

BLACKSBURG REDEVELOPMENT

by

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MASTER OF ARCHITECTURE

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INTRODUCTION

Blacksburg, A "College Town" in South Western Virginia, has a critical housing shortage and suffers from traffic problems at peak periods. An architectural problem exists in redeveloping the downtown area by: Redirecting traffic, providing student housing, providing adequate parking, and adding commercial space. Through the vehicle of this problem this thesis explores various scales of architectural inquiry.

The design of the downtown area, aims at creating a focal point for, as well as a transition between, the town and the campus. Currently the town is dependant on the university for its livelihood, and will become increasingly dependant, as the university's growth exceeds that of the community. A downtown student population and a theatre for performing arts would both stimulate downtown business, and provide easy access for students to the world beyond the university.

Reducing the scale of inquiry to an element of the downtown plan, the aims of focus and transition are reinforced. Low rise housing, supported by a two level, partially underground parking structure, and commercial space, is fashioned in an appropriate style, using motifs of town and campus architecture. The flexible structural design must satisfy both load and span requirements.

One of the two housing types; three stories of split level, three bedroom apartments, again reduces the spatial scale. In sympathy with the demands of student life, the housing is designed to separate living space from bedroom/study space, permitting there simultaneous use. The detailed use of concrete, wood and masonry, permeates every scale of inquiry.

DOWNTOWN PLANNING

Objectives

- Divert traffic from the downtown area
- Develop downtown as the focal point of town and campus communities
- Strengthen the transition from the town to the campus and visa-versa
- Stimulate downtown business

Planning Stages

Stage One

- Conversion of College Avenue and the downtown end of Draper Road into a pedestrian mall
- Provision of partially underground parking
- Construction of low rise apartment housing above parking
- Increase downtown commercial space

Stage Two

- Construction of a Performing Arts Center
- Remodeling of Henderson Hall as a Performing Arts School

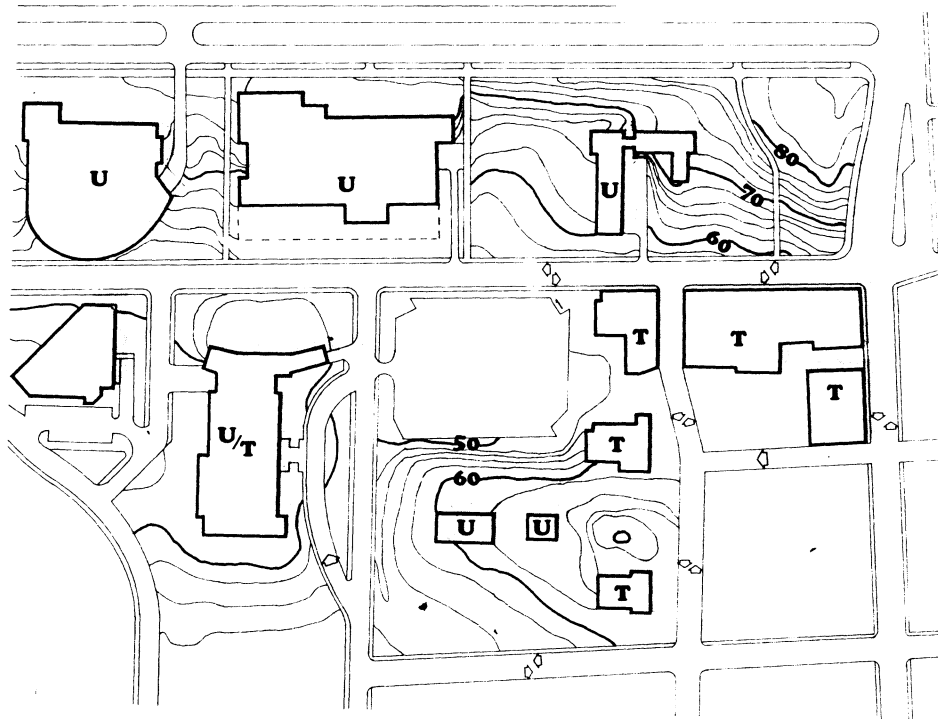
Stage Three

- Construction of hostel type housing, as an addition to Squires Student Center

Design Features

- The theatre complex is the focus of view for downtown pedestrians and the point of transition between town and campus
- The angles of the Donaldson Brown Building's facade, are repeated at a larger scale in the facade of the commercial space and housing, which frames the theatre complex, and lead the eye from town to campus

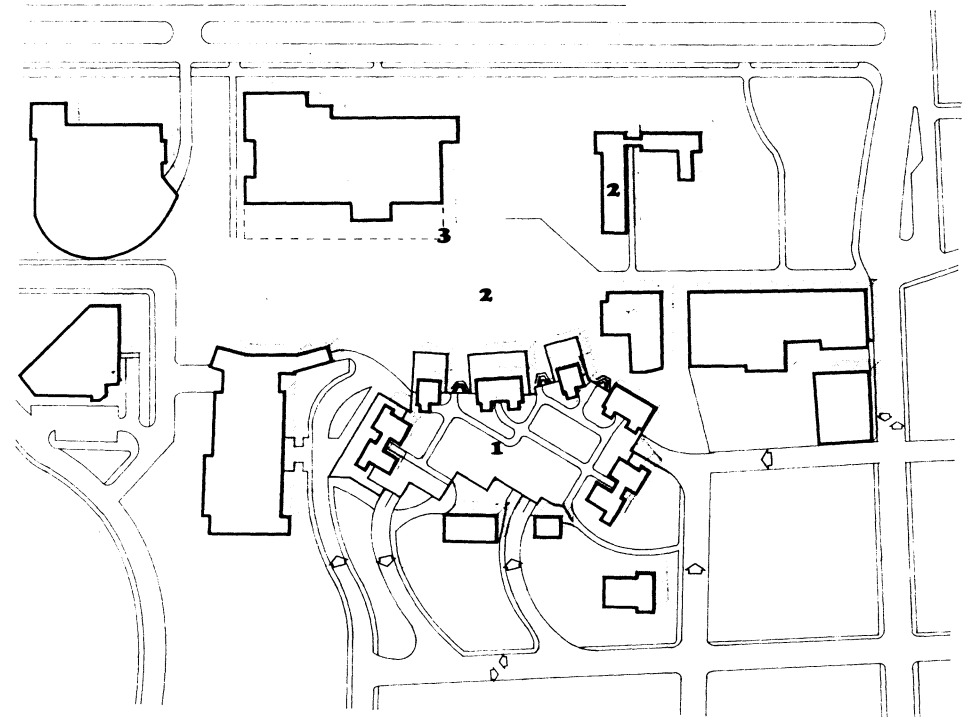
DOWNTOWN PRESENT



BUILDING FUNCTION

U—University
T—Town

PLANS PROPOSED



REDEVELOPMENT STAGES

1—Parking, Housing & Commercial
2—Performing Arts Facilities
3—Hostel Housing



REDEVELOPMENT STAGE 1

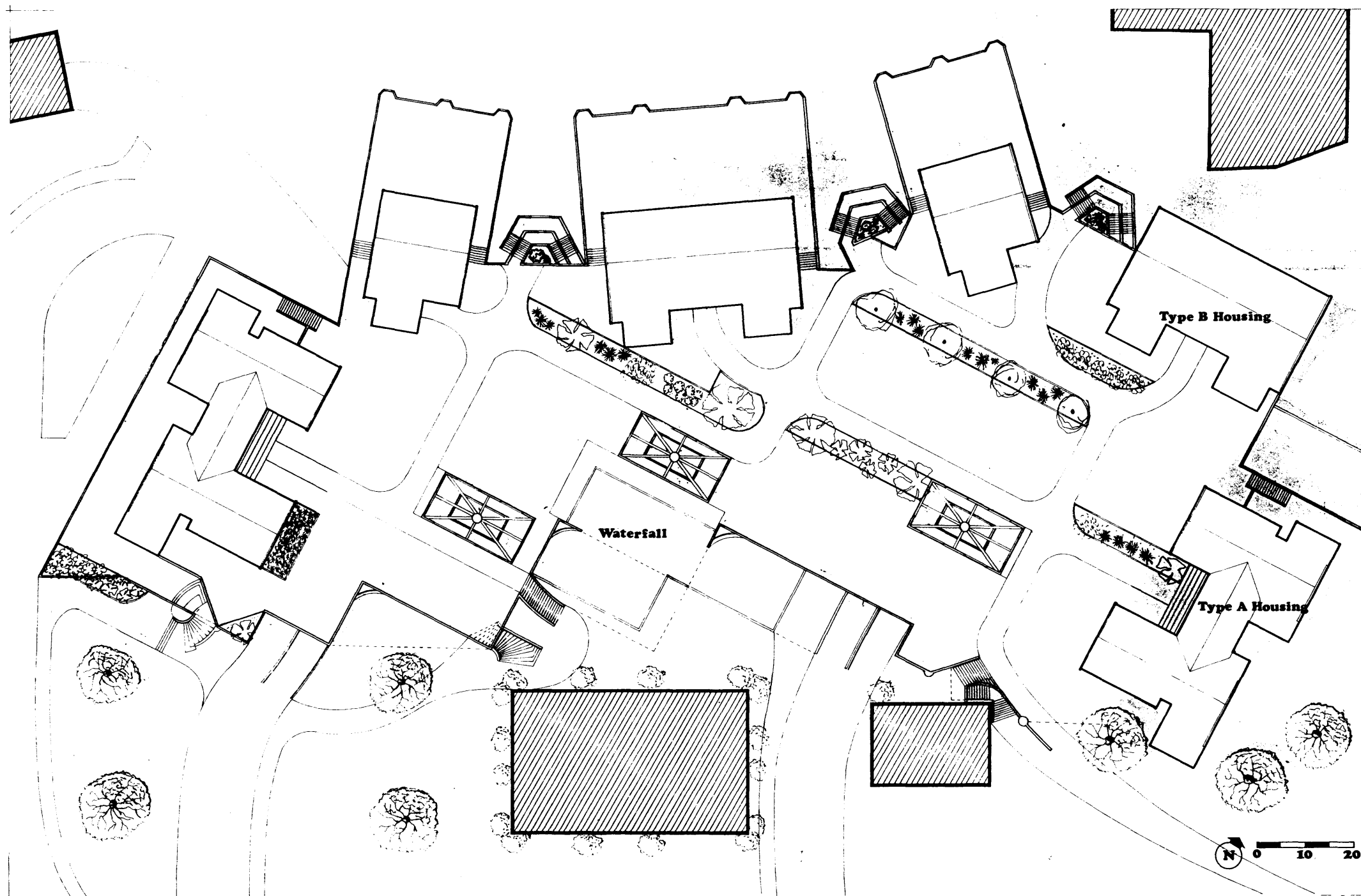
Objectives

- Provide easily accessible parking, low rise student housing and increased commercial space
- Make the scale and appearance of the scheme appropriate in the context of the existing downtown area
- Bridge the gap between the town and the campus
- Create an optimum student habitat

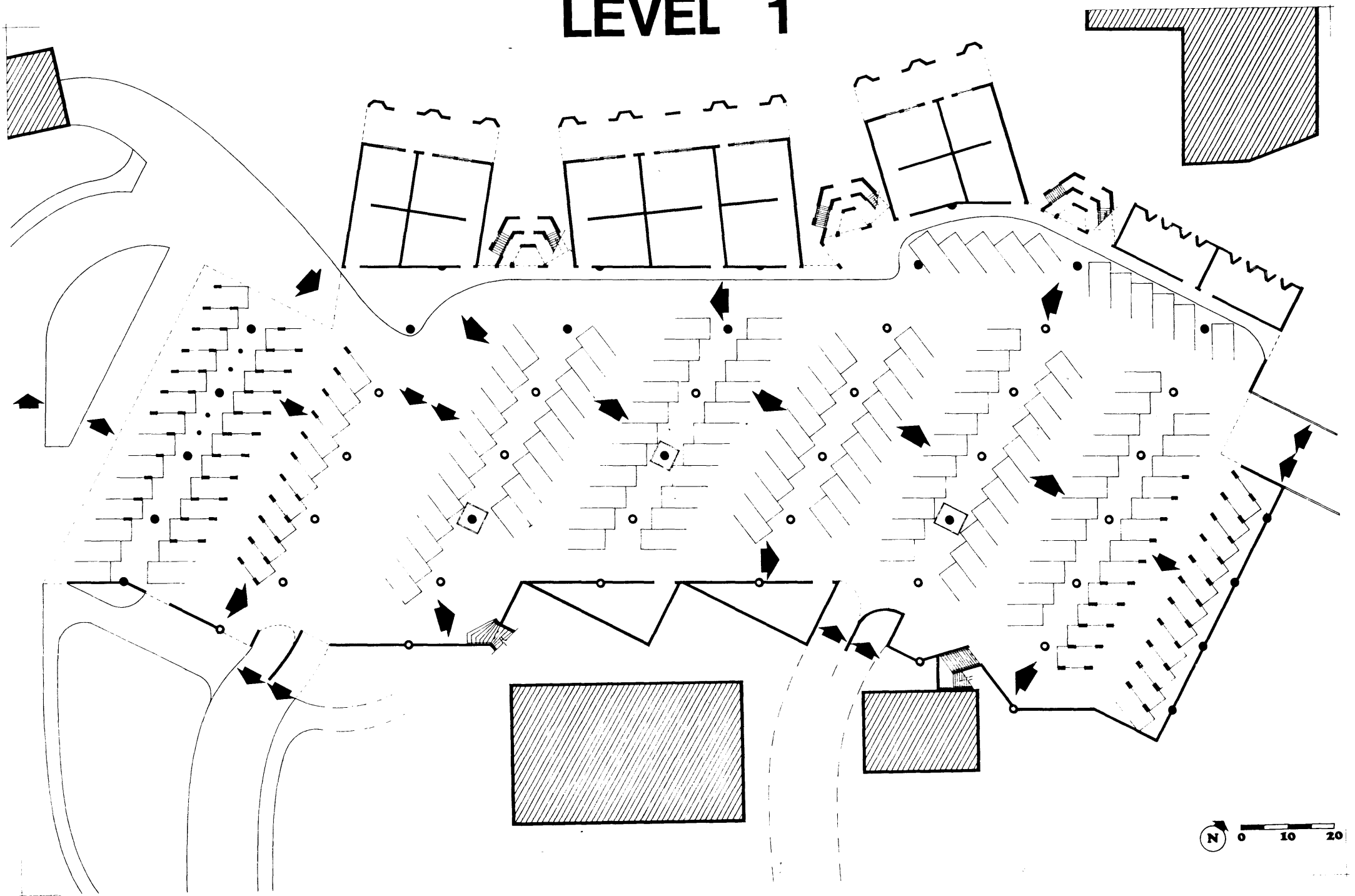
Design Features

- Two levels of naturally ventilated and lit parking for 284 vehicles
- Three story, split level, two and three bedroom apartment housing for 72 students
- Landscaped and drained recreational area including a waterfall
- Approximately 7000 square feet of commercial space bordering a pedestrian plaza

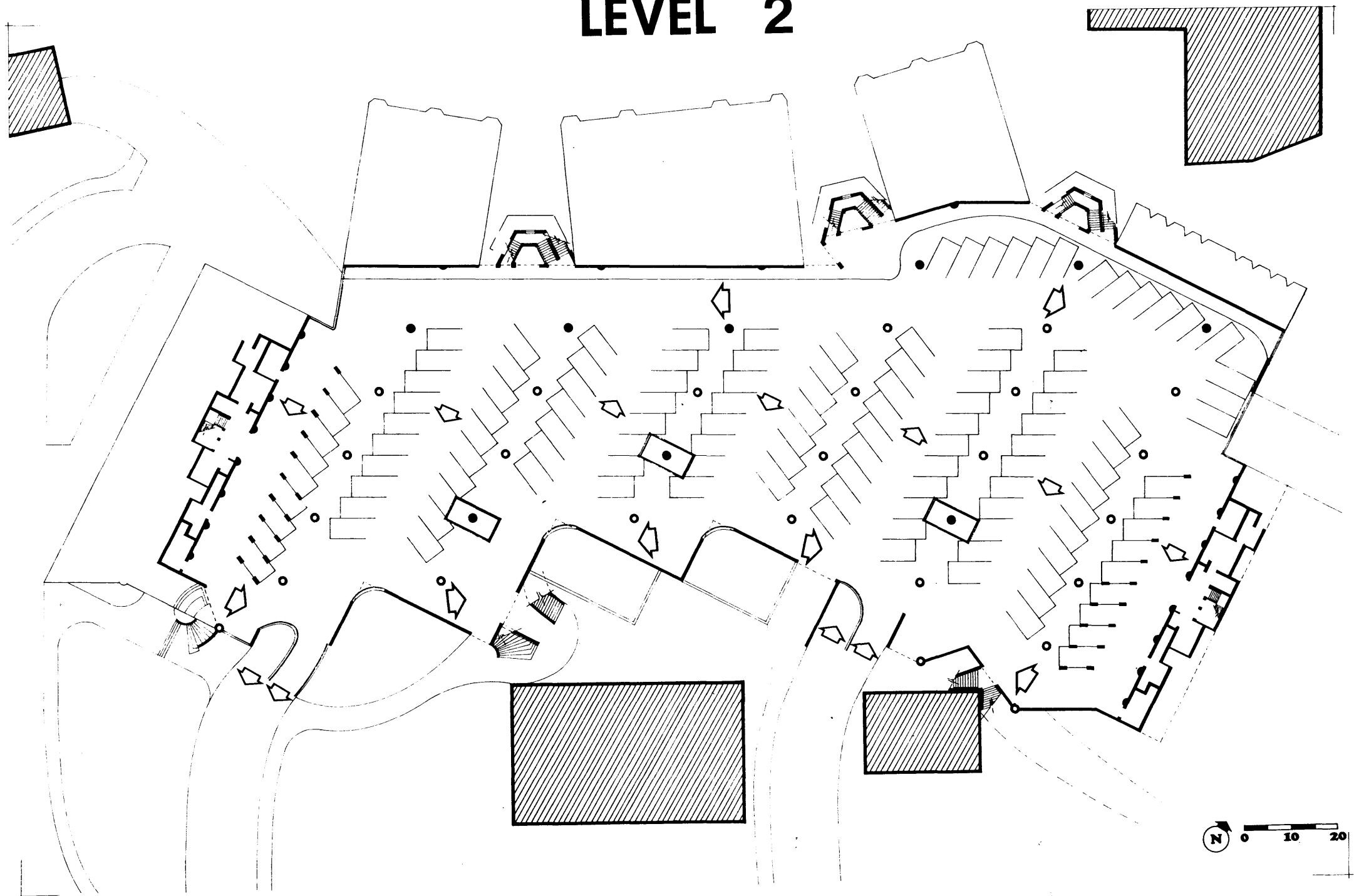
STAGE 1 PLAN



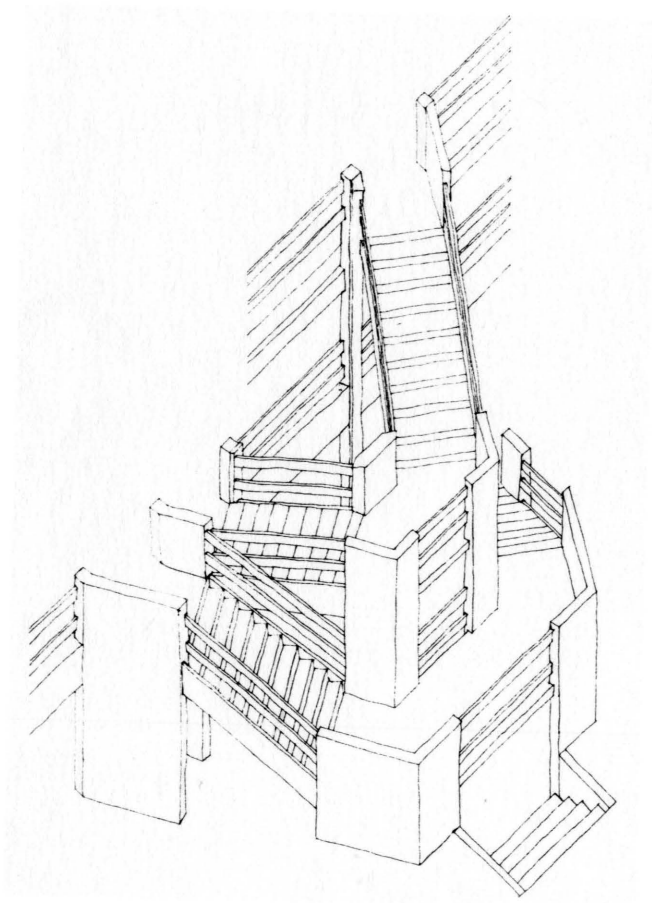
PARKING LEVEL 1



LEVEL 2

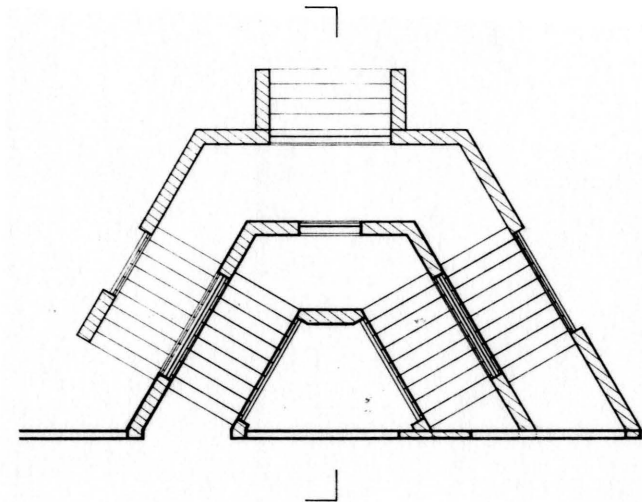


STAIRS

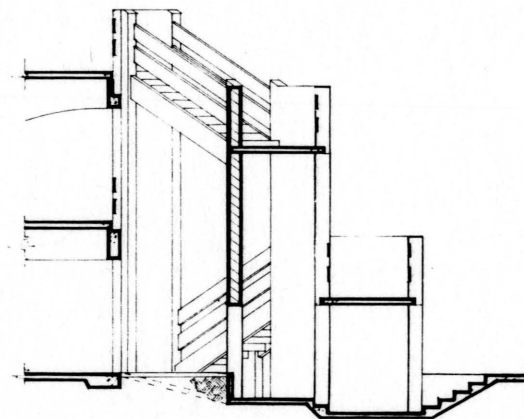


VIEW

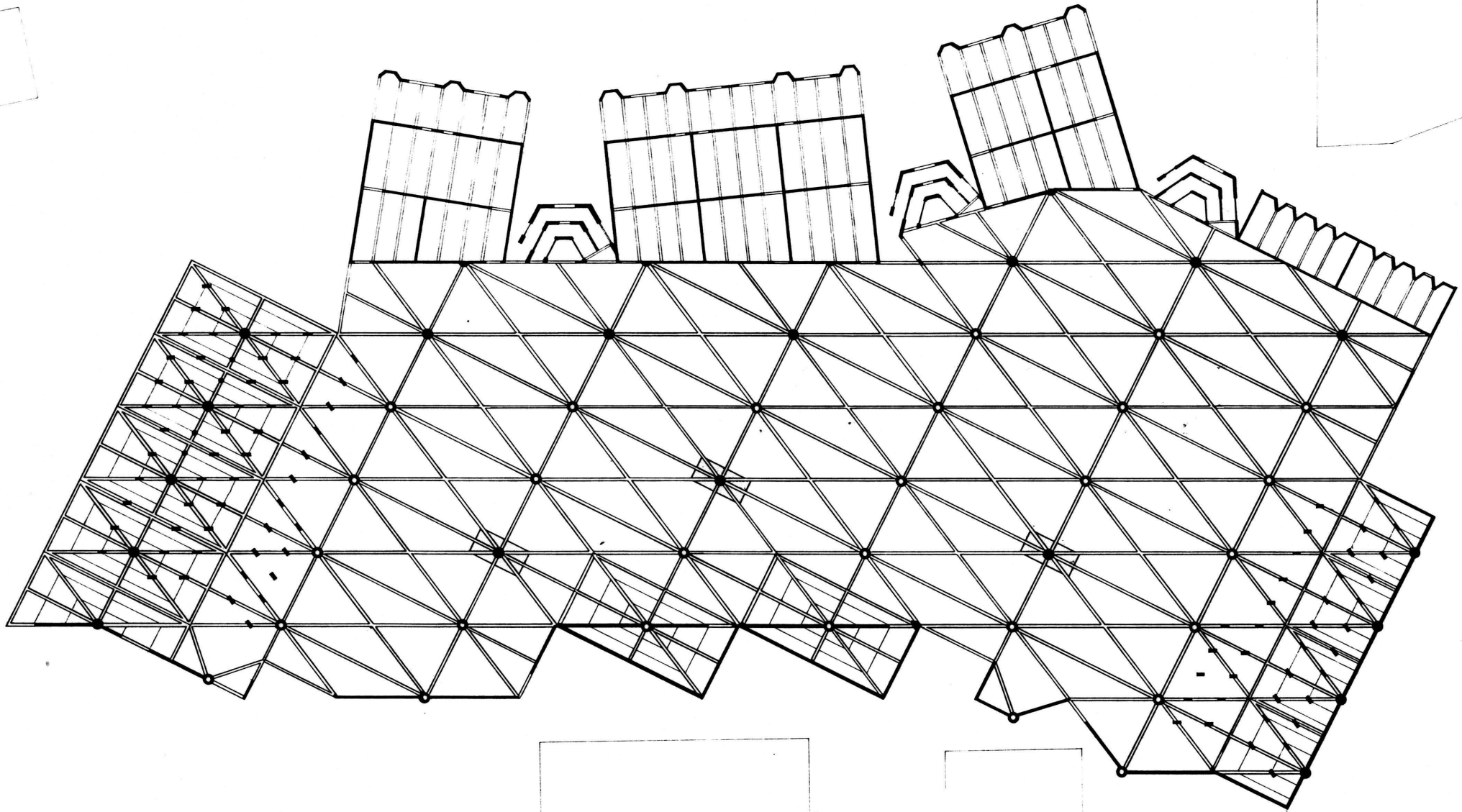
PLAN



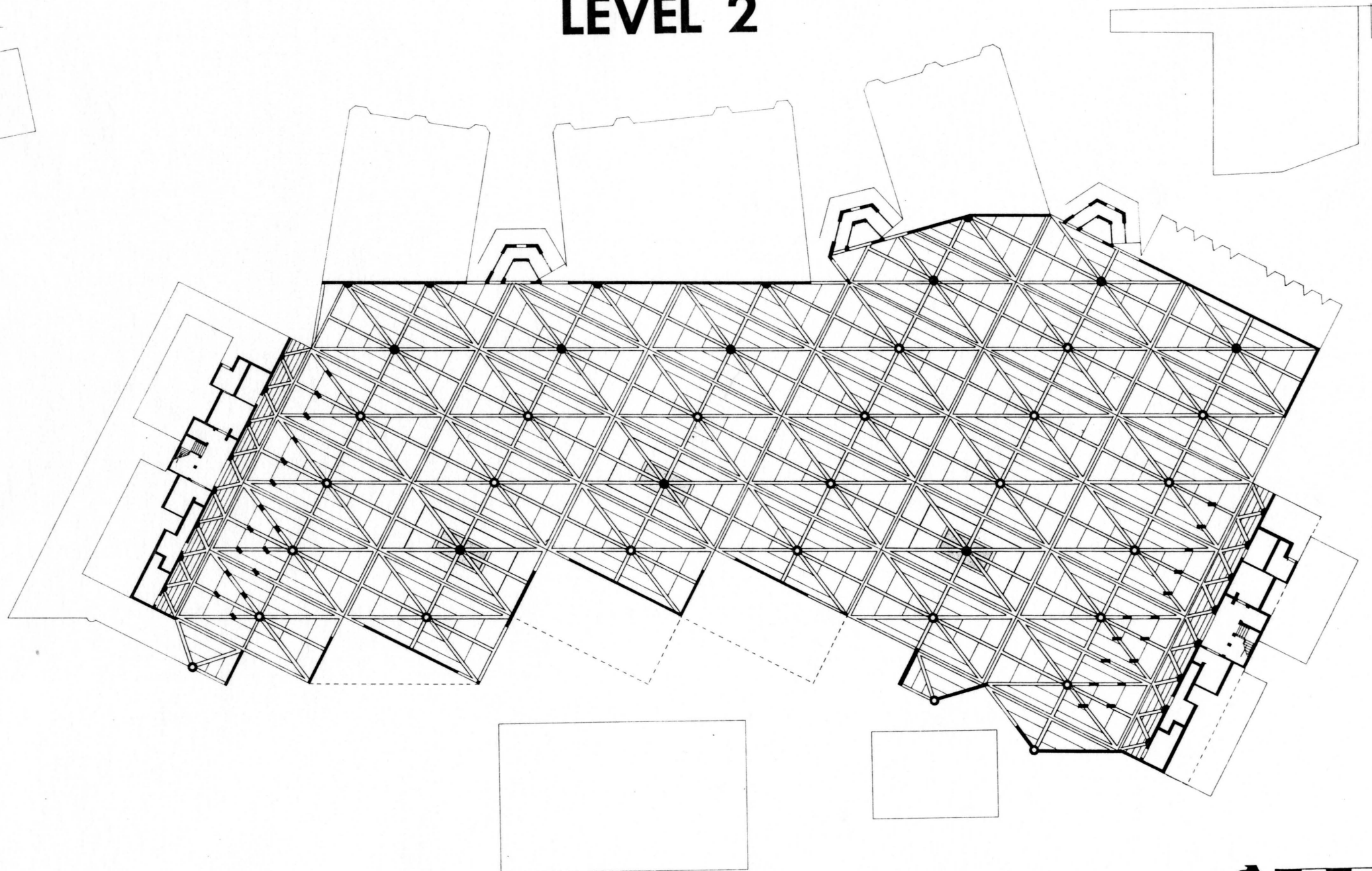
SECTION



CEILING LEVEL 1



LEVEL 2



STRUCTURE

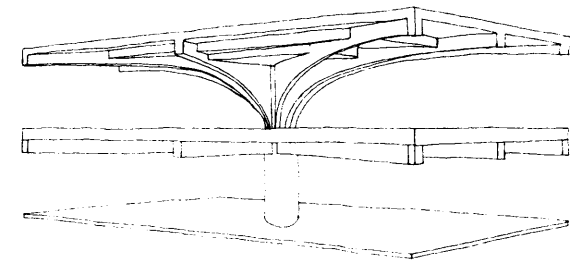
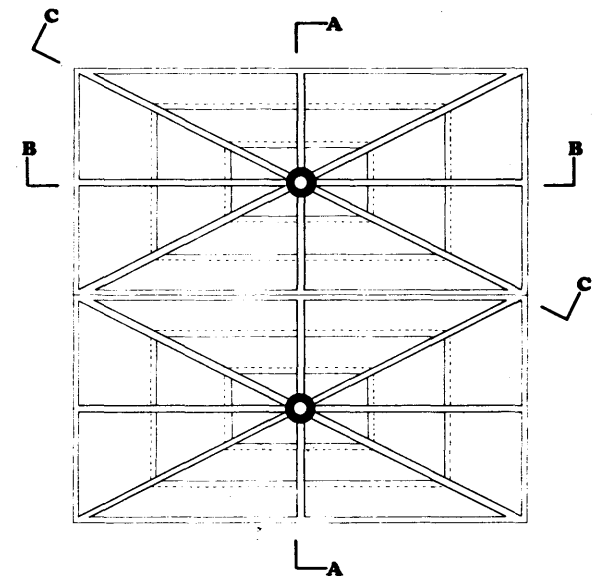
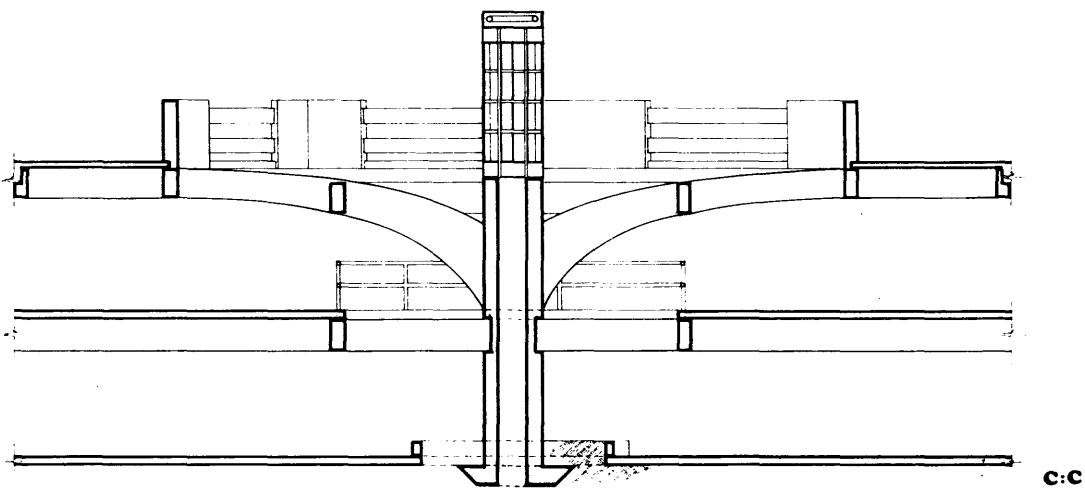
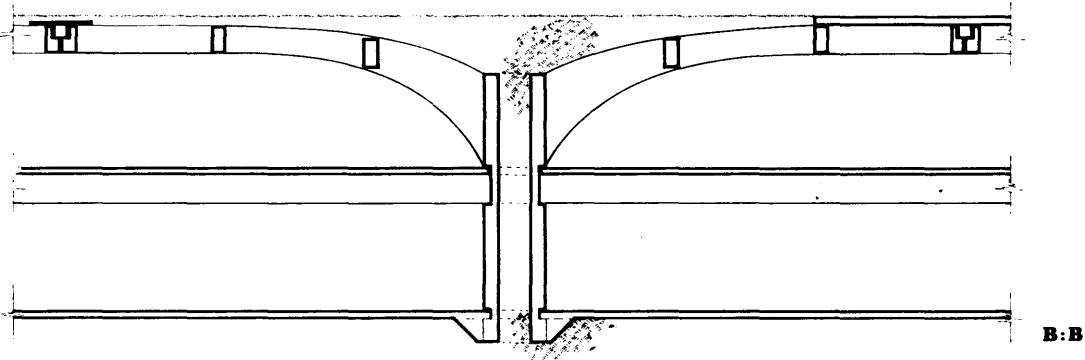
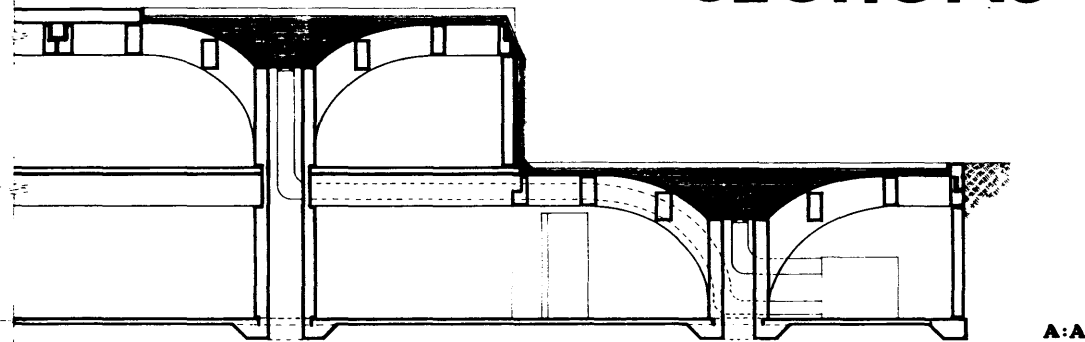
Objectives

- Adequate span for parking and adequate strength to support housing
- A system flexible enough to provide natural ventilation, natural light, and surface drainage simultaneously

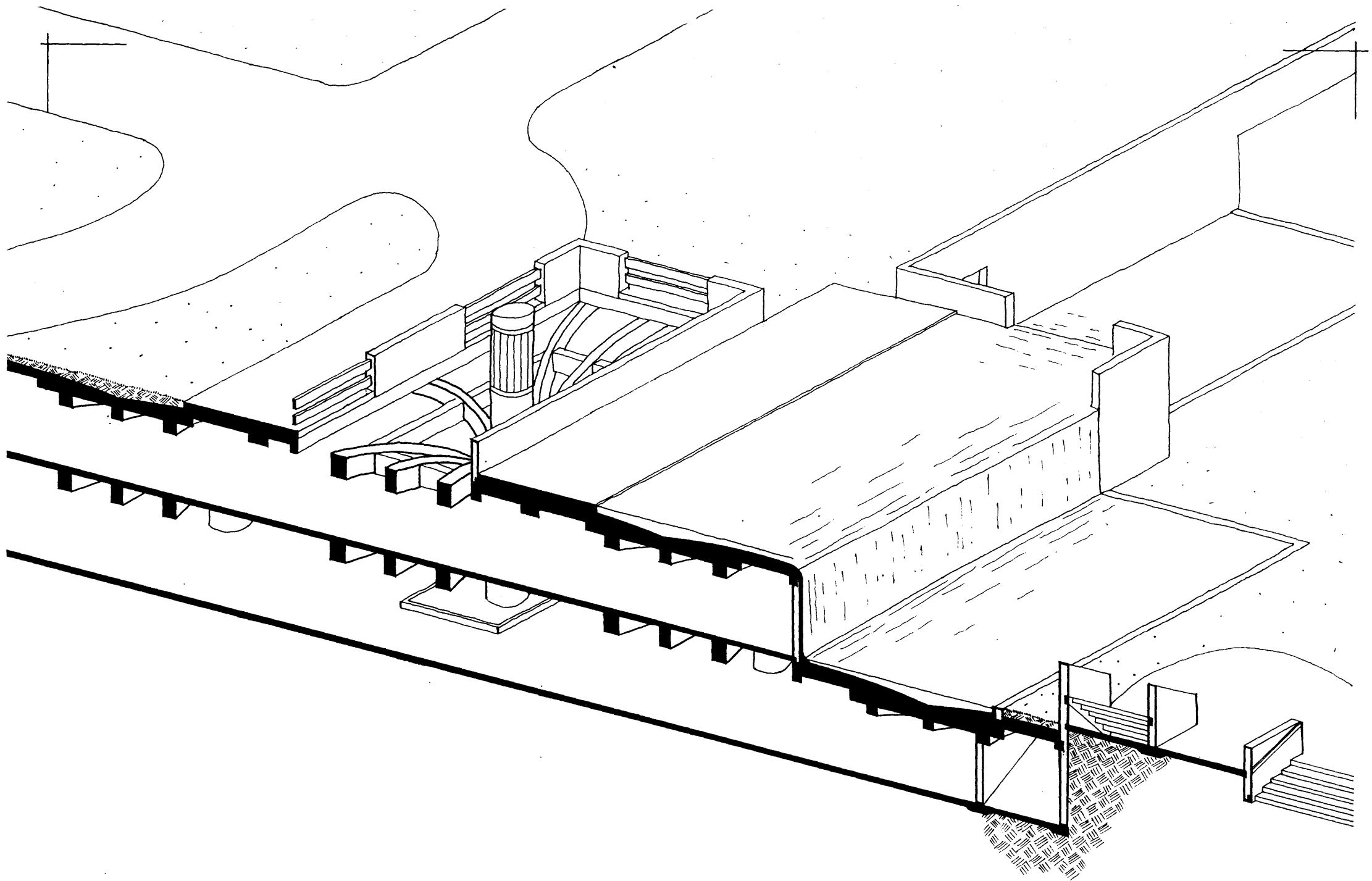
Design Features

- A precast concrete module 30' x 60' with central support
- The hollow core of the 4' diameter supporting column drains surface water
- The removal of slabs between beams permits light and air into the parking area
- Intermediate columns carry housing loads to the ground without obstructing parking

STRUCTURAL SECTIONS



0 4 8



HOUSING

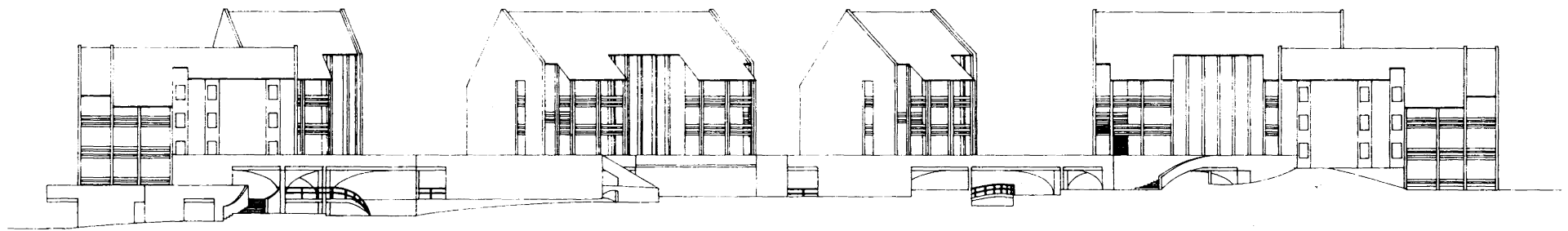
Objectives

- Scale and style of housing units in harmony with existing structures
- North-south orientation to facilitate sunlight control
- Provision of easy access to parking and storage areas
- Separation of living and bedroom/study areas to permit simultaneous use
- Flexible, open living space
- Student room divided into study and sleeping areas

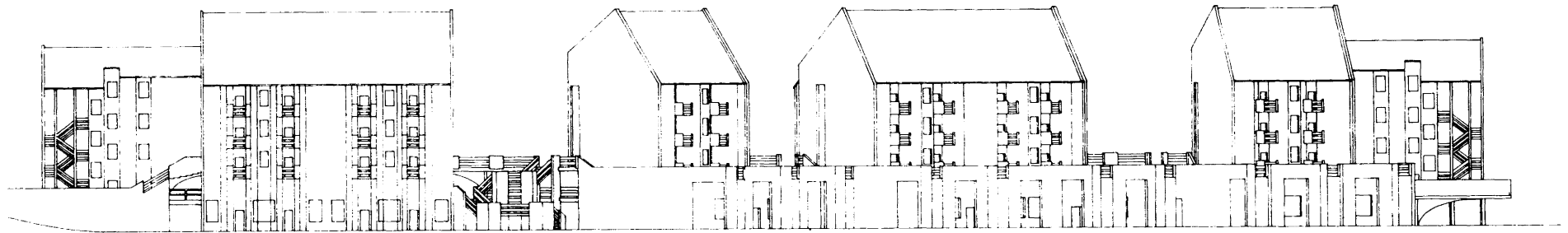
Design Features

- Use of gable ends
- 10' x 20' porch on south side
- Access to parking, laundry and storage from lobby
- Split level design-decending to living area and ascending to bedroom/study area
- Free standing stove/bench unit in kitchen to allow access for use on both sides
- Student room shape articulates two distinct areas

HOUSING

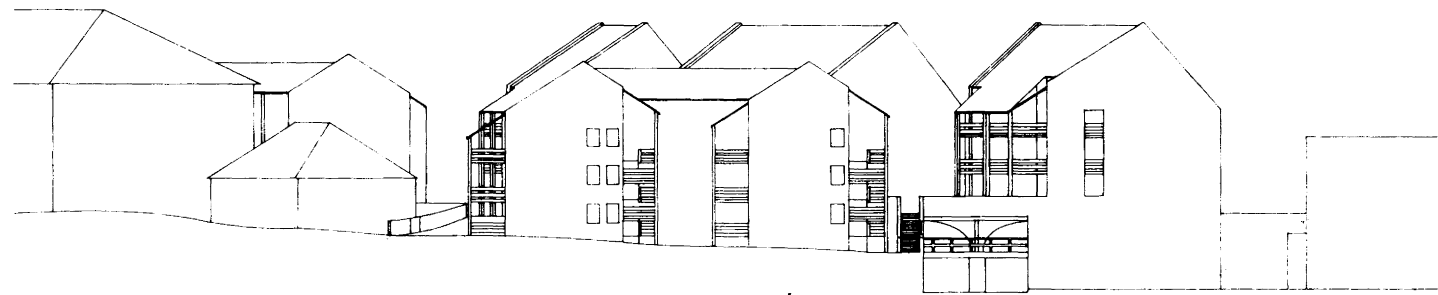


NORTH ELEVATION

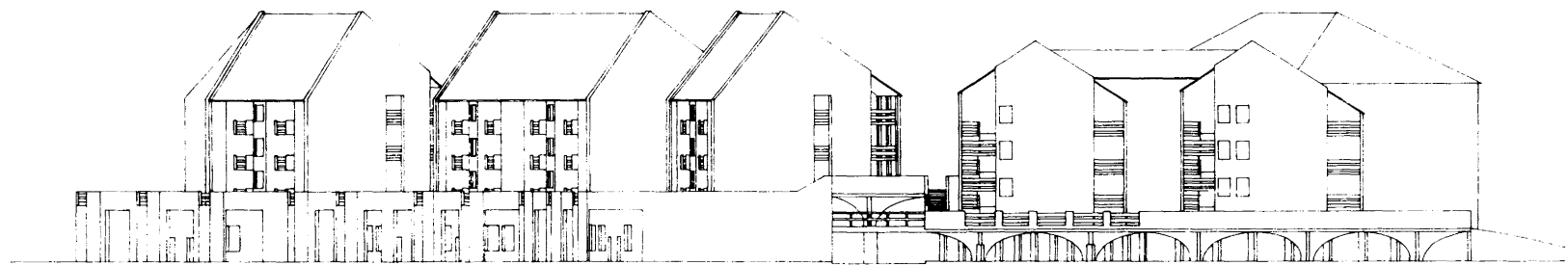


SOUTH ELEVATION

0 10 20



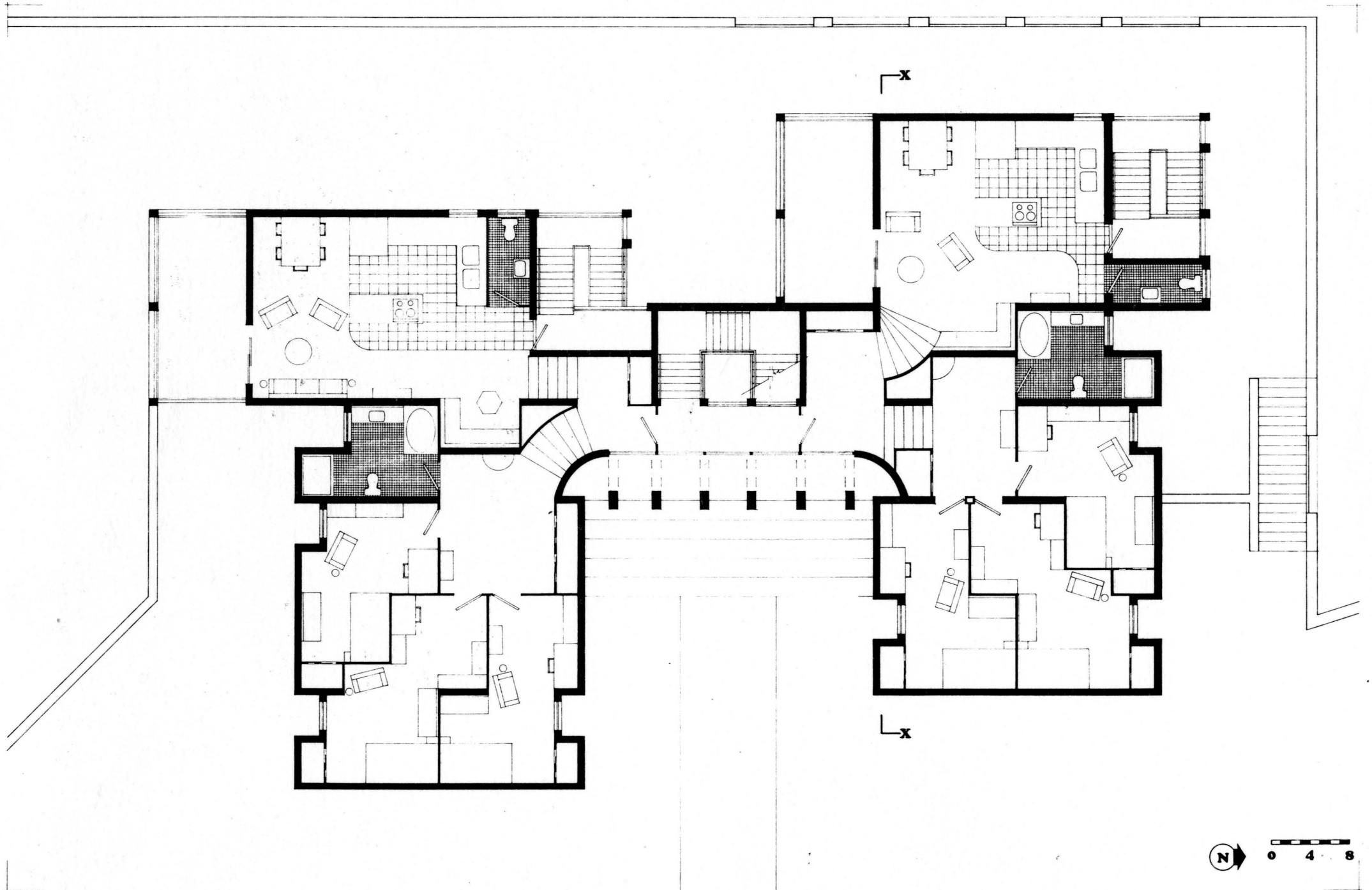
EAST ELEVATION



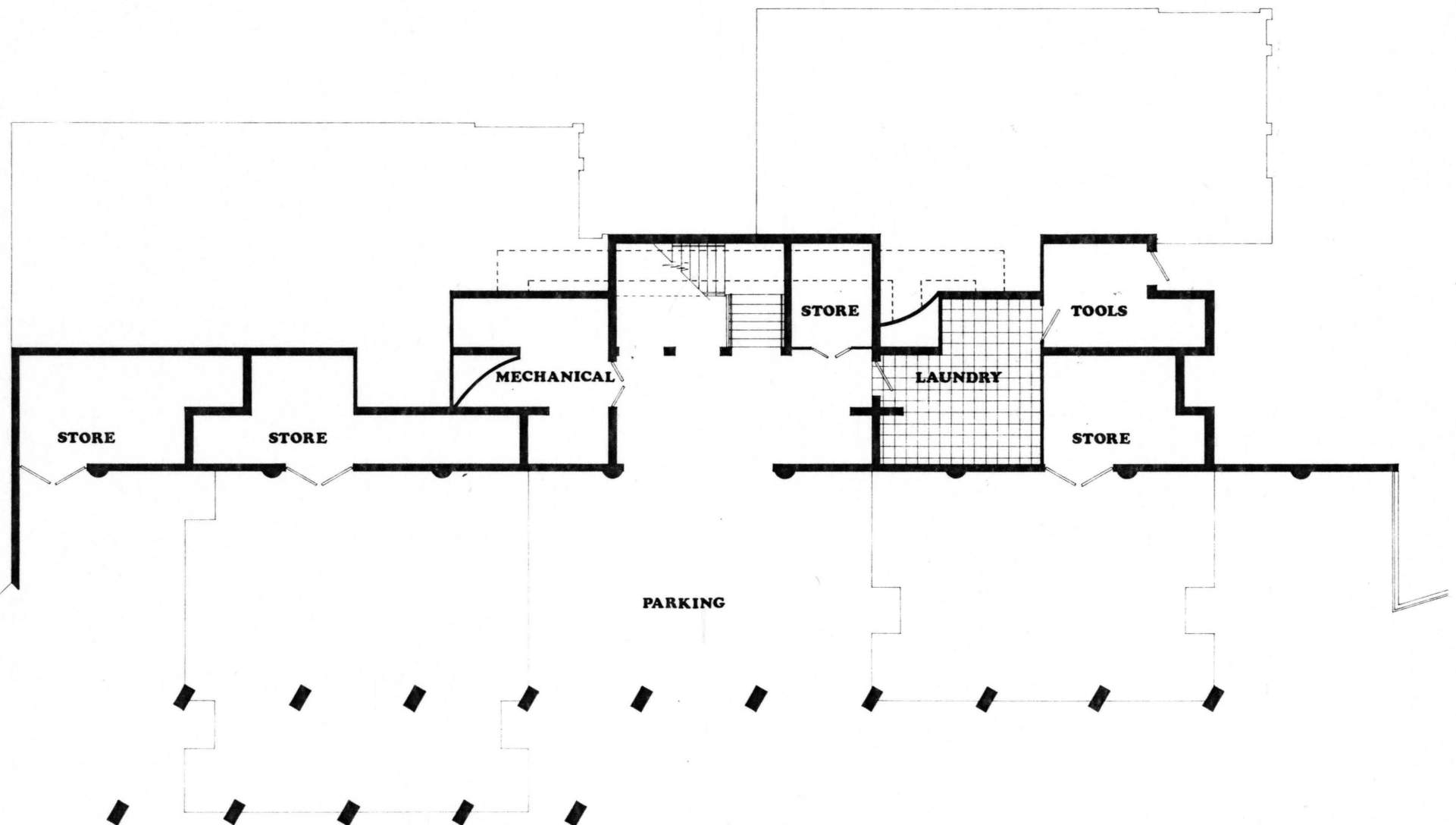
WEST ELEVATION



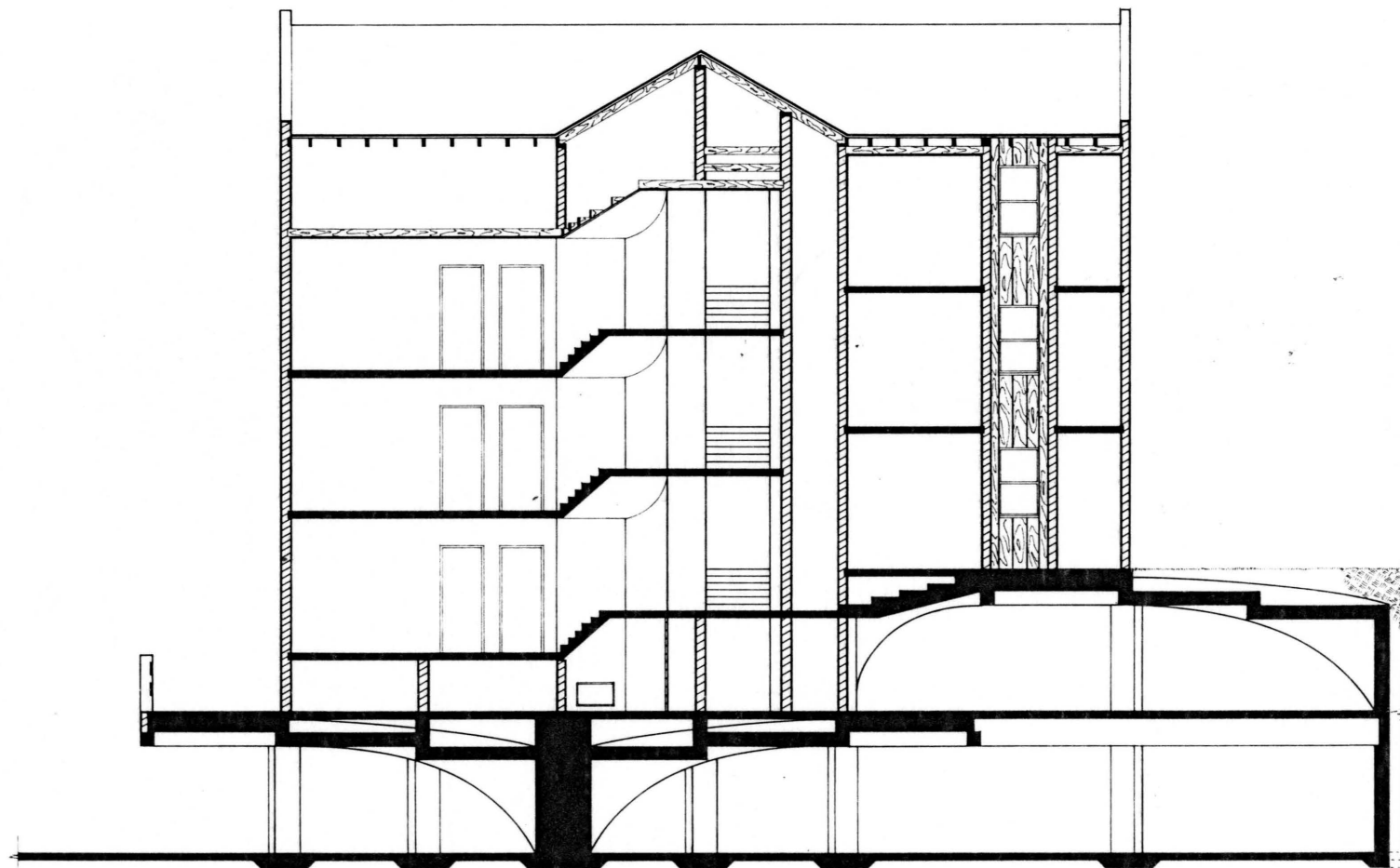
TYPE A FLOOR PLANS



BASEMENT



SECTION X : X



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CONCLUSION

Virtue in architectural design occurs when the concept of a scheme permeates its every spatial scale. The scheme then becomes a complete organism rather than a collection of contradictory elements.

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(ABSTRACT)

Using the vehicle of redeveloping downtown Blacksburg, an architectural problem concerning planning, structure, housing and landscaping, this thesis considers the implications of each component and how they interrelate, to produce a built form in harmony with its surroundings.