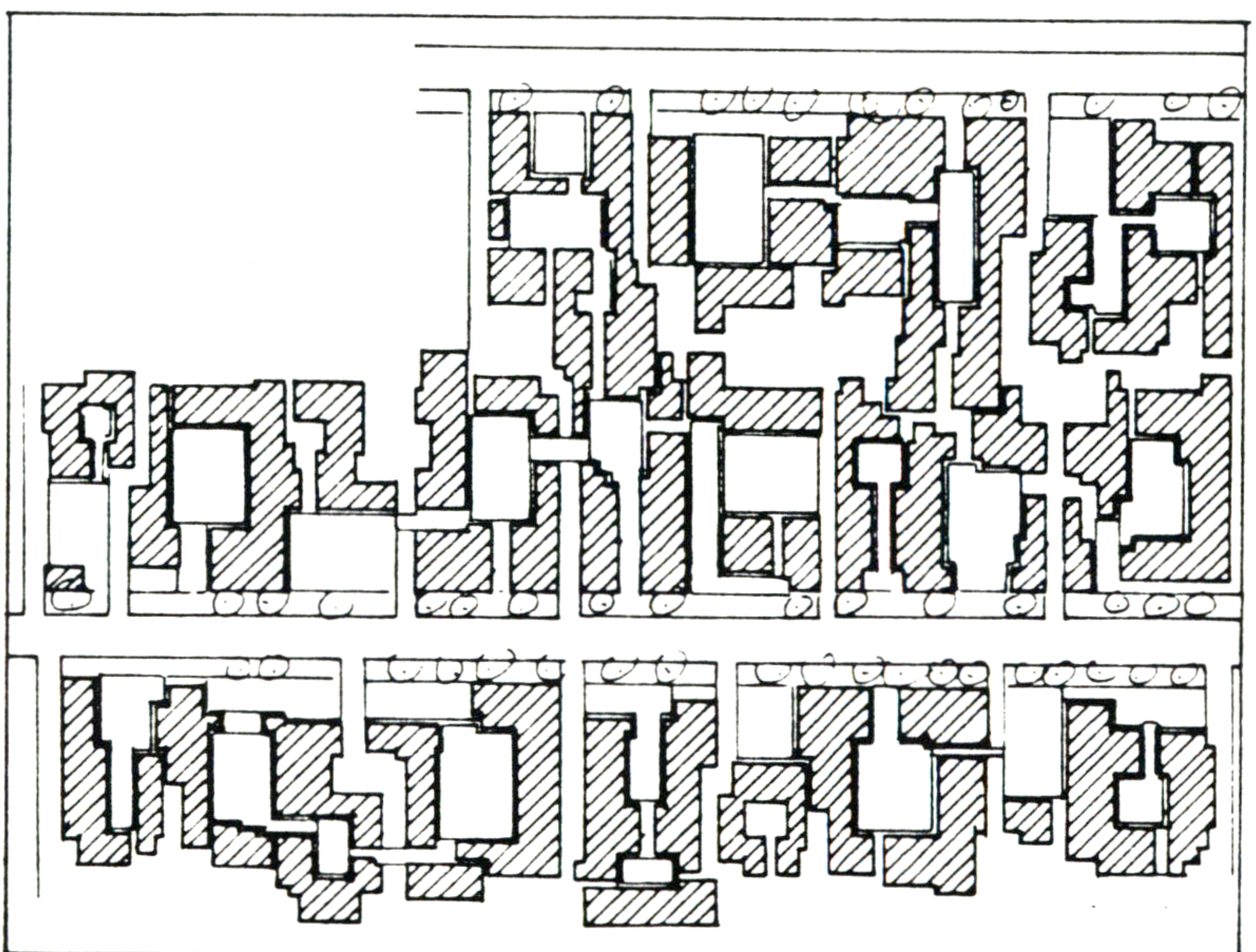
It is very important to note that this pattern is capable of reaching extremely high densities without increasing building heights and without damaging environmental character. Although it maintains a beautiful gardens and street character the pattern (as expressed in the standards of this ordinance) allows densities up to 30 units per acre to be built in the RM16 zone, it allows densities of up to 38 units per acre to be built in the RM32 zone, and it allows densities of up to 51 units per acre to be built in the RM48 zone.



STRUCTURE OF GARDENS



STRUCTURE OF PARKING



STRUCTURE OF BUILDINGS

We believe that this pattern is the only one which is capable of solving the problems that are described in section 1.3. The problem is solved by reducing the waste of space which is typical of present pattern of development.

1. We avoid wasting land on setbacks.
2. The number of driveways is reduced.
3. No land is wasted on small useless bits of open space, and all open space is aggregated to form coherent and useful gardens.
4. There are always apartments over parking structures, so as to avoid wasting the air space over parking garages.
5. Parking-to-unit ratio is 1.5 cars/unit, to reduce the total area given to parking.

(2) Context sensitivity.

We have already observed that the single most damaging aspect of current development in Pasadena, is the way in which individual projects fail to create harmony in the neighborhoods, and instead produce an incoherent and abrasive intrusion. This problem is linked to the gradual emergence of the pattern which we have just described.

At present Pasadena has a unique mixture of different projects on different blocks, some old, some quite new, others of varying age and character. It will only be possible to build up the new space pattern described in the previous section, if each new project is able to adapt sensitively to the particular and unique configuration that exists around it.

It would be quite impossible, and also highly undesirable, to impose the new pattern as some kind of grand plan on the existing neighborhoods. Instead, it is only possible to reach it by a very gradual process of accretion, in which new projects make some contribution towards this vision, and then gradually, over a period of ten to twenty years this pattern emerges, from a long series of piecemeal and private acts undertaken by individual developers.

For this to succeed, it requires an extraordinary sensitivity on the part of each individual project, to the unique characteristics of the neighborhood around it, and even to the particular attributes of buildings which stand next door and two doors away. It is therefore necessary to set forth principles which make it clear how each project is expected to play its role in the gradual creation of this pattern.

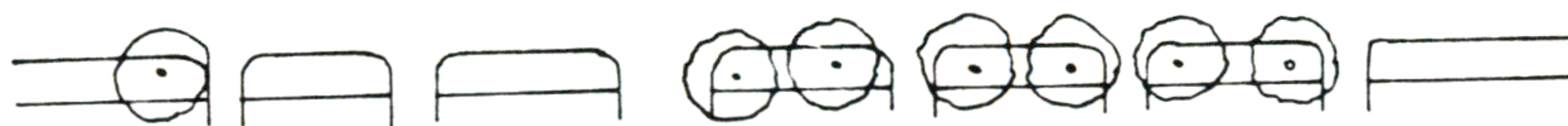
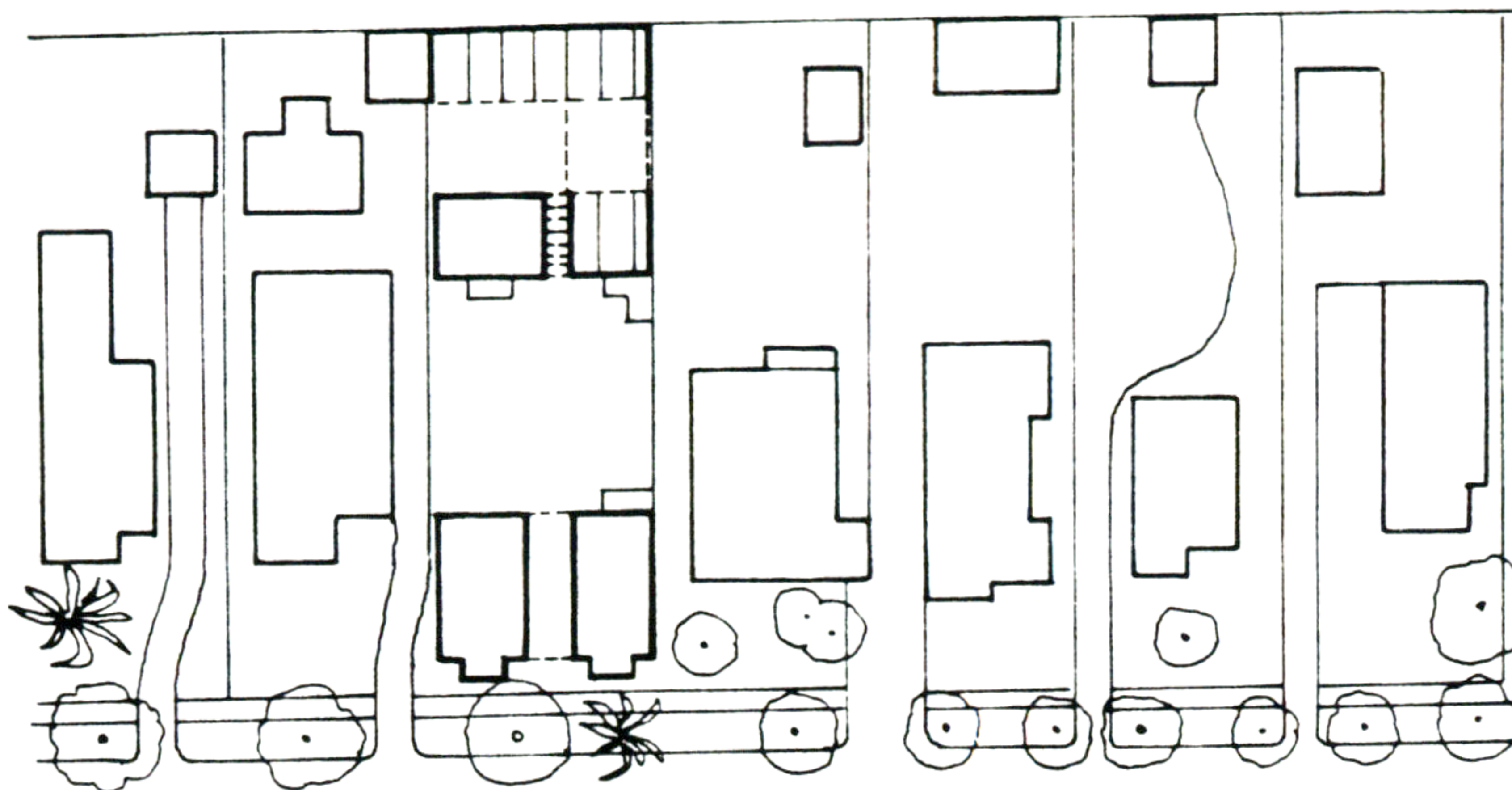
First, we shall encourage adjacent properties to connect with one another in a helpful fashion with a connected sequence of gardens, shared driveways, parking and building volumes working together, even though each project is done individually and takes place at its own time. The whole solution to the environmental problem lies in this connection and working together of adjacent properties.

Within this framework each project must be shaped according to its context so that it makes a contribution to the overall neighborhood pattern -- and also pays attention to the specifics of next-door buildings, trees, gardens, and all the other idiosyncracies which make each neighborhood unique. The ordinance will provide the mechanisms to assure the development of projects which are sensitive to their individual contexts in this way.

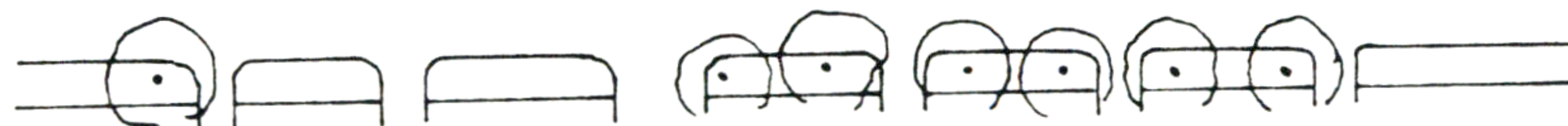
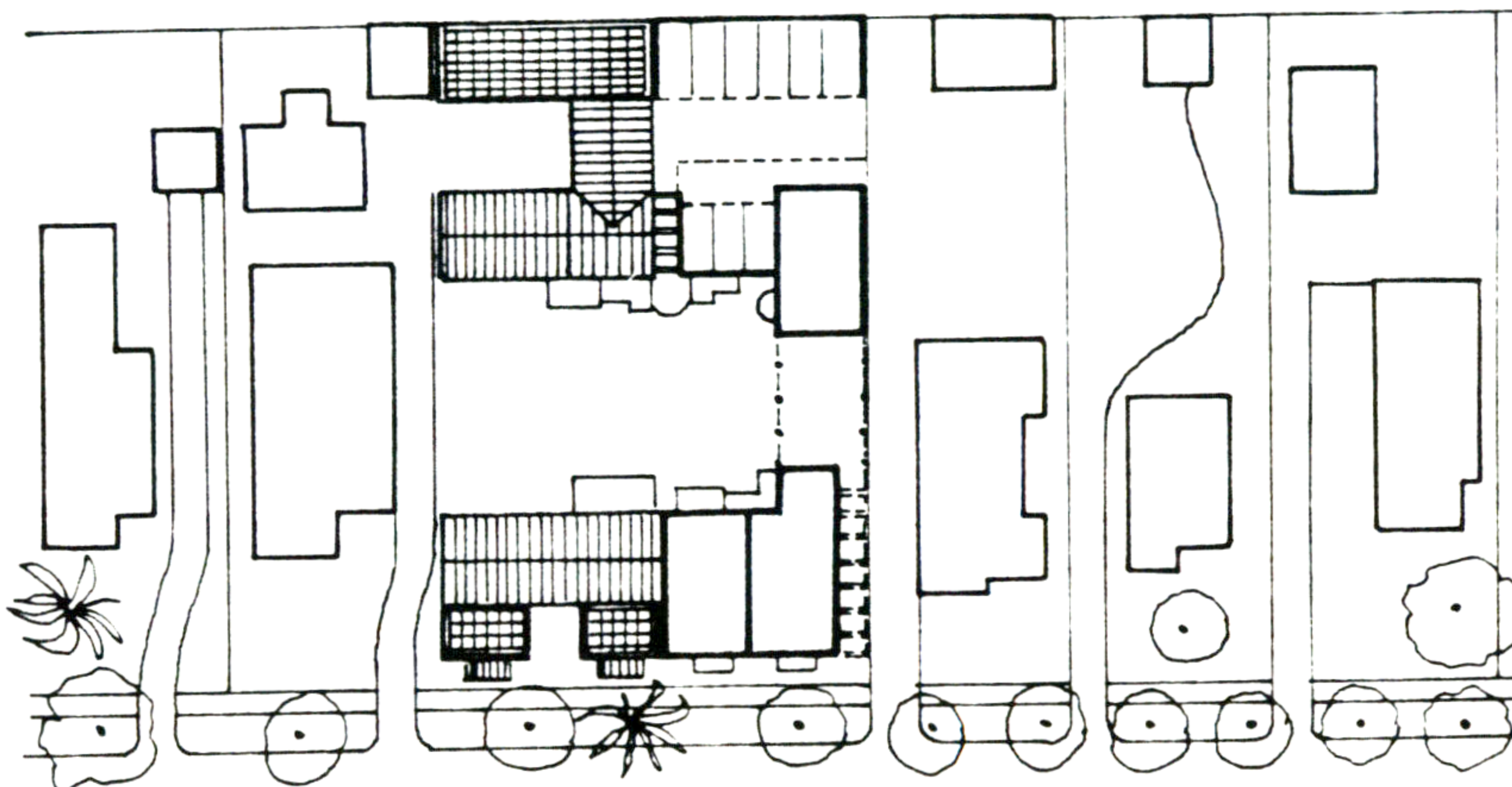
This "context-sensitive nature" of the neighborhood problem, requires that the ordinance has a process which avoids the trap of simple stereotypes in the projects that are built, and is capable of producing a rich variety of projects that are unique and beautiful, each one according to the particular harmony of the neighborhood where it occurs.

The following three drawings show a sequence of imaginary projects, done by three independent developers, on three adjacent sites. These examples, which are consistent with the requirements of the ordinance, show how projects by independent developers, acting individually, have the ability to form connections to the existing fabric of the neighborhood and to one another's projects, and thus create a larger organization which is desirable for the neighborhood.

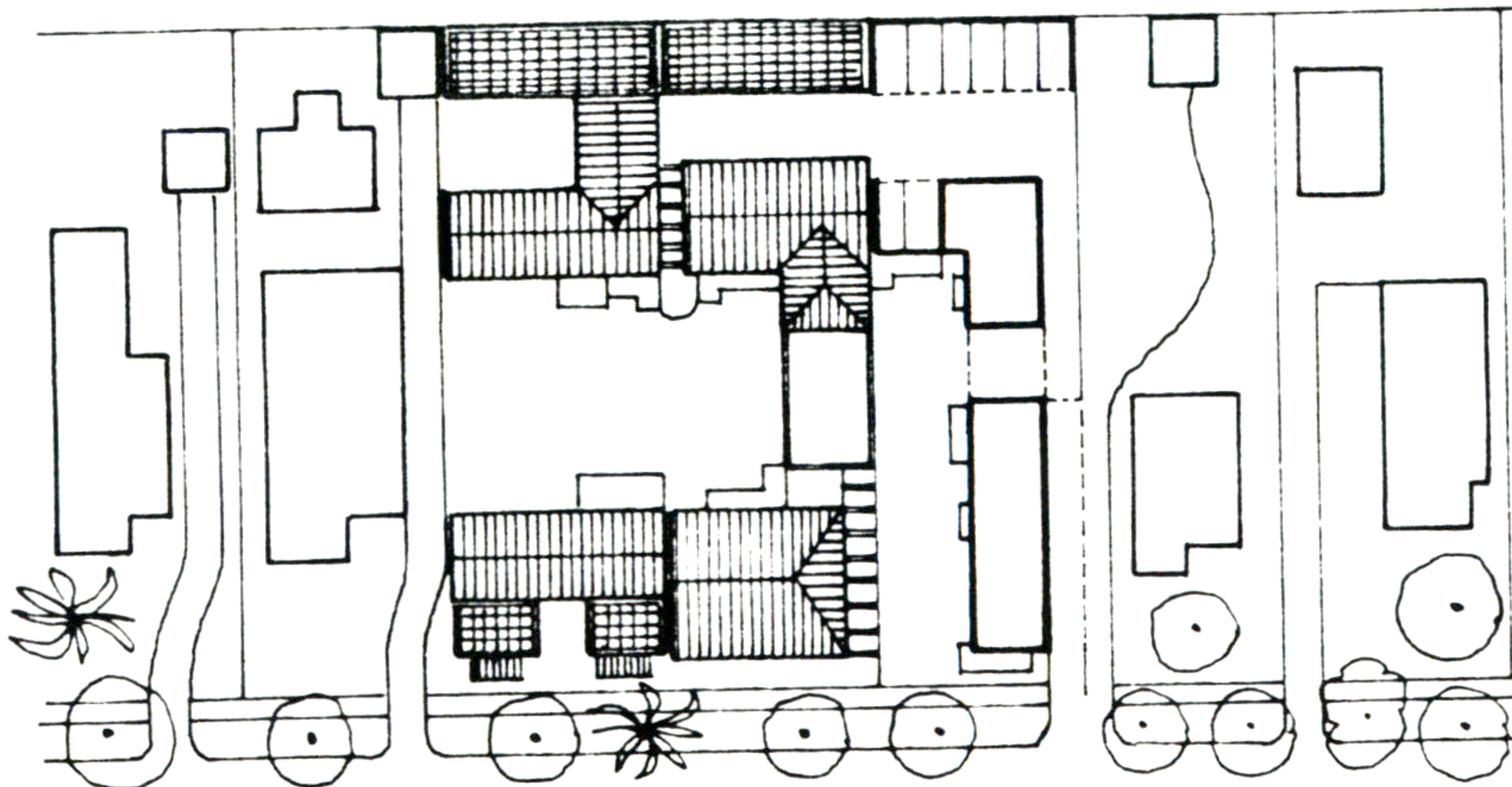
SEQUENCE OF DRAWINGS SHOWING SEQUENTIAL
DEVELOPMENT ON THREE ADJACENT LOTS.



1st INDIVIDUAL PROJECT



2nd INDIVIDUAL PROJECT



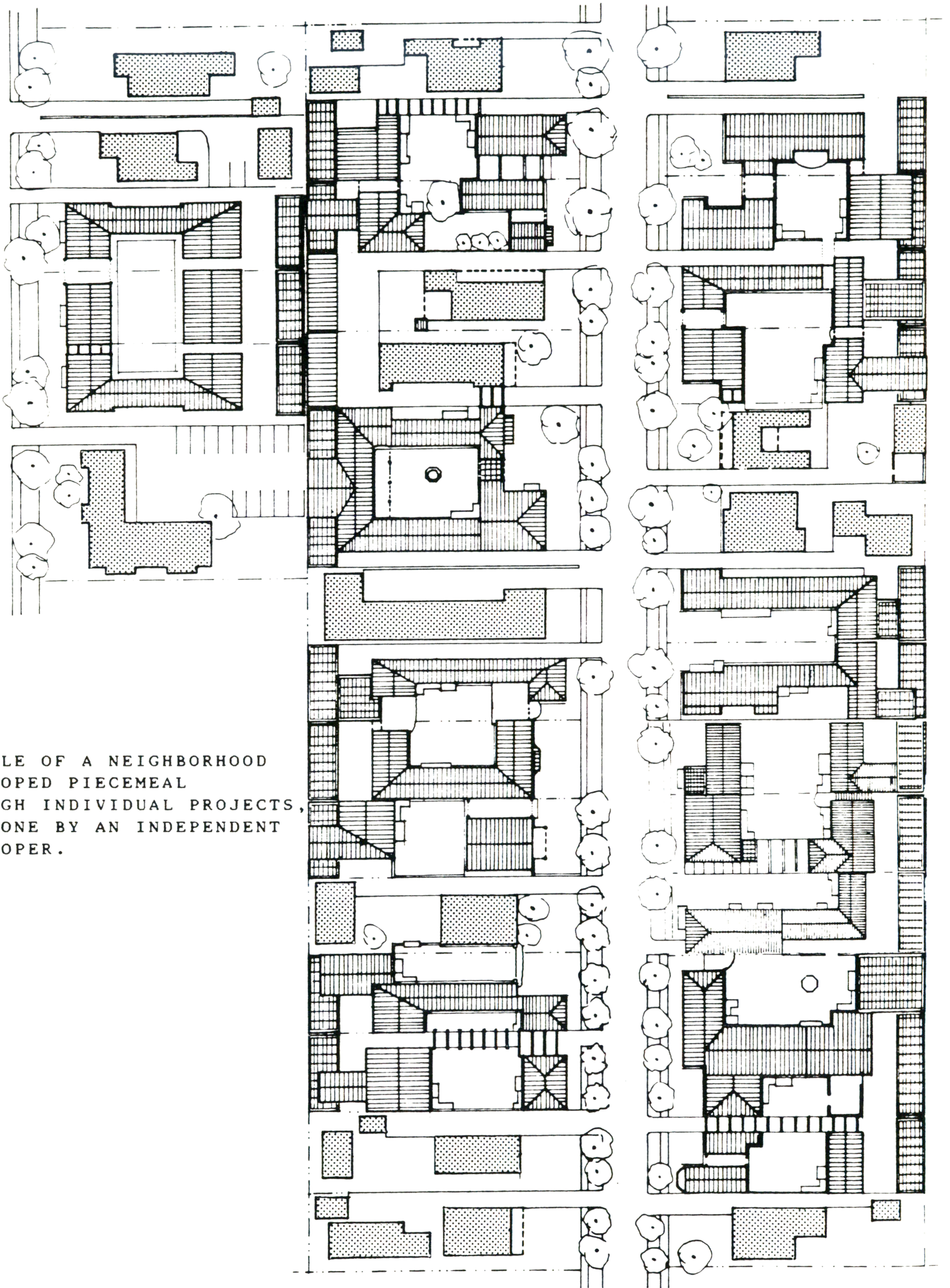
3rd INDIVIDUAL PROJECT

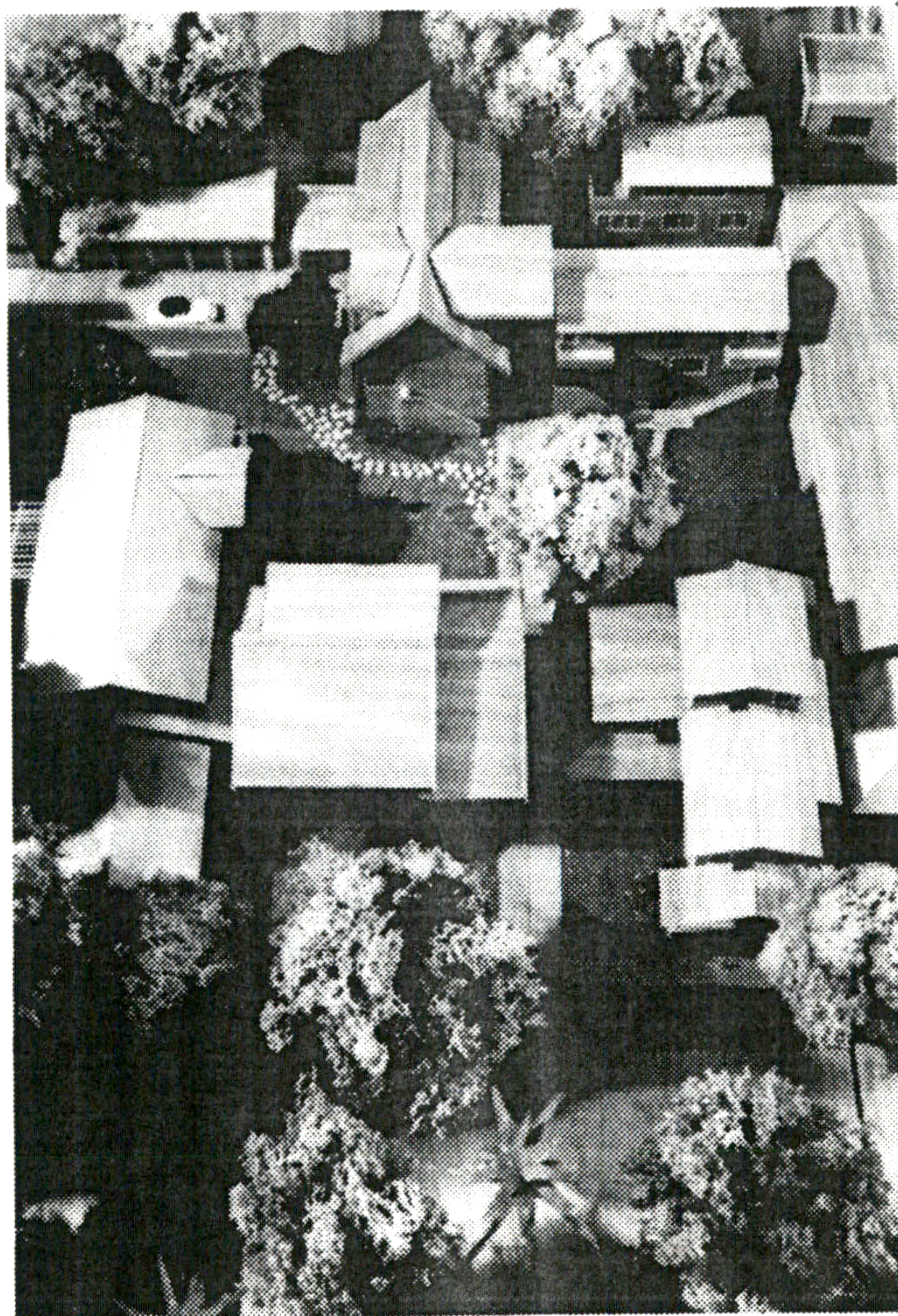
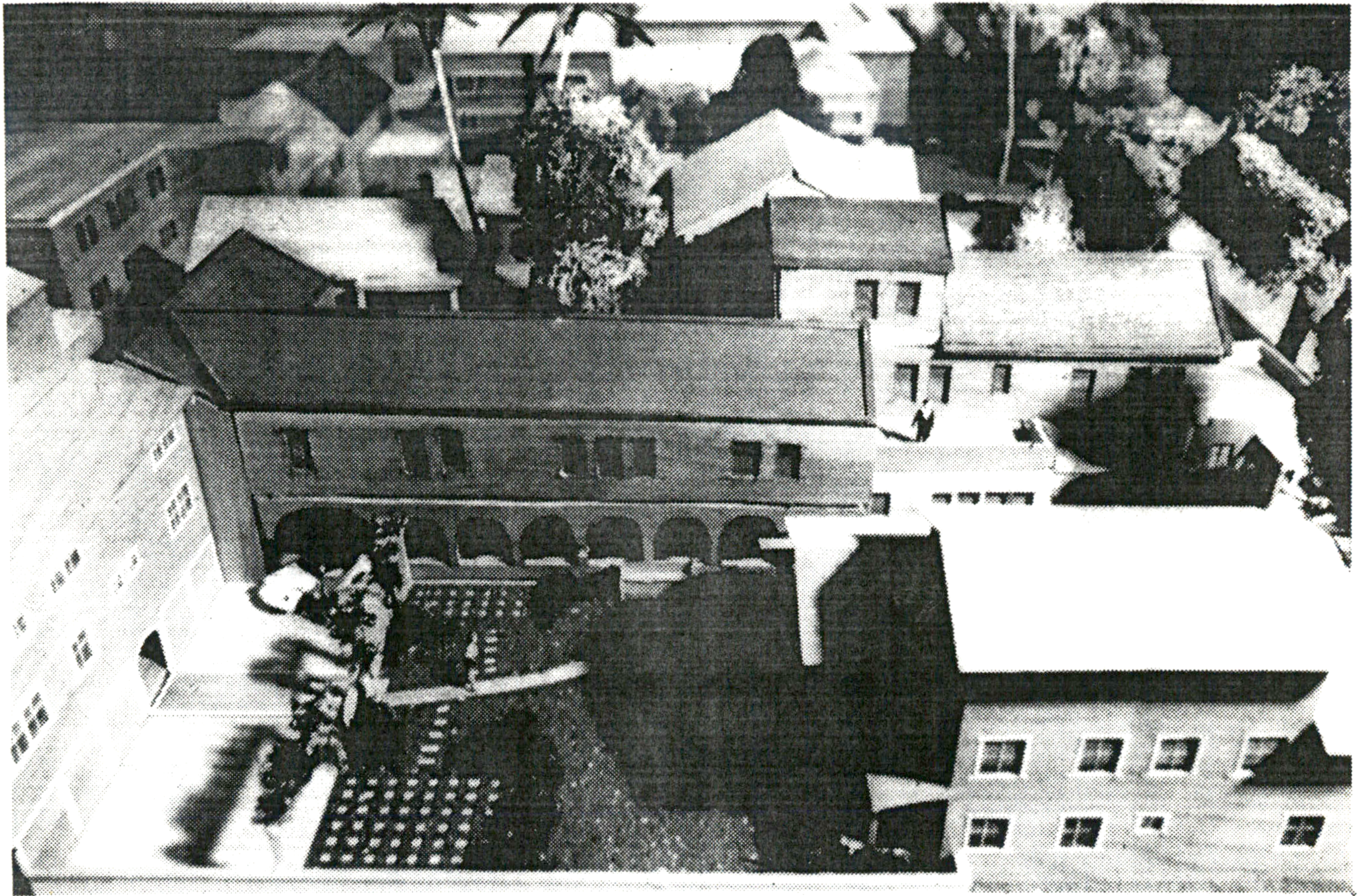
The drawing on the next page shows a more elaborate simulation of the development of an existing Pasadena neighborhood over a ten year period. The example shows a neighborhood of thirty six individual lots. Twenty of them have new projects. The remaining sixteen have existing projects as they stand today. Each one of the new projects is assumed to have been developed at a different time, by a different developer working according to the process of this ordinance. The three projects shown on the previous page, are visible in the bottom right hand corner.

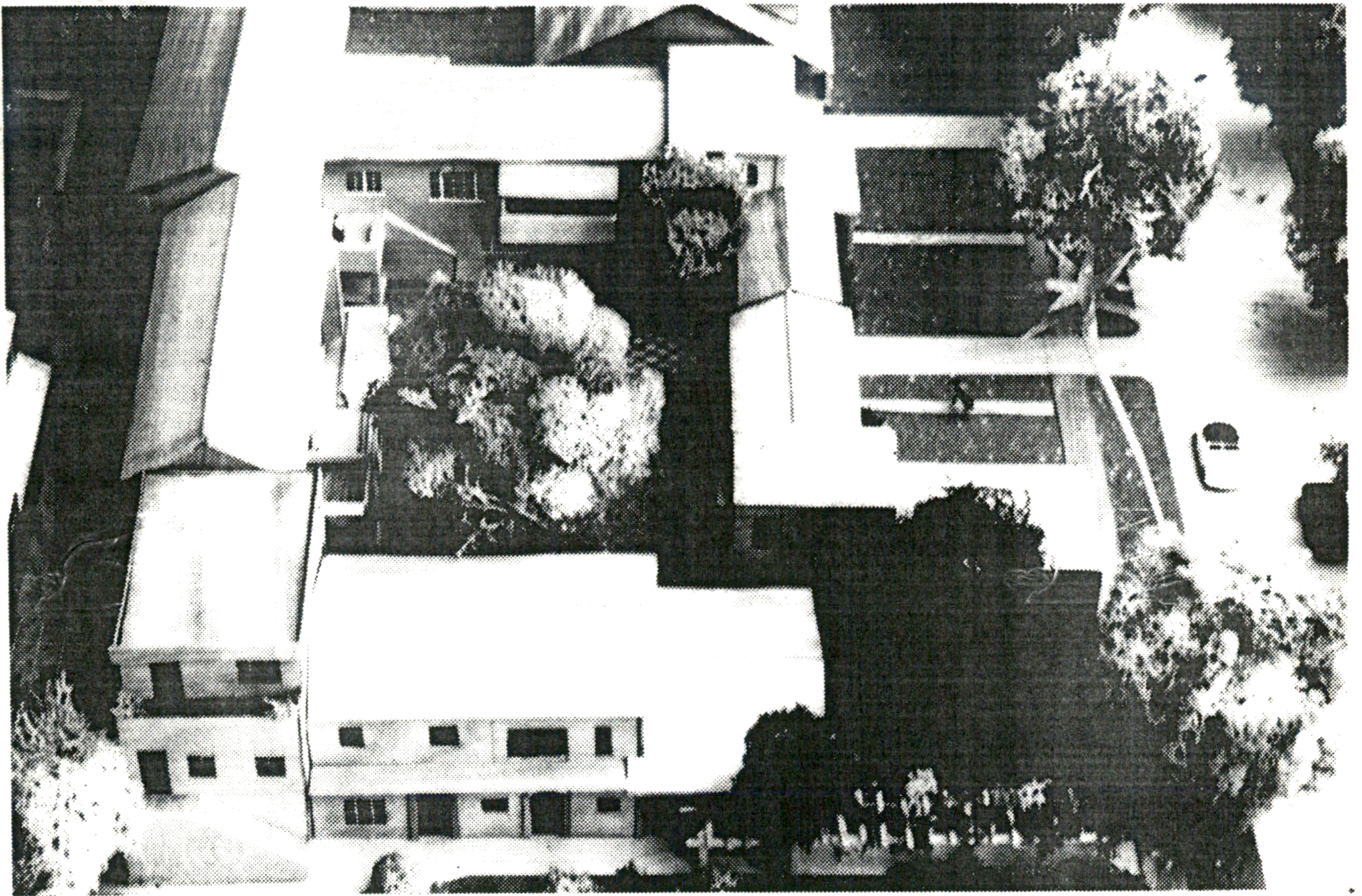
This example shows how the ordinance will help to create coherent development in the neighborhood when separate and independent developers pursue their own aims on nearby parcels. Although the developers are acting individually and privately, the effect of the ordinance is to make sure that their separate projects together tend to produce a greater whole in their contributions to the neighborhood. Each new project emphasizes its relationship and connection with its adjacent projects, through connected gardens, shared driveways, and related buildings. Together these developments succeed in creating a neighborhood that is pleasant to live in. Above all, each project is respectful to what existed in the neighborhood at the time that it was built.

On the pages following we show photographs of a model which simulates development of thirty projects according to the provisions of the ordinance.

EXAMPLE OF A NEIGHBORHOOD
DEVELOPED PIECEMEAL
THROUGH INDIVIDUAL PROJECTS,
EACH ONE BY AN INDEPENDENT
DEVELOPER.







CHAPTER 2

USE OF THE ORDINANCE

2.1
INTRODUCTION

We have seen how the wholeness of the city requires that certain important factors be taken into account in a balanced fashion. In particular it requires that every project which is built is conceived in such a way that it explicitly helps play its role in establishing and improving the coherence of the neighborhood.

In detail, this requires that the following important ten steps be taken by every applicant, in the course of establishing a project.

1. The applicant must make a conscious attempt to understand the context of the surroundings, and then to make sure that his project establishes a useful and harmonious relationship with this context. (1.1)

2. The applicant must find out what position is necessary for the main garden, so that it contributes, in a beautiful and useful way, to the overall continuum of open space in the neighborhood. (1.2)

3. The applicant must find out which set of numerical parameters he can and wishes to use, in regard to total density of built space, and number of parking spaces. (1.3)

4. The applicant must establish the position of parking, in a way which is most discrete, and does least harm to the neighborhood (2.1)

5. The applicant must shape the gardens, parking and open space in relation to adjacent gardens (2.2)

6. The applicant must now place the volume of the buildings in his proposed project, in a way which is consistent with the previous important decisions about open space and parking (2.3)

7. The applicant must now arrange for details of driveway and parking, in a fashion which is consistent with the position of building volumes, choosing parking parameters that will maintain the necessary number of spaces, necessary visual modesty, and maintain the modest and small character of driveways and curb cuts (3.1)

8. The applicant must now try to create useful and pleasant apartments, with their own individuality, making sure that apartments have good daylight, and the possibility of a personal character (3.2).

9. The applicant must now place apartment entrances in such a way as to give pleasant and safe passage from parking, easily recognised individual apartments, with access, wherever possible, to private outdoor space. (3.3)

10. The applicant must take steps to choose materials, roofs, walls and windows, to guarantee a reasonable and pleasant harmony to the neighborhood (4.1)

11. Finally the applicant must choose outdoor elements, including trees, lawns, plants, seats, walls, gates and benches, in such a way as to guarantee a useful and pleasant character for all outdoor space. (4.2)

These steps follow, necessarily, from the general philosophy expressed in chapter 1. The global requirements of the neighborhoods, cannot be met unless each project, individually, is made responsible for these eleven steps which will make sure that the individual project, does the maximum possible, to help the environment of the neighborhood, without infringing on the individual rights or desires of the project itself.

In the process of this ordinance, each applicant must fill out a series of application forms which essentially guarantee adherence to these general principles, and which compel the applicant, step by step, to consider these matters in an organized and useful way.

We believe that these steps will not seem coercive to the applicant, since any applicant surely has, as a fundamental purpose, his ability to make a maximum contribution to the overall well-being of the neighborhood. The format of the application process, merely makes it natural and sensible for each applicant to make these contributions to the neighborhood's well-being, in a clear and simple fashion.

2.2.

APPLICATION FORMS

This section contains the application forms which are to be filled out by any prospective applicant for a building permit.

There are four parts to the application form. These four parts should be filled out sequentially, and then checked for compliance at each stage by a member of the planning department. The procedure for checking compliance appears explicitly on the forms. An experienced applicant may choose to submit all four parts concurrently.

The numbering system of the parts in the application forms is keyed, both to the steps in the layout process which follows this section (section 2.3) and to the relevant sections of the ordinance itself (sections 3.2 and 3.3).

PART 1. RELATIONSHIP TO NEIGHBORHOOD CONTEXT

- 1.1 Map of context and surroundings.
- 1.2 Position of main garden.
- 1.3 Table of key numerical parameters.

PART 2. OVERALL ORGANIZATION OF PROJECT.

- 2.1 Driveway and parking location.
- 2.2 Precise location and shape of gardens.
- 2.3 Volumetric configuration of buildings.

PART 3. DETAILED ORGANIZATION OF PROJECT

- 3.1 Details of parking.
- 3.2 Division of building into apartments.
- 3.3 Location and shape of apartment entrances.

PART 4. CHARACTER OF PROJECT

- 4.1 Building materials and details.
- 4.2 Details of gardens.

APPLICATION FORM--MULTIFAMILY HOUSING

Project Address _____ Name of Zoning official _____

PART 1: RELATIONSHIP TO NEIGHBORHOOD CONTEXT

Required drawings: Context map, with proposed location of main garden, at 1"=50'.

To the zoning official:

1.1. MAP OF CONTEXT AND SURROUNDINGS

Check below if following items have been identified in map of context and surroundings.

--footprints of all buildings on surrounding lots, with number of stories.

--position and approximate size of all gardens on surrounding lots.

--open space and lawns along the street.

--location of parking structures on surrounding lots.

--big trees on your lot, on the street and on adjacent lots.

--existing driveways and back alleys on nearby lots.

--setback dimensions on adjacent lots.

--groups of doors or other entrances on next door lots.

--walkways and entrance paths on surrounding lots.

Approved

Not Approved

1.2. POSITION OF MAIN GARDEN

Position of main garden must make maximum possible contribution to the existing context, in one of the following four ways. Check one.

--by connecting to existing interior garden on adjacent lot, and creating a large interior garden.

--by maintaining a broad lawn or garden between the street and the line of buildings which include the proposed project, and creating a long front garden.

--by creating a deep front garden along the street, with adjacent building contributing to its enclosure.

--by creating an internal courtyard, fully contained within the lot.

Position/and or character of main garden must contribute to the existing context, in one of the following ways. Check one.

--by having as its focal point an existing large tree or stand of large trees.

--by allowing entrances to existing apartment building on adjacent lot to be on edge of garden.

--by being adjacent to single family house on adjacent lot, and allowing for light and air to that house.

--by another means (specify): _____

Approved

Not
Approved

1.3. TABLE OF REQUIRED KEY NUMERICAL PARAMETERS.

Density Zone	_____			
Lot Area	_____	s.f.	Width of lot	_____ ft.
Context Density	_____	units/lot	C factor	_____

A. Maximum allowed sf. of construction in relationship to context density and type of parking:

Surface parking

Parking with dwellings above

Naturally ventilated parking

Mechanically ventilated parking

Density bonus for obtaining easement for the use of adjacent driveway

Density penalty for increasing parking spaces to units ratio to 2 cars/unit

Sf of construction taking into account density bonus and penalty

B. Total required open space

Minimum required main garden

Recommended size of secondary gardens

C. Number of units

D. Number of parking spaces

Approved

Not
Approved

COMMENTS BY ZONING OFFICIAL:

I certify that Part 1 of this project is in conformance with the Zoning Ordinance as defined in the criteria above and in the other text contained within the Ordinance.

Signature _____ Date _____
Zoning Official

APPLICATION FORM--MULTIFAMILY HOUSING

Project Address _____ Name of Zoning official _____

PART 2: OVERALL ORGANIZATION OF PROJECT

Required drawings: Site plan at 1"=20' and volumetric model or sketch of project at 1"=20'.

To the zoning official:

2.1. DRIVEWAY AND PARKING LOCATION

A. Choice between shared and on-site driveway.

Check which one of the following two applies:

- i. Project to use existing driveway on adjacent lot
- ii. Project to provide new driveway on subject lot.

If case (i) applies, check if all of the following conditions are met:

- i. Driveway on adjacent lot next to shared lot line.
- ii. If driveway on adjacent lot not next to shared lot line, existing parking aisle provides access to subject lot.
- iii. Easement for the use of driveway on adjacent lot has been obtained. (Notarized copies of easement must be attached).

Approved

Not
Approved

B. Number and location of on-site driveway

Check if following conditions are met:

i. No more than one driveway is allowed per lot.

ii. On-site driveway on subject lot must be located adjacent to side lot line.

Exception:
In case of corner lot, on-site driveway may be located immediately adjacent to rear lot line.

Approved

Not
Approved



C. Parking location:

Check parking type already chosen, and its relevant conditions:

(I) Surface parking, or
Parking with dwellings over.

Check if the following conditions are met:

i. All surface parking or parking with dwellings over, when aggregated, must be located on the rear 40% of lot.

ii. All surface parking or parking with dwellings over must be shielded from street by building volume.

iii. All surface parking or parking with dwellings above must be shielded from main garden.

If condition (i) is not met, check if the following is satisfied:

If lot wider than 80', no more than 30% of parking, when aggregated, may be located in front of the rear 40% of the lot.

Approved

Not
Approved

(II) Naturally ventilated parking

Check if the following conditions are met:

i. All naturally ventilated parking must be located on rear 50% of lot.

ii. If naturally ventilated parking is depressed, then platform above parking must be no more than 4 feet above ground level.

Approved

Not
Approved

(III) Mechanically ventilated parking

Check if the following conditions are met:

Mechanically ventiaalted parking must be consistent with the main garden requirement, as defined in paragraphs 2.2-A #3 of chapter 3.

Approved

Not
Approved

2.2. PRECISE LOCATION AND SHAPE OF GARDENS

A. Shape of main garden.

Check if the following conditions are met:

i. Largest rectangle inside main garden must have area at least 75% that of main garden. On lots wider than 80', rectangle must be at least 2,000 sf.

ii. Minimum dimension of main garden must be 20 ft .

Approved

Not
Approved

A.#1 Combined shape of main garden and open space on adjacent lot.

Check here, if main garden is working together with adjacent open space.

If so, check if following conditions are met:

Largest rectangle inside combined garden must have the following features:

-- it includes at least 65% the area of main garden; and

-- it includes at least 800sf of adjacent open space, with a minimum dimension of 20 ft.

Approved

Not
Approved

A.#2 Relationship of main garden to side lotlines.

Check if the following conditions are met:

If lot is 80' wide or less:

i. Main garden touches at least one side lot line.

ii. Main garden does not touch any side lot line.

If lot is more than 80' wide:

i. Main garden touches at least one side lot line.

ii. Main garden does not touch any side lot line.

Approved

Not
Approved

A.#3 Position of main garden with respect to mechanically ventilated parking.

Check here if mechanically ventilated parking is provided for project.

If so, check if following condition is met:

i. Main garden must be at ground level, always above soil.

If (i) is not met, then check if your case is covered by the following exception:

ii. In Rm-32 and RM-48, no more than 35% of main garden is allowed to be above underground parking, provided that slab is covered withft of soil.

Approved

Not
Approved

B. Number of secondary gardens.

Check which one of the following applies:

- i. No secondary garden on lot.
- ii. One secondary garden per lot.
- iii. Two secondary gardens per lot.

If case (iii) applies, check if following condition is met:

--Lot must be more than 80' wide.

Approved

Not
Approved

B.#1 Size of secondary gardens when not working together with open space on adjacent lot.

Check here if secondary garden is not working together with open space on adjacent lot:

If so, check which one of the following conditions is met:

- i. As a front lawn:
Minimum dimension must be 15 ft.
- ii. As an interior garden:
Minimum dimension must be 20 ft.
- iii. As the only interior garden, in a lot more than 80' wide:
Minimum dimension must be 30 ft.

Approved

Not
Approved

B.#2 Size and shape of secondary garden when working together with open space on adjacent lot.

Check here if secondary garden is working together with open space on adjacent lot:

Check if all following conditions are met:

i. Minimum dimension of secondary garden within lot is 15'.

ii. Largest rectangle within area of combined garden includes at least 75% of area of combined garden.

iii. Area of secondary garden is no more than half the area of combined garden.

Approved

Not
Approved



2.3. VOLUMETRIC CONFIGURATION OF BUILDING.

A. Maximum width of building volume.

The maximum width of any building volume must be 35'.

Approved

Not
Approved

A.#1 Enclosure of main garden.

The main garden, except when it is a front lawn, must be bounded along 60% of its perimeter with building.

Approved

Not
Approved

B. Visibility of an interior main garden from the street.

Main interior garden must be visible from street, through opening at least 8' wide.

Approved

Not
Approved

C. Front setbacks.

Each project must conform to at least one of the following. Check which one applies:

i. At least 60% of the facade must line up with the front facade of at least one adjacent building.

ii. At least 60% of the facade must be recessed at least 15' behind facade of adjacent building, in order to create a deep front garden.

iii. ALLOWED ONLY IN RM-32 AND RM-48.
A width of at least 20' of one (1) storey volume may project in front of adjacent building, up to 10' from front property line, subject to limitation of maximum 40' of such volumes per 400' of street.

Approved

Not
Approved

D. Width of building volume along the street.

Check which one of the following is met:

i. On a lot 80' wide or less, length of building volume along street must be at least 40% of lot width.

ii. On a lot more than 80' wide, length of building volume along street must be at least 50% lot width.

iii. In RM-16, if both adjacent buildings are single family houses, no volume facing street is wider than 10% the widest of two adjacent houses.

Approved

Not
Approved

E. Side and rear setbacks.

Check if following conditions are met:

i. Minimum required setback must be 4' on side and rear lot lines, with following exception:

ii. Building volumes must come closer than 4' to side and rear lot lines, whenever possible, for a length not to exceed 30% of lot perimeter, when lot is 80' wide or less; and 20% of lot perimeter, when lot is wider than 80'.

iii. Length of any building volume within 4' of lot line on the side and rear of lot is limited to 35'.

Approved

Not
Approved



F. Minimum separations to respect light to windows in adjacent buildings.

Horizontal distance between proposed building volumes and windows on adjacent lot buildings must conform to the following charts:

Check on the appropriate boxes the situations applicable to subject project.

i. MAJOR WINDOWS (larger than sq.ft.)

POSITION OF WINDOW
IN ADJACENT LOT BUILDING

1st story 2nd story 3rd story

	1-story	10'	--	--
PROPOSED BUILDING HEIGHT	2-story	15'	10'	--
	3-story	20'	15'	10'

ii. MINOR WINDOWS

POSITION OF WINDOW
IN ADJACENT LOT BUILDING

1st story 2nd story 3rd story

	1-story	10'	--	--
PROPOSED BUILDING HEIGHT	2-story	10'	10'	--
	3-story	15'	10'	10'

Approved

Not
Approved

F.#1 Length of wall at minimum separation, opposite windows in adjacent buildings.

Check if length of walls at minimum separation, opposite windows on adjacent buildings conform to the following standard:

-- Length of wall is determined by extending lines outwards at 45o, from each side of window, until they meet proposed wall located at minimum separation.

Approved

Not
Approved

G. Number of storeys.

Check if following restrictions are met:

i. Building height is restricted to two (2) storeys.

ii. All building volumes projecting in front of adjacent buildings are restricted to one (1) storey.

iii. Particular to RM-16 zone.
If lot is more than 80' wide with both of its adjacent buildings 1-storey, then at least half of the length of the front building volume must be one (1) storey.

If condition (i) is not met, then check the following:

-- A third storey is allowed in RM-32 and RM-48 zones, when limited to the rear 40% of the lot.

Approved

Not
Approved

G.#1 Final adjustment on square feet of construction.

Actual sf. of construction
in relationship to context density
and type of parking:

Surface parking

Parking with dwellings above

Naturally ventilated parking

Mechanically ventilated parking

Approved

Not
Approved

COMMENTS BY ZONING OFFICIAL:

I certify that Part 2 of this project is in conformance with the Zoning Ordinance as defined in the criteria above and in the other text contained within the Ordinance.

Signature _____

Zoning Official

Date _____

APPLICATION FORM--MULTIFAMILY HOUSING

Project Address _____ Name of Zoning official _____

PART 3: DETAILED ORGANIZATION OF PROJECT

Required drawings: All floor plans and parking plan, at 1"=20'.
To the zoning official:

3.1. DETAILS OF PARKING

A. Parking space standards and aisle widths

Check if following standards are met:

- i. 50% of parking spaces can be for compact cars.
- ii. Full size car parking stall: 8.5'x18'
- iii. Compact car parking stall: 7.5'x16'
- iv. Aisle width for full size cars: 22'
- v. Aisle width for compact cars: 20'

Approved

Not
Approved

B. Driveway standards.

Check if the following standards are met:

- i. Driveway is limited to a width between 8' and 10'.
- ii. If lot wider than 80', widening of driveway to 16' for a length of 28' is necessary.
- iii. Curbcut is limited to 12'.
- iv. Ramps leading to underground parking shall be as steep as allowed by the present Ordinance.
- v. In no case may a ramp begin closer than the further from the property line of the following:
 - 20' back from the property line.
 - The line corresponding to the closest building front to the property line.

Approved

Not
Approved

C. Driveway adjacent to parking.

Driveway adjacent to garden should be made to feel part of the garden, with use of appropriate paving materials, trellis structure, etc.

Approved

Not
Approved

3.2. DIVISION OF BUILDING INTO APARTMENTS.

A. Living rooms have garden view.

Each living room must have at least one major window looking into main garden or secondary garden.

Approved

Not
Approved

B. Connection between parking and units.

There should be a direct connection from parking through the garden to the apartment units.

Approved

Not
Approved

3.3. LOCATION AND SHAPE OF APARTMENT ENTRANCES.

A. Apartment entrances facing street.

At least one apartment entrance must face street and be visible from street.

Approved

Not
Approved

B. Apartment entrances facing garden.

At least 75% of apartment entrances which do not face street must face main garden or secondary garden.

Approved

Not
Approved

C. Individual entries.

In as many cases as possible, each apartment unit must have an individual entry directly from the outdoors.

Approved

Not
Approved

COMMENTS BY ZONING OFFICIAL:

I certify that Part 3 of this project is in conformance with the Zoning Ordinance as defined in the criteria above and in the other text contained within the Ordinance.

Signature _____ Date _____
Zoning Official

APPLICATION FORM--MULTIFAMILY HOUSING

Project Address _____ Name of Zoning official _____

PART 4: CHARACTER OF PROJECT

Required drawings: Detailed garden plan at 1"=10' with landscaping schedule.

To the zoning official:

4.2 DETAILS OF GARDEN

A. Path from street to units.

Path from street to units must pass through the main garden, for at least 75% of the units.

Approved

Not

Approved

B. Path from parking to units.

Path from parking to units must pass through the main garden, for at least 75% of the units.

Approved

Not

Approved

C. Low walls, trellises, trees, hedges, etc. around main garden.

Low walls, trellises, trees, hedges, etc. must contribute a 15% enclosure to the perimeter of the main garden, additional to that provided by building volumes.

Approved

Not
Approved

D. Low walls, trellises, hedges, etc. along the front building volume.

Low walls, trellises, hedges, etc. must contribute to defining the frontage of the building according to the following two cases.

Check which one applies:

i. On a lot 80' wide or less at least 70% of the width of the lot must be occupied by building volume, low walls, trellises, hedges, etc.

ii. On a lot more than 80' wide at least 80% of the width of the lot must be occupied by building volume, low walls, trellises, hedges, etc.

Approved

Not
Approved

COMMENTS BY ZONING OFFICIAL:

I certify that Part 4 of this project is in conformance with the Zoning Ordinance as defined in the criteria above and in the other text contained within the Ordinance.

Signature _____
Zoning Official

Date _____

2.3.

LAYOUT PROCESS

The layout process defined in this section is not mandatory. It is intended as a guide for the applicant, to make it possible for him to use the application forms as effectively as possible.

The backbone of the layout process lies in its structure and sequence. Like the application forms it has four main parts, and within these four parts there are eleven detailed steps.

1. RELATIONSHIP TO NEIGHBORHOOD CONTEXT

- 1.1 Map the context and surroundings.
- 1.2 Decide basic arrangement and position of main garden to enhance surrounding projects and the neighborhood.
- 1.3 Calculate numerical parameters.

2. OVERALL ORGANIZATION OF PROJECT.

- 2.1 Provide driveway and locate parking.
- 2.2 Shape gardens precisely in relationship with adjacent gardens.
- 2.3 Place building volumes.

3. DETAILED ORGANIZATION OF PROJECT

- 3.1 Lay out details of parking.
- 3.2 Division into apartments.
- 3.3 Locate and shape apartment entrances.

4. CHARACTER OF PROJECT

- 4.1 Choose building details and materials.
- 4.2 Design details of gardens.

These steps are designed to be simple, smooth, and coherent in their sequence, so that the applicant can fill out the application forms, with a minimum of fuss, and also with a minimum of interpretation. An applicant who fills out the necessary steps, in the required order, will be able to establish his conformity with the legal requirements of the zoning ordinance in a minimum of time, and with a minimum of effort. The process is also designed to reduce to a minimum the amount of interpretation and discretion required from city staff.

The process is also designed to facilitate the actual design and planning of new development projects. Since the sequence of steps in the application process has been chosen with great care, so that a potential developer who merely wishes to check the possibility of a project on a new site, can pencil out a feasible project within a very short time, merely by following the steps in the order given. This will then enable him to create a project which meets all legal requirements, and to examine the possible results of a conforming project, quickly and economically.

We believe this new aspect of the zoning ordinance will greatly facilitate the development process, and that it will encourage new projects of high quality.

At the end of this chapter, there are four worked examples, showing projects which have been generated by this layout process.

PART 1

RELATIONSHIP TO NEIGHBORHOOD CONTEXT

STEP 1.1 MAP THE CONTEXT AND SURROUNDINGS.

To begin the layout process, and to make sure that your project does something useful for the neighborhood, it is necessary to start by understanding, deeply, the essential structure of what is there, both on your lot, and in the immediate vicinity.

Draw a map at a scale of 1 inch equals 50 feet. The map must show your lot, two lots on either side, the back 50' of the lots behind these five lots, and the front 100' of the five lots across the street.

Show dimensions.

On this drawing survey and identify the following structures:

1. Lot boundaries.
2. Footprints of all buildings on surrounding lots. Each building or part of a building must be shown with its approximate height in feet.
3. All gardens on surrounding lots. Examine how big they are, where they are located, what their shapes are. In particular, you must identify adjacent gardens which are worth while for you to make a connection to them, or worth while sitting and looking in their direction and enjoying them.
4. Beautiful open space in the street, which helps to create the atmosphere of the neighborhood.
5. Parking structures on surrounding lots.

6. Big trees on your site or on the street, and on adjacent lots.
7. Existing driveways and back-alleys on nearby lots, with special reference to any possible pattern of access in which these existing driveways and alleys might serve the back of your lot.
8. Setback dimensions on adjacent lots.
9. Any windows on next door buildings facing your lot, which serve living areas, and must have good light preserved.
10. Groups of doors or other entrances on next door lots, which create a pattern of movement and pleasantness that must be preserved, and which may form the basis of a new space or focus in your project.
11. Walkways and entrance paths on surrounding lots.

STEP 1.2. DECIDE BASIC ARRANGEMENT AND POSITION OF MAIN GARDEN TO ENHANCE SURROUNDING PROJECTS AND THE NEIGHBORHOOD.

The character of the neighborhood which is described on Chapter 1 of the Zoning Ordinance, page , can only be obtained when each individual project is made to work together and connect with its adjacent lots. The beauty of character which we hope for, cannot arise merely as a result of what is done on individual parcels, but only as a result of coherent relationship and connection between parcels with regard to gardens, courtyards, parking, buildings, setbacks, light and air, and driveways.

This principle is fundamental to the nature of the new zoning ordinance. It seeks to promote a type of connection between adjacent developments so as to create a larger whole for the benefit of the entire neighborhood. This is especially fundamental, since the great majority of new construction in Pasadena, is single lot development. At present, 90% of all developments occur on single lots. Even with incentives to encourage development of double parcels, we believe that single lot development will always represent 80% of new projects.

In any case it is also desirable, that development be kept small in scale, since this will continue to maintain the intimate character of Pasadena which has existed in the past. Large lot development introduces an undesirable and commercial crudeness of grain. It is desirable that the city should be able to build up the beautiful and coherent character described in part one, in an intimate fashion. This can only be done when adjacent lots connect to each other and are made to work in relationship to each other.

The success of this ordinance therefore requires an entirely new frame of mind. When approaching a development, it is necessary for the developer to ask himself consciously, how what he does, on his lot, will connect and work together with adjacent developments, to produce a harmonious whole in the neighborhood.

-o0o-

In particular the following types of connection between adjacent lots are all critical:

1. Connection between position of gardens or open spaces, either on the interior or front of the lot, to form larger gardens and open spaces.

2. Working together between building volume positions, to maintain the coherency of open space and light access, and to permit growth of relatively long stretches of building volume parallel to the street.

3. Sharing between driveways and back alleys, with easements, to reduce the number of driveways.

4. Connection between parking lot positions, to improve accessibility from driveways and alleys.

-o0o-

Now, examine the context map prepared on the previous step regarding the following matters:

1. Identify next door gardens facing towards your lot, with which the proposed garden in your lot can connect in order to create a larger garden; or any beautiful open space along the street on the adjacent lots, front lawns or deep front gardens, which is worthwhile preserving and extending by your acts.

2. Examine carefully the position and configuration of building volumes on adjacent lots and consider the possibility of placing your volumes in a way that creates continuity of building volumes along the street.

3. The possibility to obtain easement for the use of existing driveway on adjacent lot.

4. Examine the configuration of existing parking on adjacent lots, whether or not they interfere with the use of existing driveway on adjacent lot.

-o0o-

Finally, before beginning the detailed design and layout of your project, it is necessary to get a single basic vision of the project.

This vision hinges on the position and nature of the main garden, and the way this main garden is supported and created by the building volume. You must decide where the main garden is, and in what fashion the building volume will surround this main garden, and complement it.

It is fundamental to the process being used in this ordinance, that your solution to this problem emanates from the pattern of existing space and buildings in the neighborhood and that it does the maximum possible to help the neighborhood.

You must be able to argue that the position of the main garden you have chosen, and the overall arrangement of space does the maximum possible for the lot, for the street, and for the neighborhood.

Choose a single position of the main garden which does the most possible to connect with existing spaces on next-door lots, and which also does the most possible to provide a balanced variety of space in the neighborhood.

-o0o-

More precisely:

The main garden must be a single rectangle, and must be placed in such a way as to connect with nearby gardens and street space, respect adjacent buildings and the qualities of the your lot.

There are numerous ways according to which the main garden can do this. For example:

a. If there is an existing large interior garden on the adjacent lot, the proposed main garden should be placed so that these two spaces work together to form one single internal garden.

b. If there is beautiful front garden in the street, or the feeling of a broad lawn, with the frontage of the buildings at least 30' to 35' back from the sidewalk, the proposed main garden should connect with existing front garden on at least one side, so as to form a "long" garden along the street.

c. If there is a need for a deep open space on the street, part of proposed building frontage should be located at least 75' back from the sidewalk, so as to form a "deep" garden on the street. In this case, the front garden must be enclosed by existing buildings of adjacent lots on at least one side.

d. If there is a need for spacious internal courtyard on the block, proposed main garden should be an internal courtyard entirely contained within the lot. This is mainly possible on a lot wider than 80', and is difficult on a narrower lot.

In addition:

e. If there is a beautiful tree or stand of trees, the proposed main garden should be placed so that the trees form a focal point of the main garden.

f. If there is an apartment building on an adjacent lot, with entrances facing the proposed building, the main garden should be placed so that those entrances are on the edge of a large shared space which includes the main garden.

g. If there is a single family house next door, the main garden should be placed so that there is a large space next to the house, for light and view.

-o0o-

Of course, the way in which the main garden can best improve the positive qualities of the existing place depends on the specific site itself, and there may be some other important feature, not listed above, which could be helped by the placement of the main garden.

Or, it may be that the site has more than one important, positive features--for example, a stand of trees on one side and the entrances to an adjacent apartment building on the other side. In such a case it is of course preferable that the main garden takes account of both. But, if this is not possible, then the main garden must respond to at least one of these positive features.

STEP 1.3 CALCULATE NUMERICAL PARAMETERS.

A. Calculate maximum allowed square feet of construction.

This rule gives the maximum square feet of construction, allowed to be built in your lot.

- Get clear about the density zone your lot belongs to.
- Calculate the lot area.
- Get context density, expressed in average number of units per lot, for all lots any part of which is within 150' on any point of the lot under development.
- Define value of factor (C), as specified on the relevant density chart, Chapter 3, page...
- Choose type of parking you plan to provide.
- Calculate maximum allowed square feet of construction, as specified on the density charts, pages of Chapter 3.

B. Calculate required open space.

Now, figure out the total area that your lot must provide for the formation of all gardens and/or courtyards.

First, calculate the required amount of total open space on the basis of the open space charts, pages of Chapter 3.

Then, using the same charts, calculate the part of the total required open space which must be used for the formation of the main garden.

This main garden is to be aggregated in the form of a single rectangular entity of space, which is surrounded and bounded by buildings, hedges or low walls. The remainder of the required open space will be used for the formation of secondary gardens.

C. Calculate number of apartment units.

Calculate number of units, N.

Choose average apartment size between 700 sf and 1300 sf. Most typical average is 850 net, 1000 including stairs and hallways. Divide total built area by average size, to get number of units.

D. Calculate number of parking spaces and required parking area.

Minimum number of parking spaces is 1.5 times N.

Total needed parking area will be approximately $450 \times N$ square feet. This number is not a requirement, but for convenience of calculation and layout.

PART 2

OVERALL ORGANIZATION OF PROJECT.

STEP 2.1 PROVIDE DRIVEWAY AND LOCATE
PARKING.

A. If possible, acquire easement on a
driveway which is on adjacent lot.

If either of the two adjacent lots -- one on the right and one on the left -- adjacent to your property has already been developed to an apartment building, and if its driveway is capable of providing access to the rear of your lot by means of back alleys or connecting parking aisles, then you can share the use of this driveway, if the owner will agree to give an easement.

The city makes the acquisition of an easement for the use of adjacent driveway possible by law. Investigate for attached conditions.

DIAGRAM

If there is an existing house on an adjacent lot, you can use the driveway belonging to this house, if the owner will agree to give an easement. In this case your new development has to guarantee a spacious and pleasant green space that is adjacent to the house and is good for it; you must place your main garden adjacent to the existing house that provided you with the driveway easement.

If there is no driveway available for shared use on the next door lot, you can investigate if there are any other possibilities: e.g. use of an existing back alley.

In case you succeed to obtain an easement for the use of adjacent lot driveway or back alley, then you are entitled to a density bonus, as specified on the density charts, shown on pages of chapter 3.

B. If no easement is available, provide for a new driveway.

If you have chosen not to use an existing driveway, then you must provide an eight to ten feet driveway. No more than one driveway is allowed per lot.

Locate the new driveway along the property line.

You must bear in mind that in the future you might be asked to provide an easement on the driveway, which will allow tenants of other adjacent lots to use it.

C. Locate parking at the rear of the lot.

All surface parking, when aggregated, must be located at the rear 40% of the lot. There are limited exceptions for locating parking in front of the 40% rear of the lot, as specified on Chapter 3, paragraph 2.1-C.

All naturally ventilated parking must be located at the rear 50% of the lot. There are no exceptions.

Mechanically ventilated parking must be located under building volumes. It will be allowed to extend under part of the main garden if its area is larger than the footprint of the building. For details, see Chapter 3, paragraph 2.2-A.

Details of parking layout are to be worked out later.

STEP 2.2 SHAPE GARDENS PRECISELY IN
RELATIONSHIP WITH ADJACENT GARDENS.

A. Now, shape the main garden precisely.

Adjust and refine the exact size, extent and shape of the main garden, taking into account the following:

The main garden is to be aggregated in the form of a single rectangular entity of space, as specified by the guidelines and design standards, paragraphs 2.2-A of Chapter 3.

The main garden must always be at ground level, above soil. There are limited exceptions, specified on paragraphs 2.2-A of Chapter 3.

It is also important that the main garden, can itself be enlarged and extended by other future actions, by other developers on the neighboring lots on either side. To make this possible, the main garden must always open onto one side lotline, except in the case where the lot is more than 80' wide.

B. Place secondary gardens to encourage connection between gardens.

In any case there must always be some garden touching one of the two side lotlines. Where this requirement is fulfilled by the main garden, there need not be any secondary garden. All required open space can be used for the formation of the main garden.

On a lot 80' wide or less, where the main garden must touch one side yard, a secondary garden is not required.

On a lot more than 80' wide, if the main garden does not touch at least one side lotline, a secondary garden must be created along one of the side lotlines.

STEP 2.3 PLACE BUILDING VOLUMES.

- A. Now, locate and shape your buildings according to the beauty of the garden and the character of the street.

Locate the building volumes in a way that provide substantial enclosure to the garden. At least 60% of the perimeter of the garden must be enclosed by buildings.

At the same time, allow for connections and passages between gardens and open spaces.

In addition, if appropriate to the configuration of the main garden, try to place one of your building volumes parallel to the direction of the street, to enclose the garden and contribute to the shaping of the street front.

And bear in mind that the maximum width of building volumes is 35'.

- B. While locating and shaping your building volumes allow your interior garden to be visible from the street.

Interior courtyards and gardens should be experienced from the street, and be visible from it, so that they contribute to the beauty and liveliness of the street.

Some interior gardens will be wide open on the street and some will feel secluded, connected to the street through a passage. This type of variety is extremely desirable.

At the time your new project is about to take place, the feeling of the whole street, from the point of view of visibility of gardens, has to be assessed.

The new apartment should open or enclose its garden towards the street to a degree that contributes mainly to the liveliness and character of the street as a whole.

C. Pay attention to the front lot line.

Limited amount of single storey building volumes are allowed to project forward existing front setbacks of adjacent buildings. These volumes or portions of volumes must be built in such a way that the front is 10' from the property line.

If there is no other building on your side of the street, within 200' in either direction, that projects forward existing front setbacks, then you are strongly encouraged to place at least part of your building up to 10' from the front property line.

D. Check width of building volumes along the street.

E. Permission to build closer than 4' to the rear and side lot line, while allowing for continuity of building volumes.

While placing your building volumes you should bear in mind that you are strongly encouraged to build closer than 4' to the side and rear lot lines, provided that you meet all requirements concerning light access to adjacent building volumes, as well as all other relevant design standards, specified in paragraphs 2.3-E and 2.3-F of chapter 3.

There are two major reasons for allowing and encouraging this:

i. No open space is waisted to leftover strips of unusable space.

ii. The fact that a building volume can be on a side lot line allows for connection between adjacent building volumes in the sense that building volumes can extend most of the width of the lot, or they can touch each other. So, it is possible to introduce building volumes parallel to the street together with building volumes prependicular to the street, thus enabling the formation and enclosure of gardens and courtyards.

F. Make sure that minimum separation requirements between proposed and adjacent building are met.

If you have decided to build a building volume closer than 4' from side or rear lot line, you should pay attention to existing major windows and entrances of adjacent buildings, and follow all relevant design standards, as specified on paragraphs 2.3f and 2.3-F of chapter 3.

G. Now, calculate again your total building volume, and finalize number of stories.

Throughout the building volume you have defined, the average building height will need to be two stories, to get the maximum allowable density. There will be occasional exceptions to one story, and some exceptions to three stories.

In order to bring the building volume into line with the allowed development, the following adjustments must now be made.

1. Any building volume projecting forward adjacent front setbacks must be one story.
2. Any building volume within 50' of the street, for at least 50% of its length along the street, must be softened by one storey porches, alcoves, room extensions or galleries.
3. Any three storey construction needed to complete the full allowable density, must be placed on the back 40% of the lot. Three storey construction may be built over parking.

PART 3

DETAILED ORGANIZATION OF PROJECT.

STEP 3.1 LAY OUT DETAILS OF PARKING.

- A. Locate parking spaces, following the design standards specified in paragraph 3.1-A of chapter 3.
- B. Design driveway, curbcut and/or ramp, following the design standards specified in paragraph 3.1-B of chapter 3.
- C. If driveway adjacent to garden, make it feel part of the garden.
- D. Shape parking space as positive and usable space.

STEP 3.2 DIVISION INTO APARTMENTS.

Within the overall building volume which has been established, the N apartments permitted by the ordinance, may now be identified.

A. Define the location of the apartments.

Cut up the total volume, into apartments. There should be no attempt to make apartments of standard shape. Rather, each apartment should now take a shape which is appropriate to its unique position.

Each living room or main room of apartment must have garden view.

The apartments should be divided out, with the following rules in mind:

- i. At least one, and possibly two apartments should be entered directly from the street side, with entrances visible from the street.
- ii. In as many cases as possible, the apartments should have access from the main garden.

B. Provide for connection from the parking through the garden to the apartments.

The pattern of circulation which is created, should encourage very simple access from the parking lot, through the main garden, to the apartments.

STEP 3.3 LOCATE AND SHAPE APARTMENT ENTRANCES

A. Provide apartment entrances from the street.

At least one, and possibly two apartments should be entered directly from the street side, with entrances visible from the street.

B. Locate entrances facing main garden.

In as many cases as possible, the apartments should have access from the main garden.

C. Make apartment entrances identifiable.

Some entrances to apartments should be embellished with porches, stoops, steps, or stairs. This should be done only for those cases where this element helps the overall structure.

PART 4

CHARACTER OF PROJECT.

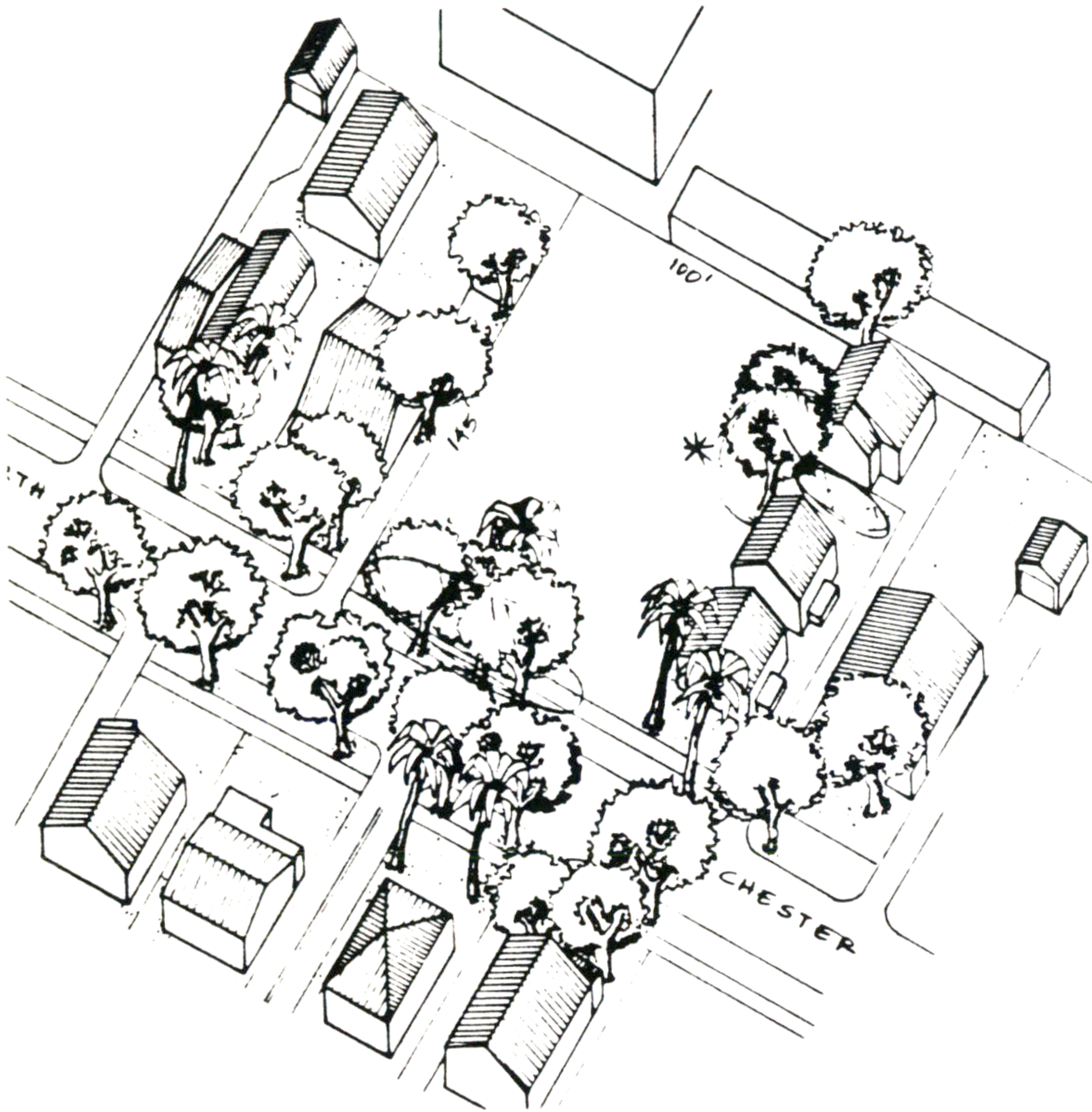
STEP 4.1 CHOOSE BUILDING DETAILS, MATERIALS
AND COLOR.

STEP 4.2 DESIGN DETAILS OF GARDEN.

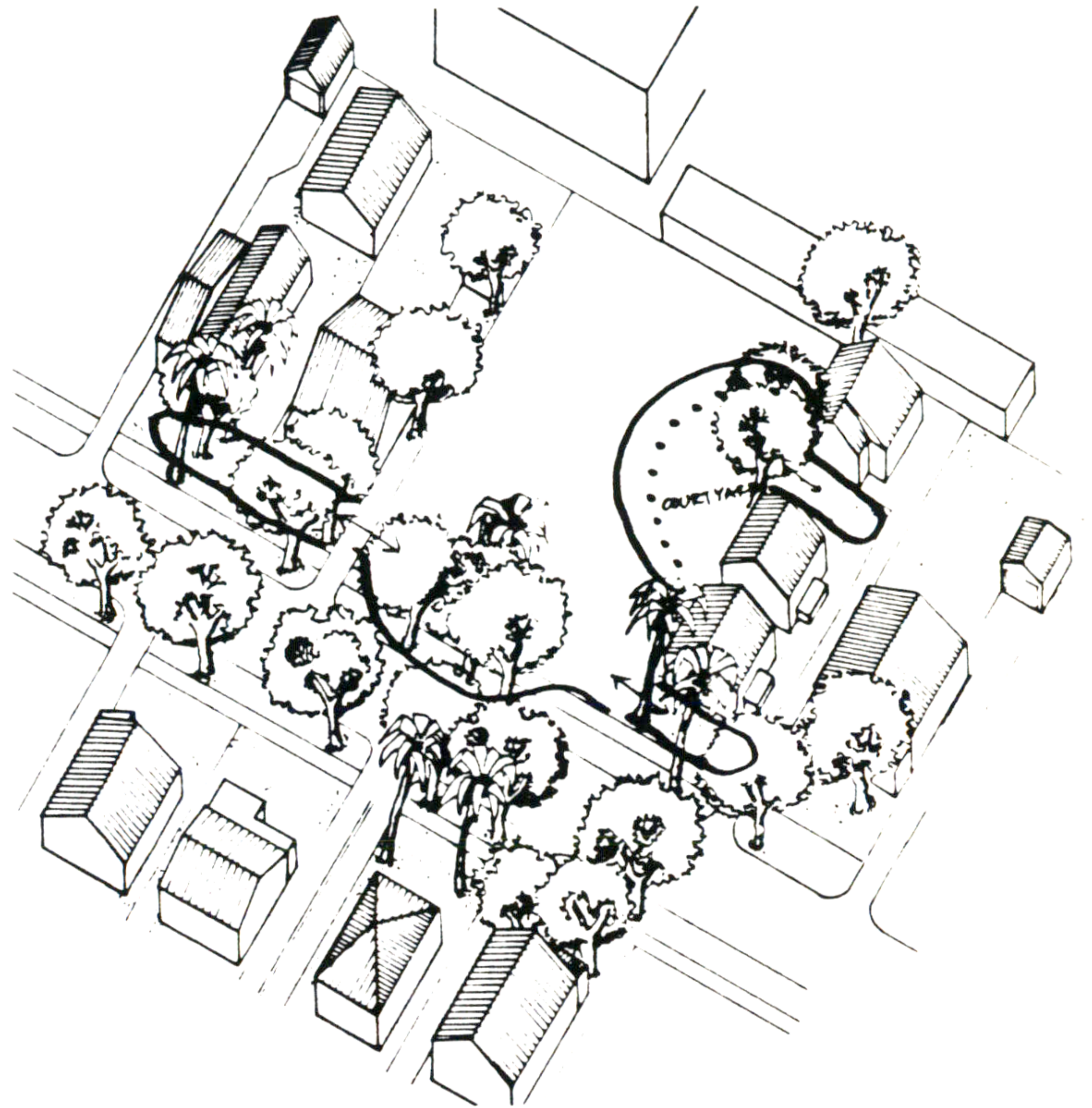
- A. Locate path from street to units.
- B. Locate path from parking to units.
- C. Place low walls, trellises, hedges, trees,
etc. to provide additional enclosure for
main garden.
- D. Place low walls, trellises, hedges, along
building front, if necessary.
- E. Define position of major trees in the main
garden and along the street.
- F. Locate lawn areas and paved areas in the
garden.

WORKED EXAMPLE #1
146-148 North Chester

STAGE 1
1.1 Map the context and surroundings.



STAGE 1
1.2 Decide arrangement and position of main garden.



STAGE 1
1.3 Calculate numerical parameters.

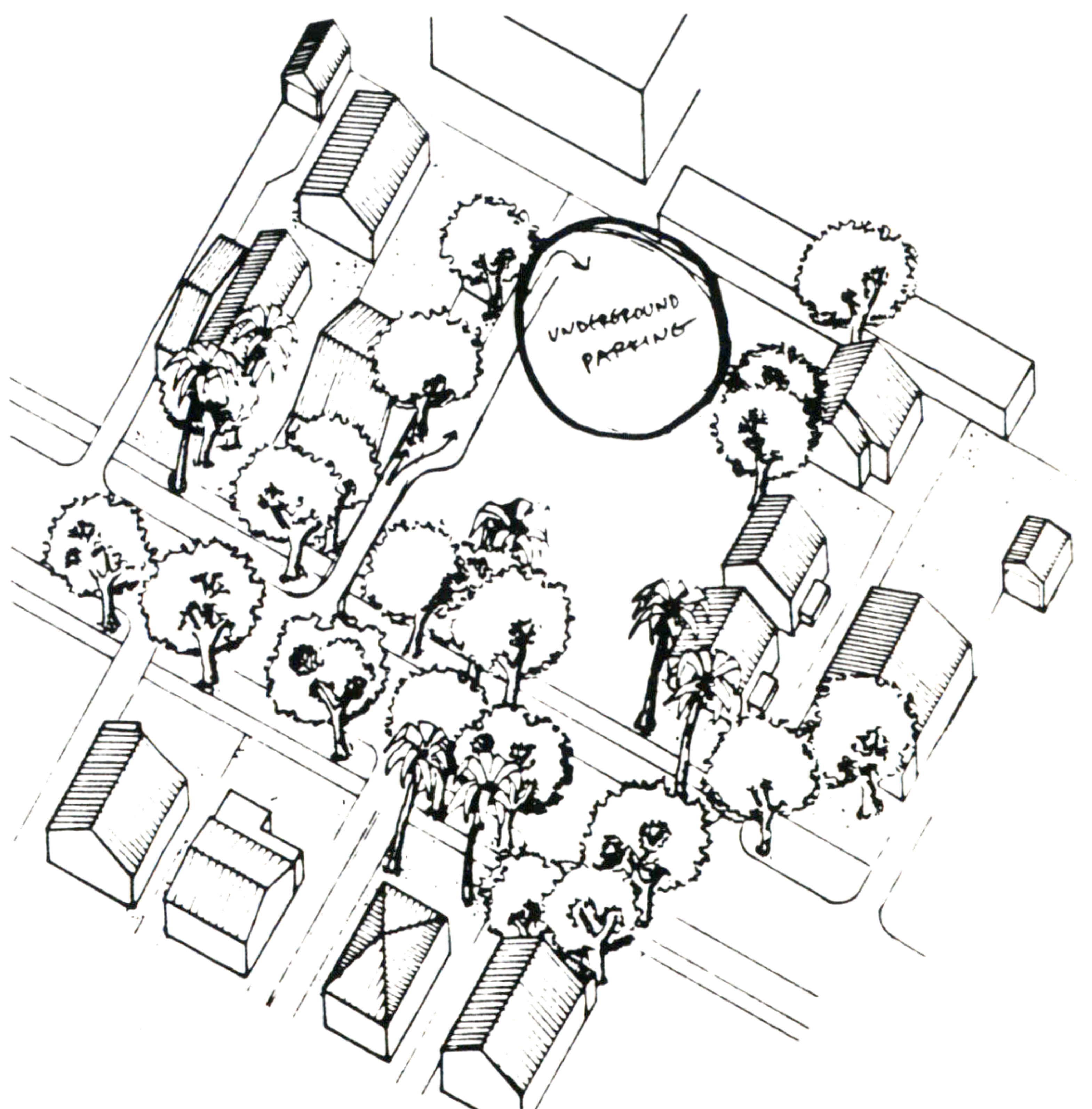
CALCULATE THE FOLLOWING KEY NUMERICAL PARAMETERS, AS REQUIRED BY THE ZONING ORDINANCE.

Refer to Step 13 of the Process

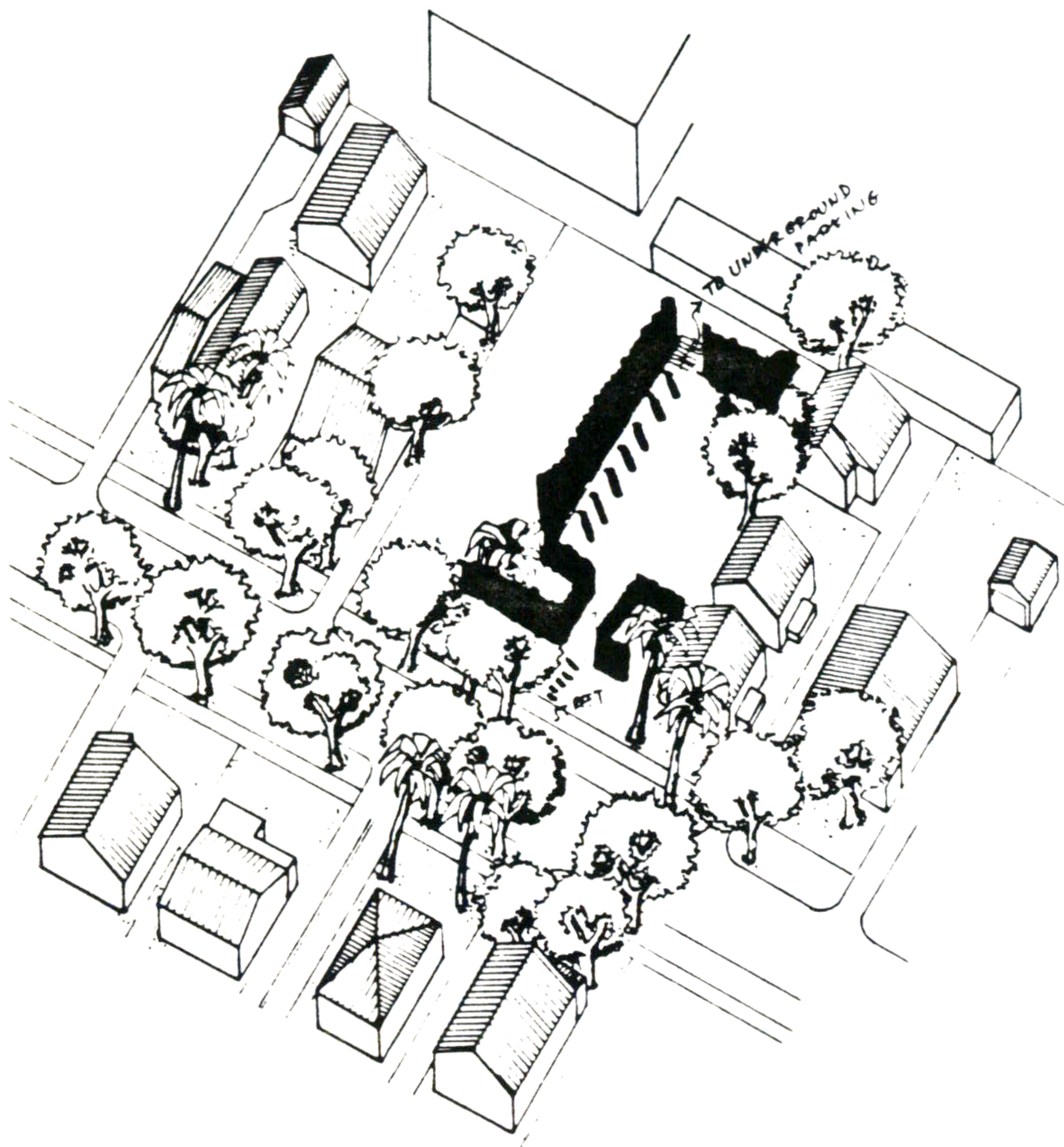
Density Zone: RM-48

1) Lot area:	15,400 sq
2) Context FAR:	0.31
3) Multiplier:	---
4) Allowable lot FAR:	0.90
5) Allowable built space:	13,087 sq
6) Number of units:	12
7) Required # of parking spaces:	18
8) Required parking area:	7,200 sq
9) Total required area of gardens:	6,200 sq
10) Required area of main garden:	3,750 sq

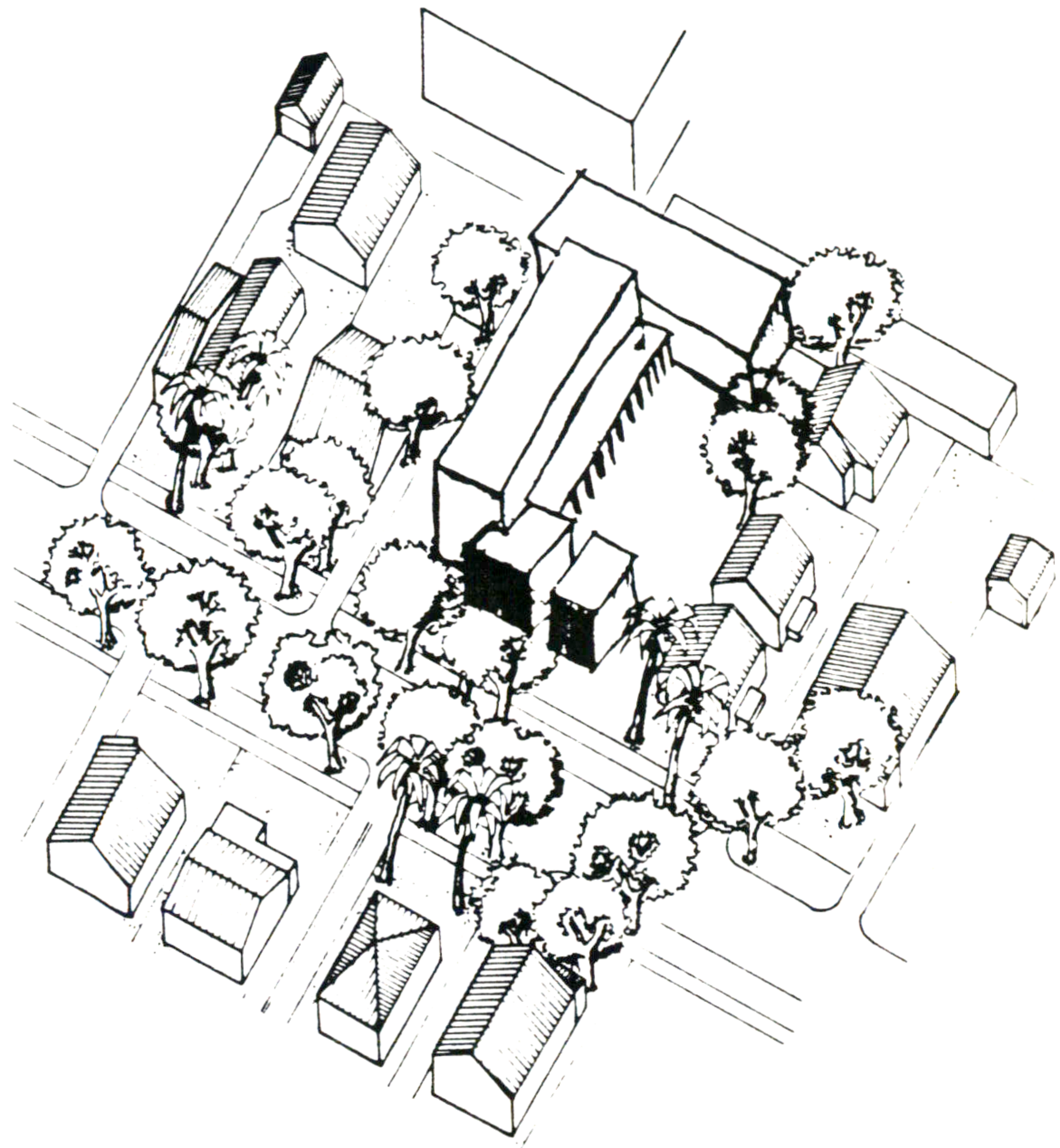
STAGE 2
2.1 Provide driveway and locate parking.



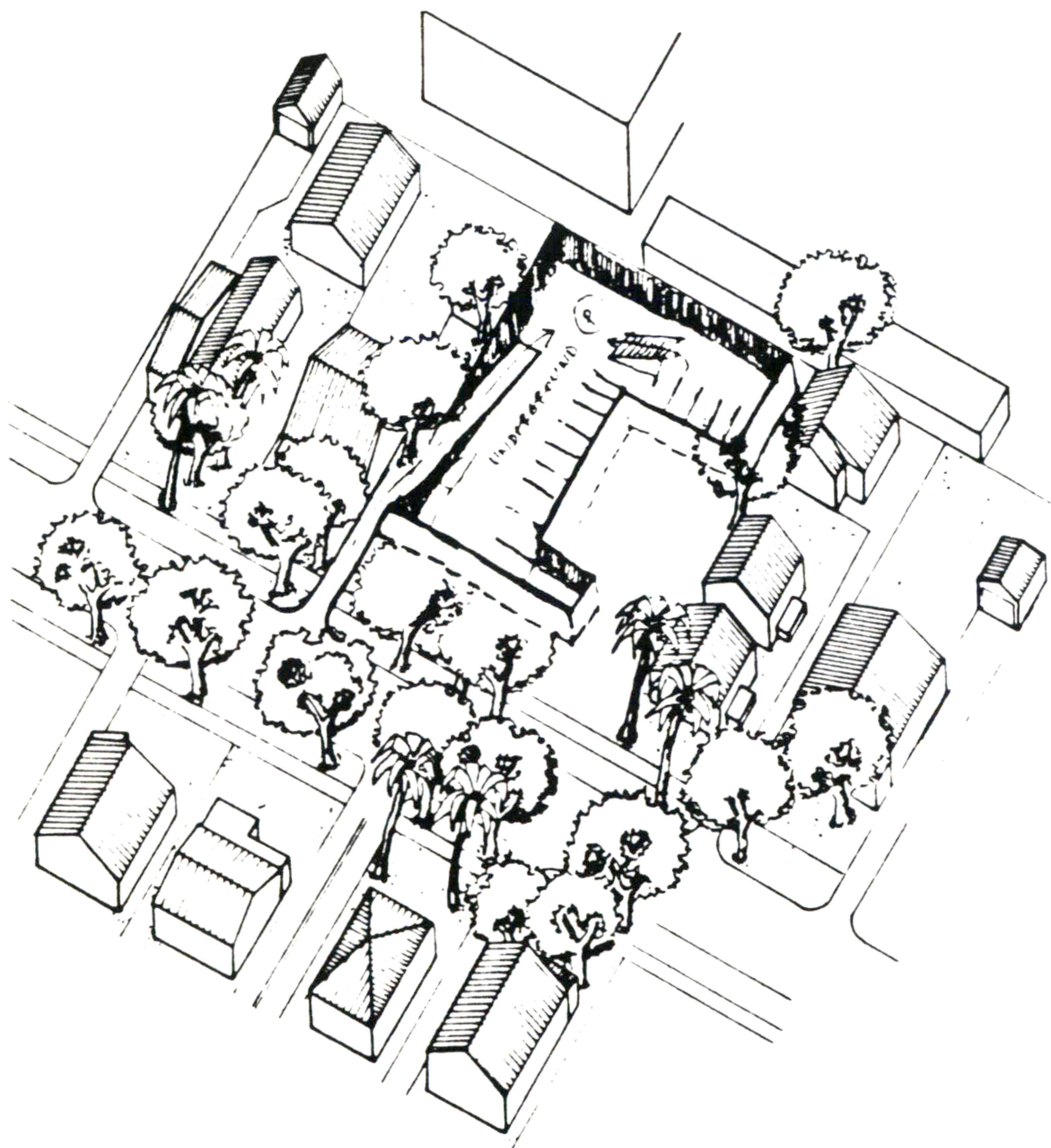
STAGE 2
2.2 Shape gardens precisely.



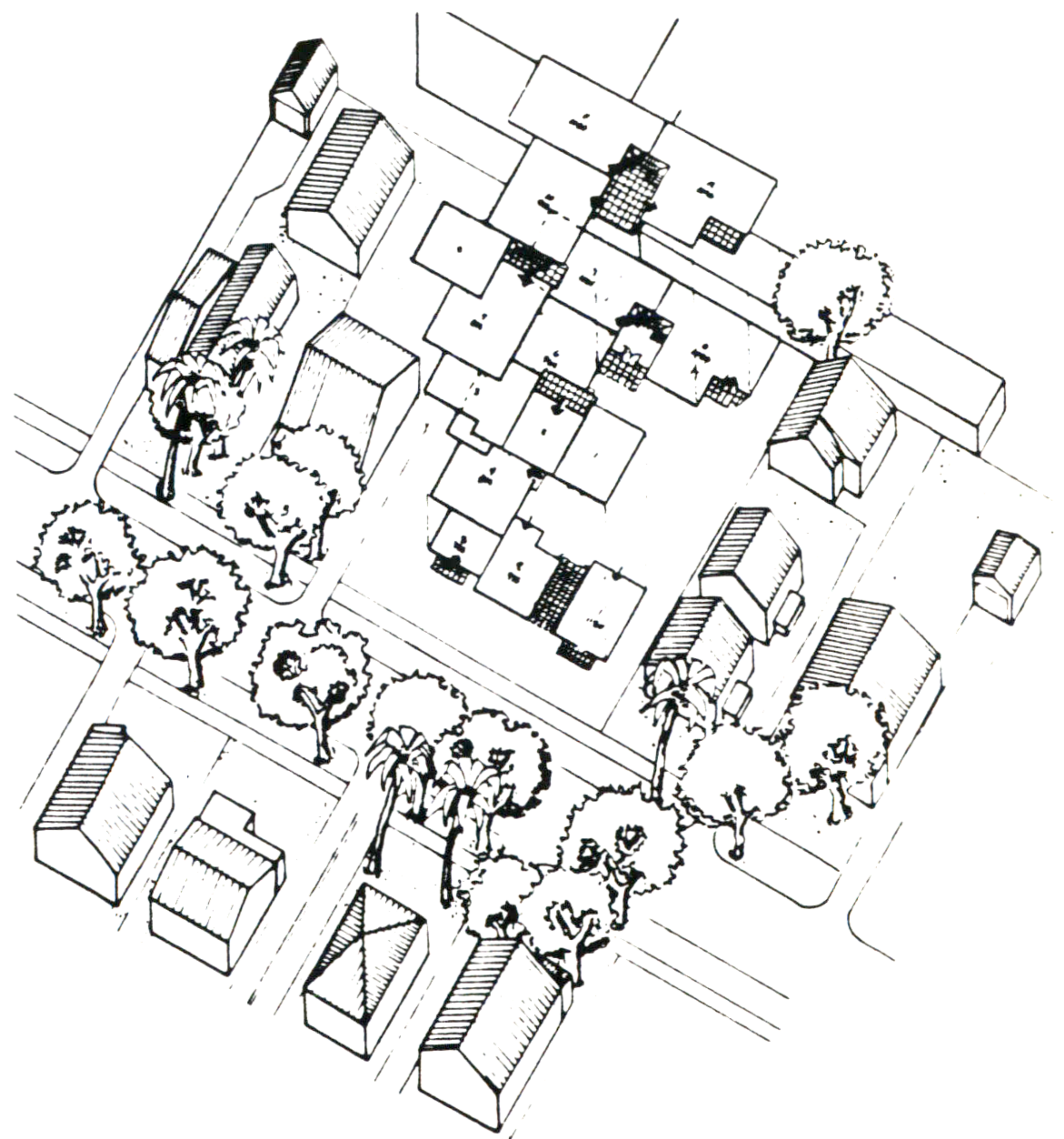
STAGE 2
2.3 Place building volumes.



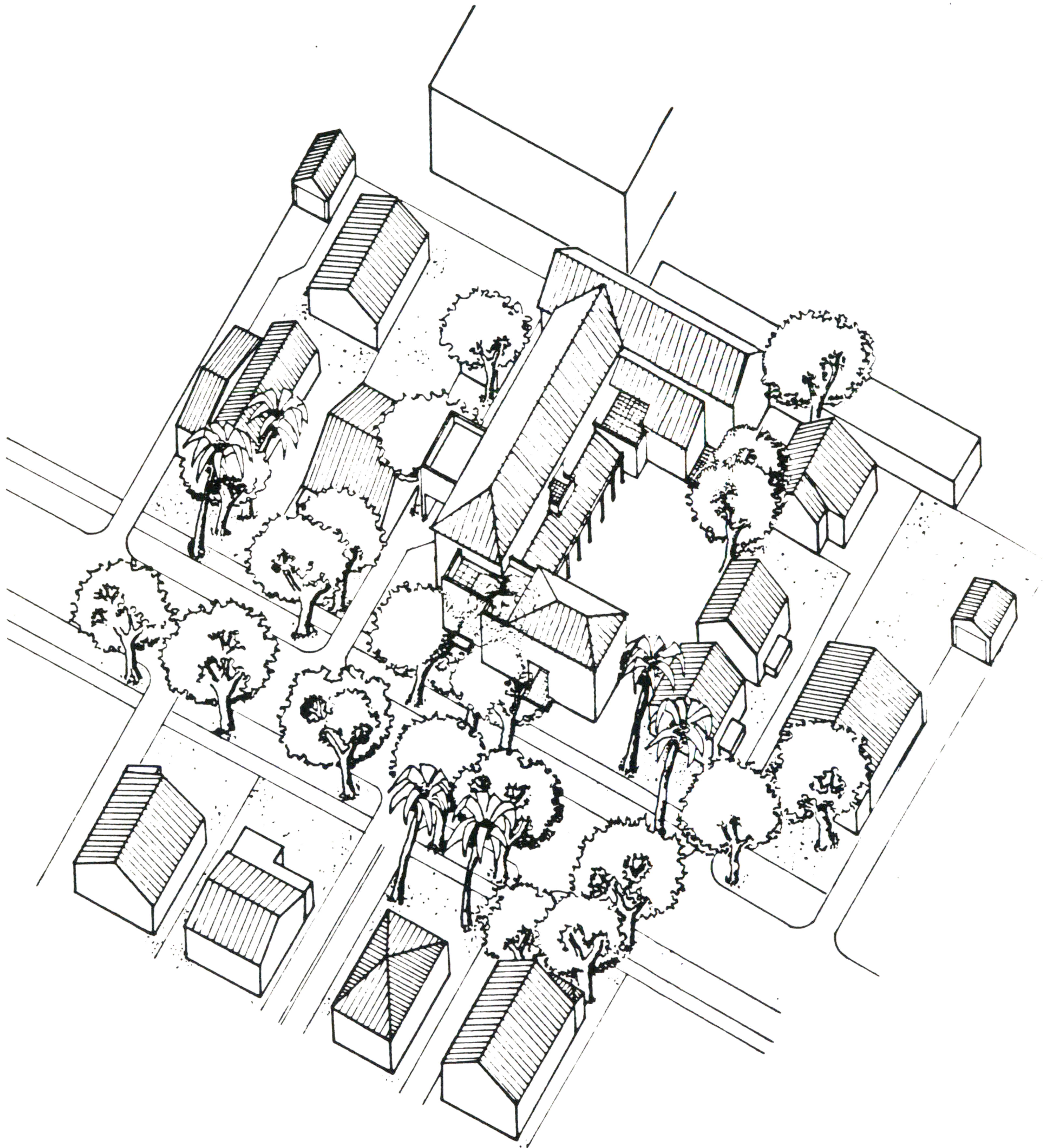
STAGE 3
3.1 Lay out details of parking.



STAGE 3
3.2 & 3.2 Divide into apartments and locate entrances.



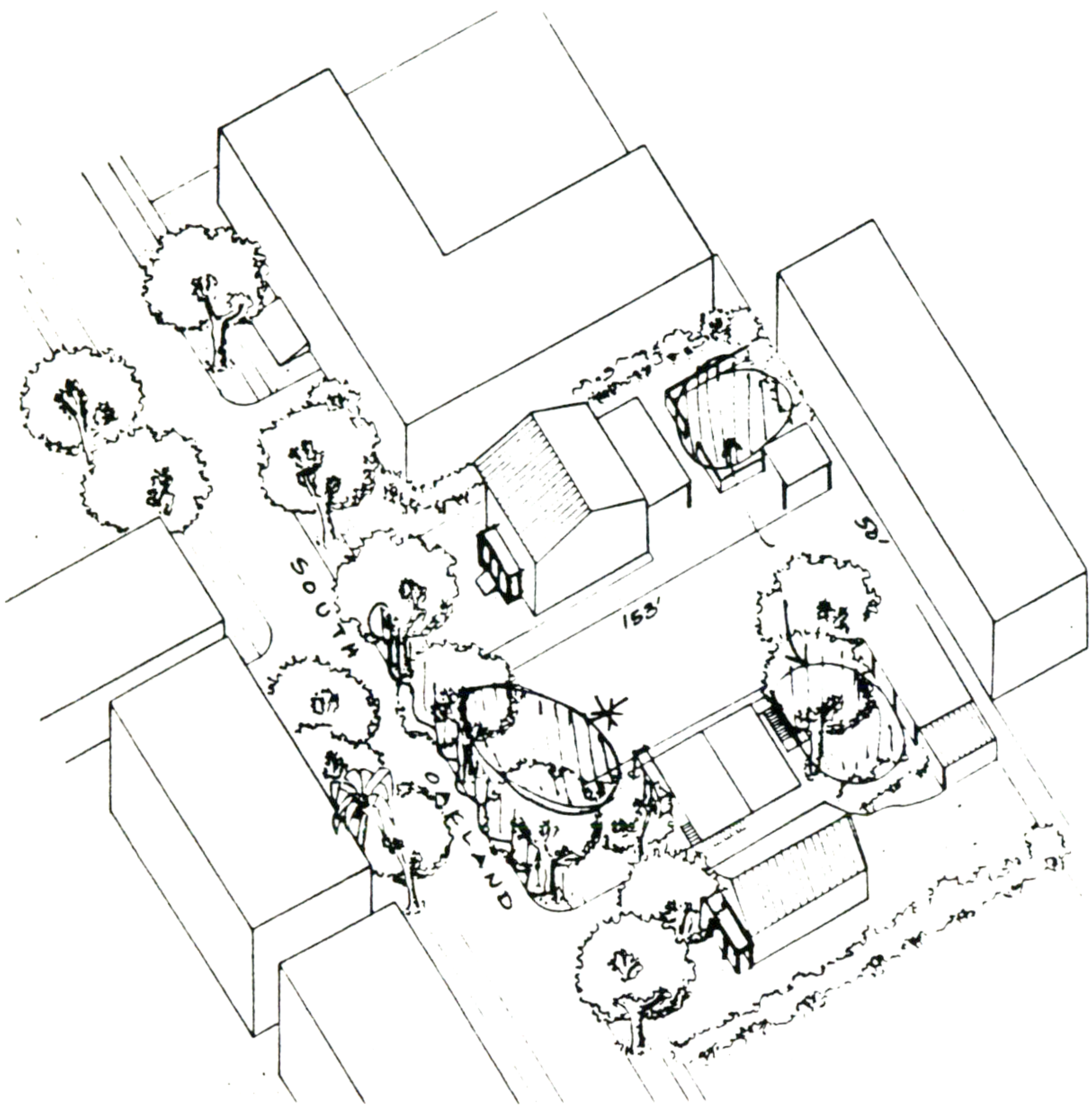
FINAL CHARACTER OF PROJECT



WORKED EXAMPLE #2
376 South Oakland

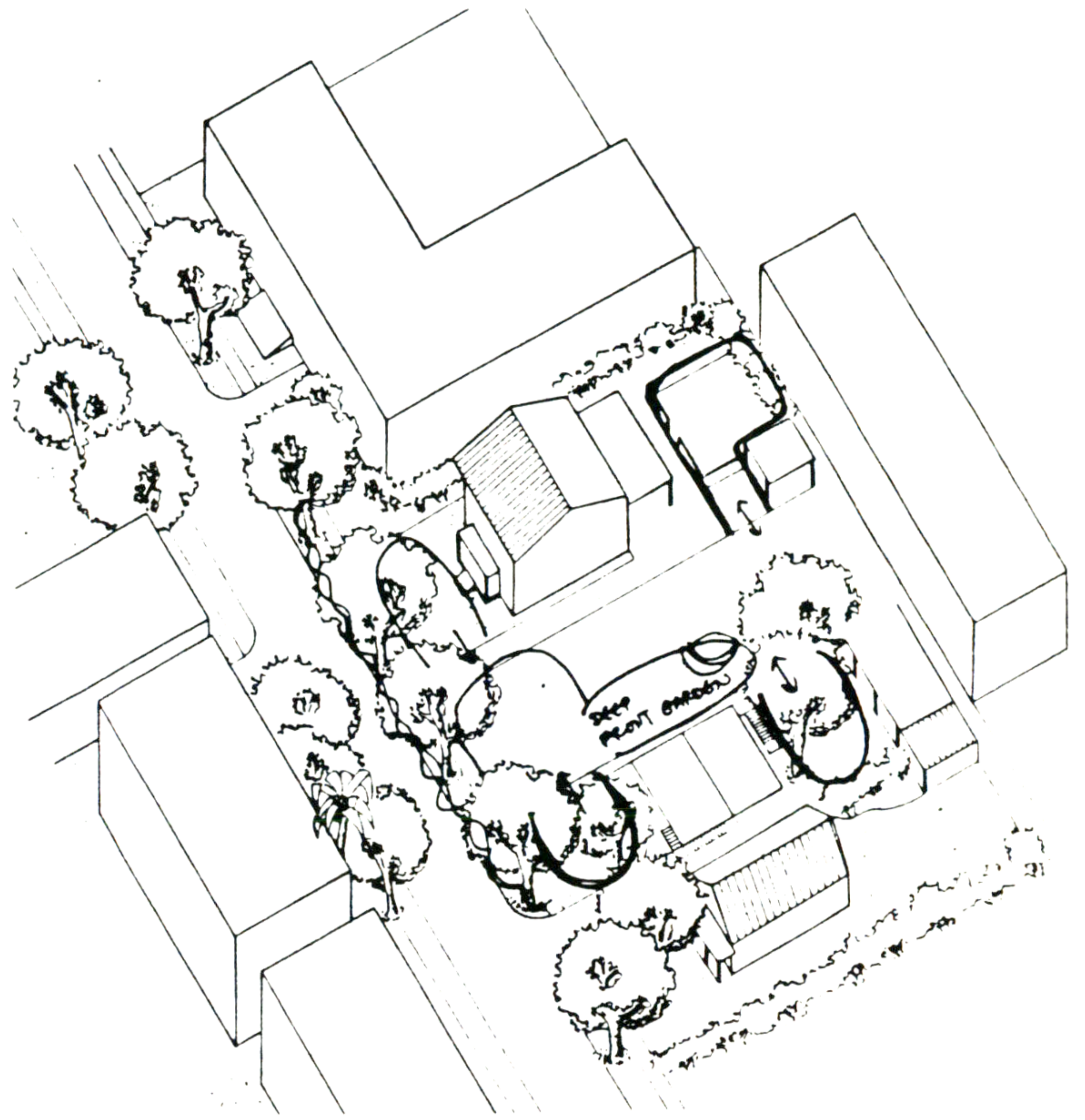
STAGE 1

1.1 Map the context and surroundings.



STAGE 1

1.2 Decide arrangement and position of main garden.

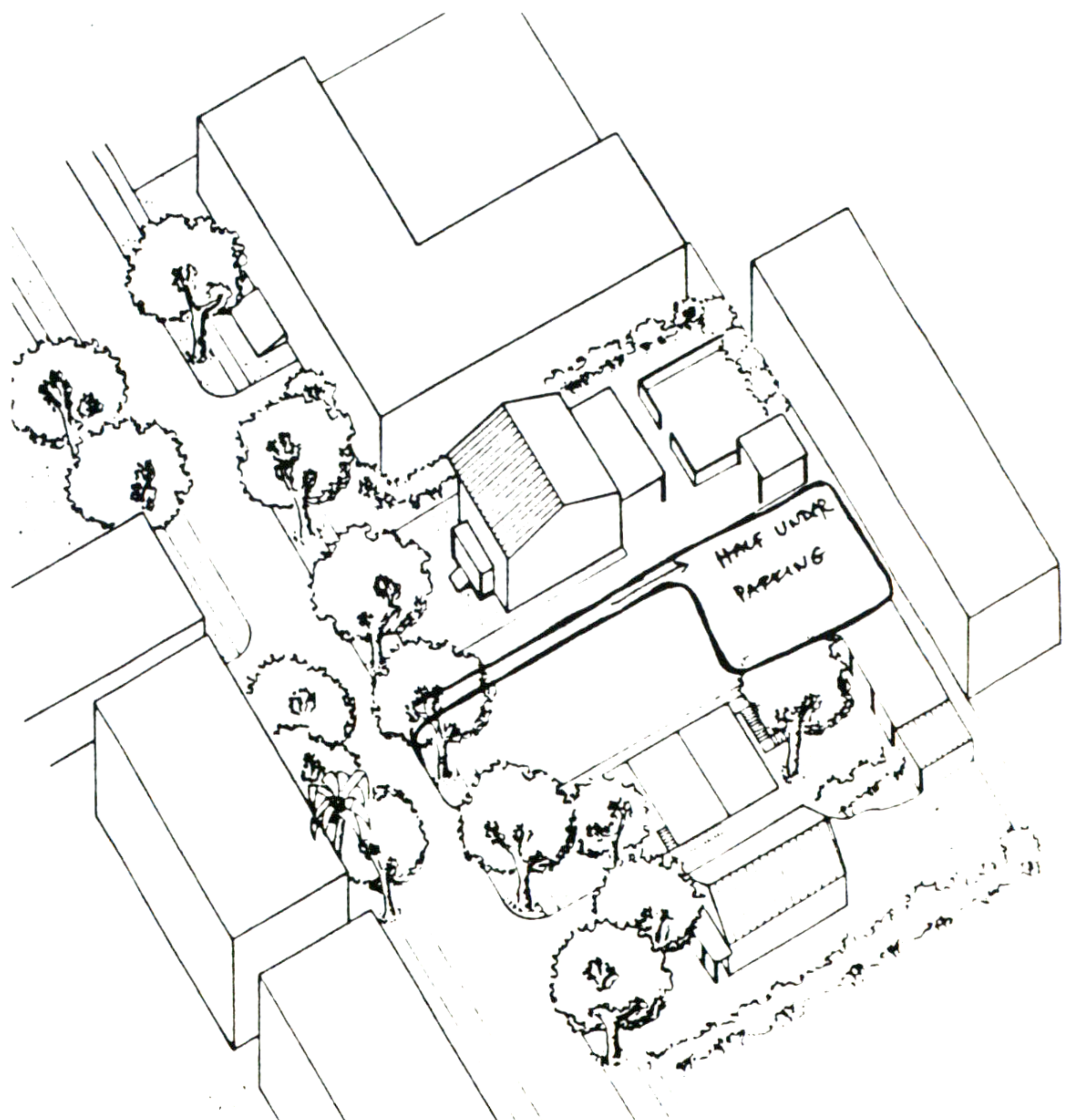


STAGE 1

1.3 Calculate numerical parameters.

STAGE 2

2.1 Provide driveway and locate parking.



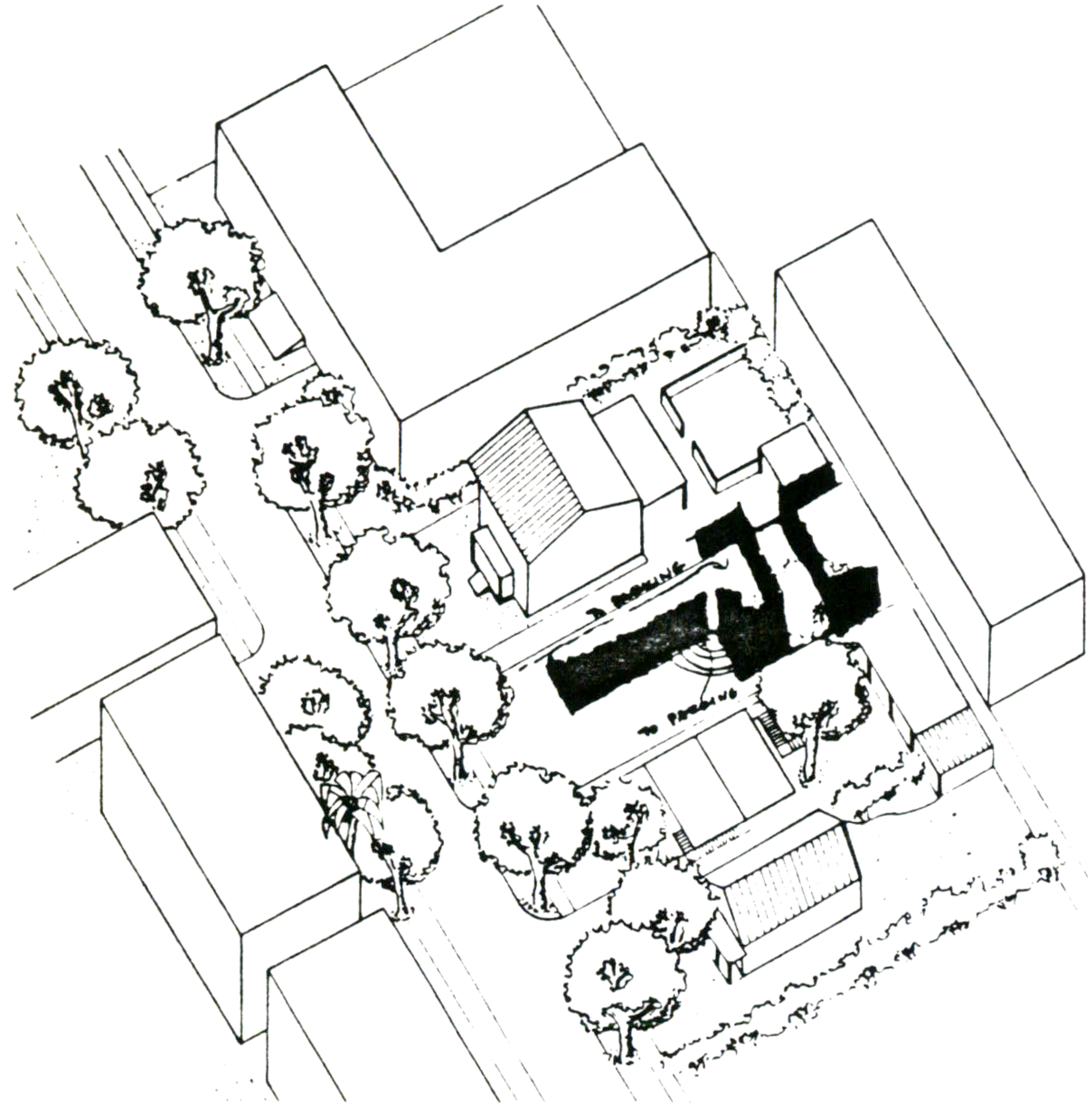
CALCULATE THE FOLLOWING KEY NUMERICAL PARAMETERS, AS REQUIRED BY THE ZONING ORDINANCE.

Refer to Step 13 of the Process

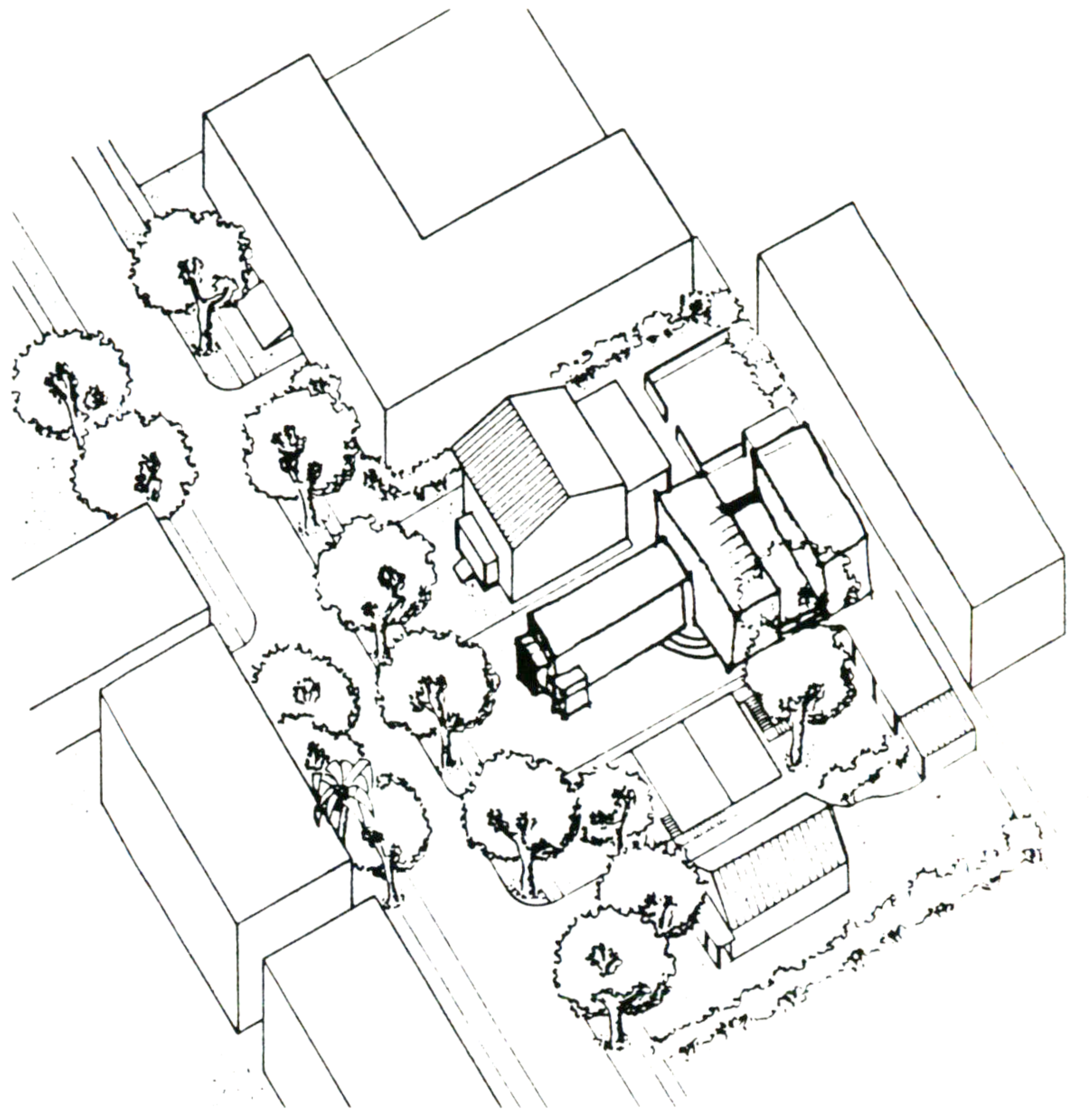
Density Zone: **RH-32**

1) Lot area:	<u>7,650</u> sf
2) Context FAR:	<u>0.89</u>
3) Multiplier:	<u>—</u>
4) Allowable lot FAR:	<u>0.79</u>
5) Allowable built space:	<u>6,069</u> sf
6) Number of units:	<u>6</u>
7) Required # of parking spaces:	<u>9</u>
8) Required parking area:	<u>2,950</u> sf
9) Total required area of gardens:	<u>3,670</u> sf
10) Required area of main garden:	<u>2,670</u> sf

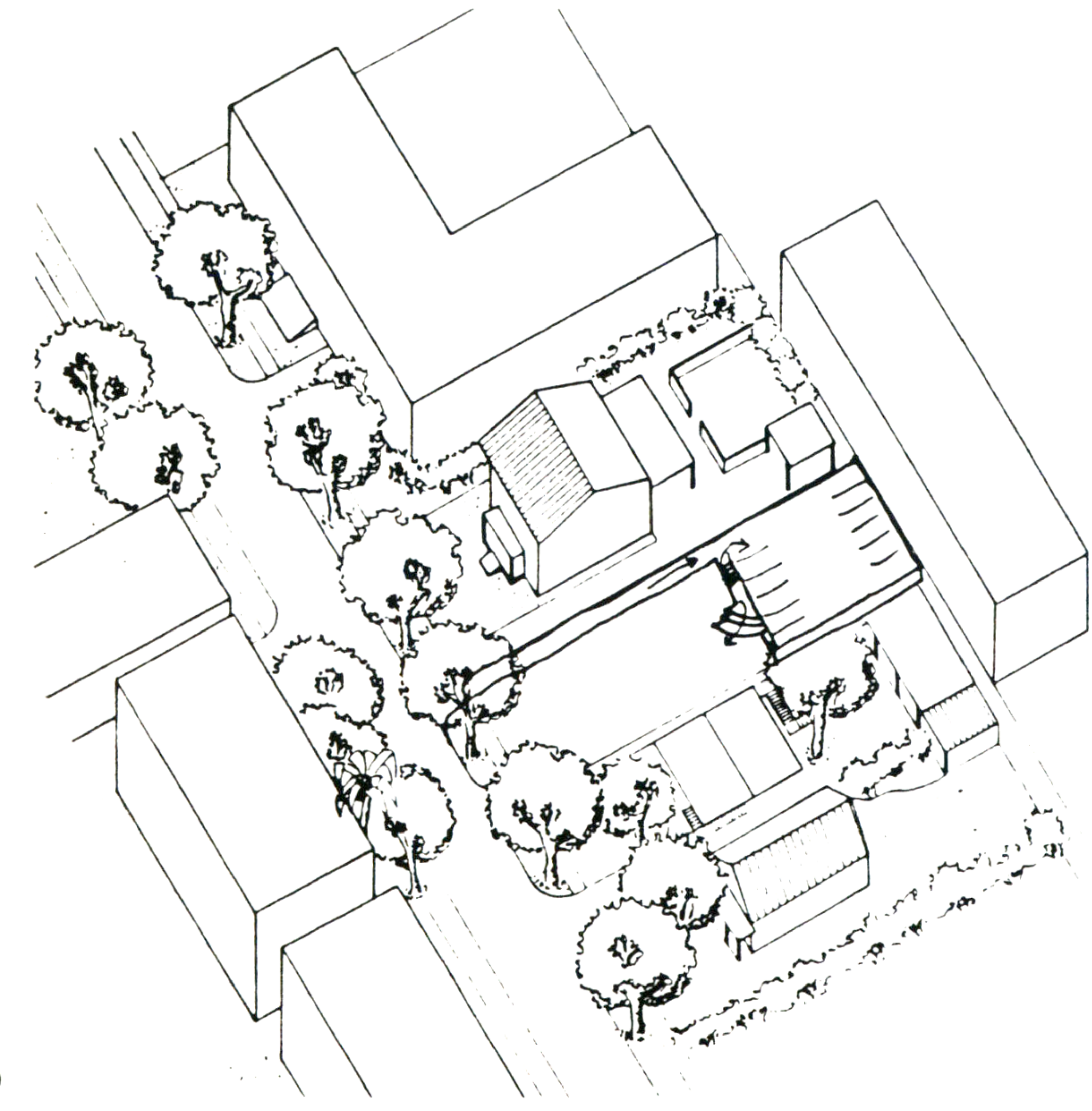
STAGE 2
2.2 Shape gardens precisely.



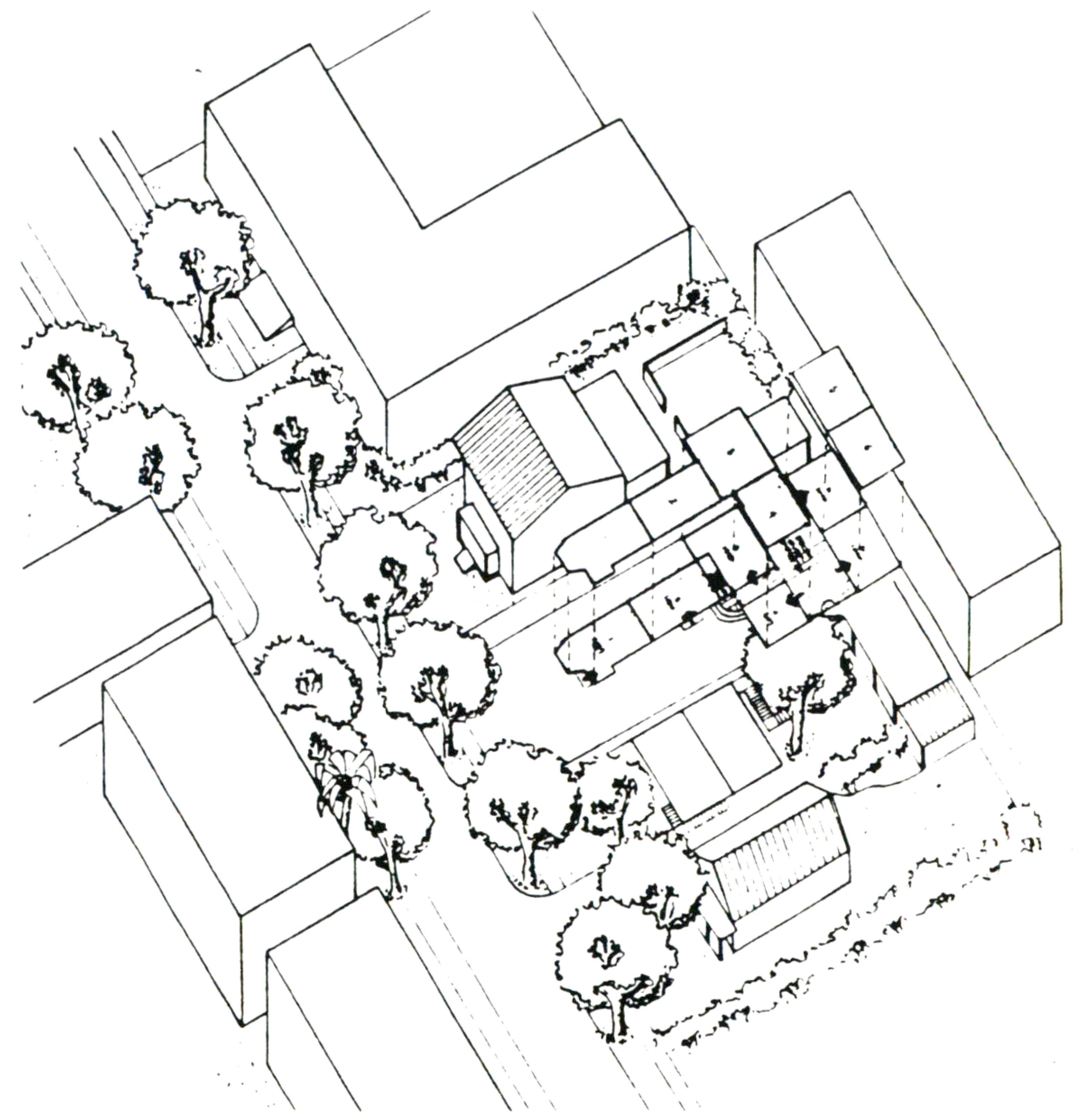
STAGE 2
2.3 Place building volumes.



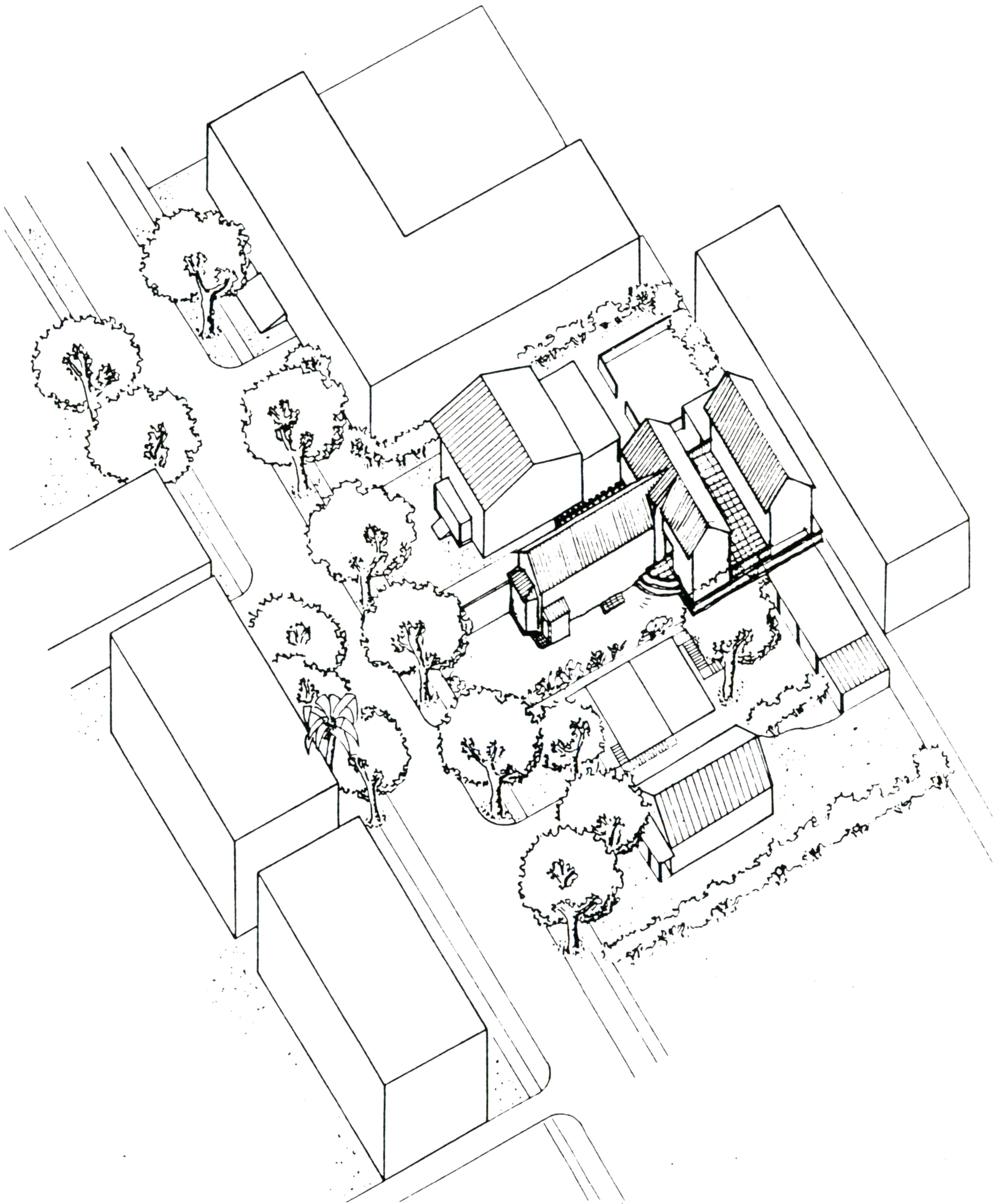
STAGE 3
3.1 Lay out details of parking.



STAGE 3
3.2 & 3.2 Divide into apartments and locate entrances.

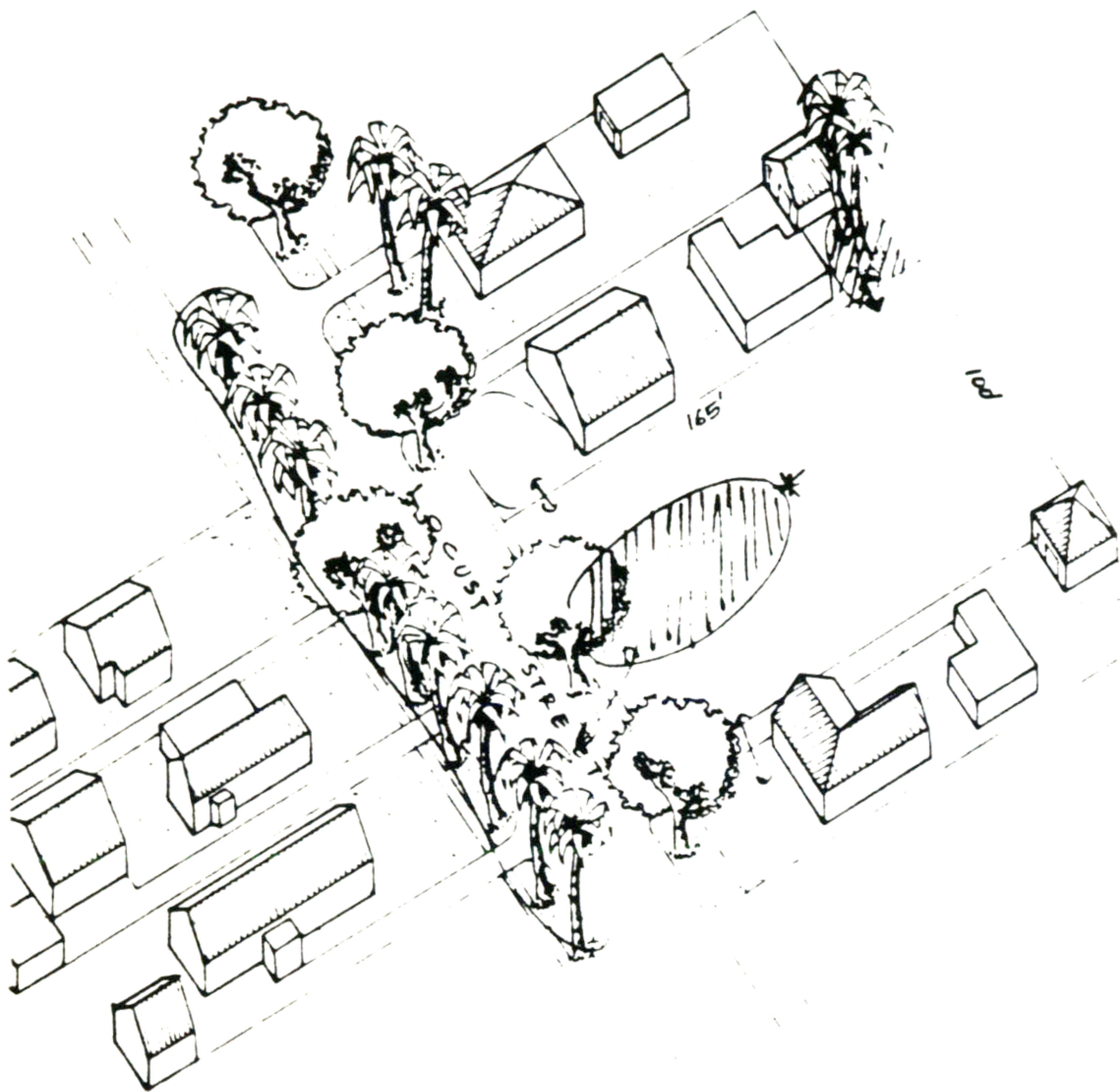


FINAL CHARACTER OF PROJECT

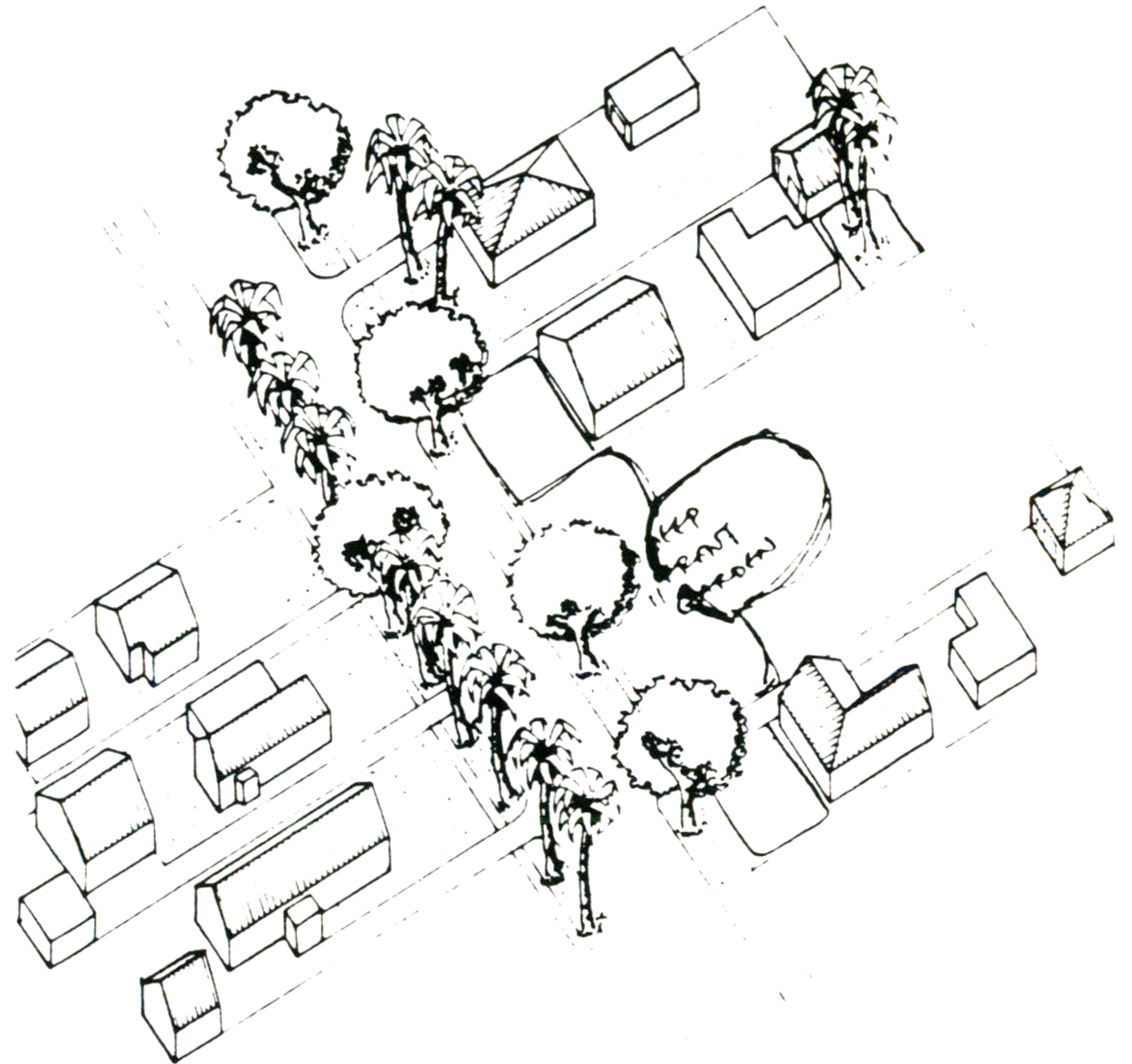


WORKED EXAMPLE #3
1543-1551 Locust

STAGE 1
1.1 Map the context and surroundings.



STAGE 1
1.2 Decide arrangement and position of main garden.



STAGE 1
1.3 Calculate numerical parameters.

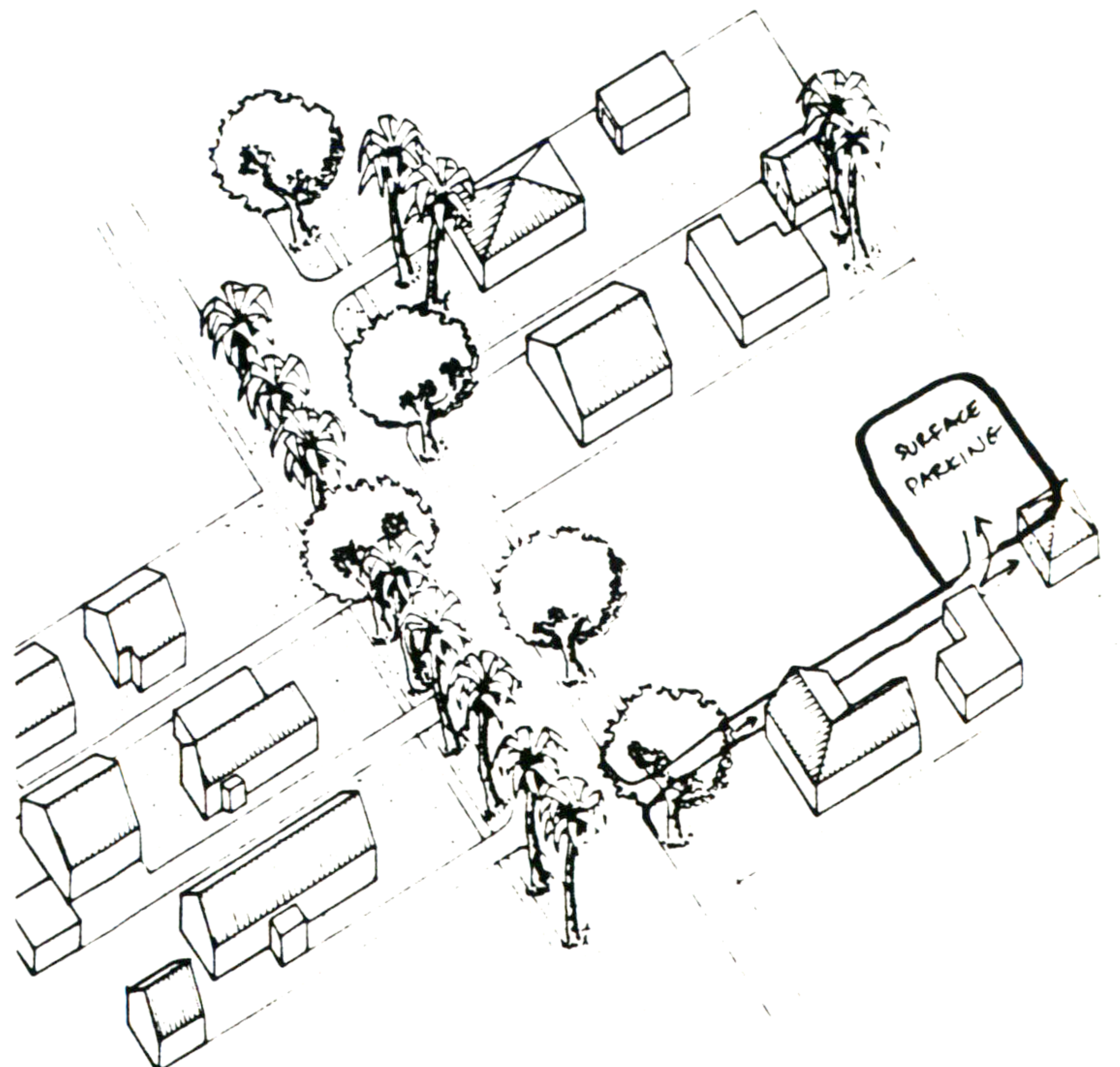
CALCULATE THE FOLLOWING KEY NUMERICAL PARAMETERS, AS REQUIRED BY THE ZONING ORDINANCE.

Refer to Step 13 of the Process.

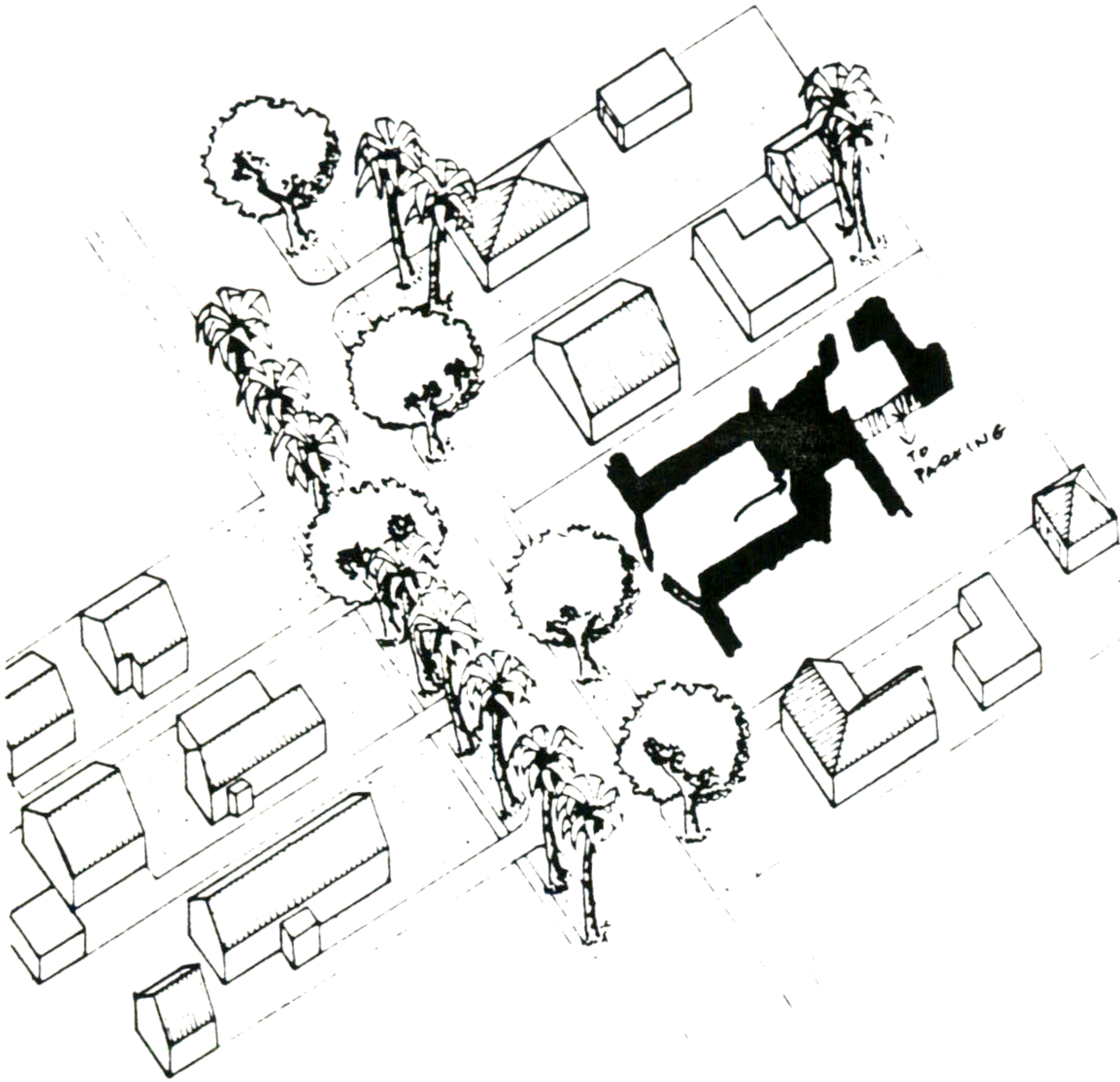
Density Zone: RM-16

1) Lot area:	<u>16,500</u> of
2) Context FAR:	<u>0.18</u>
3) Multiplier:	<u>-</u>
4) Allowable lot FAR:	<u>0.48</u>
5) Allowable built space:	<u>7,962</u> of
6) Number of units:	<u>8</u>
7) Required # of parking spaces:	<u>12</u>
8) Required parking area:	<u> </u> of
9) Total required area of gardens:	<u>6,658</u> of
10) Required area of main garden:	<u>2,308</u> of

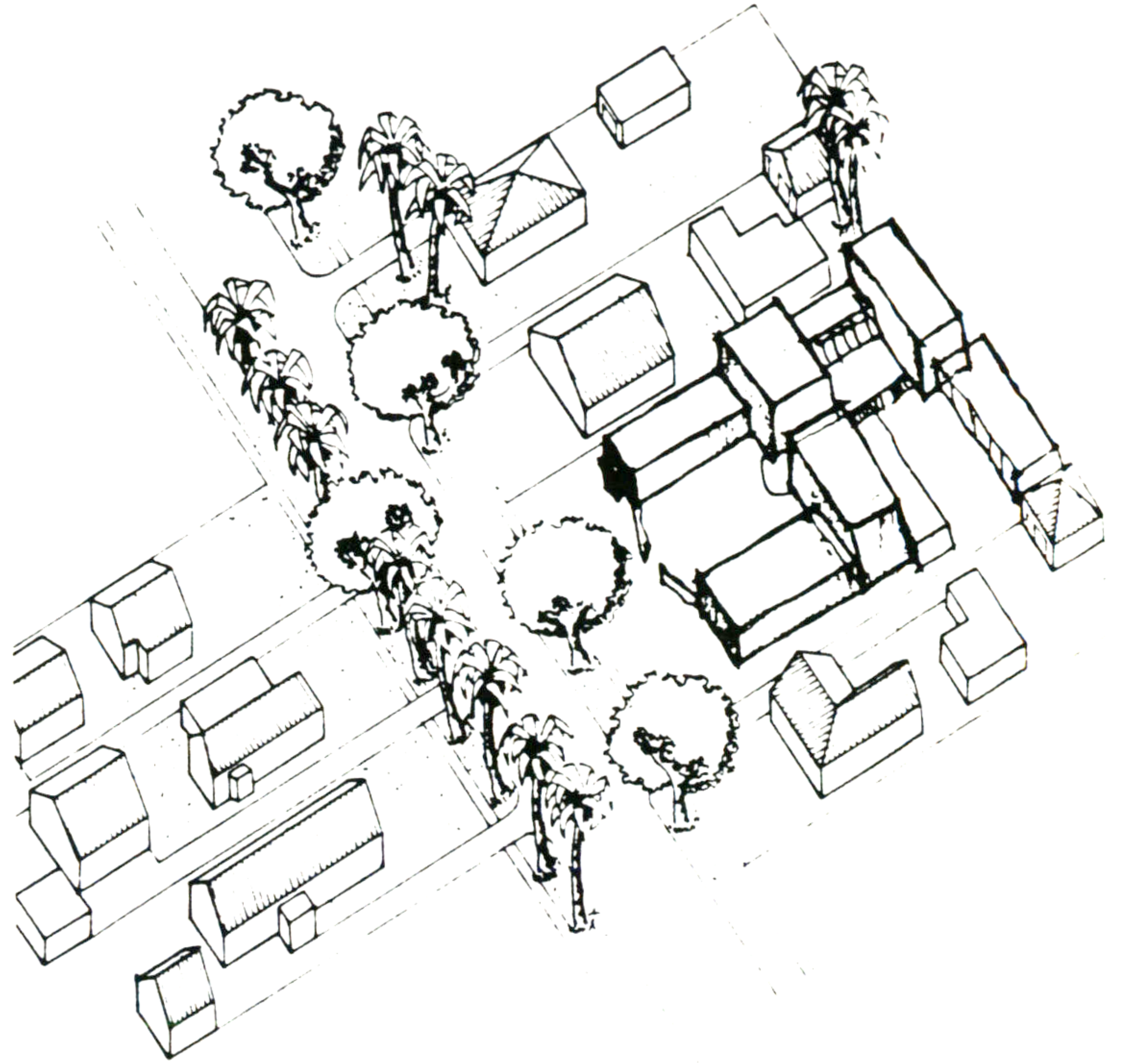
STAGE 2
2.1 Provide driveway and locate parking.



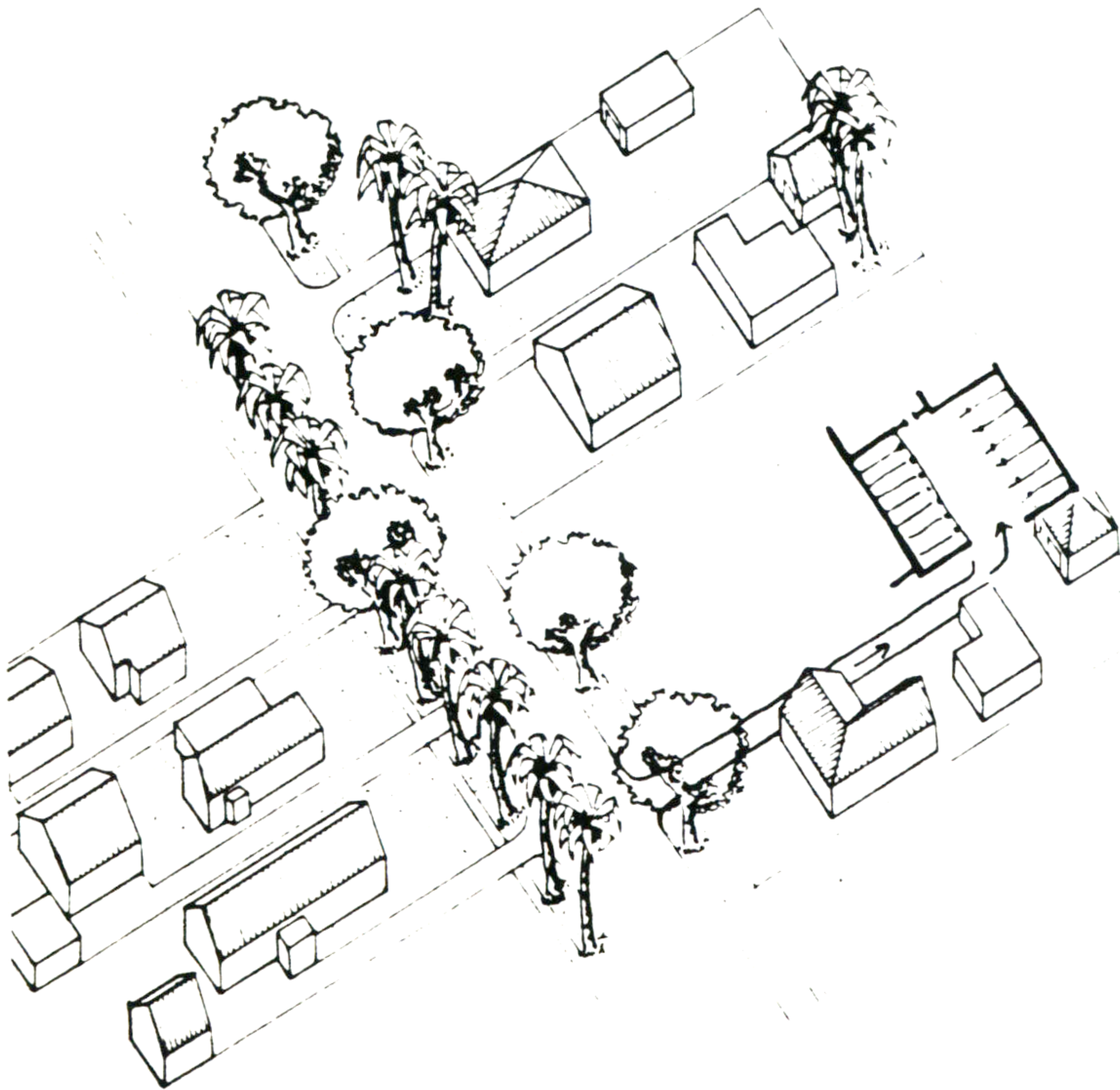
STAGE 2
2.2 Shape gardens precisely.



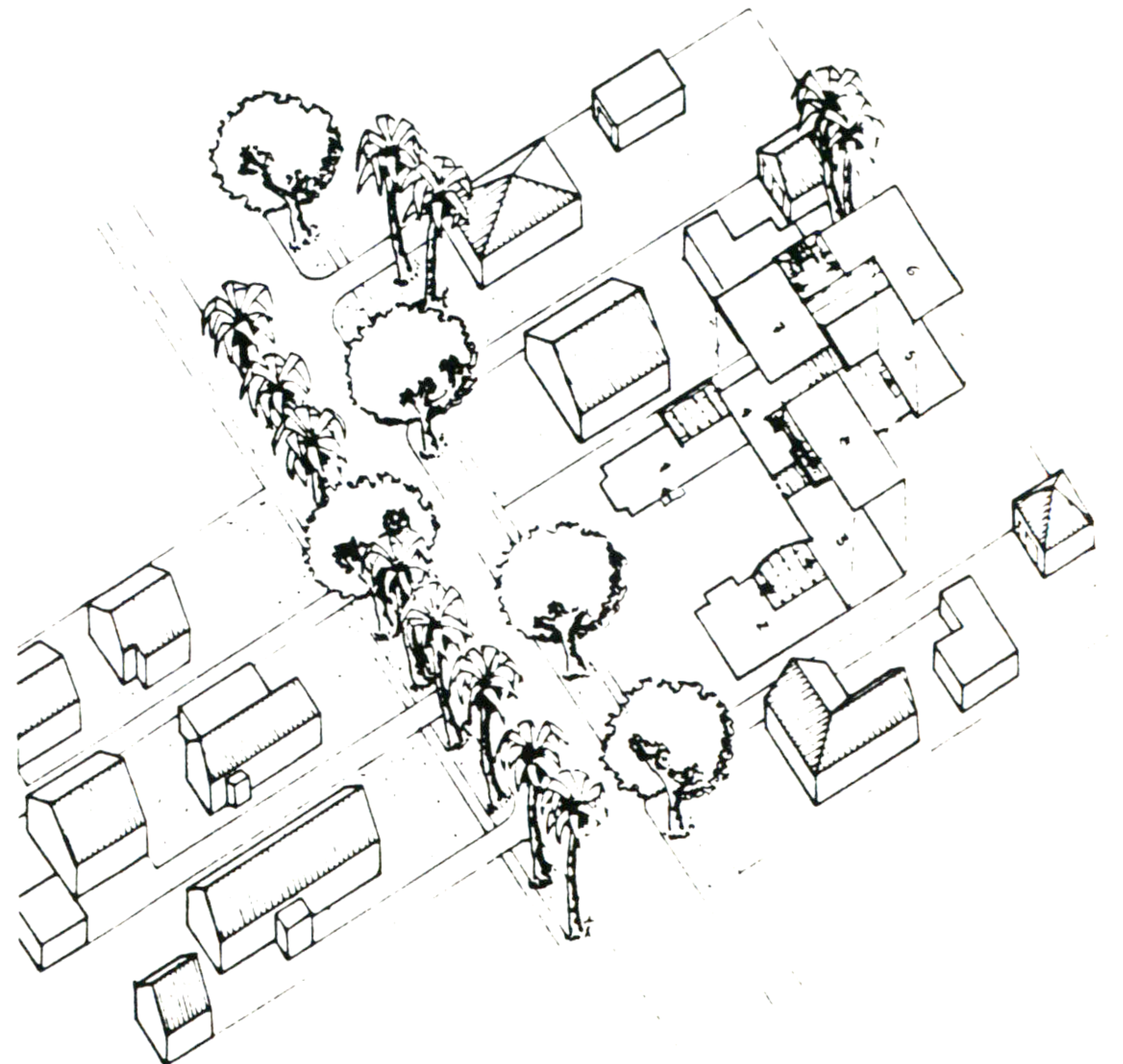
STAGE 2
2.3 Place building volumes.



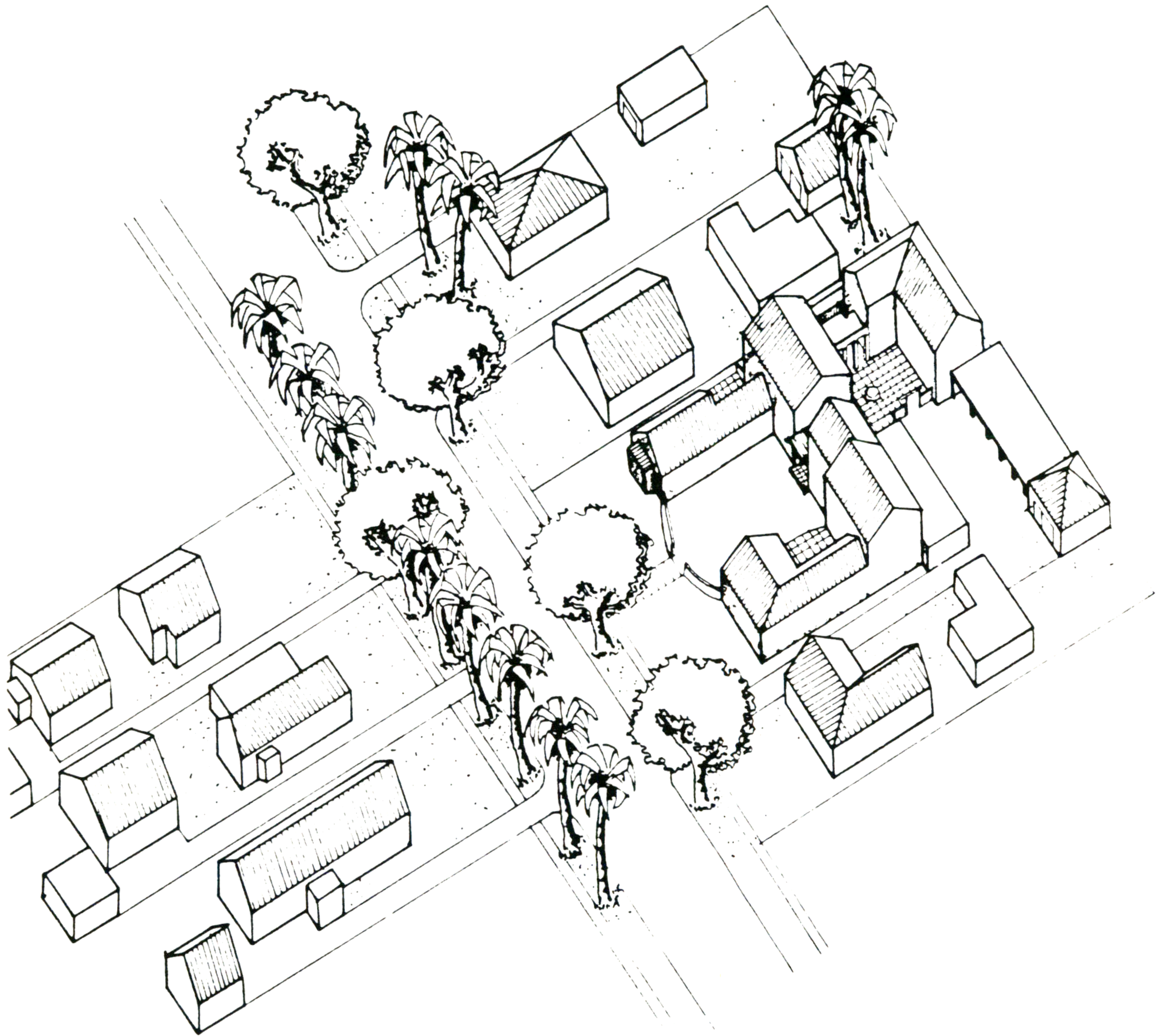
STAGE 3
3.1 Lay out details of parking.



STAGE 3
3.2 & 3.2 Divide into apartments and locate entrances.



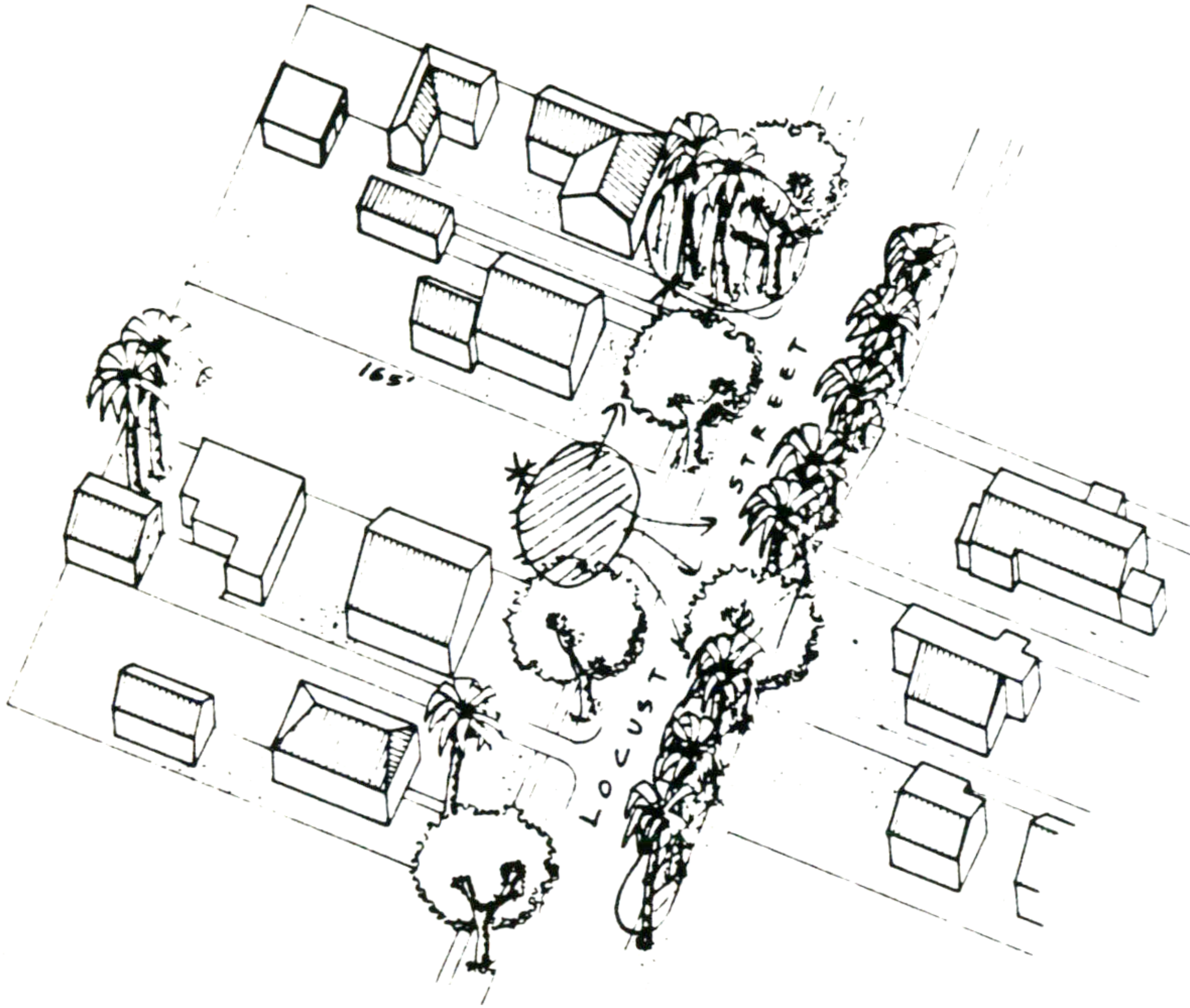
FINAL CHARACTER OF PROJECT



WORKED EXAMPLE #4
1543-1549 Locust

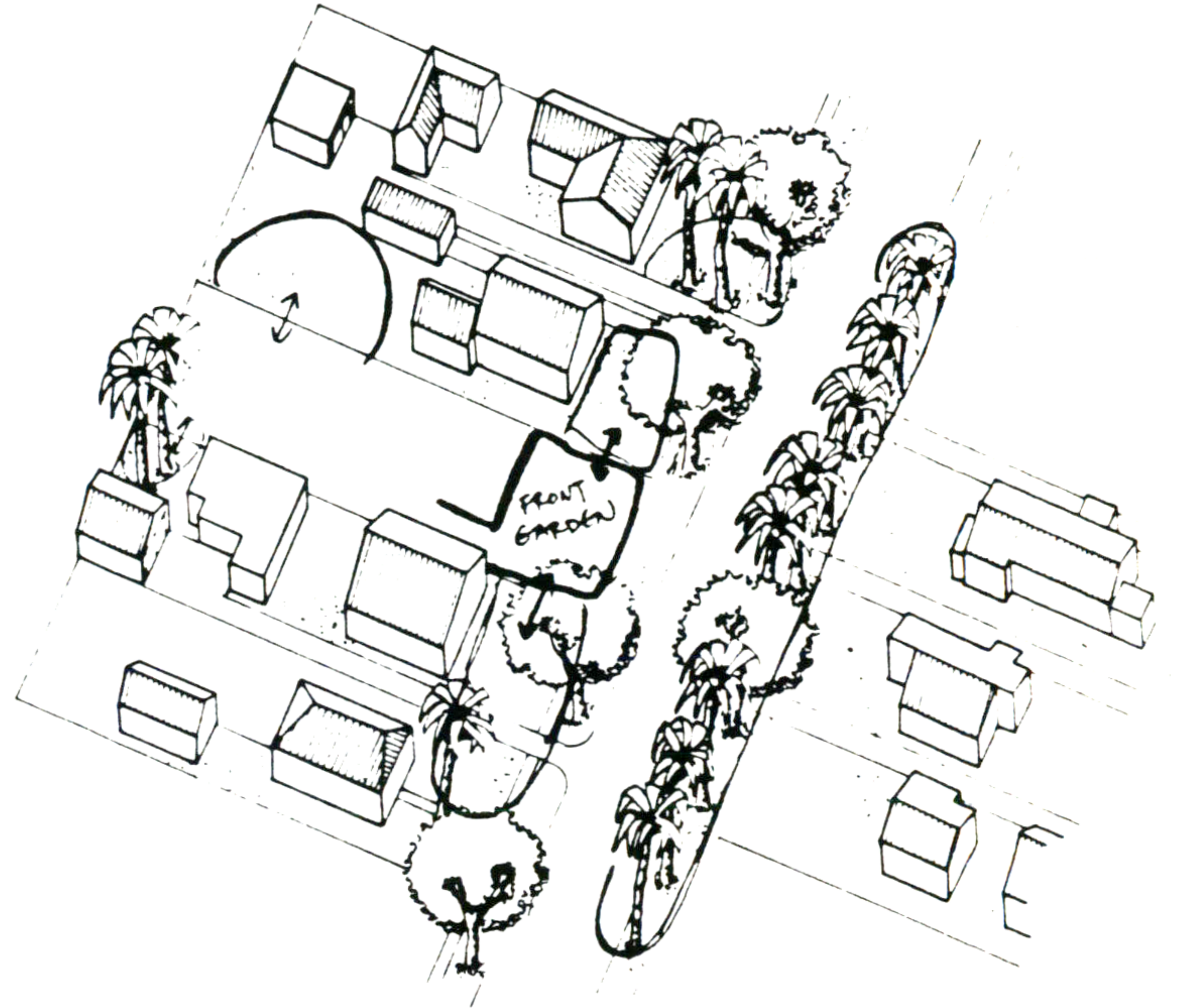
STAGE 1

1.1 Map the context and surroundings.



STAGE 1

1.2 Decide arrangement and position of main garden.



STAGE 1

1.3 Calculate numerical parameters.

CALCULATE THE FOLLOWING KEY NUMERICAL PARAMETERS, AS REQUIRED BY THE ZONING ORDINANCE.

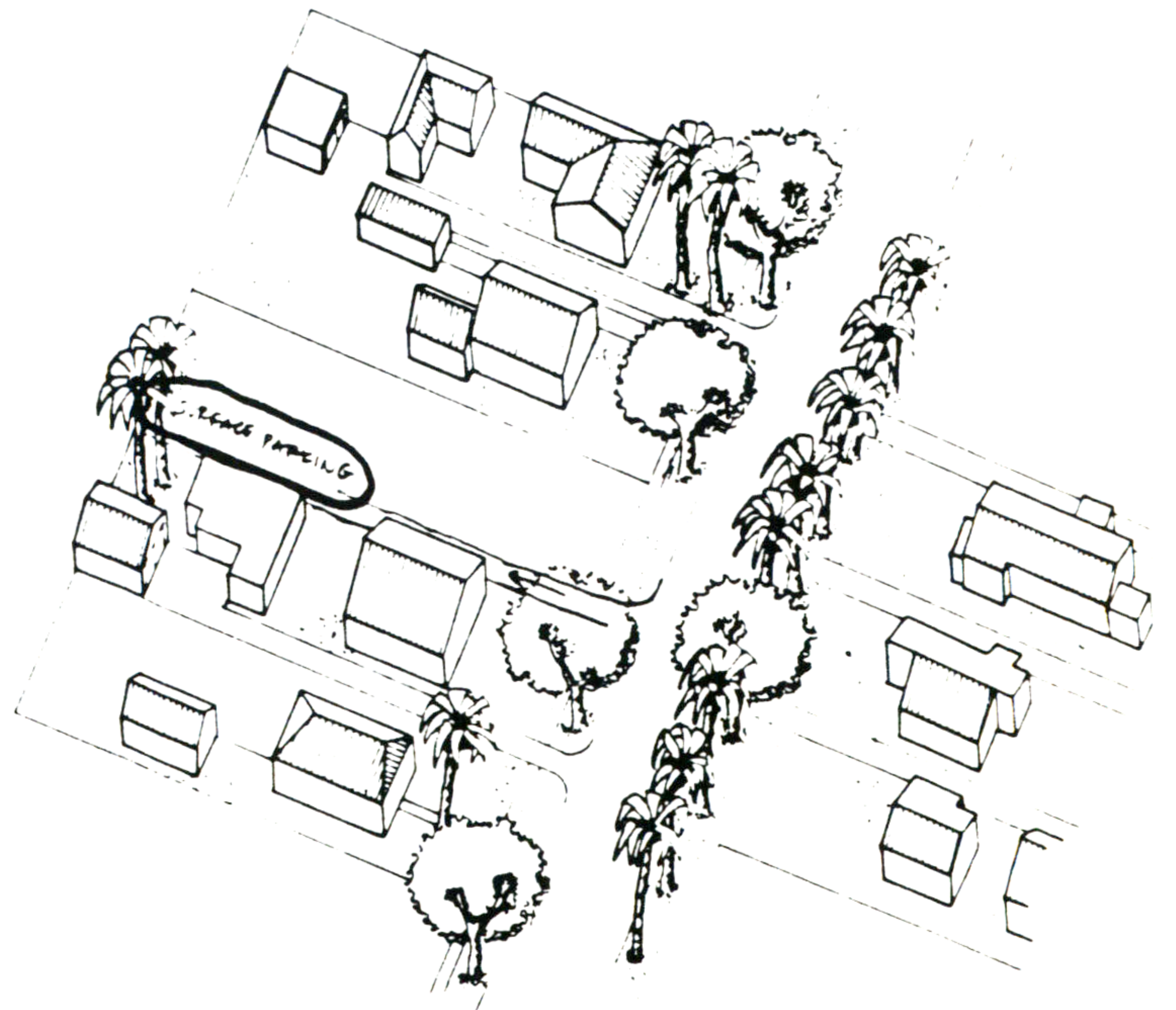
Refer to Step 13 of the Process

Density Zone: RM-16

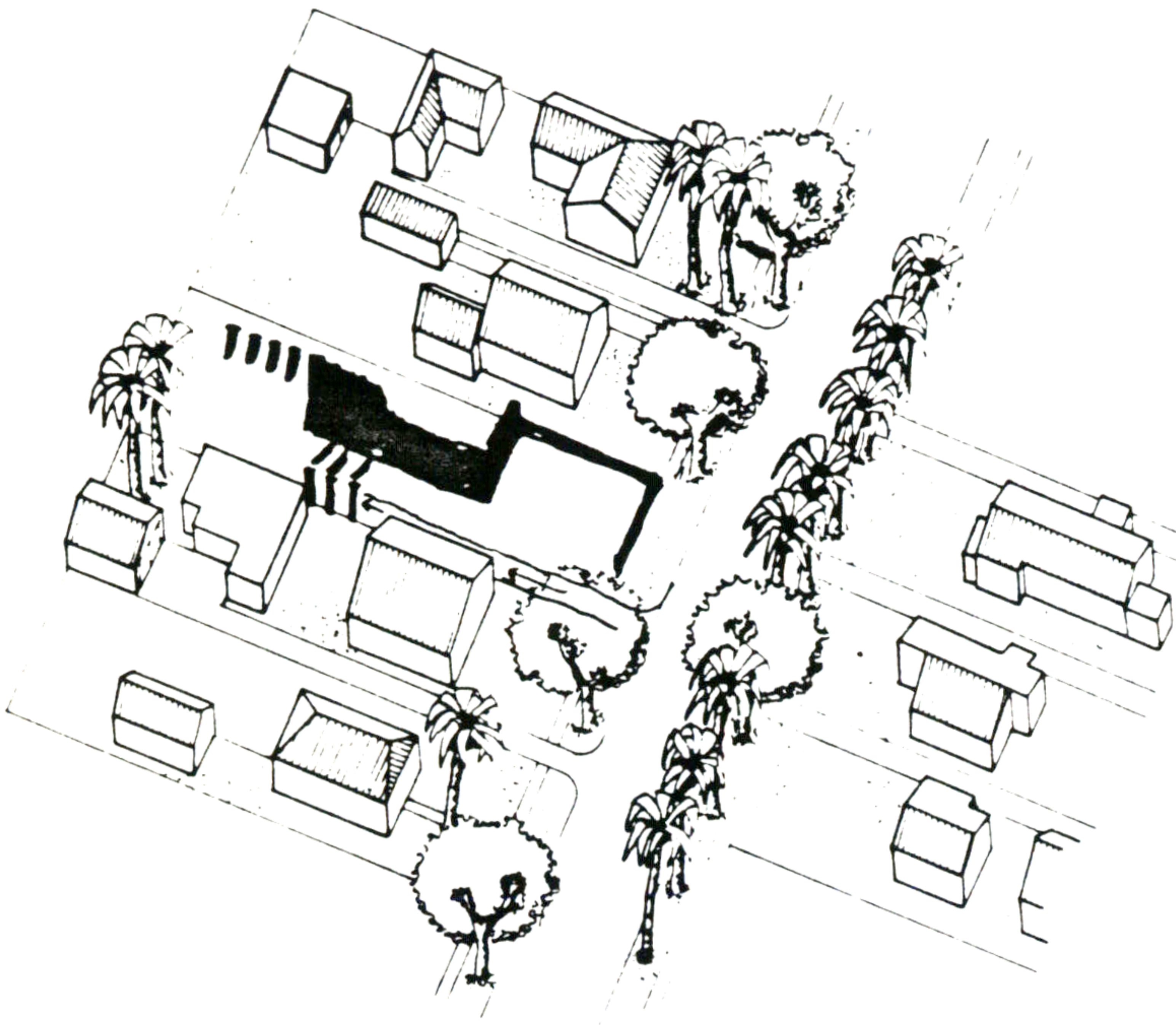
1) Lot area:	8,250 sf
2) Context FAR:	0.18
3) Multiplier:	-
4) Allowable lot FAR:	0.36
5) Allowable built space:	3,000 sf
6) Number of units:	3
7) Required # of parking spaces:	5
8) Required parking area:	1,500 sf
9) Total required area of gardens:	3,302 sf
10) Required area of main garden:	2,576 sf

STAGE 2

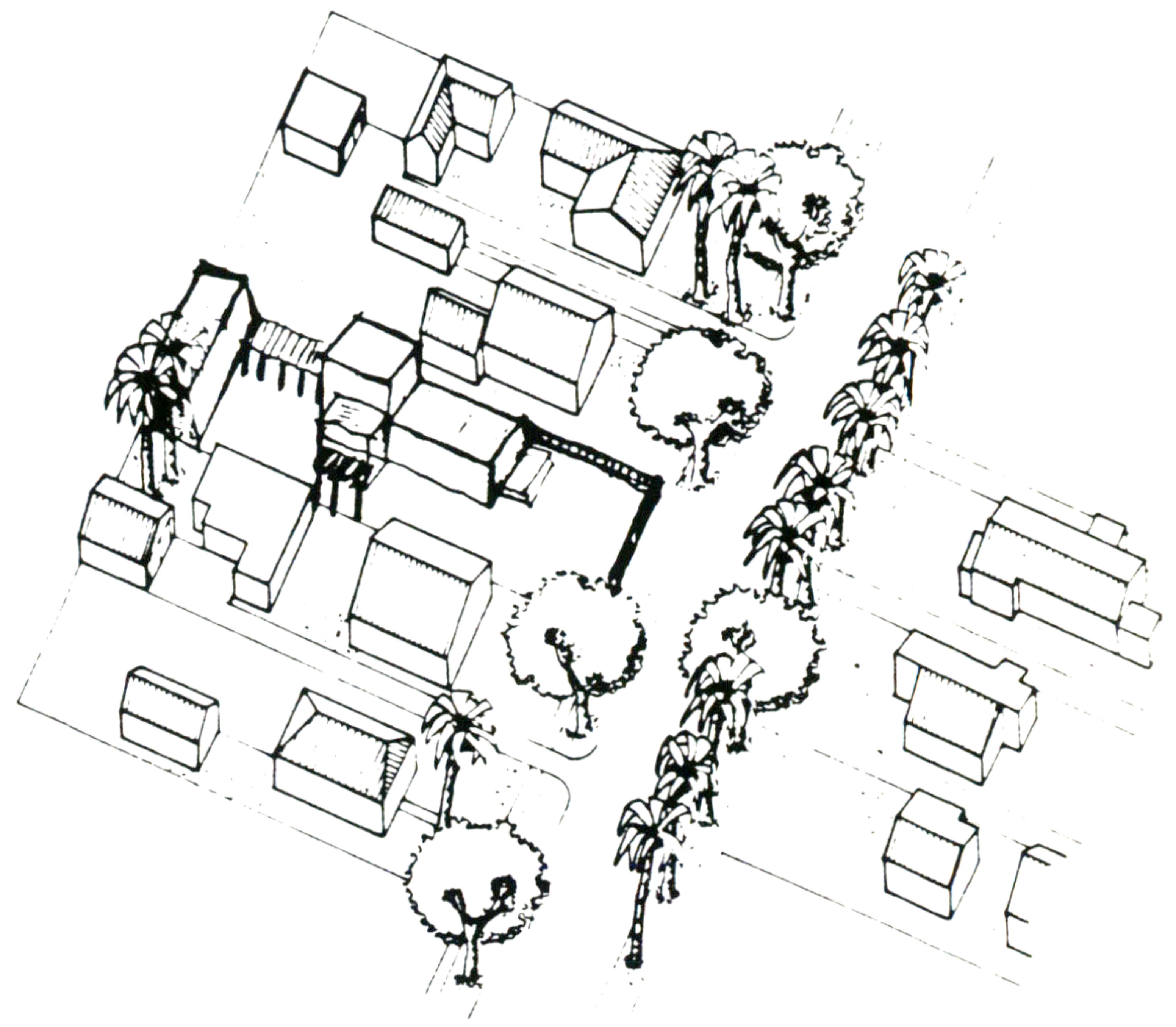
2.1 Provide driveway and locate parking.



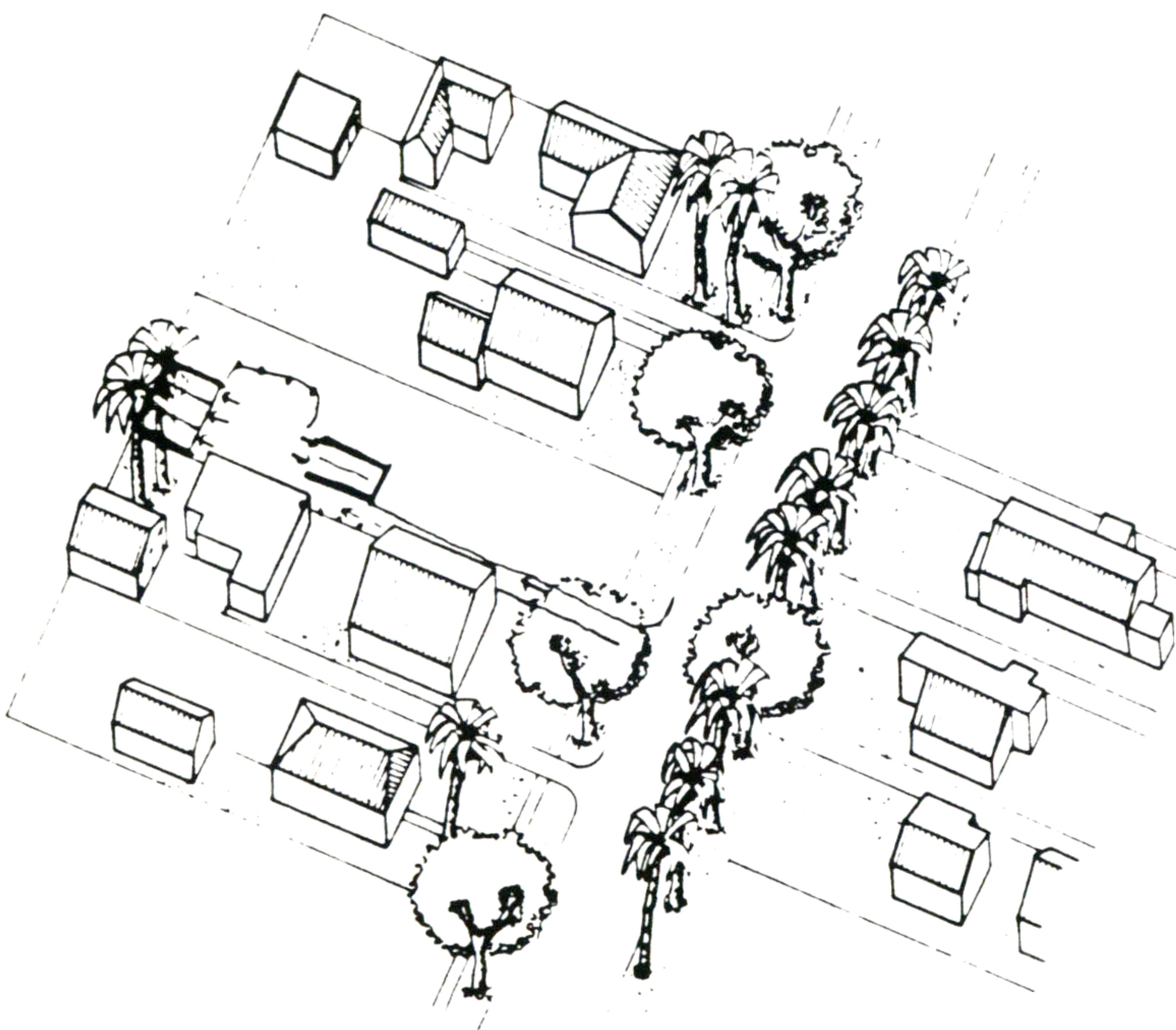
STAGE 2
2.2 Shape gardens precisely.



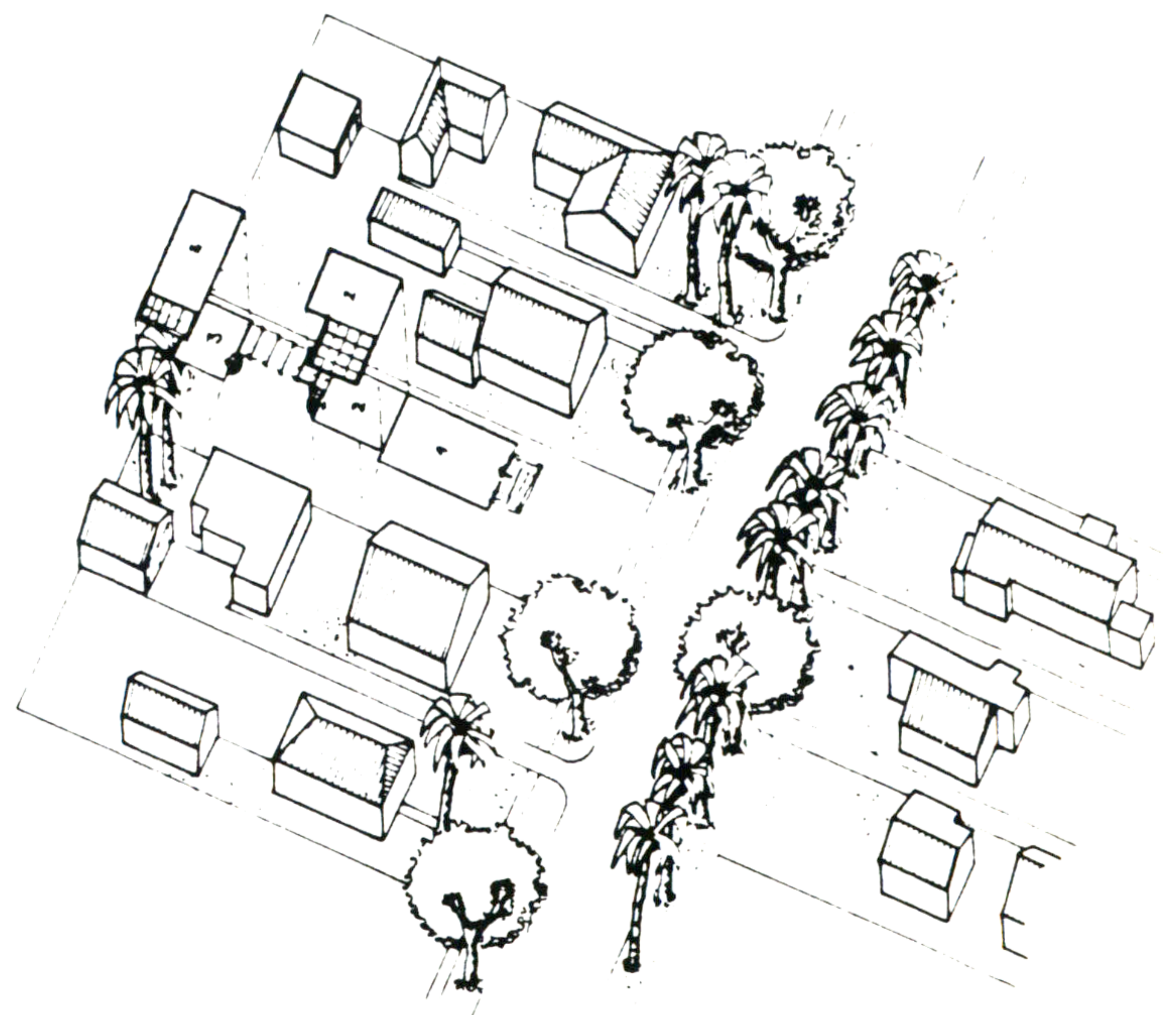
STAGE 2
2.3 Place building volumes.



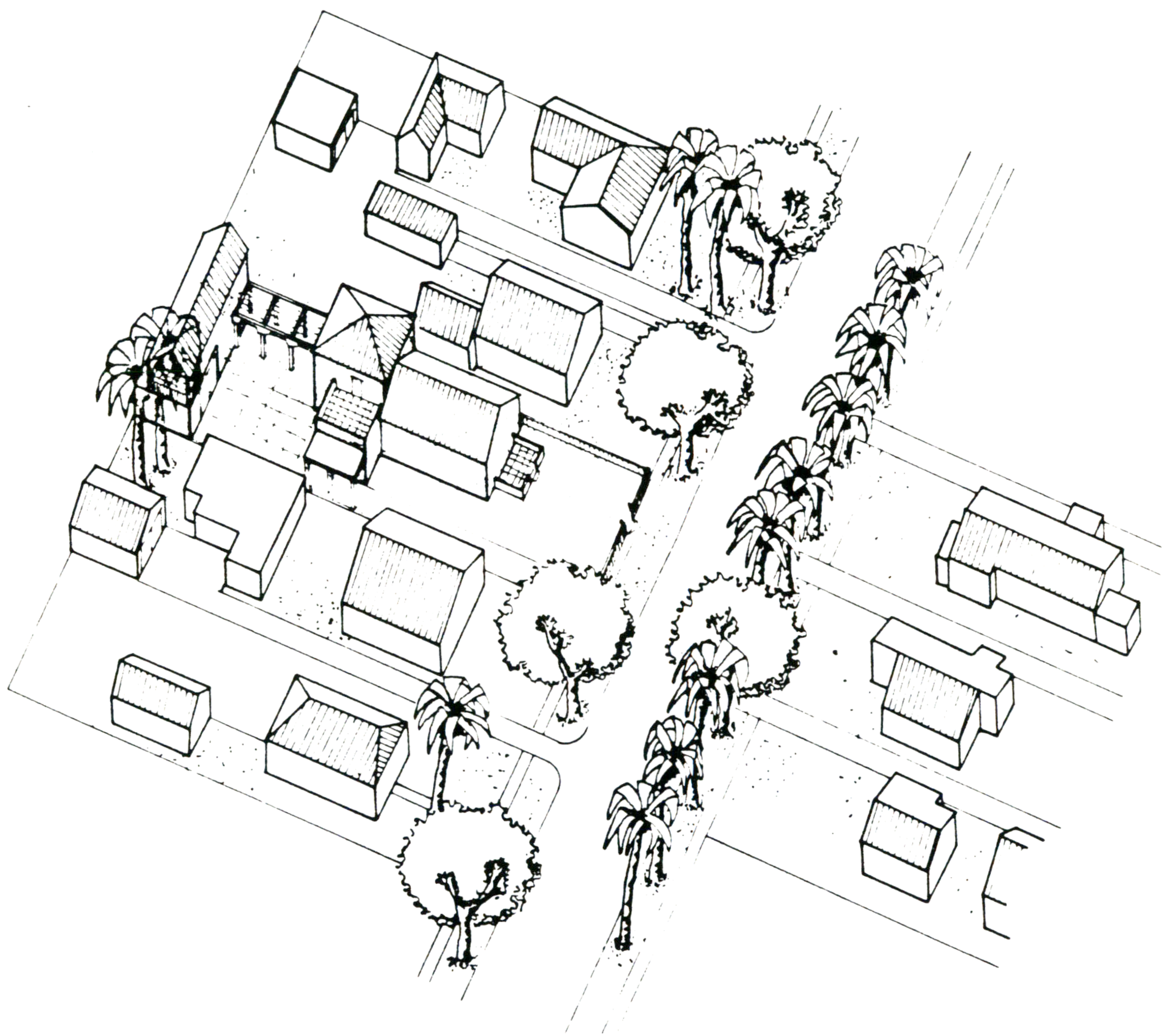
STAGE 3
3.1 Lay out details of parking.



STAGE 3
3.2 & 3.2 Divide into apartments and locate entrances.



FINAL CHARACTER OF PROJECT



CHAPTER 3

ORDINANCE STANDARDS

INTRODUCTION

The ordinance has two parts.

Section 3.1 contains density standards and open space standards. It is fundamental to these standards that the density permitted on any given lot, is a function of lot size, parking type, parking ratio, driveway type, and densities on adjacent lots. Open space requirements are also expressed as a function of lot size. The tables which show density and open space standards, express these interactions.

Section 3.2 contains design standards for all other aspects of the development, including setbacks, window requirements, height requirements, and other detailed provisions. The standards are organised with the same numbering system as the application forms, so that applicants will easily understand which standards apply to the various sections of the application form.

3.1STANDARDS FOR DENSITY AND OPEN SPACE

The following charts show the allowable relationships between density, open space and parking for RM-16, RM-32 AND RM-48 zones.

NOTES

1. All densities are expressed in terms of allowed construction volume, expressed in square feet of allowed construction.

Careful analysis of the Pasadena fabric has convinced us that it is more important to regulate the total built volume on a given site, than the number of households. For this reason densities are expressed as permitted square feet of construction. The variable A represents the square foot of the lot, thus getting construction volume as a function of lot area.

2. All densities are context-sensitive.

It is necessary to protect existing neighborhoods, so that new construction densities cannot "swamp" the feeling or character of an existing neighborhood. The protection appears in the form of a context multiplier C. When surrounding densities are low, C is low, and the permitted density, is therefore constrained to respect the prevailing density.

3. Density varies with lot dimension.

Our studies show clearly that larger lots can and should bear a higher density than smaller lots. We show different permitted densities as a function of lot width, under three categories: Width less than 50' and less than 9,900 sf lot area, widths between 51' and 80', and widths greater than 80'.

4. Density varies with parking ratio.

Our studies show clearly that high parking ratios have a damaging effects on neighborhoods, unless they are offset by lower densities. The prevailing assumption of this ordinance is that parking ratios are to be set at 1.5:1. Any project wishing to provide a 2:1 parking ratio, has a reduced density, expressed in the form of a density penalty.

5. Density varies with driveway type.

Our studies have shown that proliferation of driveways also has a damaging effect on the environment, unless offset by lower densities. This ordinance encourages developers to seek shared-driveway easements with their neighbors. Any developer able to share a driveway with an adjacent lot will receive a density bonus.

6. Density varies with parking type.

In order to care for the environment, permitted densities must vary with parking type. The density charts show different densities for three cases: surface parking, half depressed parking, and full underground parking with mechanical ventilation.

7. Substantial size of open space plays an essential role.

Size of required main gardens and subsidiary gardens, are given for the different lot type. These restrictions do not directly affect allowable density, but have an impact on possible configurations, as shown in the examples which follow.

8. Real gardens over earth must be provided.

In those cases where full underground garages are provided, the main garden must be built over real soil, not over a podium on the garage. This also affects possible configurations as shown in the pages which follow.

DENSITY STANDARDS FOR RM-16 ZONE

Density is expressed in maximum allowed square feet of construction** for a lot area of (A) square feet.

PARKING SPACES TO UNITS RATIO EQUALS 1.5 cars/unit

		WIDTH OF LOT	<80'	>80'
			(1)	(2)
		PARKING TYPE		
MAXIMUM ALLOWED SQUARE FEET OF CONSTRUCTION IN RELATIONSHIP TO CONTEXT DENSITY	A	SURFACE PARKING	$0.30 \times (C) \times (A)$	$0.42 \times (C) \times (A)$
	B	PARKING WITH DWELLINGS OVER	$0.36 \times (C) \times (A)$	$0.48 \times (C) \times (A)$
	C	NATURALLY VENTILATED	$0.60 \times (C) \times (A)$	$0.68 \times (C) \times (A)$
	D	MECHANICALLY VENTILATED	$0.68 \times (C) \times (A)$	$0.68 \times (C) \times (A)$

DENSITY BONUS for obtaining easement for the use of adjacent driveway.	$+0.10 \times (C) \times (A)$	$+0.10 \times (C) \times (A)$
DENSITY PENALTY for increasing parking spaces to units ratio to 2 cars/unit.	$-0.06 \times (A)$	$-0.10 \times (A)$

* VALUE OF (C):

(C) is a factor that depends on context density, as shown below:

Context density is expressed in average number of units per lot, for all lots any part of which is within 150' on any point on the lot under development.	1) Context density < 2 units/lot, then (C) = 0.85
	2) Context density > 2 units/lot, then (C) = 1.00

** Allowed square feet of construction includes the following: (a) All floor areas, (b) 50% of covered staircase areas, (c) 50% of areas of arcades under building, and (d) 50% of outdoor covered areas on the second floor.

OPEN SPACE STANDARDS FOR RM-16 ZONE

For a lot area of (A) square feet

		WIDTH OF LOT	<80'	>80'
			(1)	(2)
OPEN SPACE REQUIRE- MENTS	I	TOTAL REQUIRED OPEN SPACE	3,500 sf or 0.40x(A) sf whichever is greater	6,000 sf or 0.35x(A) sf whichever is greater
	II	MINIMUM REQUIRED MAIN GARDEN FRONT OR INTERIOR (Always at grade)	2,100 sf or 0.25x(A) sf whichever is greater	3,500 sf or 0.20x(A) sf whichever is greater
	III	RECOMMENDED SIZE OF SECONDARY GARDEN.	1,400 sf or 0.25x(A) sf whichever is greater	2,500 sf or 0.20x(A) sf whichever is greater

DENSITY STANDARDS FOR RM-32 ZONE

Density is expressed in maximum allowed square feet of construction** for a lot area of (A) square feet.

PARKING SPACES TO UNITS RATIO EQUALS 1.5 cars/unit

		WIDTH OF LOT	<50' & <9,900 sf.	<80'	>80'
			(1)	(2)	(3)
		PARKING TYPE			
MAXIMUM ALLOWED SQUARE FEET OF CONSTRUCTION IN RELATIONSHIP TO CONTEXT DENSITY	A	SURFACE PARKING	$0.50 \times (C) \times (A)^*$	$0.54 \times (C) \times (A)$	$0.58 \times (C) \times (A)$
	B	PARKING WITH DWELLINGS OVER	$0.62 \times (C) \times (A)$	$0.65 \times (C) \times (A)$	$0.74 \times (C) \times (A)$
	C	NATURALLY VENTILATED	$0.71 \times (C) \times (A)$	$0.76 \times (C) \times (A)$	$0.82 \times (C) \times (A)$
	D	MECHANICALLY VENTILATED	$0.78 \times (C) \times (A)$	$0.84 \times (C) \times (A)$	$0.88 \times (C) \times (A)$

DENSITY BONUS for obtaining easement for the use of adjacent driveway.	$+0.10 \times (C) \times (A)$	$+0.10 \times (C) \times (A)$	$+0.13 \times (C) \times (A)$
DENSITY PENALTY for increasing parking spaces to units ratio to 2 cars/unit.	$-0.10 \times (A)$	$-0.10 \times (A)$	$-0.13 \times (A)$

* VALUE OF (C):
(C) is a factor that depends on context density, as shown below:

Context density is expressed in average number of units per lot, for all lots any part of which is within 150' on any point on the lot under development.	1) Context density < 2 units/lot, then (C) = 0.75
	2) $2 < \text{Context density} < 6$ units/lot, then (C) = 0.85
	3) Context density > 6 units/lot, then (C) = 1.00

** Allowed square feet of construction includes the following: (a) All floor areas, (b) 50% of covered staircase areas, (c) 50% of areas of arcades under building, and (d) 50% of outdoor covered areas on the second floor.

OPEN SPACE STANDARDS FOR RM-32 ZONE

For a lot area of (A) square feet

		WIDTH OF LOT	<50' & <9,900 sf.	<80'	>80'
			(1)	(2)	(3)
OPEN SPACE REQUIRE- MENTS	I	TOTAL REQUIRED OPEN SPACE	2,700 sf or $0.33x(A)$ sf whichever is greater	3,100 sf or $0.30x(A)$ sf whichever is greater	5,300 sf or $0.26x(A)$ sf whichever is greater
	II	MINIMUM REQUIRED MAIN GARDEN FRONT OR INTERIOR (Always at grade)*	2,100 sf or $0.25x(A)$ sf whichever is greater	2,300 sf or $0.22x(A)$ sf whichever is greater	3,500 sf or $0.17x(A)$ sf whichever is greater
	III	RECOMMENDED SIZE OF SECONDARY GARDEN.	600 sf or $0.08x(A)$ sf whichever is greater	800 sf or $0.08x(A)$ sf whichever is greater	1,800 sf or $0.09x(A)$ sf whichever is greater

* For exceptions see paragraph 2.2-A #3 of chapter 3.

DENSITY STANDARDS FOR RM-48 ZONE

Density is expressed in maximum allowed square feet of construction** for a lot area of (A) square feet.

PARKING SPACES TO UNITS RATIO EQUALS 1.5 cars/unit

		WIDTH OF LOT	<50' & <9,900 sf.	<80'	>80'
			(1)	(2)	(3)
		PARKING TYPE			
MAXIMUM ALLOWED SQUARE FEET OF CONSTRUCTION IN RELATIONSHIP TO CONTEXT DENSITY	A	SURFACE PARKING	$0.56x(C)x(A)^*$	$0.66x(C)x(A)$	$0.74x(C)x(A)$
	B	PARKING WITH DWELLINGS OVER	$0.66x(C)x(A)$	$0.76x(C)x(A)$	$0.84x(C)x(A)$
	C	NATURALLY VENTILATED	$0.84x(C)x(A)$	$0.90x(C)x(A)$	$0.96x(C)x(A)$
	D	MECHANICALLY VENTILATED	$1.10x(C)x(A)$	$1.10x(C)x(A)$	$1.16x(C)x(A)$

DENSITY BONUS for obtaining easement for the use of adjacent driveway.	$+0.10x(C)x(A)$	$+0.10x(C)x(A)$	$+0.13x(C)x(A)$
DENSITY PENALTY for increasing parking spaces to units ratio to 2 cars/unit.	$-0.12x(A)$	$-0.12x(A)$	$-0.15x(A)$

* VALUE OF (C):

(C) is a factor that depends on context density, as shown below:

Context density is expressed in average number of units per lot, for all lots any part of which is within 150' on any point on the lot under development.	1) Context density <3units/lot, then(C)=0.75
	2) $3 < \text{Context density} < 7$ units/lot, then(C)=0.90
	3) Context density >7units/lot, then(C)=1.00

** Allowed square feet of construction includes the following: (a) All floor areas, (b) 50% of covered staircase areas, (c) 50% of areas of arcades under building, and (d) 50% of outdoor covered areas on the second floor.

OPEN SPACE STANDARDS FOR RM-48 ZONE

For a lot area of (A) square feet

		WIDTH OF LOT	<50' & <9,900 sf.	<80'	>80'
			(1)	(2)	(3)
OPEN SPACE REQUIRE- MENTS	I	TOTAL REQUIRED OPEN SPACE	2,700 sf or $0.33 \times (A) \text{sf}$ whichever is greater	3,100 sf or $0.30 \times (A) \text{sf}$ whichever is greater	5,300 sf or $0.26 \times (A) \text{sf}$ whichever is greater
	II	MINIMUM REQUIRED MAIN GARDEN FRONT OR INTERIOR (Always at grade)*	2,100 sf or $0.25 \times (A) \text{sf}$ whichever is greater	2,300 sf or $0.22 \times (A) \text{sf}$ whichever is greater	3,500 sf or $0.17 \times (A) \text{sf}$ whichever is greater
	III	RECOMMENDED SIZE OF SECONDARY GARDEN.	600 sf or $0.08 \times (A) \text{sf}$ whichever is greater	800 sf or $0.08 \times (A) \text{sf}$ whichever is greater	1,800 sf or $0.09 \times (A) \text{sf}$ whichever is greater

* For exceptions see paragraph 2.2-A #3 of chapter 3.

3.2.
DESIGN STANDARDS

The design standards of the zoning ordinance are in four groups, each one consistent with the four stages of the application form. Their numbering system is also consistent with that of the application form.

GROUP 1.
RELATIONSHIP TO NEIGHBORHOOD CONTEXT.

- 1.1. Map of context and surroundings.
- 1.2. Position of main garden.
- 1.3. Key numerical parameters.

GROUP 2.
OVERALL ORGANIZATION OF PROJECT.

- 2.1. Driveway and parking location.
- 2.2. Shape of gardens.
- 2.3. Volumetric configuration of buildings.

GROUP 3.
DETAILED ORGANIZATION OF PROJECT.

- 3.1. Parking and driveway details.
- 3.2. Individual apartment units.
- 3.3. Apartment entrances.

GROUP 4.
CHARACTER OF PROJECT.

- 4.1. Building details, materials and color.
- 4.2. Details of garden.

GROUP 1
OF DESIGN STANDARDS.

RELATIONSHIP TO NEIGHBORHOOD CONTEXT.

1.1. MAP OF CONTEXT AND SURROUNDINGS.

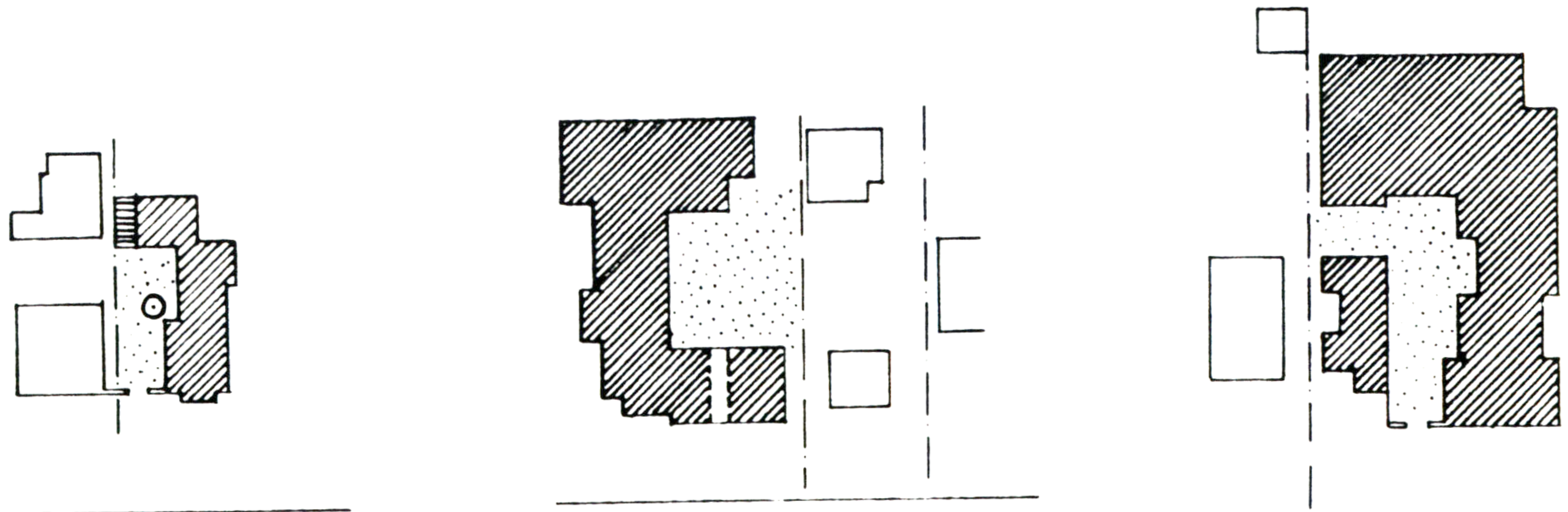
No guidelines and design standards.

1.2. POSITION OF MAIN GARDEN.

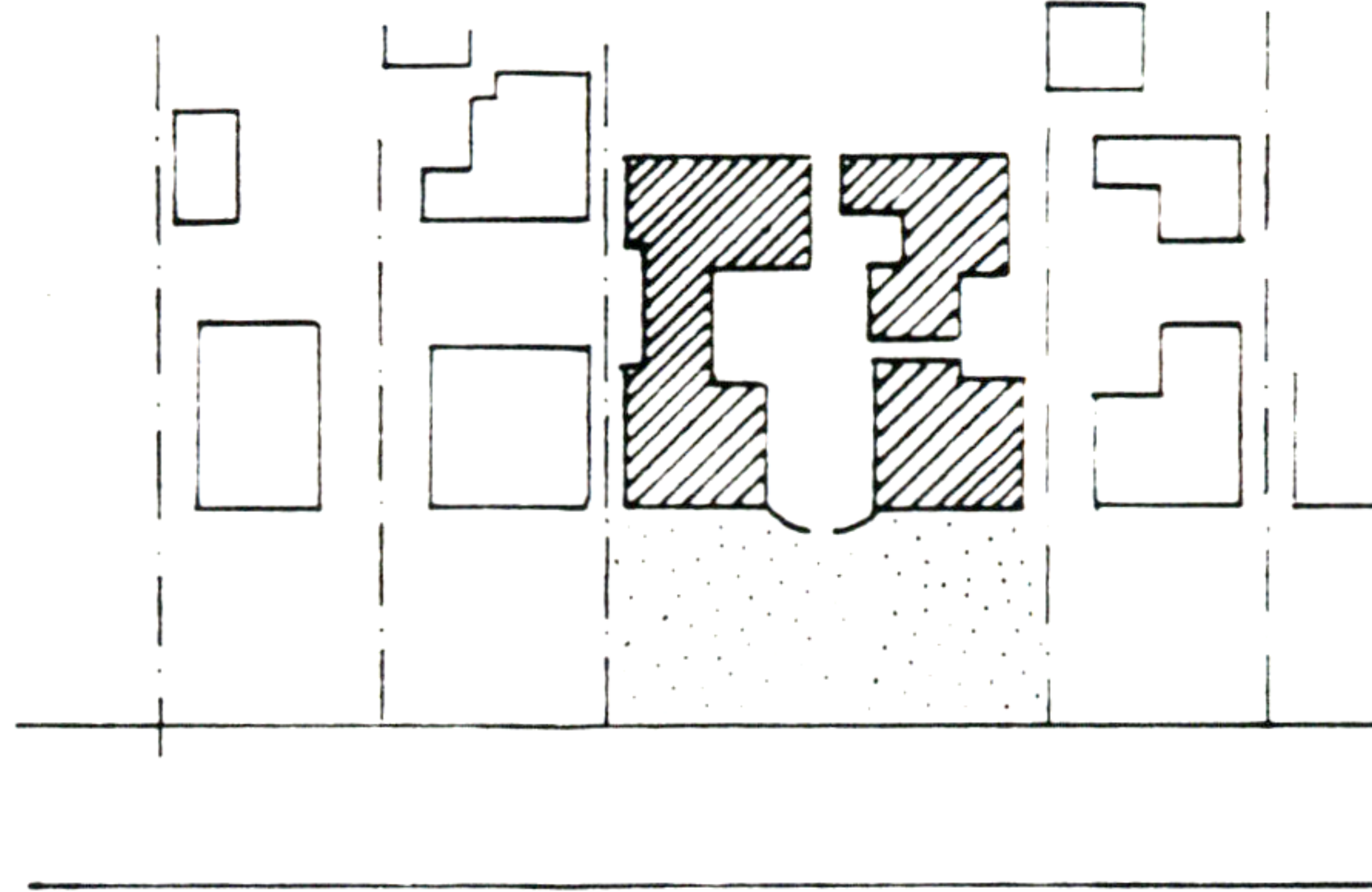
The main garden must contribute to the positive qualities of the existing place. Its placement is the most important thing that can help to do this. Accordingly, the judgement about the proposed position of the main garden is very important.

There are numerous ways according to which the main garden can do this. For example:

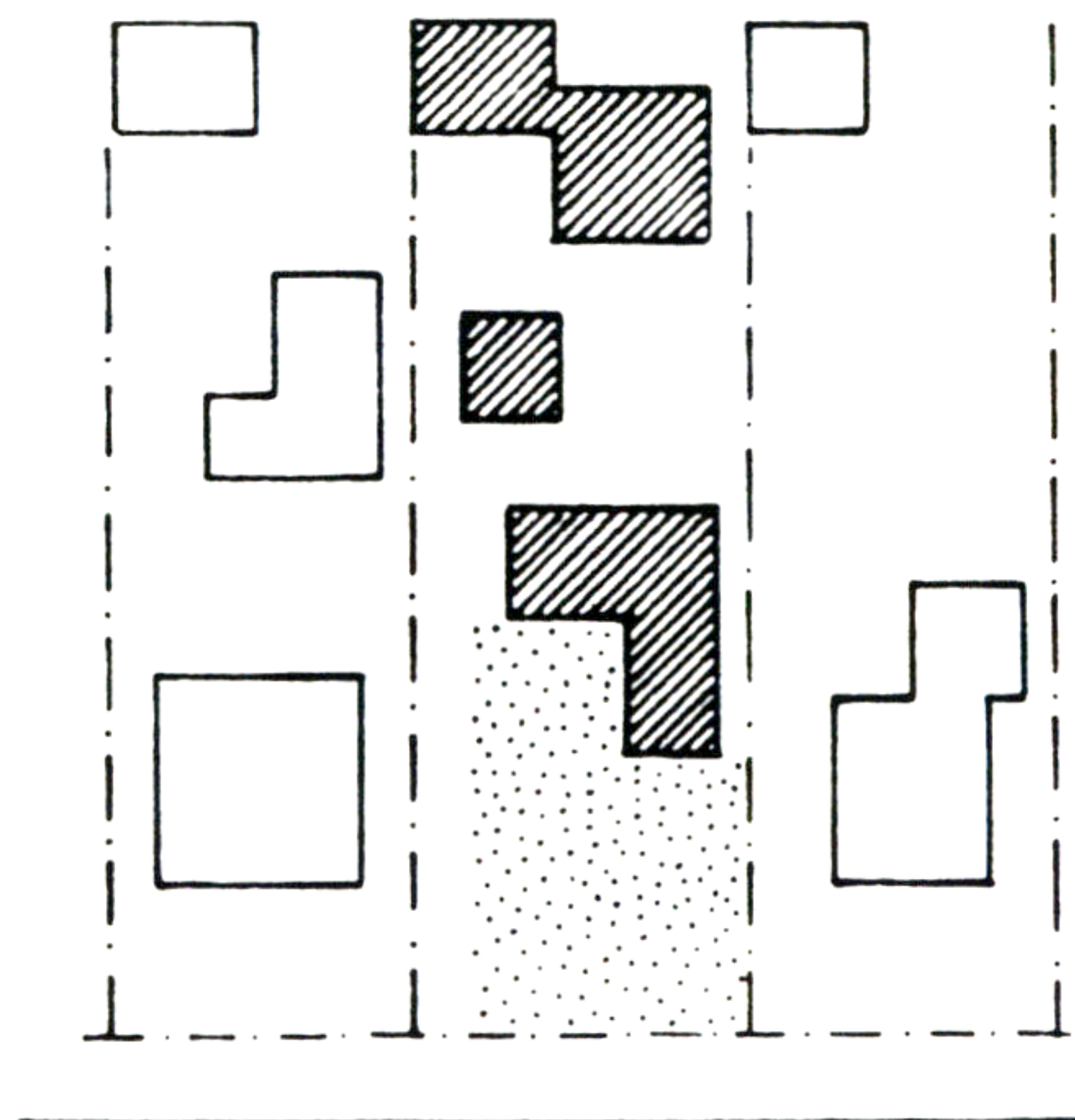
a. If there is an existing large garden on the adjacent lot, the main garden may be placed so that these two spaces work together to form one large garden, or so that there is a wide connection between the two spaces.



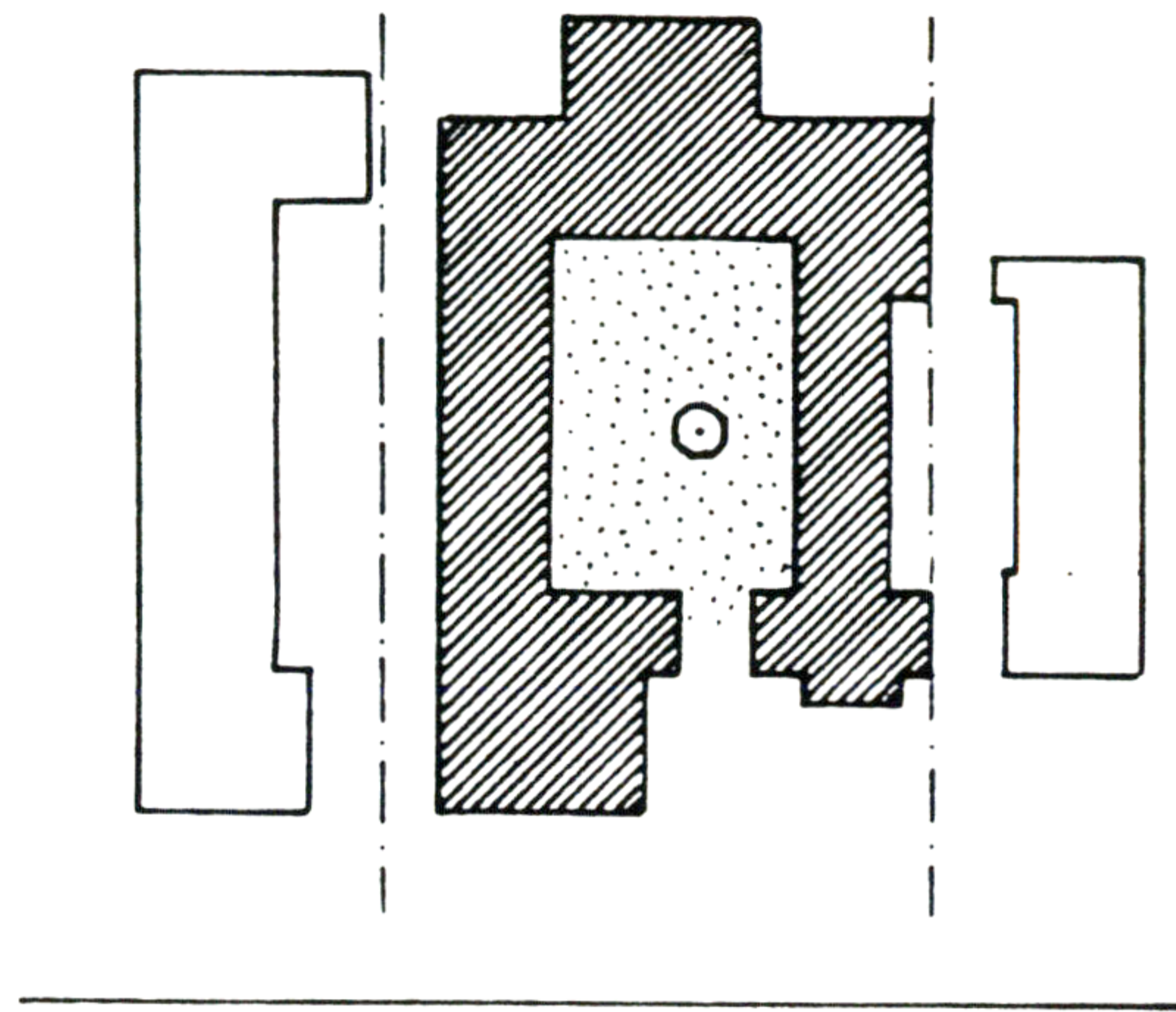
b. If there is beautiful front garden in the street, or the feeling of a broad lawn with the frontage of the buildings at least 30' to to 35' back from the sidewalk, the proposed main garden may be connected with existing front garden on at least one side, so as to form a "long" front garden along the street.



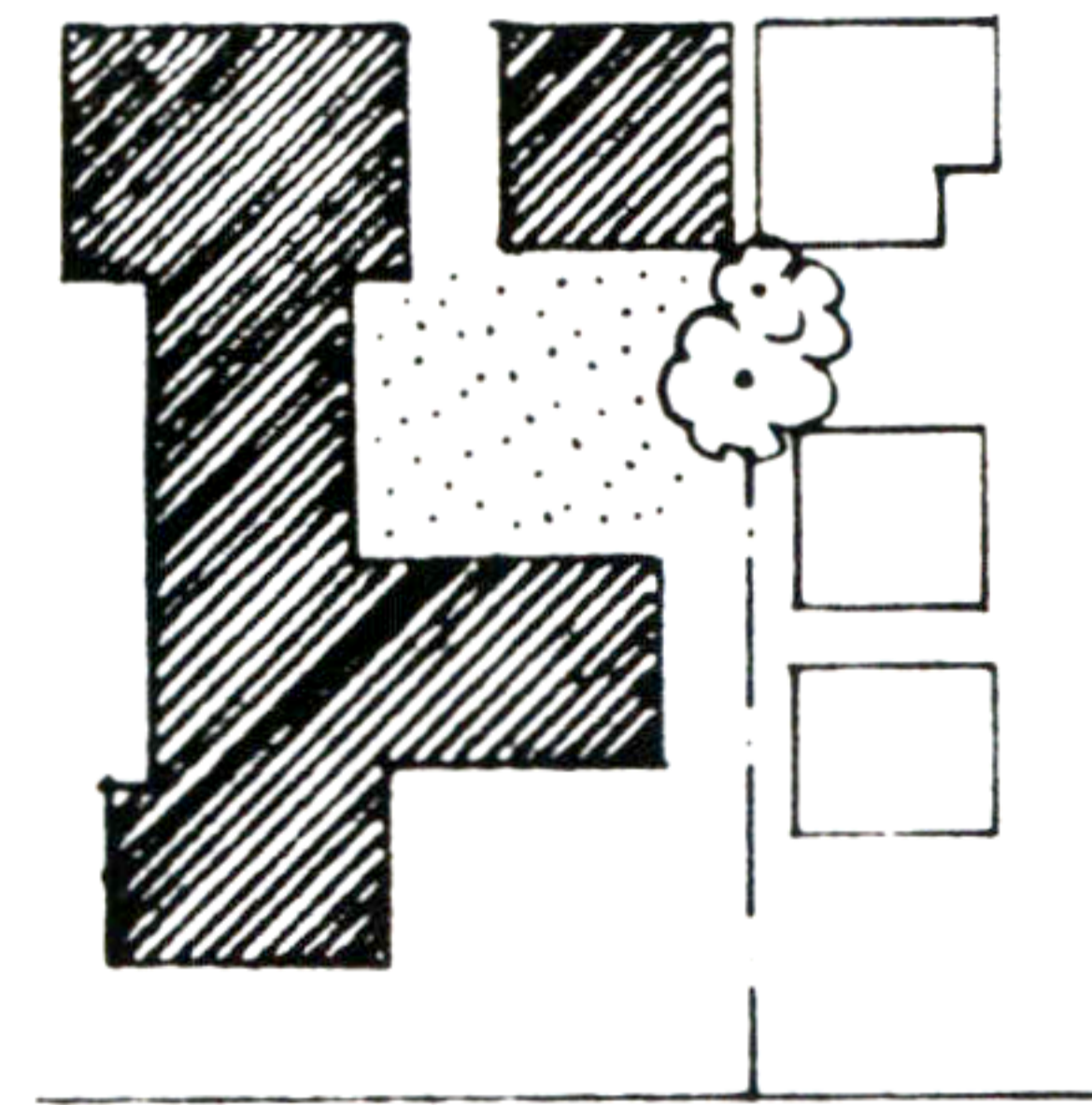
c. If there is a need for a deep open space on the street, part of proposed building frontage should be located at least 75' back from the sidewalk, so as to form a "deep" garden on the street. In this case, the front garden must be enclosed by existing buildings of adjacent lots on at least one side.



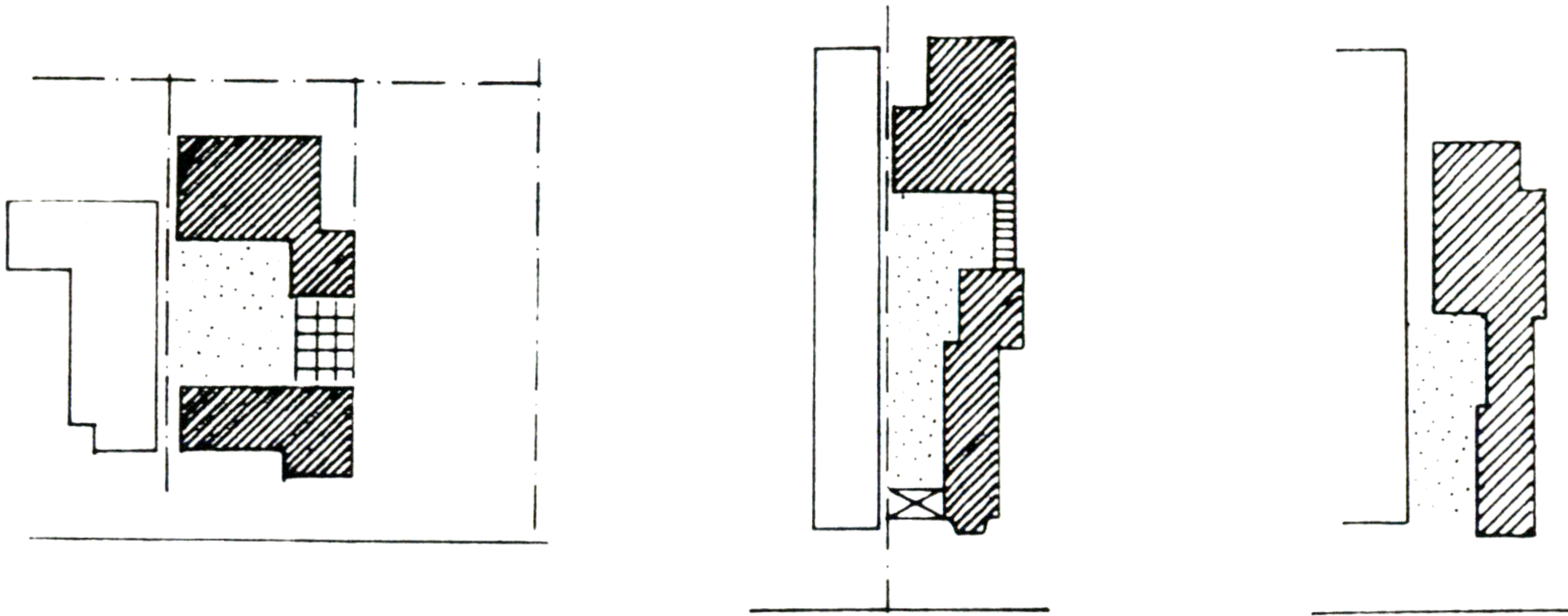
d. If there is a need for spacious internal courtyard on the block, proposed main garden should be an internal courtyard entirely contained within the lot. This is mainly possible on a lot wider than 80', and is difficult on a narrower lot.



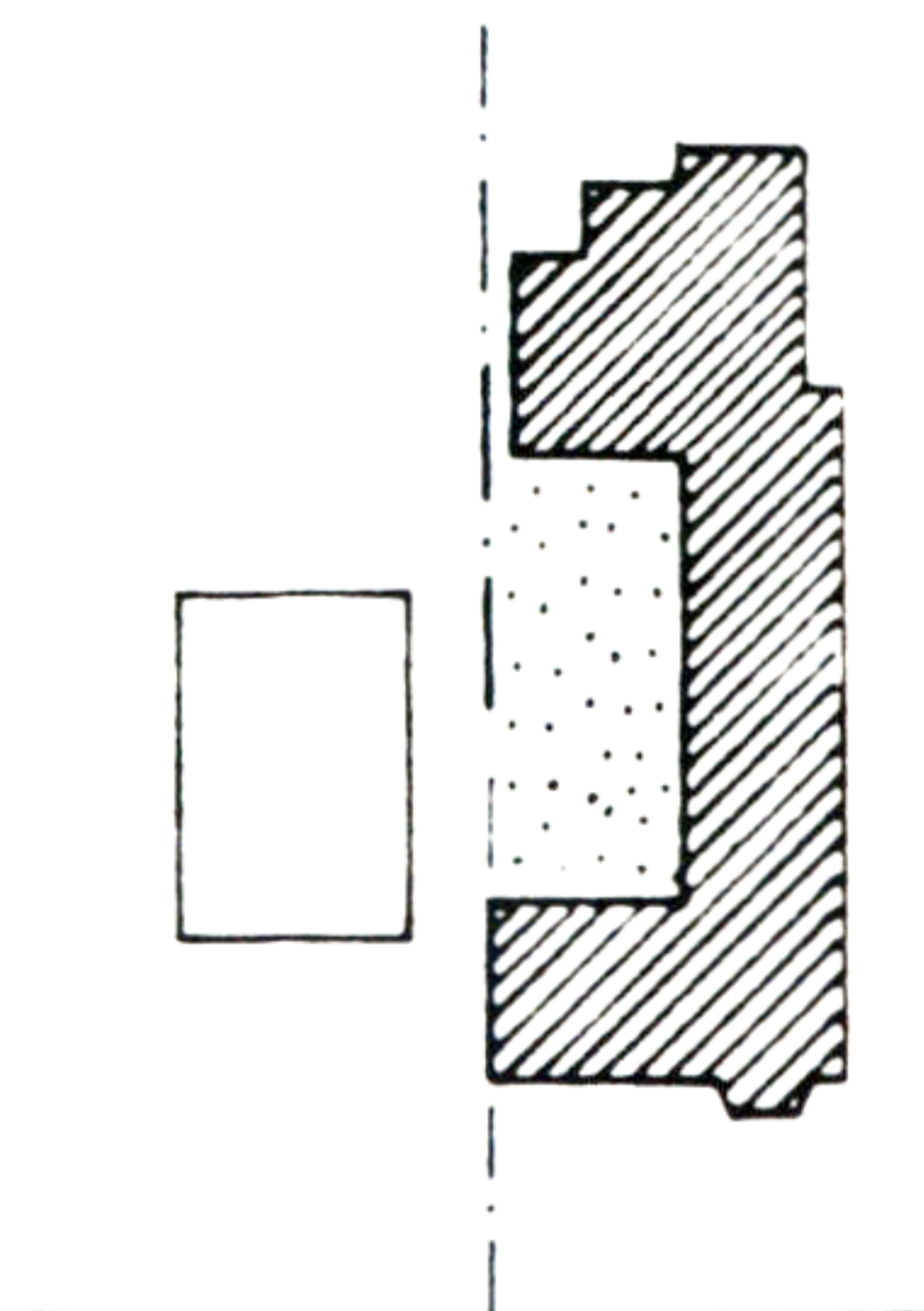
e. If there is a beautiful tree or stand of trees, the main garden may be placed so that the trees form a focal point of the main garden.



f. If there is an apartment building on an adjacent lot, with entrances facing the proposed building, the main garden may be placed so that those entrances are on the edge of a large shared space which includes the main garden.



g. If there is a single family house next door, the main garden may be placed so that there is a large space next to the house, for light and view.



Of course, the way in which the main garden can best improve the positive qualities of the existing place depends on the specific site itself, and there may be some other important feature, not listed above, which could be helped by the placement of the main garden.

Or, it may be that the site has more than one important, positive features--for example, a stand of trees on one side and the entrances to an adjacent apartment building on the other side. In such a case it is of course preferable that the main garden take account of both. But, if this is not possible, then the main garden must respond to at least one of these positive features.

1.3. KEY NUMERICAL PARAMETERS.

See density and open space charts on preceeding section.

GROUP 2
OF DESIGN STANDARDS.

OVERALL ORGANIZATION OF PROJECT.

2.1. DRIVEWAY AND PARKING LOCATION.

A. Use of driveway on adjacent lot.

A new project may use driveway on adjacent lot under the following conditions:

- i. Driveway on adjacent lot is adjacent to shared lot line.
- ii. If driveway on adjacent lot is not adjacent to shared lot line, there is an existing parking aisle providing access to the portion of the lot under development where parking is to be located.
- iii. An easement for the use of driveway (and aisle, if necessary) on adjacent lot is obtained. Incentives for the acquisition of such an easement are described in section 3.1. of the ordinance.

B. Location of new driveway.

Driveway must always be located immediately adjacent to side lot line.

On a corner lot, driveway can be located immediately adjacent to rear lot line.

B.#1 Number of driveways per lot.

No more than one driveway is allowed per lot.

C. Parking location.

Definitions:

Surface parking: Covered parking in carports, with no dwellings above.

Parking with dwellings above: Parking at grade, under building volumes. 50% of length of parking aisle may be covered by buildings above.

Naturally ventilated parking: Enclosed parking structure either at grade or depressed.

Mechanically ventilated parking: Completely underground parking.

Rear (x)% of lot:

The rear (x)% of lot is the area of the lot included behind a line drawn parallel to the front property line that intersects the shortest side lot line 60% back from the front property line.

On a corner lot the front property line is defined to be the shortest street frontage.

(I). SURFACE PARKING AND PARKING WITH DWELLINGS ABOVE.

Location of surface parking and parking with dwellings above, when aggregated, must conform to the following requirements:

- i. It must be located at the rear 40% of the lot.
- ii. The parking area is separated from the main garden by a building volume.
- iii. The parking area is shielded from the street by a building volume.

Exception:

30% of surface parking and parking with dwellings above, when aggregated, may be located in front of the rear 40% of the lot, when the following conditions are met:

- i. The lot is wider than 80'.
- ii. The parking area is separated from the main garden by a building volume.
- iii. The parking area is shielded from the street by a building volume.

(II). NATURALLY VENTILATED PARKING.

i. Naturally ventilated parking must be located at the rear 50% of the lot.

ii. If naturally ventilated parking is depressed, then the platform above the parking may not be more than 4 feet above ground level.

iii. Ventilation openings may not be visible from gardens or from sides where access to units occurs.

(III). MECHANICALLY VENTILATED PARKING.

i. Mechanically ventilated parking must be located under building volumes. It will be allowed to extend under part of main garden if its area is larger than the footprint of the building volumes.

In any case, its location must be consistent with the main garden requirement, as defined in paragraph 2.2-A #3 of this section of the ordinance.

ii. The depth of underground parking should be such so that when part of main garden is located above it, there are at leastft of soil on top of it.

2.2. SHAPE OF GARDENS.

Definitions:

Main garden:

A main garden is defined as an open space having minimum size and dimensions conforming to paragraphs 2.2-A of this section of the ordinance, and intended as the principal public open space of the project. Space under projecting overhangs, arcades, balconies and the like, as well as open stairs may be counted as part of the space of the main garden so long as there is no enclosed indoor space above these projections. Outdoor space that is below a projecting bay window having an area of 20 sf or less may be counted as part of the garden.

Secondary garden:

A secondary garden is defined as an open space having minimum size and dimensions conforming to paragraphs 2.2-B of this section of the ordinance, and intended as the secondary public open space of the project. Space under projecting overhangs, arcades, balconies and the like, as well as open stairs may be counted as part of the space of the main garden so long as there is no enclosed indoor space above these projections. Outdoor space that is below a projecting bay window having an area of 20 sf or less may be counted as part of the garden.

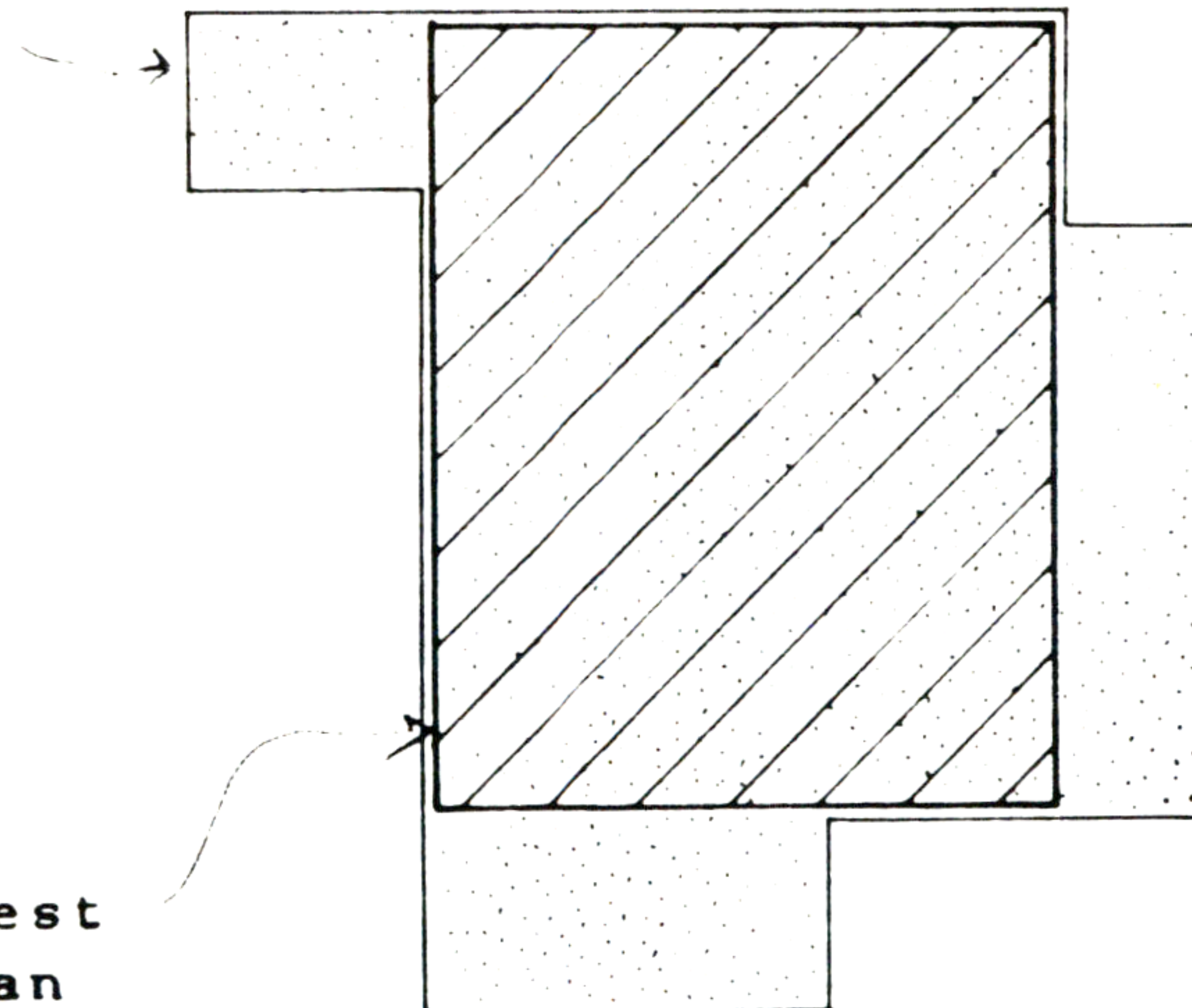
A. Shape of main garden.

i. The main garden should have a simple rectangular shape, with minimum dimension of 20 feet .

ii. More specifically, the largest rectangle that can be drawn completely inside the main garden, not including any of the building, driveway, or parking area, must have an area that is at least 75% the area of the main garden. On a lot which is wider than 80', this rectangle must be at least 2,000 sf.

iii. No piece of open space whose short dimension is less than 10' may be counted as part of the main garden, if the short dimension is between walls of building(s) or between a building wall and a lot line, or between a building wall and a driveway.

Boundary of main garden.



Boundary of largest rectangle that can be drawn completely inside boundary of main garden.

A.#1 Combined shape of main garden, when working together with garden on adjacent lot.

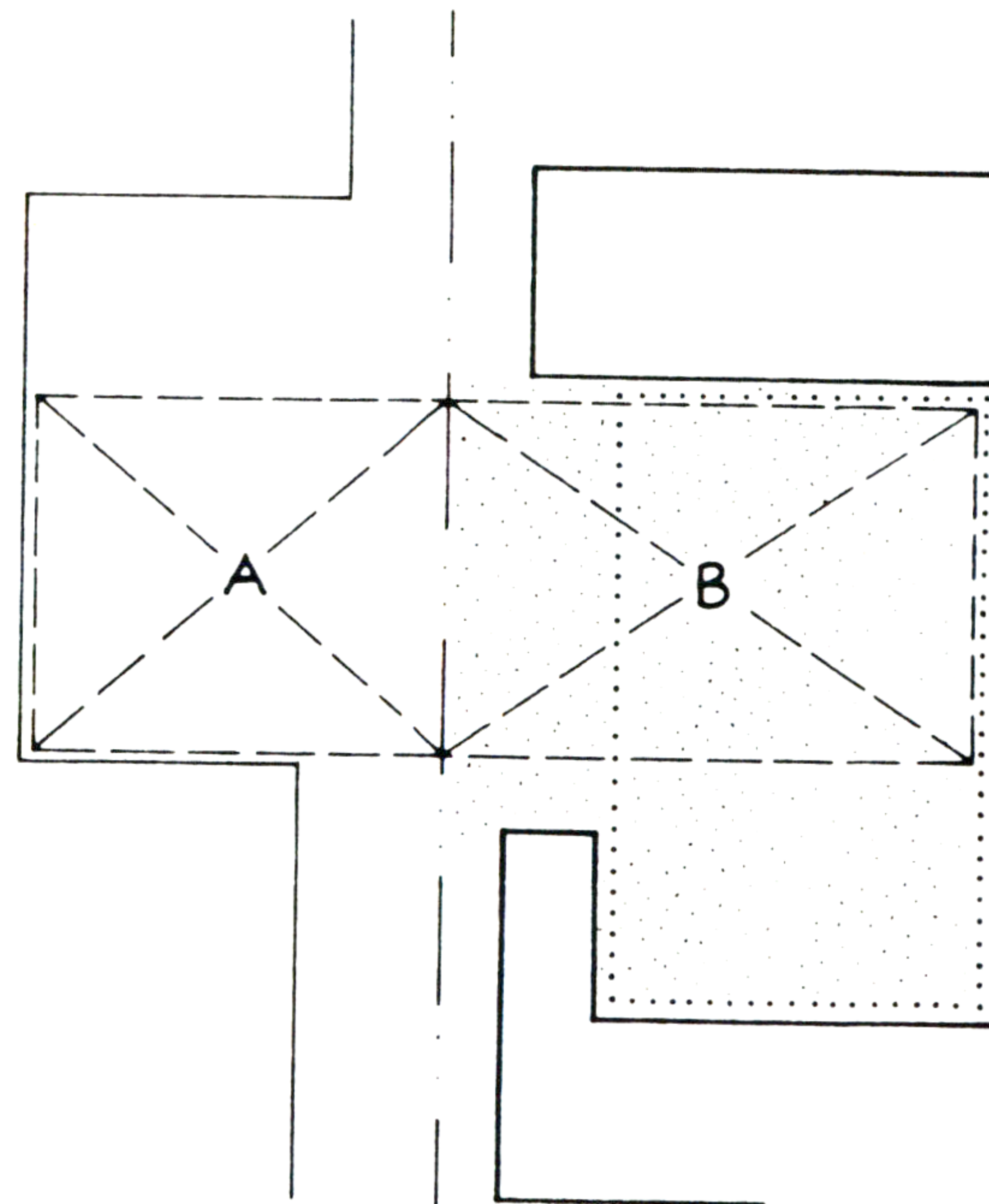
If the main garden is working together with a garden on a dajacent lot, then the following rule must be observed, in addition to the rectangle rule within the main garden of the proposed building itself, as specified on paragraph 2.2-A of this section of the ordinance.

It must be possible to draw a rectangle [A+B] which includes both:

i. A rectangle within the main garden [B] that is at least 65% the area of the main garden (this is not necessarily the same rectangle used to check the shape of the main garden itself, as specified in Paragraph 2.2a of this Ordinance; and

ii. An area in the garden of the adjacent lot [A] that is at least 800 sf in area, and which has a minimum dimension of 20 feet.

A: area in garden of adjacent lot, at least 800sf. min. dimension of 20 ft.



B: rectangle within main garden, that is at least 65% the area of main garden.

Adjacet lot

Project

A.#2 Relationship of main garden to side lotline.

i. On a lot less than 80' wide:
The main garden must be placed along one of the sides of the lot and open to at least one side lot line.

ii. On a lot more than 80' wide:
The main garden may be placed along one of the sides of the lot and open to at least one side lot line, or it may be placed in the middle of the lot to form an interior garden or courtyard surrounded by buildings.

A.#3 Relationship of main garden with ground.

The main garden must always be at ground level above of soil, and not directly above underground parking.

There is only one exception:

In Rm-32 and RM-48, no more than 35% of main garden is allowed to be above underground parking, provided that slab is covered withft of soil.

B. Number of secondary gardens.

i. On a lot 80' wide or less, there must be only one secondary garden.

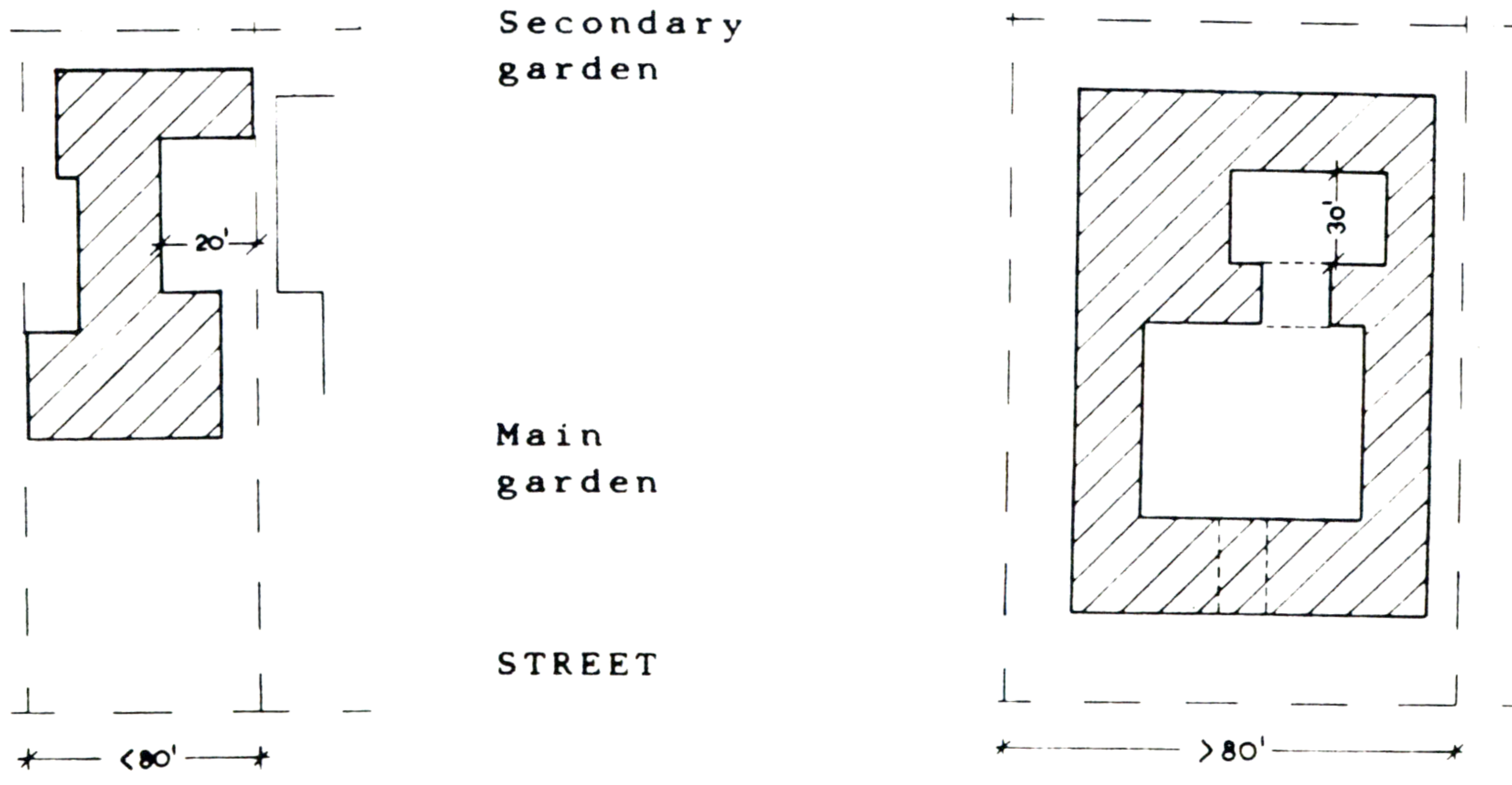
ii. On a lot more than 80' wide, there may be one or two secondary gardens.

B.#1 Dimensions of secondary gardens, when not working together with open space on adjacent lot.

i. Minimum dimension of secondary garden as a front lawn is 15'.



ii. Otherwise, secondary garden on a lot 80' or less wide must have a minimum dimension of 20'. A secondary garden on a lot more than 80' wide must have a minimum dimension of 30', if it is the only secondary garden.



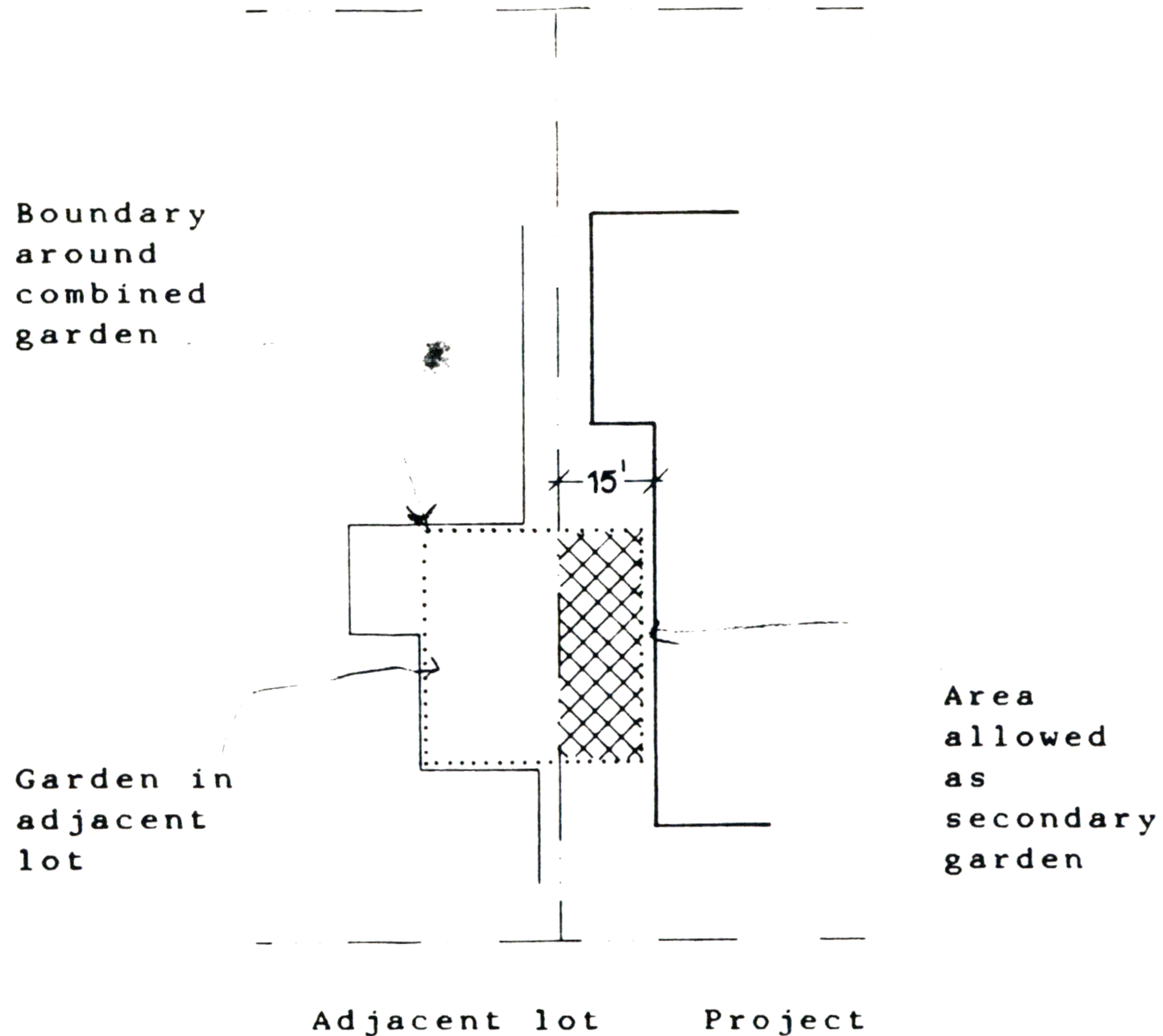
B.#2 Size of secondary garden, when working together with open space on adjacent lot.

Open space along the side lot line may be counted as a secondary garden, when the following requirements are met:

i. Minimum dimension of secondary garden within the lot is 15'.

ii. The space cooperates with the garden on the other side of the lot line to make a combined garden so that a rectangle drawn in the combined garden and which includes the space is at least 75% of the area of the combined garden.

iii. The area of the secondary garden is no more than half the area of the combined garden.



2.3. VOLUMETRIC CONFIGURATION OF BUILDINGS.

A. Maximum width of building volume.

Maximum width of building volume is 35 ft.

A.#1 Enclosure of main garden.

Open space needs life. This life comes from the fact that the space borrows life from the buildings which surround it. The rectangle of open space must be bounded by buildings, and by small walls, hedges, and trees.

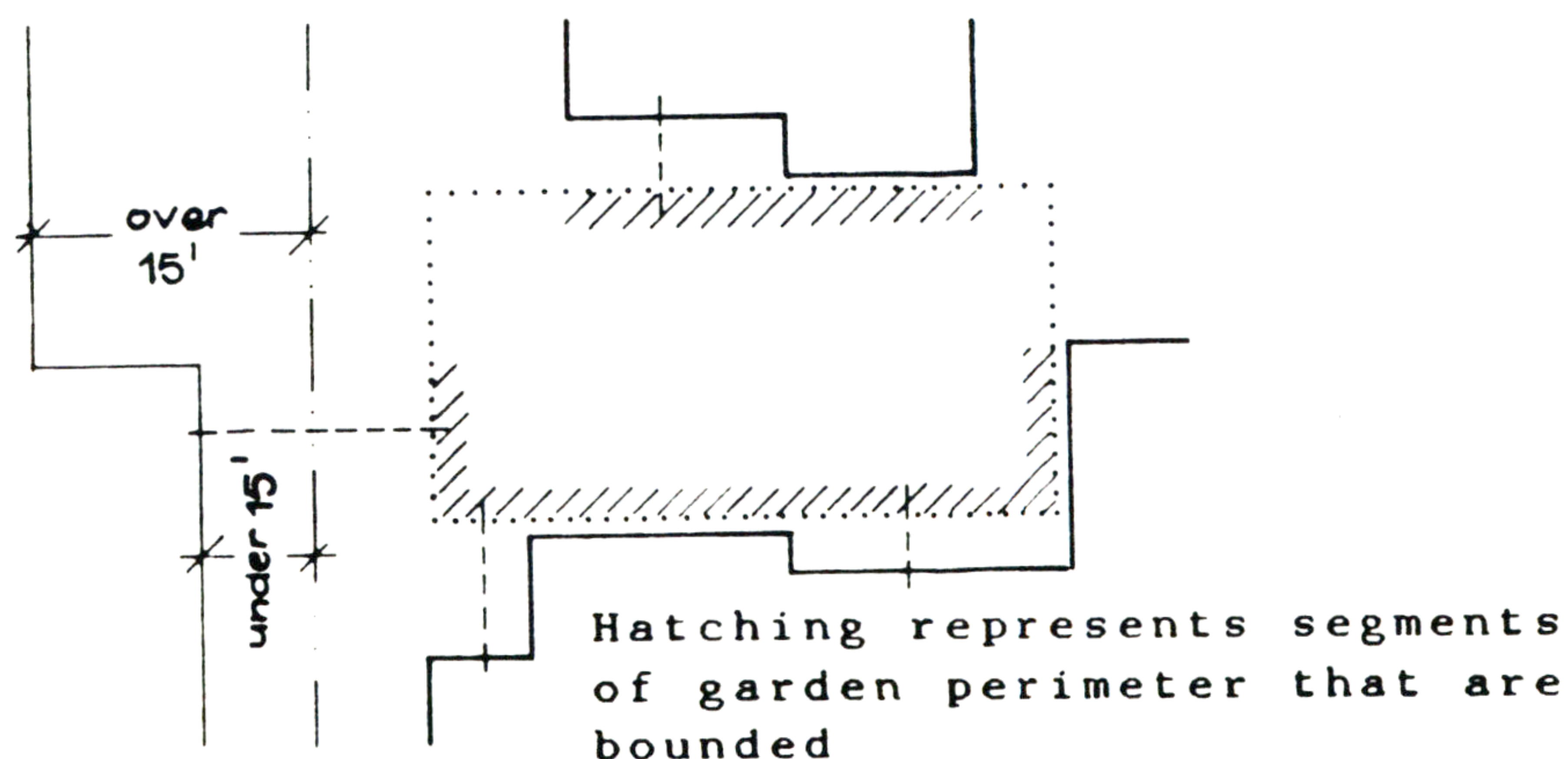
The main garden, except when it is a front lawn, must be bounded along 60% of its perimeter with building.

In addition to this, low walls, hedges, trees, trellises.... have to contribute an addition 15% enclosure of its perimeter.

We define bounded as follows:

Any point along the perimeter line of the rectangle is said to be bounded if a line perpendicular to the perimeter line and passing through the point intersects either:

- i. a piece of the building outside the rectangle without intersecting another line of the rectangle.
- ii. a piece of a neighboring building, within 15' of the property line, without intersecting another line of the rectangle.



B. Visibility of interior garden from street.

All interior gardens and courtyards should be experienced from the street, and be visible from it.

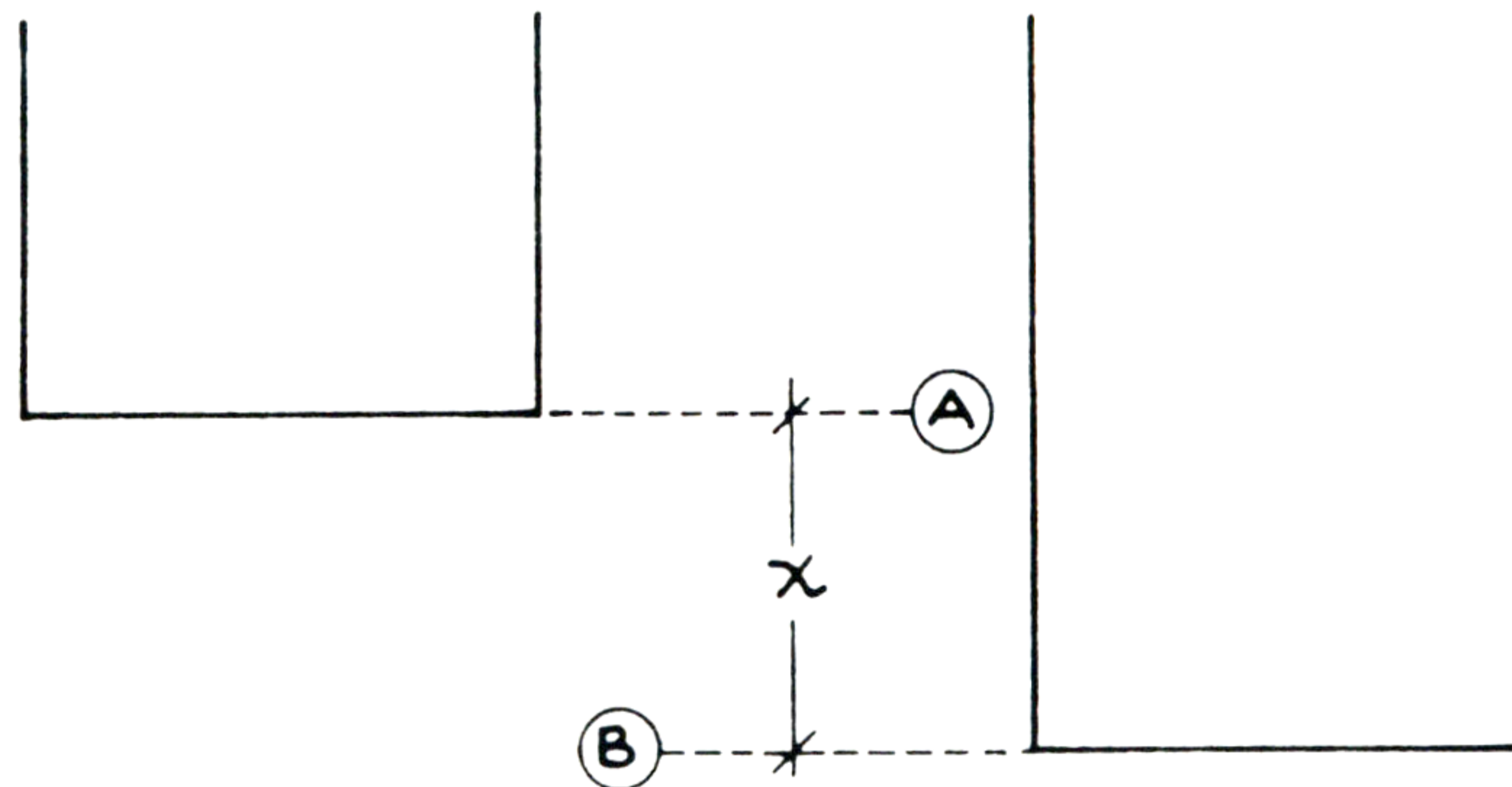
Specifically, a main interior garden must be visible from the street. This requirement may be satisfied by means of a covered passage between an interior garden and the street, that is at least 8' wide, or by a wider opening between the front buildings of the proposed project.

C. Front setbacks.

Definition:

Alignment of building fronts:

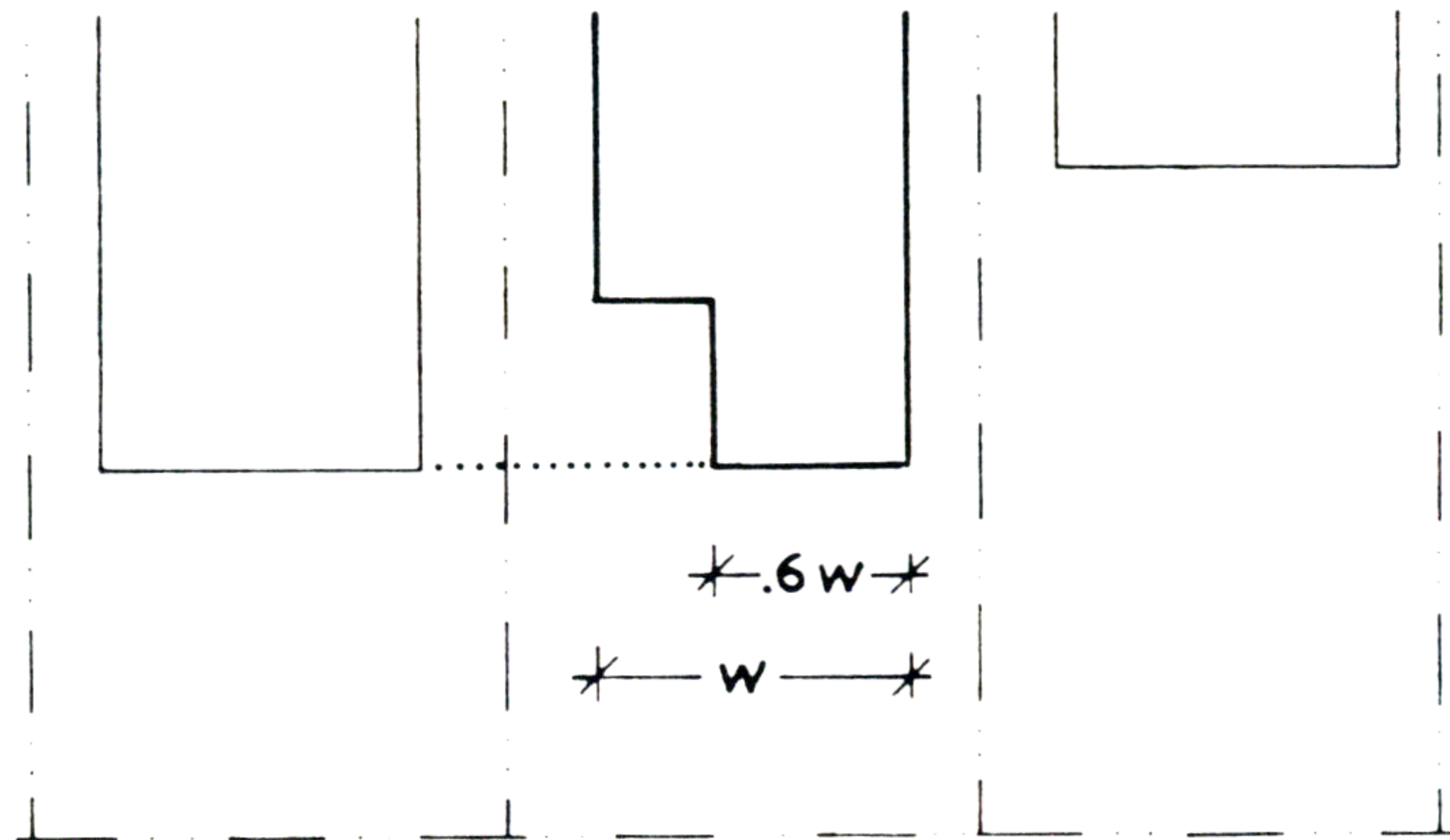
Alignment is defined according to the following diagram:



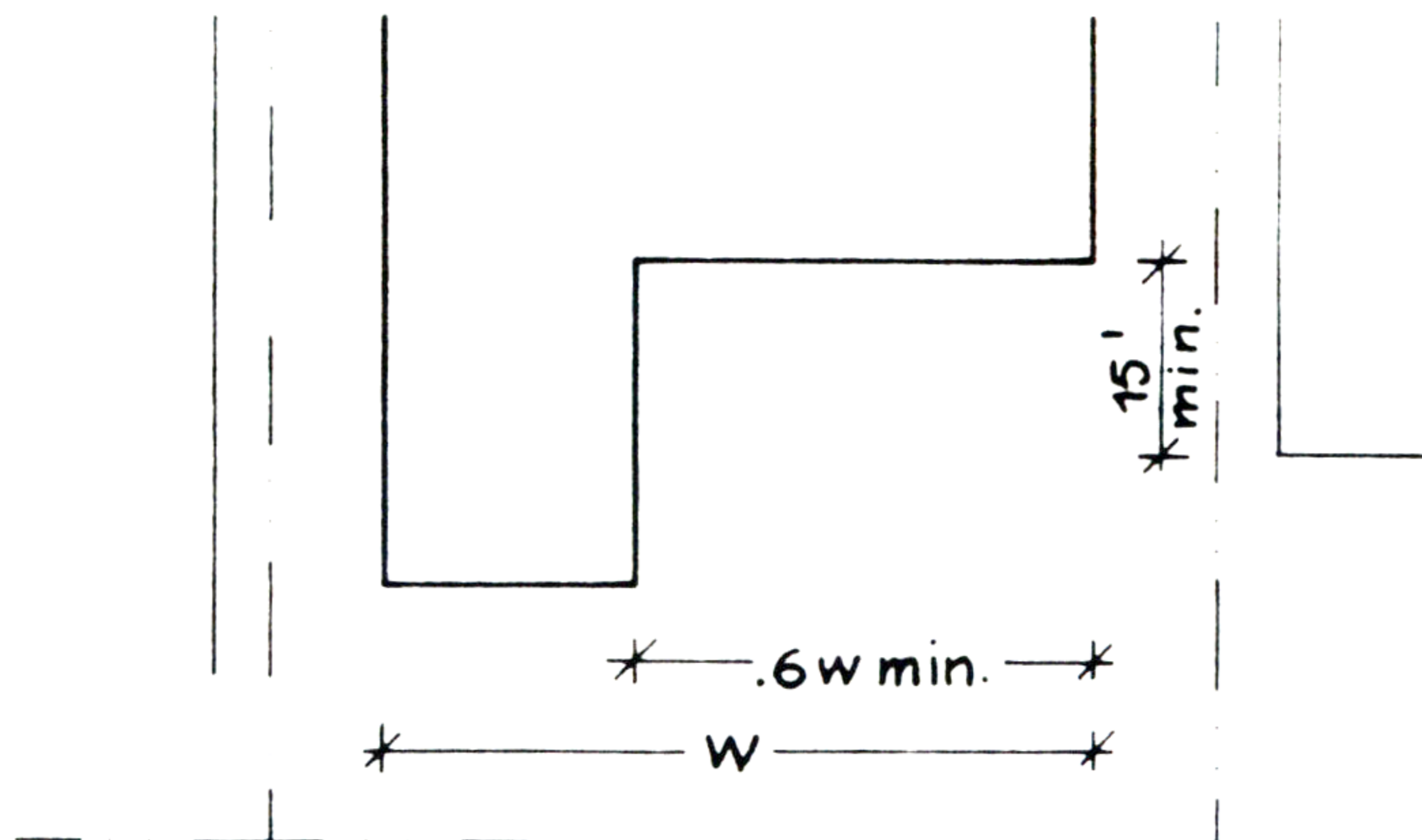
(A) may be said to align with (B) if $x < 2\text{ft.}$

Each project must conform to at least one of the following three cases:

- i. At least 60% of the facade must line up with the front facade of at least one adjacent building. (Required in RM-16).



- ii. At least 60% of the facade must be recessed at least 15' behind facade of adjacent building, in order to create a deep front garden.

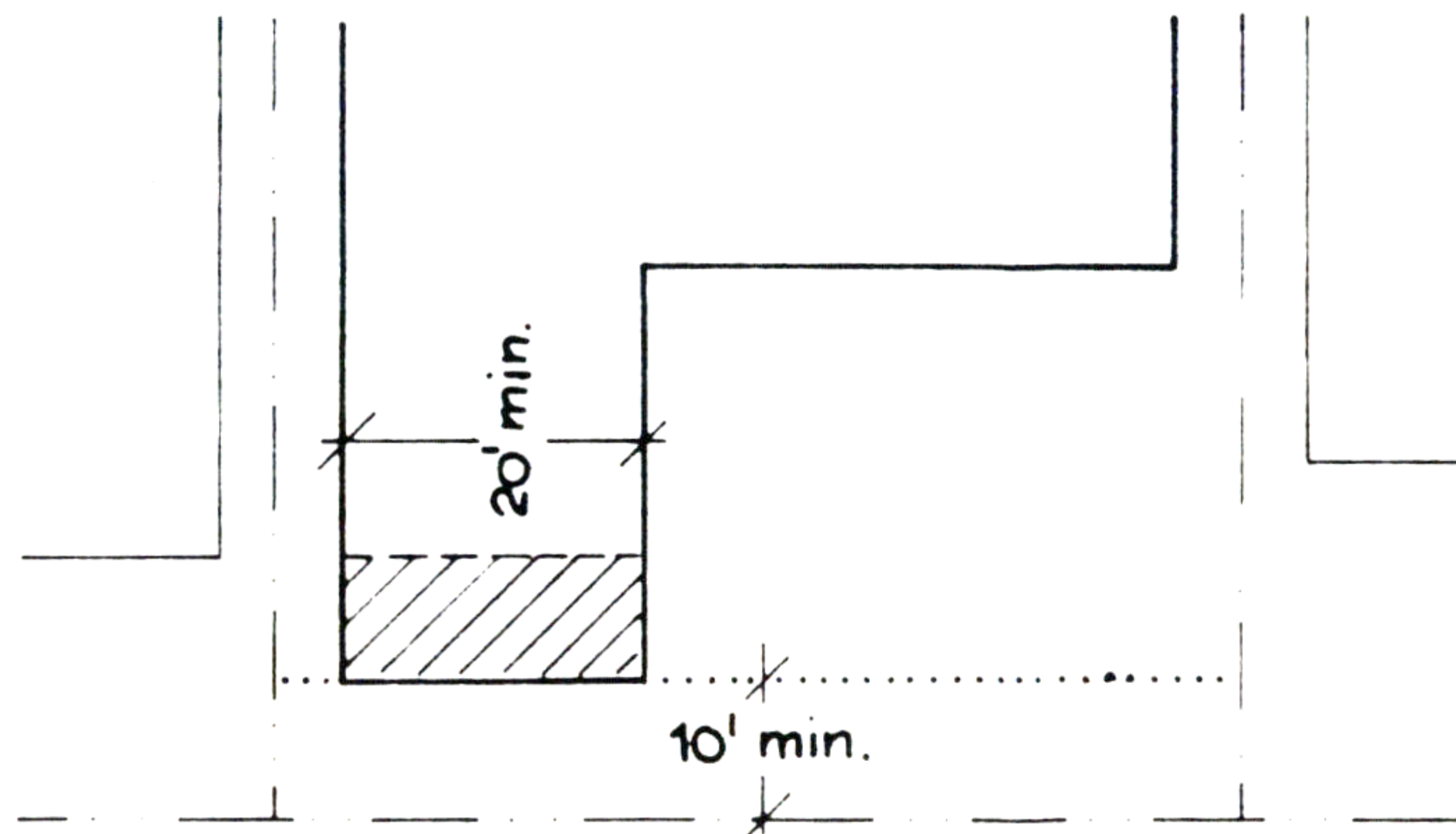


iii. ALLOWED ONLY IN RM-32 AND RM-48.

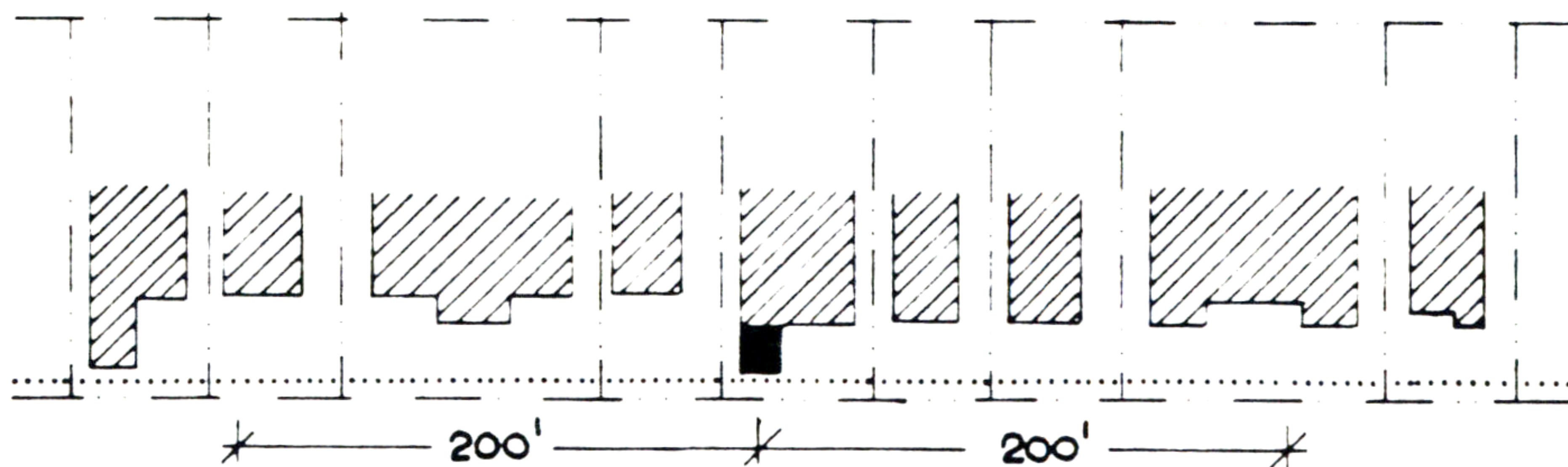
A width of at least 20' of one (1) storey volume may project in front of adjacent building that is closer to the street, subject to the following limitations:

-- In no case may a building volume come closer than 10 ft. from the property line.

-- No more that 40' of such volumes per 400' of street, measured 200' on each side of centerline of proposed projecting volume are allowed.



Volume projecting in front of adjacent buildings limited to one storey



Proposed projecting volume

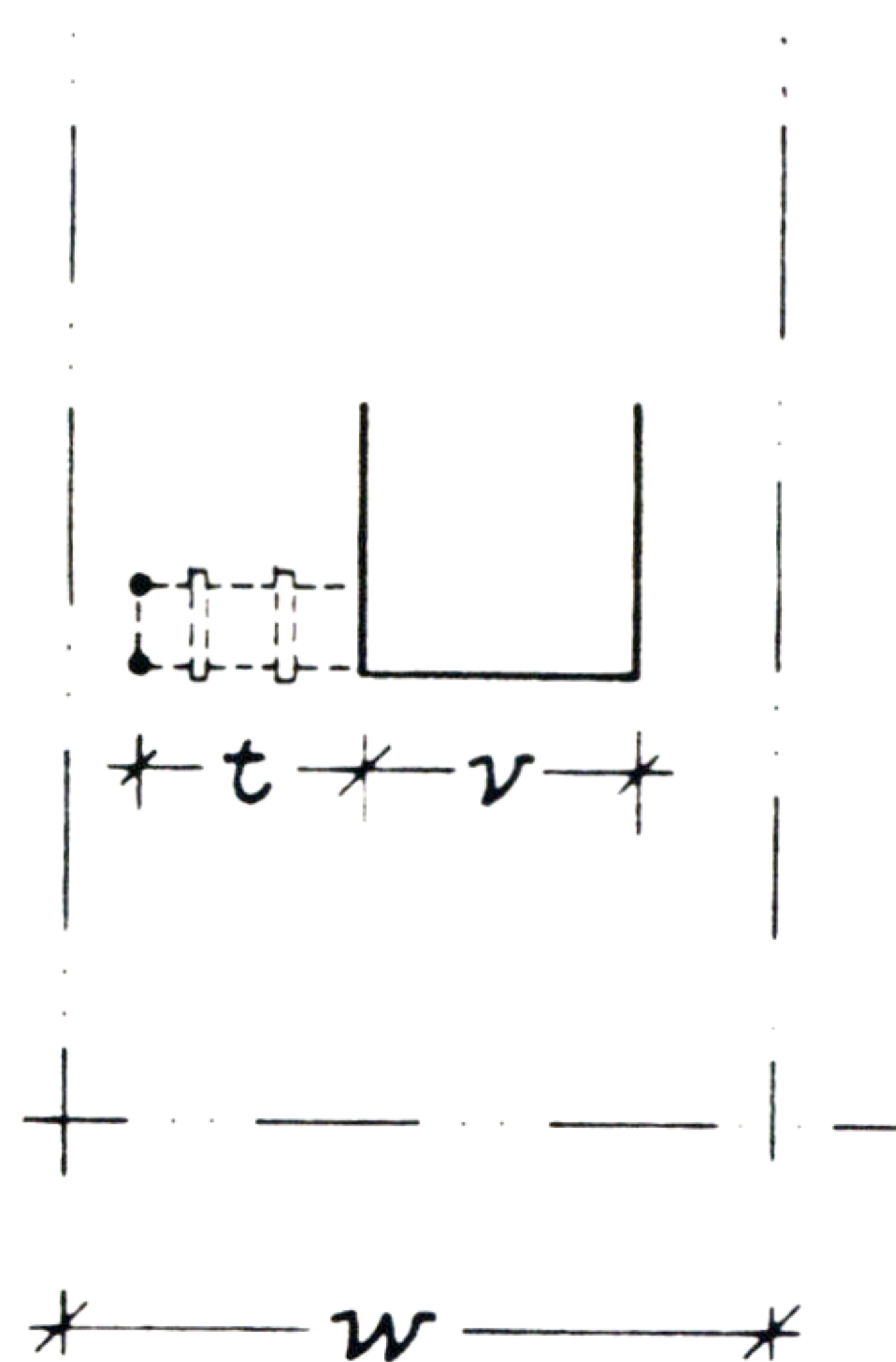
Exception: ALLOWED IN ALL DENSITY ZONES.

Bay windows, covered porches, etc..... may project in front of context setbacks without being subject to the limitations of paragraph 2.3c, point (iii), if the area of projecting volumes is less than 20 sf.

D. Width of building volume along the street.

i. On a lot which is 80' wide or less, the length of the building volume along the street must be at least 40% the width of the lot.

In addition, at least 70% of the width of the lot must be occupied by the front wall of the building volume and low wall, trellis, hedges, etc.



W= width of lot

V= width of building volume, parallel to street

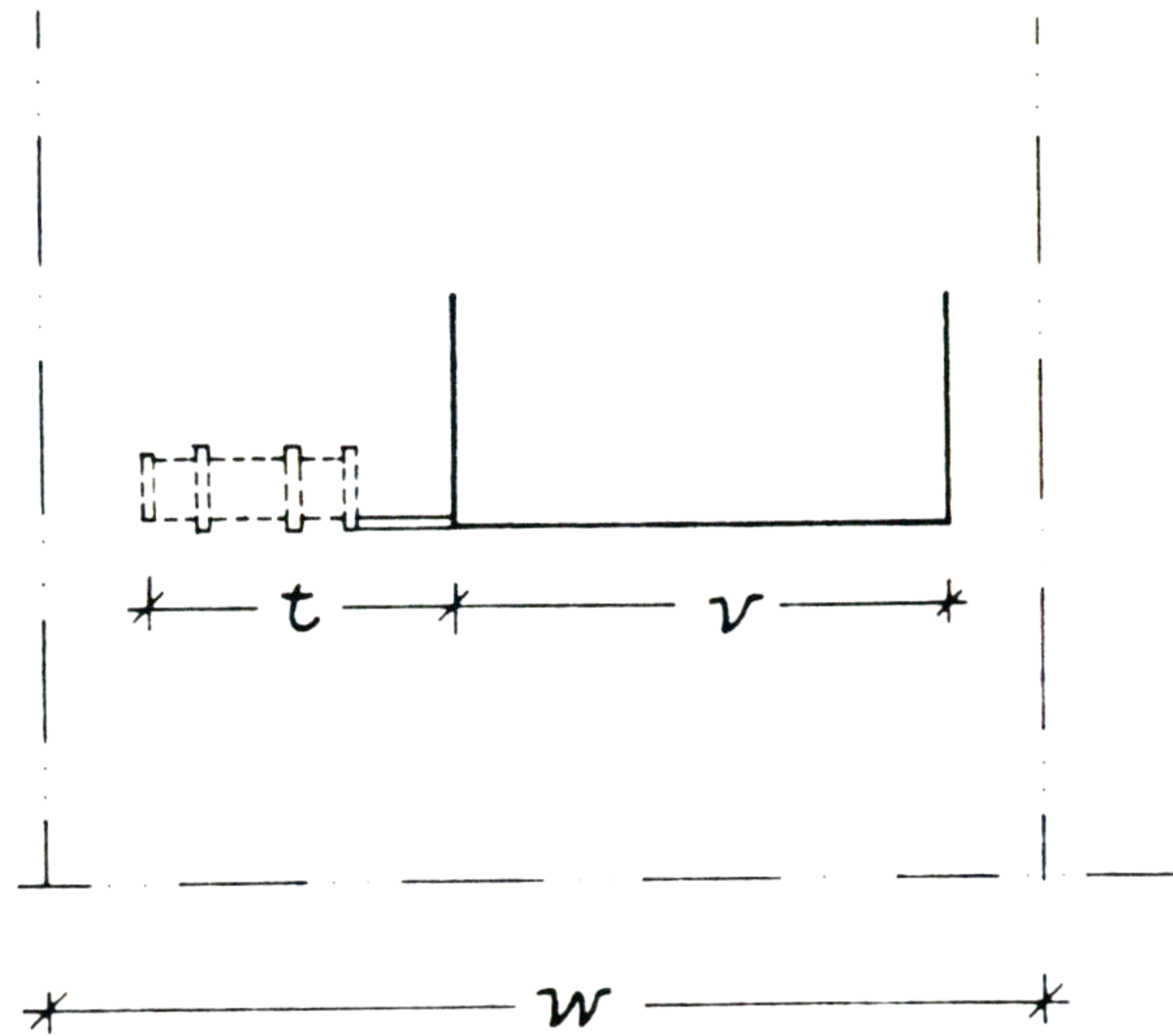
t= width of low wall, trellis, etc.

V is at least $0.40 \times W$

$(V+t)$ is at least $0.70 \times W$

ii. On a lot which is more than 80' wide, the length of the building volume must be at least 50% the width of the lot.

In addition, at least 80% of the width of the lot must be occupied by low wall, trellis, hedges, etc.



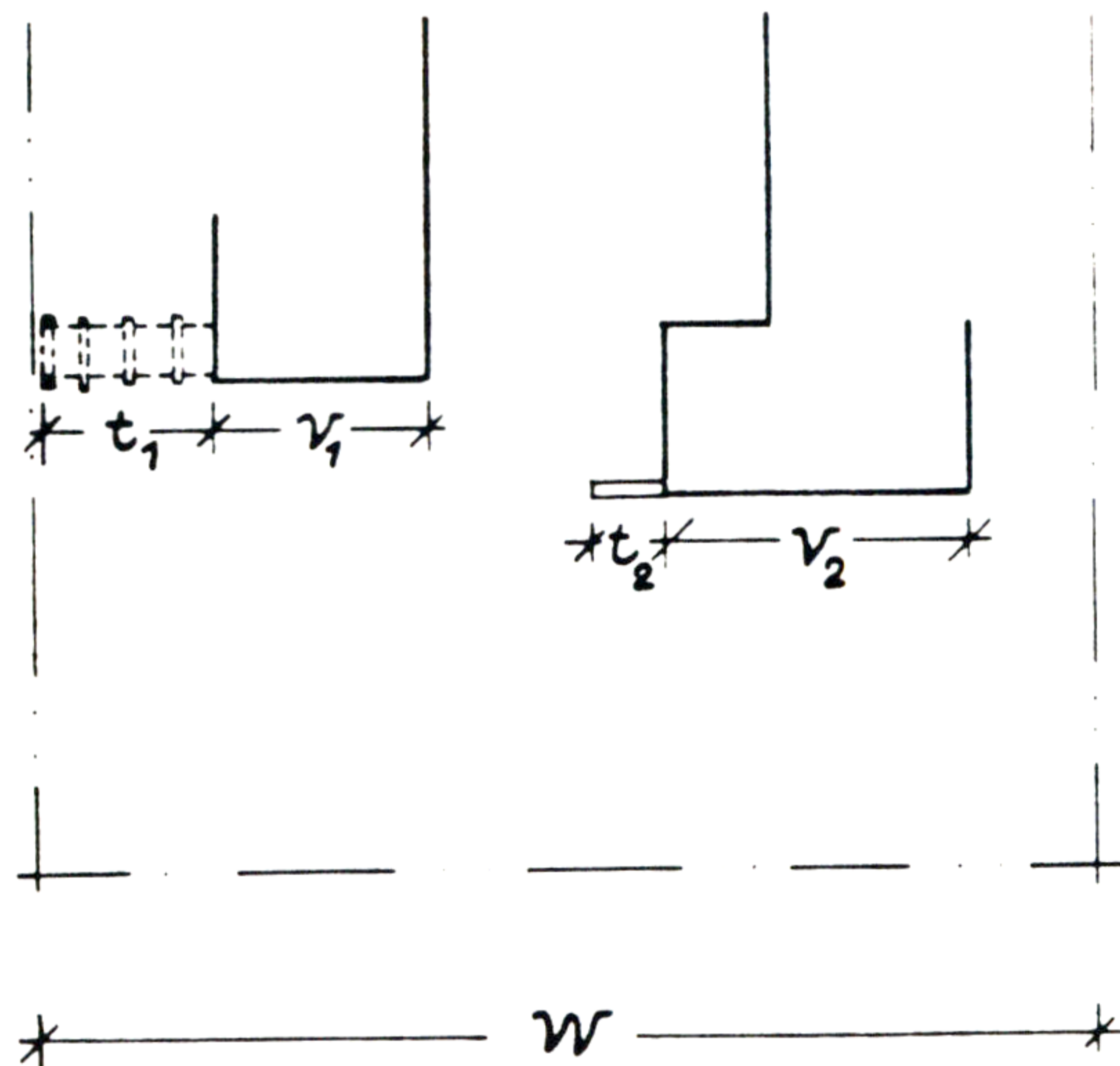
W = width of lot.

V = width of building volume, parallel to street

t = width of low wall, trellis, etc.

V is at least $0.50 \times W$

$(V+t)$ is at least $0.80 \times W$



W = width of lot.

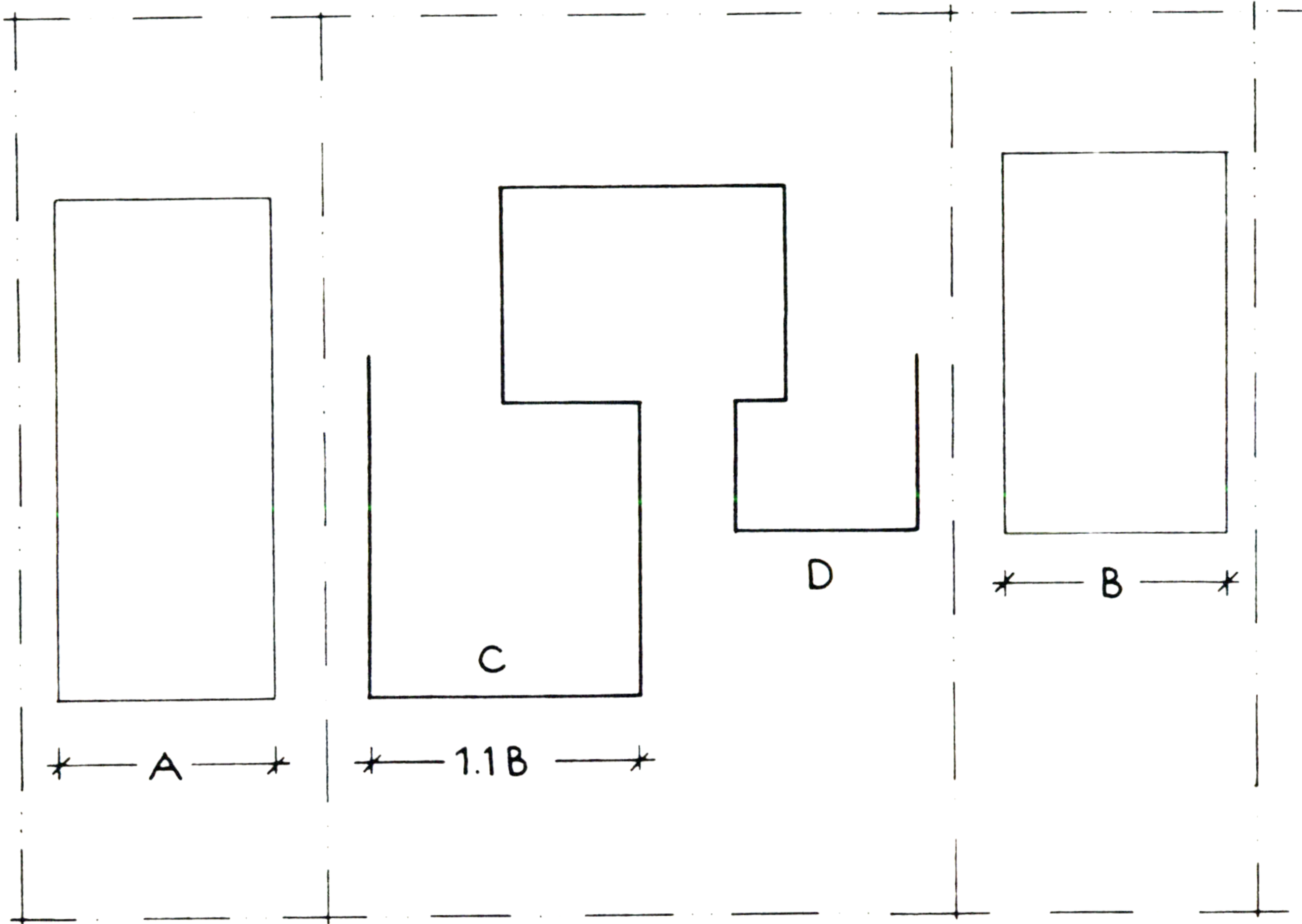
$V_1 + V_2 = V$ = width of building volume, parallel to street

$t_1 + t_2 = t$ = width of low wall, trellis, etc.

V is at least $0.50 \times W$

$(V+t)$ is at least $0.80 \times W$

iii. In RM-16 lot, if both adjacent buildings are single family houses, then no volume of the proposed building facing the street may be wider than 10% more than the wider of the two adjacent houses.



Existing
single family
house

Proposed
project

Existing
single family
house

In this case (B) is the wider adjacent volume,
and (C) has the maximum width of $1.1 \times (B)$.

E. Side and rear setbacks.

i. Minimum required setback along side and rear lot lines is 4'.

ii. Allowance to build closer than 4' to side and rear lot lines.

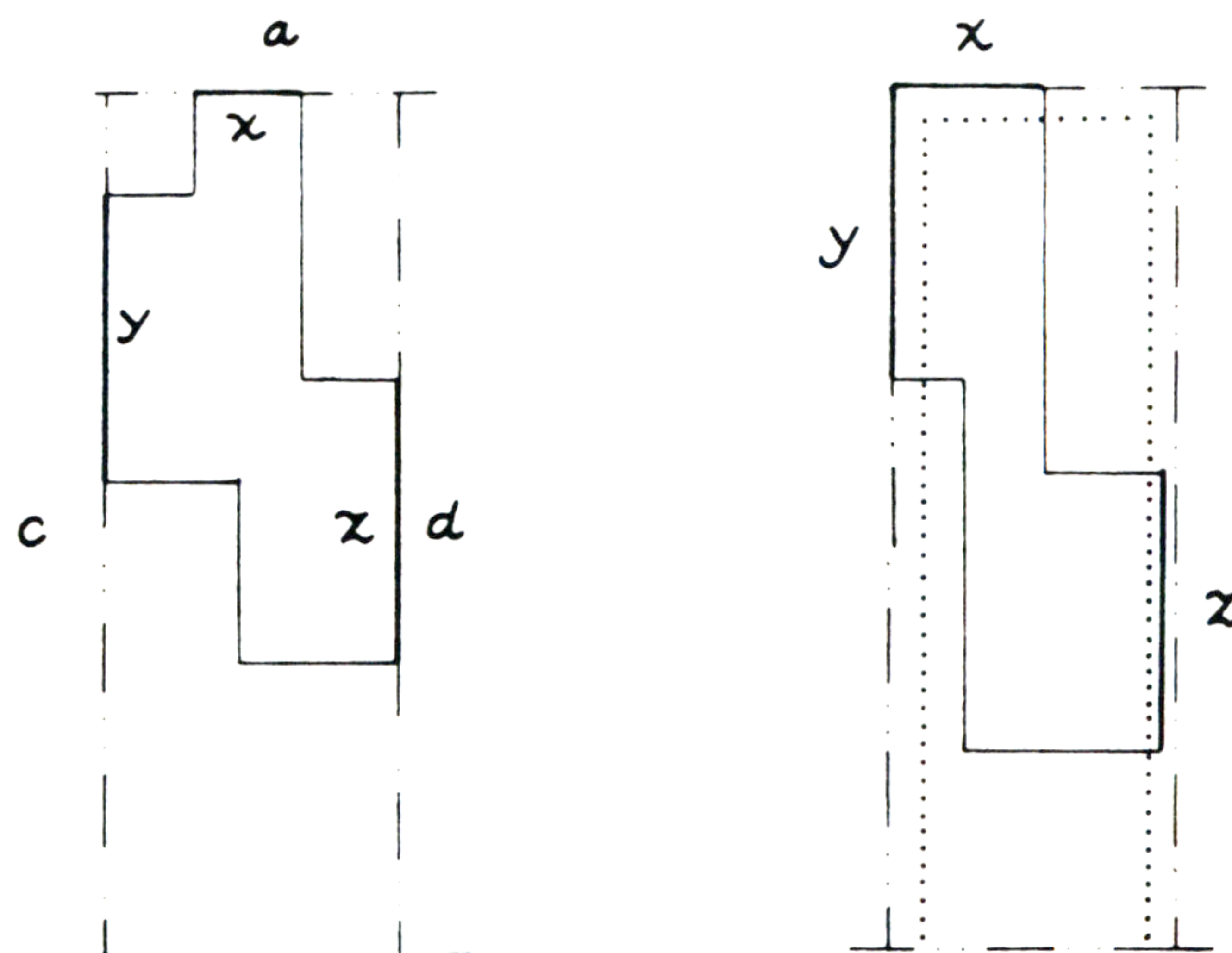
Building volumes are encouraged to be placed closer than 4' to side and rear lot lines for a length not to exceed 30% of the perimeter of the lot, when the lot is 80' or less, and 20% of the perimeter of the lot, when the lot is wider than 80'.

Free standing carports are excluded from this requirement.

iii. Maximum length of any building volume along zero lot line.

The length of any building volume within 4' of lot line on the side and rear of the lot, except for carports and trellises, may not be more than 35 ft.

iv. Building volume wall located closer than 4' to the side and rear lot line is not allowed to have windows.



$$(X)+(Y)+(Z) < (a+b+c) \times 0.35$$

$$(X) < 35', (Y) < 35', (Z) < 35'$$

F. Minimum separations to respect light to windows in adjacent buildings.

Proposed building volumes should not deprive adjacent buildings of their daylight.

The following standards specify minimum horizontal distances between proposed building volumes and windows on adjacent buildings, as a function of the proposed building height and the position of window in adjacent lot. The two charts refer to major windows and minor windows, respectively, in the existing adjacent building.

i. MAJOR WINDOWS (larger than sq.ft.)

POSITION OF WINDOW
IN ADJACENT LOT BUILDING

		1st story	2nd story	3rd story
PROPOSED BUILDING HEIGHT	1-story	10'		
	2-story	15'	10'	
	3-story	20'	15'	10'

ii. MINOR WINDOWS

POSITION OF WINDOW
IN ADJACENT LOT BUILDING

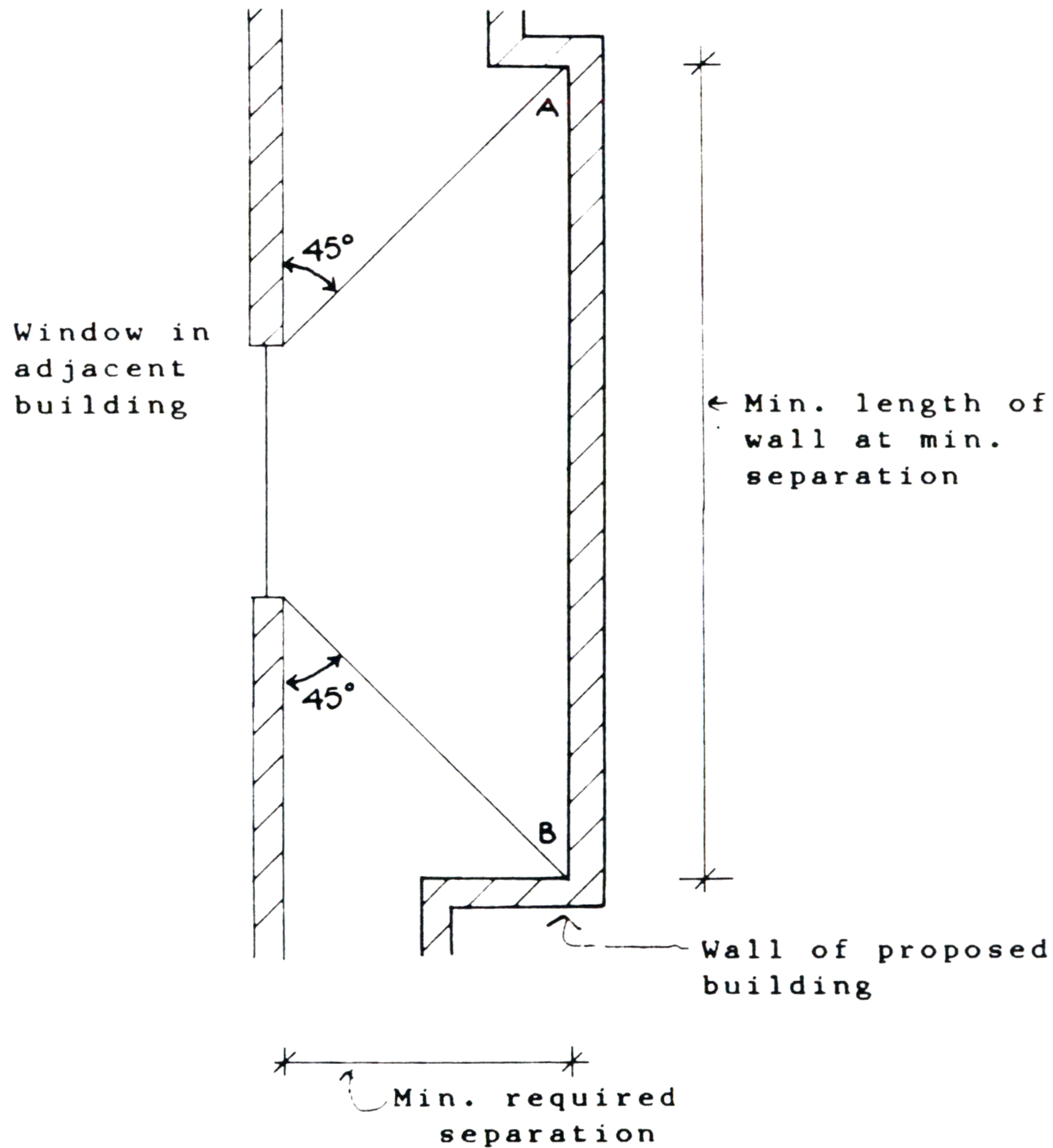
		1st story	2nd story	3rd story
PROPOSED BUILDING HEIGHT	1-story	10'		
	2-story	10'	10'	
	3-story	15'	10'	10'

F.#1 Length of wall at minimum separation, opposite windows in adjacent buildings.

The required length of wall of proposed building, located at minimum separation, opposite a window of adjacent building, is determined on the following way:

Construct, in plan, two 45o angles, one at each side of the window of adjacent building, whose light is to be respected. Extend a line from each of those angles, at 45o, until they meet the wall of the proposed building, located at minimum separation. The two points of intersection mark the end points of the minimum acceptable length of wall.

This is shown on the following diagram:



G. Number of storeys.

Definition:

Building height:

Building height is defined in terms of number of storeys above ground or parking podium.

i. Two-storey limit.

Building height, in general, is restricted to two (2) storeys.

ii. One storey on the front.

All building volumes projecting ~~6' or more~~ in front of adjacent buildings are restricted to one (1) storey, for the part of the volume projecting forward.

iii. Particular to RM-16 zone.

If lot is more than 80' wide with both of its adjacent buildings one (1) storey, then at least half of the length of the front building volume must be one storey.

iv. Third storey on the back.

A third storey is allowed in RM-32 and RM-48 zones, when limited to the rear 40% of the lot.

GROUP 3
OF DESIGN STANDARDS.

DETAILED ORGANIZATION OF PROJECT.

3.1. PARKING AND DRIVEWAY DETAILS.

A. Parking space standards and aisle widths

- i. Percentage of compact cars.
In all cases, 50% of parking spaces can be for compact cars.
- ii. Full size car parking stall is 8.5'x 18'
- iii. Compact car parking stall is 7.5'x 16'
- iv. Aisle width for full size cars is 22'
- v. Aisle width for compact cars only is 20'

B. Driveway standards.

i. Driveway dimensions.

Driveway must be between 8' and 10' wide.

ii. On a lot wider than 80', a widening of the driveway to 16' for a length of 28' along the driveway for the purpose of passing is required, at about the mid point of the driveway.

iii. Curbcut dimensions.

Maximum width of curb-cut is 12'.

iv. Driveway slope for underground parking.

Ramps leading to parking shall be as steep as allowed by the building code, and shall begin as far back from the front property line as possible.

v. Ramp location.

In no case may a ramp begin closer than the further from the front property line of the following:

-- A line 20' back from the property line.

-- The line corresponding to the closest building front to the property line.

C. Driveway adjacent to garden.

Make driveway adjacent to garden feel part of garden or courtyard, with use of appropriate paving material, trellis structure, etc.

3.2. INDIVIDUAL APARTMENT UNITS.

A. Living rooms have garden views.

Each living room must have at least one major window looking into main garden or secondary garden.

B. Connection between parking and units.

There must always be a direct and easy connection from the parking through the interior garden or courtyard to the apartment units.

3.3. APARTMENT ENTRANCES.

A. Apartment entrances facing street.

At least one apartment entrance is facing street and is visible from street.

B. Apartment entrances facing garden.

At least 75% of apartment entrances which do not face street face main garden or secondary garden.

C. Individual entries.

In as many cases as possible, each apartment unit must have an individual entry from the outdoors.

GROUP 4
OF DESIGN STANDARDS.

CHARACTER OF PROJECT.

4.1. BUILDING DETAILS, MATERIALS AND COLOR.

- A. Roof shape and orientation
- B. Building materials.
- C. Paving and ground surface materials.
- D. Color.

4.2. DETAILS OF GARDEN.

A. Path from street to units.

Path from street to units must pass through the main garden for at least 75% of the units.

B. Path from parking to units.

Path from parking to units must pass through the main garden for at least 75% of the units.

C. Low walls, trellises, trees, hedges, etc around main garden.

Low walls, trellises, trees, hedges, etc. must contribute a 15% enclosure to the perimeter of the main garden, additional to that provided by building volumes.

D. Low walls, trellises, hedges, etc. along the front building volume.

Low walls, trellises, hedges, etc. must contribute to defining the frontage of the building according to the following two cases.

i. On a lot 80' wide or less at least 70% of the width of the lot must be occupied by building volume, low walls, trellises, hedges, etc.

ii. On a lot more than 80' wide at least 80% of the width of the lot must be occupied by building volume, low walls, trellises, hedges, etc.

CHAPTER 4

EXAMPLES

In this chapter we show a variety of example projects which will demonstrate the kind of projects which can be produced within the framework of the ordinance. These examples have special importance, in that they may show a developer how to manipulate density, open space and parking, within the guidelines of the ordinance, to produce projects of the permitted density.

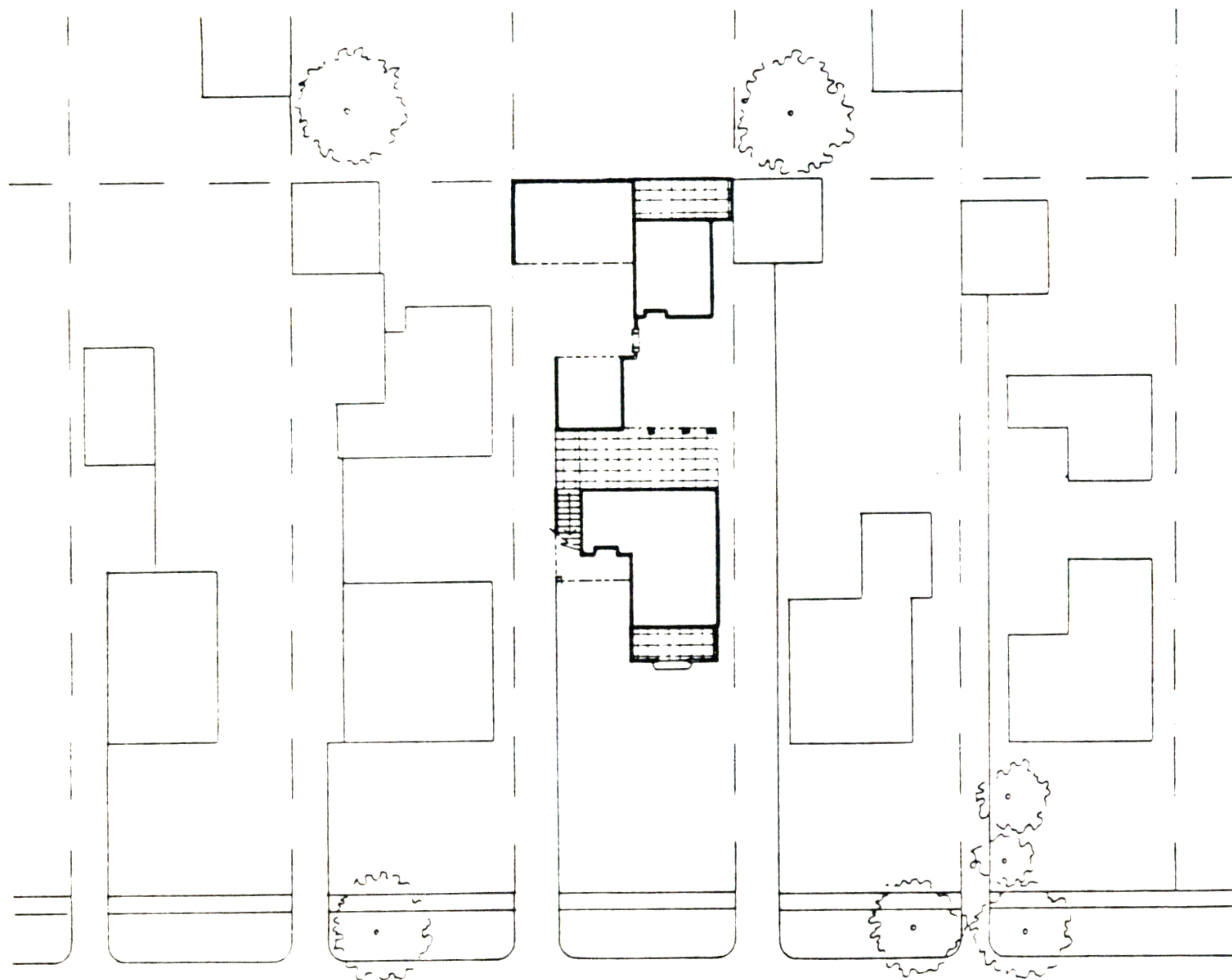
We also hope that they may inspire future developers, by showing the high quality of what is attainable.

The examples show a wide variety of different parcel sizes, and densities. In all cases the projects become integrated and helpful to the structure of the neighborhood. It is also important to note that the single process of the ordinance produces a wide variety of different projects, with their own unique characters, according to the contexts where they occur.

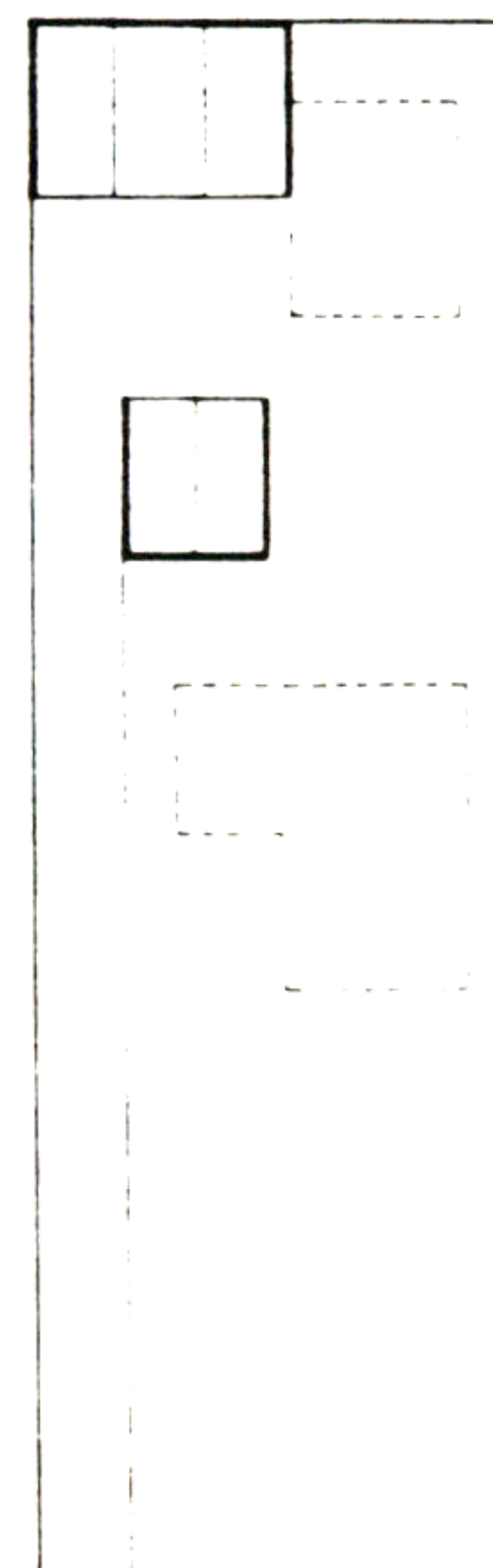
RM-16 EXAMPLES

RM-16

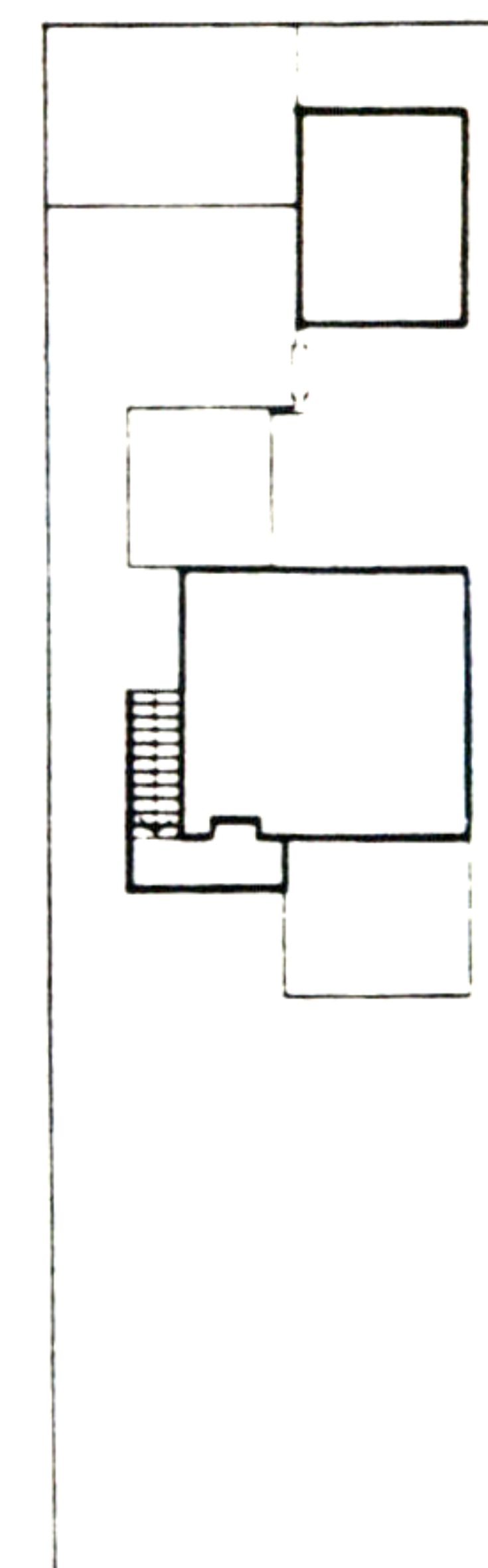
Address: 1543/9 Locust st.	Number of Units:	3 units
Lot Area (A): 8,250 sf	Number of Parking Spaces:	5 cars
Lot Dimensions: 50'x 165'	Square Feet of Construction:	2,475 sf
Context Density: 2.2 units/lot	Size of Total Open Space:	3,500 sf
Value of (C): 1	Size of Main Garden:	2,520 sf
Allowed sq.ft : 0.30(C)(A)sf	Parking Type: surface	



SITE PLAN



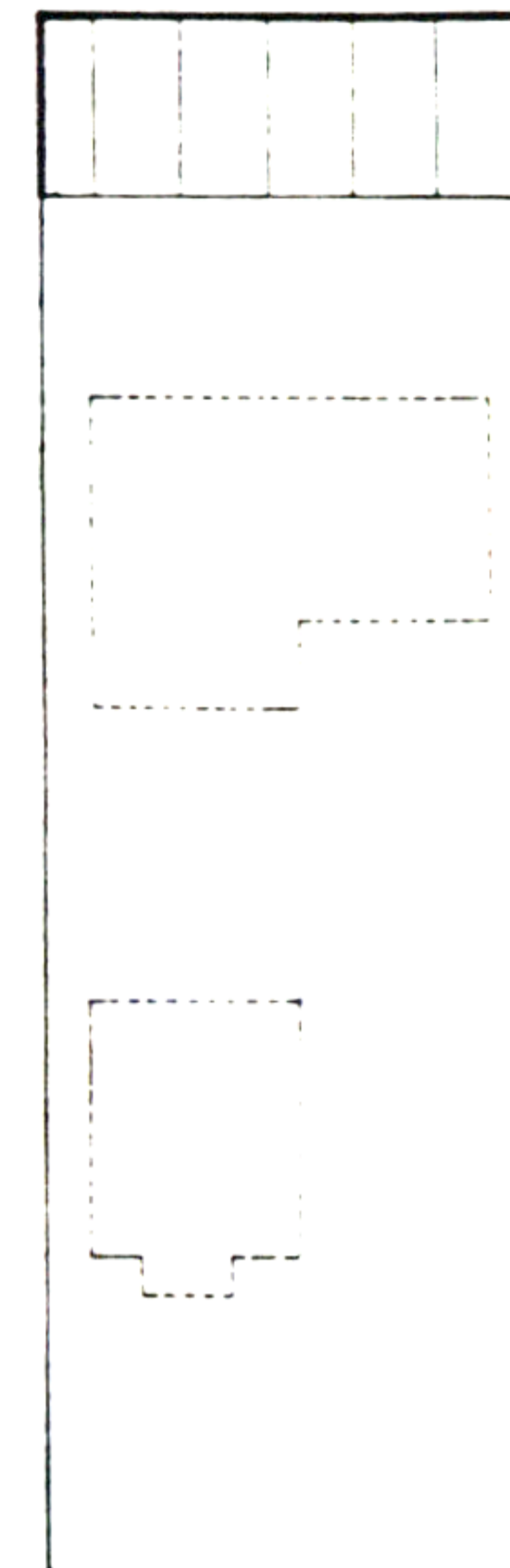
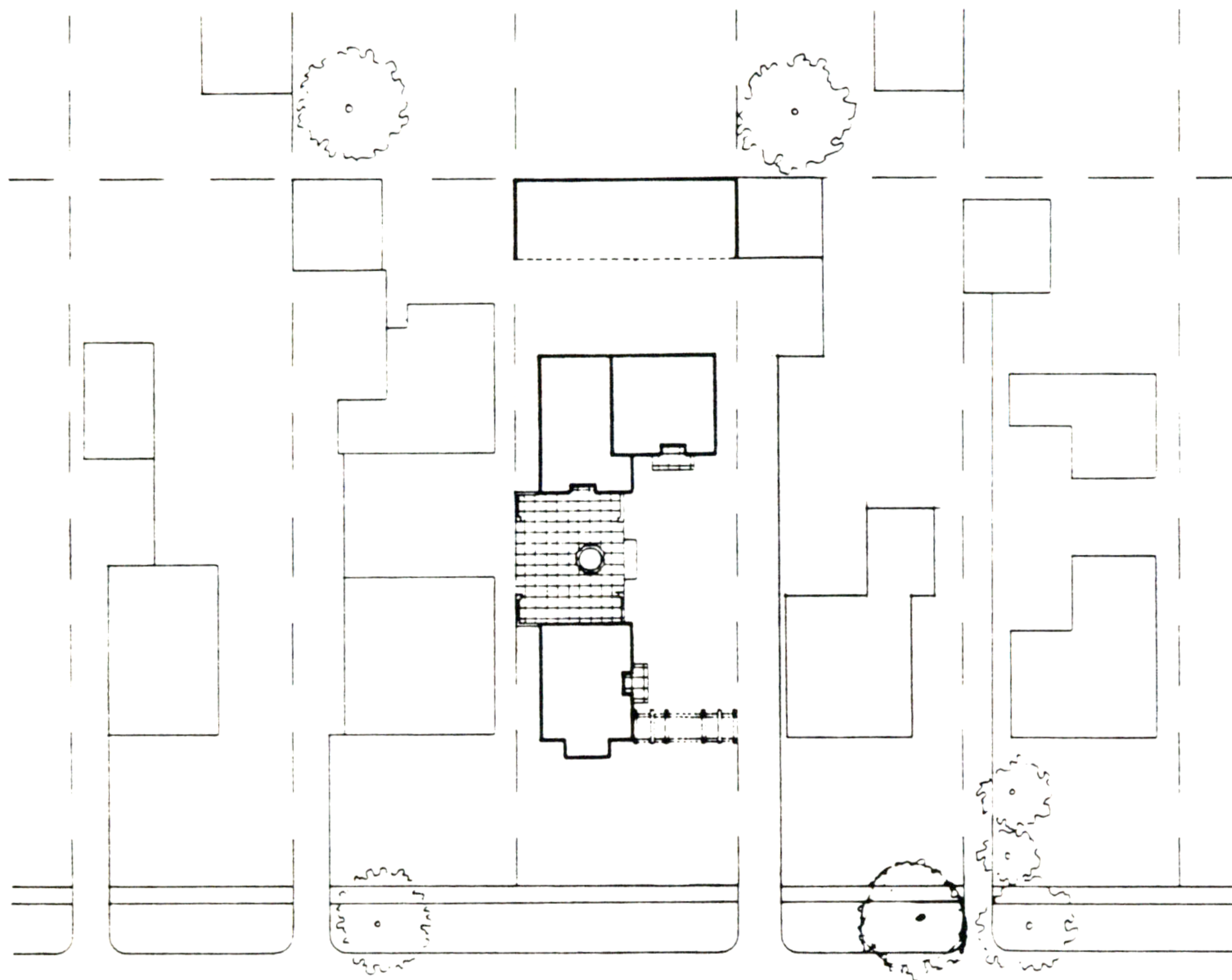
PARKING PLAN



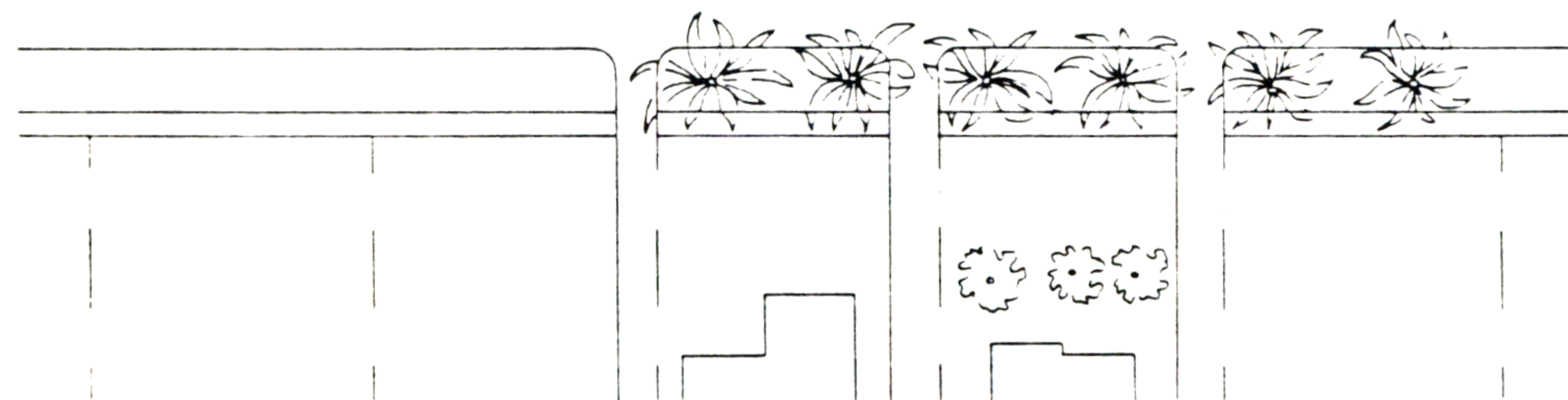
SECOND FLOOR PLAN

RM-16

Address:	1543/9 Locust st.	Number of Units:	3 units
Lot Area (A):	8,250 sf	Number of Parking Spaces:	5 cars
Lot Dimensions:	50'x 165'	Square Feet of Construction:	3,300 sf
Context Density:	2.2 units/lot	Size of Total Open Space:	3,570 sf
Value of (C):	1	Size of Main Garden:	2,140 sf
Allowed sq.ft	: 0.40(C)(A)sf	Parking Type:	surface/shared driveway



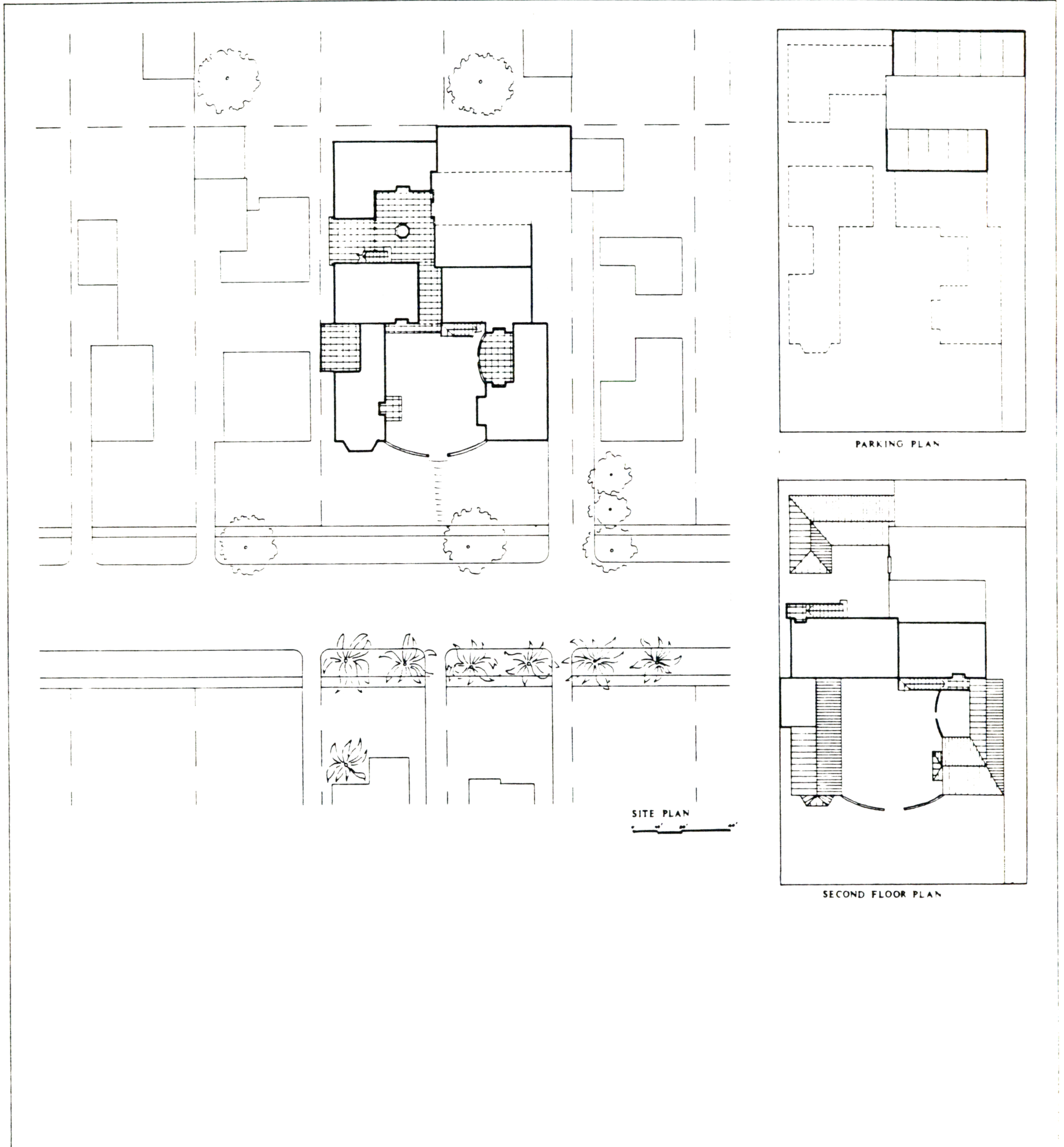
PARKING PLAN



SITE PLAN

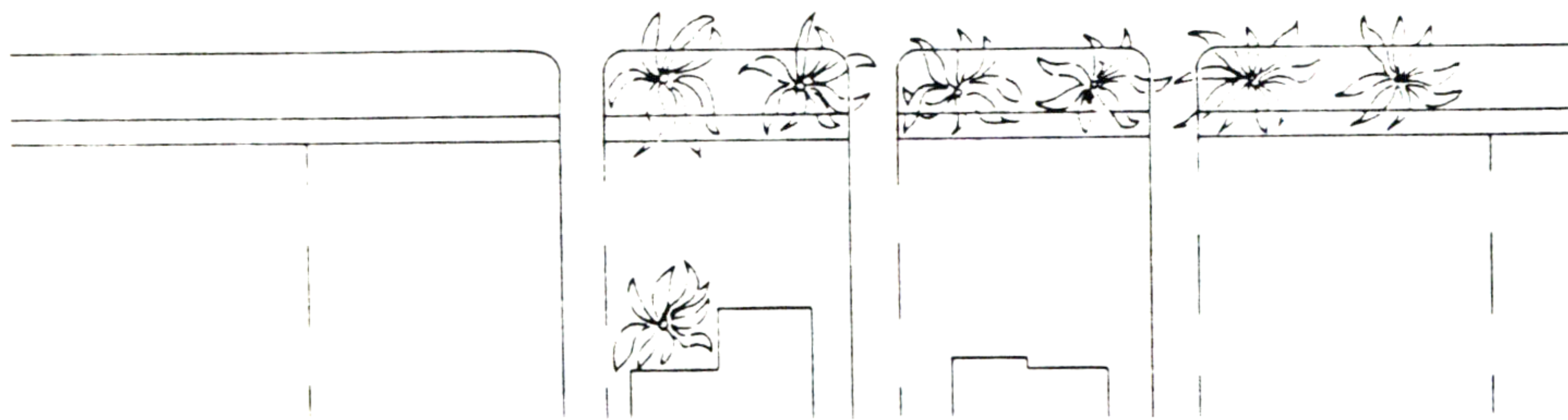
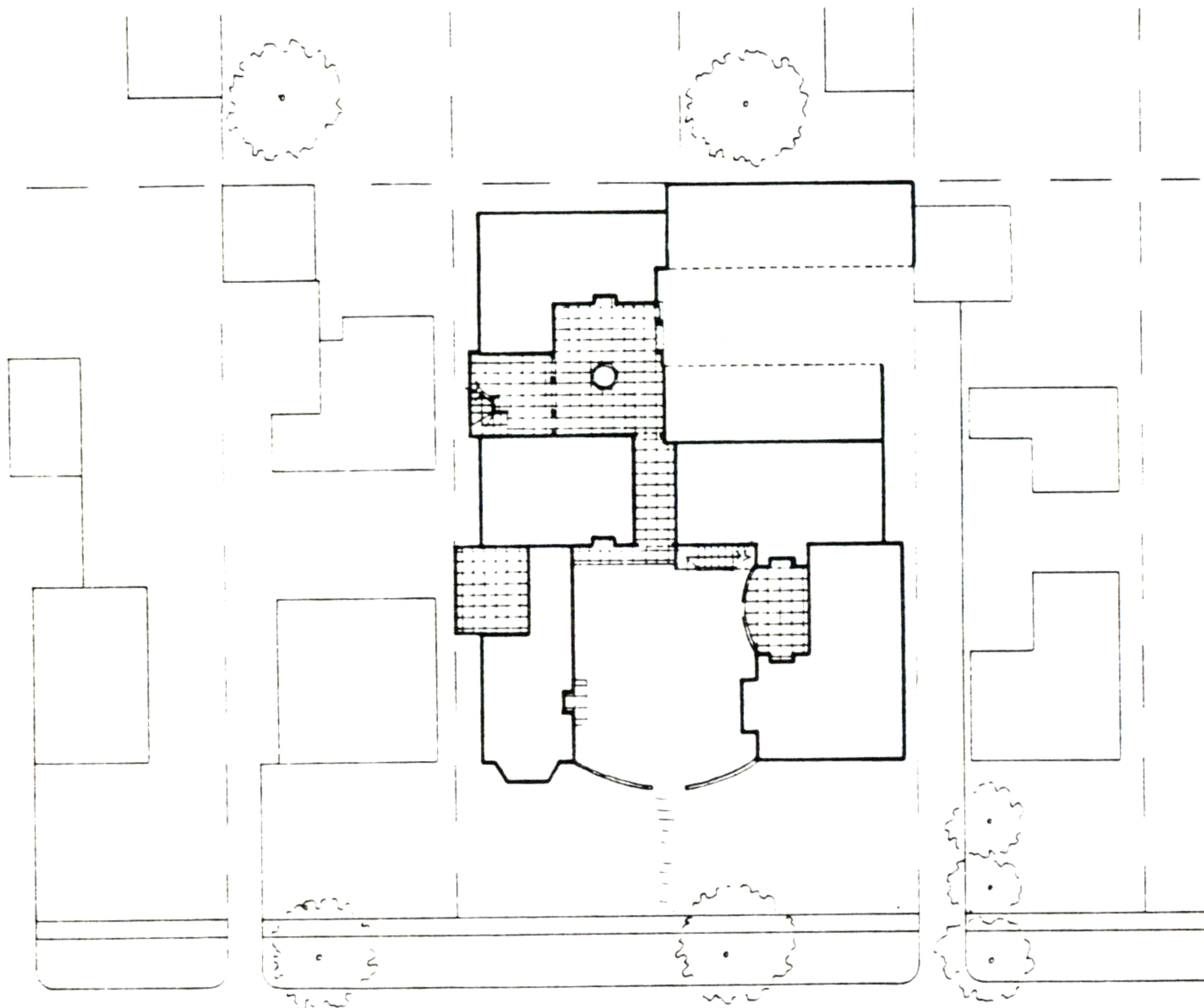
RM-16

Address: 1543/51 Locust st.	Number of Units:	7 units
Lot Area (A): 16,500 sf	Number of Parking Spaces:	11 cars
Lot Dimensions: 100'x 165'	Square Feet of Construction:	6,930 sf
Context Density: 2.2 units/lot	Size of Total Open Space:	6,220 sf
Value of (C): 1	Size of Main Garden:	3,500 sf
Allowed sq.ft : 0.42(C)(A)sf	Parking Type: surface	

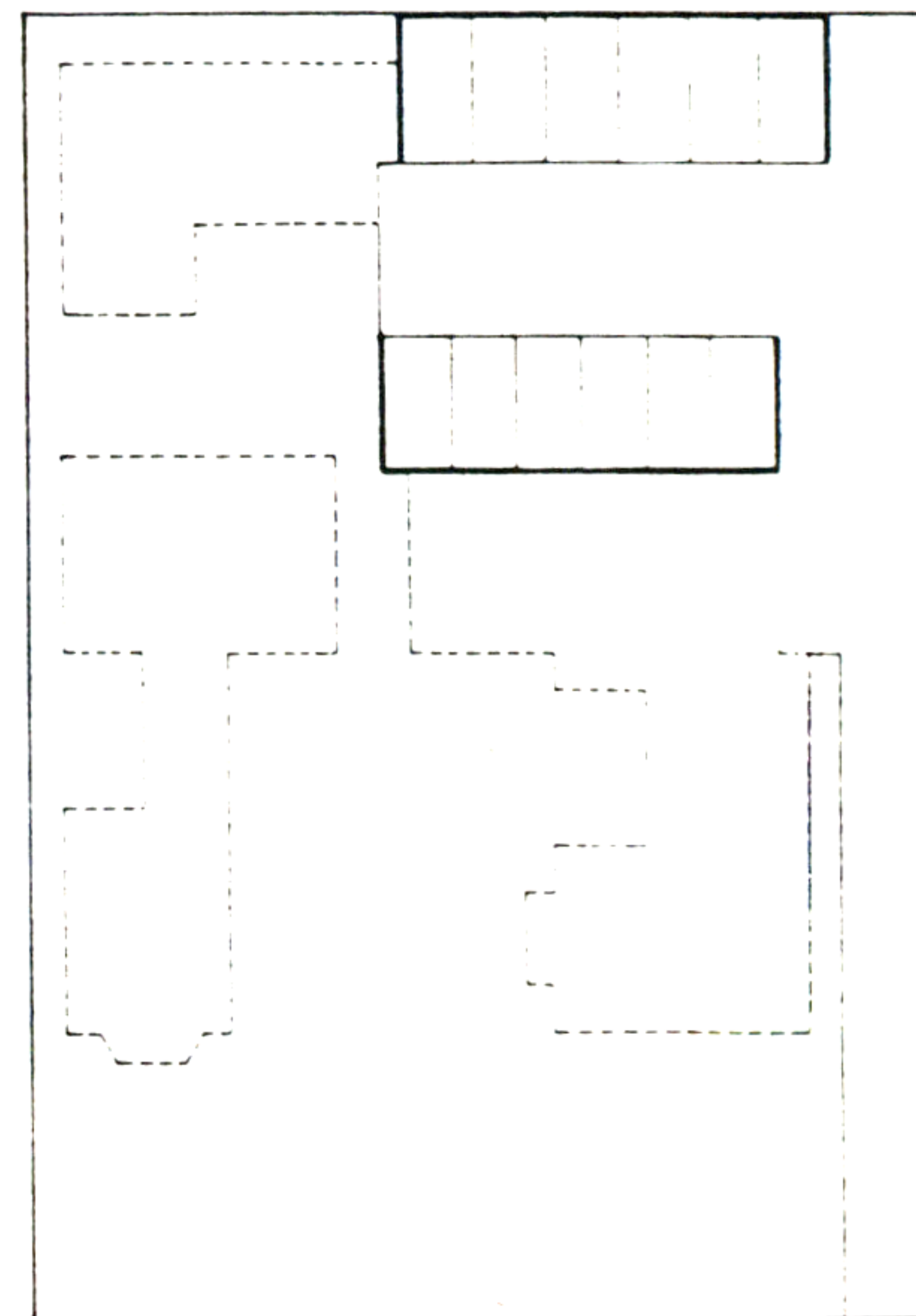
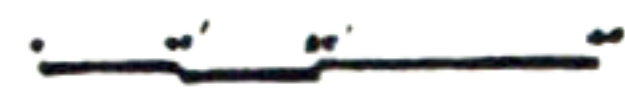


RM-16

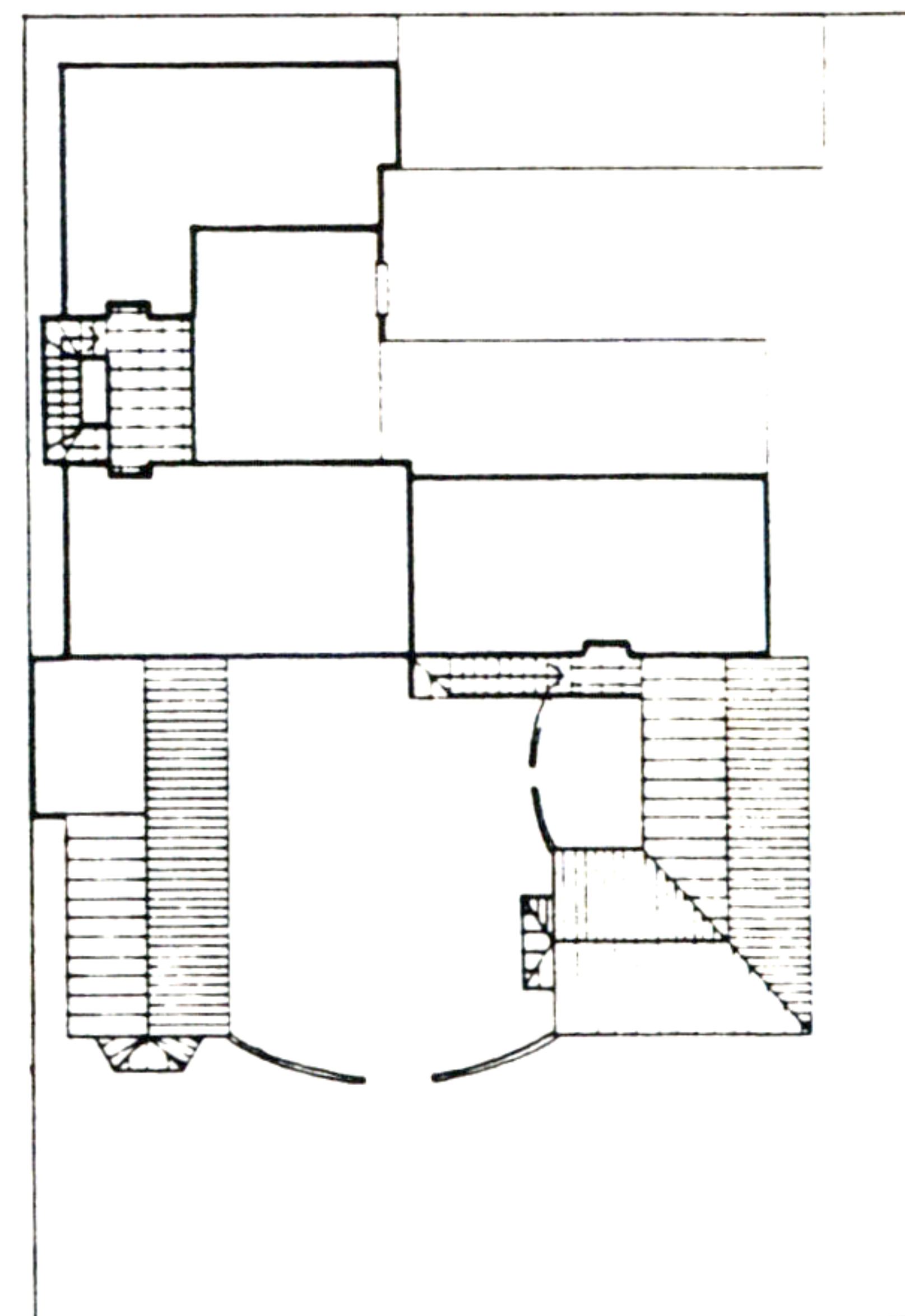
Address: 1543/51 Locust st.	Number of Units:	8 units
Lot Area (A): 16,500 sf	Number of Parking Spaces:	12 cars
Lot Dimensions: 100'x 165'	Square Feet of Construction:	8,033 sf
Context Density: 2.2 units/lot	Size of Total Open Space:	6,220 sf
Value of (C): 1	Size of Main Garden:	3,500 sf
Allowed sq.ft : $0.52(C)(A)$ sf	Parking Type:	surface/shared driveway



SITE PLAN



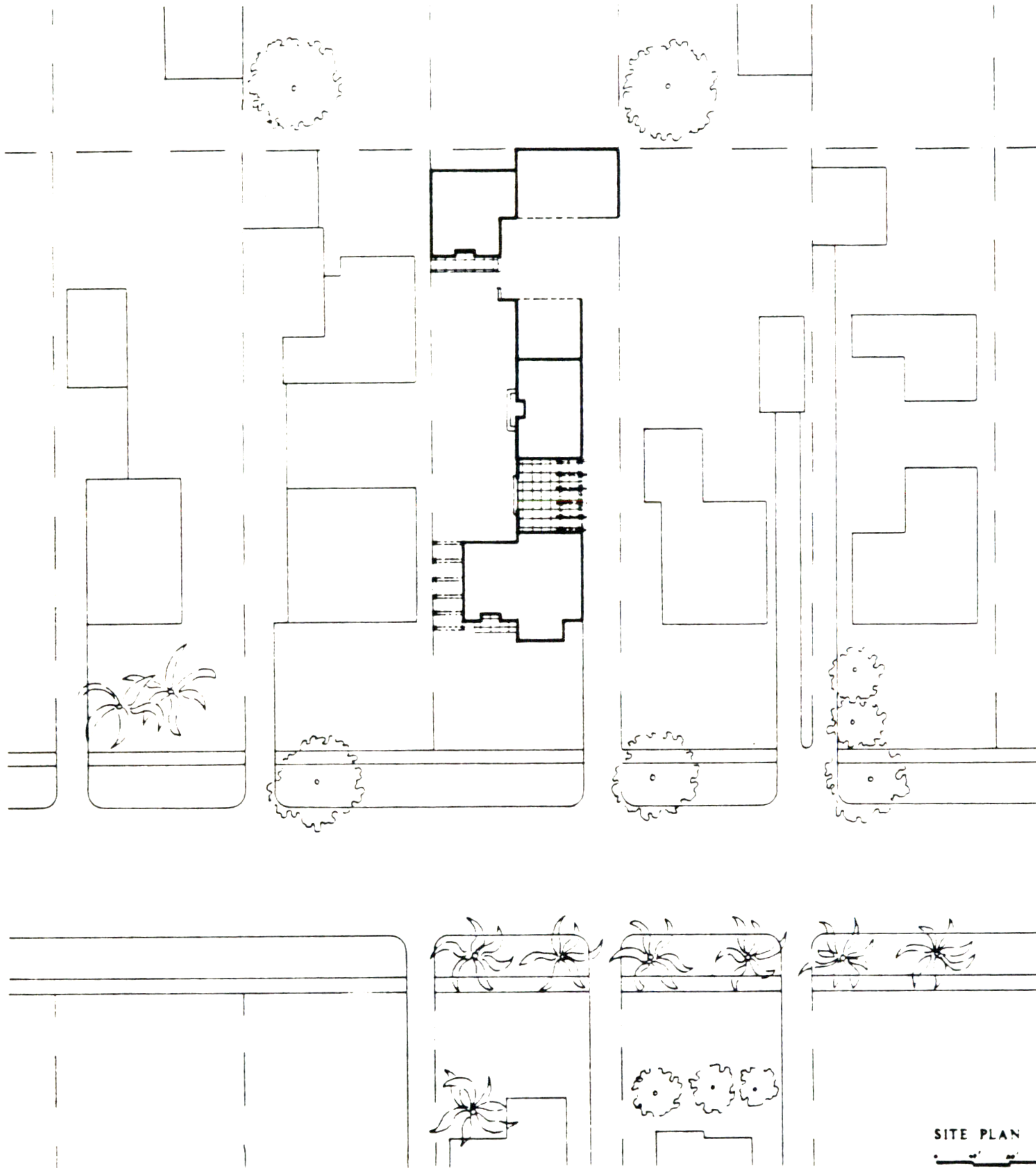
PARKING PLAN



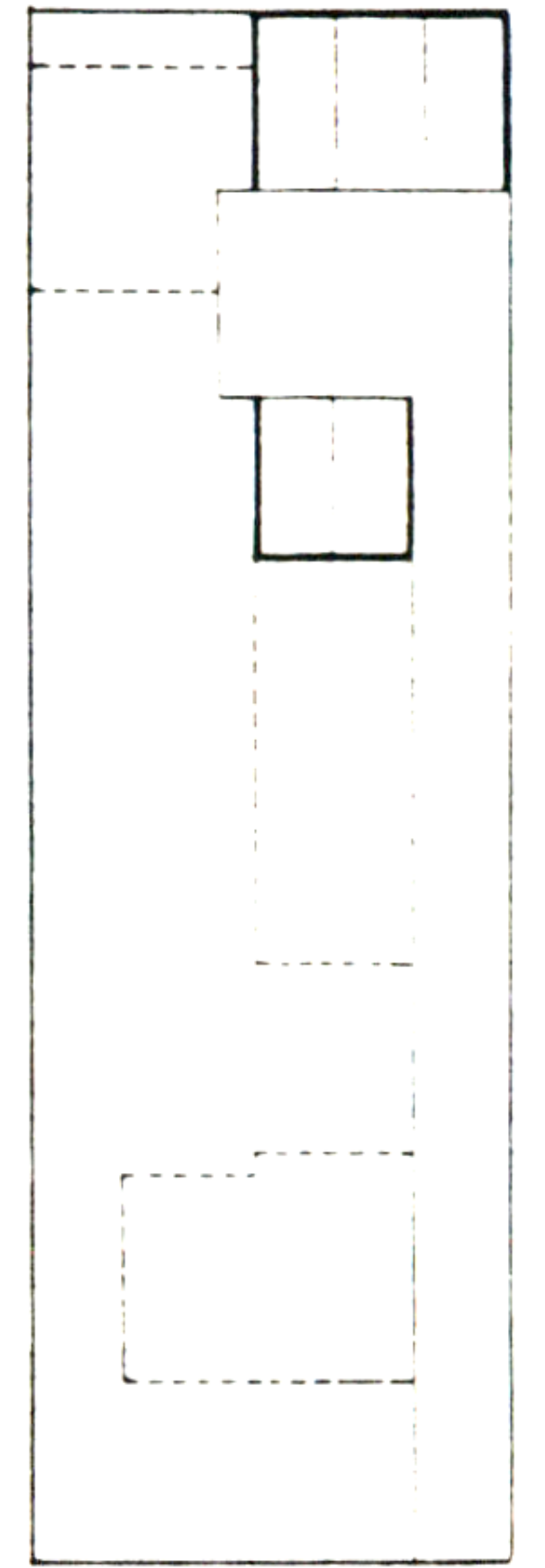
SECOND FLOOR PLAN

RM-16

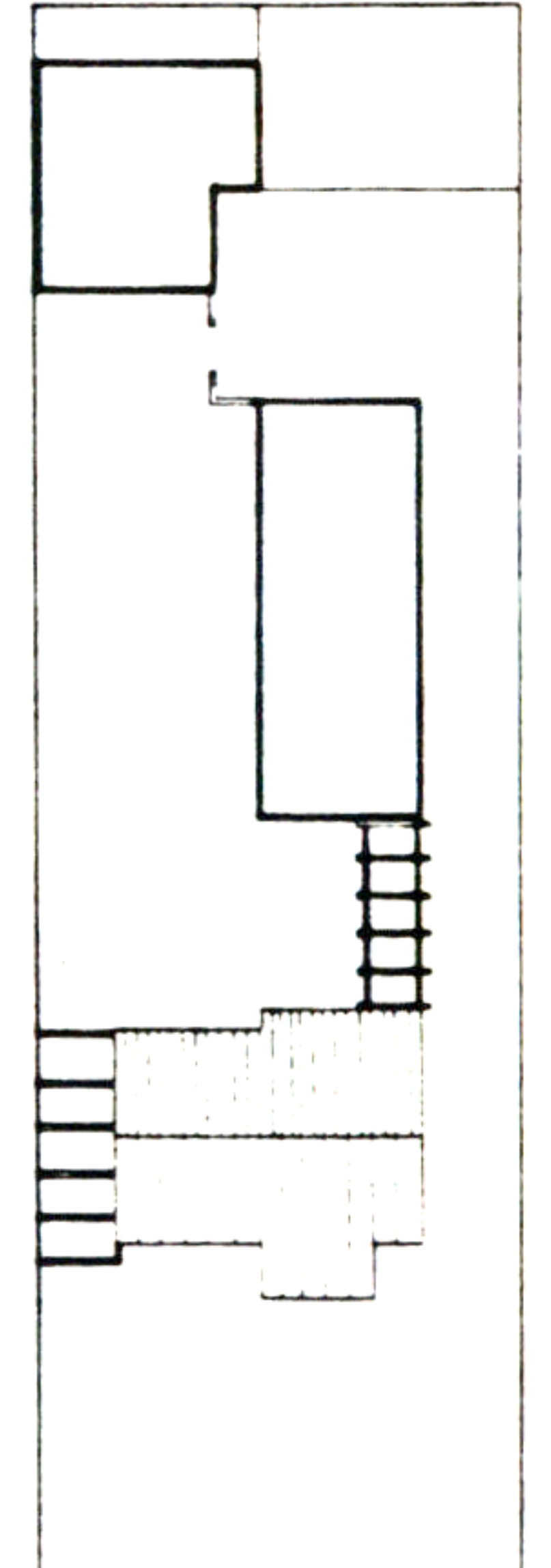
Address: 1543/9 Locust st.	Number of Units: 3 units
Lot Area (A): 8,250 sf	Number of Parking Spaces: 5 cars
Lot Dimensions: 50'x 165'	Square Feet of Construction: 2,932 sf
Context Density: 2.2 units/lot	Size of Total Open Space: 3,528 sf
Value of (C): 1	Size of Main Garden: 2,100 sf
Allowed sq.ft : 0.36(C)(A)sf	Parking Type: with dwellings above



SITE PLAN



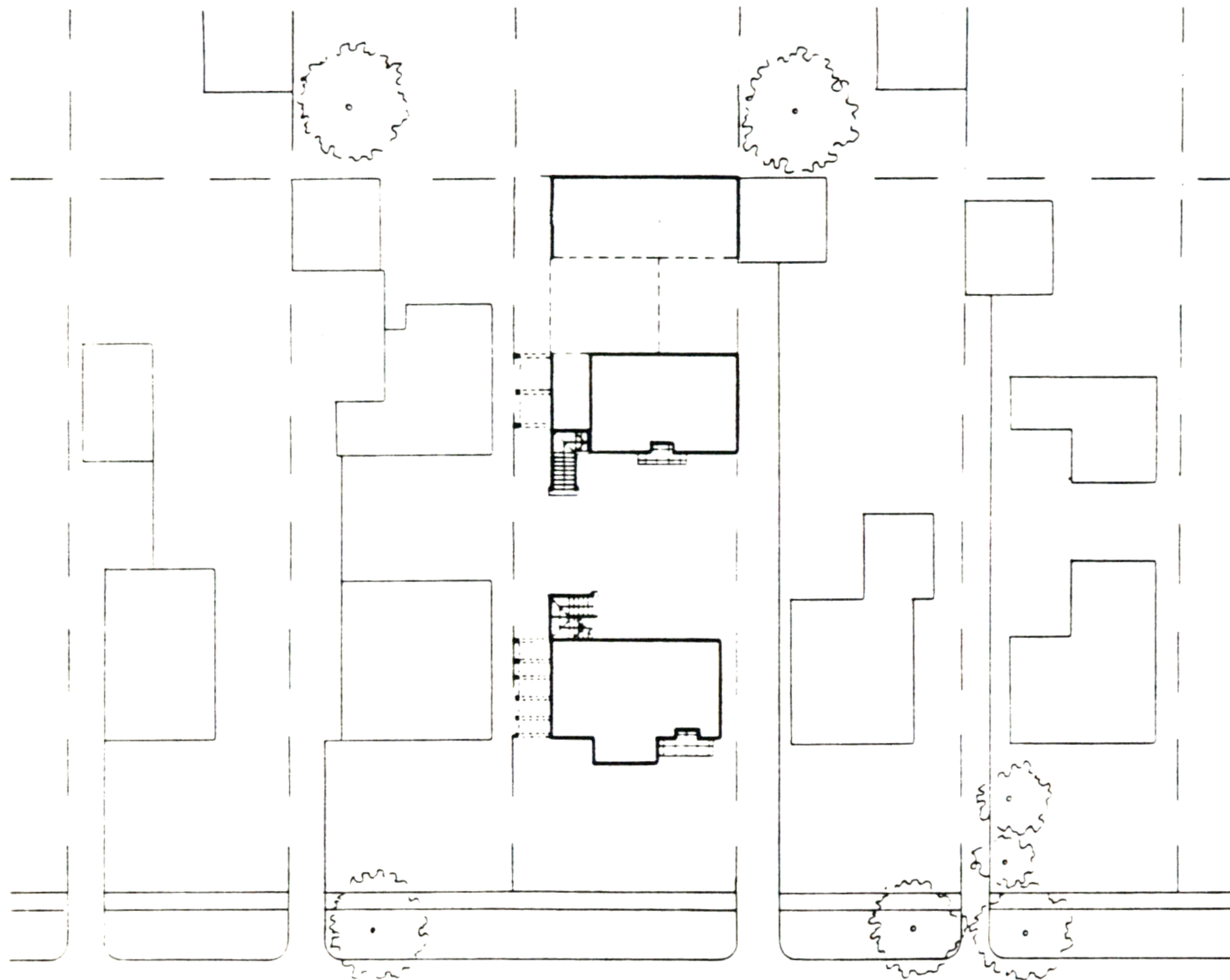
PARKING PLAN



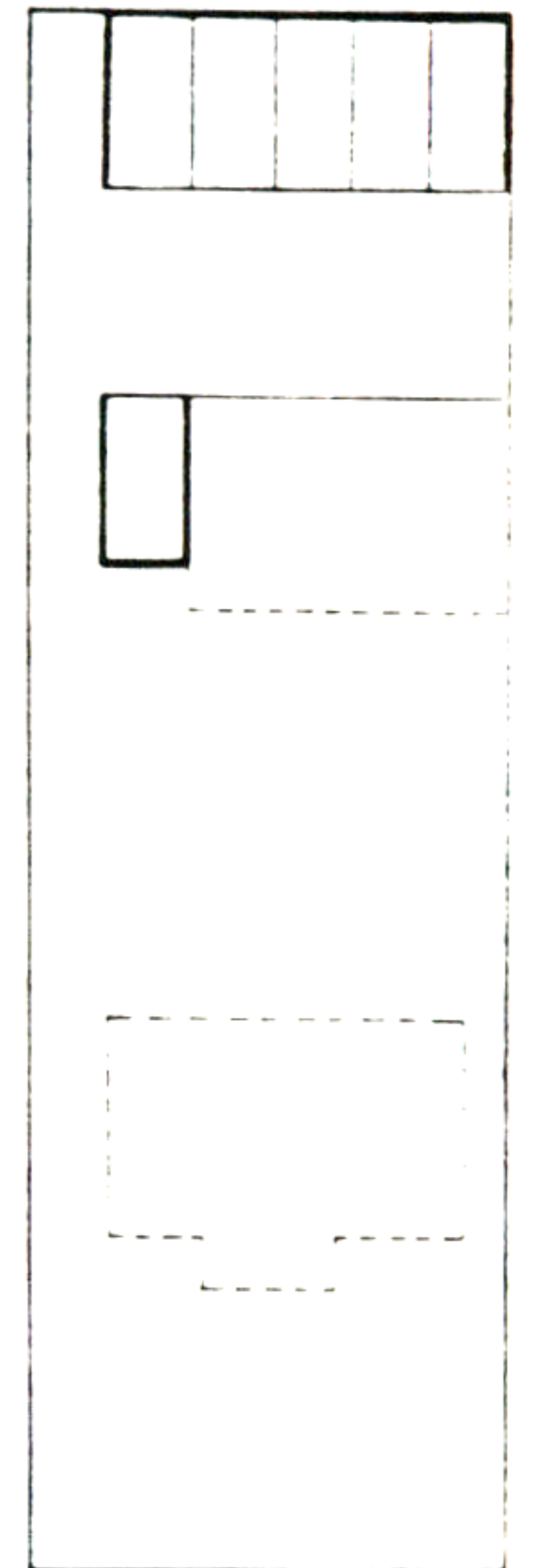
SECOND FLOOR PLAN

RM-16

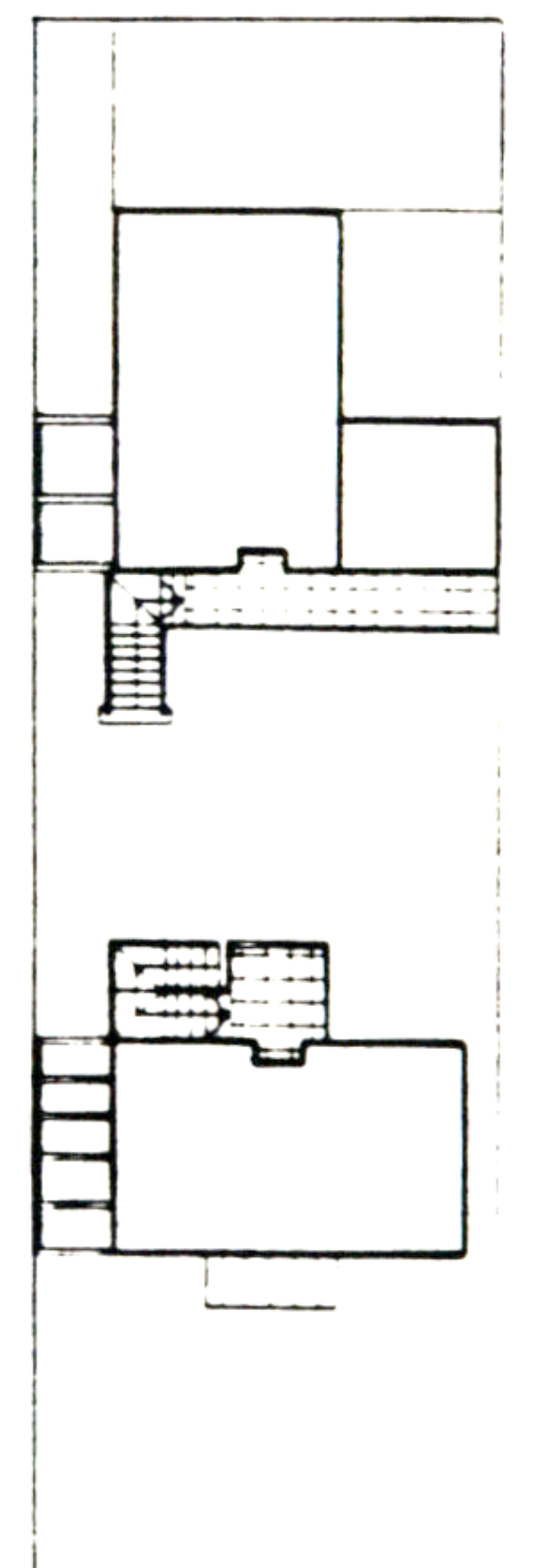
Address:	1543/9 Locust st.	Number of Units:	4 units
Lot Area (A):	8,250 sf	Number of Parking Spaces:	6 cars
Lot Dimensions:	50'x 165'	Square Feet of Construction:	3,804 sf
Context Density:	2.2 units/lot	Size of Total Open Space:	3,574 sf
Value of (C):	1	Size of Main Garden:	2,230 sf
Allowed sq.ft :	0.46(C)(A)sf	Parking Type:	w/dwellings above/shared



SITE PLAN



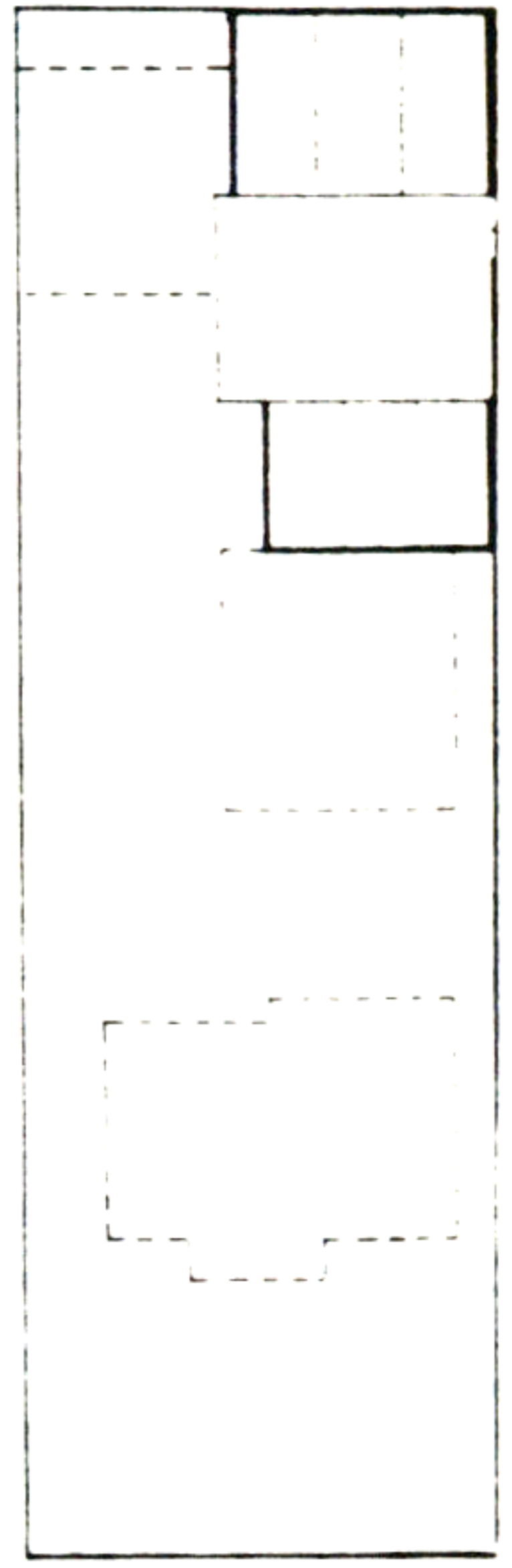
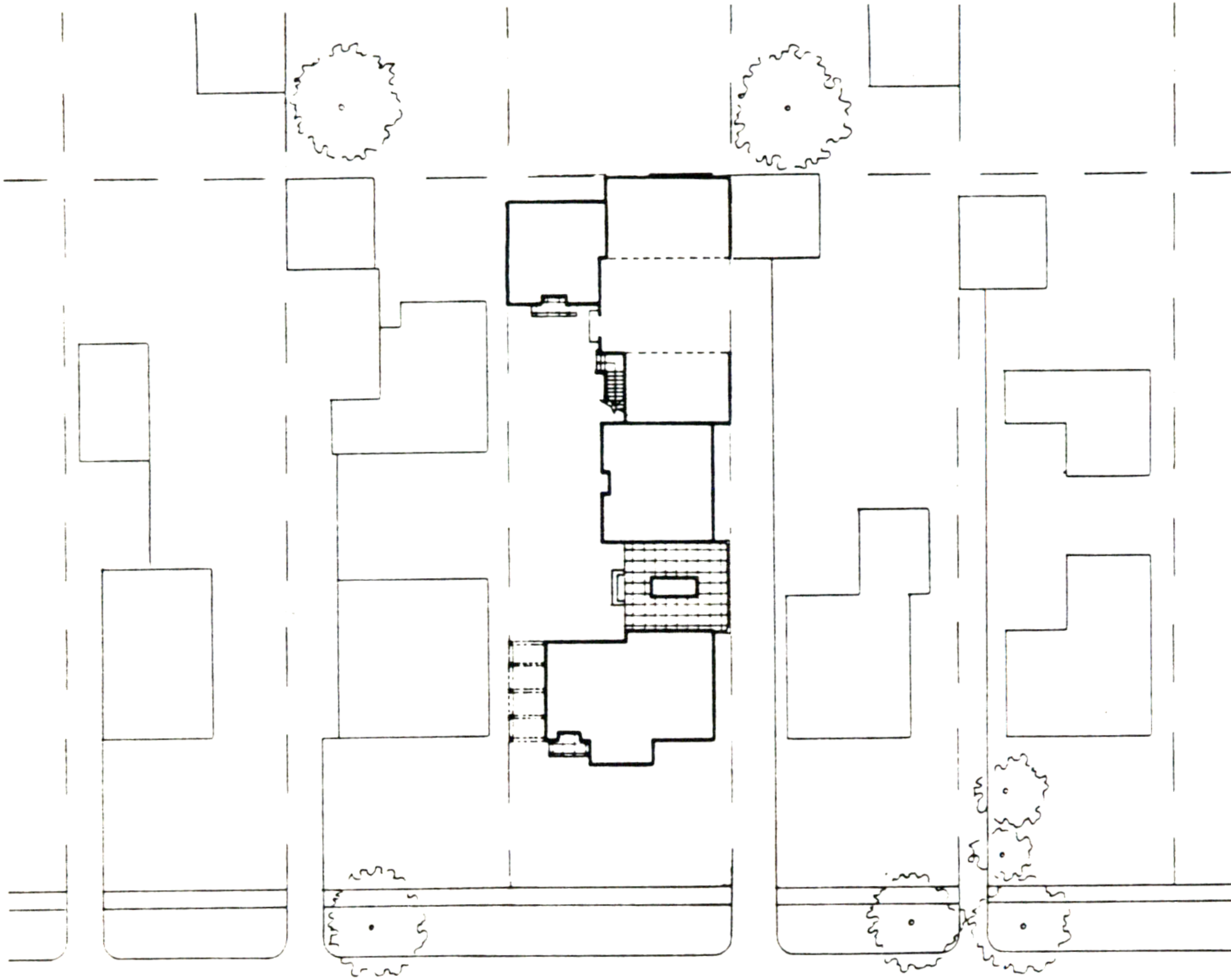
PARKING PLAN



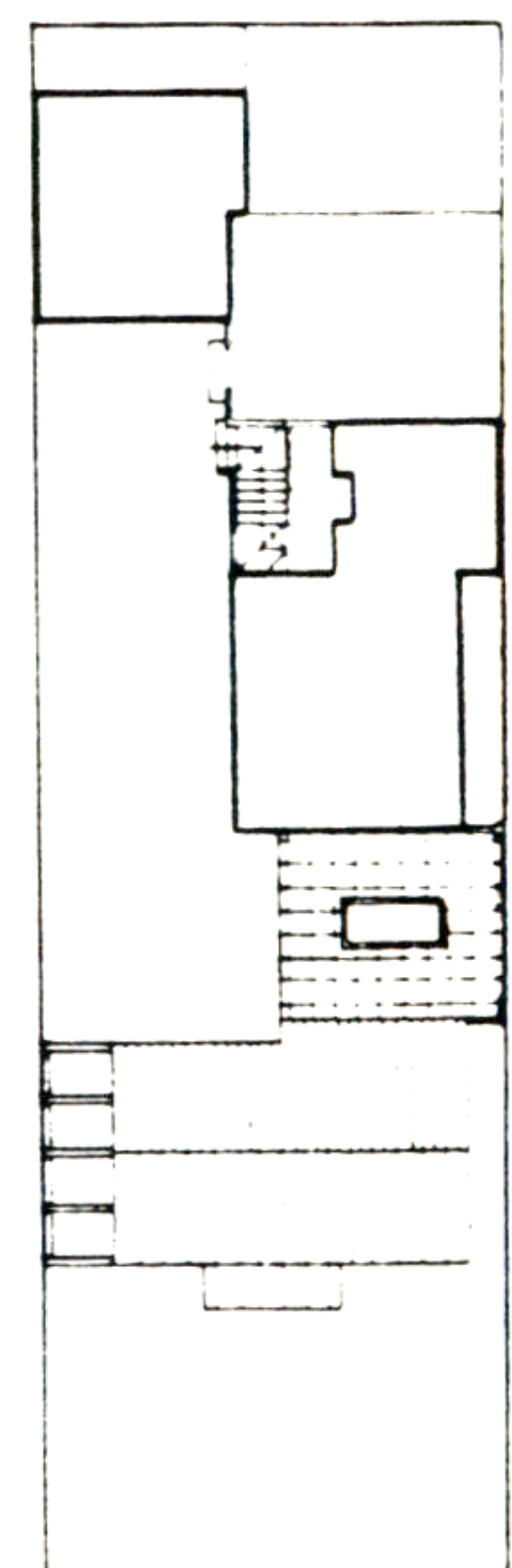
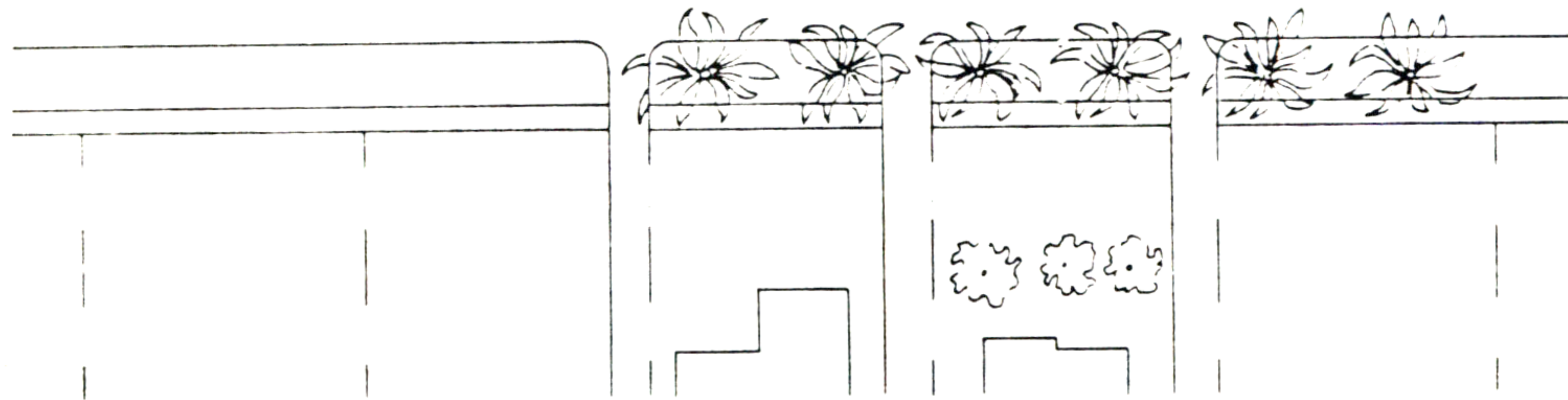
SECOND FLOOR PLAN

RM-16

Address: 1543/9 Locust st.	Number of Units:	4 units
Lot Area (A): 8,250 sf	Number of Parking Spaces:	6 cars
Lot Dimensions: 50'x 165'	Square Feet of Construction:	3,795 sf
Context Density: 2.2 units/lot	Size of Total Open Space:	3,850 sf
Value of (C): 1	Size of Main Garden:	2,100 sf
Allowed sq.ft : 0.46(C)(A)sf	Parking Type:w/dwellings above/shared	



PARKING PLAN

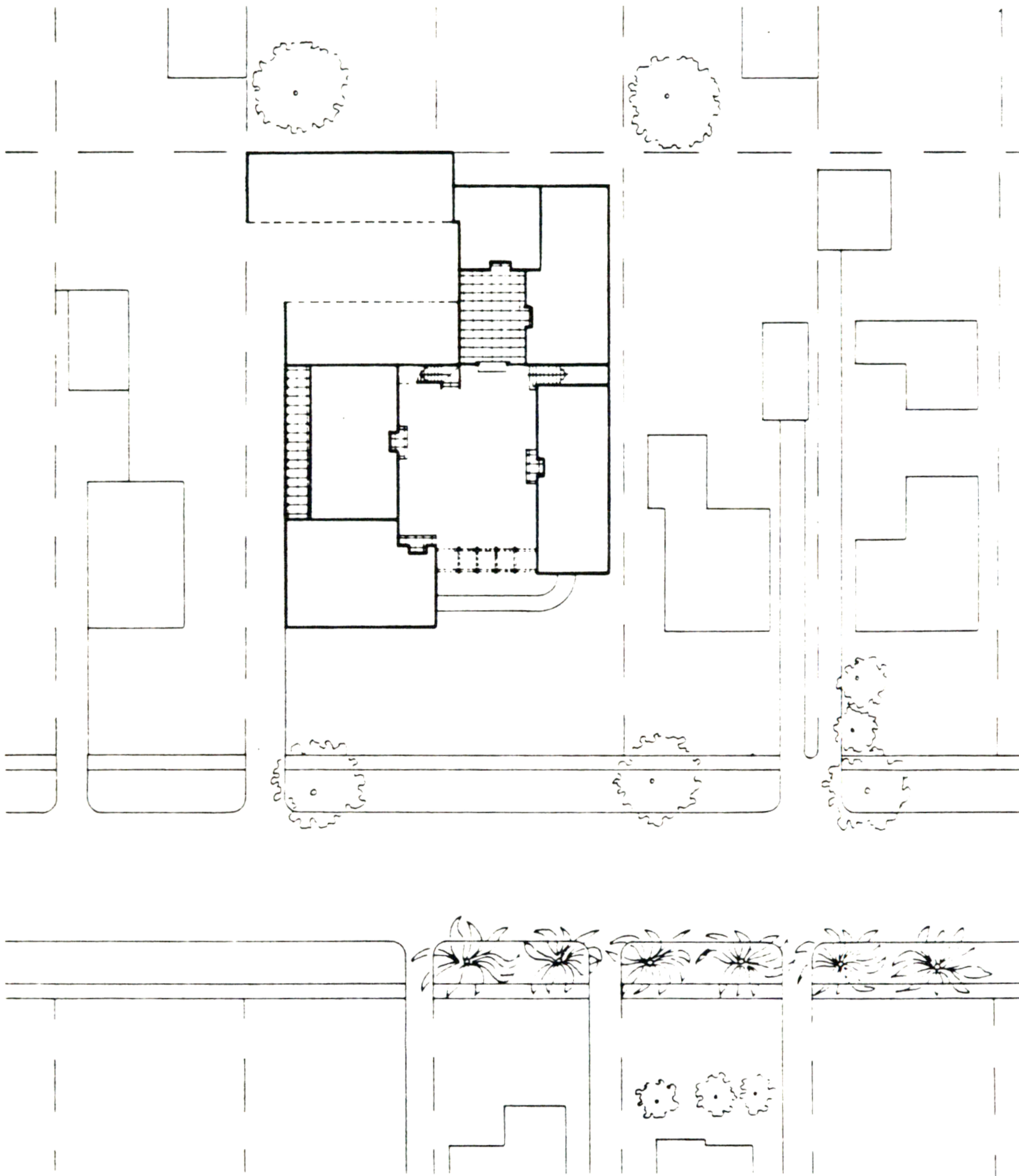


SECOND FLOOR PLAN

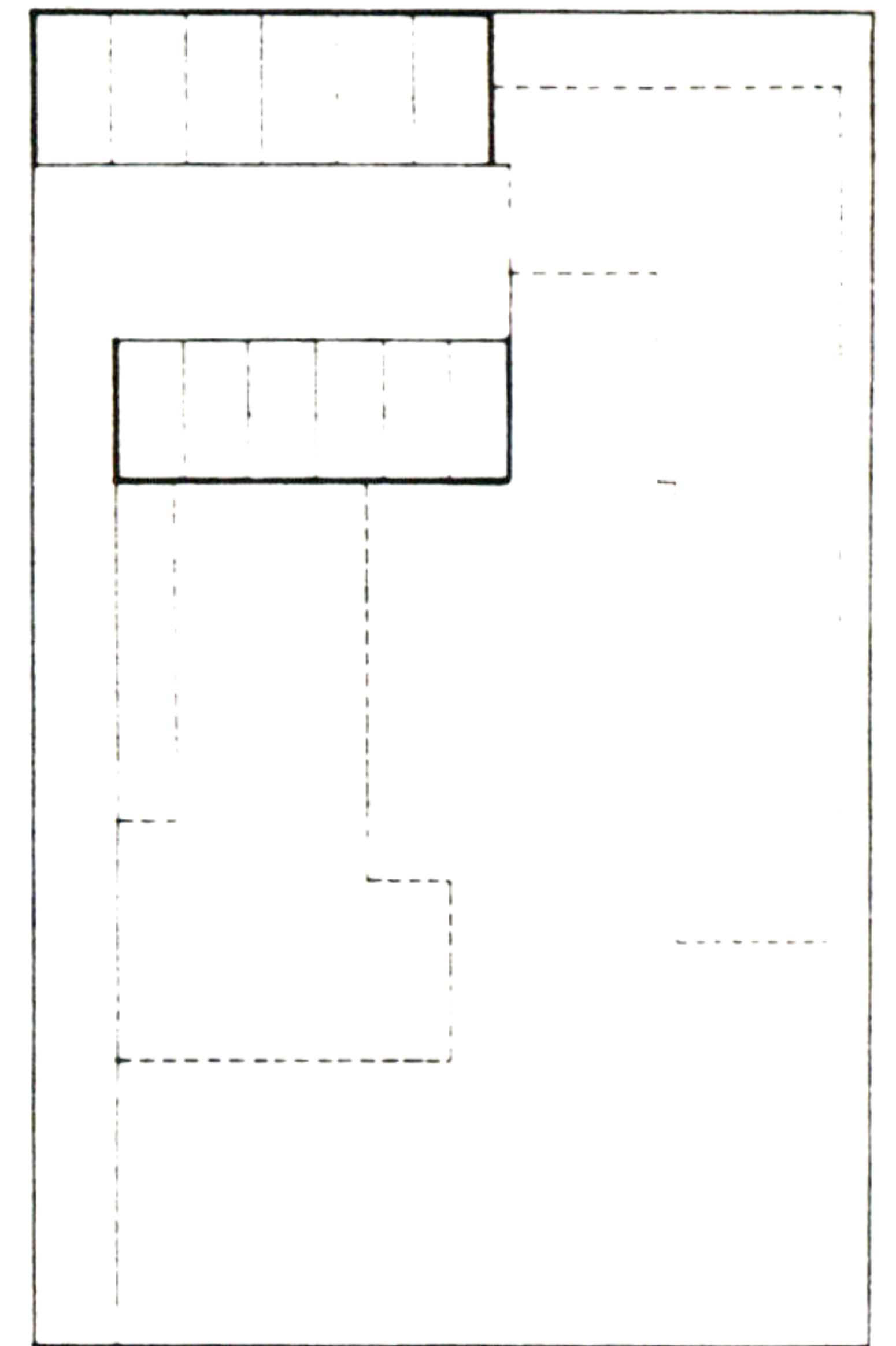
SITE PLAN

RM-16

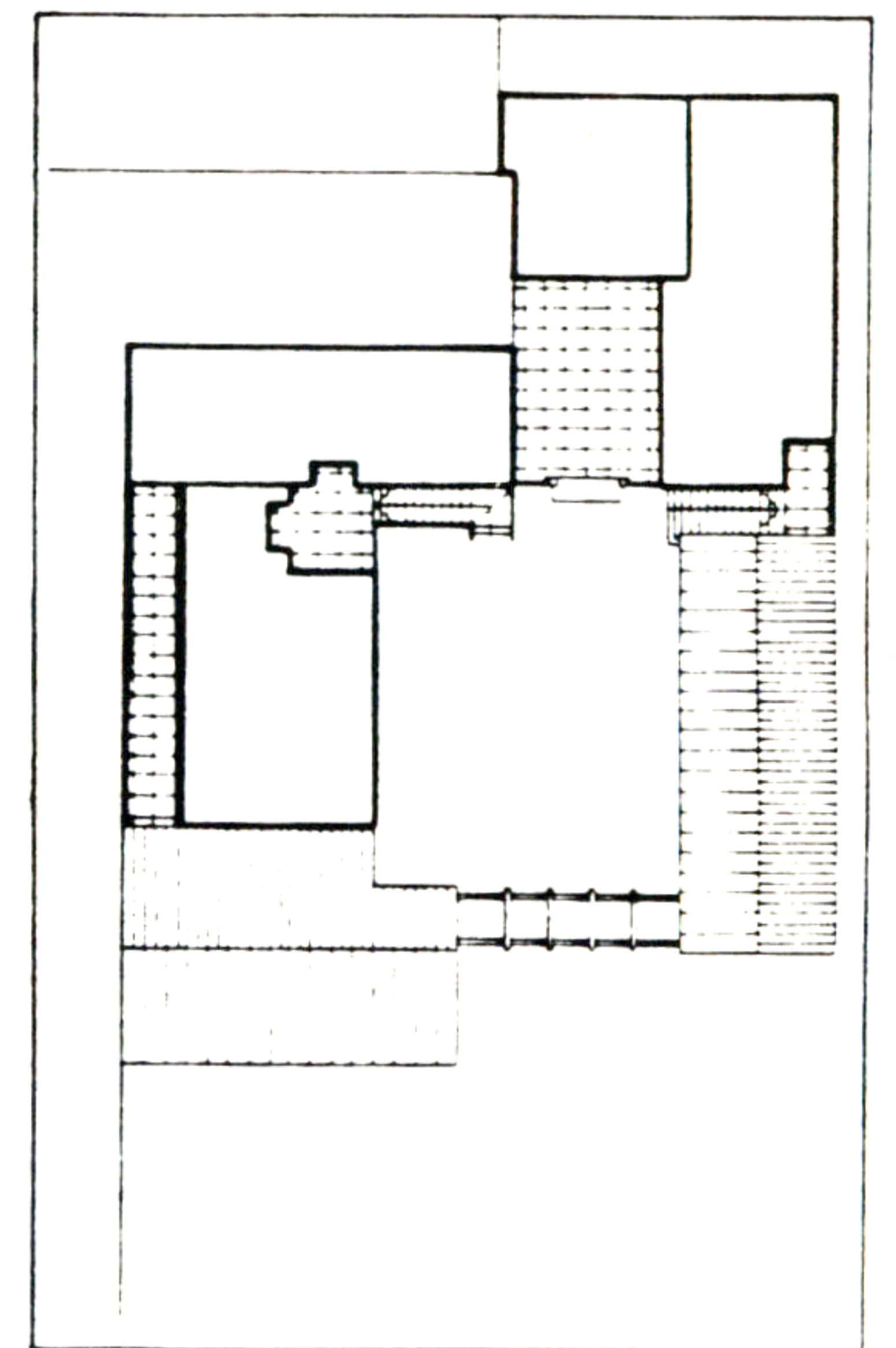
Address: 1543/51 Locust st.	Number of Units:	8 units
Lot Area (A): 16,500 sf	Number of Parking Spaces:	12 cars
Lot Dimensions: 100'x 165'	Square Feet of Construction:	7,920 sf
Context Density: 2.2 units/lot	Size of Total Open Space:	6,350 sf
Value of (C): 1	Size of Main Garden:	3,850 sf
Allowed sq.ft : 0.48(C)(A)sf	Parking Type: with dwellings above	



SITE PLAN



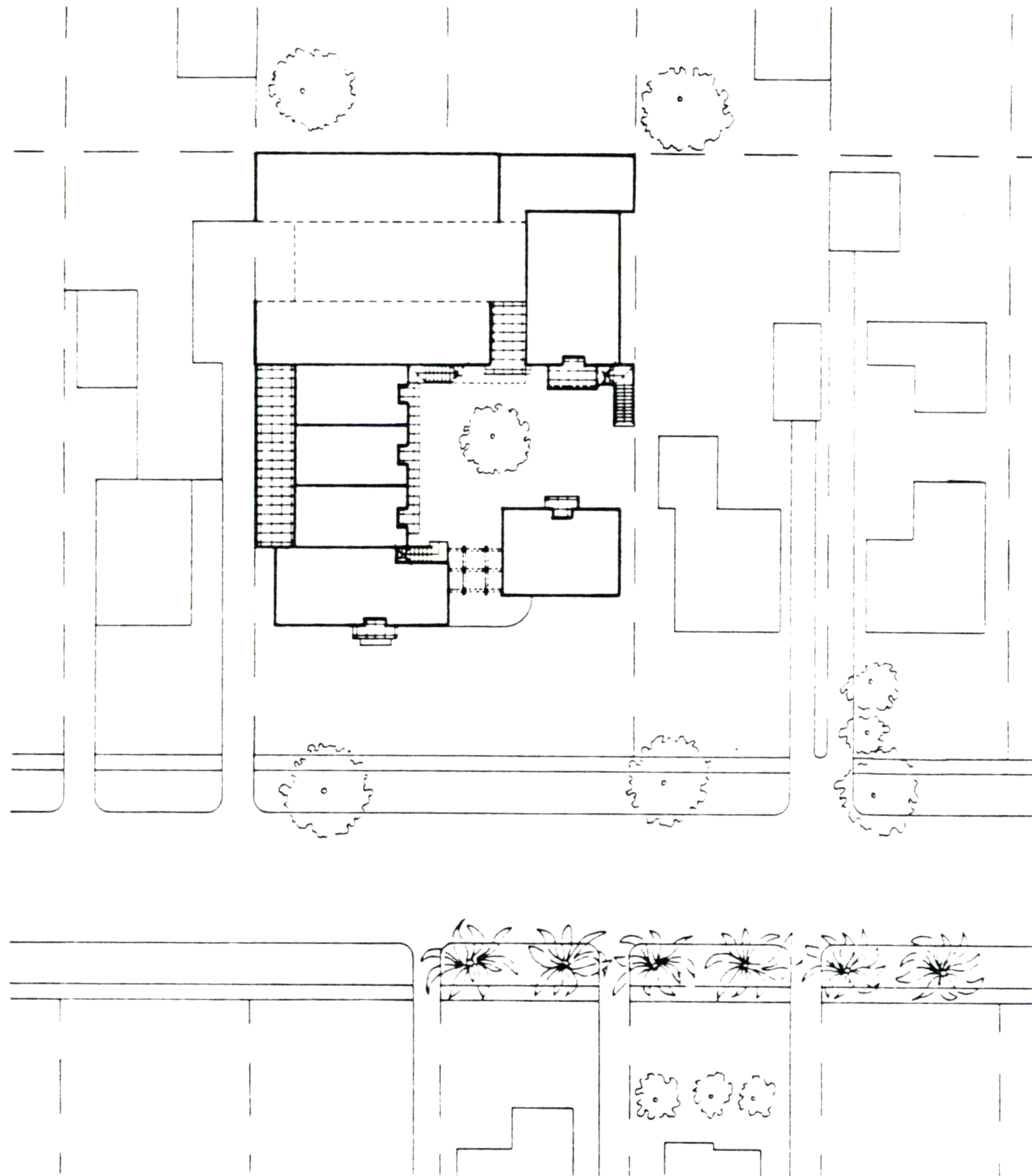
PARKING PLAN



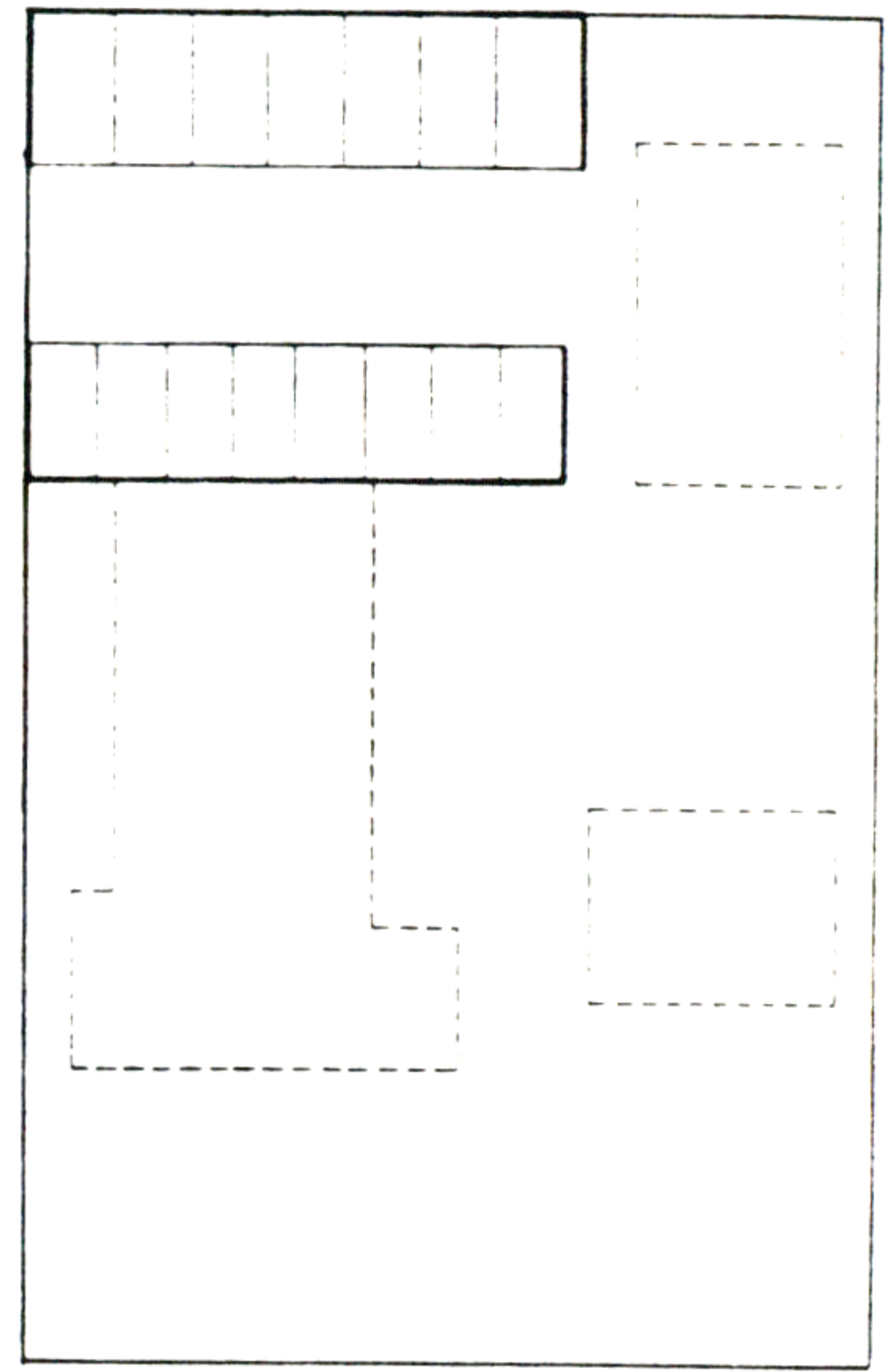
SECOND FLOOR PLAN

RM-16

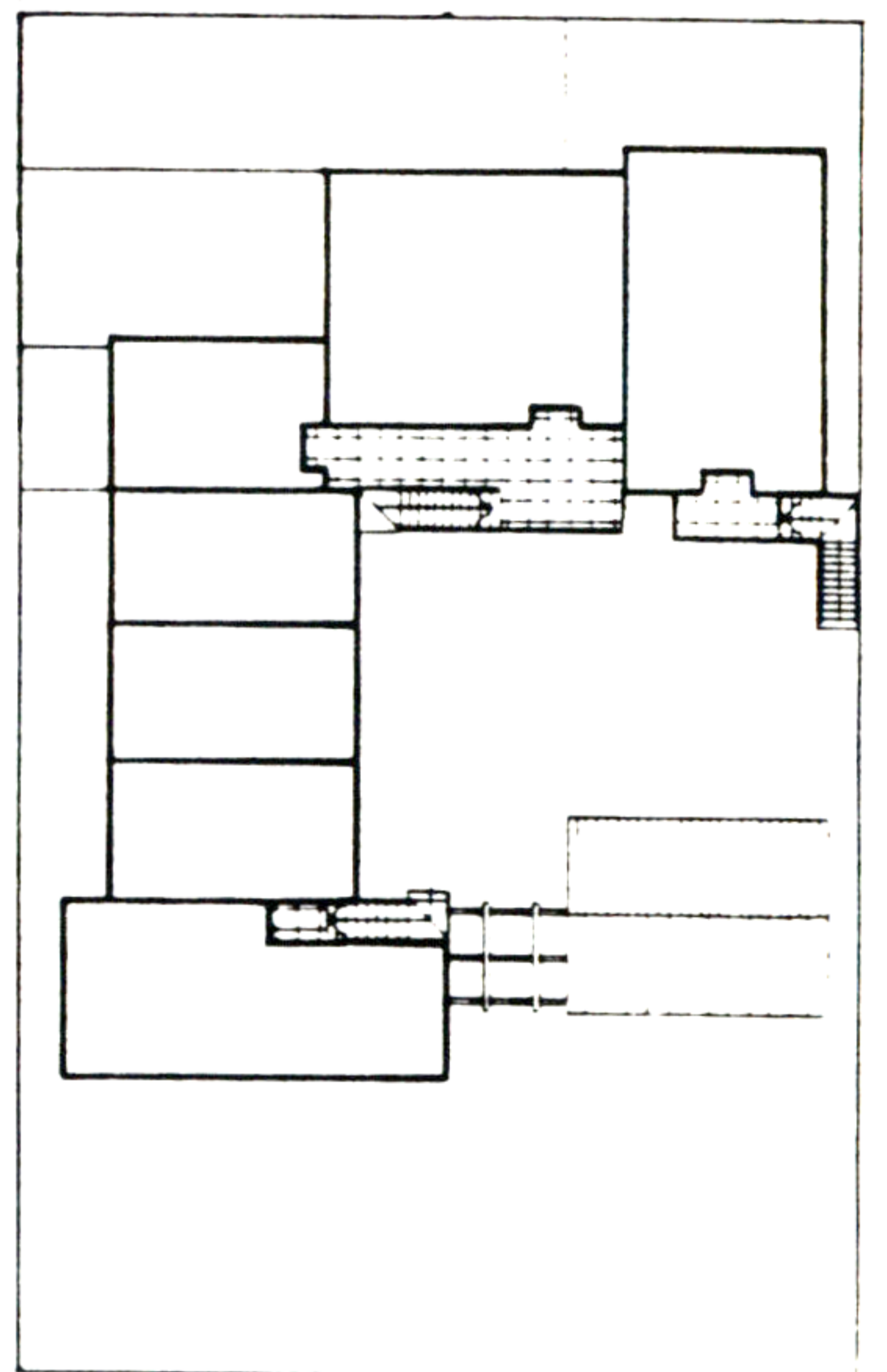
Address: 1543/51 Locust st.	Number of Units:	10 units
Lot Area (A): 16,500 sf	Number of Parking Spaces:	15 cars
Lot Dimensions: 100'x 165'	Square Feet of Construction:	9,570 sf
Context Density: 2.2 units/lot	Size of Total Open Space:	6,490 sf
Value of (C): 1	Size of Main Garden:	3,900 sf
Allowed sq.ft : $0.58(C)(A)$ sf	Parking Type:w/dwellings above/shared	



SITE PLAN



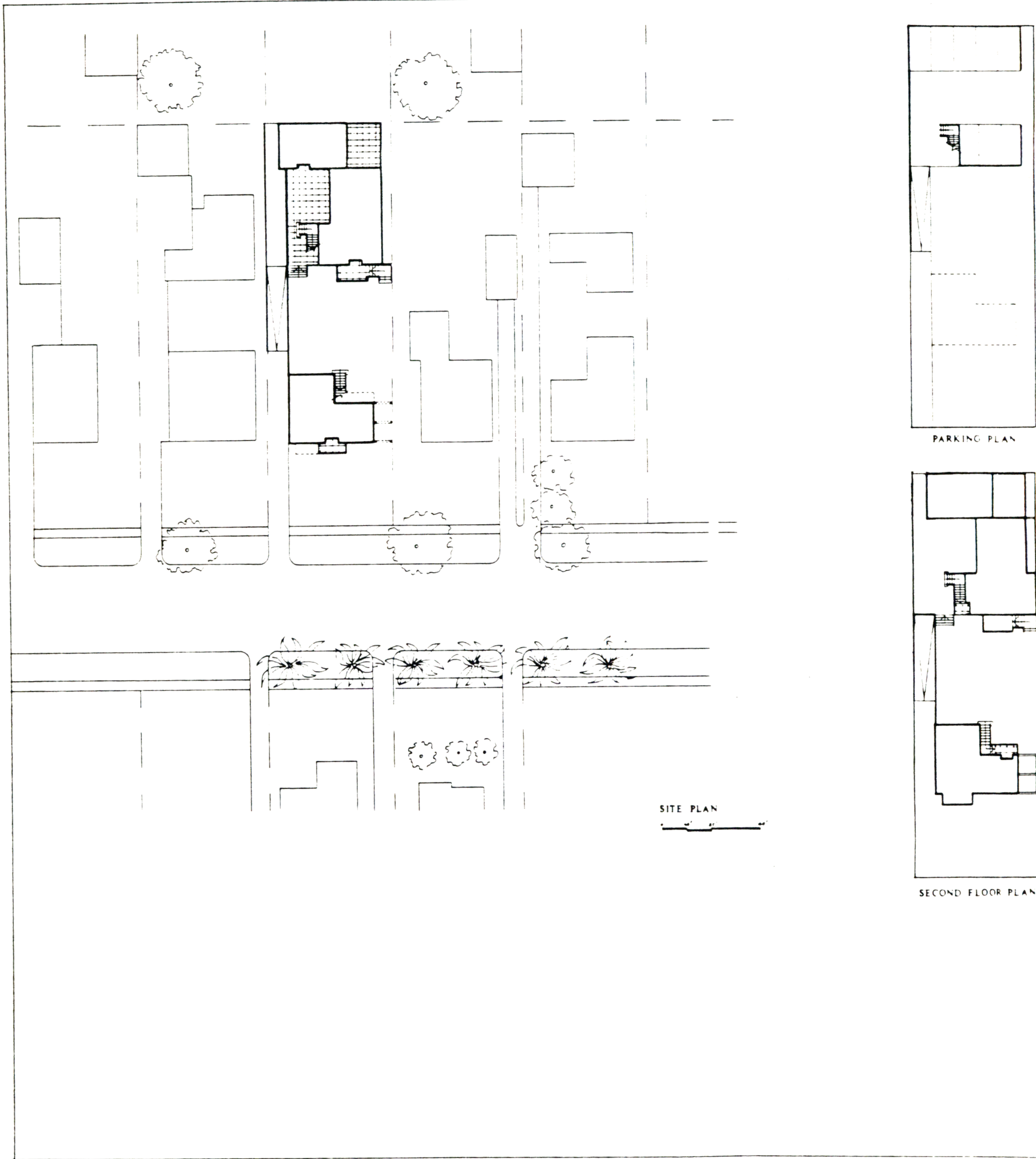
PARKING PLAN



SECOND FLOOR PLAN

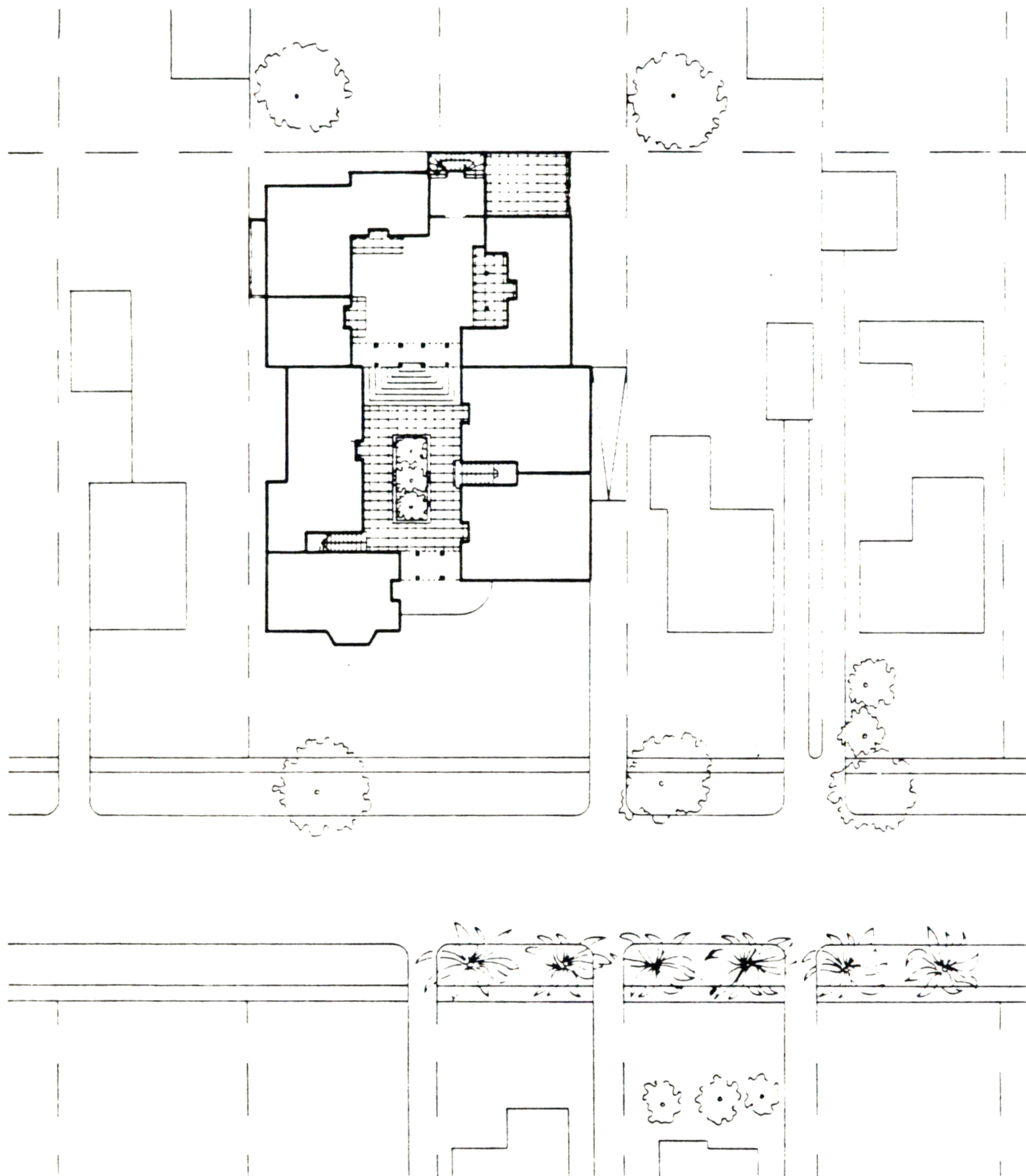
RM-16

Address:	1543/9 Locust st.	Number of Units:	5 units
Lot Area (A):	8,250 sf	Number of Parking Spaces:	8 cars
Lot Dimensions:	50'x 165'	Square Feet of Construction:	4,765 sf
Context Density:	2.2 units/lot	Size of Total Open Space:	3,540 sf
Value of (C):	1	Size of Main Garden:	2,100 sf
Allowed sq.ft :	0.60(C)(A)sf	Parking Type:	naturally ventilated

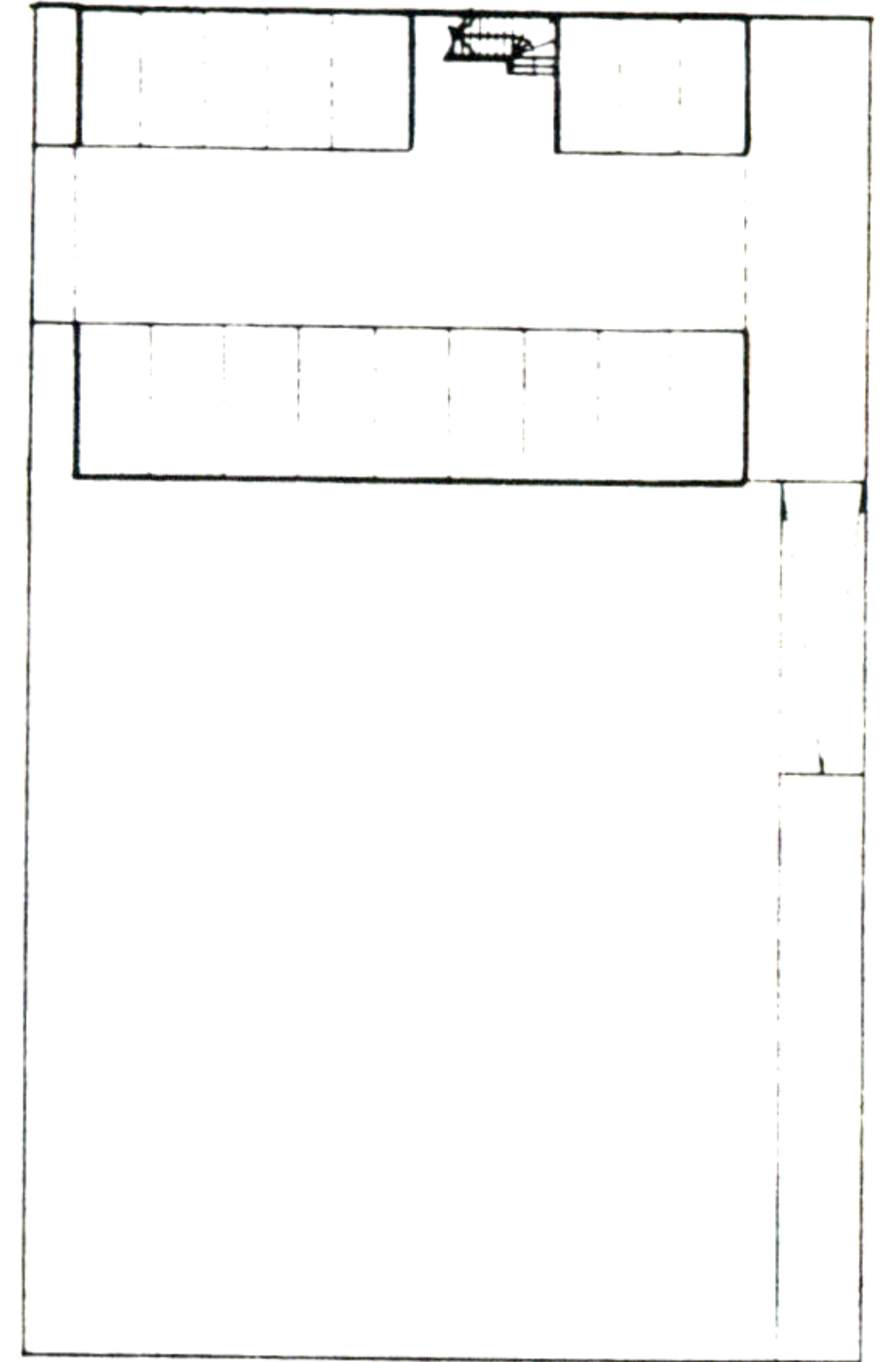


RM-16

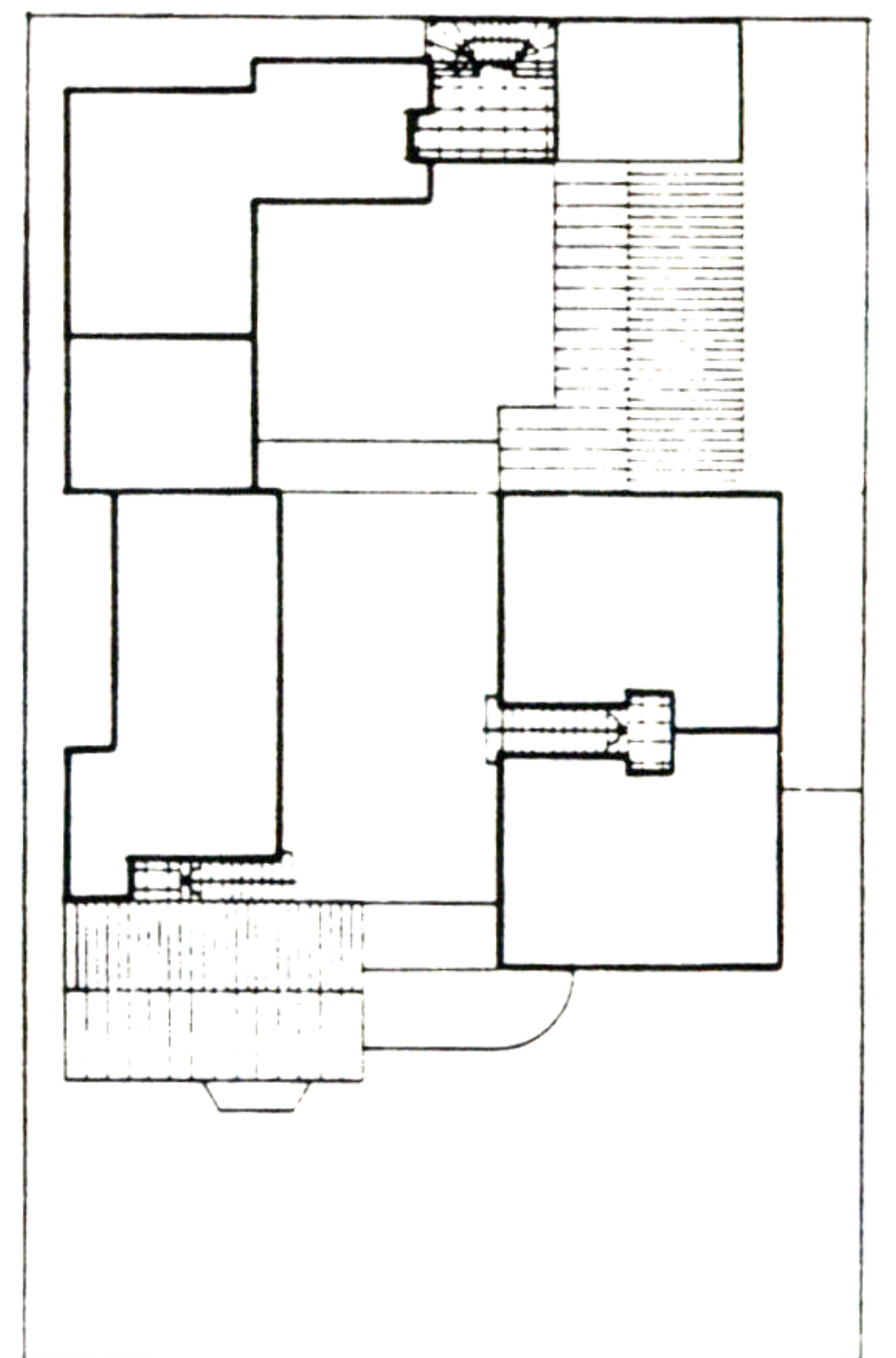
Address: 1543/51 Locust st.	Number of Units:	11 units
Lot Area (A): 16,500 sf	Number of Parking Spaces:	17 cars
Lot Dimensions: 100'x 165'	Square Feet of Construction:	11,180 sf
Context Density: 2.2 units/lot	Size of Total Open Space:	3,540 sf
Value of (C): 1	Size of Main Garden:	2,100 sf
Allowed sq.ft : $0.68(C)(A)$ sf	Parking Type:	naturally ventilated



SITE PLAN



PARKING PLAN

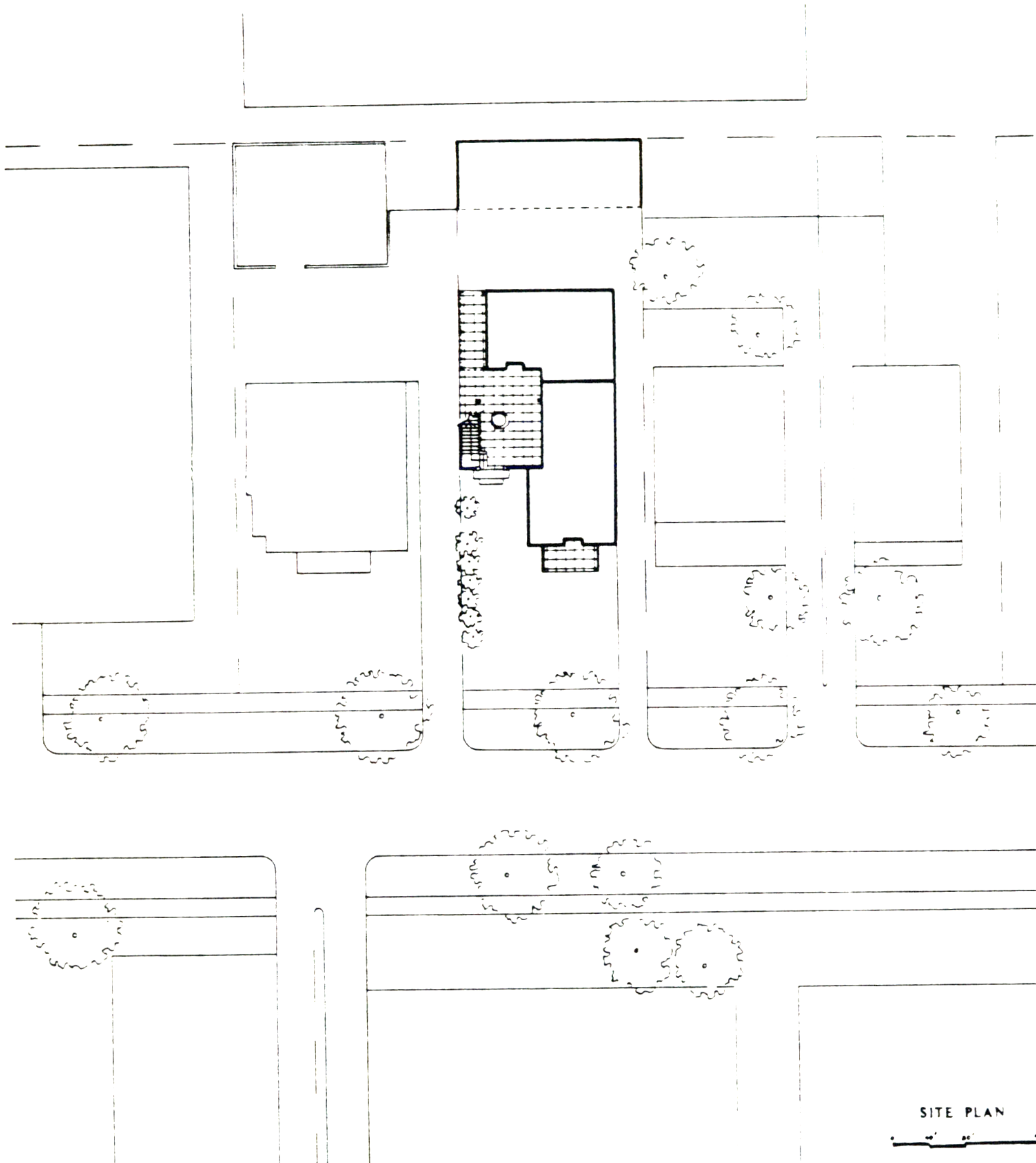


SECOND FLOOR PLAN

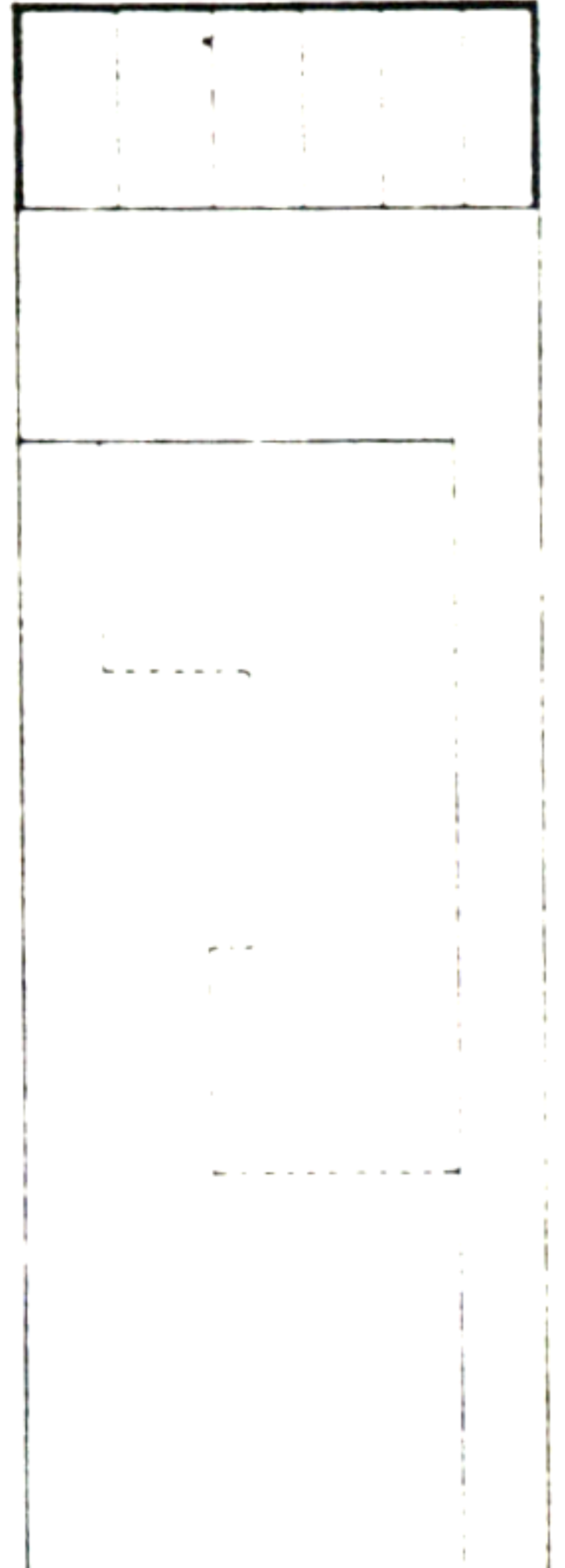
RM-32 EXAMPLES

RM-32

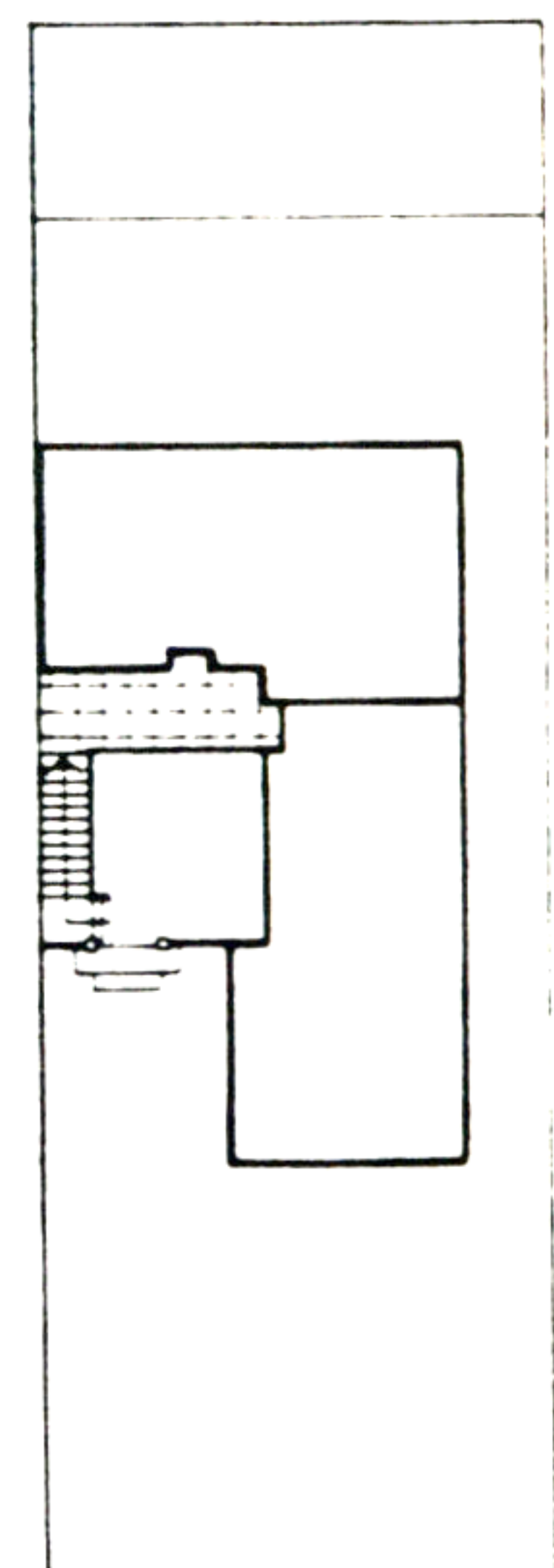
Address:	376 S.Oakland st.	Number of Units:	4 units
Lot Area (A):	7,650 sf	Number of Parking Spaces:	6 cars
Lot Dimensions:	50'x 153'	Square Feet of Construction:	3,870 sf
Context Density:	9 units/lot	Size of Total Open Space:	2,690 sf
Value of (C):	1	Size of Main Garden:	2,090 sf
Allowed sq.ft:	0.50(C)(A)sf	Parking Type:	surface



SITE PLAN



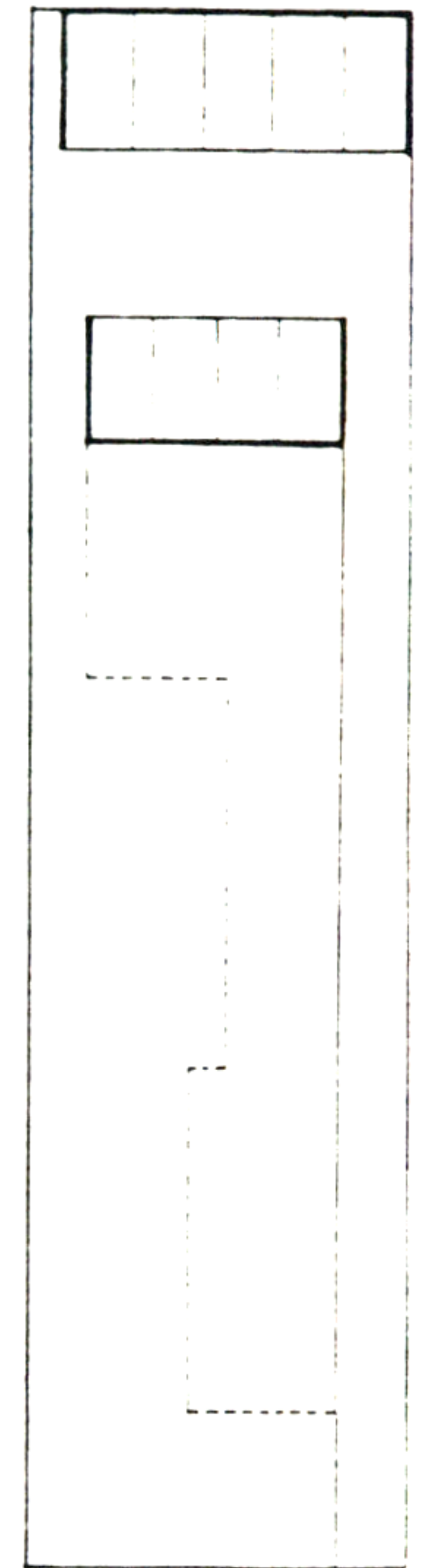
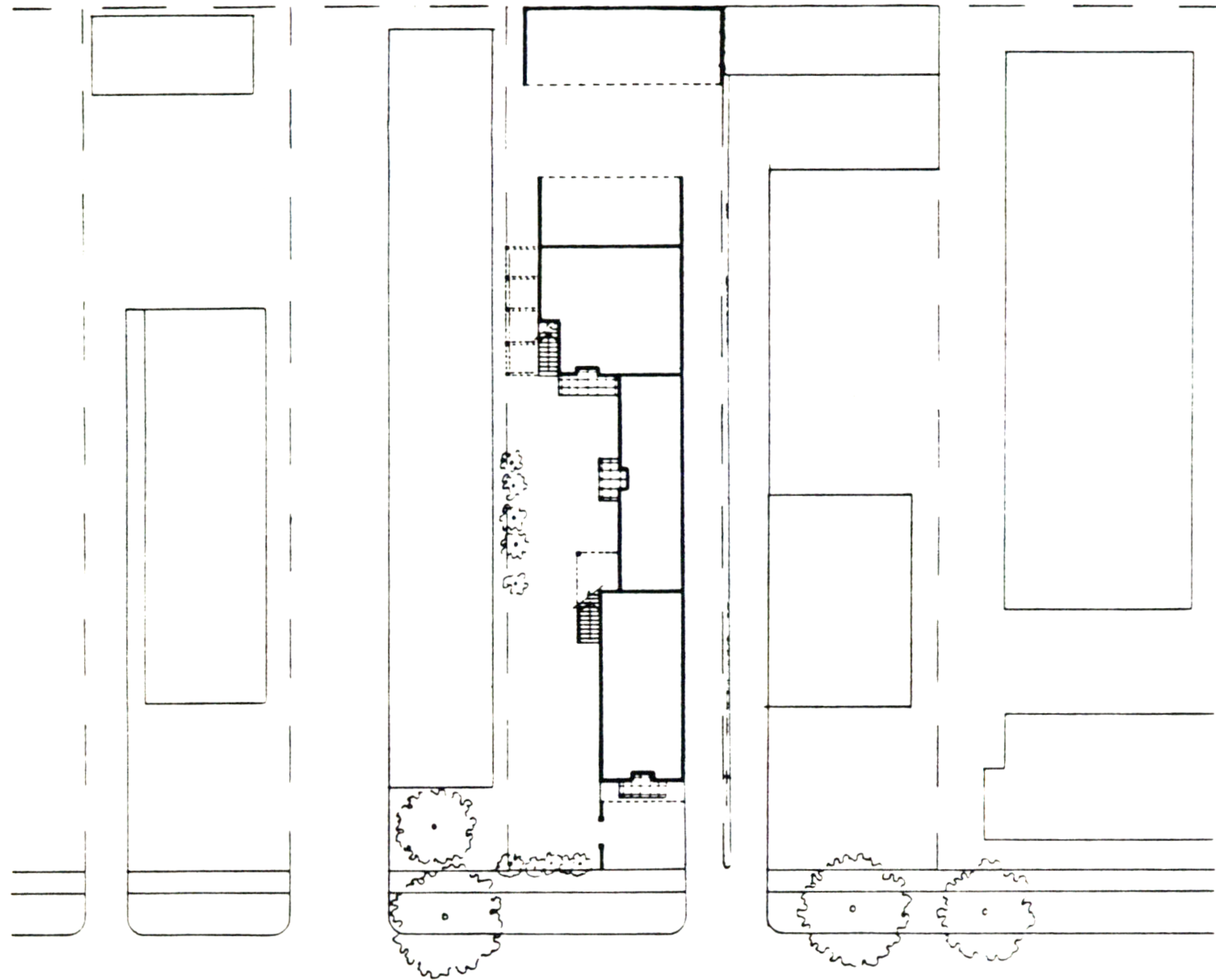
PARKING PLAN



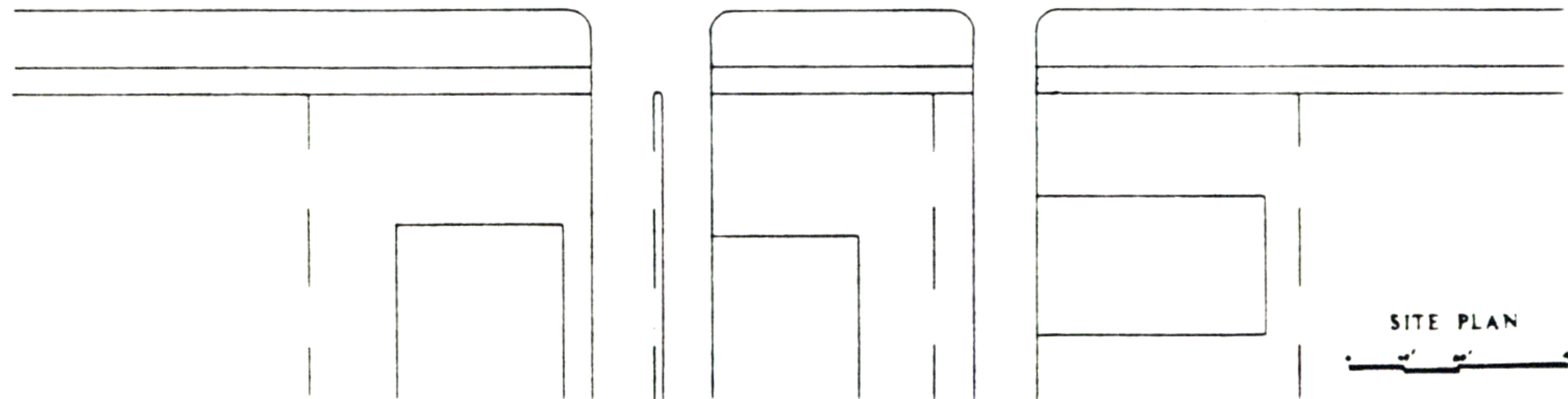
SECOND FLOOR PLAN

RM-32

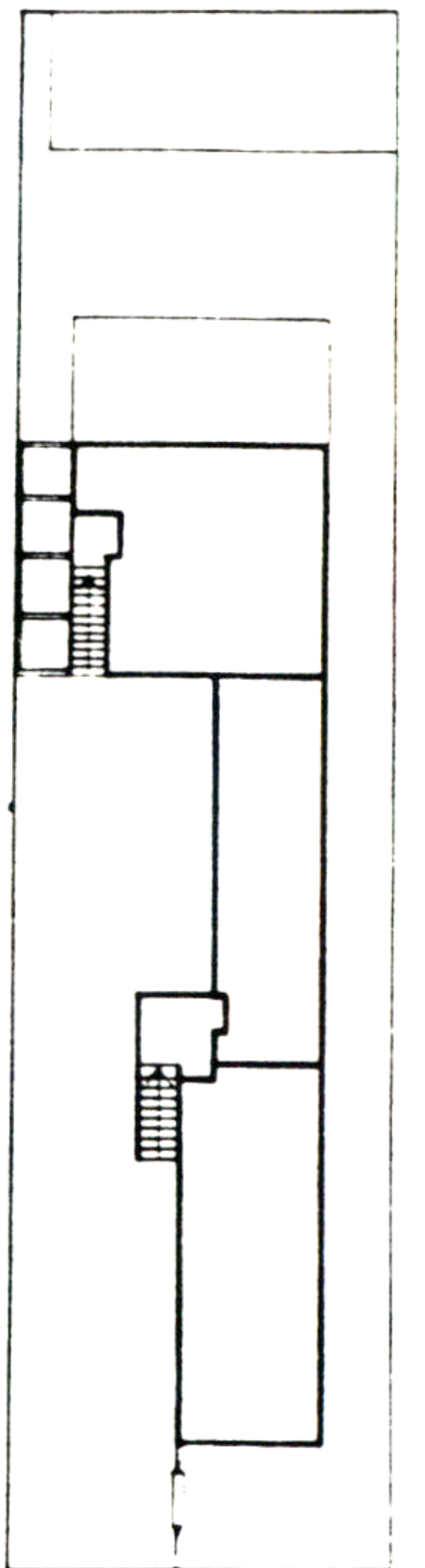
Address:	285 Holliston st.	Number of Units:	6 units
Lot Area (A):	10,250 sf	Number of Parking Spaces:	9 cars
Lot Dimensions:	50'x 205'	Square Feet of Construction:	5,430 sf
Context Density:	7 units/lot	Size of Total Open Space:	3,090 sf
Value of (C):	1	Size of Main Garden:	2,690 sf
Allowed sq.ft:	0.54(C)(A)sf	Parking Type:	surface



PARKING PLAN



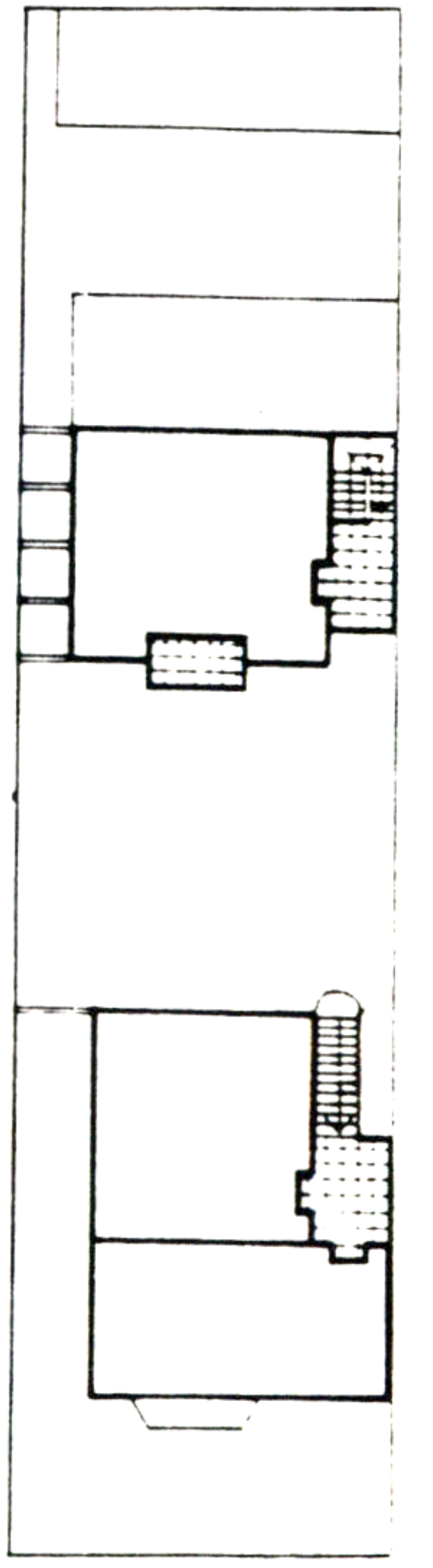
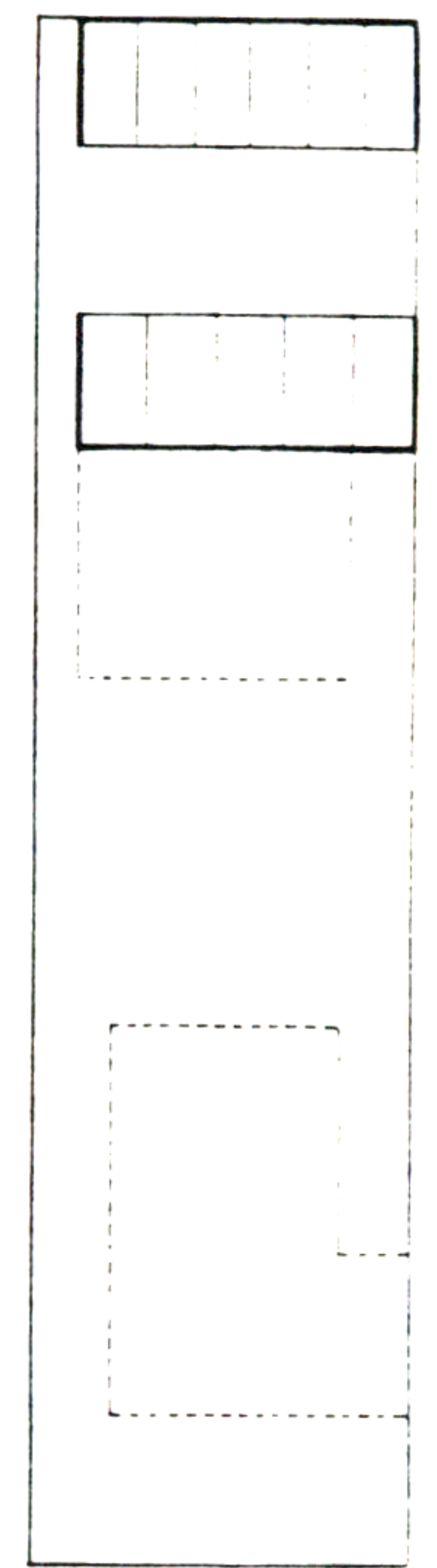
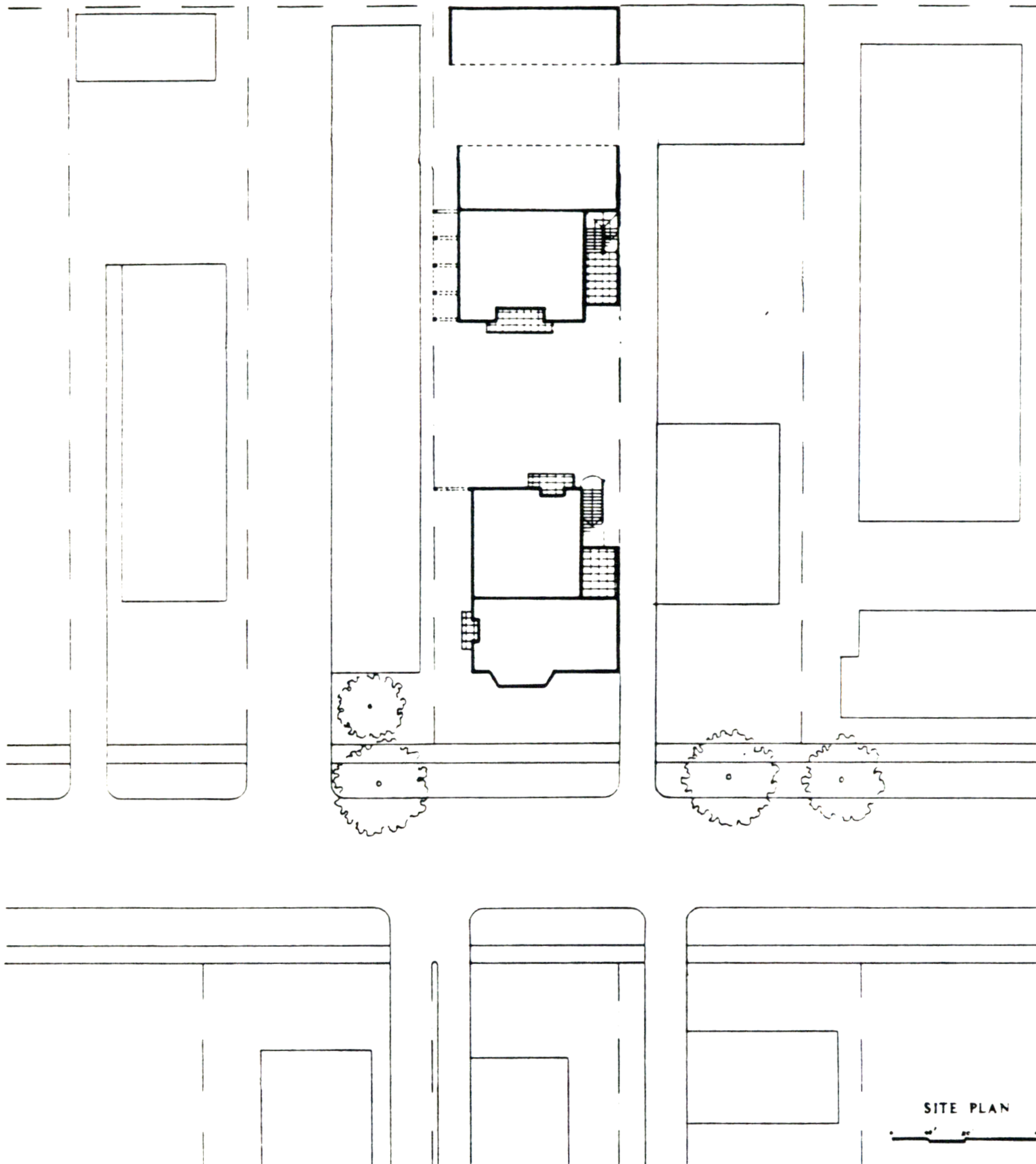
SITE PLAN



SECOND FLOOR PLAN

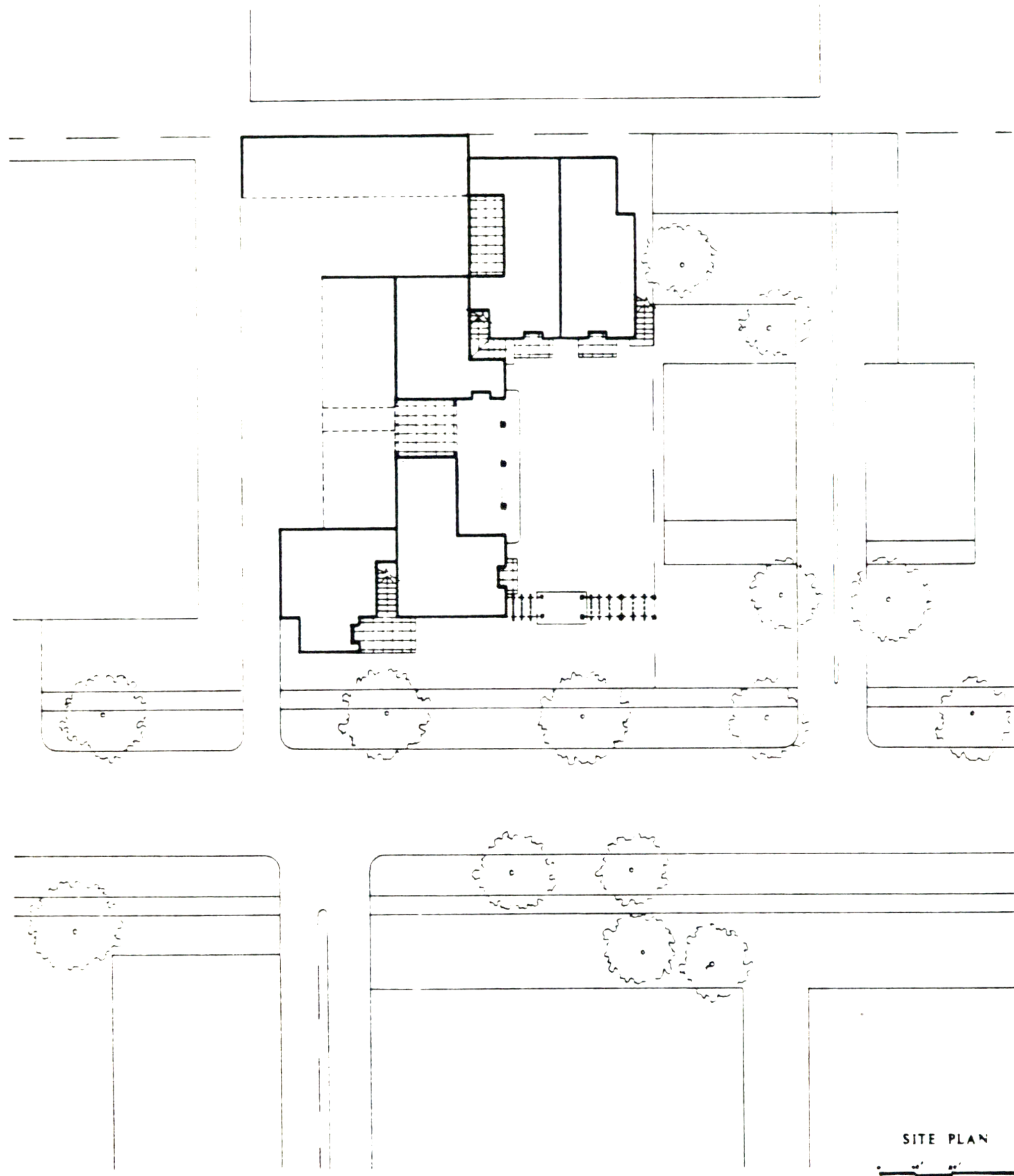
RM-32

Address:	285 Holliston st.	Number of Units:	7 units
Lot Area (A):	10,250 sf	Number of Parking Spaces:	11 cars
Lot Dimensions:	50'x 205'	Square Feet of Construction:	6,560 sf
Context Density:	7 units/lot	Size of Total Open Space:	3,225 sf
Value of (C):	1	Size of Main Garden:	2,300 sf
Allowed sq.ft:	0.64(C)(A)sf	Parking Type:	surface/shared driveway

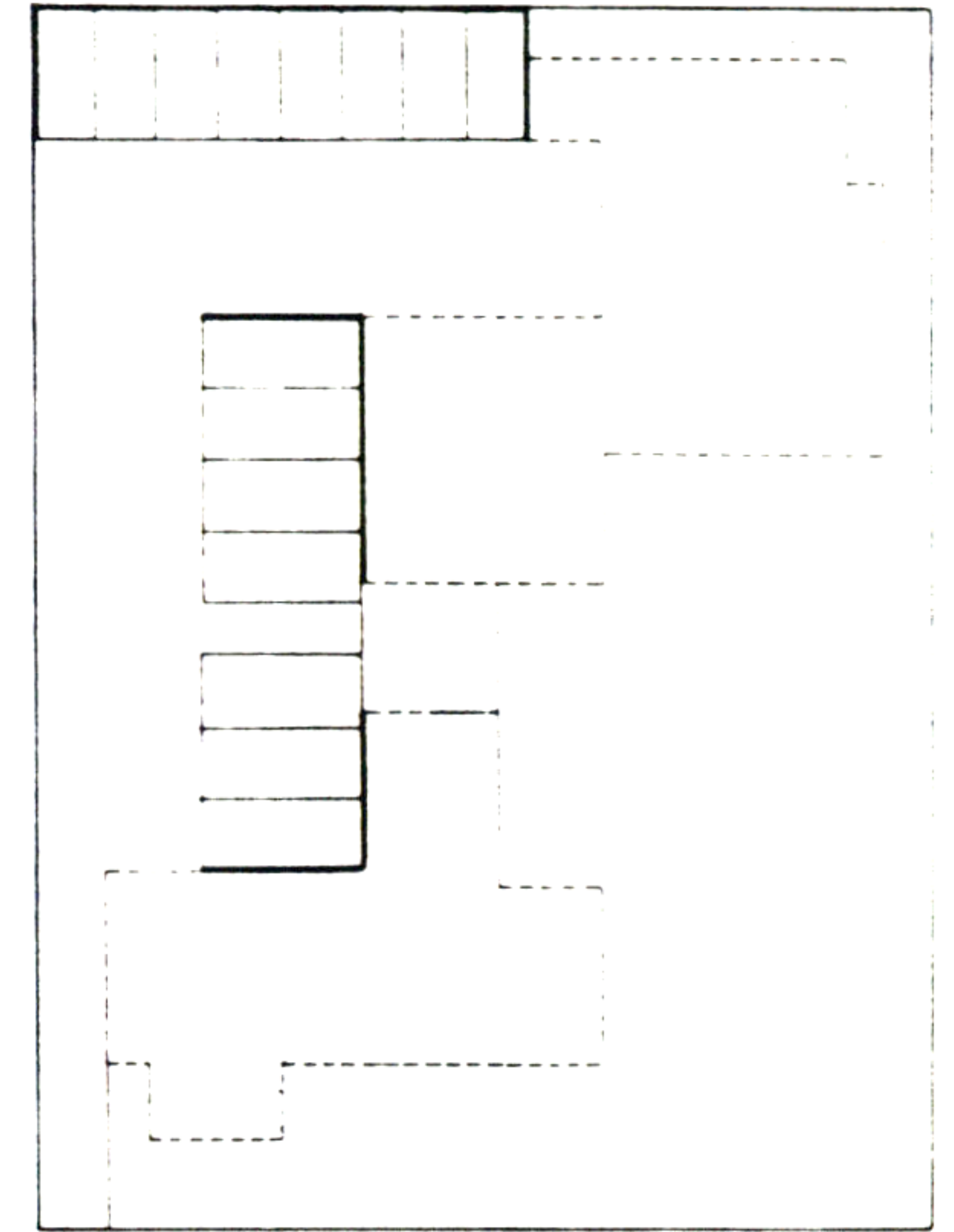


RM-32

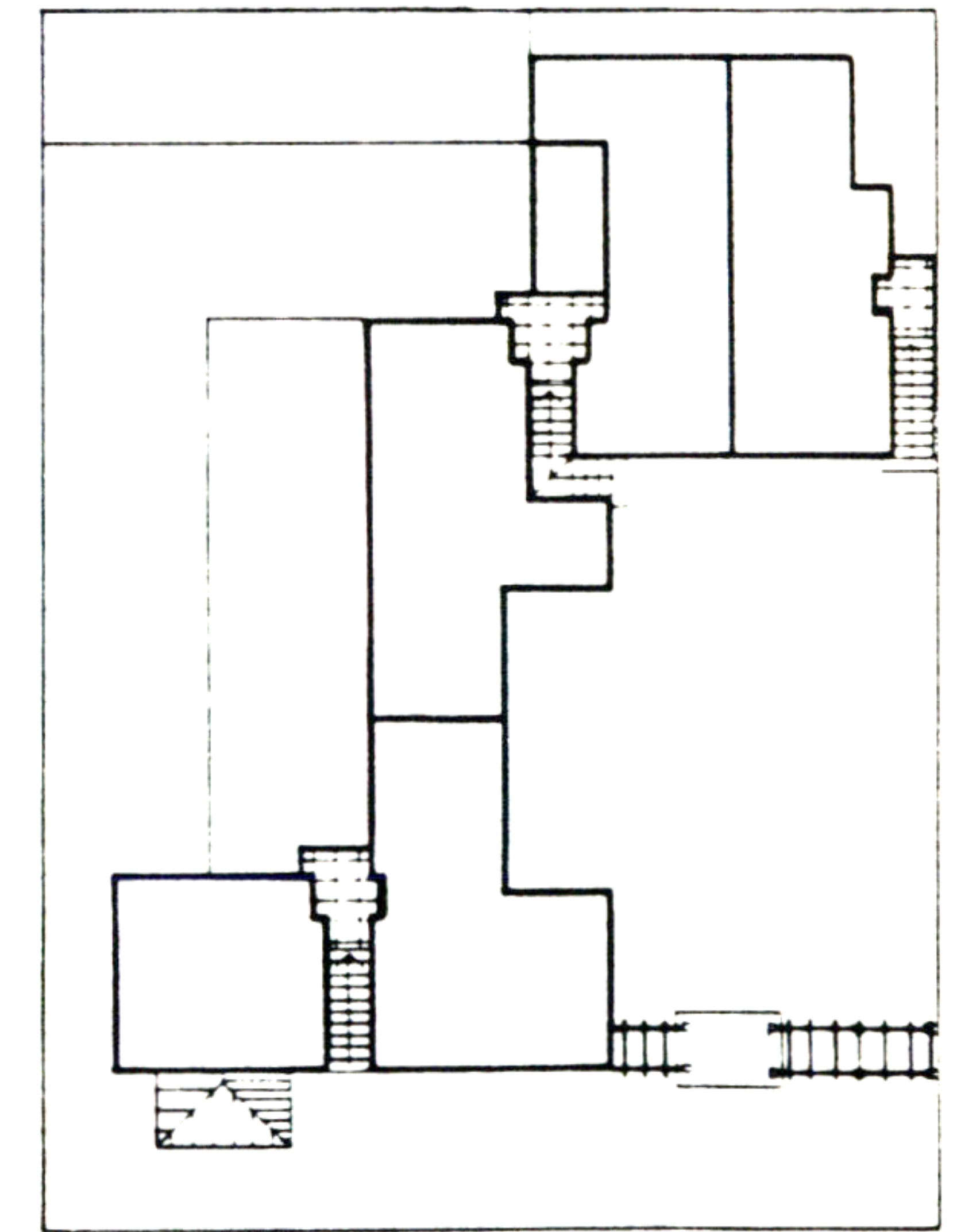
Address:	376/8 S.Oakland st.	Number of Units:	10 units
Lot Area (A):	16,830 sf	Number of Parking Spaces:	15 cars
Lot Dimensions:	110'x 153'	Square Feet of Construction:	9,800 sf
Context Density:	9 units/lot	Size of Total Open Space:	5,374 sf
Value of (C):	1	Size of Main Garden:	3,574 sf
Allowed sq.ft:	0.58(C)(A)sf	Parking Type:	surface



SITE PLAN



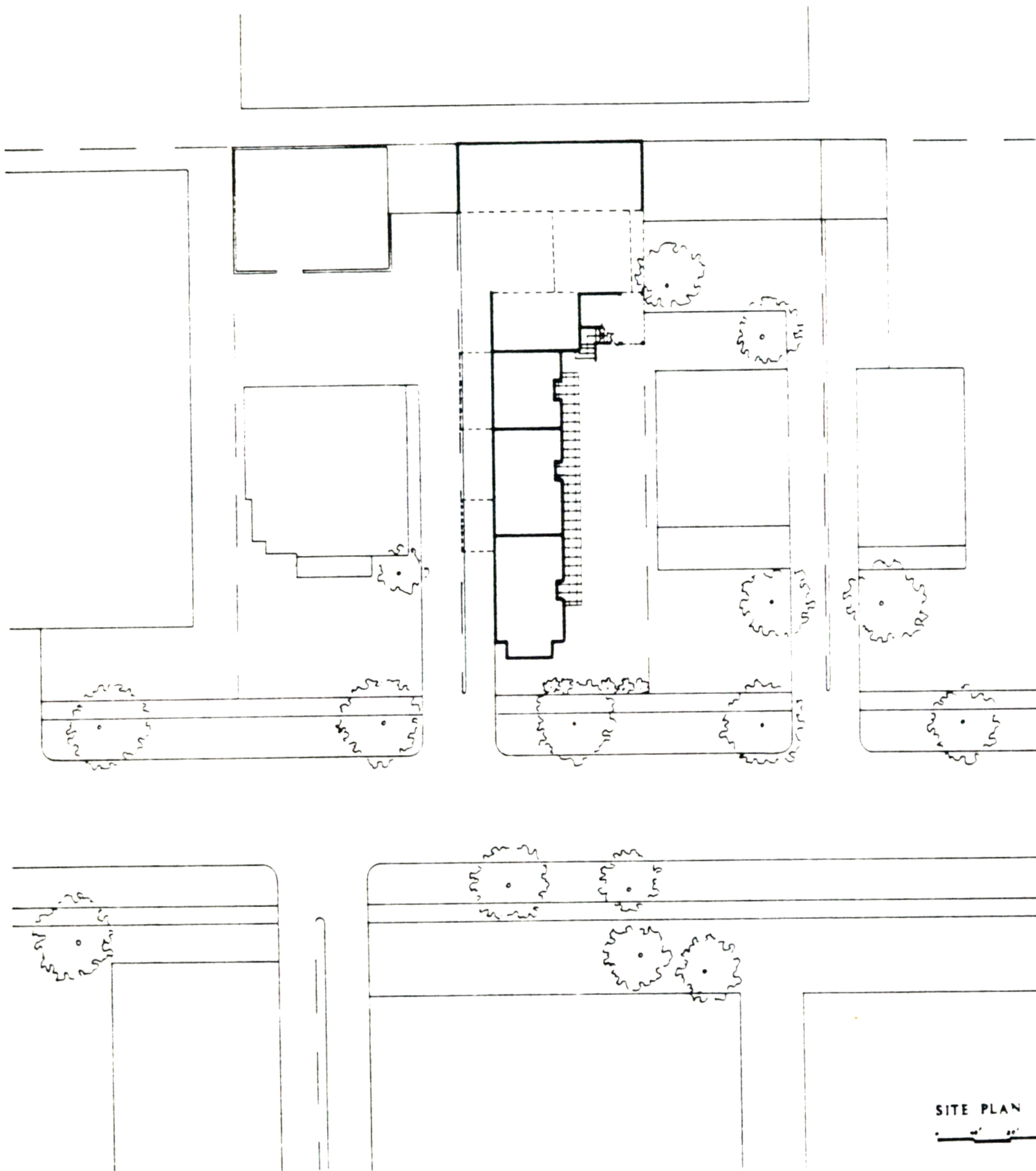
PARKING PLAN



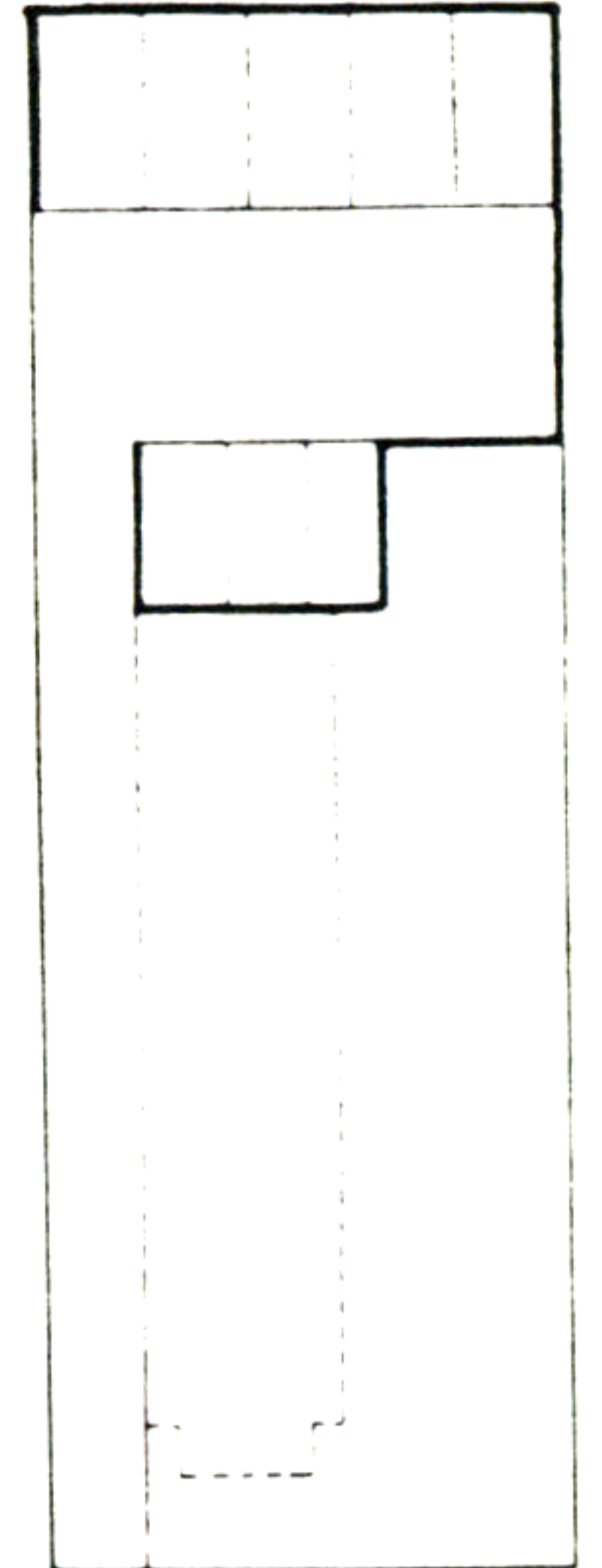
SECOND FLOOR PLAN

RM-32

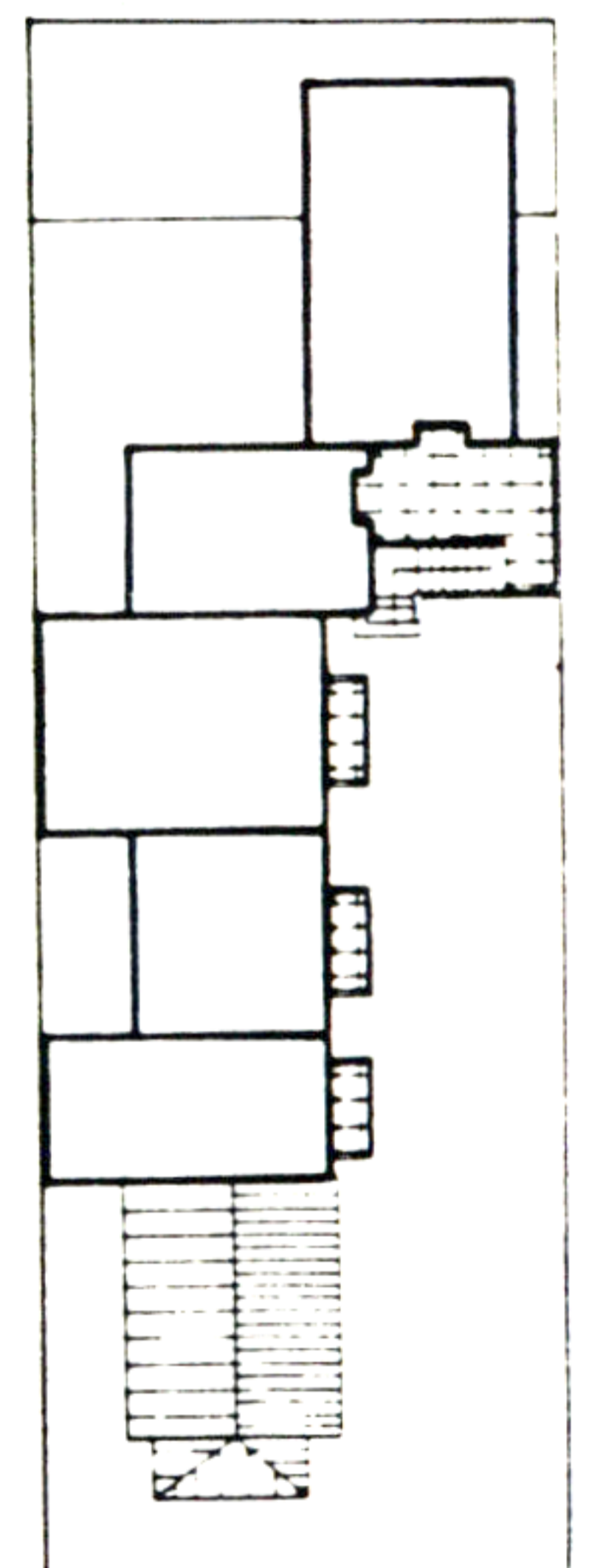
Address:	376 S.Oakland st.	Number of Units:	5 units
Lot Area (A):	7,650 sf	Number of Parking Spaces:	8 cars
Lot Dimensions:	50'x 153'	Square Feet of Construction:	4,566 sf
Context Density:	9 units/lot	Size of Total Open Space:	2,680 sf
Value of (C):	1	Size of Main Garden:	2,080 sf
Allowed sq.ft:	0.60(C)(A)sf	Parking Type:	with dwellings above



SITE PLAN



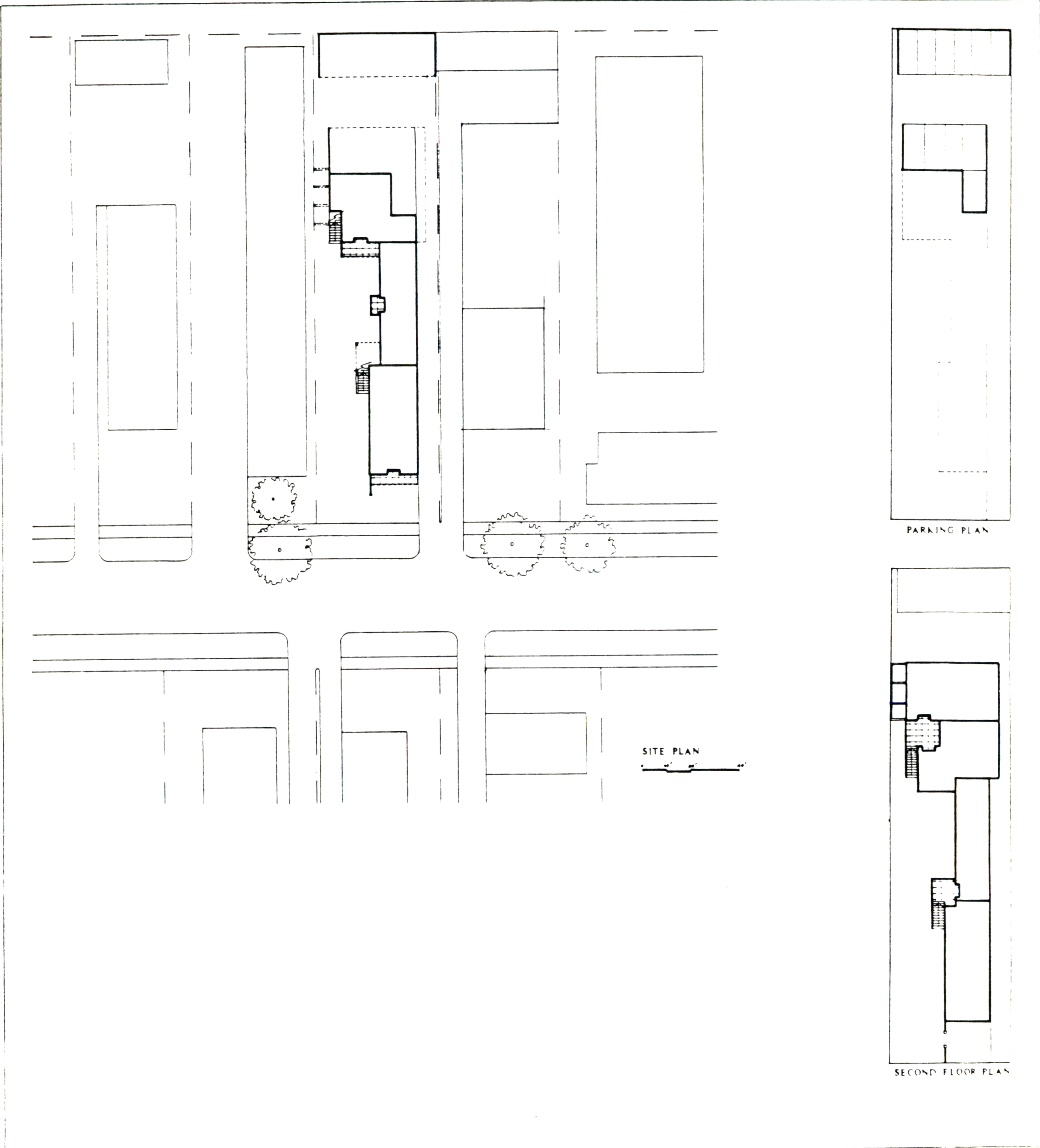
PARKING PLAN



SECOND FLOOR PLAN

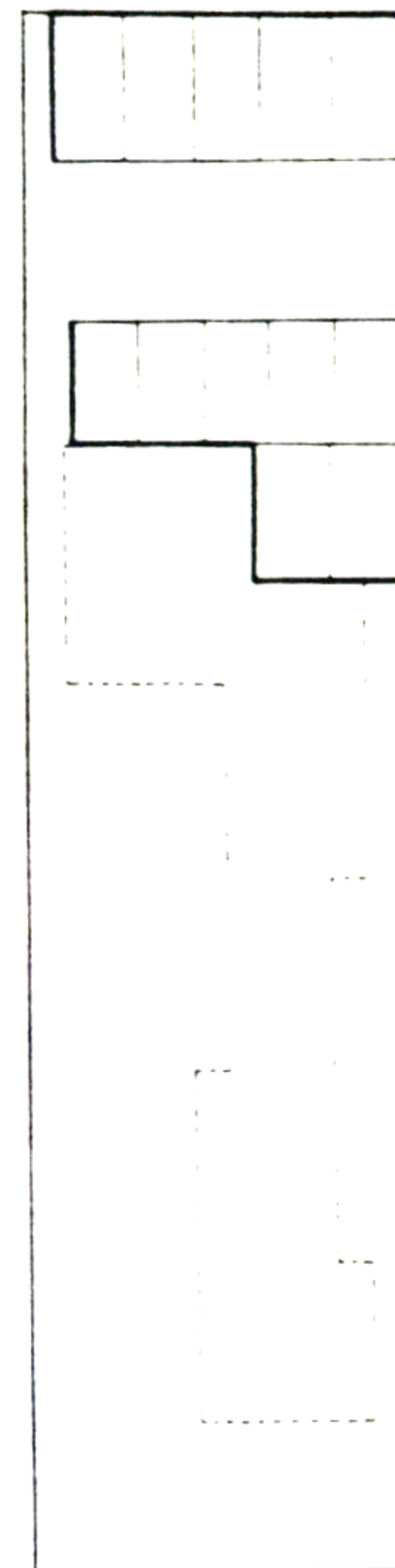
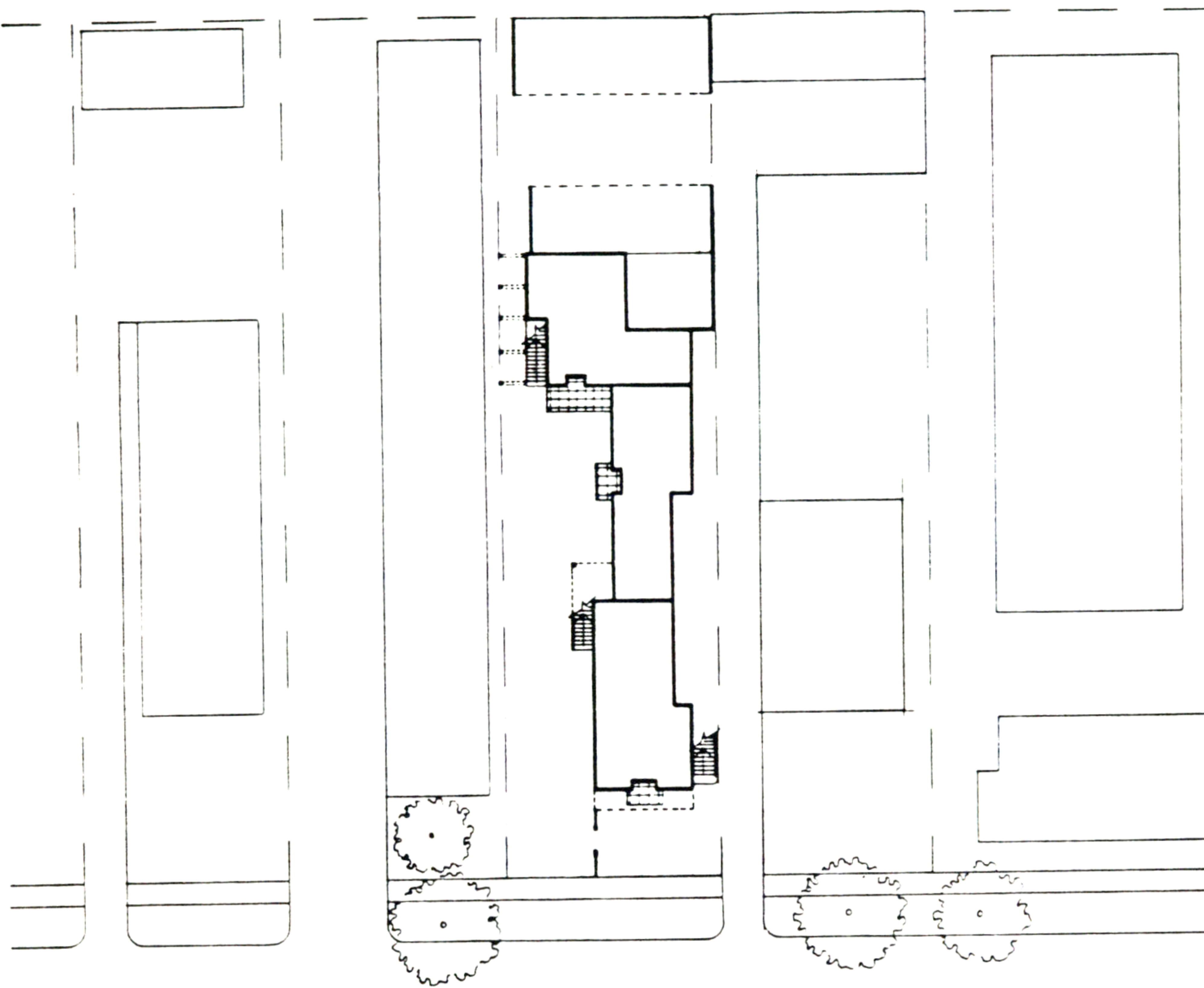
RM-32

Address:	285 Holliston st.	Number of Units:	7 units
Lot Area (A):	10,250 sf	Number of Parking Spaces:	11 cars
Lot Dimensions:	50'x 205'	Square Feet of Construction:	6,300 sf
Context Density:	7 units/lot	Size of Total Open Space:	3,090 sf
Value of (C):	1	Size of Main Garden:	2,690 sf
Allowed sq.ft:	0.65(C)(A)sf	Parking Type:	with dwellings above

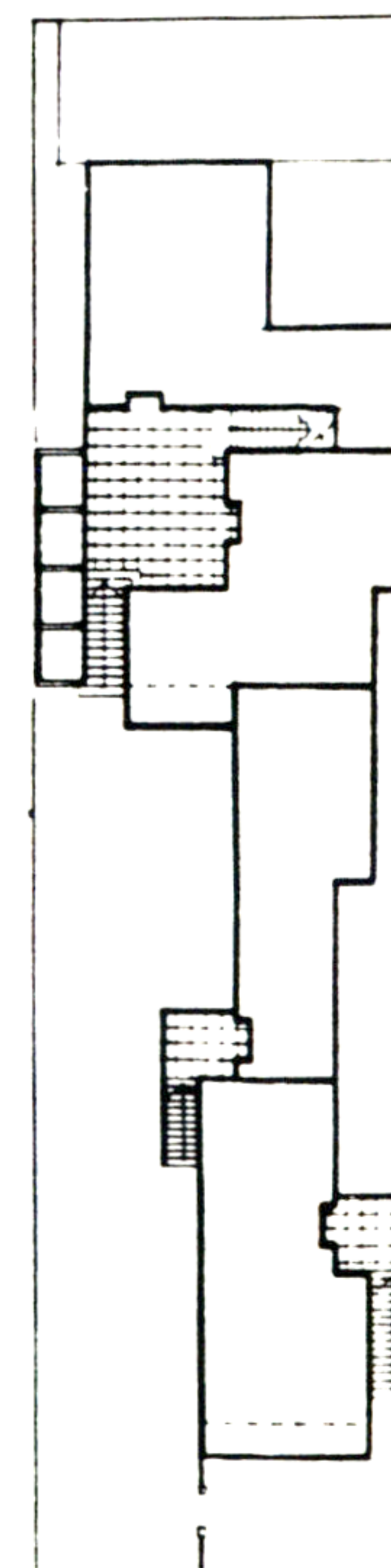
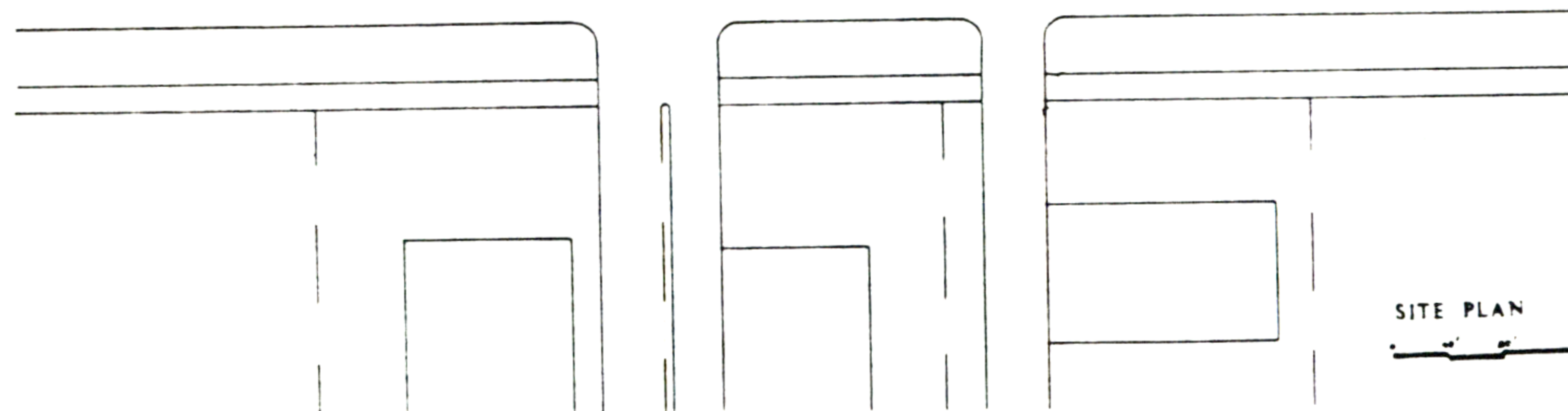


RM-32

Address:	285 Holliston st.	Number of Units:	8 units
Lot Area (A):	10,250 sf	Number of Parking Spaces:	12 cars
Lot Dimensions:	50'x 205'	Square Feet of Construction:	7,607 sf
Context Density:	7 units/lot	Size of Total Open Space:	3,270 sf
Value of (C):	1	Size of Main Garden:	2,690 sf
Allowed sq.ft:	$0.75(C)(A)$ sf	Parking Type:	w/dwellings above/shared



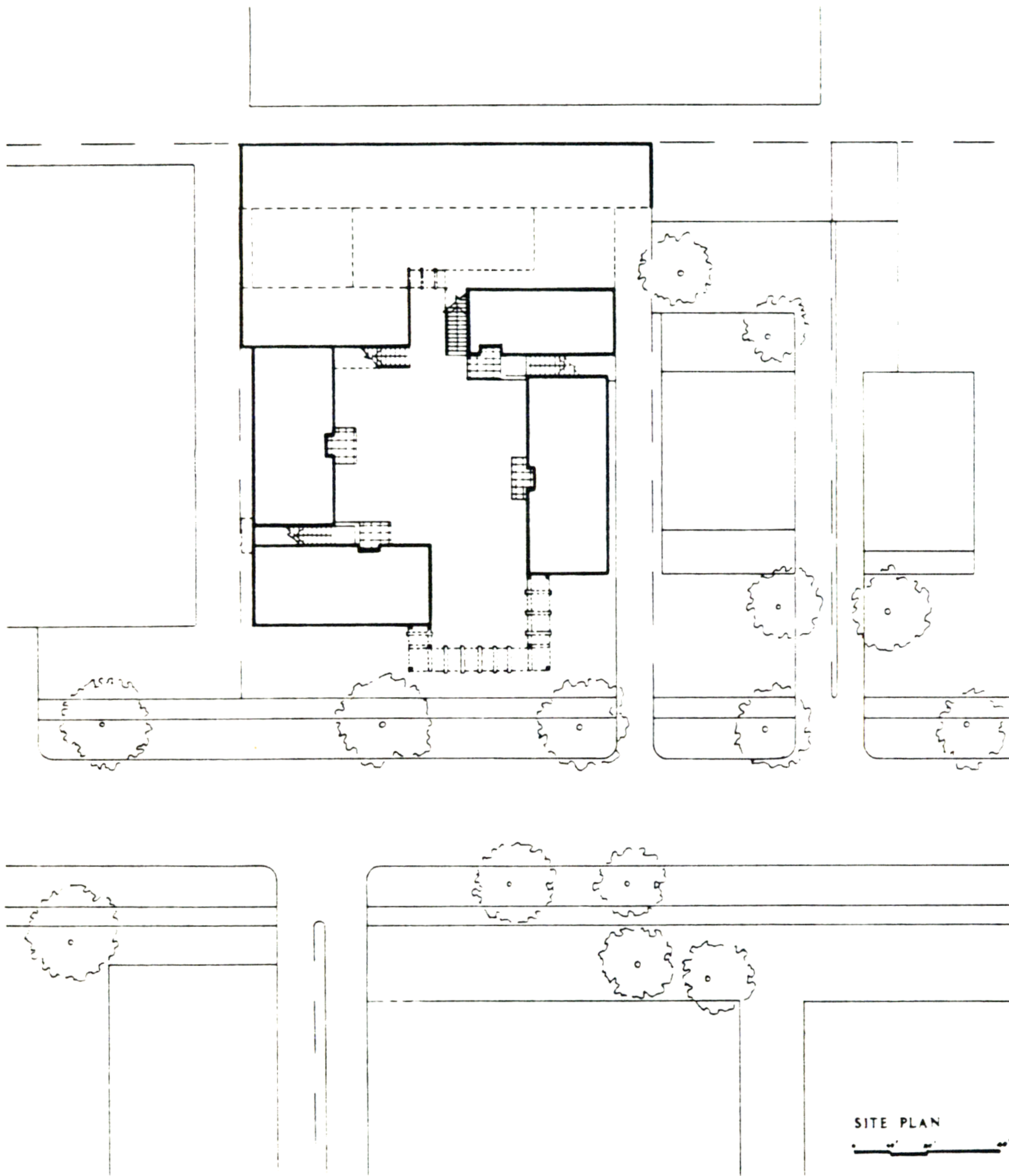
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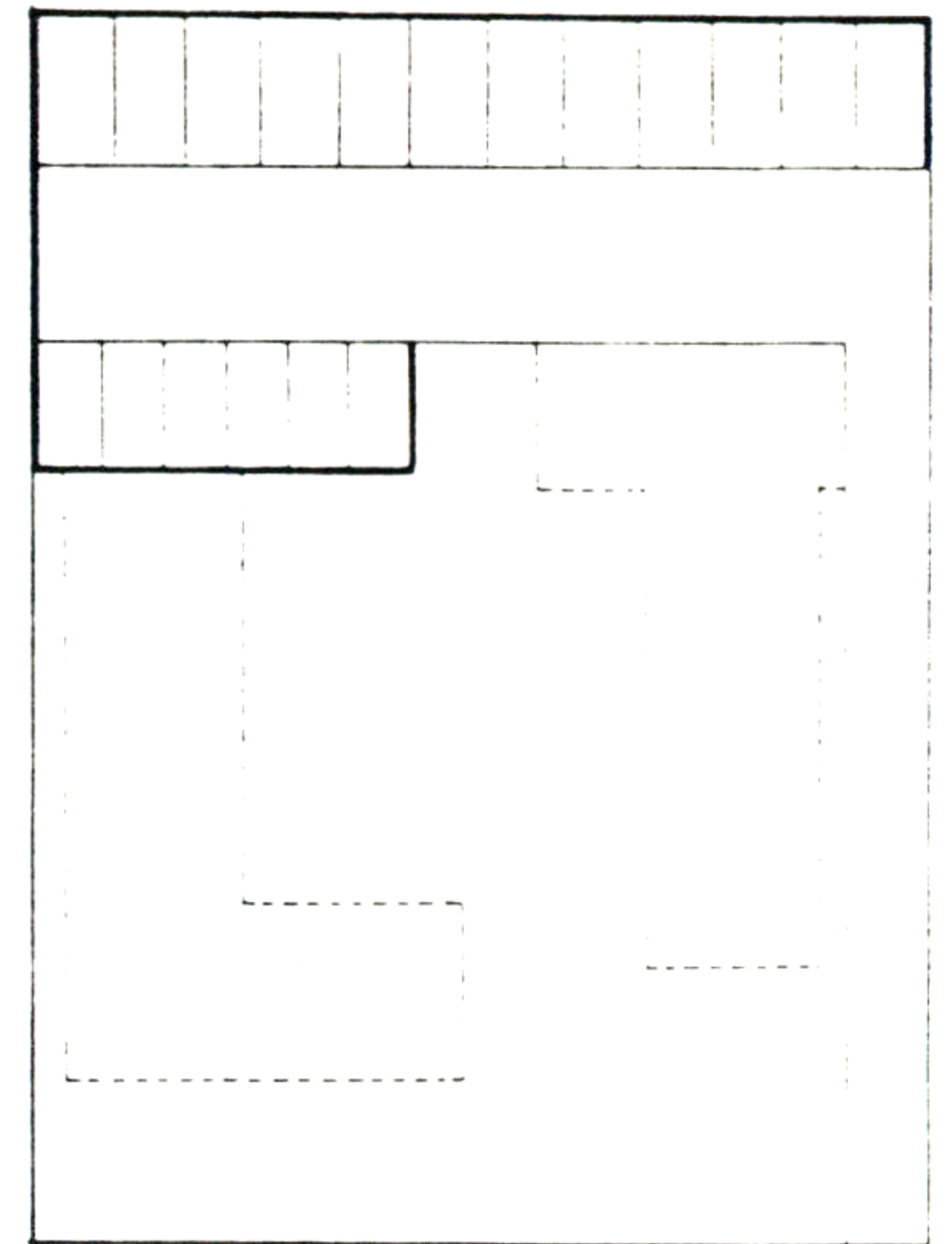
SECOND FLOOR PLAN

RM-32

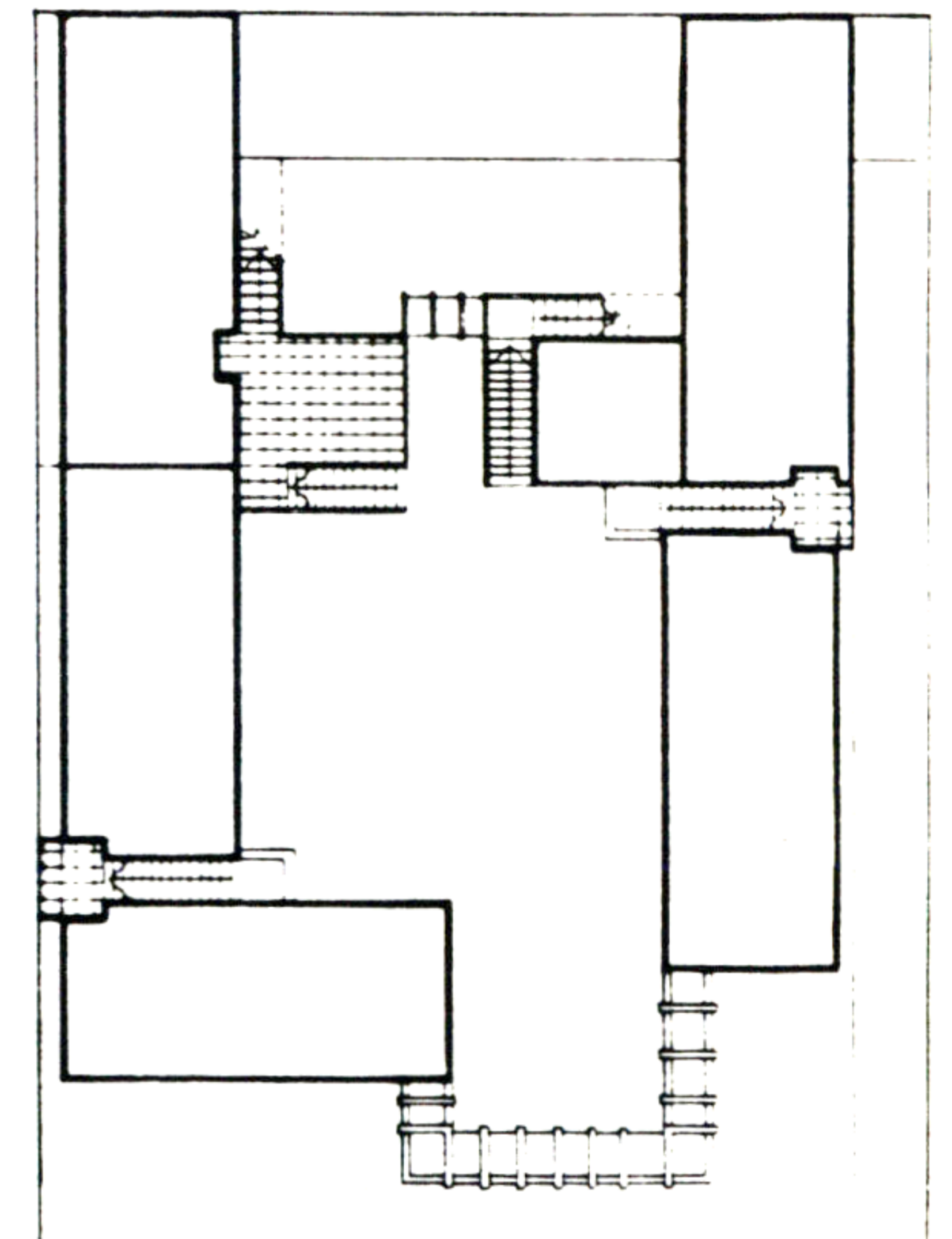
Address:	376/8 S.Oakland st.	Number of Units:	12 units
Lot Area (A):	16,830 sf	Number of Parking Spaces:	18 cars
Lot Dimensions:	110'x 153'	Square Feet of Construction:	12,500 sf
Context Density:	9 units/lot	Size of Total Open Space:	5,300 sf
Value of (C):	1	Size of Main Garden:	3,500 sf
Allowed sq.ft:	0.74(C)(A)sf	Parking Type:	with dwellings above



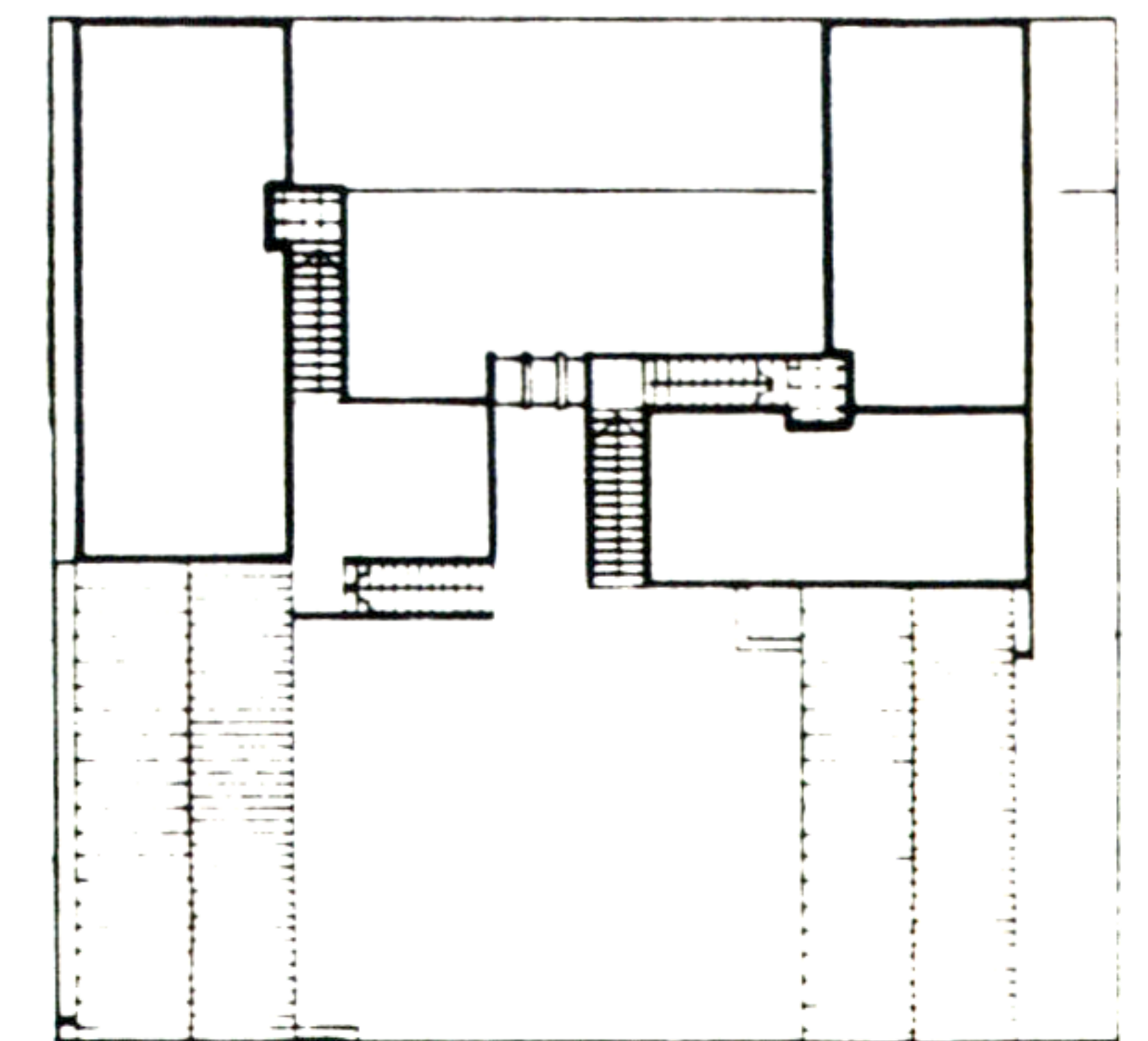
SITE PLAN



PARKING PLAN



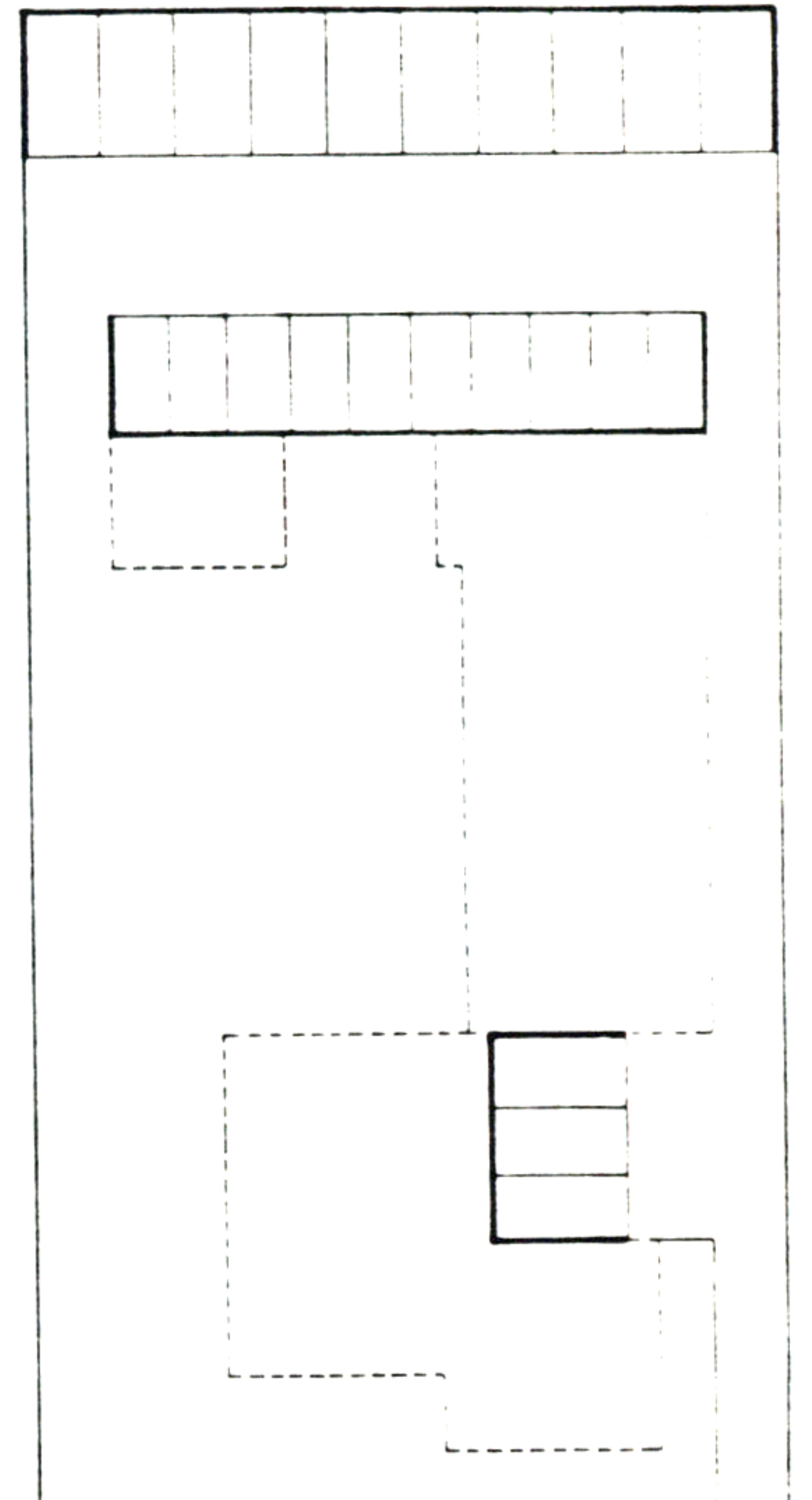
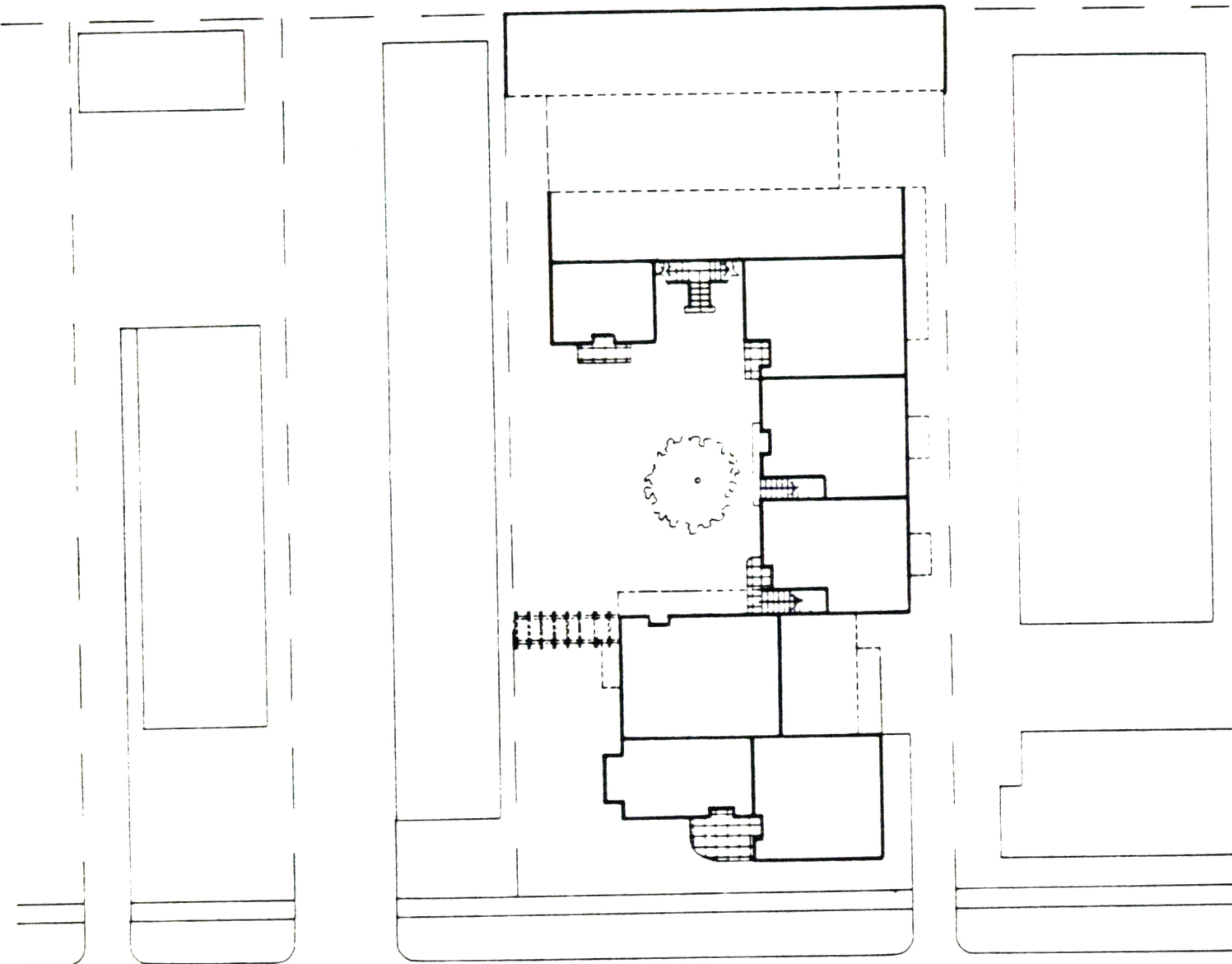
SECOND FLOOR PLAN



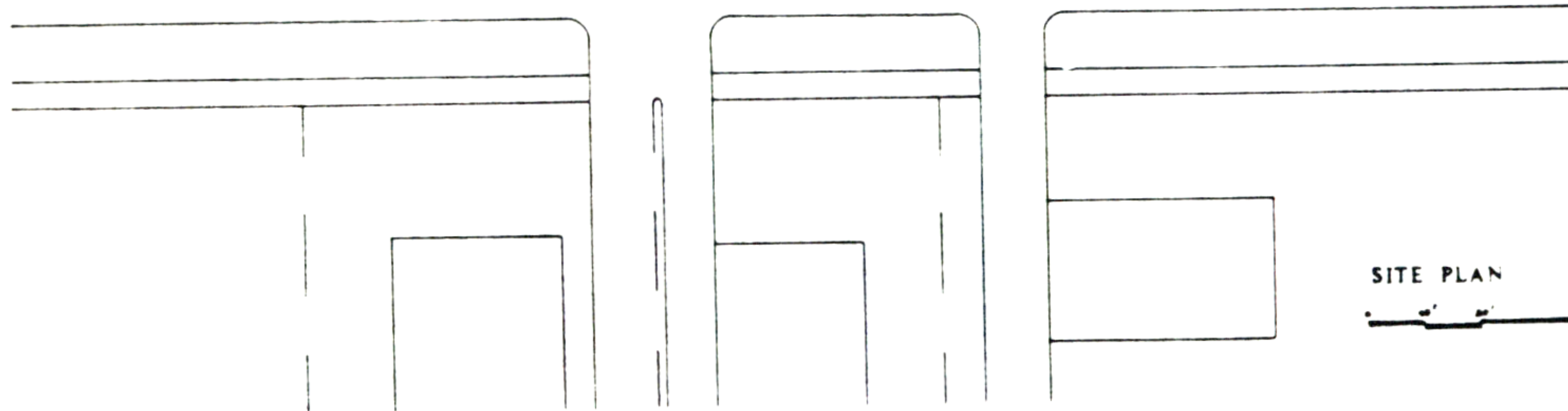
THIRD FLOOR PLAN

RM-32

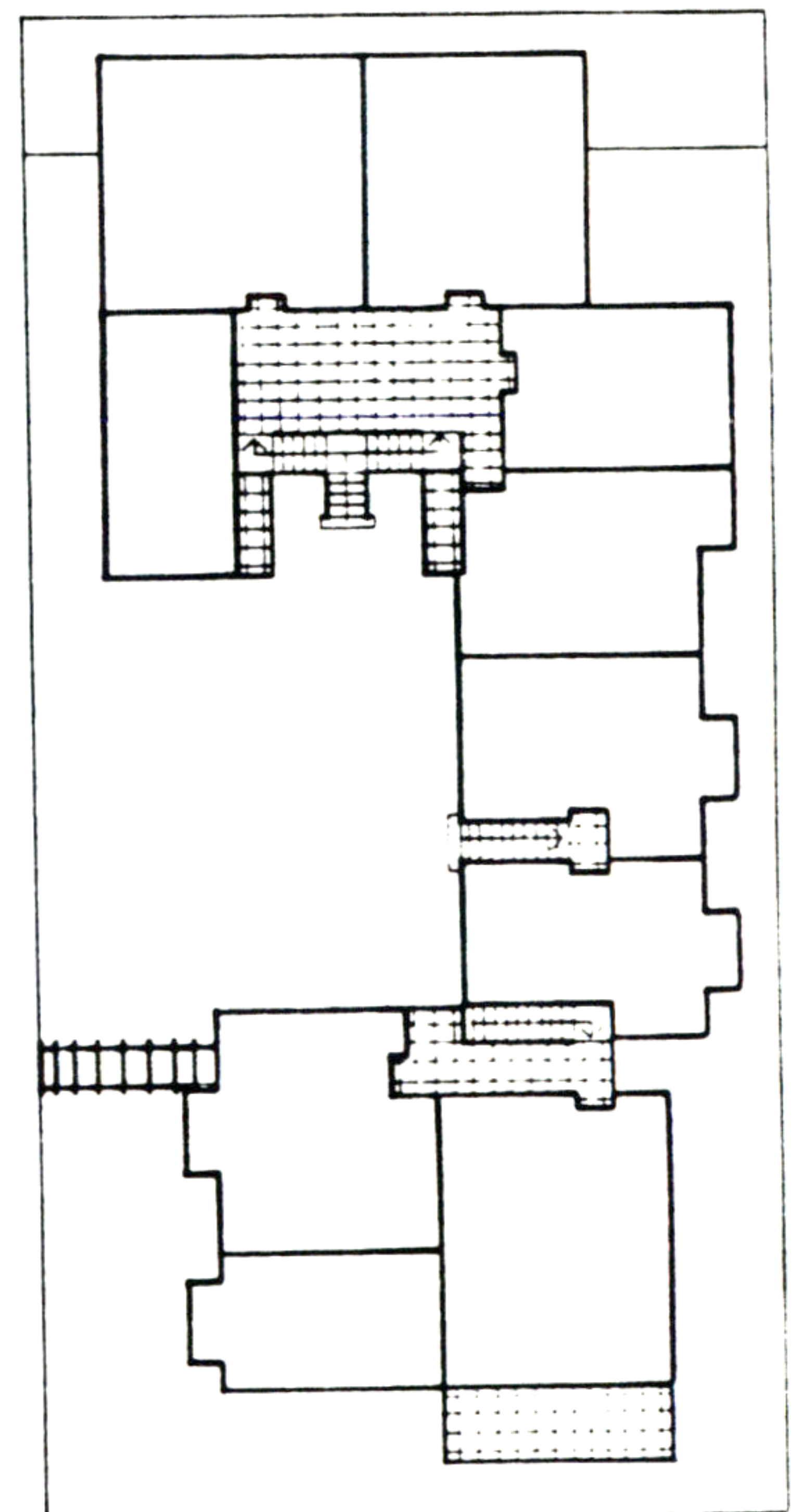
Address:	285/7 Holliston st.	Number of Units:	15 units
Lot Area (A):	20,550 sf	Number of Parking Spaces:	23 cars
Lot Dimensions:	100'x 205'	Square Feet of Construction:	15,053 sf
Context Density:	7 units/lot	Size of Total Open Space:	5,538 sf
Value of (C):	1	Size of Main Garden:	3,500 sf
Allowed sq.ft:	0.74(C)(A)sf	Parking Type:	with dwellings above



PARKING PLAN



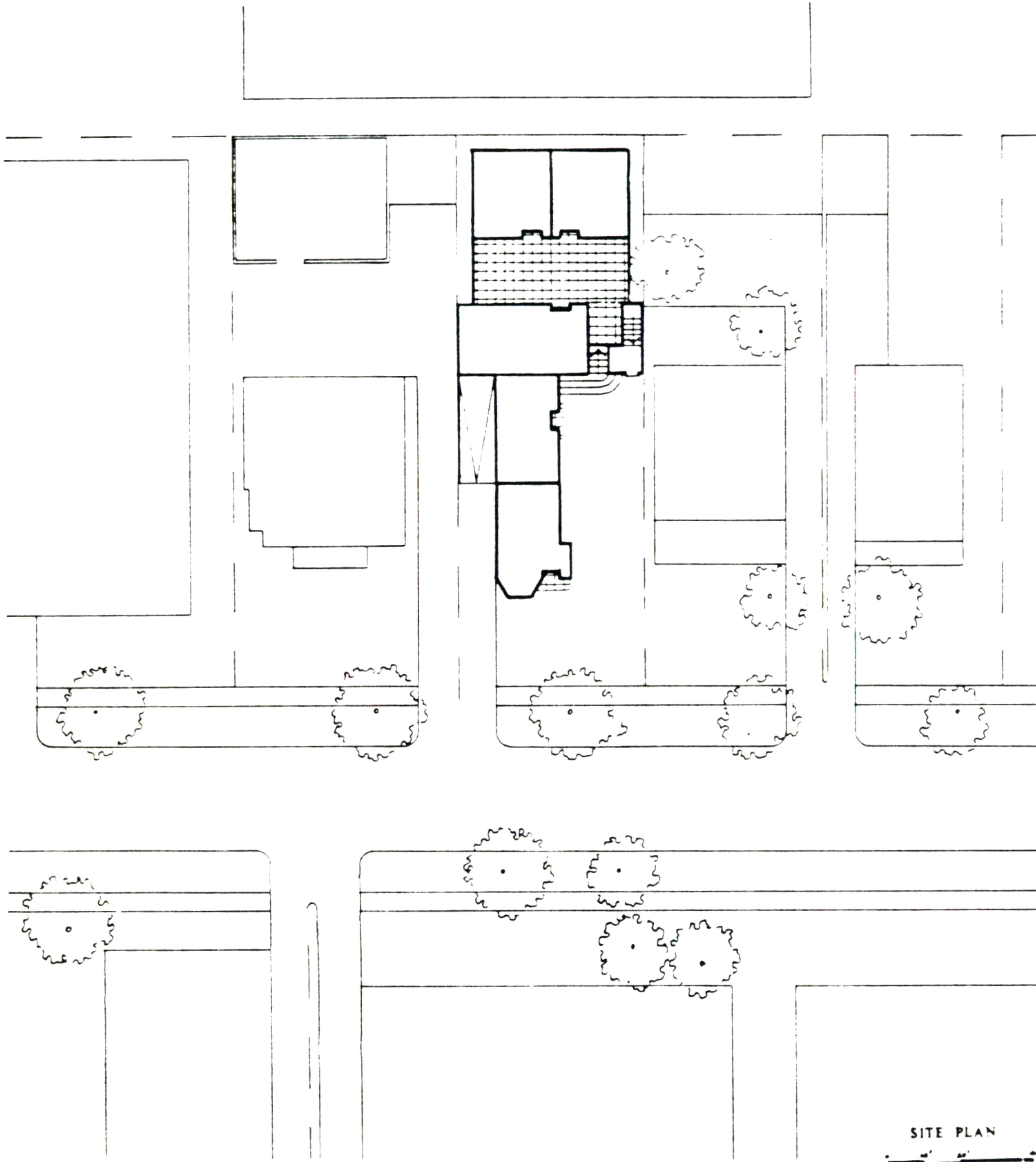
SITE PLAN



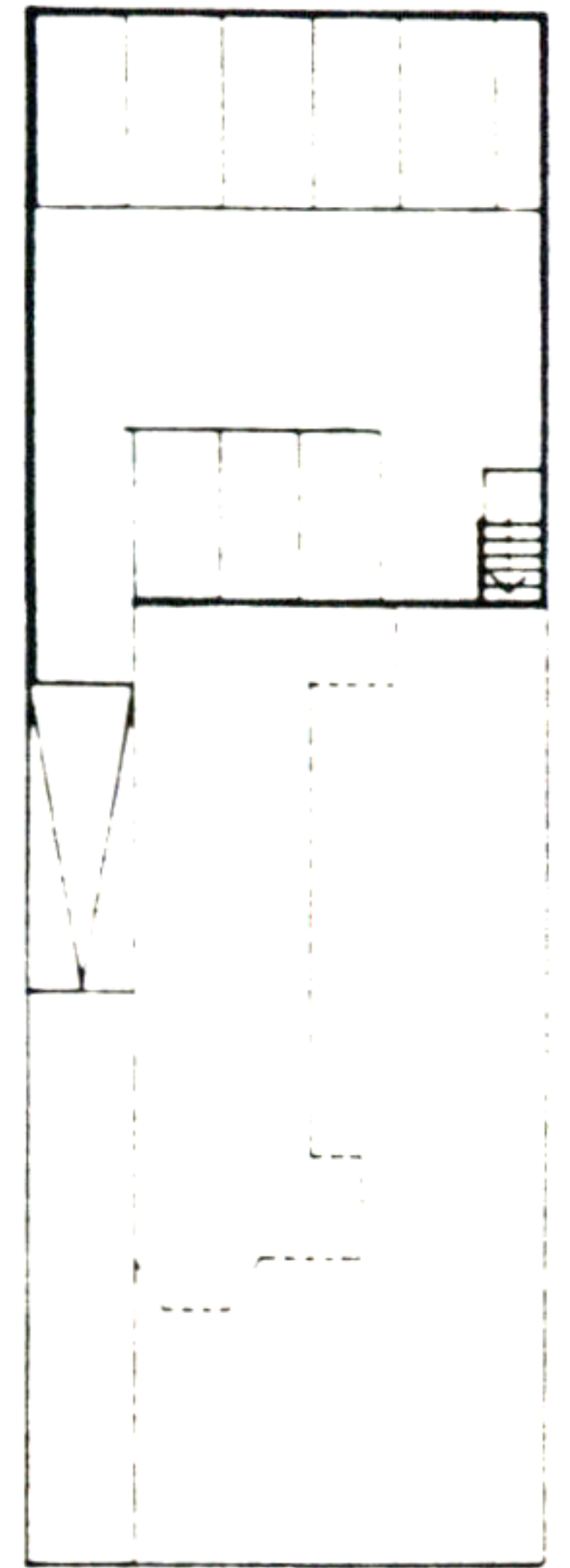
SECOND FLOOR PLAN

RM-32

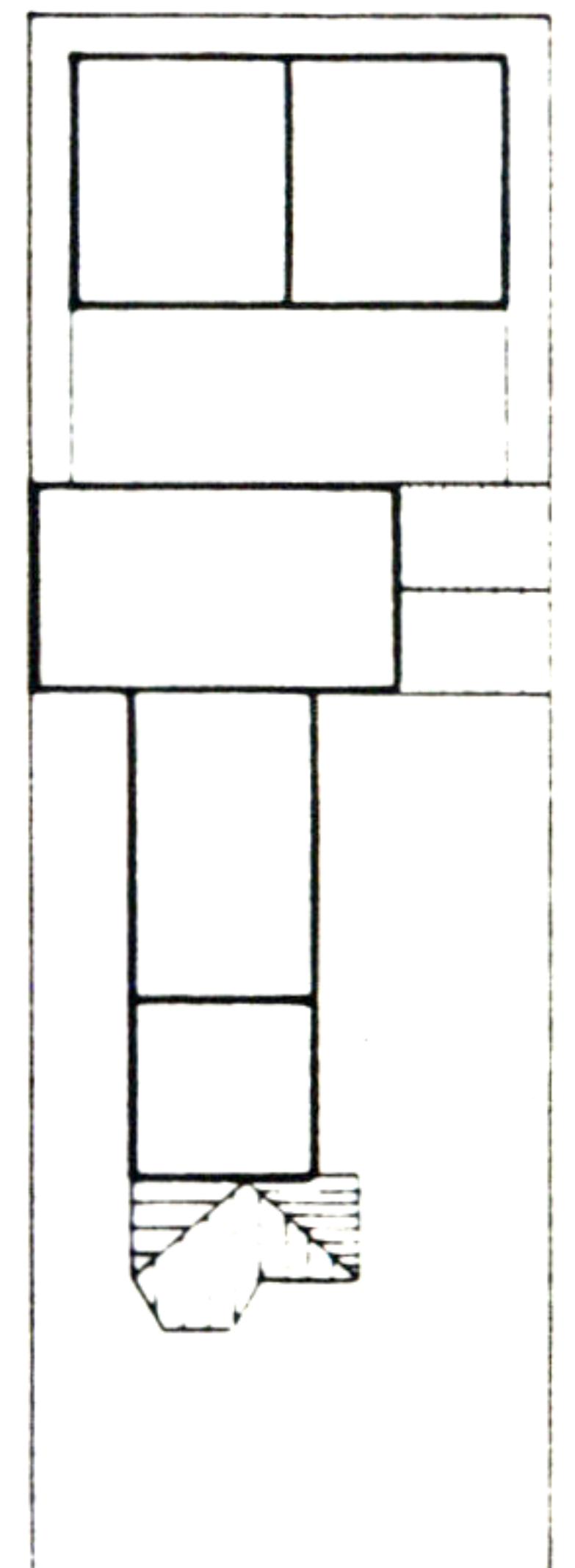
Address:	376 S.Oakland st.	Number of Units:	5 units
Lot Area (A):	7,650 sf	Number of Parking Spaces:	8 cars
Lot Dimensions:	50'x 153'	Square Feet of Construction:	5,430 sf
Context Density:	9 units/lot	Size of Total Open Space:	2,680 sf
Value of (C):	1	Size of Main Garden:	2,080 sf
Allowed sq.ft:	0.71(C)(A)sf	Parking Type:	naturally ventilated



SITE PLAN



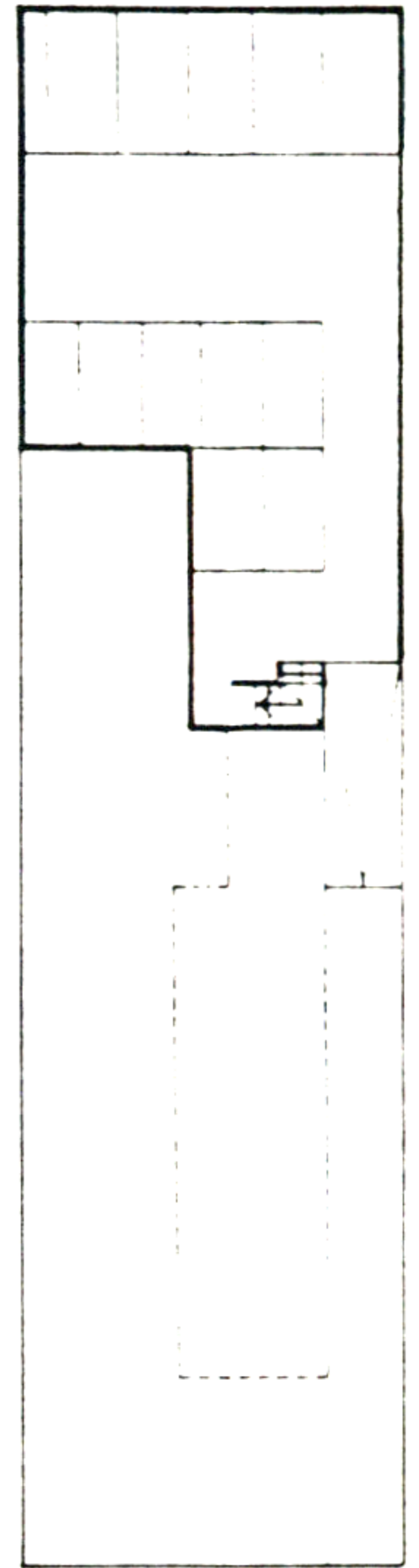
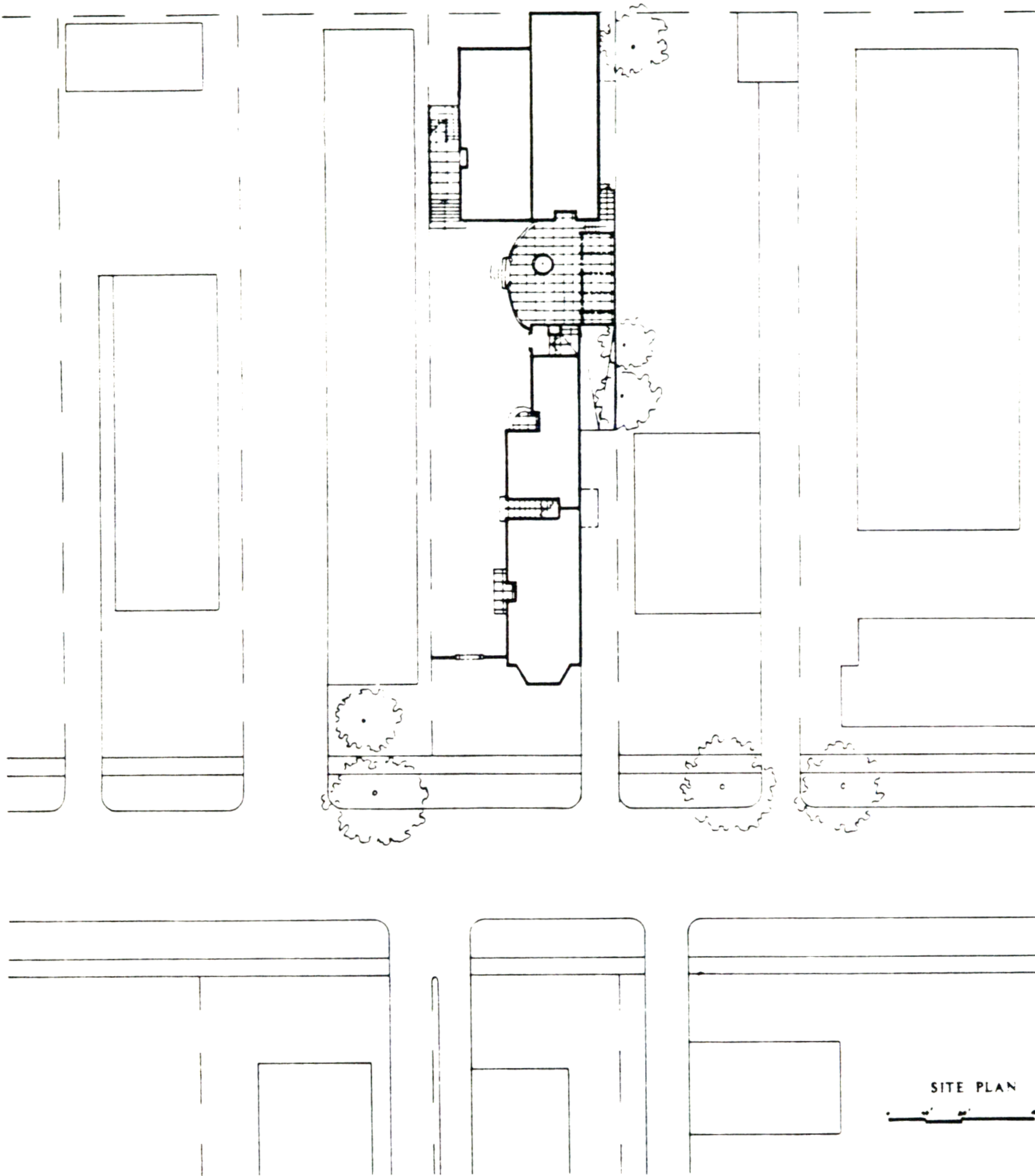
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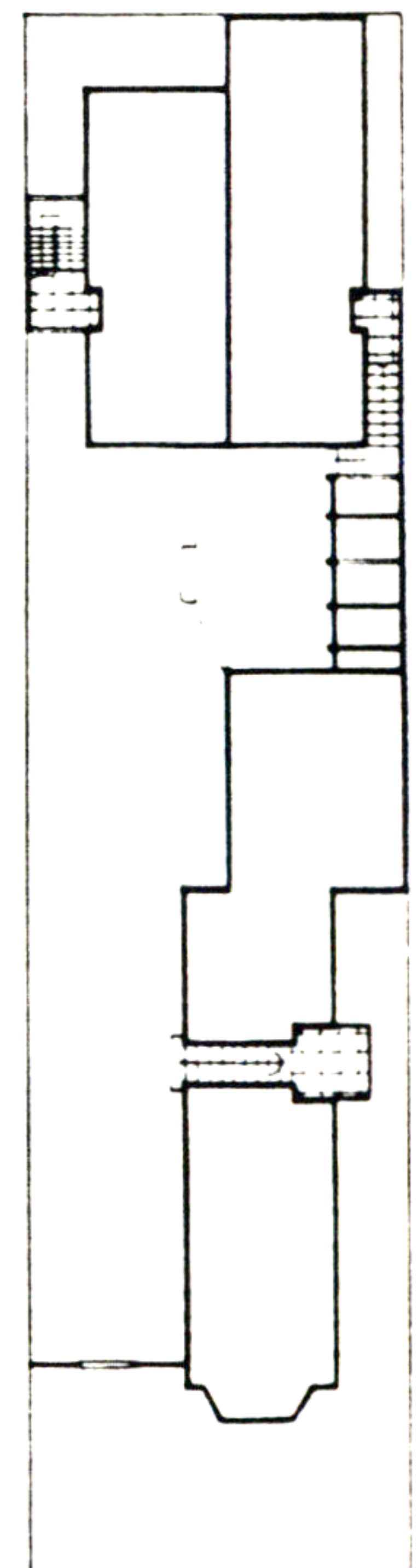
SECOND FLOOR PLAN

RM-32

Address:	285 Holliston st.	Number of Units:	8 units
Lot Area (A):	10,250 sf	Number of Parking Spaces:	12 cars
Lot Dimensions:	50'x 205'	Square Feet of Construction:	7,700 sf
Context Density:	7 units/lot	Size of Total Open Space:	3,700 sf
Value of (C):	1	Size of Main Garden:	2,900 sf
Allowed sq.ft:	$0.76(C)(A)$ sf	Parking Type:	naturally ventilated



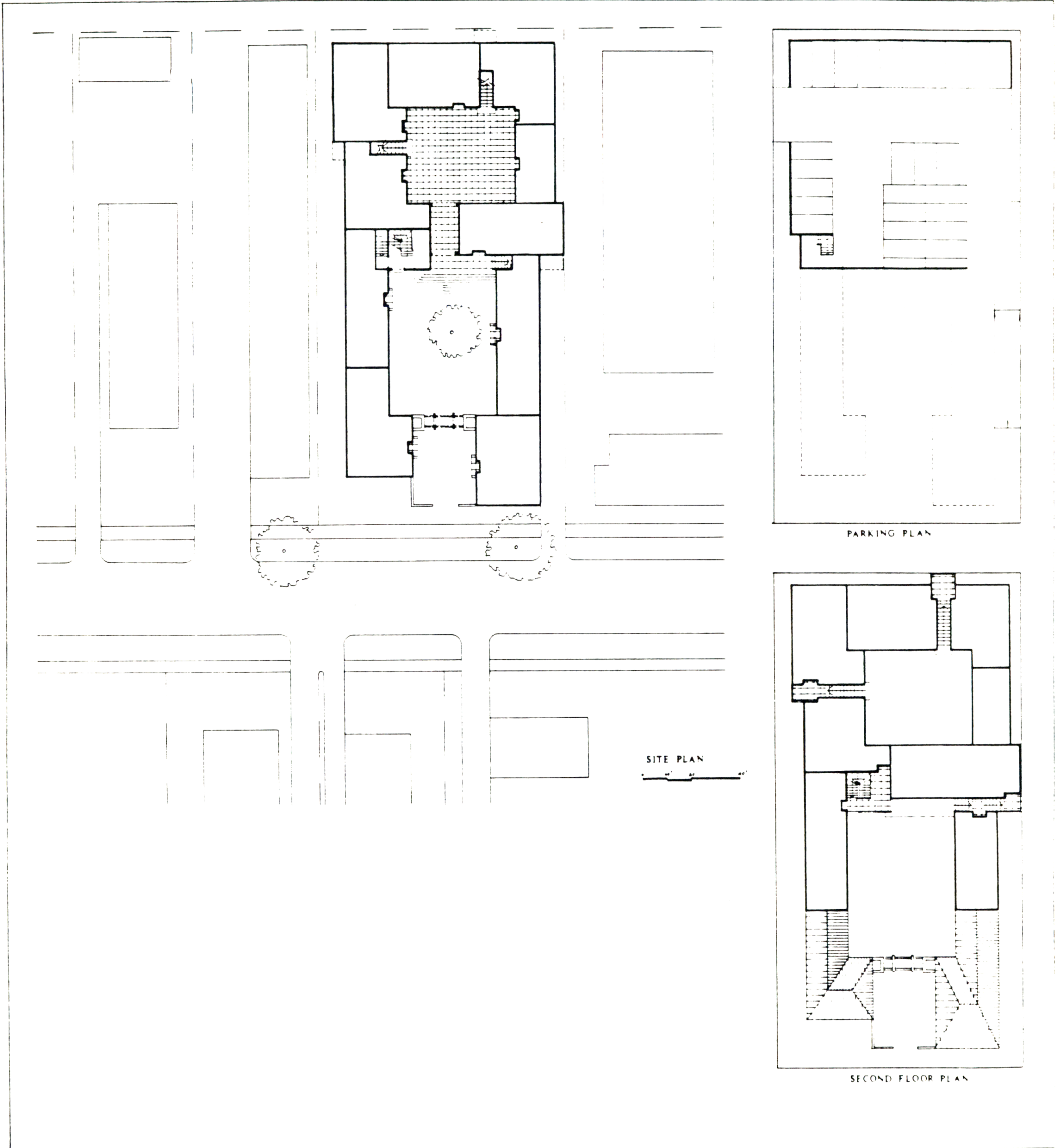
PARKING PLAN



SECOND FLOOR PLAN

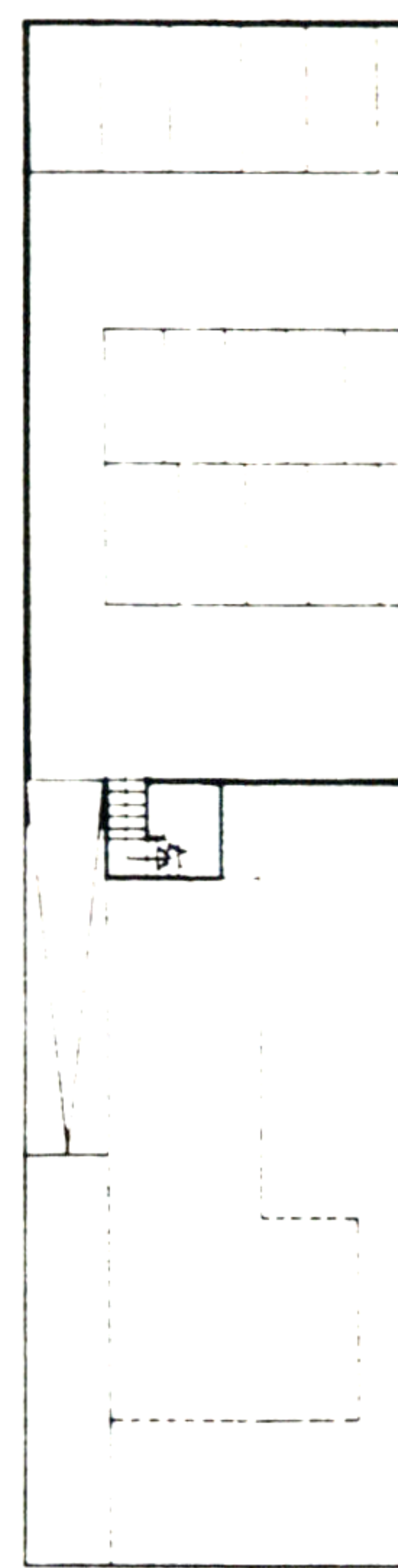
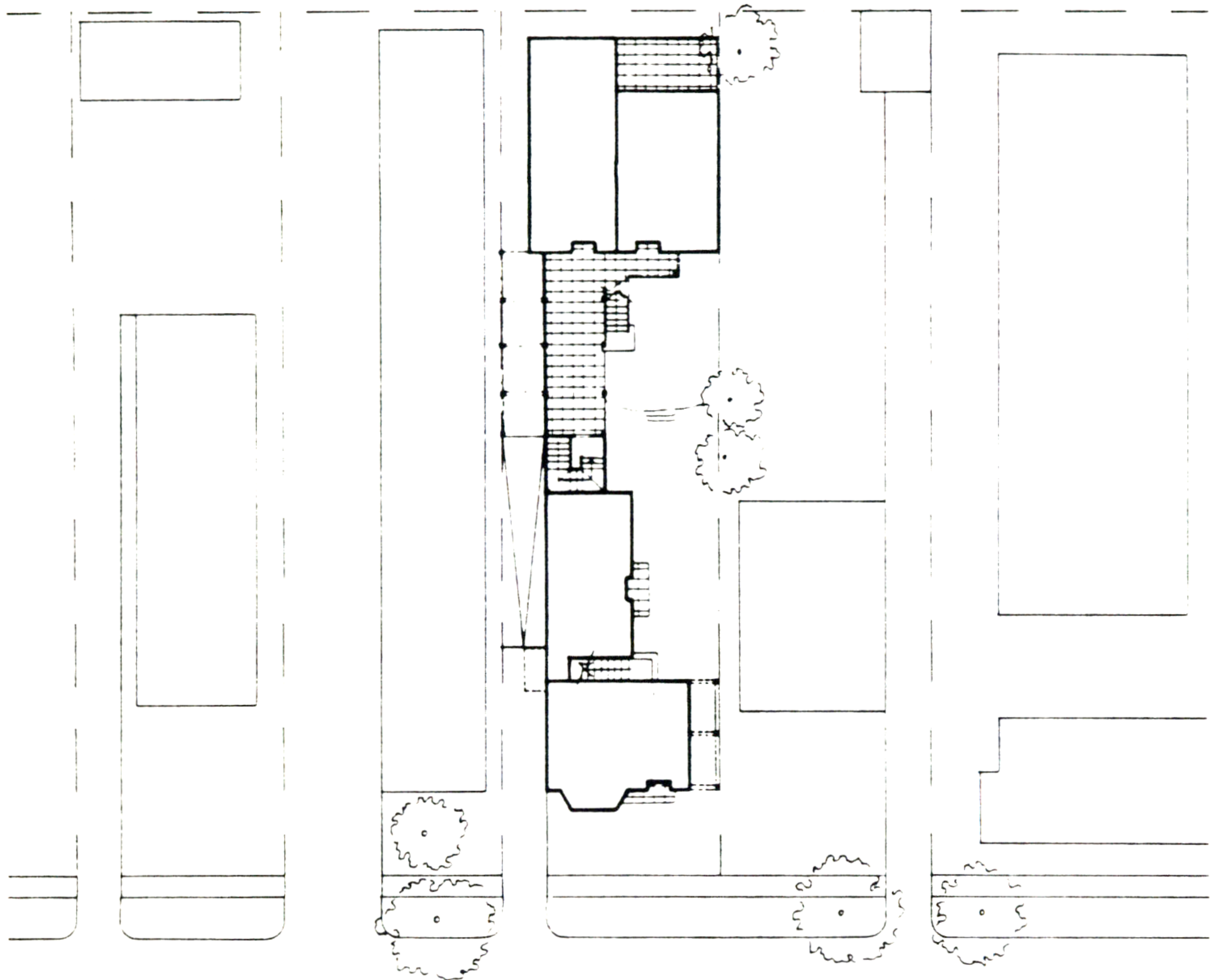
RM-32

Address:	285/7 Holliston st.	Number of Units:	17 units
Lot Area (A):	20,550 sf	Number of Parking Spaces:	26 cars
Lot Dimensions:	100'x 205'	Square Feet of Construction:	16,800 sf
Context Density:	7 units/lot	Size of Total Open Space:	5,937 sf
Value of (C):	1	Size of Main Garden:	3,500 sf
Allowed sq.ft:	$0.82(C)(A)$ sf	Parking Type:	naturally ventilated

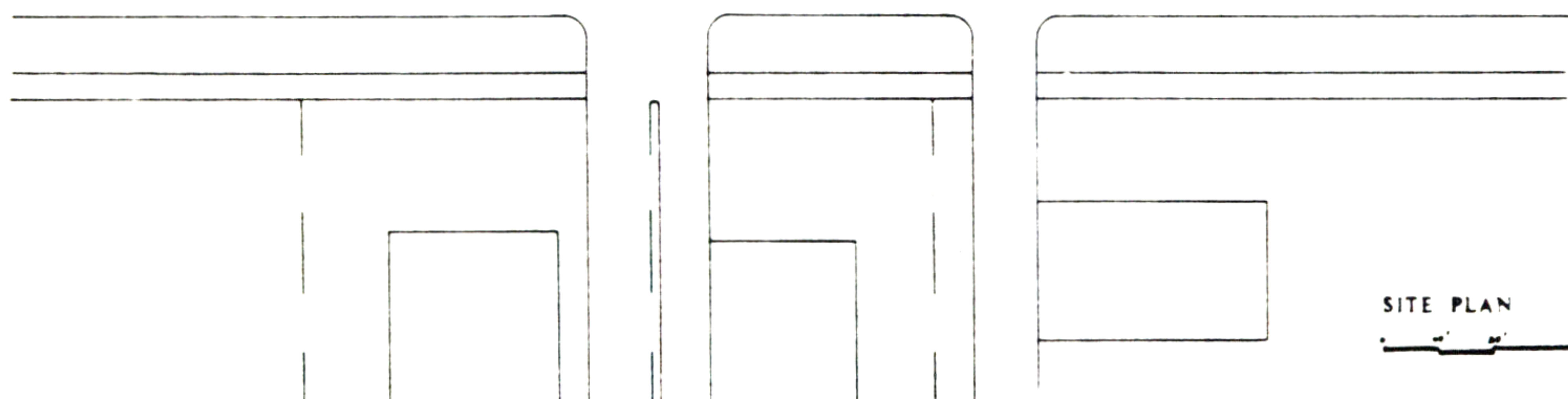


RM-32

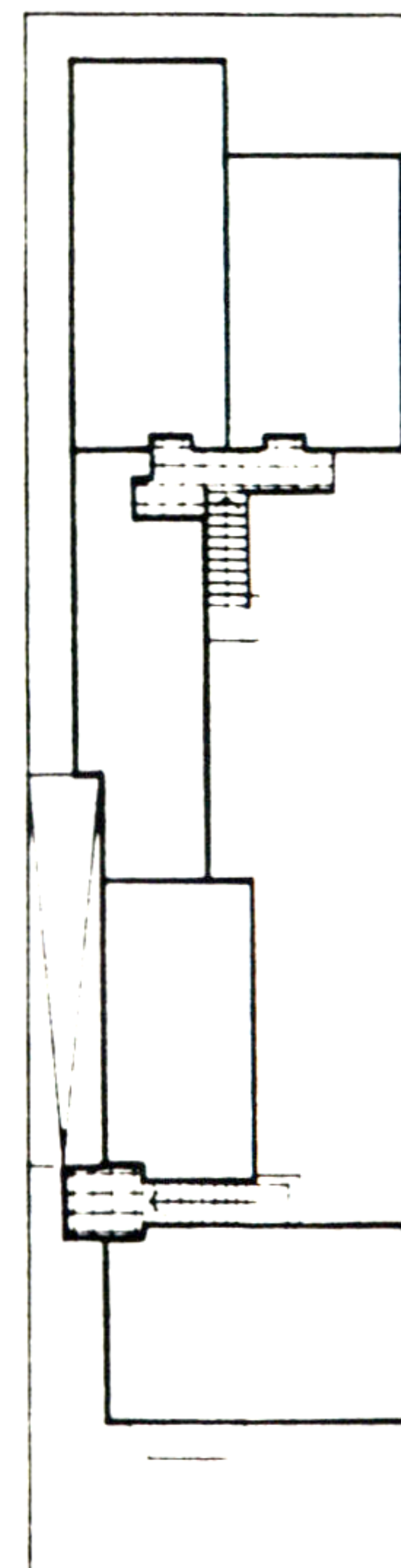
Address:	285 Holliston st.	Number of Units:	9 units
Lot Area (A):	10,250 sf	Number of Parking Spaces:	14 cars
Lot Dimensions:	50'x 205'	Square Feet of Construction:	8,595 sf
Context Density:	7 units/lot	Size of Total Open Space:	3,115 sf
Value of (C):	1	Size of Main Garden:	2,315 sf
Allowed sq.ft:	0.84(C)(A)sf	Parking Type:	mechanically ventilated



PARKING PLAN



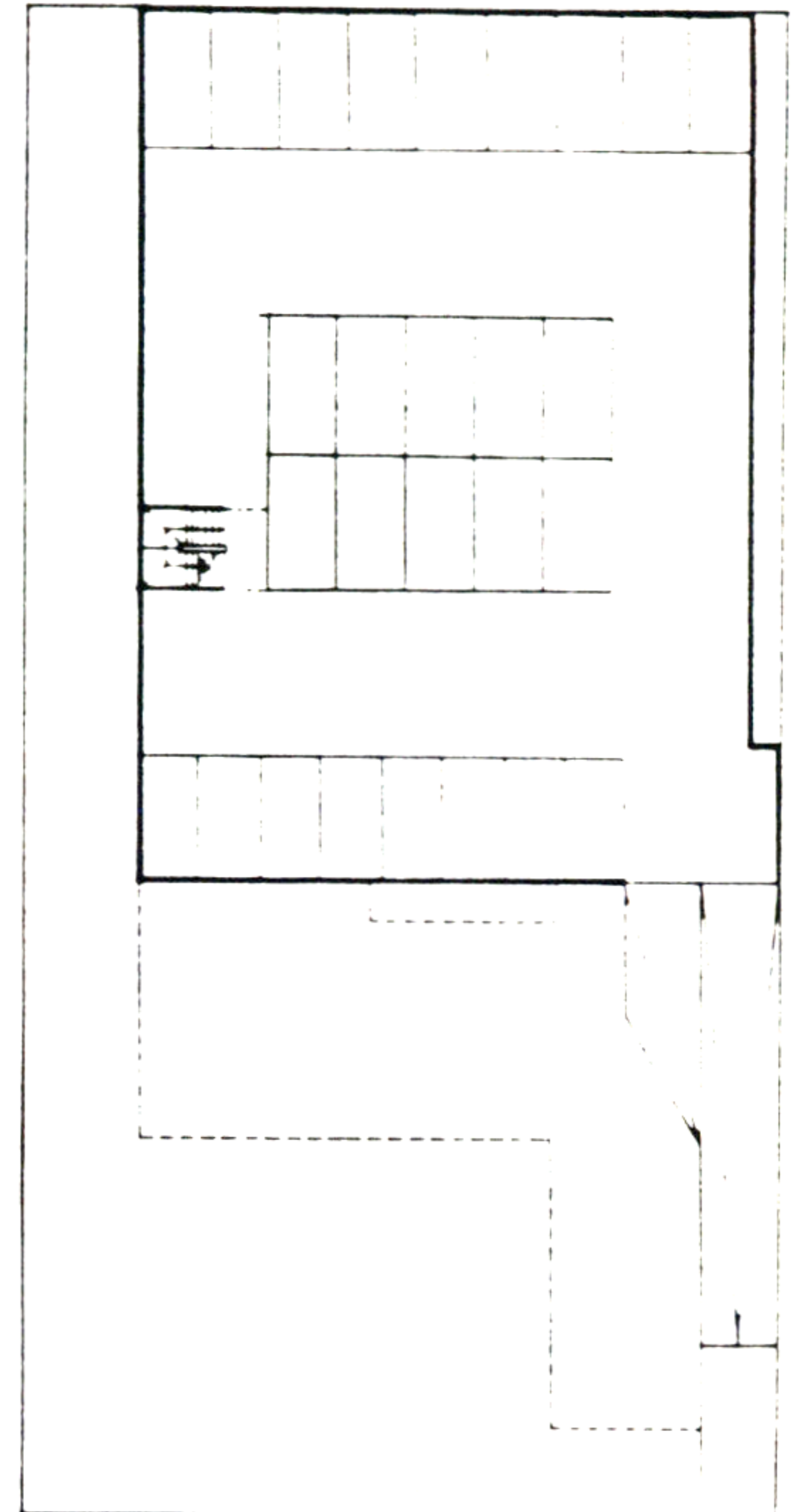
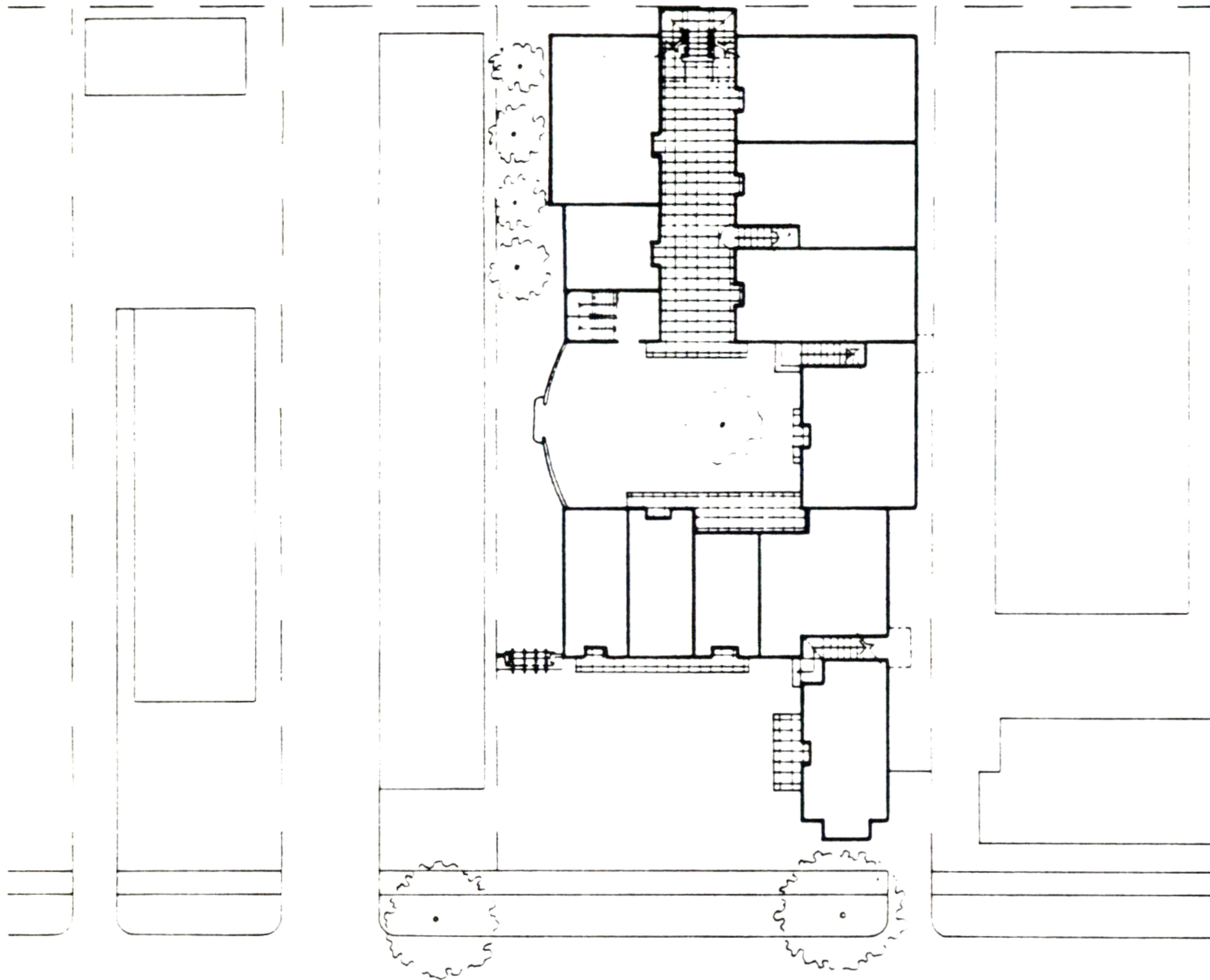
SITE PLAN



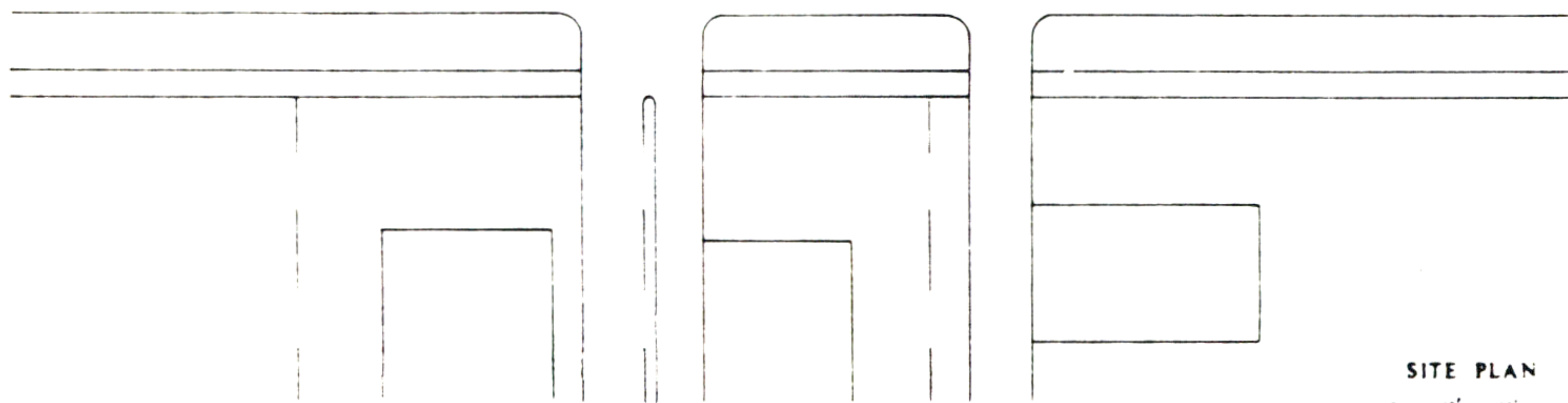
SECOND FLOOR PLAN

RM-32

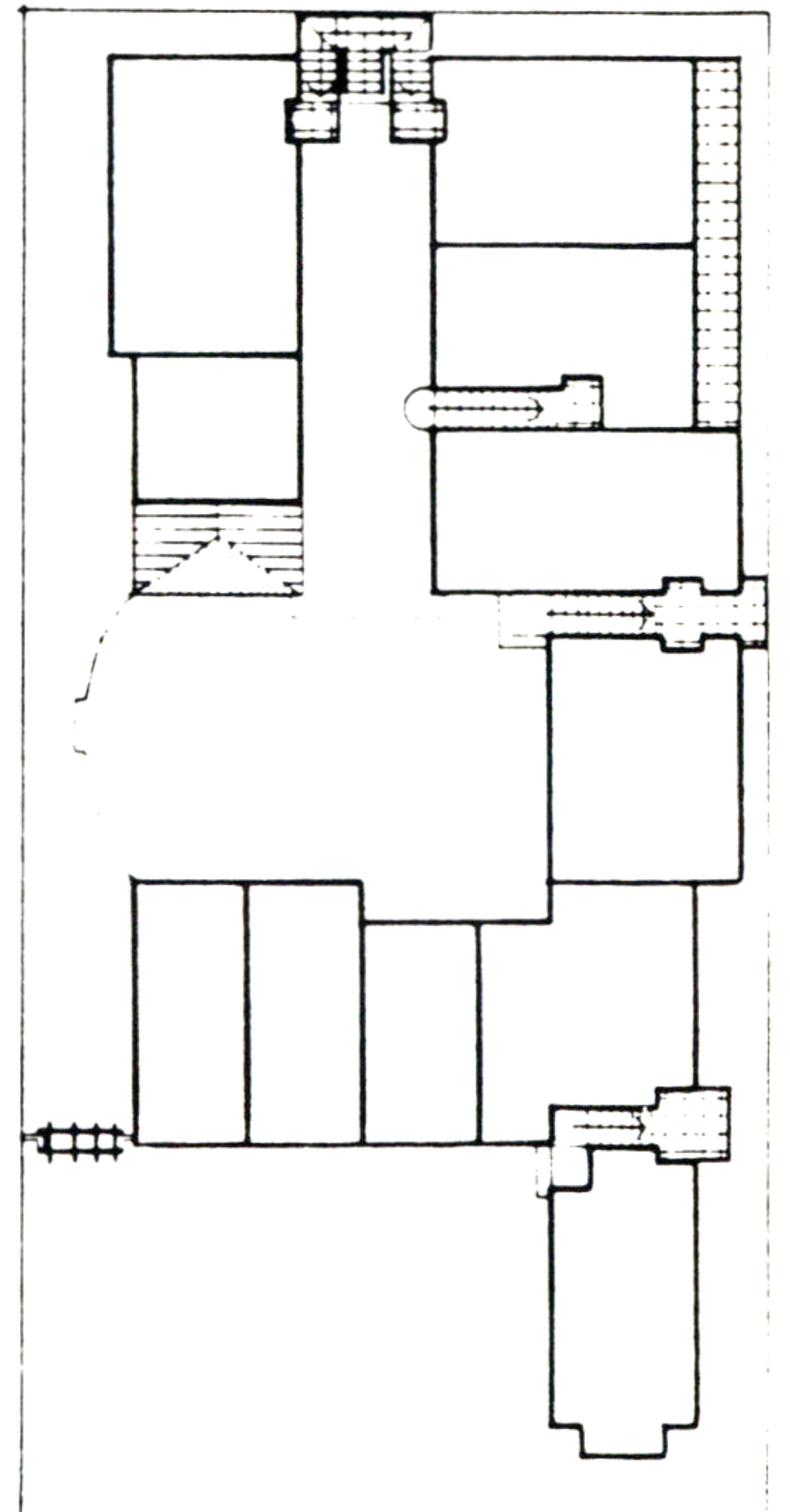
Address:	285/7 Holliston st.	Number of Units:	18 units
Lot Area (A):	20,550 sf	Number of Parking Spaces:	27 cars
Lot Dimensions:	100'x 205'	Square Feet of Construction:	17,937 sf
Context Density:	7 units/lot	Size of Total Open Space:	5,645 sf
Value of (C):	1	Size of Main Garden:	3,500 sf
Allowed sq.ft:	0.88(C)(A)sf	Parking Type:	mechanically ventilated



PARKING PLAN



SITE PLAN

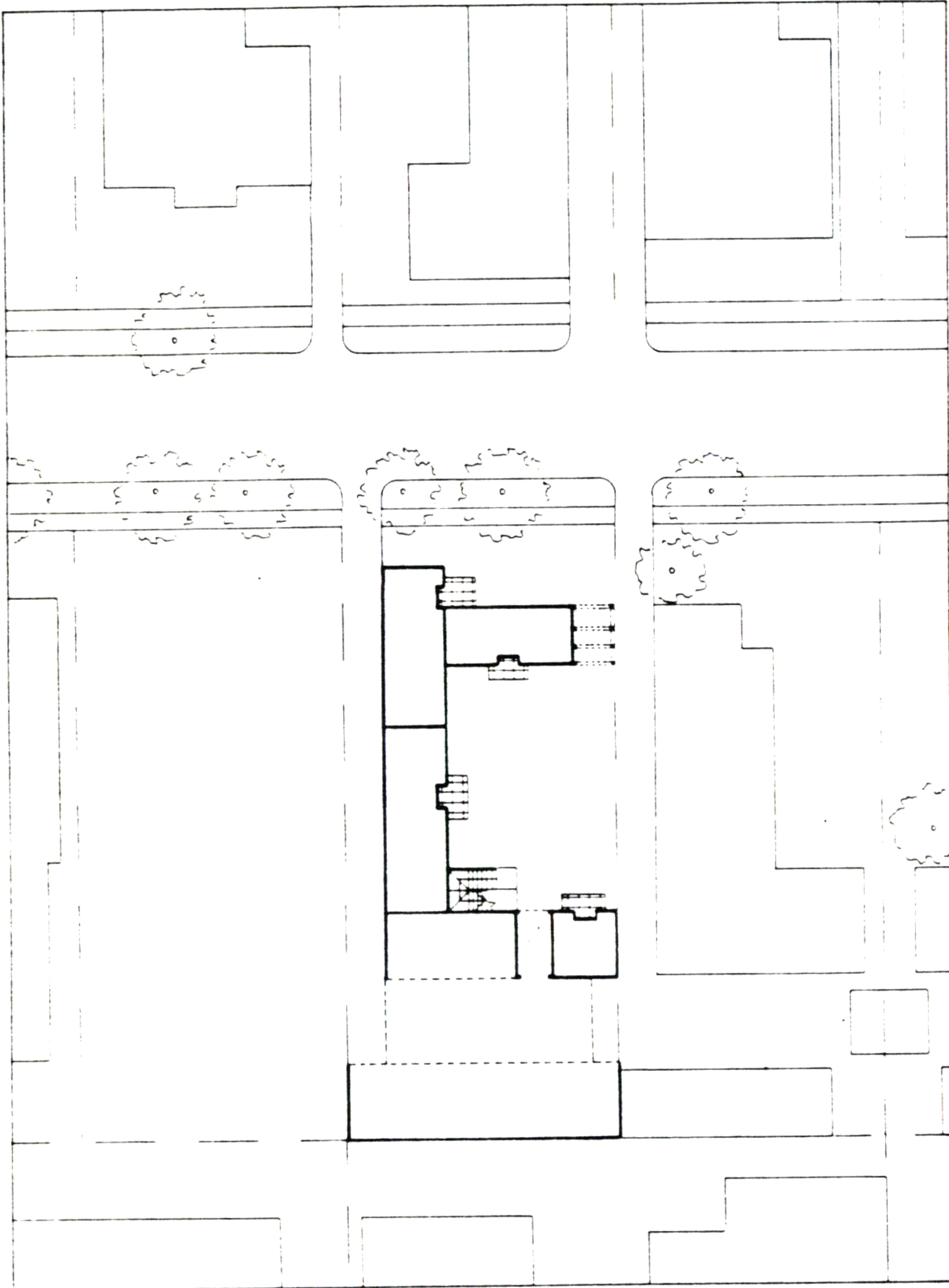


SECOND FLOOR PLAN

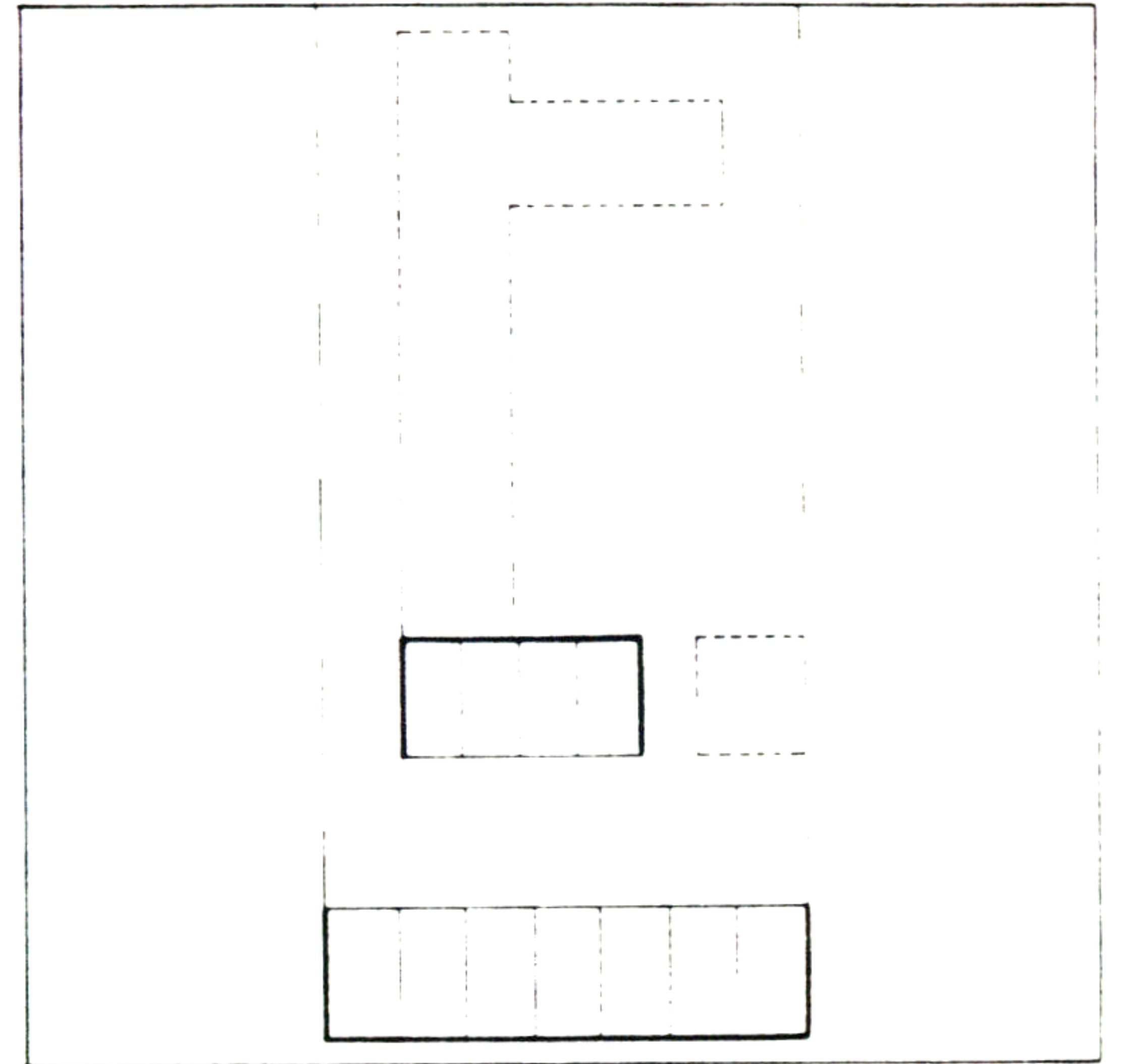
RM-48 EXAMPLES

RM-48

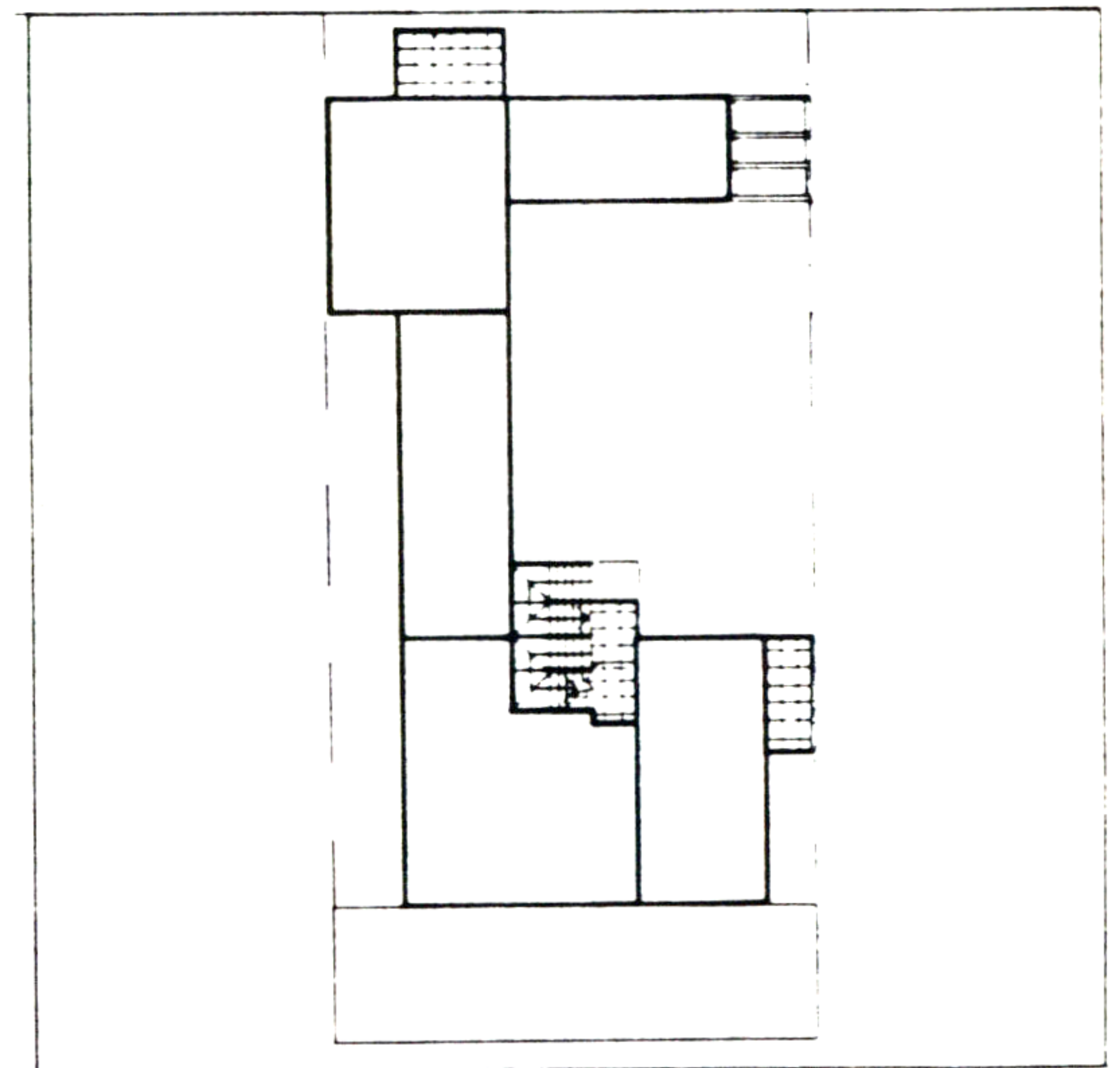
Address:	236 Oakland st.	Number of Units:	7 units
Lot Area (A):	10,098 sf	Number of Parking Spaces:	11 cars
Lot Dimensions:	66'x 153'	Square Feet of Construction:	7,674 sf
Context Density:	8 units/lot	Size of Total Open Space:	3,100 sf
Value of (C):	1	Size of Main Garden:	2,300 sf
Allowed sq.ft:	0.76(C)(A)sf	Parking Type:	with dwellings above



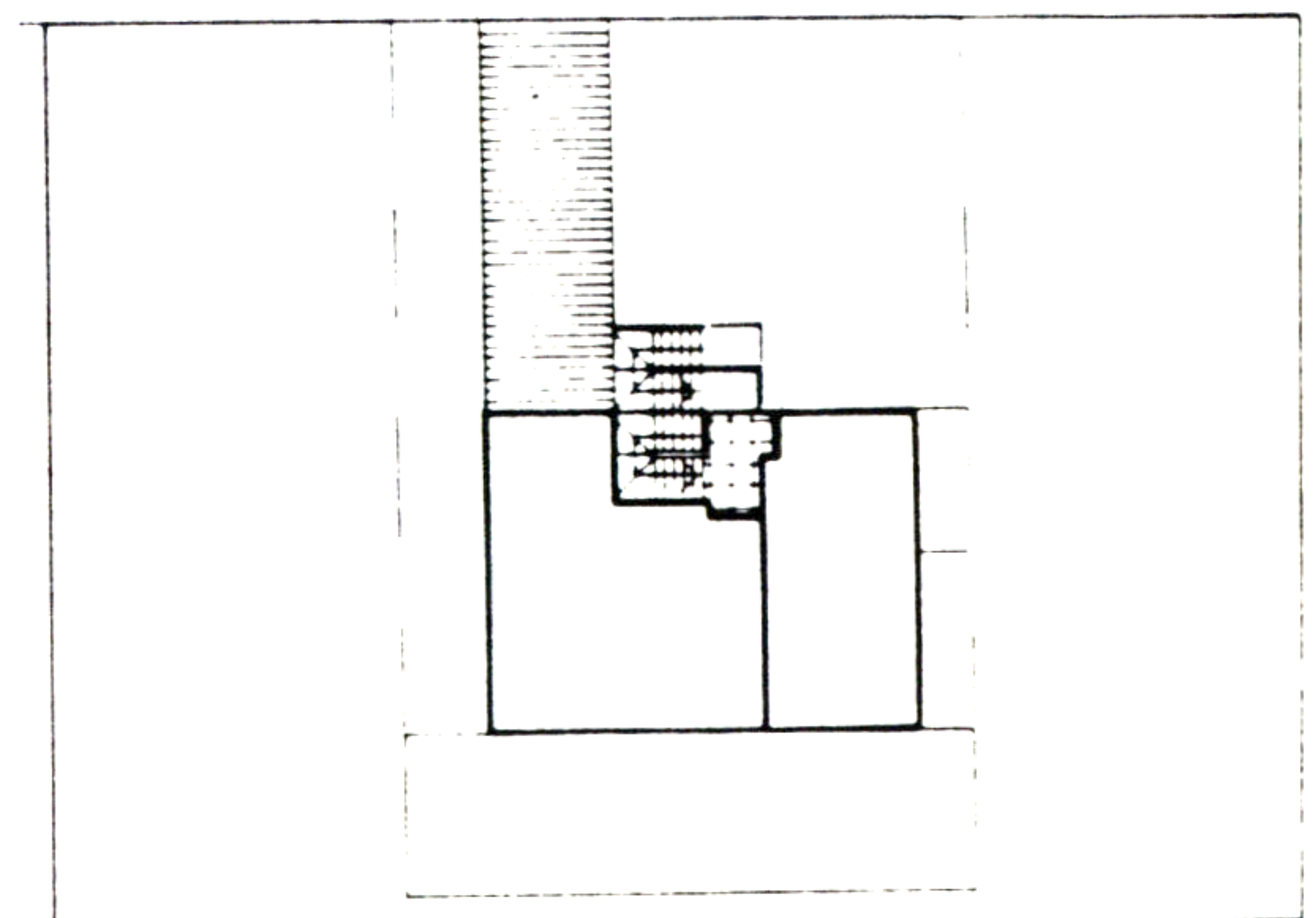
SITE PLAN
0' 20' 40'



PARKING PLAN



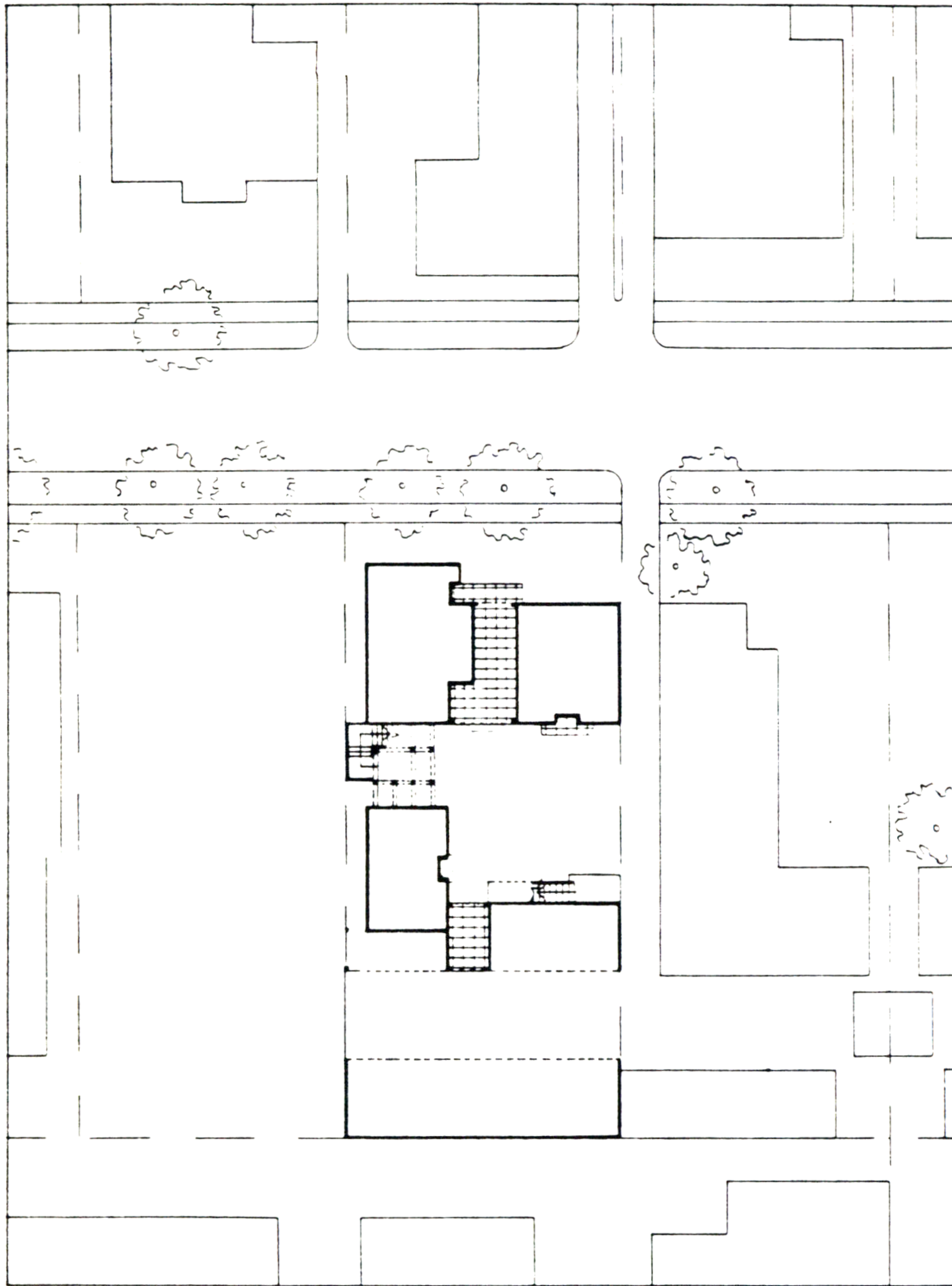
SECOND FLOOR PLAN



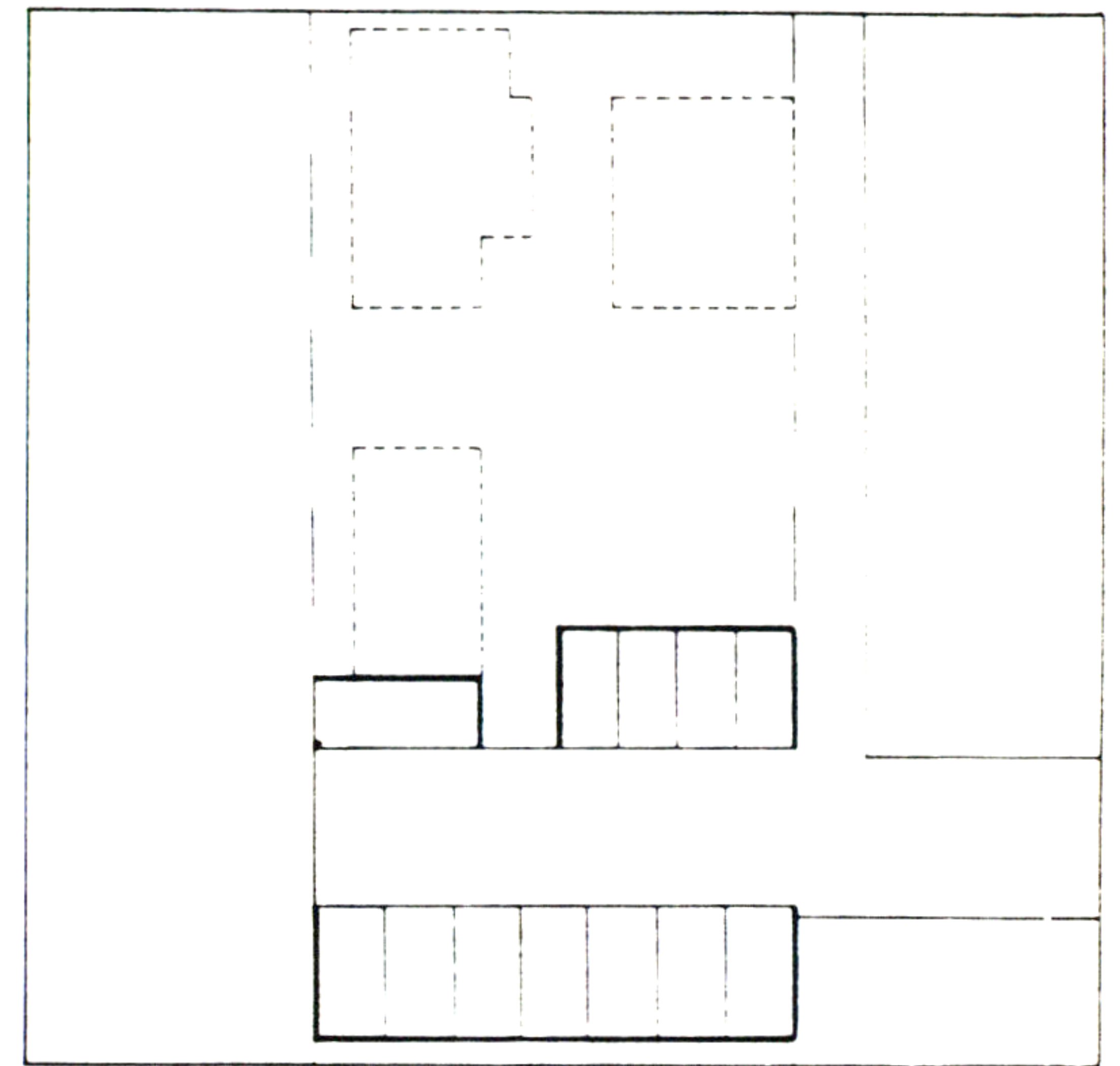
THIRD FLOOR PLAN

RM-48

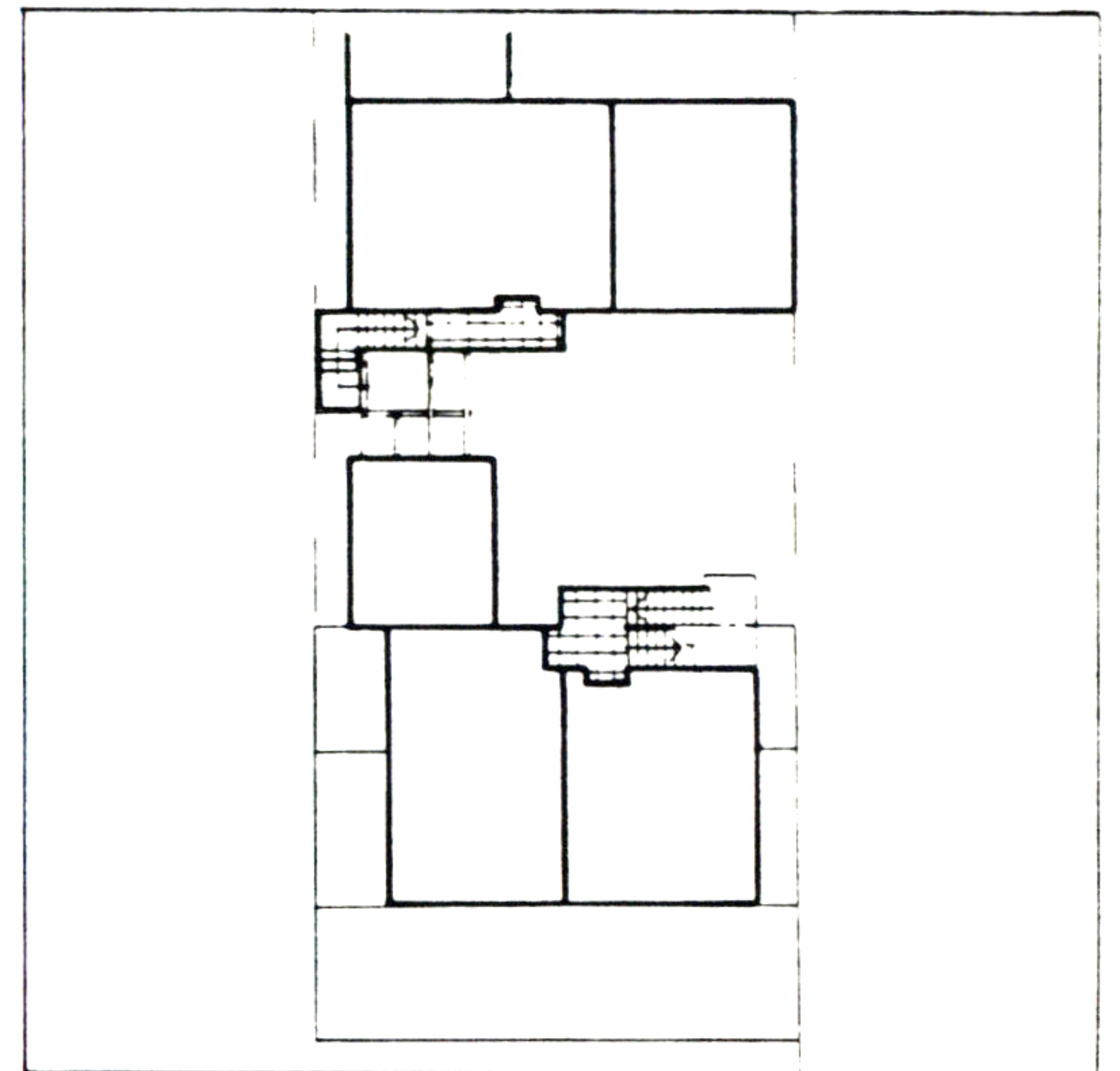
Address:	236 Oakland st.	Number of Units:	8 units
Lot Area (A):	10,098 sf	Number of Parking Spaces:	12 cars
Lot Dimensions:	66'x 153'	Square Feet of Construction:	8,450 sf
Context Density:	8 units/lot	Size of Total Open Space:	3,100 sf
Value of (C):	1	Size of Main Garden:	2,300 sf
Allowed sq.ft:	0.86(C)(A)sf	Parking Type:	w/dwellings above/shared



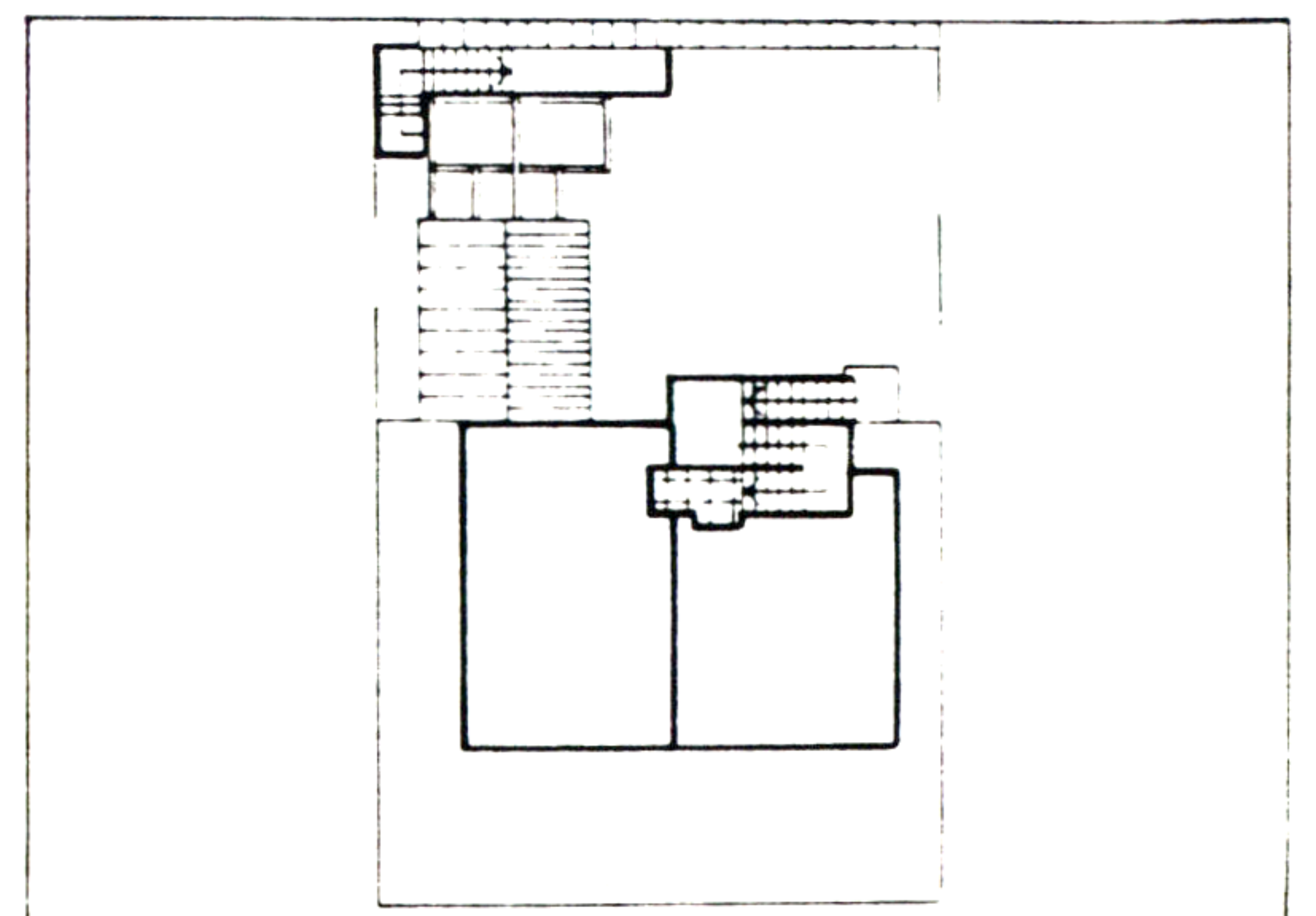
SITE PLAN



PARKING PLAN



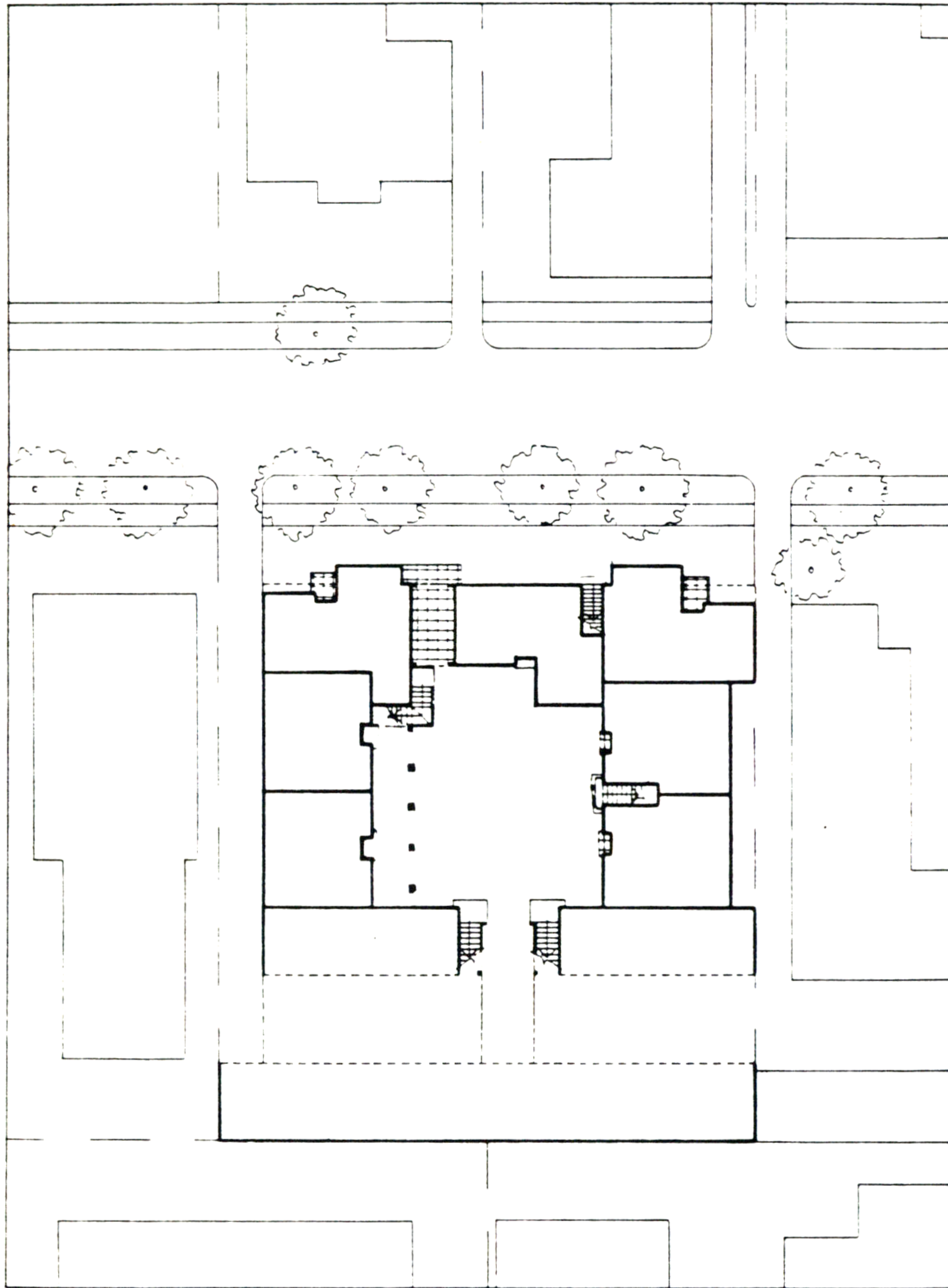
SECOND FLOOR PLAN



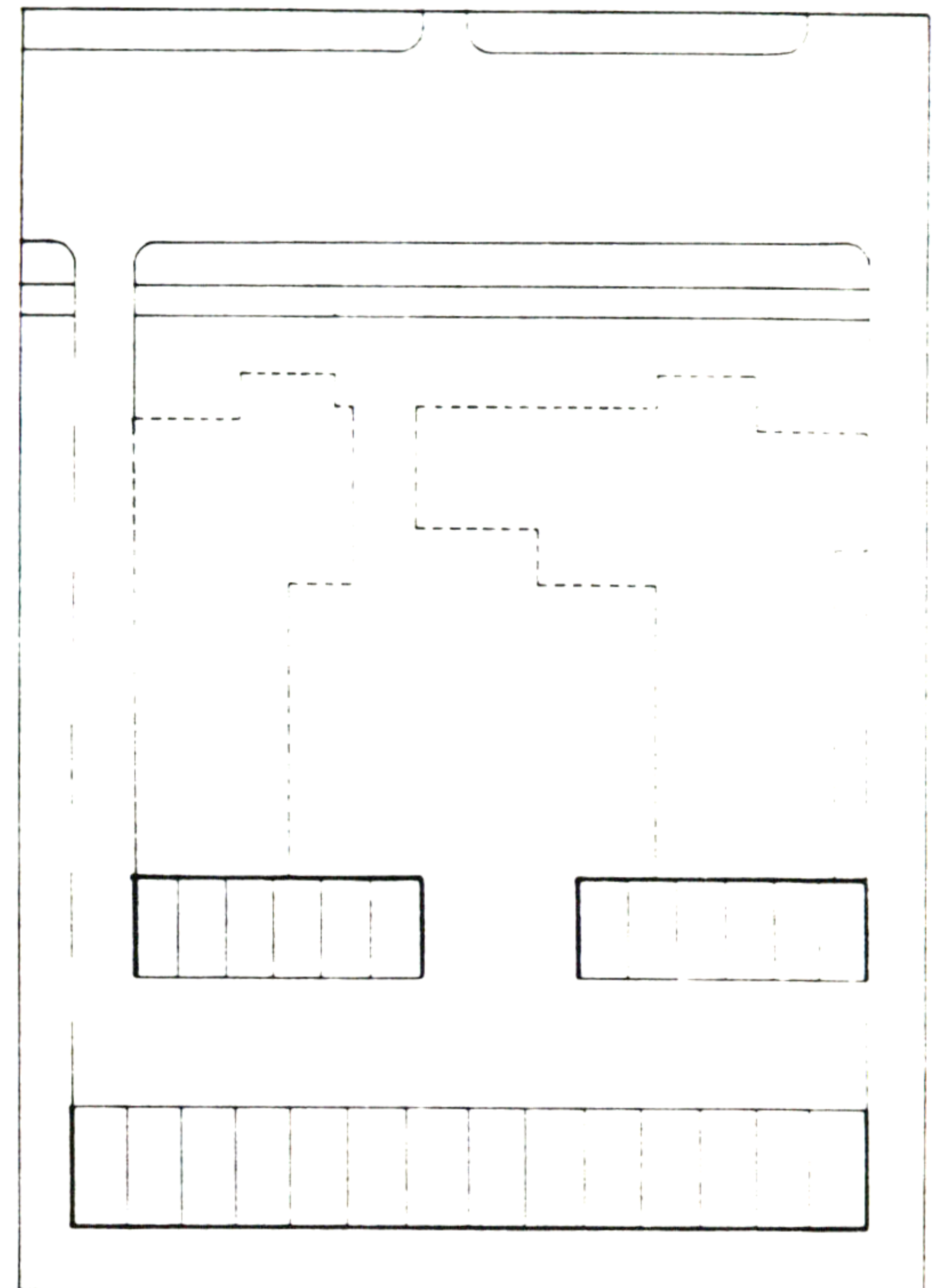
THIRD FLOOR PLAN

RM-48

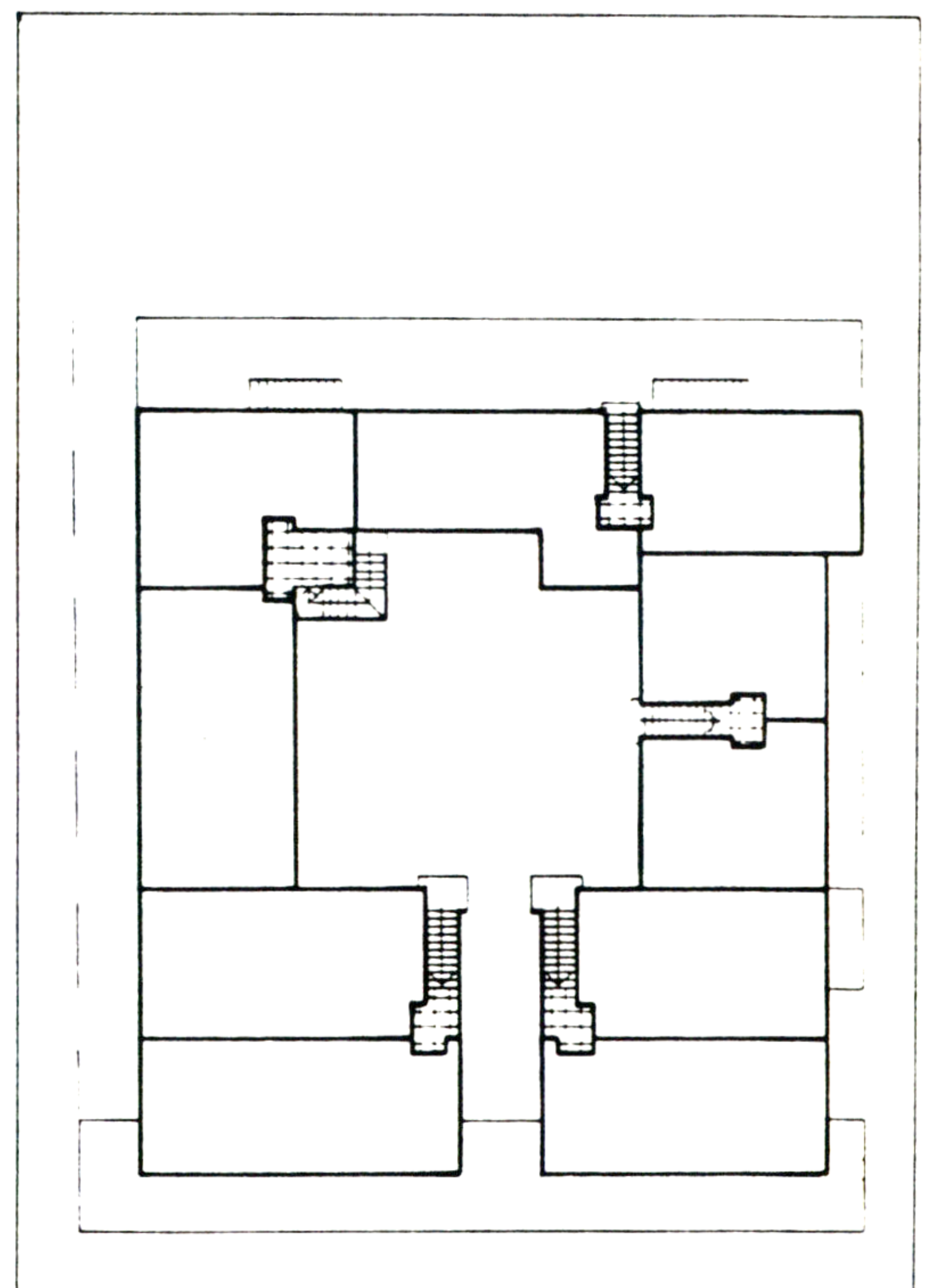
Address:	236/40 Oakland st.	Number of Units:	17 units
Lot Area (A):	19,890 sf	Number of Parking Spaces:	26 cars
Lot Dimensions:	130'x 153'	Square Feet of Construction:	16,500 sf
Context Density:	8 units/lot	Size of Total Open Space:	5,300 sf
Value of (C):	1	Size of Main Garden:	3,500 sf
Allowed sq.ft:	0.84(C)(A)sf	Parking Type:	with dwellings above



SITE PLAN



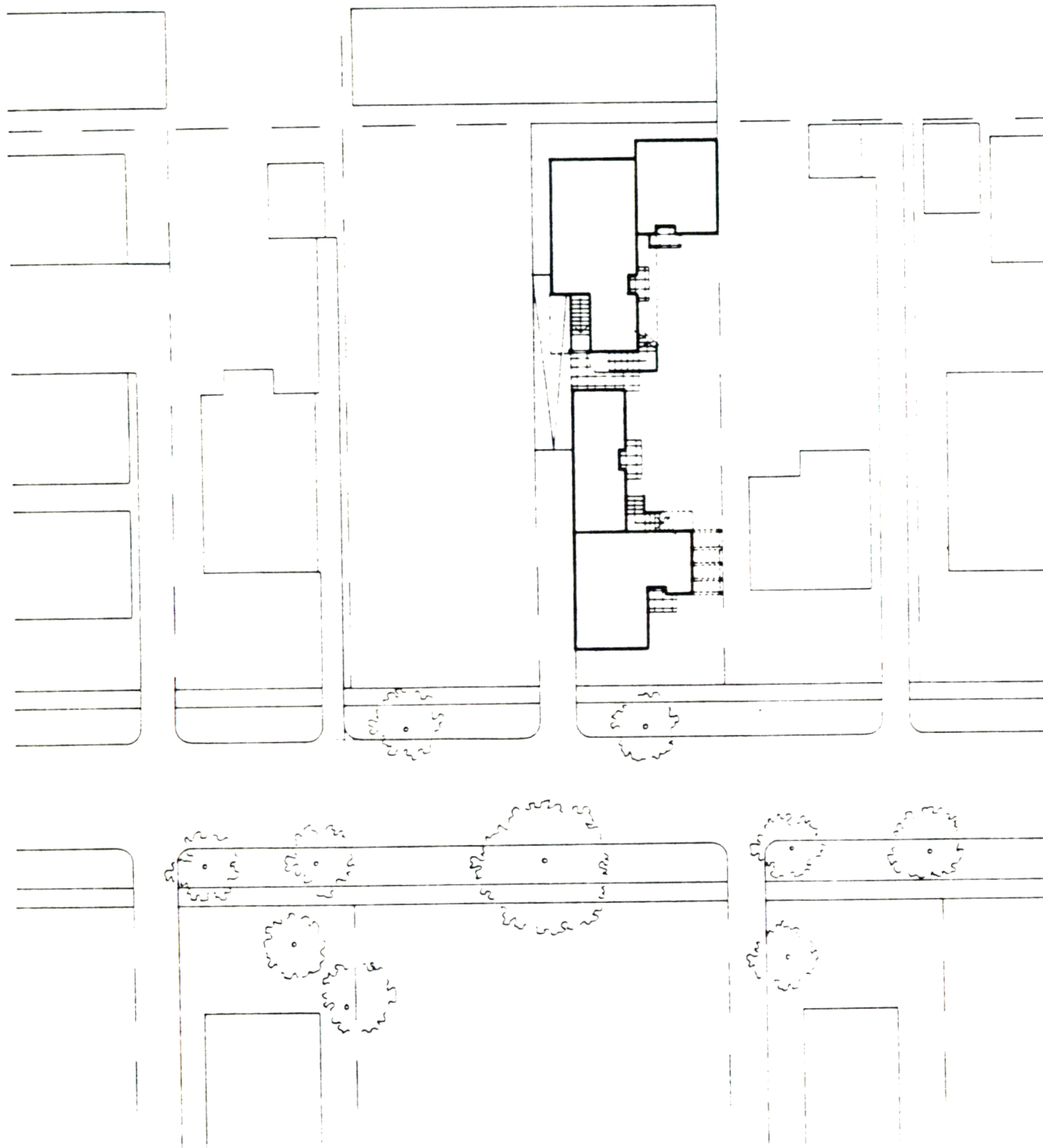
PARKING PLAN



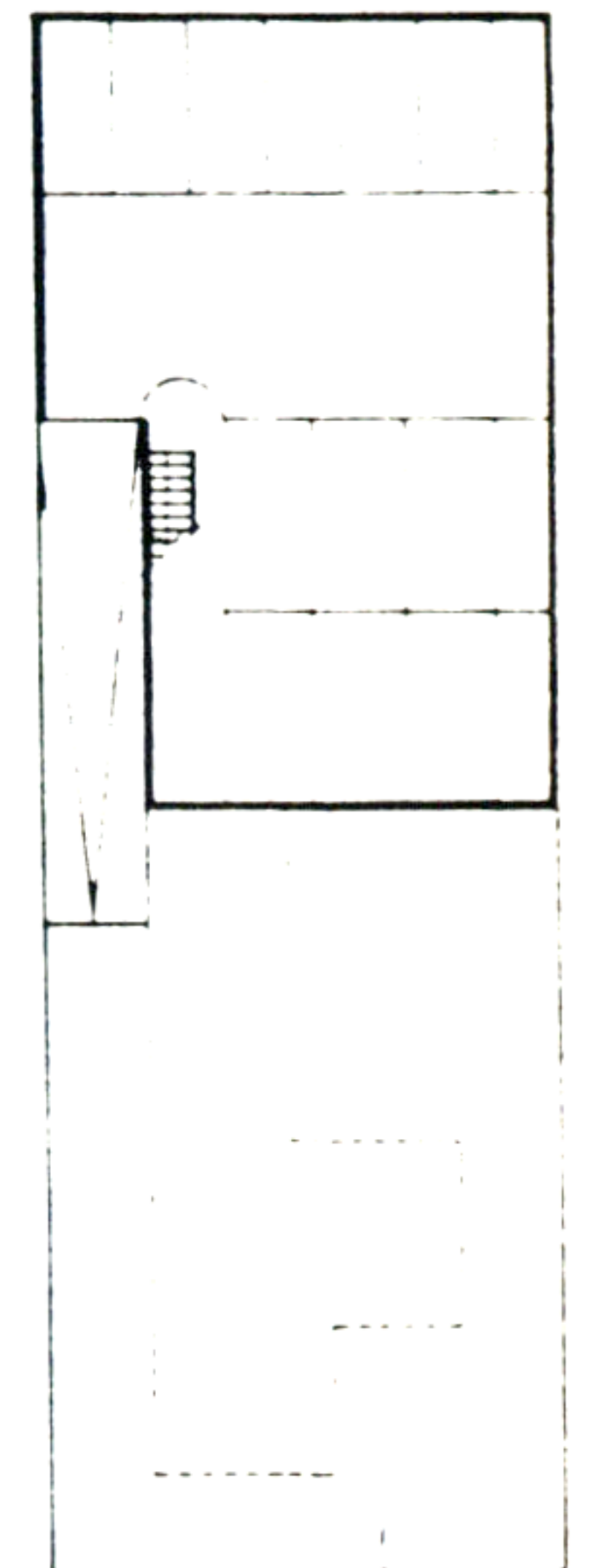
SECOND FLOOR PLAN

RM-48

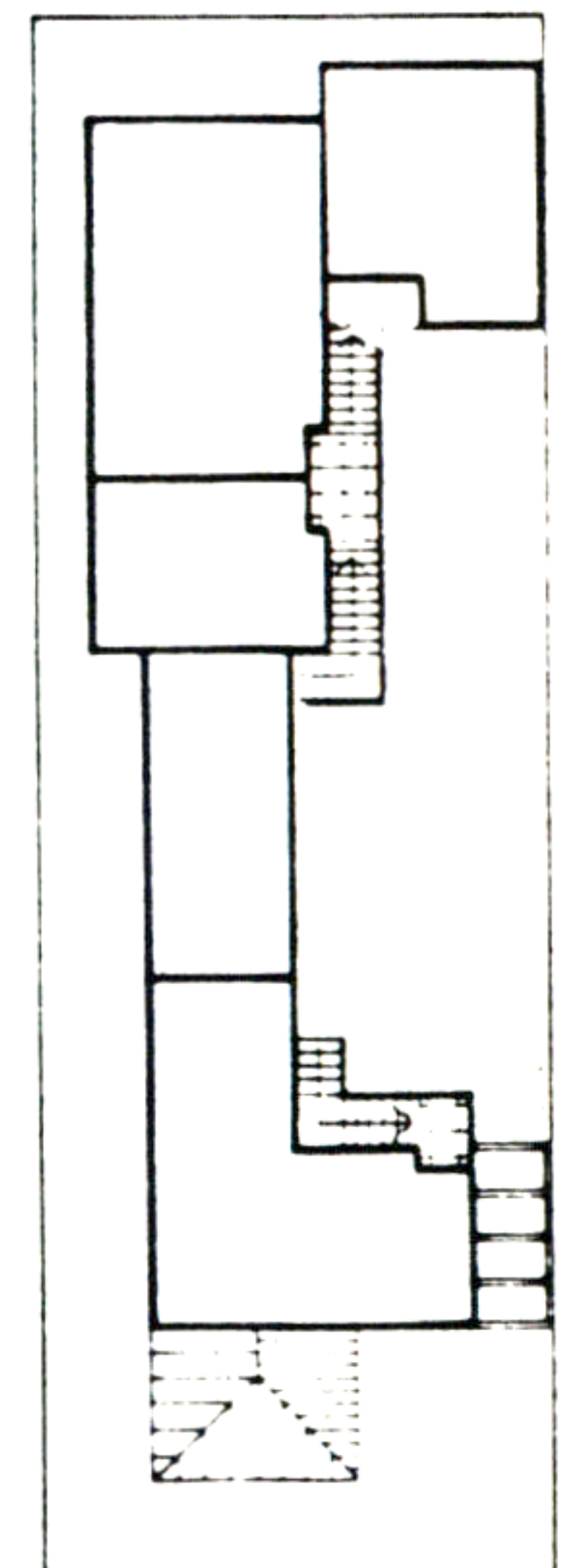
Address:	106/10 N. Chester st.	Number of Units:	8 units
Lot Area (A):	7,700 sf	Number of Parking Spaces:	12 cars
Lot Dimensions:	50' x 154'	Square Feet of Construction:	8,100 sf
Context Density:	8 units/lot	Size of Total Open Space:	2,700 sf
Value of (C):	1	Size of Main Garden:	2,100 sf
Allowed sq.ft:	1.10(C)(A)sf	Parking Type:	mechanically ventilated



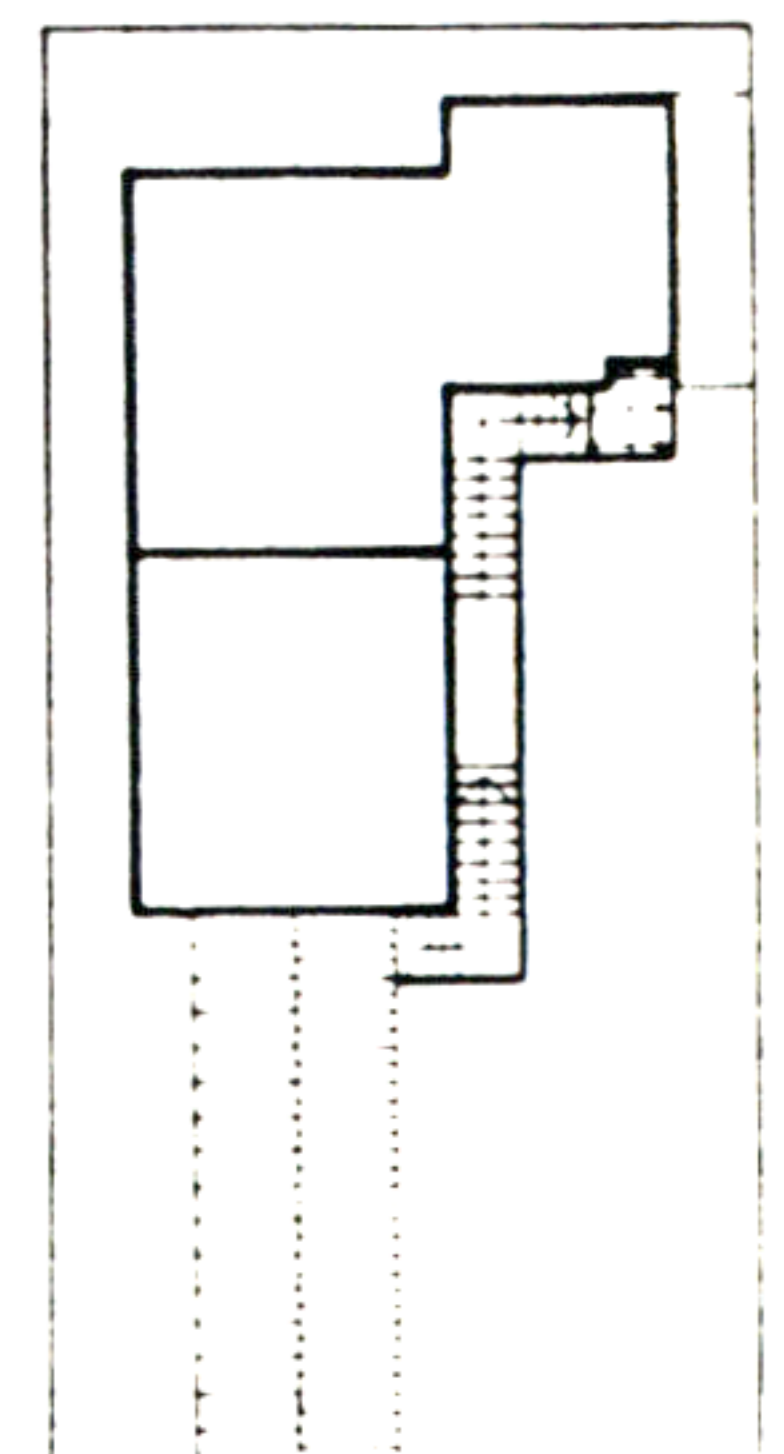
SITE PLAN
0' 10' 20'



PARKING PLAN

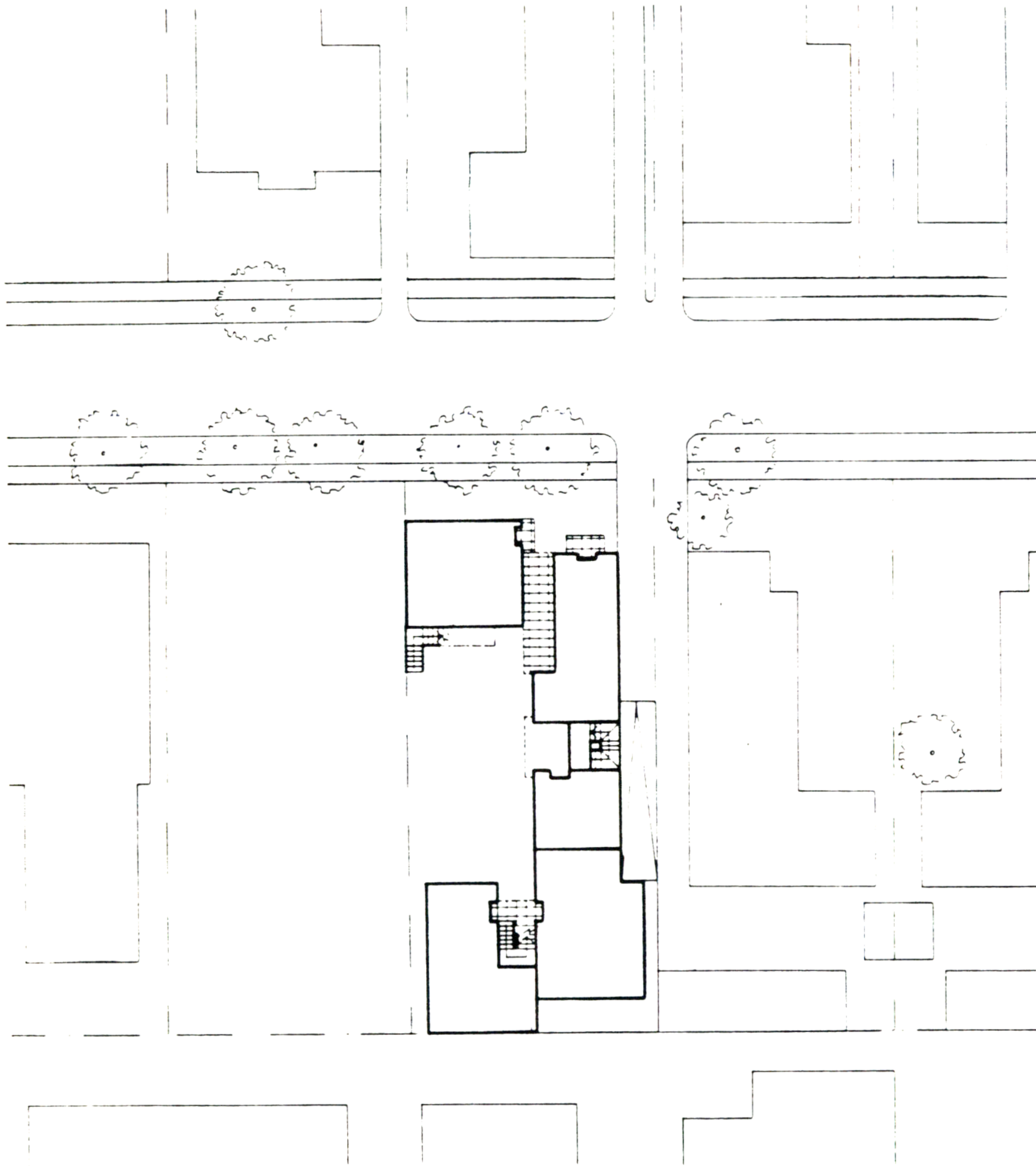


SECOND FLOOR PLAN

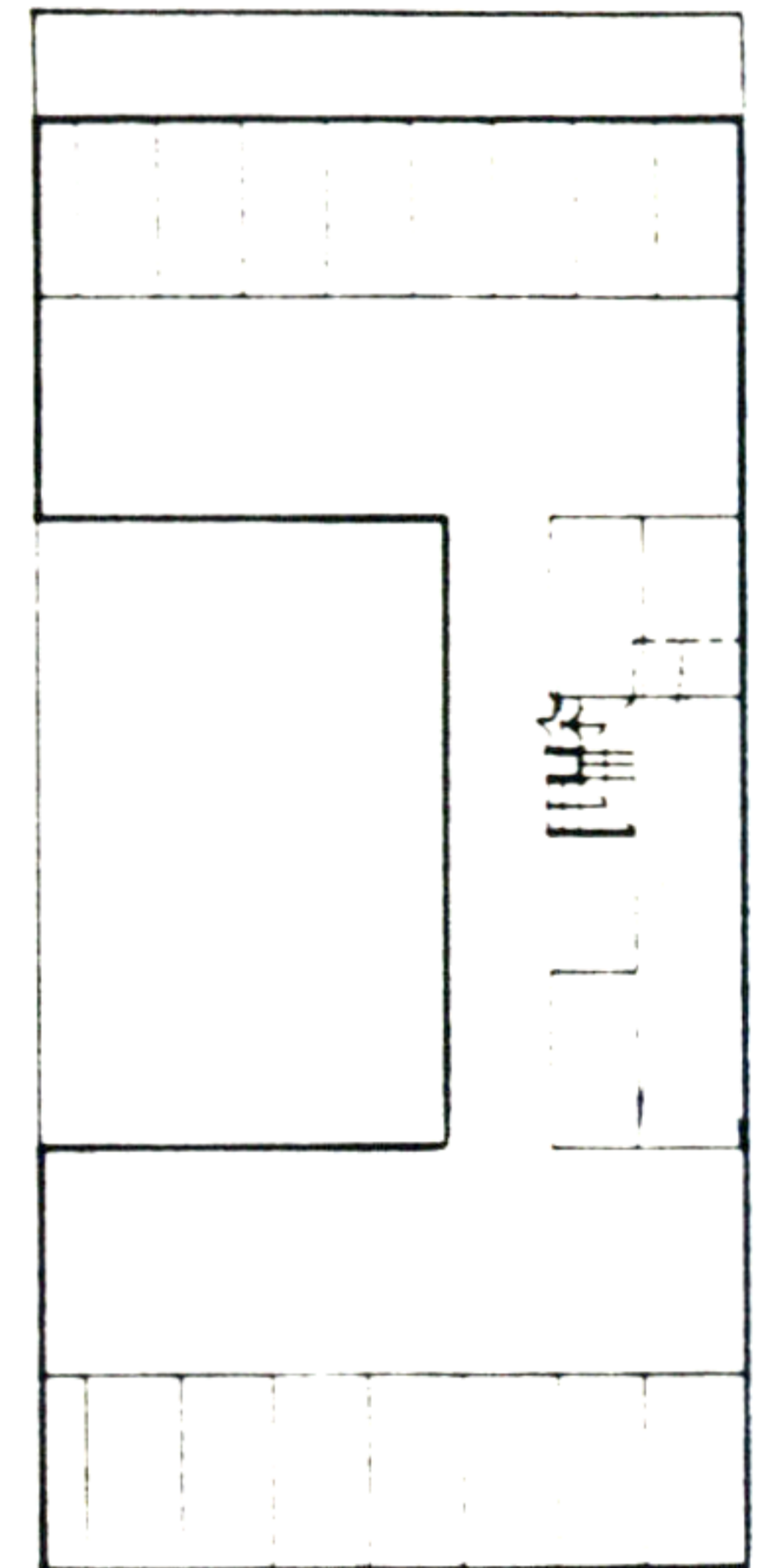


THIRD FLOOR PLAN

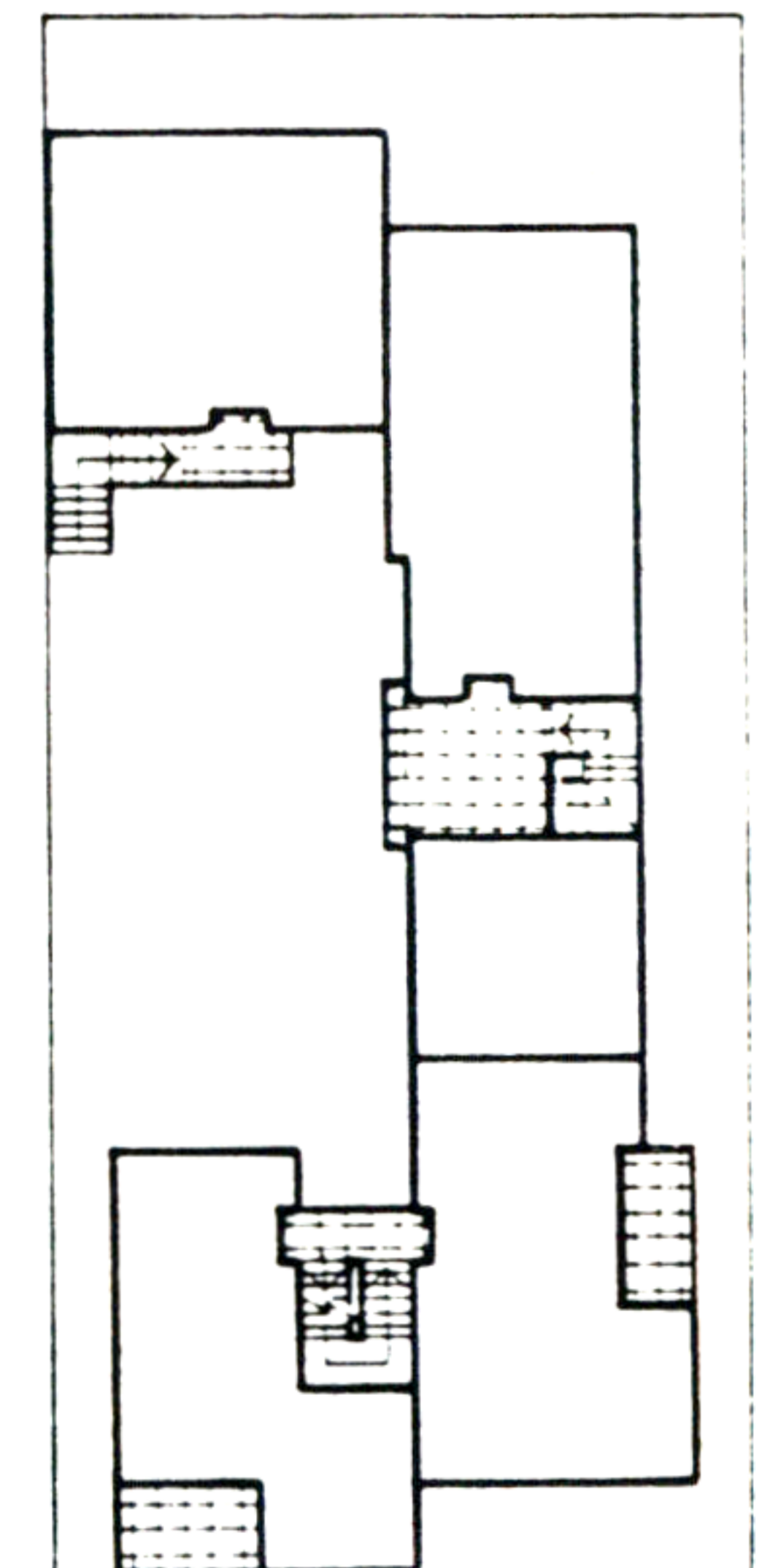
Address:	236 Oakland st.	Number of Units:	11 units
Lot Area (A):	10,098 sf	Number of Parking Spaces:	17 cars
Lot Dimensions:	66'x 153'	Square Feet of Construction:	11,060 sf
Context Density:	8 units/lot	Size of Total Open Space:	3,100 sf
Value of (C):	1	Size of Main Garden:	2,450 sf
Allowed sq.ft:	1.10(C)(A)sf	Parking Type:	mechanically ventilated



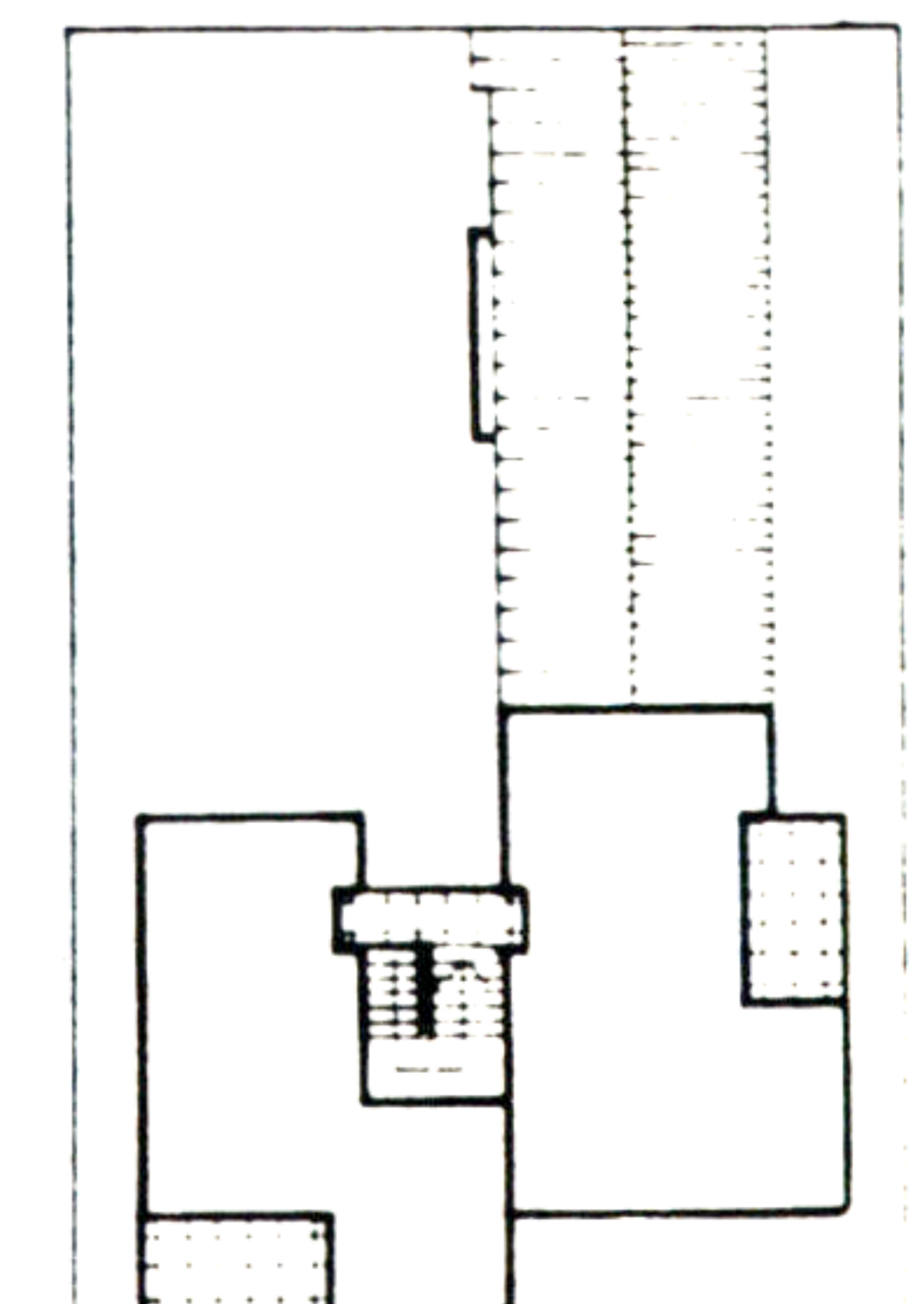
SITE PLAN



PARKING PLAN



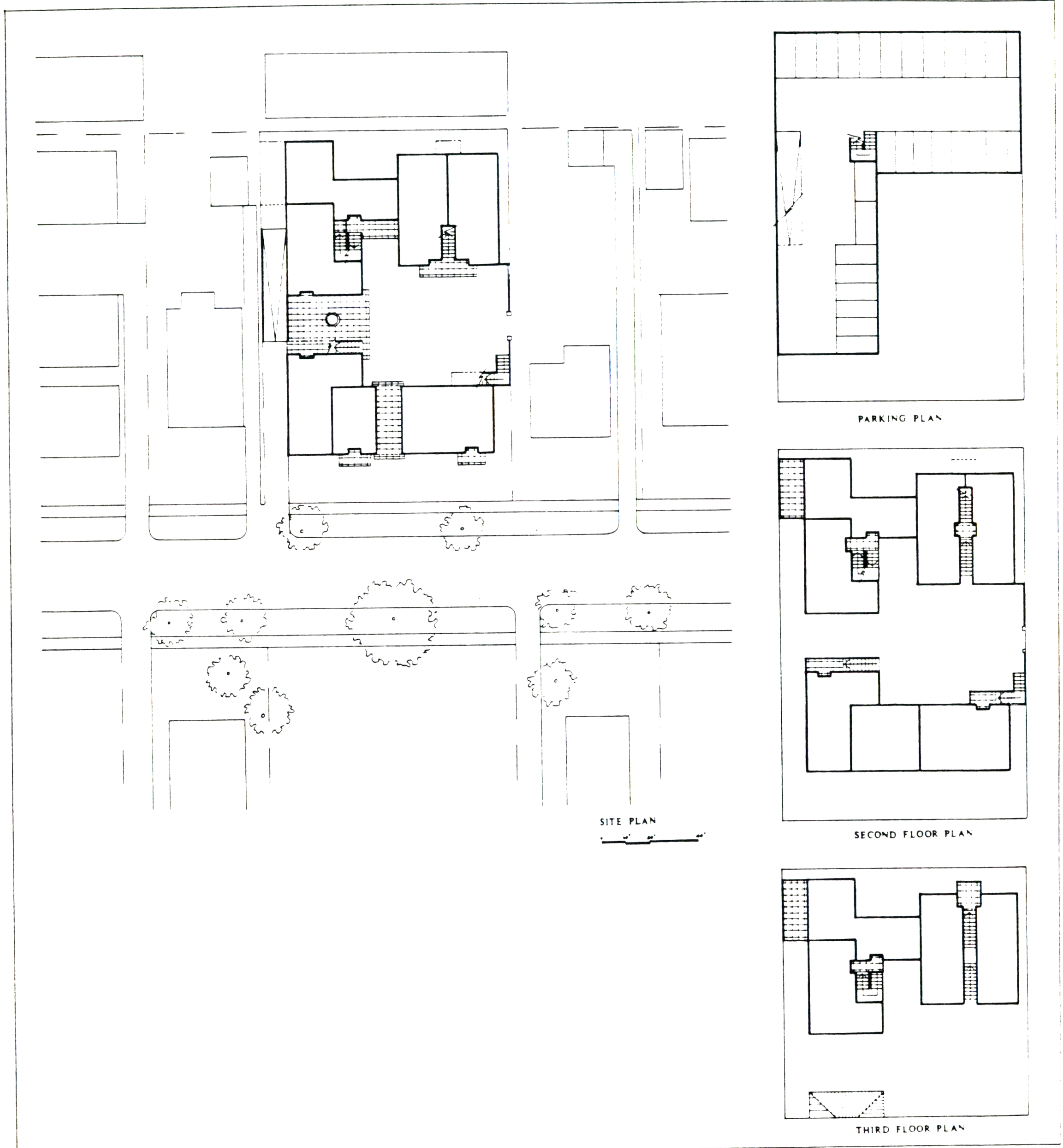
SECOND FLOOR PLAN



THIRD FLOOR PLAN

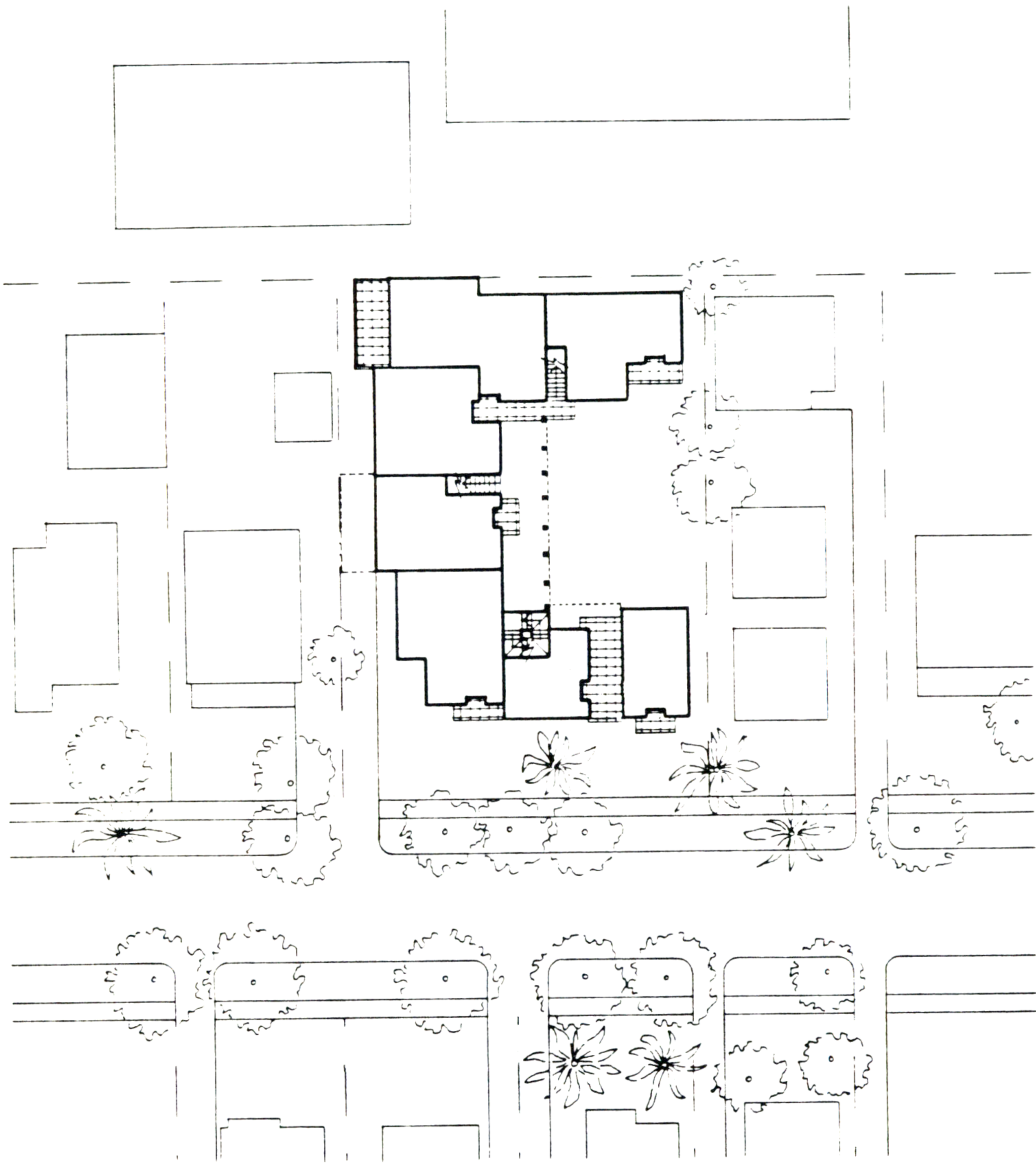
RM-48

Address:	106/30 N. Chester st.	Number of Units:	17 units
Lot Area (A):	15,400 sf	Number of Parking Spaces:	26 cars
Lot Dimensions:	100'x 154'	Square Feet of Construction:	17,493 sf
Context Density:	8 units/lot	Size of Total Open Space:	5,300 sf
Value of (C):	1	Size of Main Garden:	3,740 sf
Allowed sq.ft:	1.16(C)(A)sf	Parking Type:	mechanically ventilated

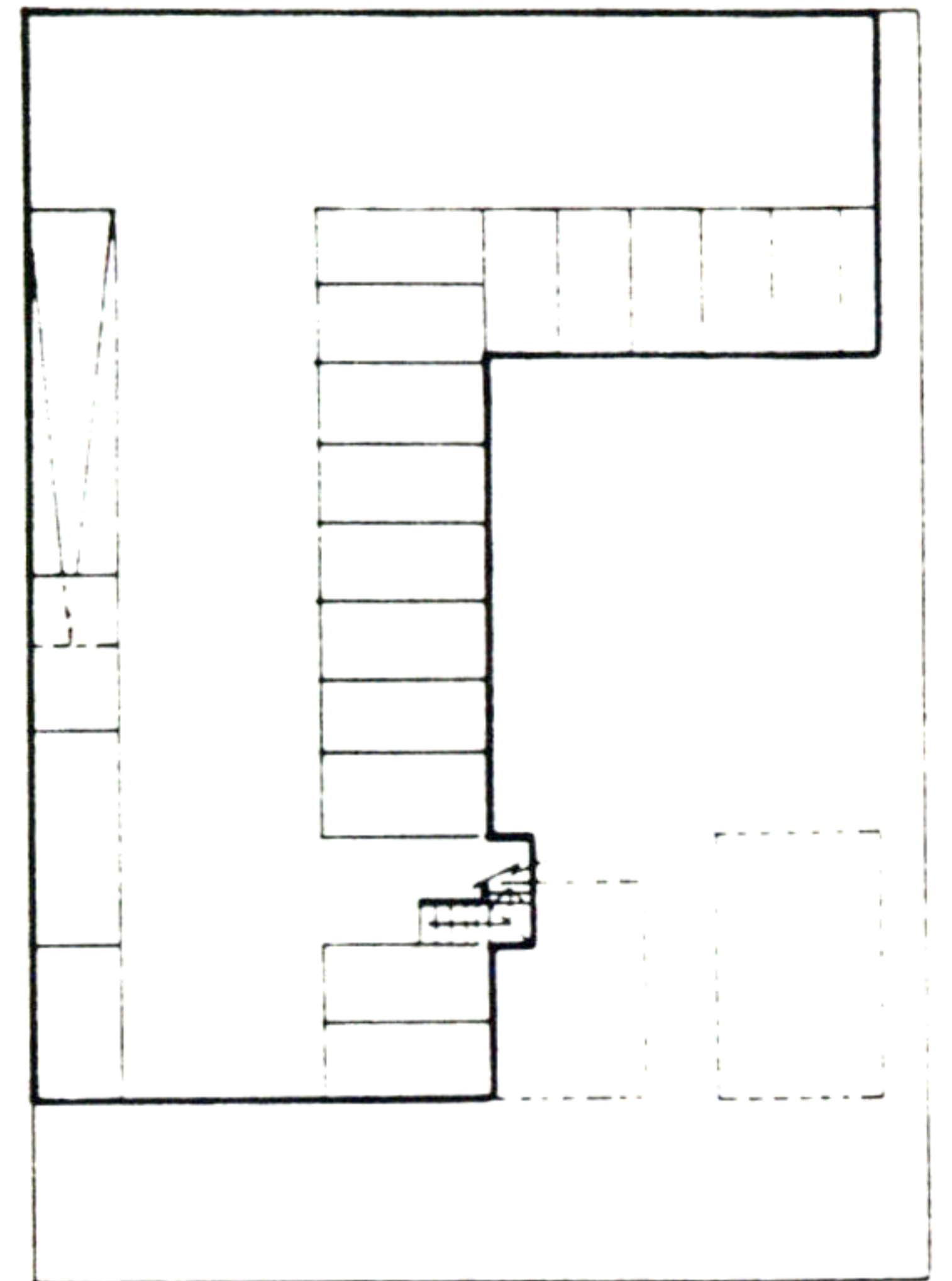


RM-48

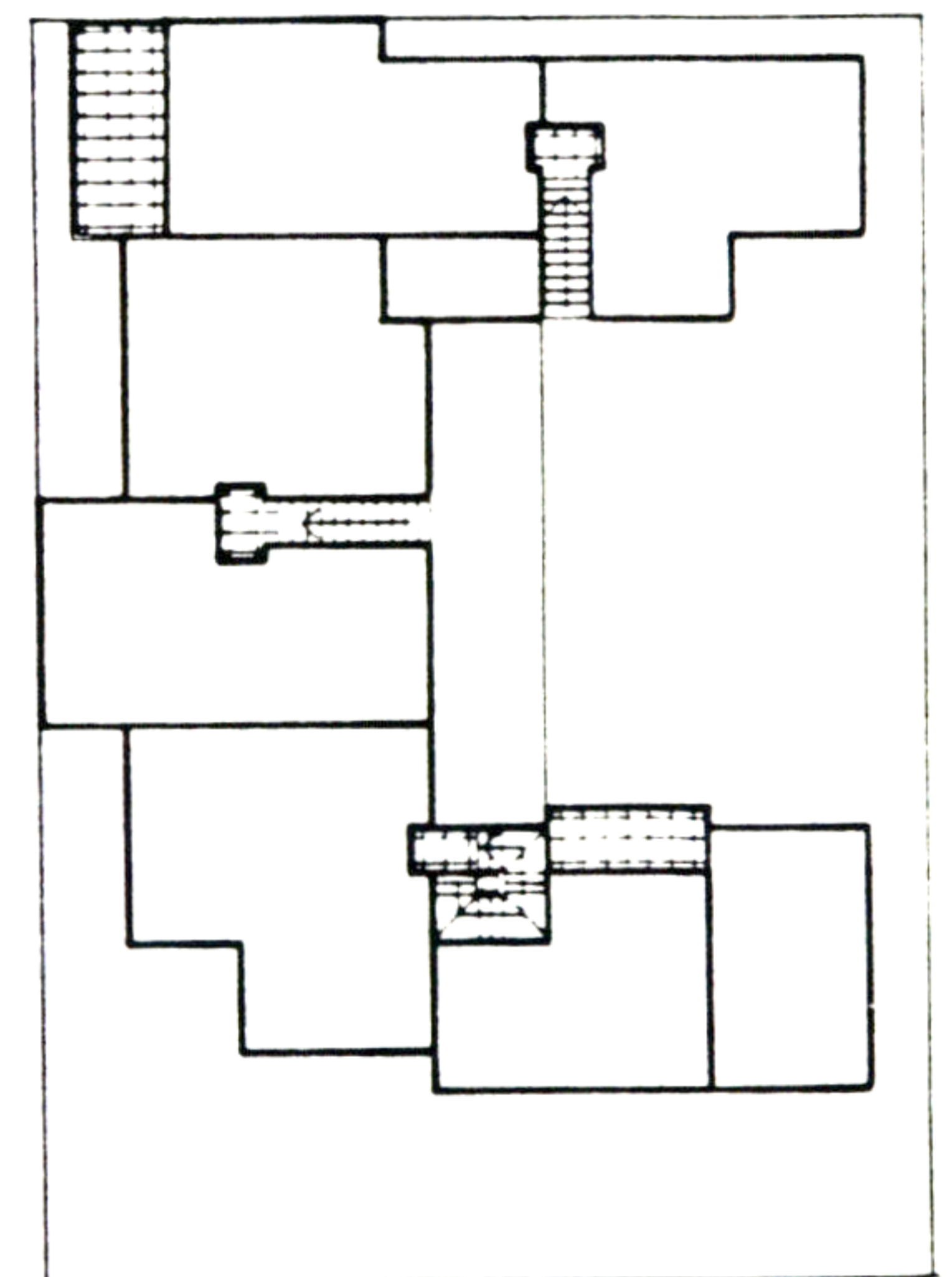
Address:	148/56 N. Chester st.	Number of Units:	12 units
Lot Area (A):	14,500 sf	Number of Parking Spaces:	18 cars
Lot Dimensions:	100'x 145'	Square Feet of Construction:	12,403 sf
Context Density:	3 units/lot	Size of Total Open Space:	5,300 sf
Value of (C):	0.75	Size of Main Garden:	3,560 sf
Allowed sq.ft:	1.16(C)(A)sf	Parking Type:	mechanically ventilated



SITE PLAN

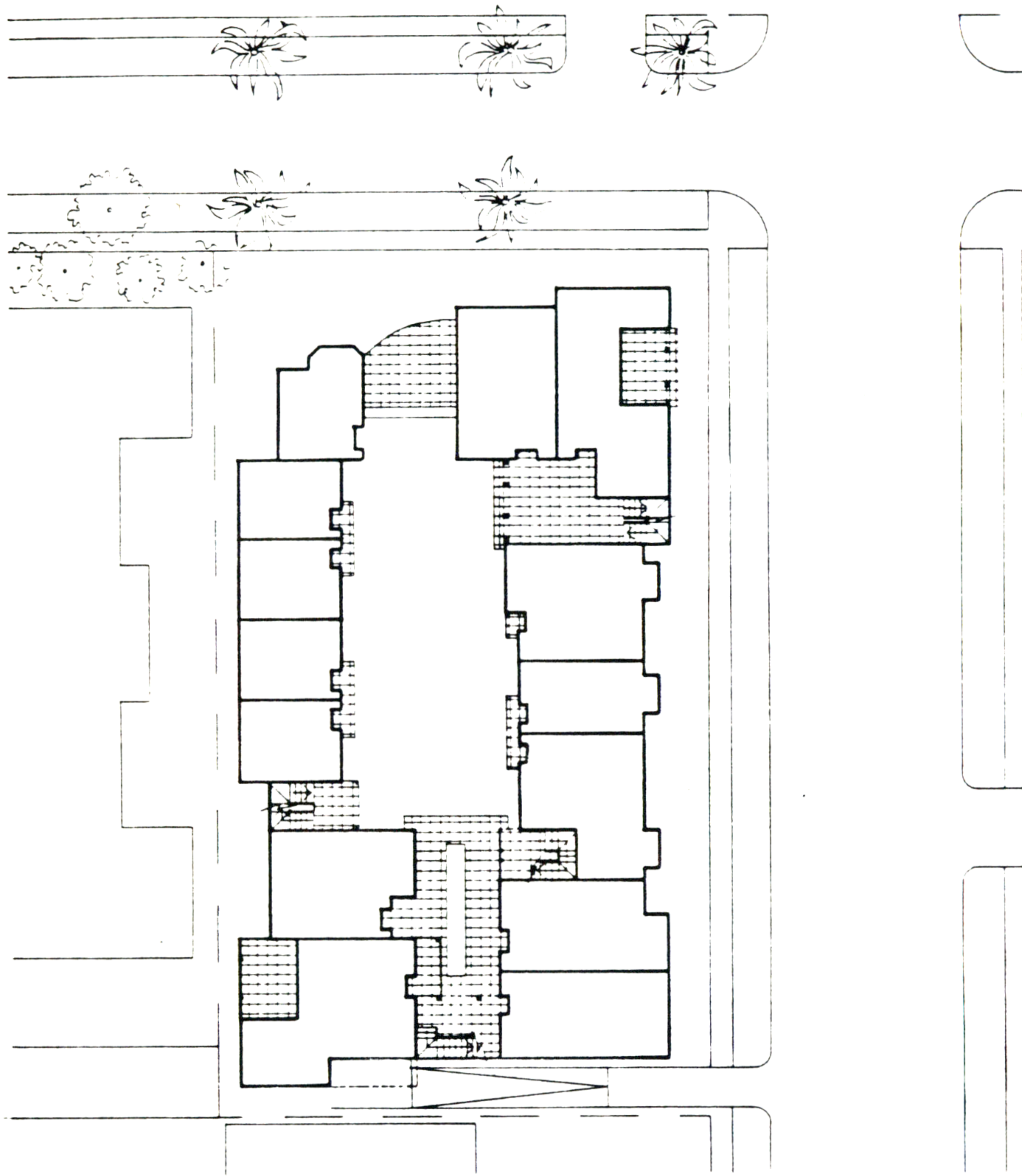


PARKING PLAN

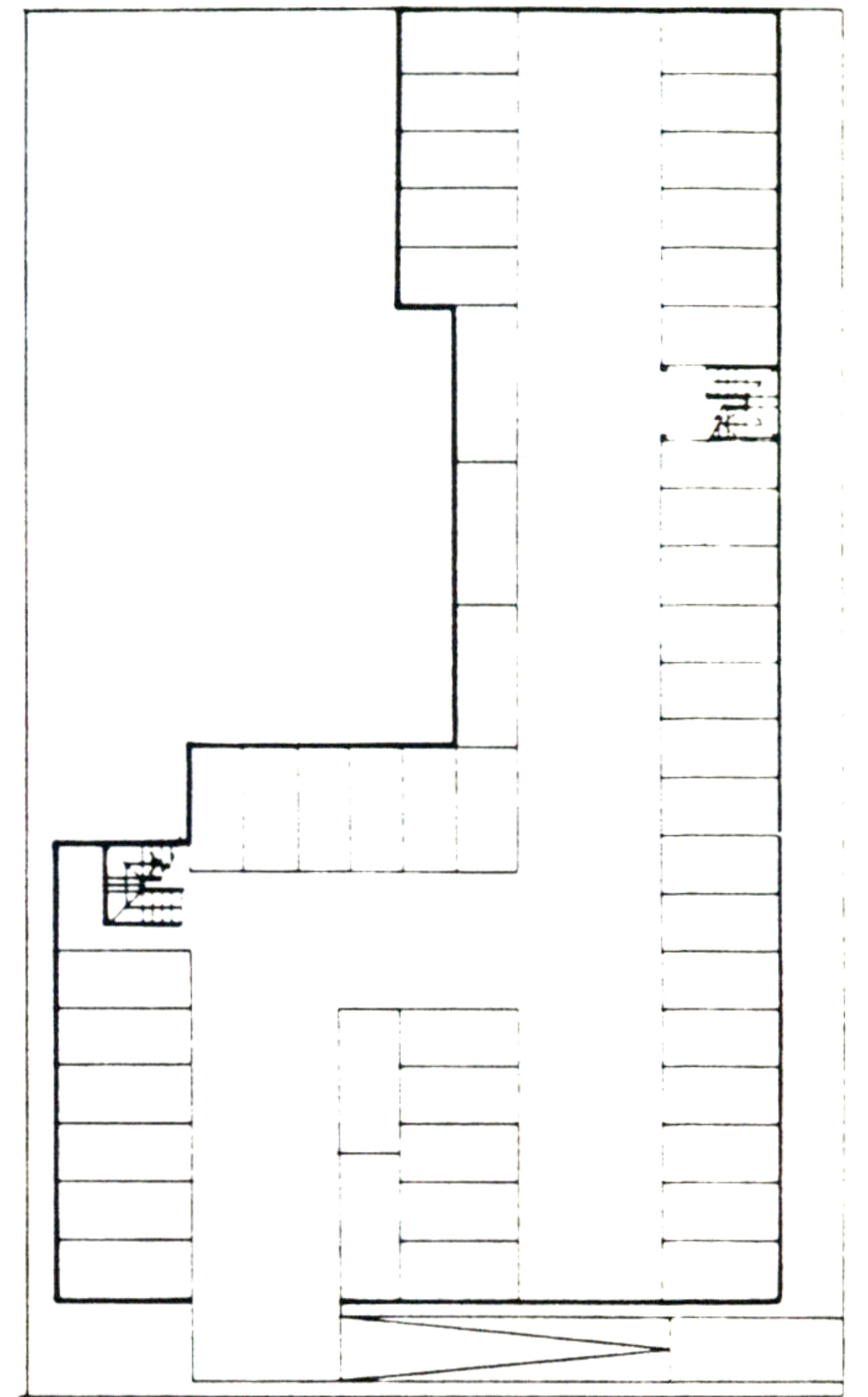


SECOND FLOOR PLAN

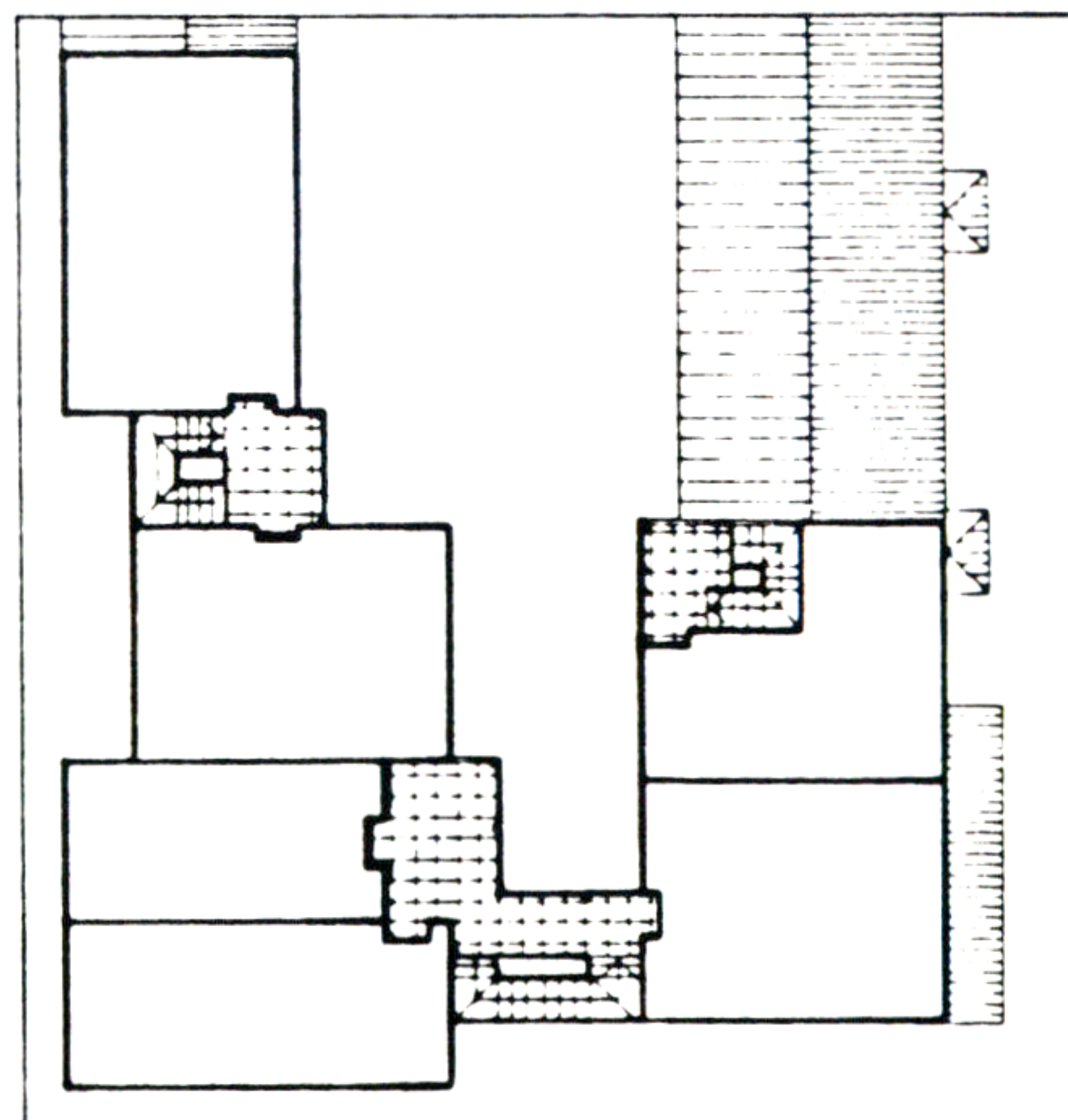
Address: 200 S.Molino/Cordova	Number of Units: 30 units
Lot Area (A): 27.900 sf	Number of Parking Spaces: 45 cars
Lot Dimensions: 124'x 225'	Square Feet of Construction: 32,518 sf
Context Density: 8 units/lot	Size of Total Open Space: 7,264 sf
Value of (C): 1	Size of Main Garden: 4,753 sf
Allowed sq.ft: 1.16(C)(A)sf	Parking Type: mechanically ventilated



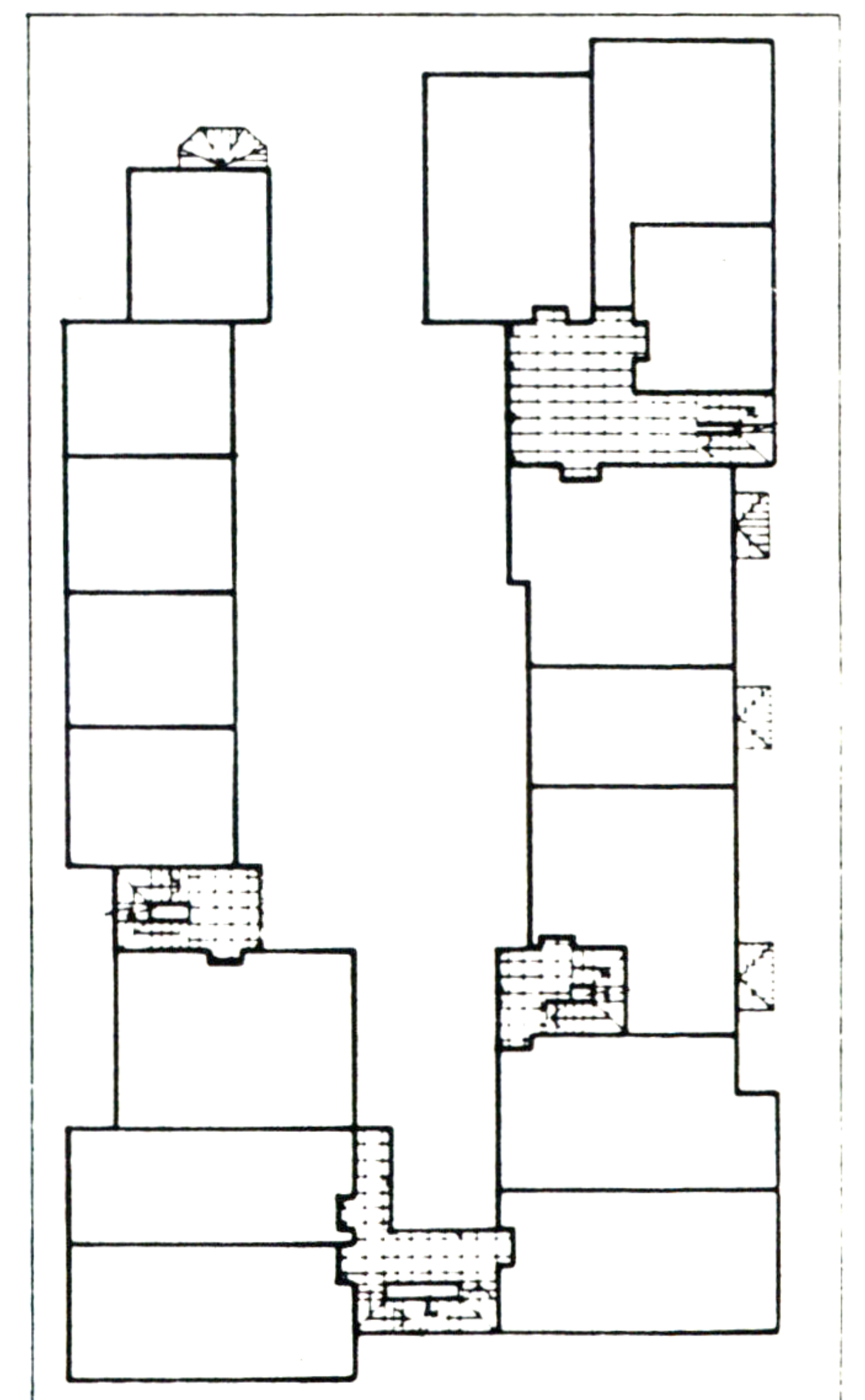
SITE PLAN



PARKING PLAN



THIRD FLOOR PLAN



SECOND FLOOR PLAN