

RIVERSIDE STATION ENVIRONMENTAL CENTER

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Thesis Project

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Preface

This brochure presents an overview of my architectural thesis project, an effort undertaken over a period of about thirty weeks. Not all aspects of the project are described in this brochure, and I have omitted much of the process involved. However, this summary will provide the reader with the highlights and rationale of the results.

It is important to understand that while this project is realistically presented, it was conceived and developed within the hypothetical framework of an educational experience. The results are not conclusive, but rather depict one of a number of possibilities that could serve to stimulate ideas and realize the potential of this unique section of land and its architecturally significant landmark.

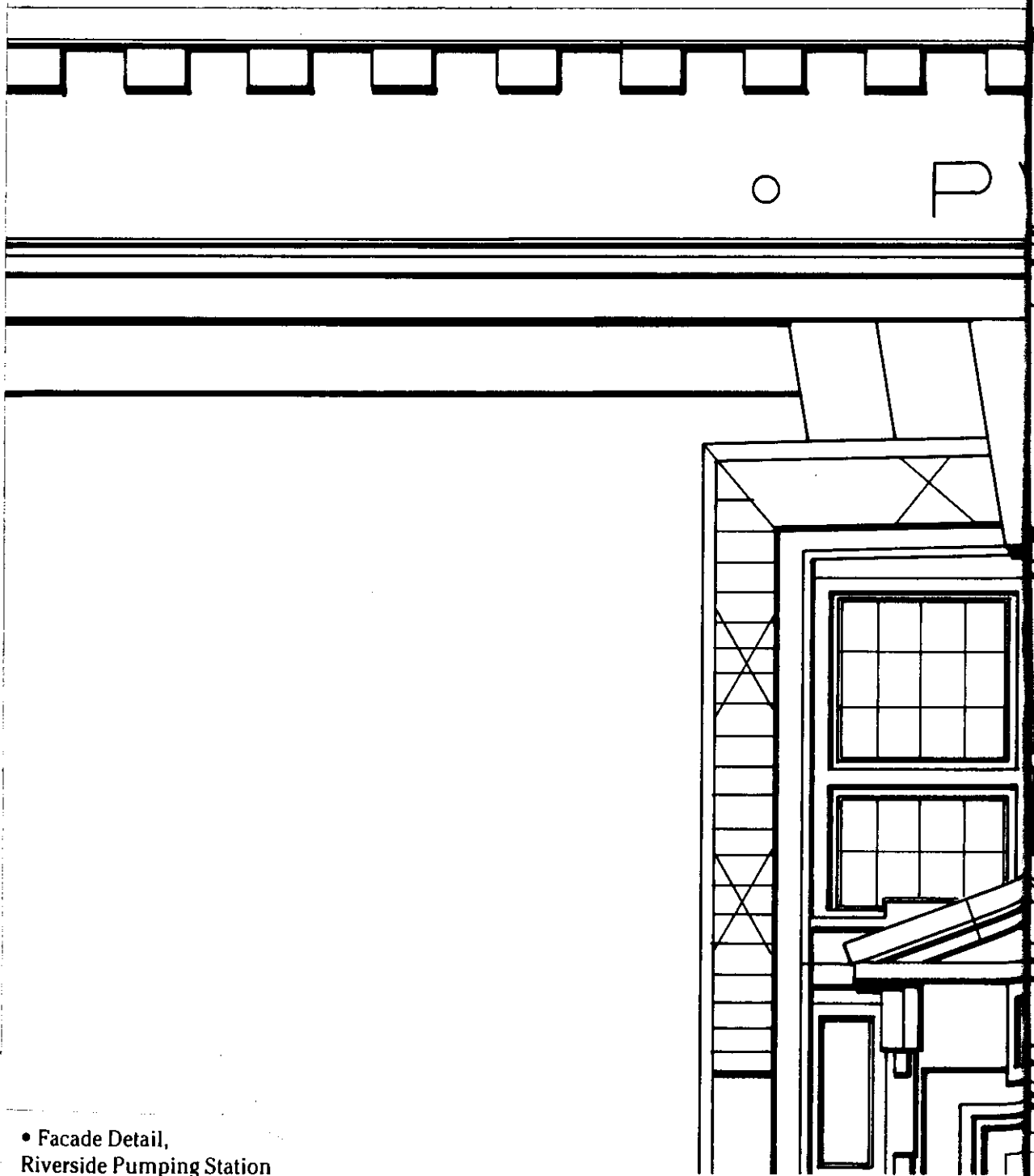
Project Introduction

The recent years have seen a growing interest in revitalization of downtown urban areas across the country. The City of Indianapolis is not an exception. Downtown Indianapolis, as well as the rest of the city, has been growing and has benefitted from numerous events, developments, and progressive city planning projects. The majority of these projects has been aimed at developing the economic, social, and cultural potential of the city.

One of the more significant of these developments was the conception and realization of the White River Park. Not only will the park act as a catalyst for future development, it establishes ground rules and gives direction to that effort by recognizing a neglected and important part of the city: the White River. The plans for the White River Park include the development of a new zoo, and amusement park, water world, and a performance center.

This park development presumes that the White River itself can once again play an important role in city life and the economic growth of Indiana. However, even though the development of White River Park is extensive, it also has its limits. Outside of these limits, the plan only hints at the possibilities for development of the river corridor and leaves the rest to the imagination.

By development of a key section of the river, this thesis explores one of those possibilities.



• Facade Detail,
Riverside Pumping Station

Project Summary

This project evolved after an analysis of the river corridor and its proposed development plans. The programming and site location of the project consider and integrate themselves into the existing development plans for the river and surrounding areas. Thus, they further enhance the White River as well as downtown Indianapolis revitalization, recreation, and educational opportunities.

The headquarters of the Indianapolis Water Company and its Riverside Pumping Station are located at the confluence of White River and Fall Creek. This thesis project proposes to develop and establish on that site a new Riverside Station Environmental Center which will be a terminus, gateway, and river link between the White River Park and existing upriver development. As a landmark development for the immediate area, the Riverside Station Environmental Center will provide both educational and recreational opportunities for visitors. Some of these will include environmental and water company exhibits, a theater, restaurant, a nature preserve, and boating area.

The Environmental Center, a primarily public facility, will encompass an area of about 57,000 square feet on a 34-acre site. Development will also include the existing Riverside Pumping Station, a building listed on the National Register of Historic Landmarks.

Objectives

The following objectives were established for the development of White River Park and used to create a framework for this project.

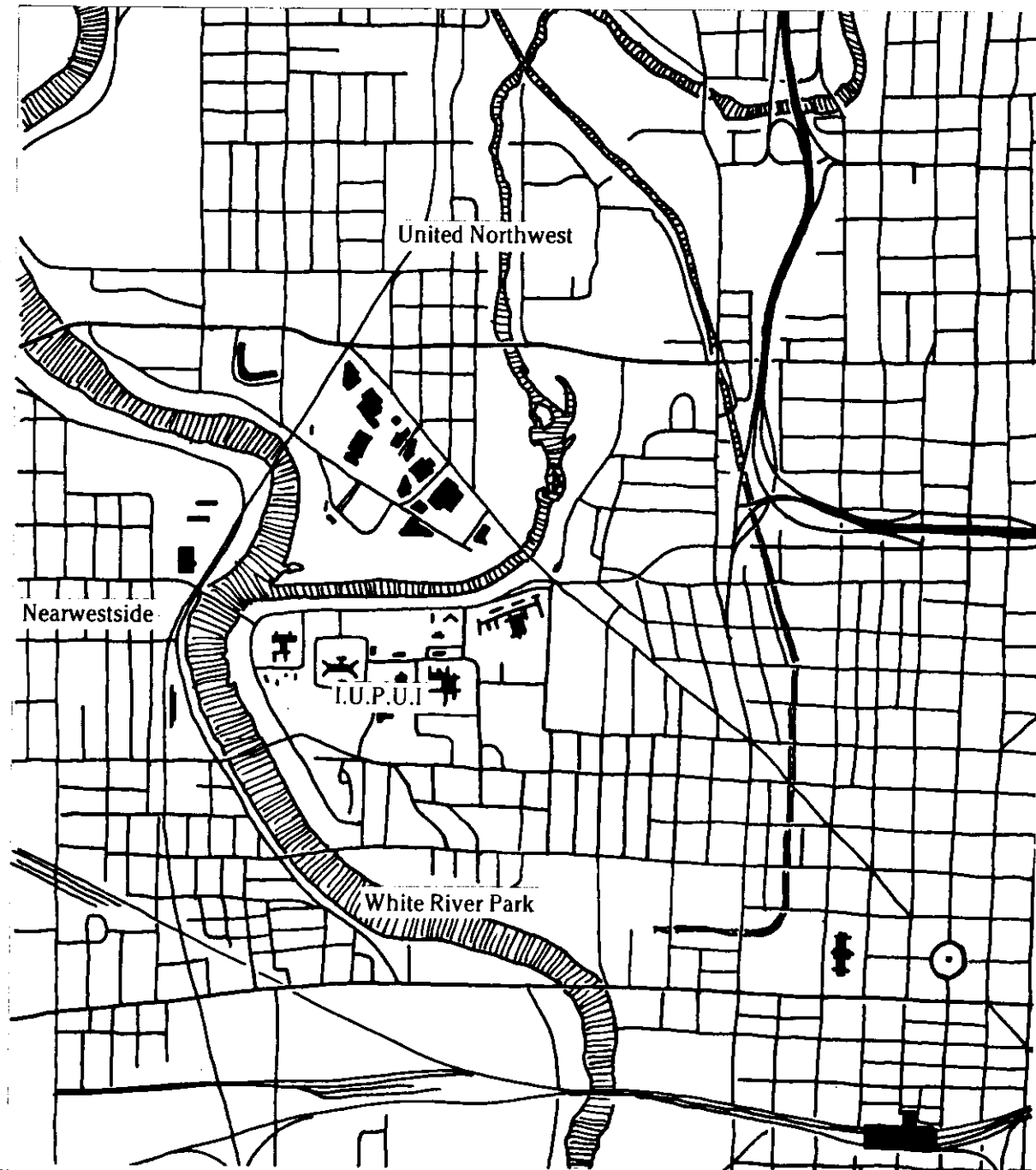
- upgrade the image of Indianapolis
- contribute to the revitalization of the downtown area
- provide much needed recreational opportunities for those who live, work, and study in central Indiana
- increase the opportunities for a wide range of recreational activities
- provide a natural setting in the heart of the city, a habitat for man and wildlife, a place of repose from the clamor of urban life

A second set of objectives relates specifically to the development of the Riverside Station Environmental Center

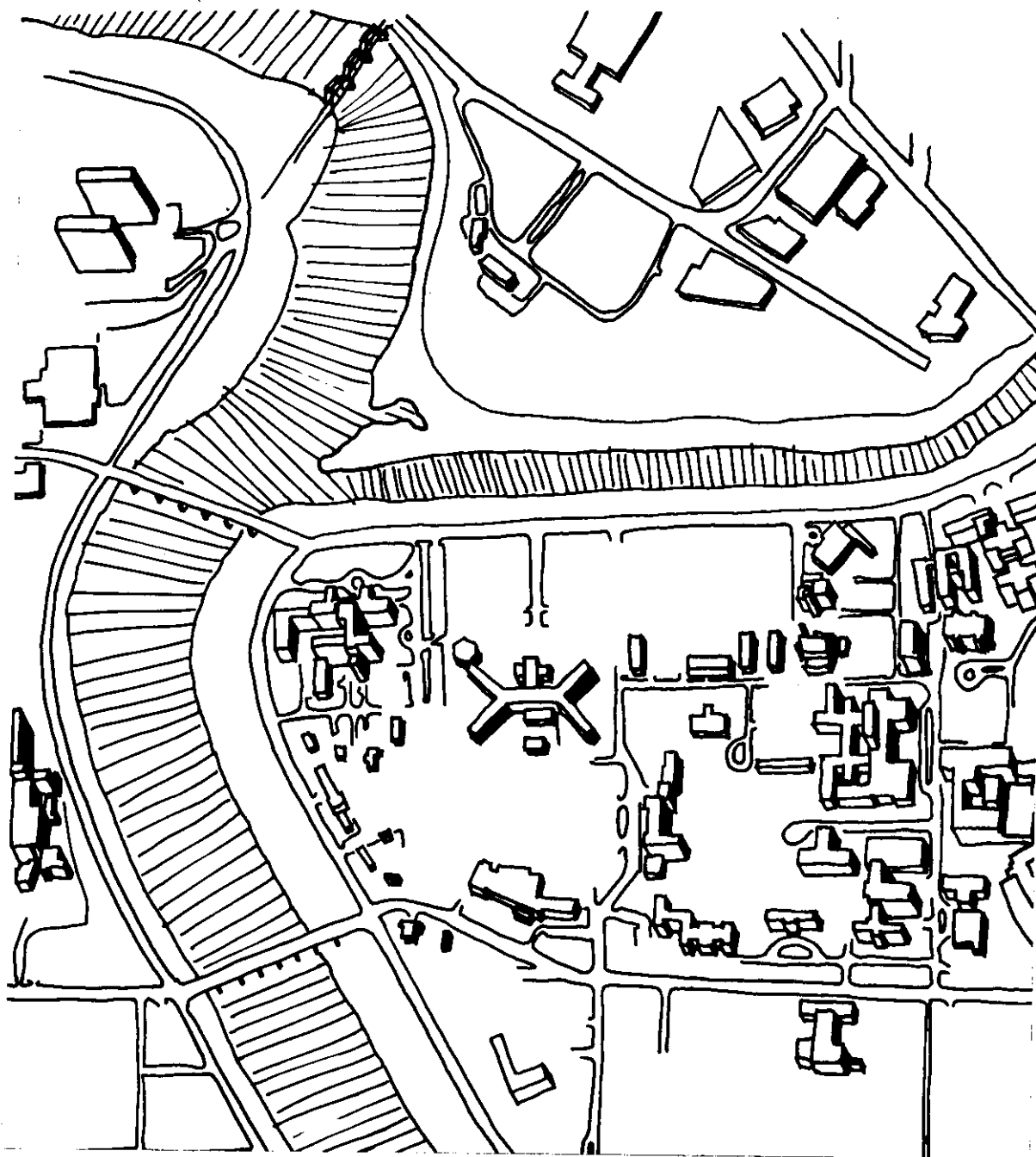
- **provide educational and recreational opportunities**
- **enhance the river corridor and provide a place of retreat from urban life**
- **provide a northern entrance and terminus to the White River Park**
- **provide a link between the White River Park and upriver development**
- **develop a hub connecting surrounding communities**
- **supplement existing river revitalization plans**

Context

Located about one mile northwest of the center of the City of Indianapolis, the Riverside Station Environmental Center is close to the heart of the city. The site itself is bordered on the north by Waterway Boulevard, on the south by Fall Creek, and on the west by White River. This is the only location within the city where a junction of two rivers occurs. Because of the site's unique geographical location, it is somewhat isolated from the clamor of the city. Yet, the potential for easy access still remains.



• City Context



The area around the site is comprised of three major subareas: Nearwestside Subarea (north), United Northwest Area (west), and the Indiana University Medical Center complex (south).

United Northwest – This is a primarily commercial office and low rise industrial area, with the exception of Bush Stadium, immediately north of the site. This area also includes the main offices for the Indianapolis Water Company.

Nearwestside – Located directly across White River, it is primarily a residential area with some commercial development. Belmont Park is located in this neighborhood and provides a possible access point over an existing rail bridge that crosses the river at this point.

I.U. Medical Center – Directly across Fall Creek is the Indiana University Medical Center which includes several major hospitals and the campus of Indiana University-Purdue University at Indianapolis.

Presently, the land which encompasses this development is owned by the Indianapolis Water Company which operates and maintains the pumping station and related facilities on the site.

Development Site

The project development encompasses three major areas: overall site, Riverside Pumping Station, and the Environmental Center. Although these areas are presented individually in this brochure, the integration of all three is what unifies the entire project. This helps produce a dynamic solution to the entire concept.

One important factor had to be considered before the project could continue: the existing mechanics and facilities related to the pumping station. This includes an extensive underground water distribution system and reservoir. For this thesis project, assumptions were made that these items could be modified or relocated to accommodate new site development. Realistically, the design might well have to be modified to accommodate these facilities.

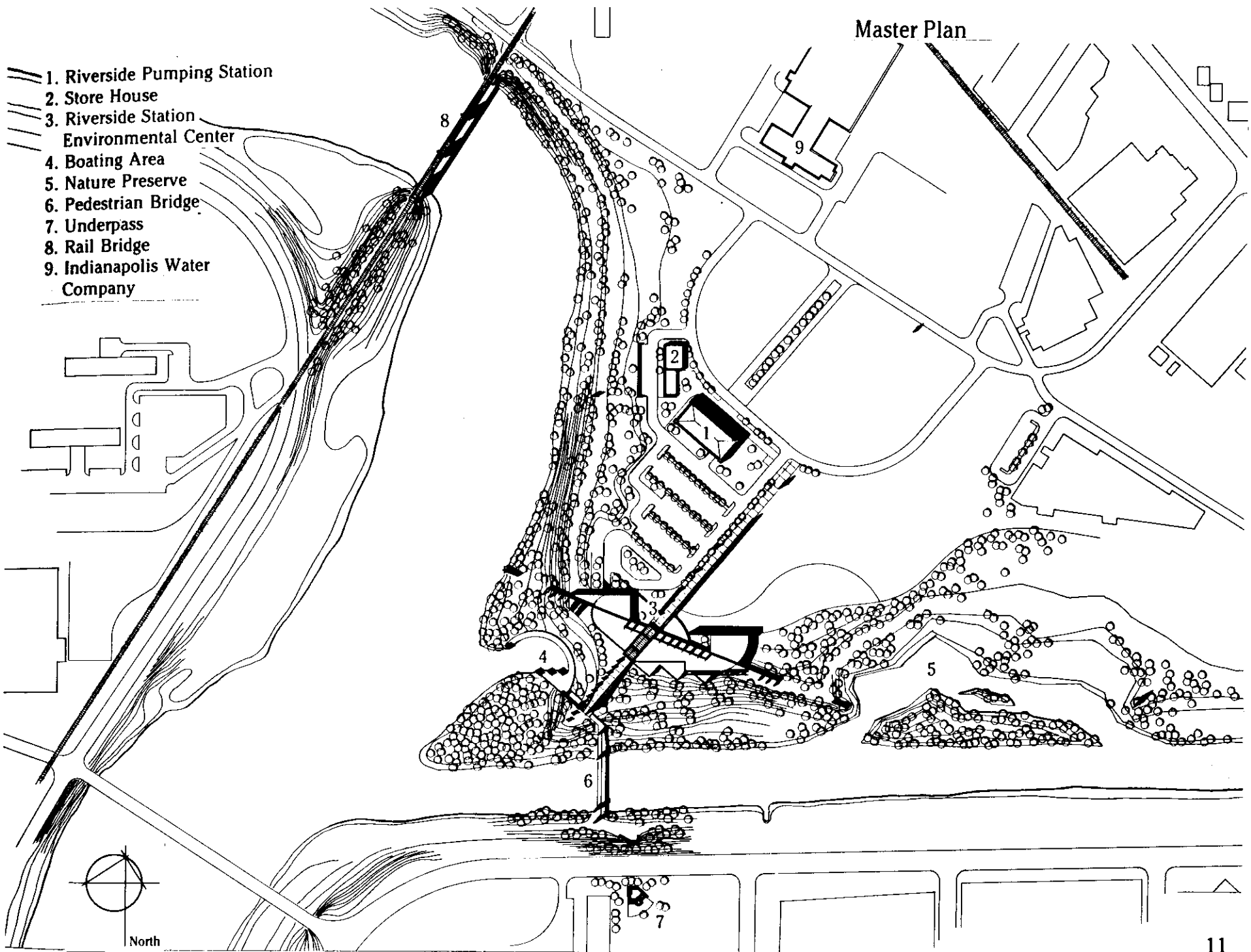
Overall development was aimed at unifying the site as well as fulfilling some of the objectives outlined earlier. It included developing the site to correlate the educational goals of the Environmental Center with the outdoor recreational needs of the general public.

Another consideration was site access and circulation. Presently the only access to the site is from the north side via Waterway Boulevard. Due to the anticipated increased need for expanded public access in this thesis project, four more access proposals are included.

- Build a 10th Street underpass from the I.U. Medical Center and a new pedestrian bridge over Fall Creek
- Develop the top of the levee, which rims the west side of the project, as a pedestrian walk continuing north up the White River
- Construct a pedestrian bridge across the White River at the same location as the existing rail bridge. This will allow for a west bank link to Belmont Park.
- Re-develop the main entrance from waterway Boulevard to the Environmental Center to emphasize the Riverside Pumping Station

Master Plan

- 1. Riverside Pumping Station
- 2. Store House
- 3. Riverside Station
- 4. Environmental Center
- 5. Boating Area
- 6. Nature Preserve
- 7. Pedestrian Bridge
- 8. Underpass
- 9. Rail Bridge
- Indianapolis Water Company

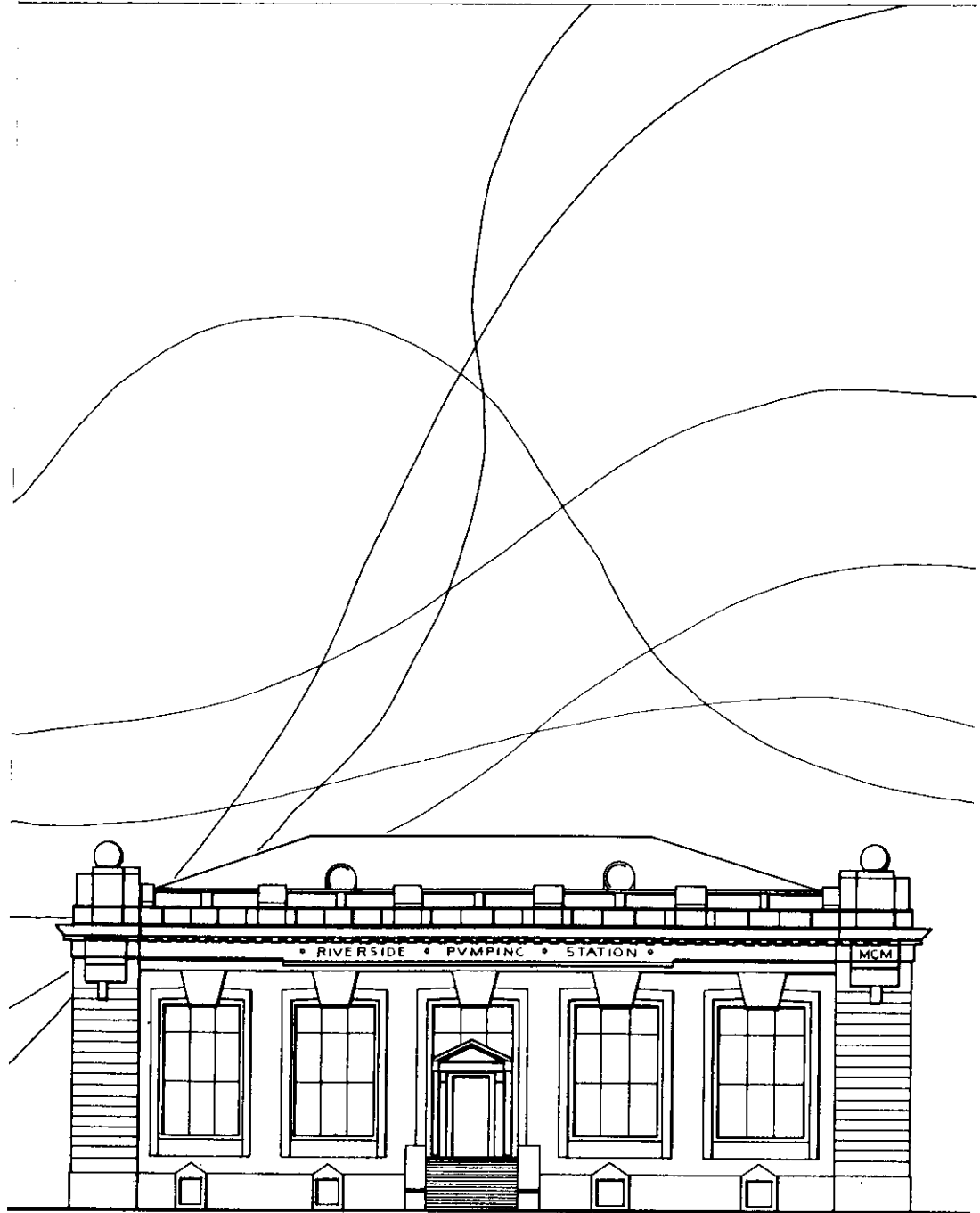


Riverside Pumping Station

The Riverside Pumping Station and adjacent store house were originally built in 1909 by Lewis Davis. Constructed of an iron substructure with a limestone exterior, the pumping station is an impressive sight. In 1958 the switch from steam to electric turbines left the building relatively empty. The store house is a small brick and limestone building located just north of the pumping station. It, too, is relatively unused except for storage and as an occasional workshop. Together, these buildings still stand as an architectural landmark.

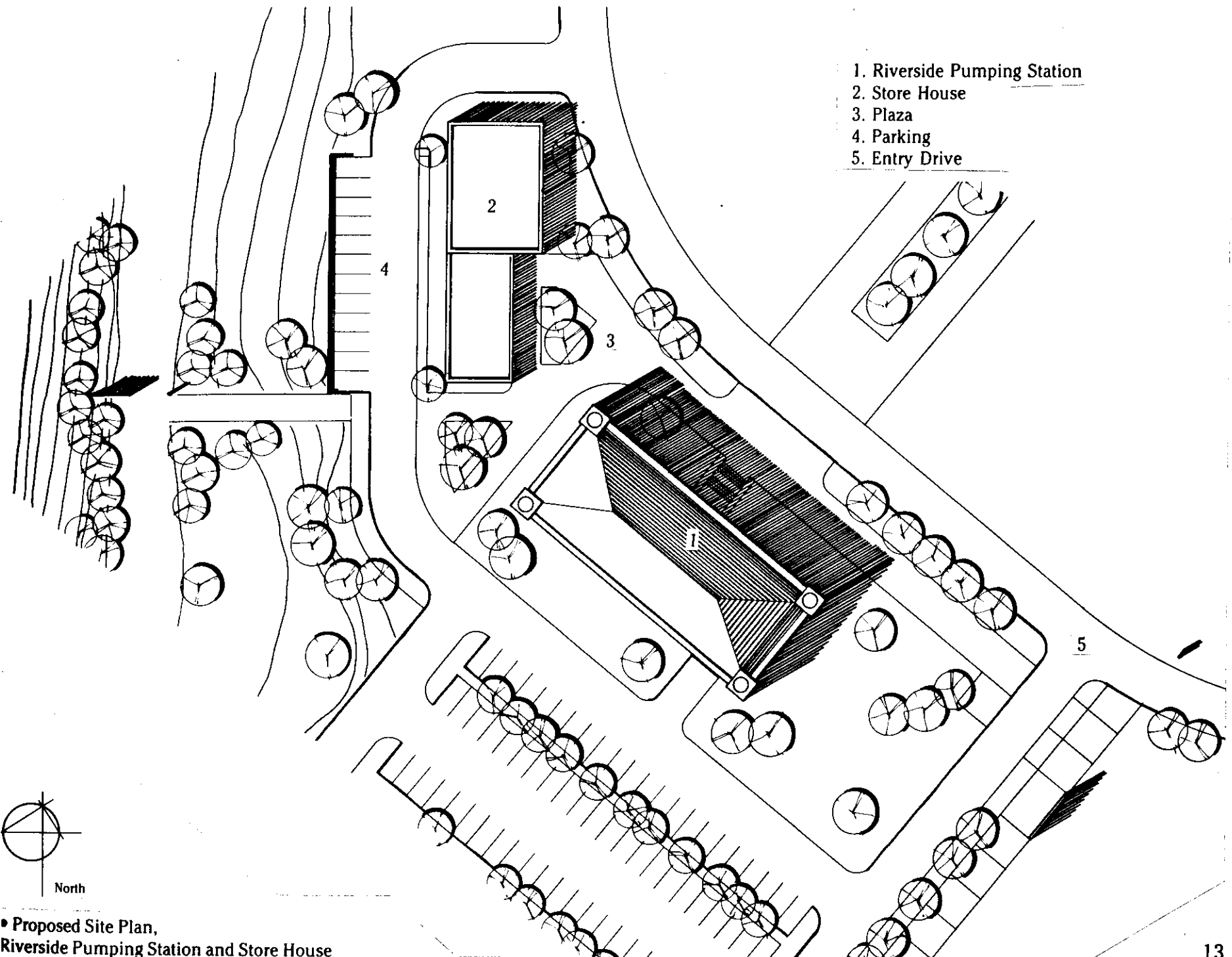
The incorporation of the pumping station into this thesis project serves several purposes:

- To develop the pumping station into a working exhibit of the Indianapolis Water Company
- To develop the store house as a graphic exhibit and education center. This center will provide a visual history of the Indianapolis Water Company and the important role it plays in the health and commerce in Indianapolis.
- To further support and supplement the use of the Environmental Center
- To serve as a gateway and landmark for the site



• Northeast Elevation,
Existing Riverside Pumping Station

- 1. Riverside Pumping Station
- 2. Store House
- 3. Plaza
- 4. Parking
- 5. Entry Drive



• Proposed Site Plan,
Riverside Pumping Station and Store House

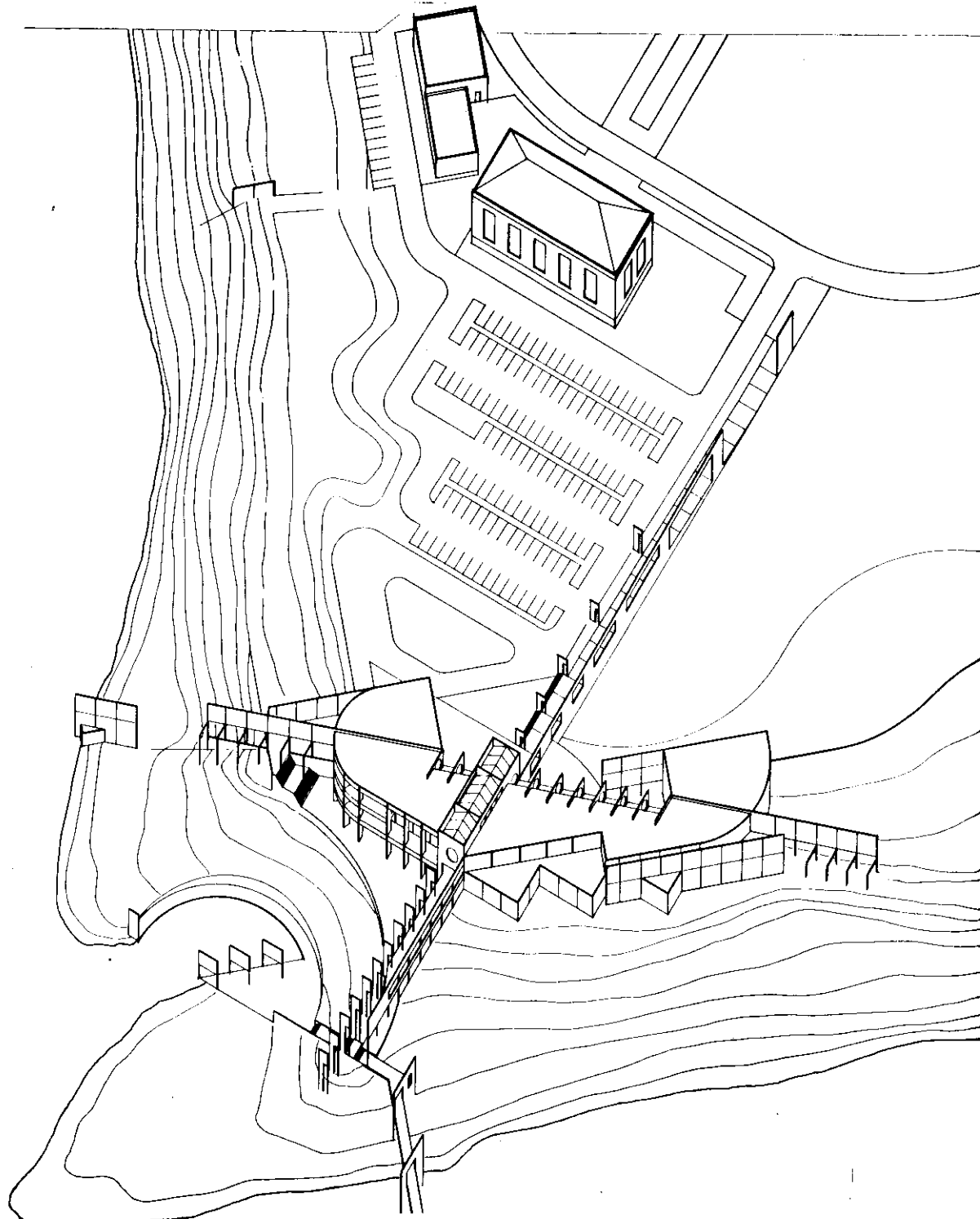
Riverside Station Environmental Center

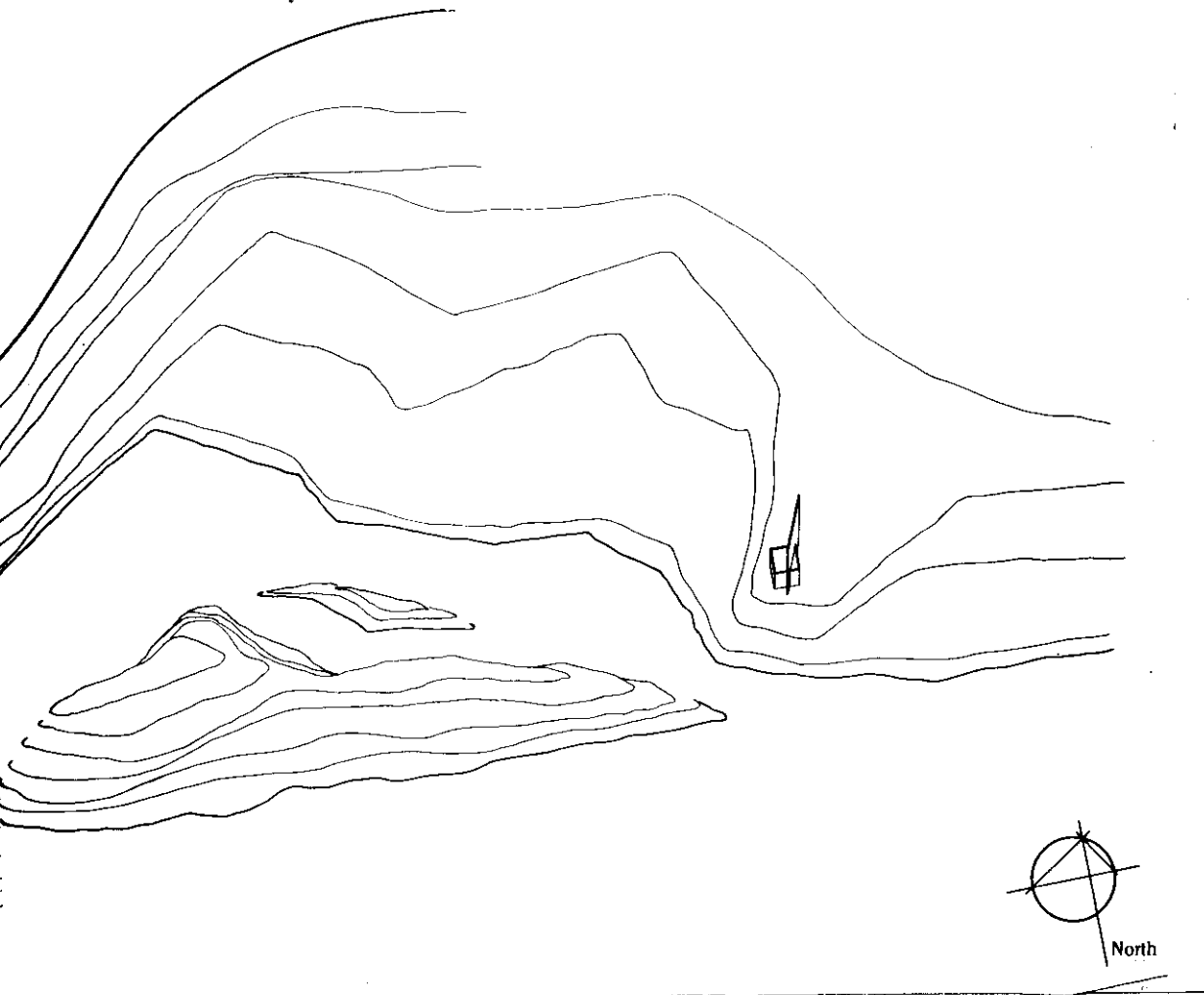
Man has always maintained a close relationship with nature. Yet, in the dense urban setting of the city, there have been all too few opportunities for this relationship to develop. Consequently, the public's environmental awareness has suffered on a fundamental level. The addition of an environmental center within the city itself will create new opportunities to reawaken the public's awareness of its environment.

The Riverside Station Environmental Center will provide a variety of educational opportunities. The overall focus of these activities will be on the adjacent river system and surrounding landscape.

Two major site developments will include a boating area and a nature preserve. The boating area will be used for public recreational purposes. It will also provide a water link to the White River Park which will help to enhance the accessibility of the center.

The nature preserve will consist of approximately 12 acres. This area will provide a small wildlife sanctuary within the city along with a living and dynamic example of the river environment. It will consist of two outside orientation pavilions and several trails to allow for walking tours of the river environment. The preserve will also complement the interior exhibit space, while serving as a living laboratory for the research center.





The Riverside Station Environmental Center is a low building that extends out and embraces the site around it. Developed from two axes, the building represents the conceptual basis behind the overall development. Constructed of a post and beam steel structure clad in limestone, the building extends out along both a northeast-southwest axis and a northwest-southeast axis. The first axis has the key role in the building design. Extending from the Riverside Pumping Station to Fall Creek, it represents the difference between nature and man. The second axis contrasts the urban environment and the river environment.

The Riverside Station Environmental Center will consist of three main areas based on the conceptual organization of the building. They are education/research, exhibit, and theater/restaurant. The following descriptions summarize the functions and content of the center.

Education/Research

At the extreme east end of the building, will be classrooms, a library, and laboratory facilities for the center. All administrative functions and office space for the entire center will be located in this area also.

Exhibit

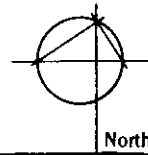
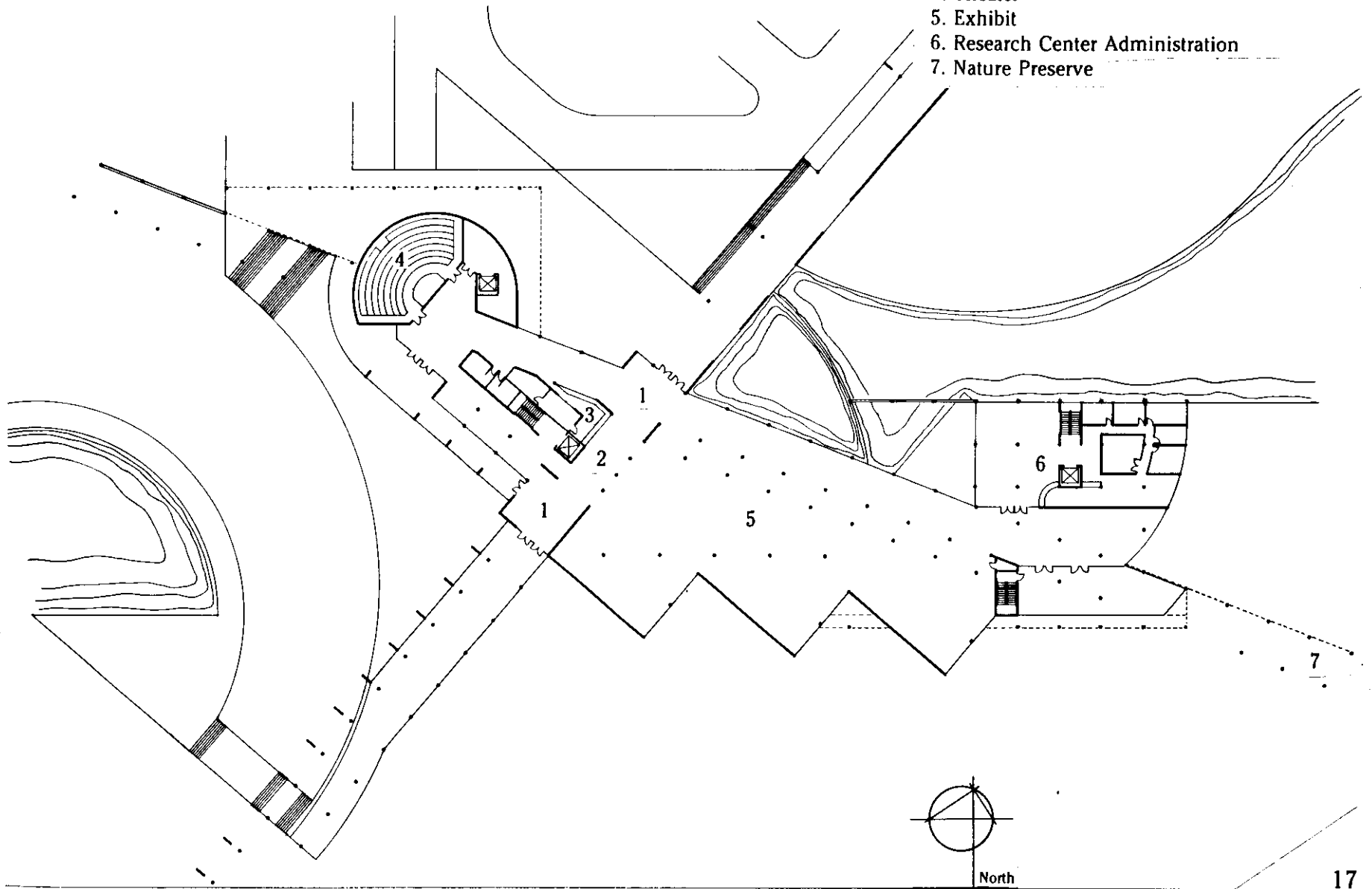
This includes space for permanent, rotating, and traveling exhibits. The public exhibit area comprises the largest portion of the center, approximately 11,000 square feet. The exhibits within this area will be restricted to the overall theme of the center.

Theater/Restaurant

At the extreme western end of the building, the theater and restaurant will generate the highest activity of the center. The theater will seat 250 persons for both public or private presentations. The restaurant will provide an overview of the river and surrounding activities. It will seat about 100 people. The location of this area will easily facilitate isolating it for after-hour uses.

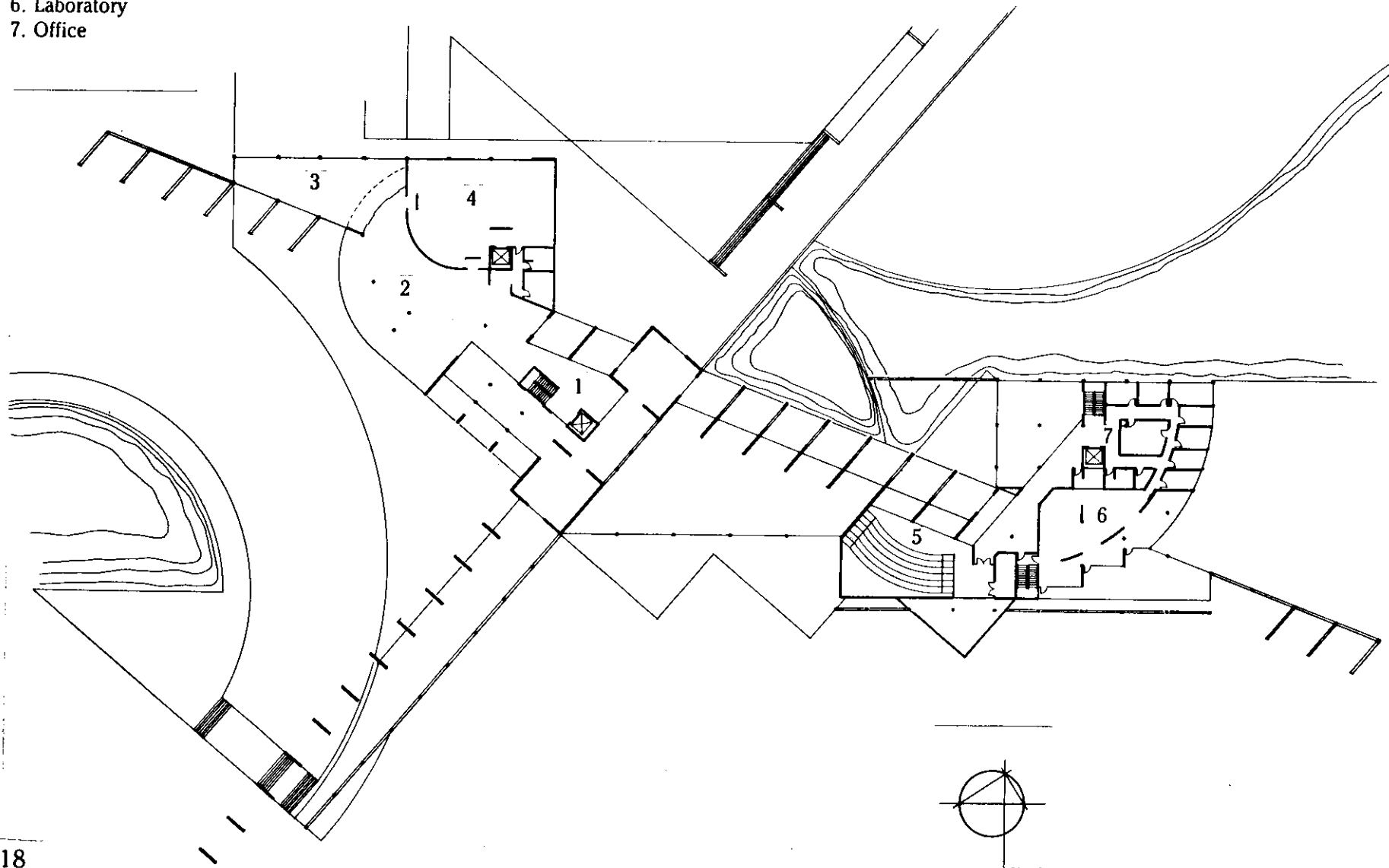
Main Level

1. Entry
2. Lobby
3. Information
4. Theater
5. Exhibit
6. Research Center Administration
7. Nature Preserve



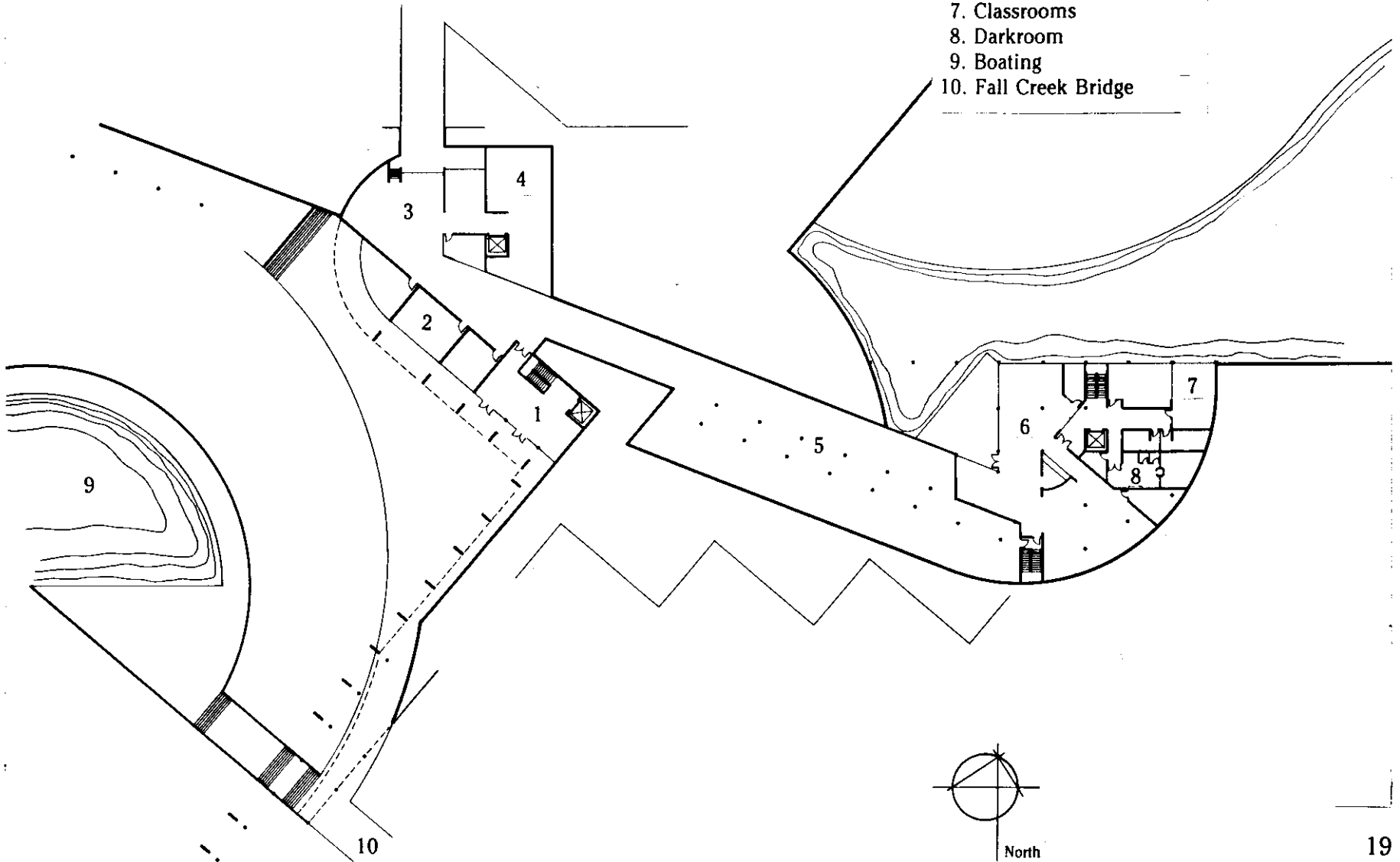
Upper Level

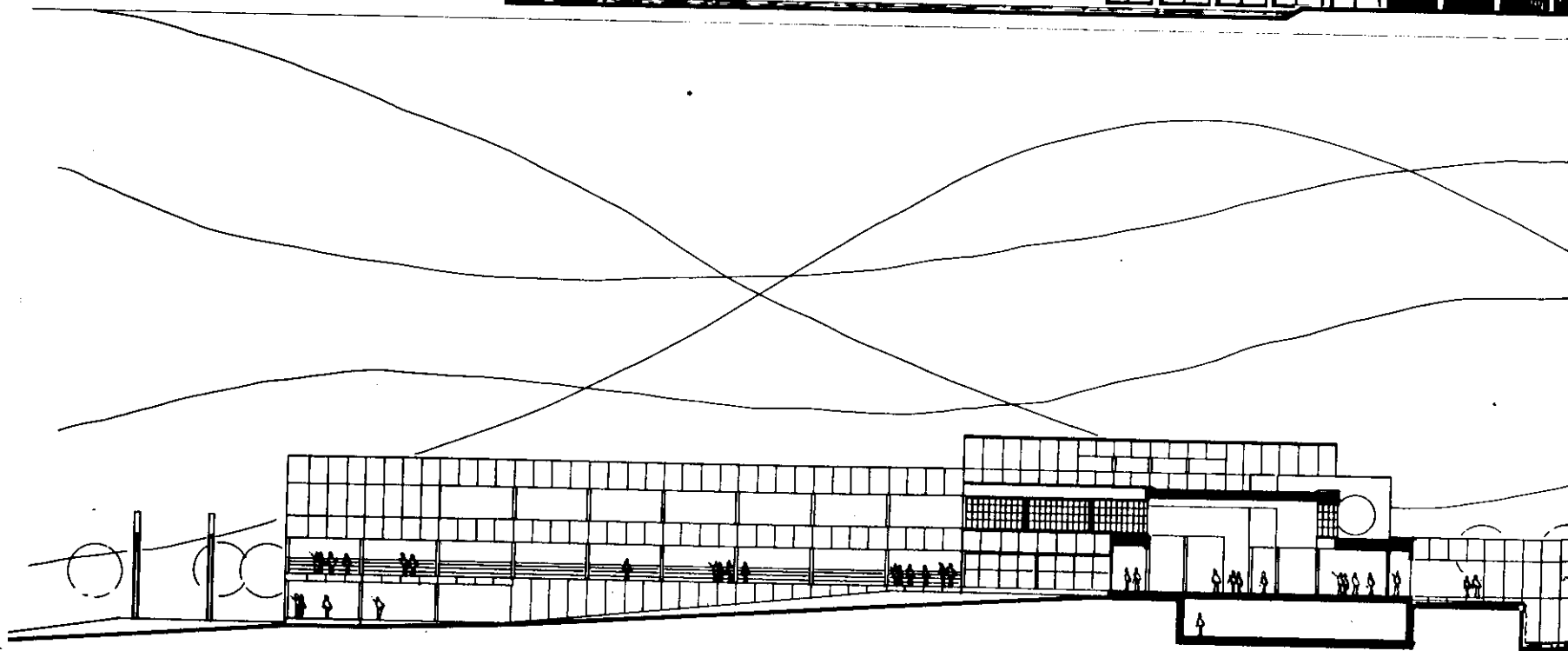
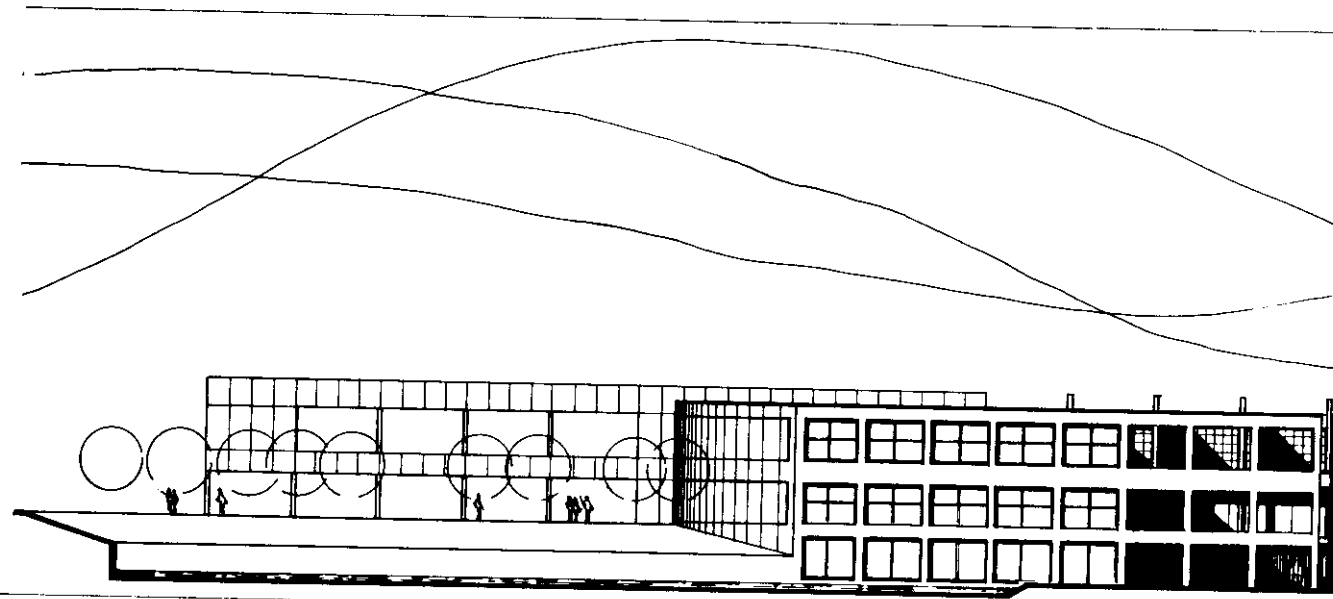
1. Lobby
2. Dining
3. Terrace
4. Kitchens
5. Lecture
6. Laboratory
7. Office



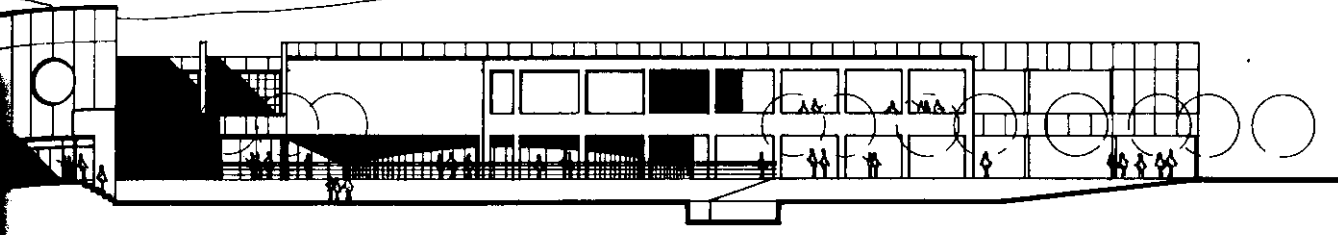
Ground Level

1. Entry
2. Retail
3. Receiving
4. Food Storage
5. Mechanical/ Storage
6. Library
7. Classrooms
8. Darkroom
9. Boating
10. Fall Creek Bridge

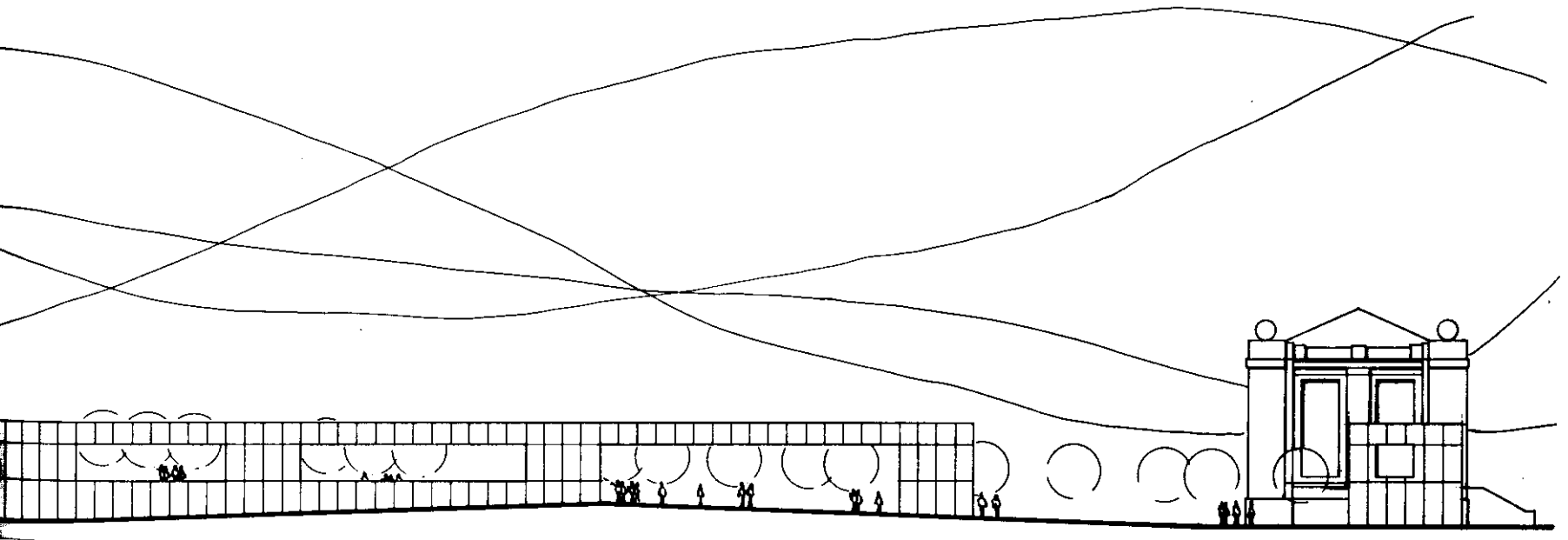




Section/Elevation



• Northeast Elevation,
Riverside Station Environmental Center



• Section, Looking Northwest,
Exhibit Space, Entry Walk, Riverside Pumping Station

References

- *Analysis of Retail Development in the United Northwest Area*, BFH & Associates, Inc., 1979.
 - *Indianapolis 1980-2000, Regional Center General Plan*, 1981.
 - *Nearwestside Subarea Plan*, 1982.
 - *White River Park Design Assistance Team Report*, (P/DAT), 1980.
 - *Indiana White River Park*, HNTB Master Plan Team Report, (P/DAT), 1981.
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