a central municipal library

LYNN REYNOLDS

1968

A

CENTRAL MUNICIPAL LIBRARY FOR AMARILLO, TEXAS

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Architecture degree

Texas Technological College

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OUTLINE OF CONTENTS

A. Introduction..... 1

B. Program Revisions..... 2

C. Evolution of the Design..... 4

D. Site Considerations..... 6

E. Structural System..... 8

F. Mechanical System..... 9

G. Area Allotments.....10

H. Materials.....11

I. Financing.....12

J. Bibliography.....13

INTRODUCTION

It should be reiterated at this point that my thesis is a solution to the library problems of Amarillo, Texas and not an attempt to solve universal library problems. I fully realize that there are many advances in library science (such as the use of computers) that are not employed with this proposal. I attempted to make the problem as real as possible, and did not make an attempt to solve these problems because the Amarillo library system is not, and does not anticipate using these systems in the near future. However, the proposal is totally flexible and does not rule out these systems in the future.

I feel that the original purposes and concepts listed in the program have been dealt with and solved with my proposal. The main idea of serving the community is of prime importance. The proposal makes the books easily accessible to the community and is truly a place of enjoyment and discovery where the user may experience the fun and education that books and a library have to offer.

PROGRAM REVISIONS

As the design finalized, it was evident that certain portions of the program were either incomplete or inaccurate to meet the needs. Following is a list of program titles and page numbers with the noted corrections:

"Entrances" p. 17

The idea of one entry for the general public is eliminated because of the control procedures employed in the library.

"Service Drives" p. 20

Area for servicing one bookmobile rather than two is provided. It is the plan of the library system to service the bookmobiles from the branch library facilities. However, it seems reasonable to assume that occasions would arise when the main facility would need to service one bookmobile.

"Space Requirements" p. 22

The original program called for a facility to house 500,000 volumes. This should be revised to call for a library system to contain 500,000

volumes. This still provides for the two volumes per capita according to population projections listed in the program, but with a different distribution. The breakdown of the volume distribution shall be:

Central facility		350,000
Branch facilities	3 @50,000 each=	150,000
	Total	500,000

EVOLUTION OF THE DESIGN

The basic configuration of the building was an outgrowth of many factors. The first of these factors is the limitations placed on the design by the site. Because of the physical size of the site, a vertical solution was one demand placed upon the solution. This in turn presents a major problem of how to logically divide books among the floors so that books may be shelved with some continuity of the Dewey decimal system of cataloguing. It would be impossible to arrange the books among the floors so that there would never be a numbered series that is not divided among two floors. Even if this could be arranged for an initial set number of books, it would be totally inflexible because of expansion problems. This brings me to my solution of the problem of arranging a catalogued collection of books in a multi-level configuration.

As mentioned before, the site selected predetermined a multi-level building and my solution was to make the level change as small as possible. The general planning in the stack area is to divide each floor "level" into four different levels so that the

movement from one level to another is gradual and does not destroy the continuity of shelving a specific series or group in the cataloguing system. A person may walk through the entire collection without ever walking up or down stairs or using the elevator. However, accessibility to the stacks by elevator is very convenient. One may reach ten of the levels directly by elevator and reach the remaining ten by using the elevator and then by walking down a ramp only three feet. However, simply solving the functional problems is not the only advantage of the system. The visual advantages that it presents is another chief factor. The library user is always capable of seeing more than the one level than the one that he happens to be standing on, and in some cases he may see all of the levels. This encourages the idea of discovery that the library offers, and I feel that when one gets a glimpse of the other areas, he will be drawn to discover what they contain. This would be especially true for the children, and would provide them with a fun place along with a place of learning.

SITE CONSIDERATIONS

The most dominant site consideration is the relationship of the library to the existing building. The transition between the two is achieved through the use of the courtyard and a very simple physical connection achieved by the glass corridor. (Although the physical functions of the two buildings are not very closely related, I felt that some protected connection should be made between the two structures.) Limestone and brick are used extensively in the library to help in a site relationship of color and texture to the museum.

Entrances

Because control procedures are employed at each level in the stack area, I was able to open the ground level to more than one entrance. Entrance to the building from the parking is found on the south side of the building, with another major entrance off the courtyard on the north side of the building.

Parking

On-street parking is available on Polk Street,

Tyler Street, and Tenth Street immediatly adjacent to the building. Additional on-site parking is provided for staff and patrons across the alley west of the library.

Services

Water, sewer, gas, and electrical services are available in the alley west of the building.

Expansion

Because of the physical size of the site, any future expansion must necessarily be vertical. The roof of the building is designed so that it would accommodate floor loading conditions when expansion becomes necessary. Because of the use of branch library facilities, it is not anticipated that an addition of more than three floors would be necessary.

STRUCTURAL SYSTEM

The basic structural system consists of 32' X 32' bays. This size bay was chosen because it is one that adapted itself well to bookstack spacing and to the use of concrete. Each level of stacks consists of two bays with an eight foot transition space between each of these levels. This space accommodates the vertical chases and ramp systems. All floor systems are waffle slab systems based on a 3' X 3' module. However, some areas of the basement and first floor are one way pan joist systems because of span and bearing conditions.

MECHANICAL SYSTEM

The mechanical equipment for the building is located in the basement with service to the remainder of the building by means of four vertical chases. The system is a double-duct high velocity system supplying hot and cold air to a mixing box at each zone of the building. Four zones are on the first floor and two zones for each level in the stack floor area of the building. Air is returned to the central unit by means of the open well penetrating the entire vertical dimension of the building.

I estimate the cooling system to have a capacity of 250 tons. The blower units should have a combined output of approximately 150,000 CFM to supply six air changes per hour.

AREA ALLOTMENTS

Basement	Square Feet	Volume Capacity
Ground level	11,100	
Level 1-Children	14,144	5,000
Level 2-Juvenile	2,788	12,000
Level 3-Juvenile	2,788	12,500
Level 4-Youth	2,788	12,500
Level 5-000 Series	2,788	12,500
Level 6-100 Series	2,788	18,000
Level 7-200 Series	2,788	18,000
Level 8-300 Series	2,788	18,000
Level 9-400, 500 Series	2,788	18,000
Level 10-600 Series	2,788	18,000
Level 11-700 Series	2,788	18,000
Level 12-800 Series	2,788	18,000
Level 13-800 Series	2,788	18,000
Level 14-800 Series	2,788	18,000
Level 15-900 Series	2,788	18,000
Level 16-900 Series	2,788	18,000
Level 17-Periodicals	2,788	18,000
Level 18-Periodicals	2,788	18,000
Level 19-Business & Industry	2,788	18,000
Level 20-Business & Industry and Special Collections	2,788	18,000
	81,004 Total	343,500

MATERIALS

Basement

Floor - Concrete

Walls - sand finish plaster

Ceiling - exposed concrete structure, sand blast finish

Ground level

Floor - Terrazzo, carpet

Walls -
Interior - Sand finish plaster
Exterior - Brick, glass

Ceilings - Suspended acoustical ceiling

Upper levels

Floor - Vinyl asbestos tile

Ceiling - Exposed concrete structure, sand blast finish

Walls -
Interior - Sand finish plaster
Exterior - Limestone panels

There is limited use of glass in the stack areas as natural light is bad for reading and damaging to books. However, I felt that some natural light was necessary for psychological and orientation purposes.

Shelving

Standard metal shelving is used which measure 3')" X 10" (each side) X 7'6" high.

FINANCING

As mentioned in the program, in 1964 the citizens of Amarillo, Texas adopted a five year capital improvement program which provided $300,000 for a branch library facility. It is assumed that the citizens will rise to the occasion again when necessary to vote for the bond sales that would provide financing for needed central library facilities. Using a figure of approximately $25.00 per square foot, I estimate the cost of the proposal to be $2,025,000.

Bibliography

City of Amarillo, Texas. Proposed Five Year Capital Improvement Program. 1964.

Conant, Ralph R. (ed.). The Public Library and the City. Cambridge, Massachusetts: The M.I.T. Press, 1965.

Kent, Allen (ed.). Library Planning for Automation. Washington: Spartan Books, Inc., 1965.

Leigh, Robert D. The Public Library in the United States. New York: Columbia University Press, 1950.

Metcalf, Keyes D. Planning Academic and Research Library Buildings. New York: McGraw-Hill Book Company, 1965.

Schenk, Gretchen Knief. The Amarillo Public Library - Present Needs and Future Projections. 1967.

Shaw, Ralph R. (ed,). The State of the Library Art. New Brunswick, New Jersey: The Rutgers University Press, 1960.

Thompson, C. Seymour. Evolution of the American Public Library. Washington: The Scarecroe Press, 1952.

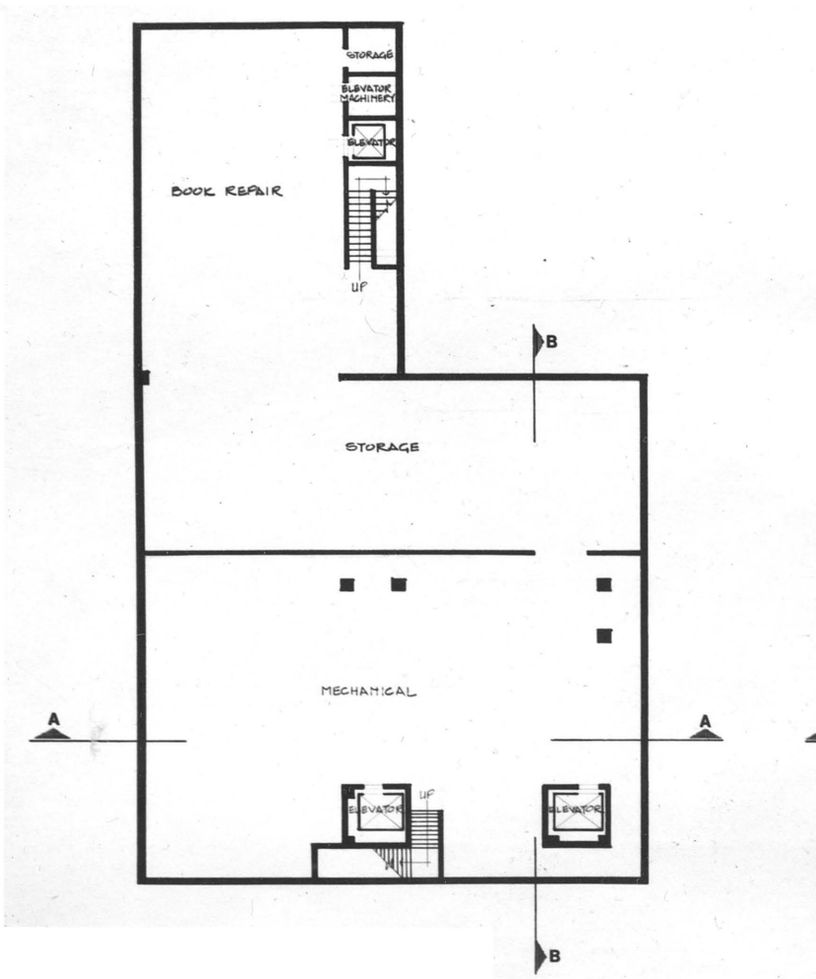
Wheeler, Joseph L. A Reconsideration of the Strategic Location for Public Library Buildings. University of Illinois Graduate School of Library Science, Occasional Paper No. 85, 1967.

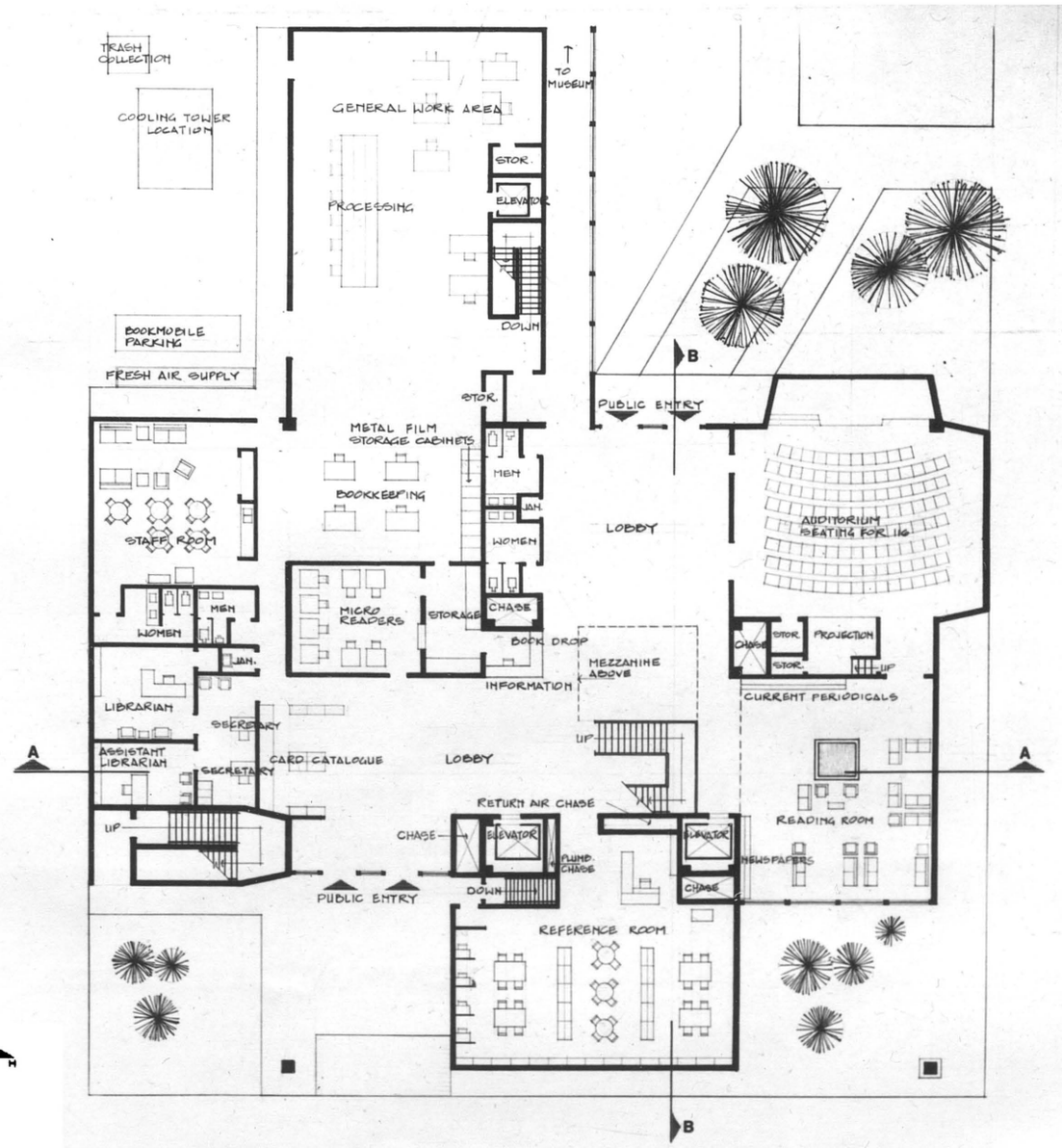
A CENTRAL MUNICIPAL LIBRARY FACILITY

FOR AMARILLO, TEXAS

LYNN REYNOLDS
TEXAS TECHNOLOGICAL COLLEGE

ARCHITECTURE 461
MAY, 1968





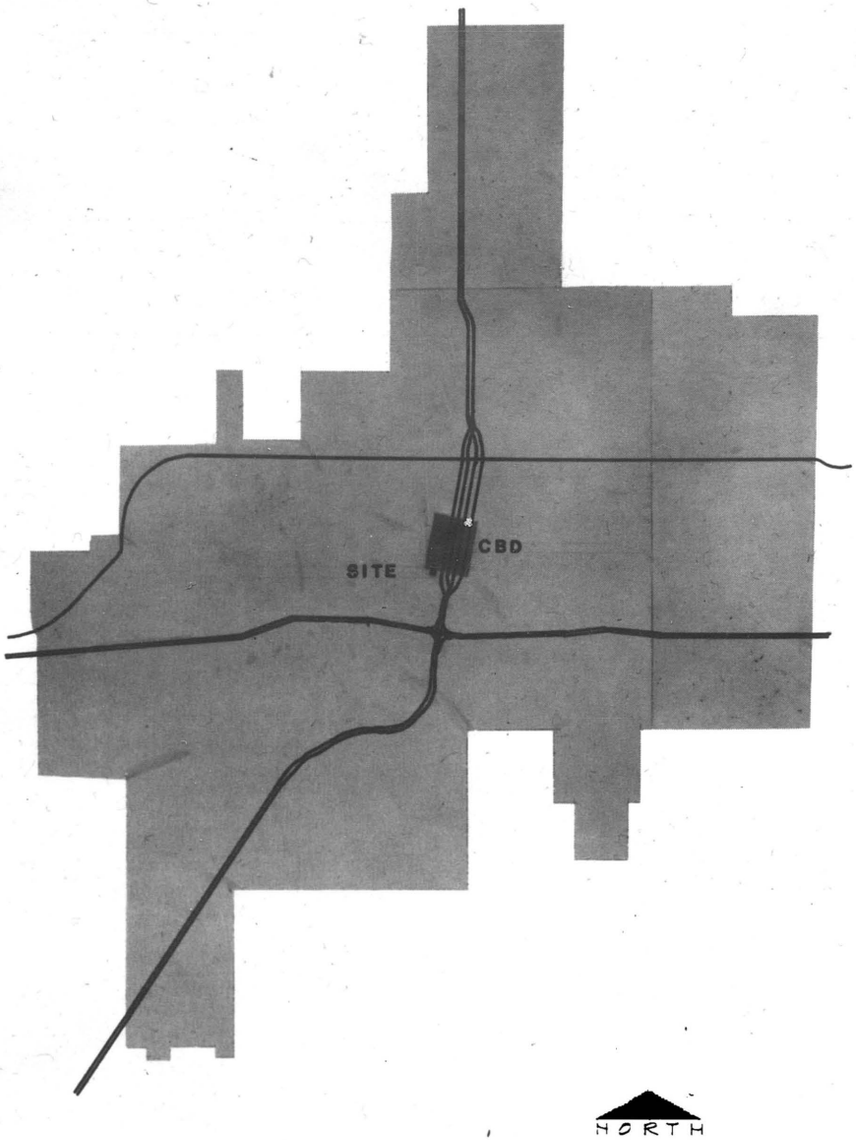
BOOK DROP LOCATION

BASEMENT PLAN

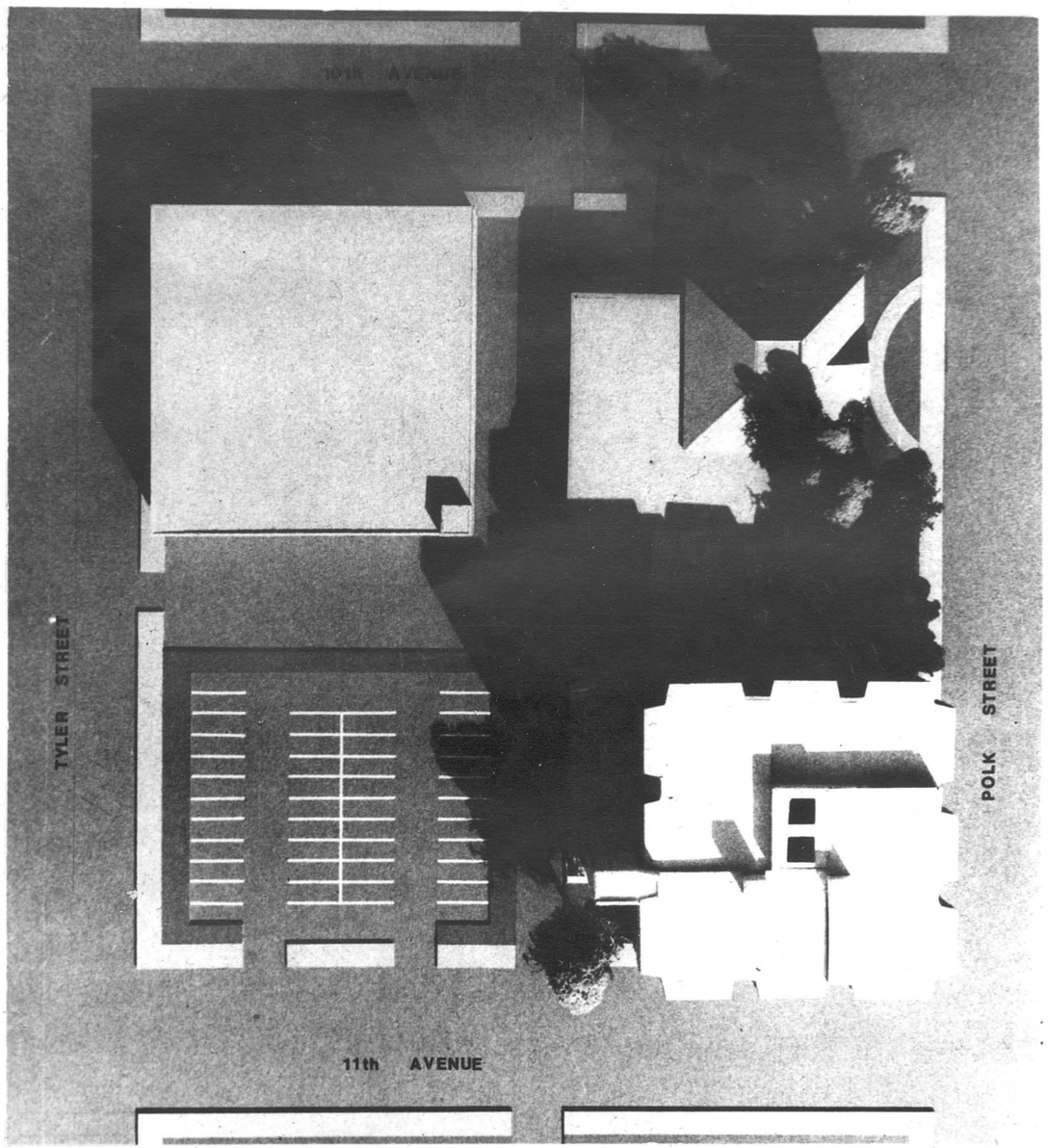
3/32" —— 1'-0"

GROUND LEVEL PLAN

3/32" —— 1'-0"



SITE LOCATION MAP
NO SCALE



SITE PLAN
0 25' 50' 75' 100'

5 000 SERIES - GENERAL WORKS
10,000 VOLUME CAPACITY

6 100 SERIES - PHILOSOPHY
10,000 VOLUME CAPACITY

7 200 SERIES - RELIGION
10,000 VOLUME CAPACITY

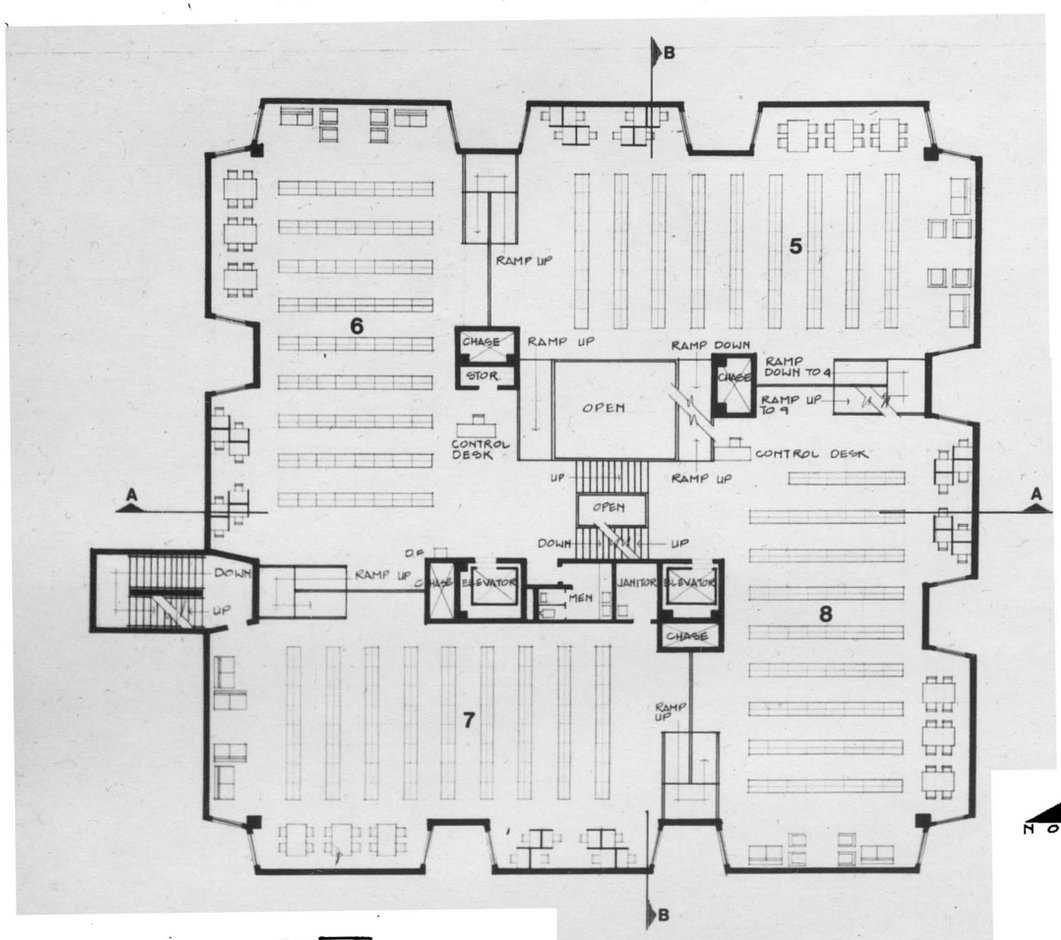
8 300 SERIES - SOCIAL SCIENCES
10,000 VOLUME CAPACITY

9 400, 500 SERIES - LANGUAGE, PURE SCIENCE
10,000 VOLUME CAPACITY

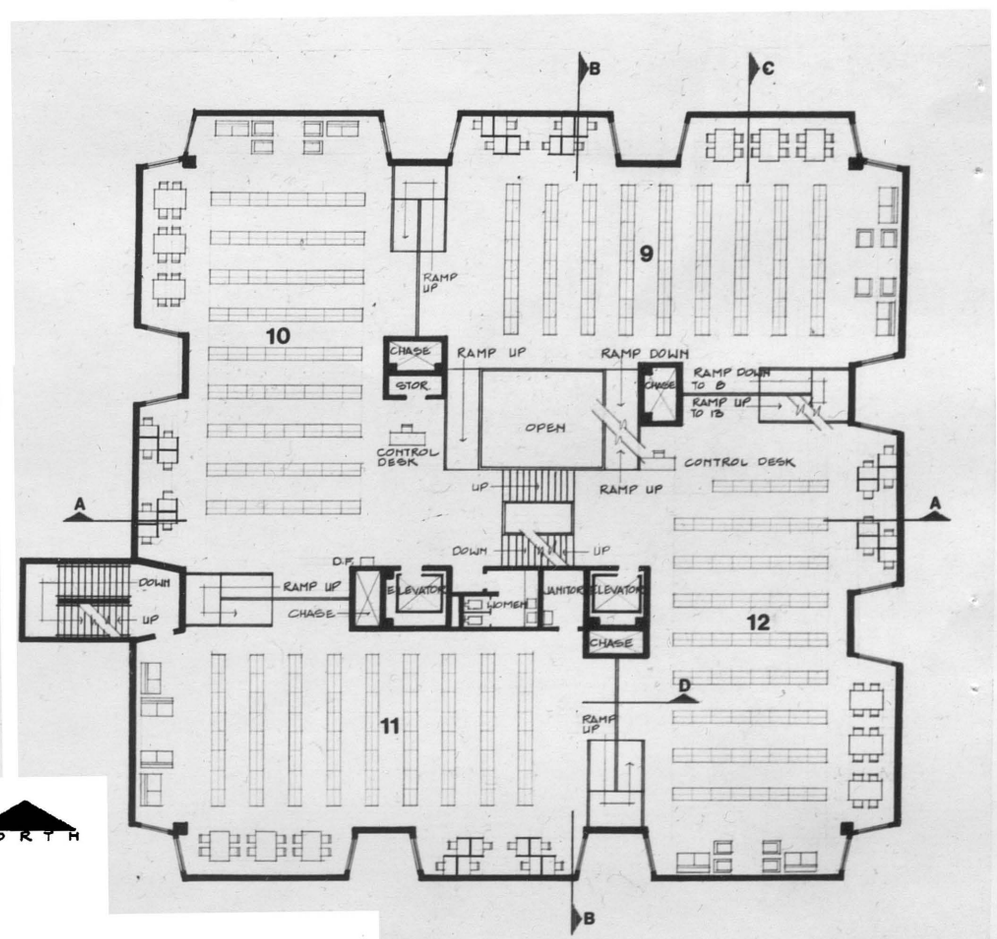
10 600 SERIES - TECHNOLOGY
10,000 VOLUME CAPACITY

11 700 SERIES - THE ARTS
10,000 VOLUME CAPACITY

12 800 SERIES - LITERATURE
10,000 VOLUME CAPACITY

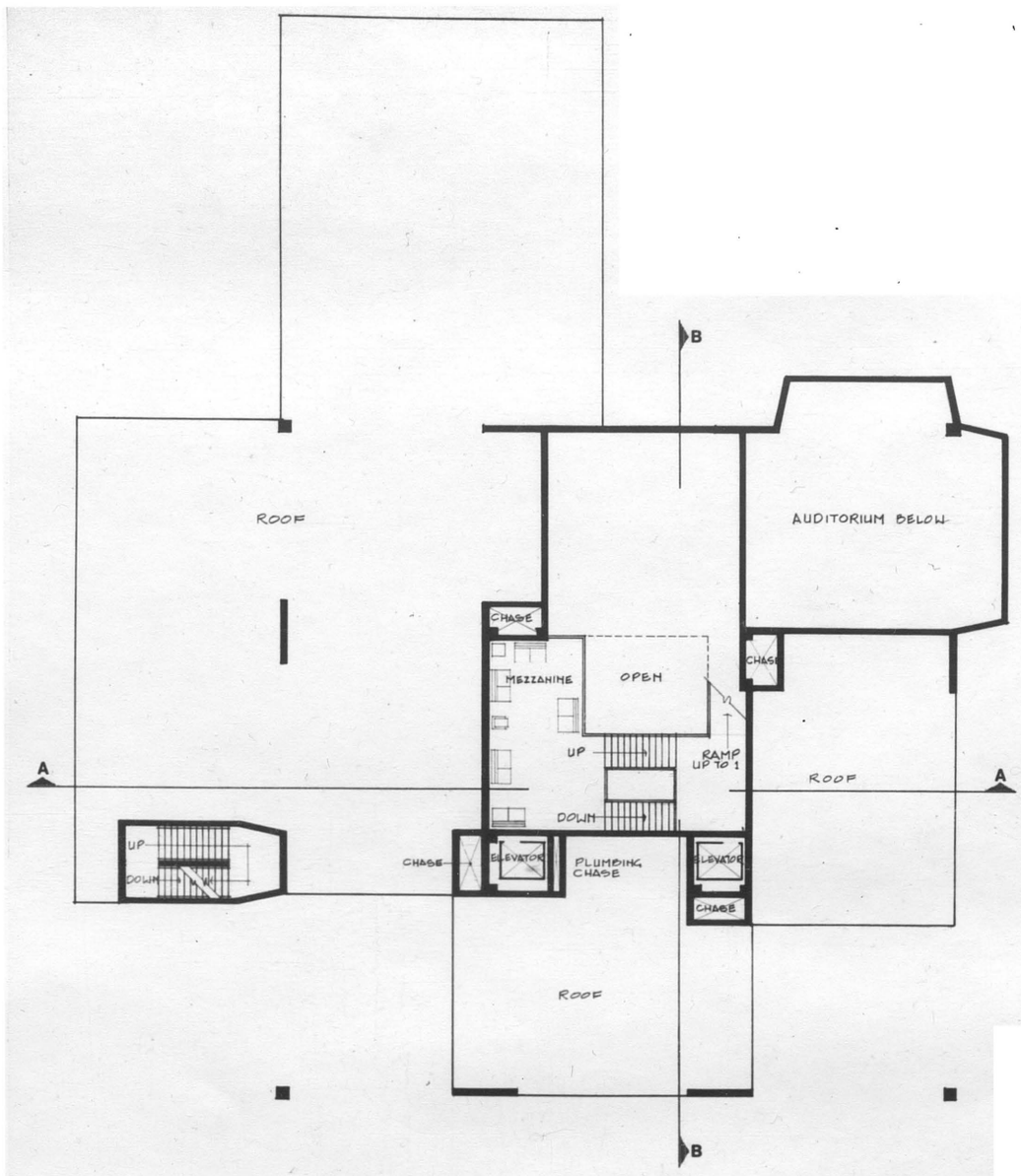


NORTH



PLAN
1/32" = 1'-0"

PLAN
1/32" = 1'-0"

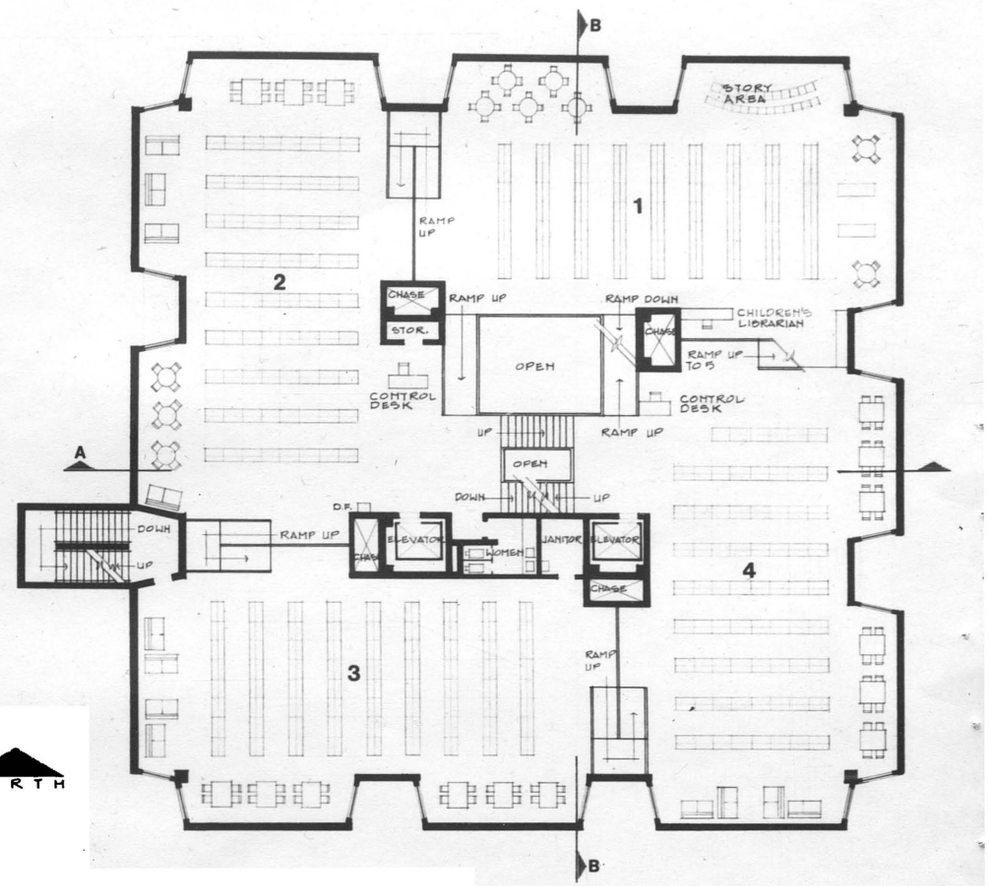


1 CHILDREN - READERS & PRIMERS
12,000 VOLUMES

2 JUVENILE
12,600 VOLUMES

3 JUVENILE
12,000 VOLUMES

4 YOUTH
12,600 VOLUMES



NORTH

PLAN
3/32" = 1'-0"

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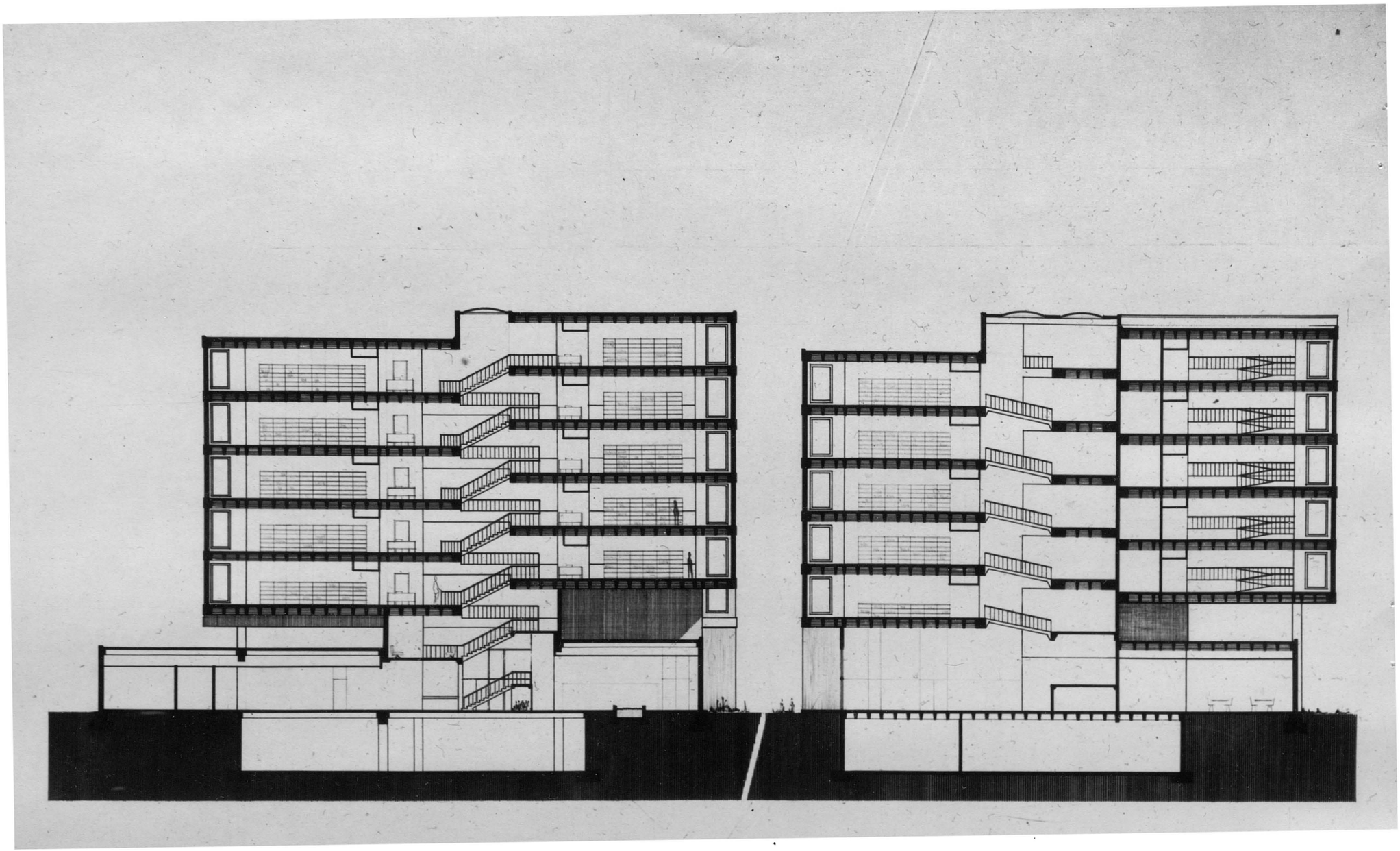
3/32" = 1'-0"



SECTION A–A

3/32" = 1'-0"

SECTION B–B

3/32" = 1'-0"

13 800 SERIES - LITERATURE
10,000 VOLUME CAPACITY

14 800 SERIES - LITERATURE
10,000 VOLUME CAPACITY

15 900 SERIES - HISTORY
10,000 VOLUME CAPACITY

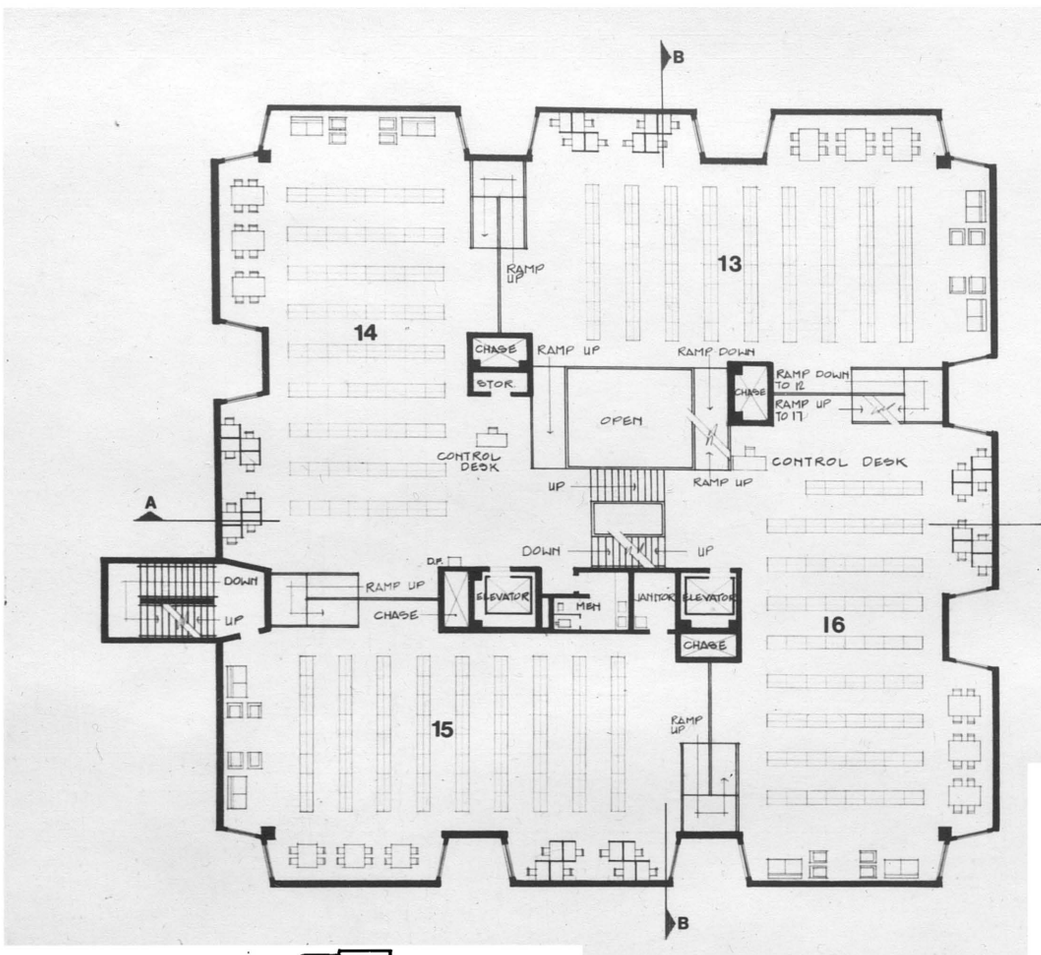
16 900 SERIES - HISTORY
10,000 VOLUME CAPACITY

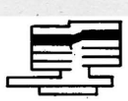
17 PERIODICALS

18 PERIODICALS

19 BUSINESS AND INDUSTRY

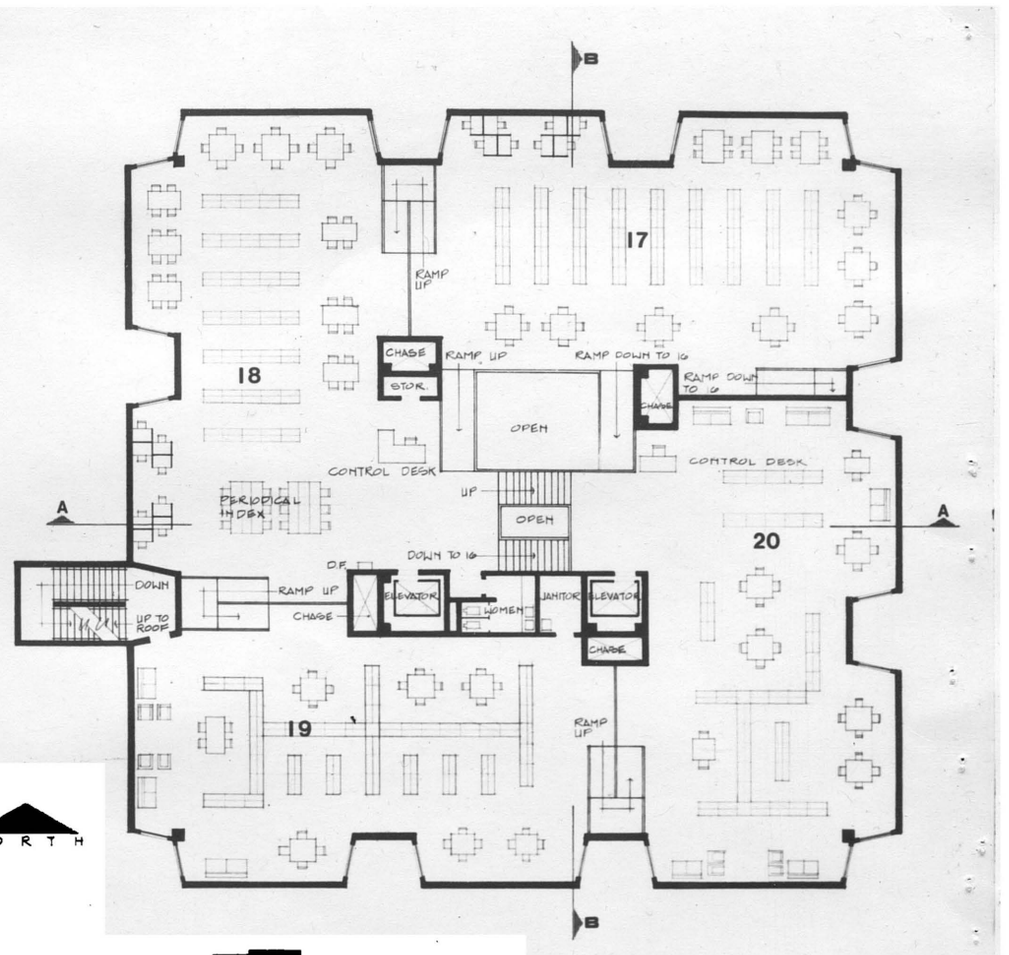
20 BUSINESS AND INDUSTRY, SPECIAL COLLECTIONS



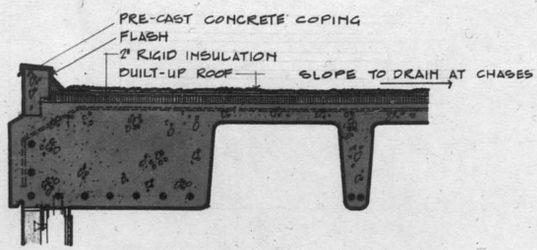


PLAN
3/32" = 1'-0"

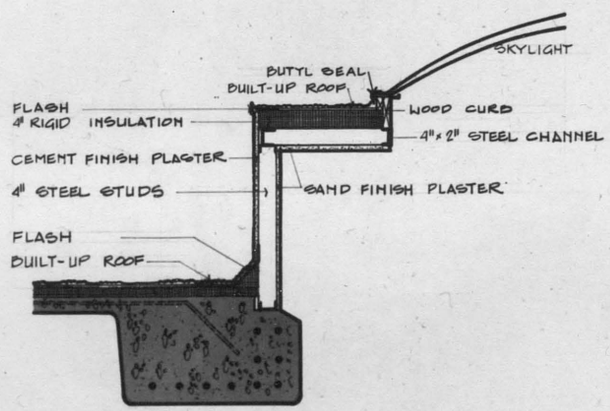
NORTH



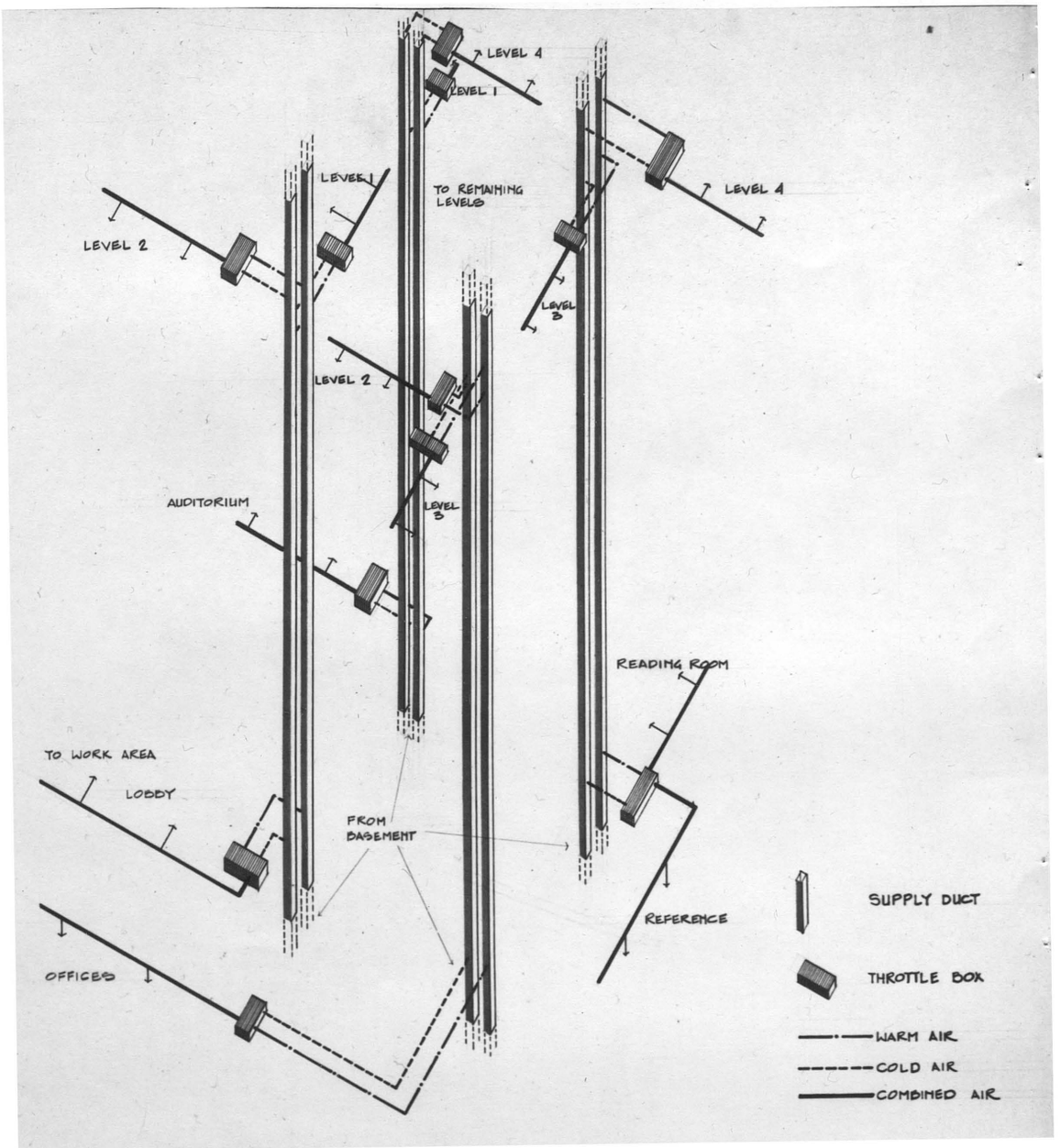
PLAN
3/32" = 1'-0"



DETAIL AT ROOF

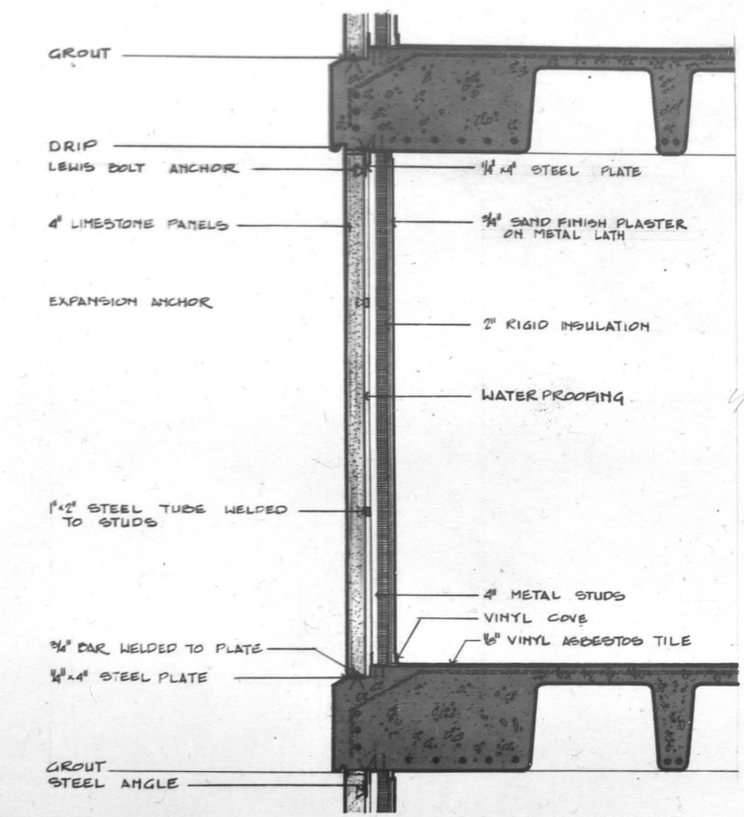


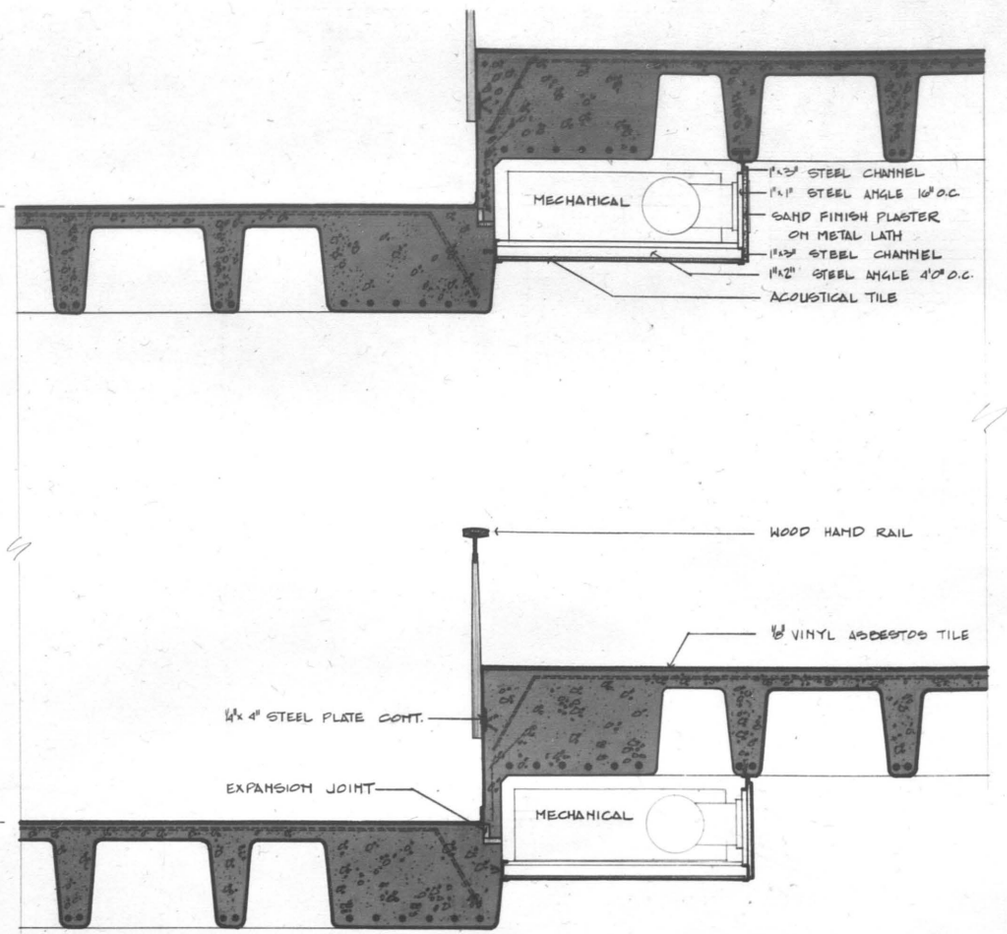
DETAIL AT SKYLIGHT



MECHANICAL SCHEMATIC

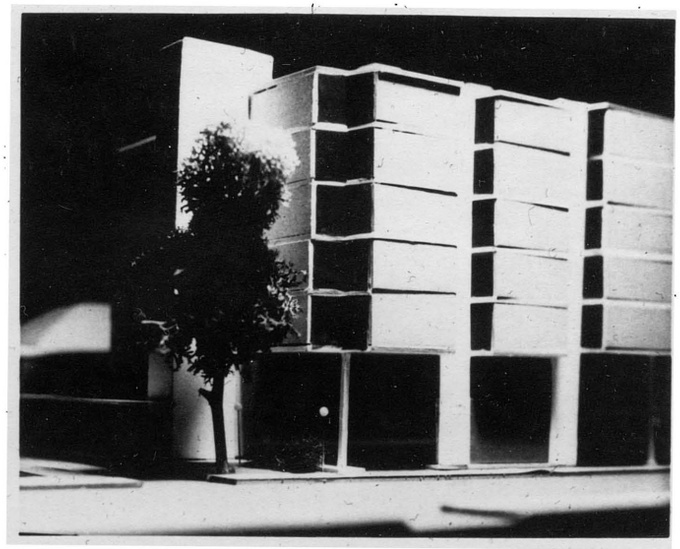
NO SCALE





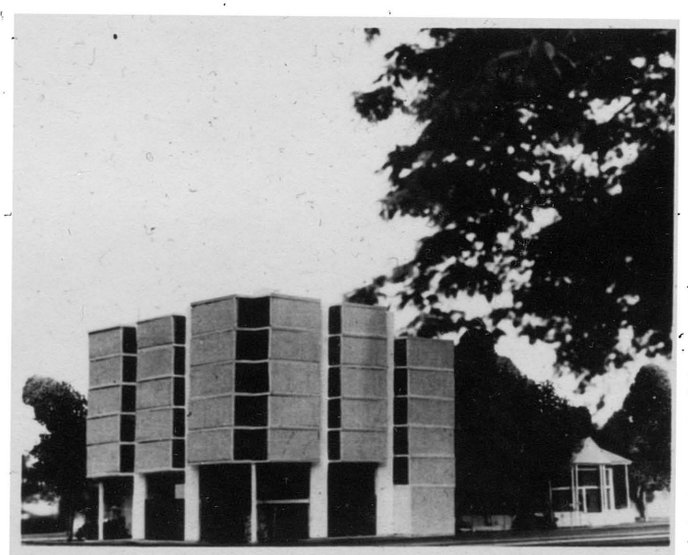
DETAIL C
3/4" = 1'-0"

DETAIL D
3/4" = 1'-0"

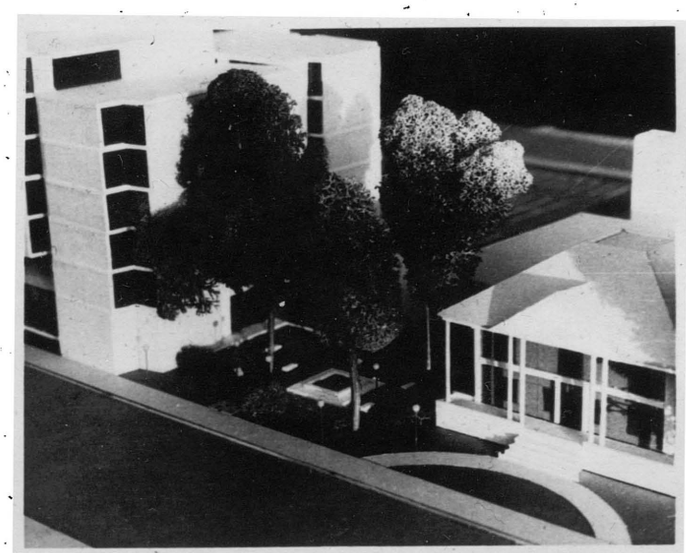


VIEW FROM SOUTHWEST

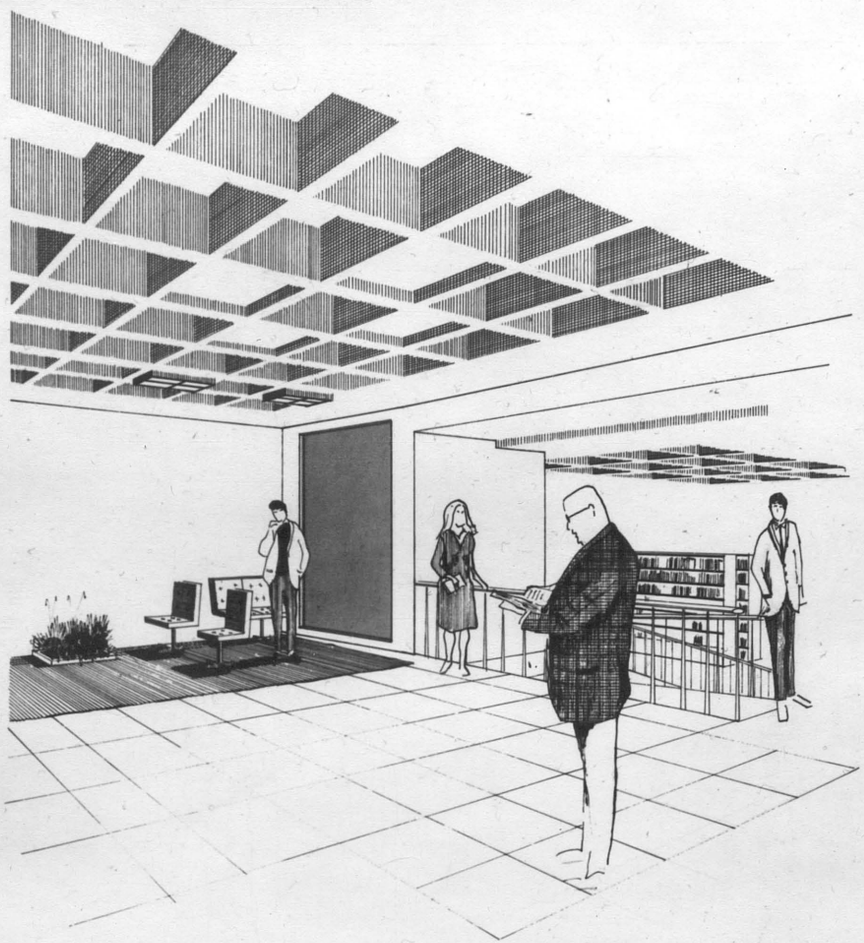
VIEW FROM NORTHEAST



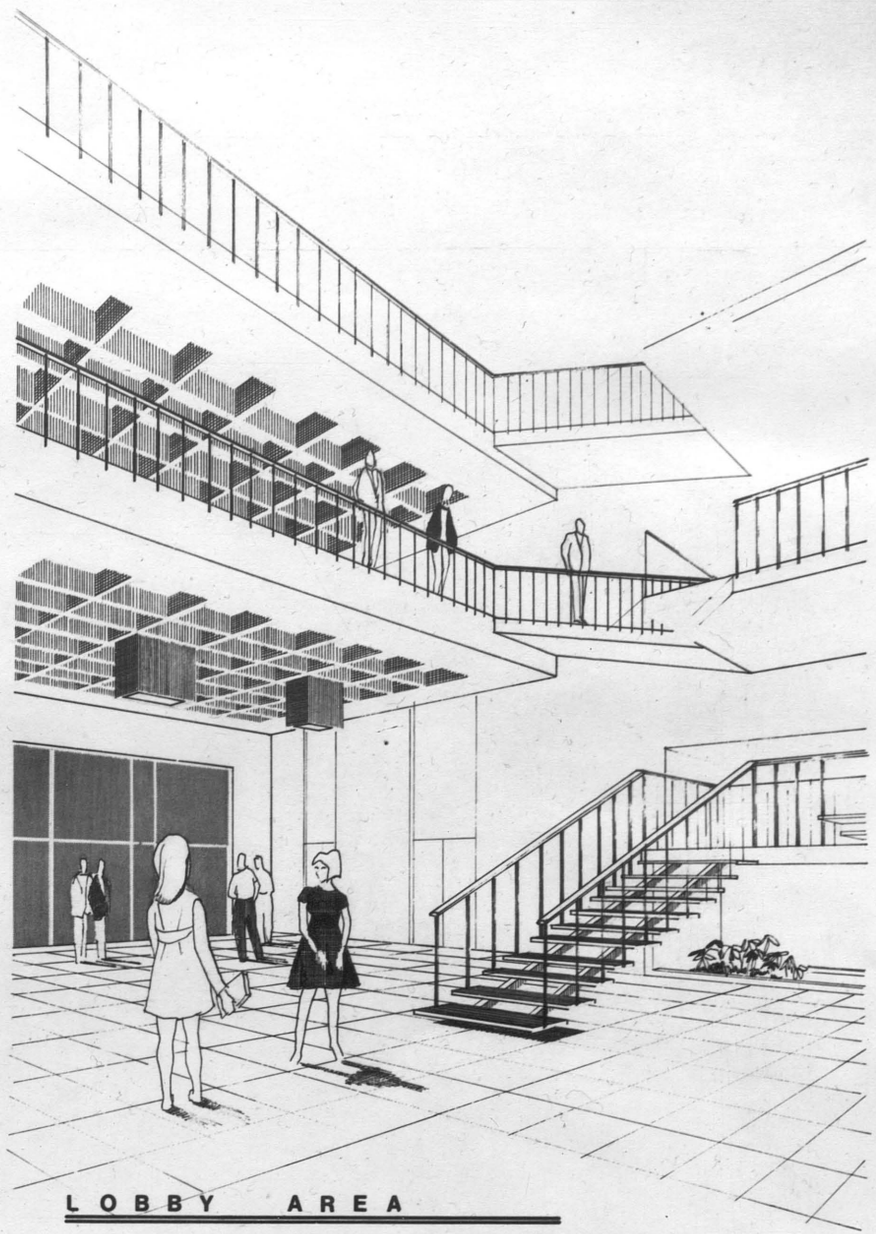
VIEW FROM SOUTHEAST



VIEW FROM EAST



STACK AREA



LOBBY AREA