

Design Thesis submitted to the faculty
of the College of Architecture and
Urban Studies, Virginia Polytechnic and
State University, in partial fulfillment of
the requirements for the degree of

Master in Architecture

Approved

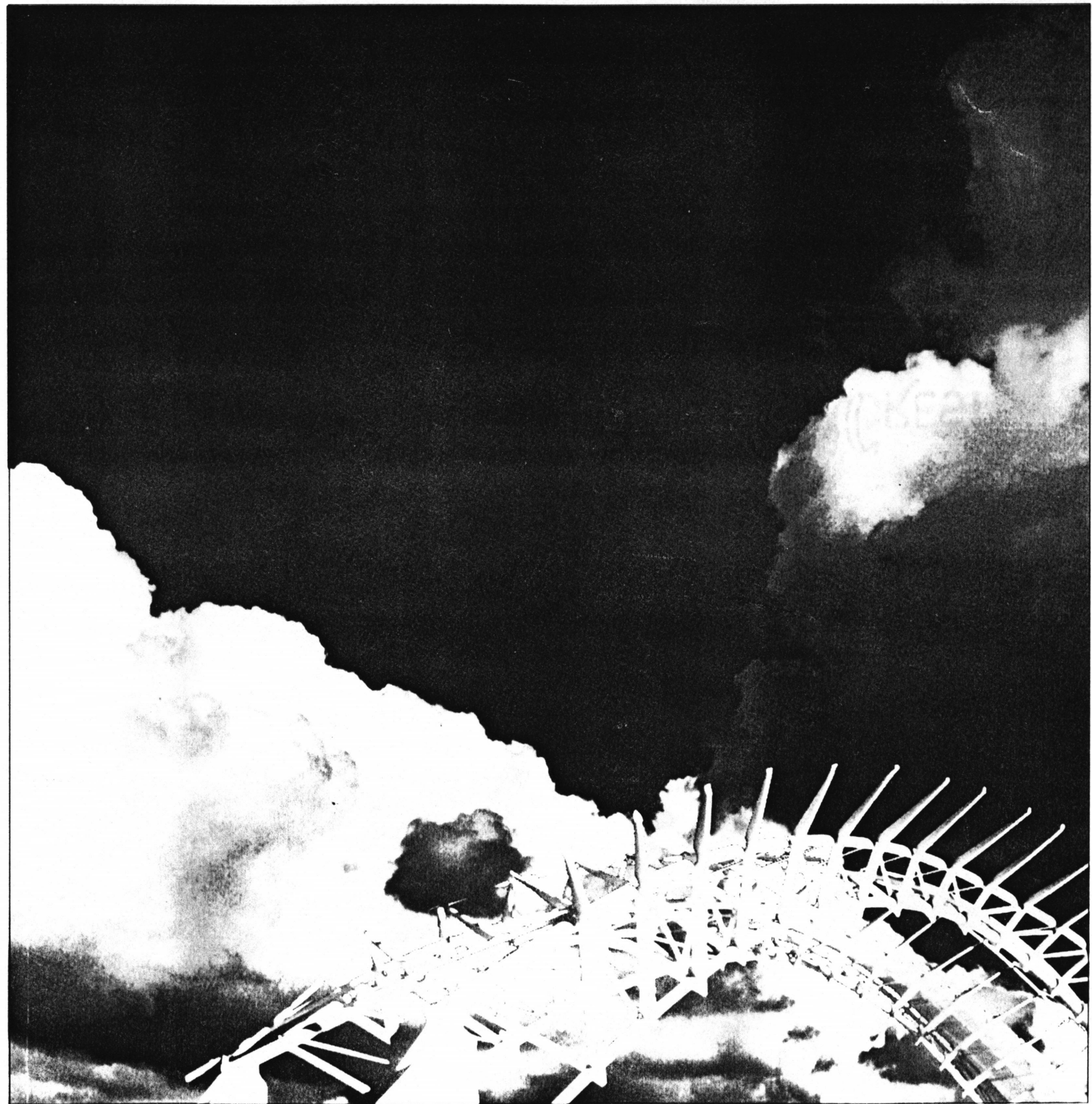
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5 February 1994



Architecture by the Edge of a Lake
An Enclosed Ice Skating Facility for Lake Fairfax Park

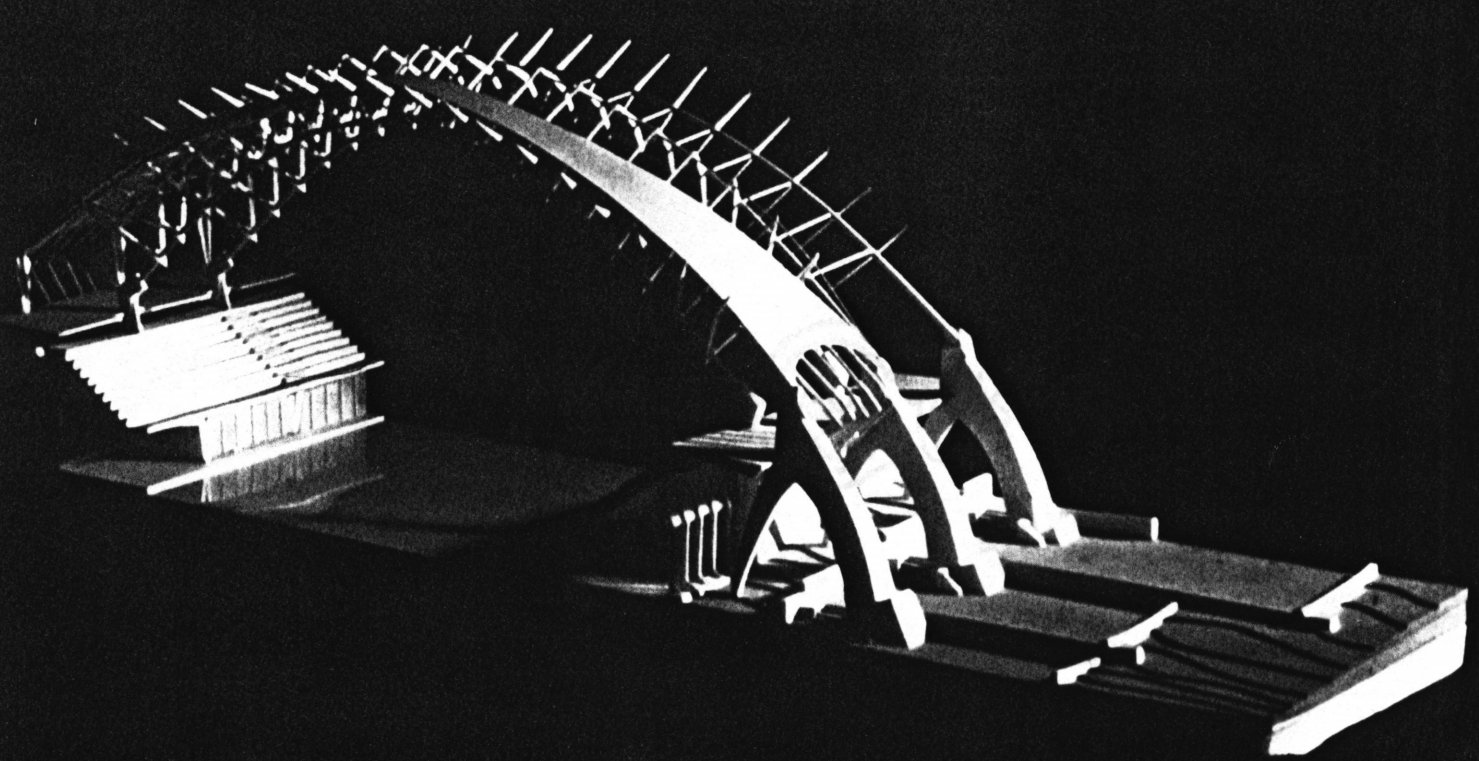
It may appear I might be saying, that from this particular point, and I realize that there are many points from which to begin, but in this case I am speaking of the point of composition; an idea or object can be visualized and eventually realized as a direct result of composed graphic images. These images are only created to reference and inspire, not substitute for the quality of tangibility and the experience of Architecture. Therefore I am not interested in seeking a design process that demands strict explication. Rather I seek to discover an unabashed vigor that is exhumed and in that vigor Architecture will blossom. The final composed product can only be a direct result of its own geometric, spatial, and structural syntax by beginning in the mind as spatial and experiential ideas.

And so here it begins. Referring to the mechanical ideas of plan, section, and elevation -- Architectural notions of space, geometry, light, structure, and materials become evident. As the ideas are composed with present ideology in mind, reflecting these to the participant, a language slowly develops that is used as a generator of ideas as well as a contributor to an abstract and constantly changing way the composer and the participants will enjoy the work. As the vision constantly changes, a type of evolution occurs within the Architecture. It is here where the author Gertrude Stein presents an understanding into the complexity of the design process: "Here again it was all so natural to me and more and more complicatedly a continuous present. A continuous present is a continuous present. I made a thousand pages of continuous present...nothing changes from generation to generation except the thing seen and that makes composition." To present this Architecturally, I believe in the relevance of these statements when explaining the inspiration one achieves to create sculpturally continuous exteriors, spatially continuous interiors, and metamorphic geometry free from any historical ideology in the making of Architecture and Composition.



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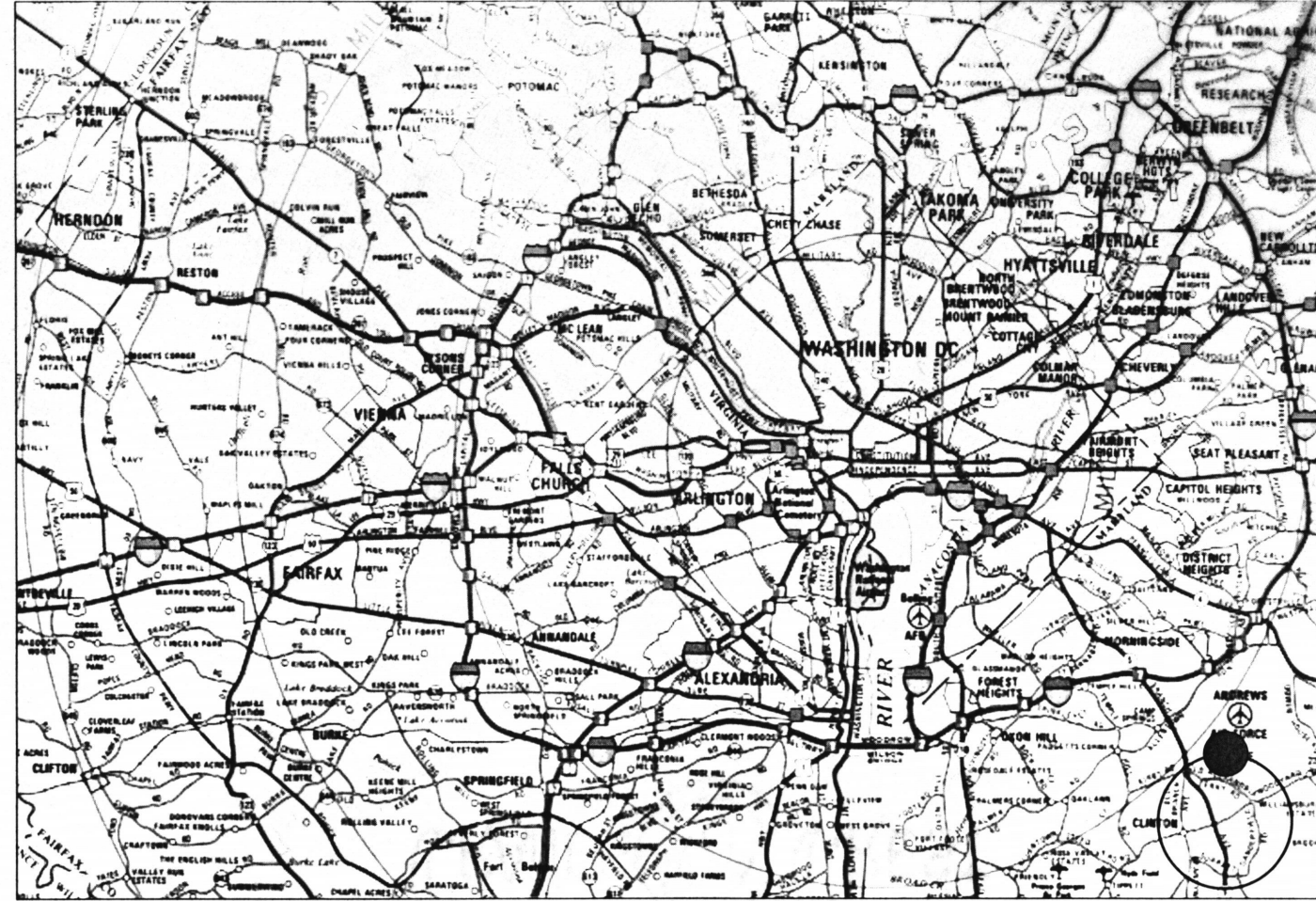
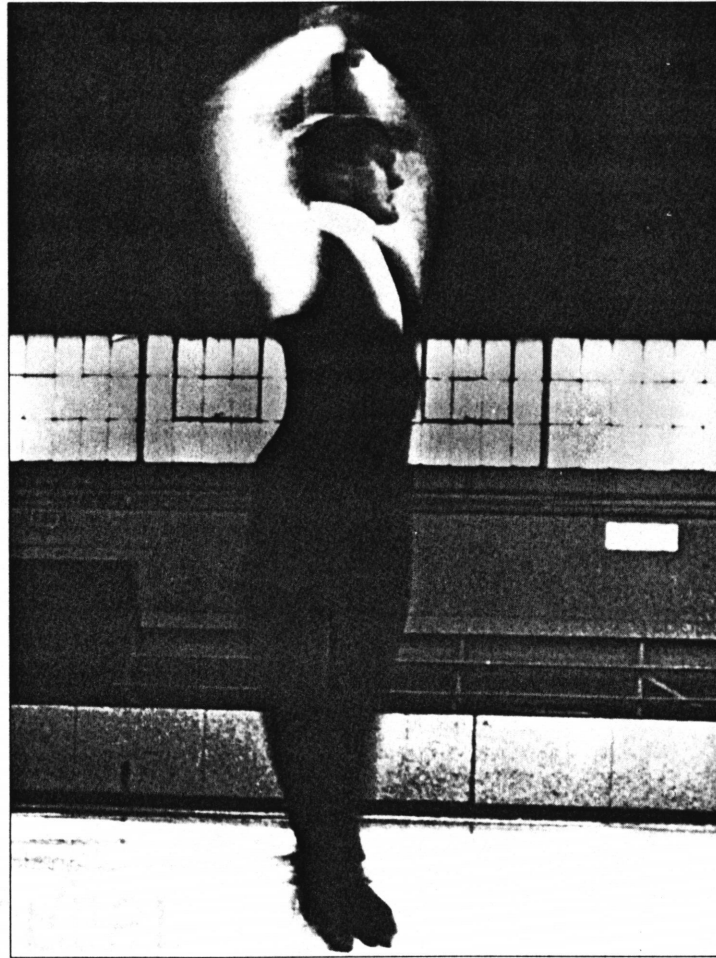
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The following project is an enclosed ice skating facility located in Fairfax County, Virginia. The Ice Rink will be constructed to support and encourage all phases of skating activity including figure skating, hockey, and year 'round recreational skating. Because there is only one other enclosed ice skating rink within a 60 mile radius and the demand for ice time at that rink is nearing capacity, the need for another facility is great. During the winter months, there is a diminished number of activities, especially for children. Therefore, the creation of an ice rink becomes not only a catalyst for exercise and enjoyment, but it also provides relaxation and a place to gather and socialize. Fairfax County has already proposed locating a facility in Lake Fairfax Park.

The project's inclusion on the site requires a large number of parking spaces to accommodate ice rink patrons as well as support the existing buildings, future park construction, and other activities that will occur at Lake Fairfax Park.

The project is intended to accommodate functions other than those involving ice skating. Included are a large number of offices that will provide space for the Park Authority management. A section of the building, near the main entrance, will act as a visitor's center and provide information on all park activities and events. Overall, the project will support a variety of recreational activities and events and promote greater interest in Lake Fairfax Park and the surrounding area.



Site
Composite view from site
across inlet

Area Map (above)
Map of metropolitan Washington.



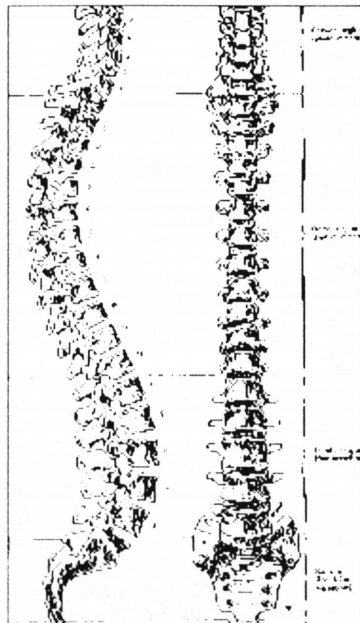
My intention for this project will be to create a building that will exude the attributes of its interior activities, its exterior environment, and its relationship with the site. The Ice Rink's development originates from the poetics of its function. What eventually will develop from these ideas is a naturally lighted and enclosed space that visually as well as experientially demonstrates an interleave of natural light, structure and continuous space to the visitor. Whether the activity is hockey or figure skating, recreational skating or social interaction, the facility should not only house the activity but capture and sustain it, idealizing the notions of grace and movement that become of ice skating.

The language of the structural system will be born out of the qualities of the primary activities occurring within the building. The structural system and the materials should demonstrate the dichotomy as well as the relationship between the different activities occurring in the Ice Rink. This idea developed from the notion of discontinuity between the violent nature of hockey and the free-flowing beauty of figure skating.

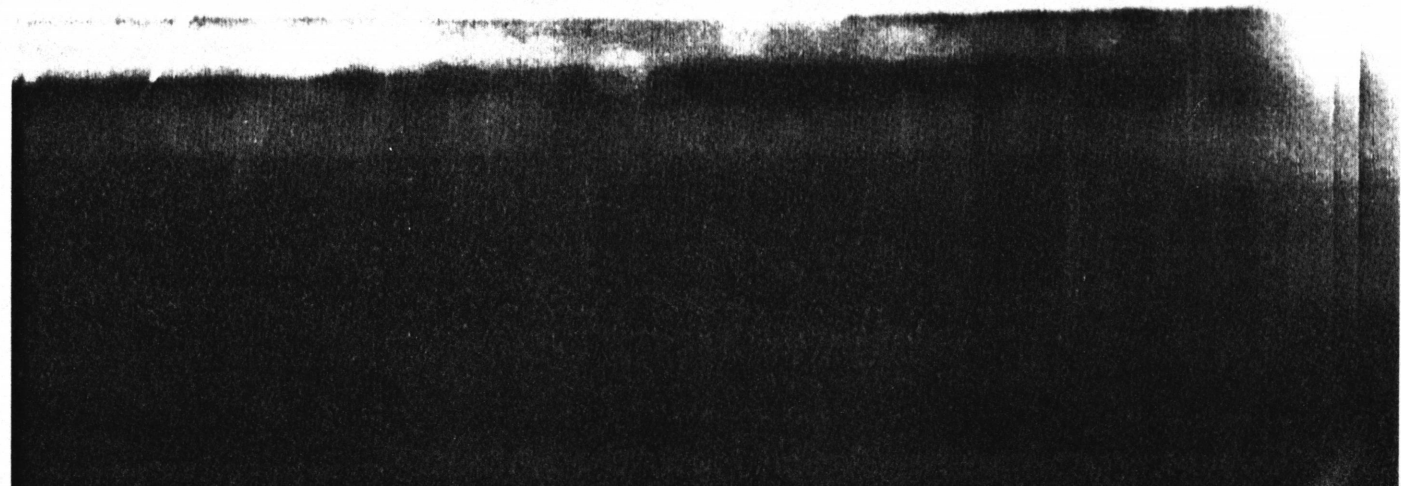
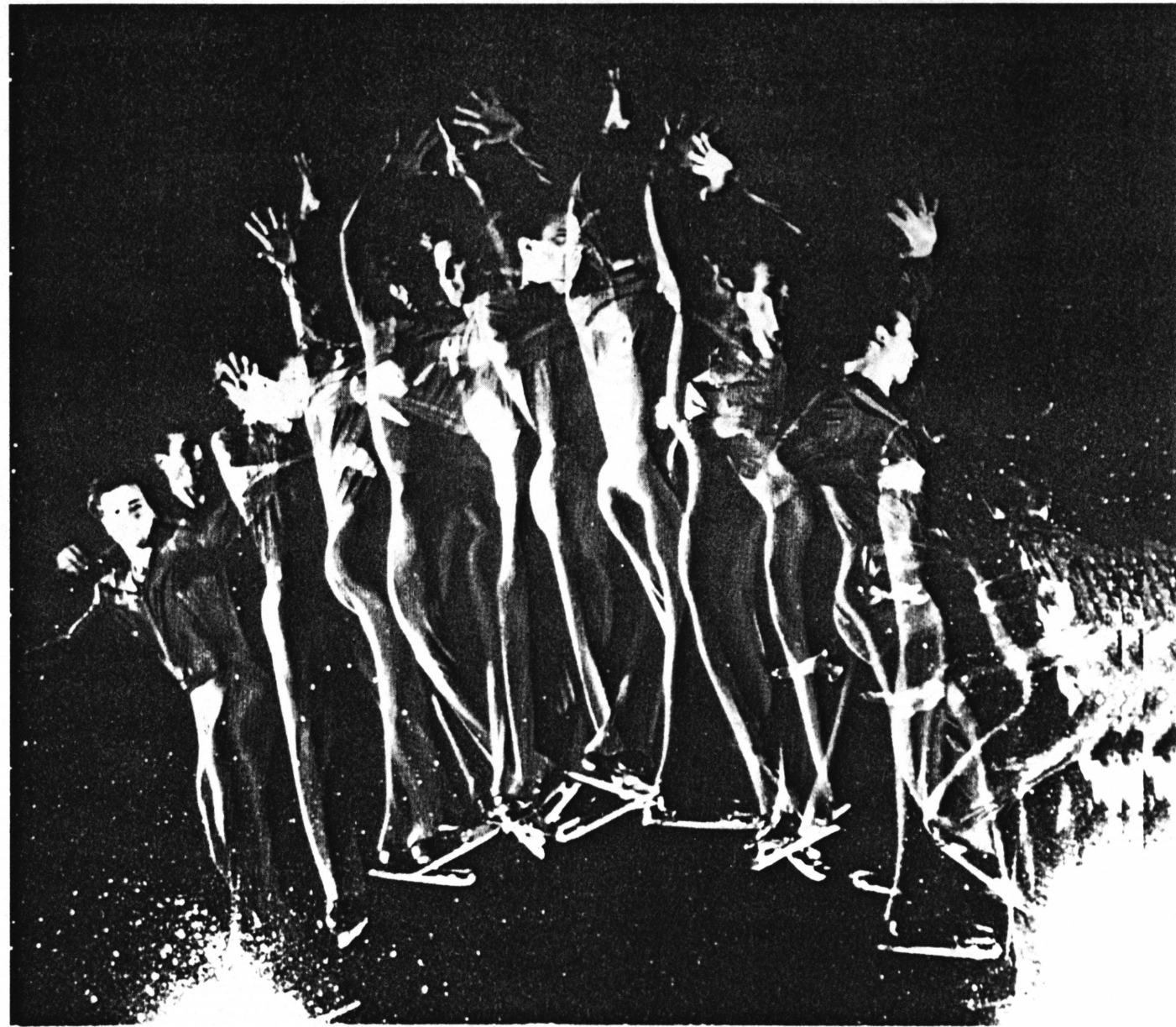
The visual qualities that arise from the interaction between the structure, materials, and light can be experienced by the participants as the relationships of the various skating activities come to mind.

There is also the intention to explore how one might dwell on a site by the edge of a lake. Because of the Ice Rink's prominent location on a steeply sloped section near the park's main entrance and lake, there are two ideas that will unite the project and the site's natural features. These ideas are found in and originate from the expression of the poetry of a steeply sloped site and the exploration of architecture as it dwells by the edge of a lake. How one treats the building and its harmony with the site, its steep slope, and its natural features, is as important as the building itself. As an example, a procession may occur from the time one enters the area, leaves his car, and begins walking towards the building until he arrives at either the entrance or the edge of the lake. This idea of a procession through the site reflects that the final destination will be the lake with the building acting as the intermediate point between the parking and Lake Fairfax.

In the end, what I hope will grow from this Thesis is a truer understanding of the poetics of design as well as a beautiful design that encompasses all of the architectural, visual and experiential qualities that have been previously mentioned and will be explored throughout the following pages of this book.



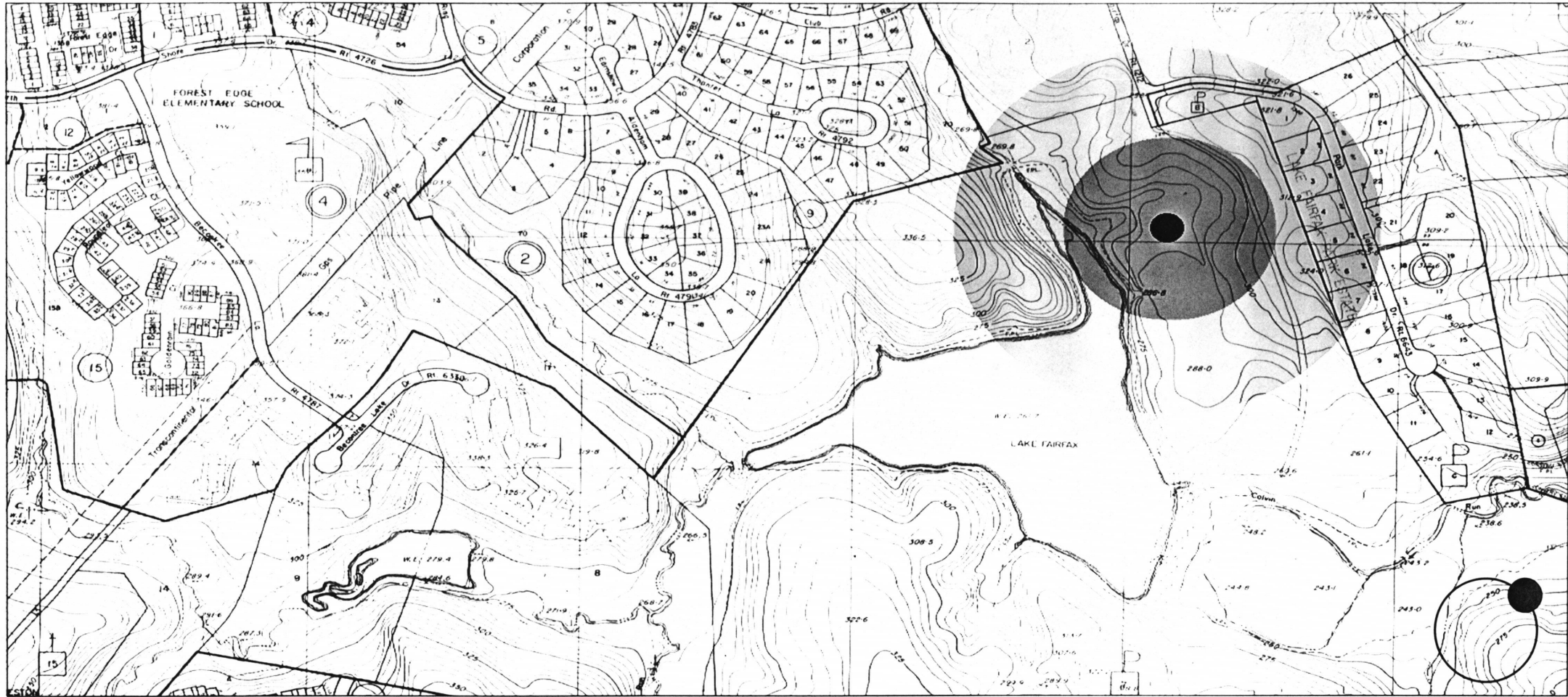
INTENTION



LOCATION

The facility is located on the outskirts of Northern Virginia in Fairfax County, 45 miles southwest of Washington, DC. The property on which the facility is located, along with the rest of the park, is owned and operated by the Fairfax County Park Authority. The park is only in the first stages of planning and development. As it exists now, it functions mainly as a temporary home for a division of the Fairfax County Park Authority and contains two small buildings and a public picnic area. Future plans include a permanent Park Authority building, baseball and soccer fields, a miniature golf course, an area to dock and launch small sail boats, rehabilitating and enclosing two existing swimming pools, increased parking, and a variety of jogging and bike paths. An open-air ice skating facility has also been proposed for the site.

The site on which the Ice Rink is to be constructed is located between the main entrance of the park and the edge of the lake. This area is steeply sloped and without a single tree. This particular section of the lake is actually a small narrow inlet that, because of its location, freezes rather quickly. The area provides a picturesque setting for outdoor skating as well as other winter activities. The Ice Rink's prominent location at the main entrance to the park and at the head of the lake contributes to the building becoming a focal point and a generator of future design and planning for Lake Fairfax Park.

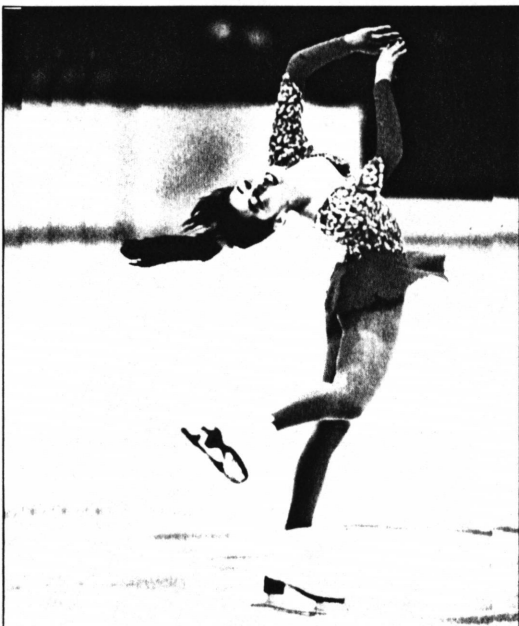


Site

View from across frozen inlet.
Existing buildings on Ice Rink site.

Location Map (above)

Map of Lake Fairfax Park and surrounding area.



Ice Level

- Mechanical Room
- Electrical Room
- Zamboni Room
- Skate Change w/ Lockers
- Four Team Lockers
- First-aid Room
- Instructors Room
- Restrooms
- 85' x 200' Ice Rink
- Circulation around Rink

Concession Area

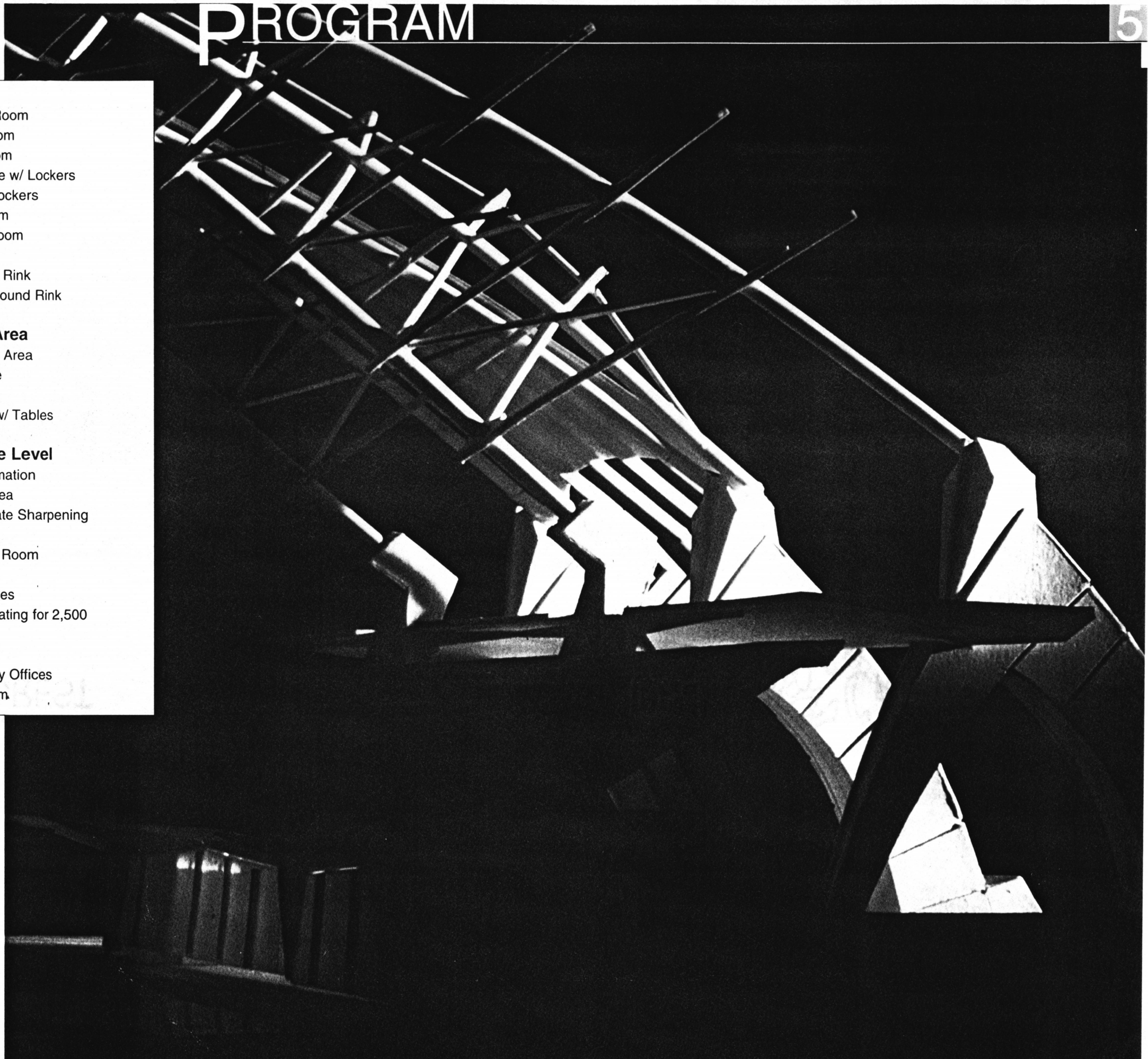
- Food Service Area
- Food Storage
- Trash Room
- Eating Area w/ Tables

Main Entrance Level

- Tickets/Information
- Reception Area
- Pro-shop/Skate Sharpening
- Skate Rental
- Multipurpose Room
- Restrooms
- Ice Mgt. Offices
- Spectator Seating for 2,500

Office Level

- Park Authority Offices
- Meeting Room



The emphasis of this project deals mainly with a strong idea about the language of structure and form as well as how one physically and visually participates with a building according to this language. I will concentrate on the Ice Rink's relationship to the site and the surrounding park as specific factors that influence the building's design. The intention of this project is to exemplify these strong ideas and explore their influences on design.

Beyond the simple function of the structural system to enclose and provide a clear span for the Ice Rink is the idea of designing an elegant long span structure that exemplifies the intangible qualities of the function that it encloses. As the project develops, studying the relationship of structure, natural light, and structure's natural form in relationship to the human body becomes the focus. The project not only emphasizes this idea in the structure's form, but the entire Ice Rink is generated from this notion.

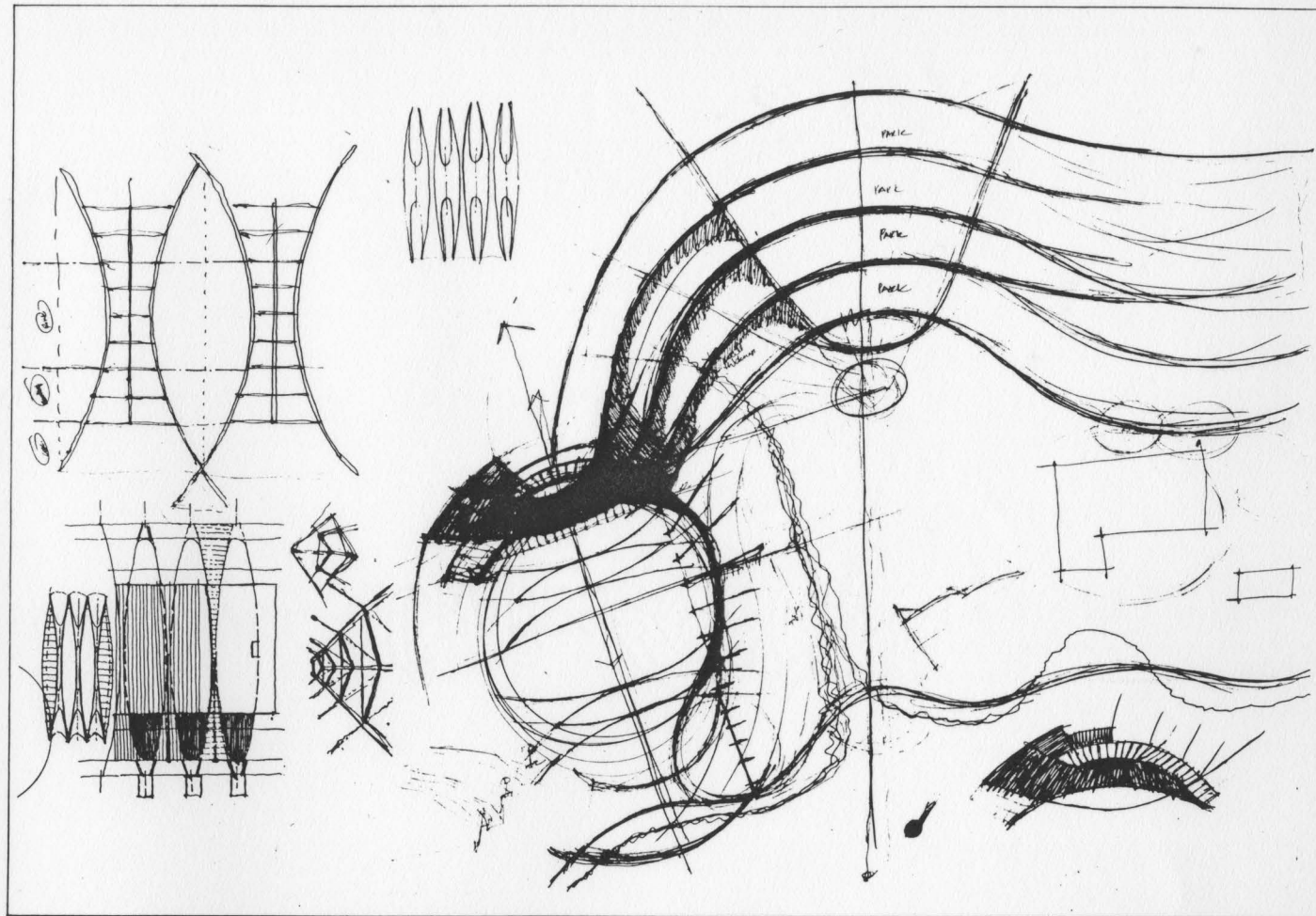
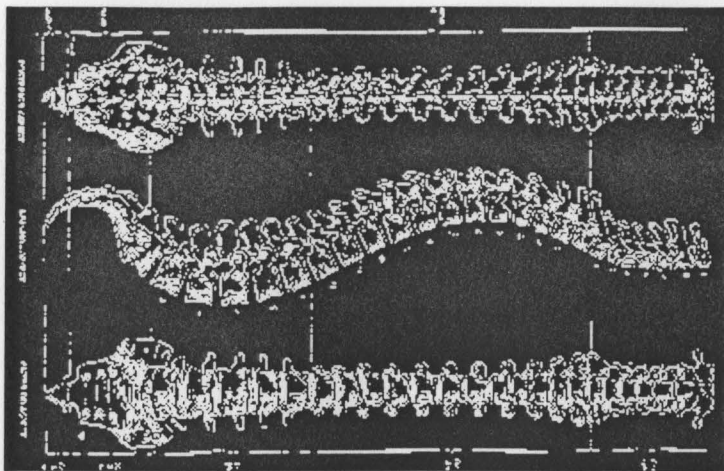
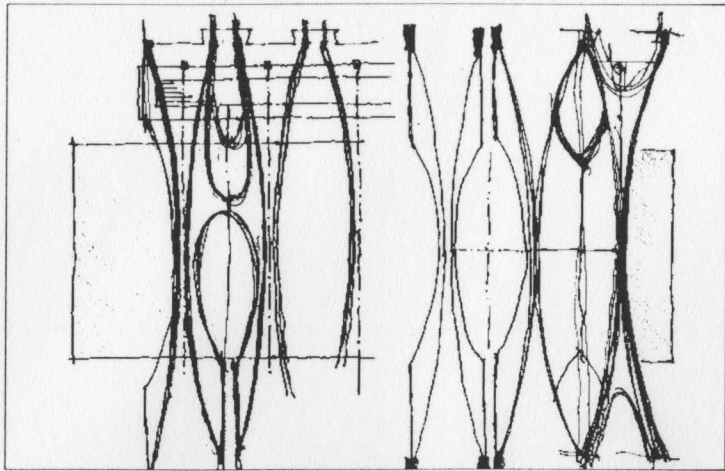
A structural steel skeleton with a thin skin stretched over it, reminiscent of the backbone of the human body, encloses the building and provides natural light at

the structure's separation or vertebrae. Where ever there is an extension of structure, light would be admitted and the ribbed character of the structure would give the impression of the human body. The spine of the building provides varying amounts of natural light according to the time of day and reinforces the project's original concept.

The concept of language, form and the buildings ability to participate with the visitor in a variety of ways, develops from the character and the qualities of the ice rink's activities and participants. The prevalence of the circle and curve in hockey and figure skating provide a generator from which the project's language and form can originate. The intention is to capture the idealized notion of beauty, grace, and movement that is characteristic to all skating activities and create a building that will exude these qualities. These inherent qualities provide a basic generator from which the building can eventually develop into a structurally continuous exterior and a spatially continuous interior. Also, the different senses of the buildings inhabitants will participate with the Ice Rink through the architecture and the different activities.

The original idea of how one dwells by the edge of a lake and on a steeply sloped site developed into the concept of using the building as a separator between natural and man-made elements. This idea unites the parking lot with the lake. The experience of parking the car becomes an integral part of the procession that begins when a person arrives on site and ends at the arrival at the edge of the lake. This idea, where by the Ice Rink becomes the intermediate point between the person's arrival on site and at the edge of the lake, spawns an area that provides shelter in the winter for the recreational lake skaters.

CONCEPT

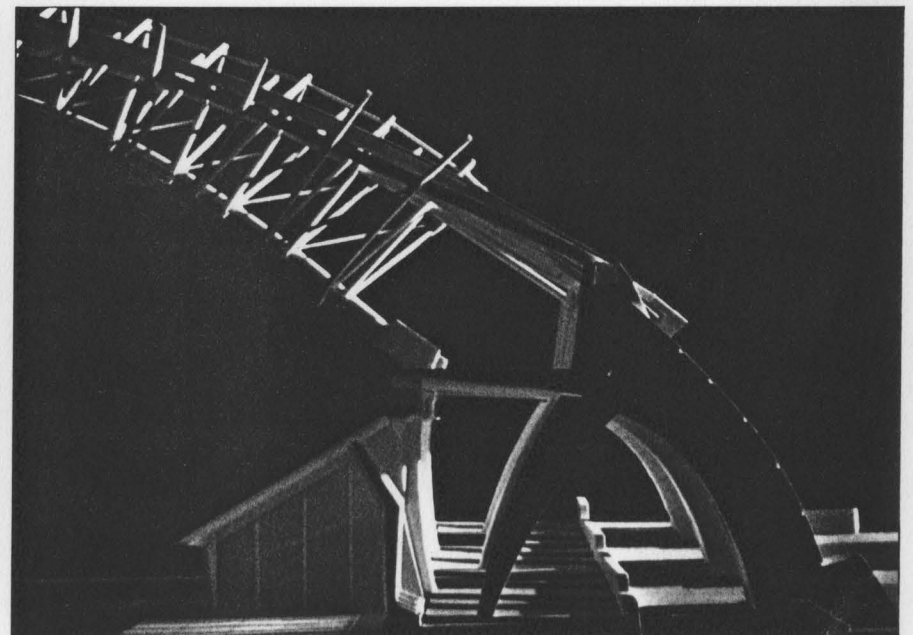
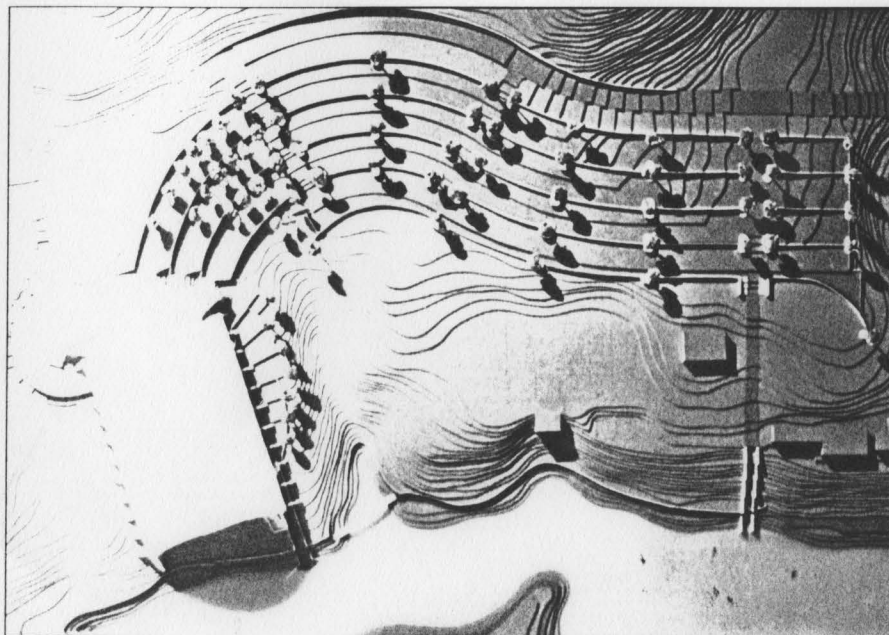


Site Model

Arial view of building and site.
Scale of Model 1"=50'-0"

Detail Model

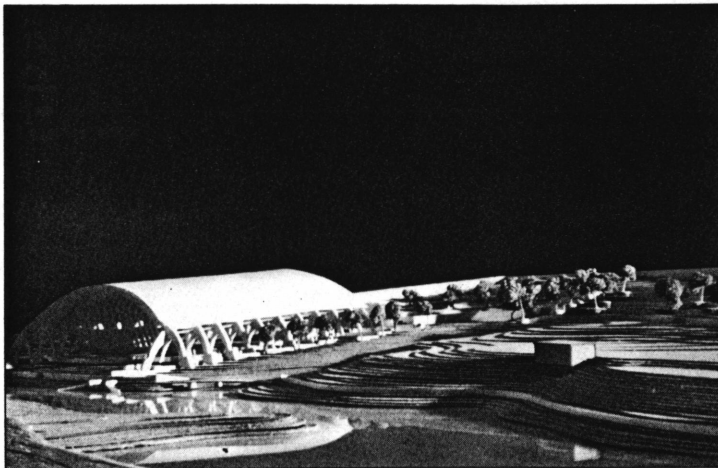
View of structural/light relationships.
Scale of Model 1"=10'-0"



SITE PLAN

0' 50' 100' 250' 500'

I chose this particular site within the limits of the park because of its prominent location with respect to an inlet at the head of Lake Fairfax, it's functional relationship with the only other existing construction in the park, and it's close proximity to the park's main entrance. Because it is located at the main entrance, the Ice Rink would be the first thing seen when entering the park and would act as a park focal point and a generator for future construction. The Ice Rink is also located at the edge of the lake, enabling it to interact with events that occur throughout the year.

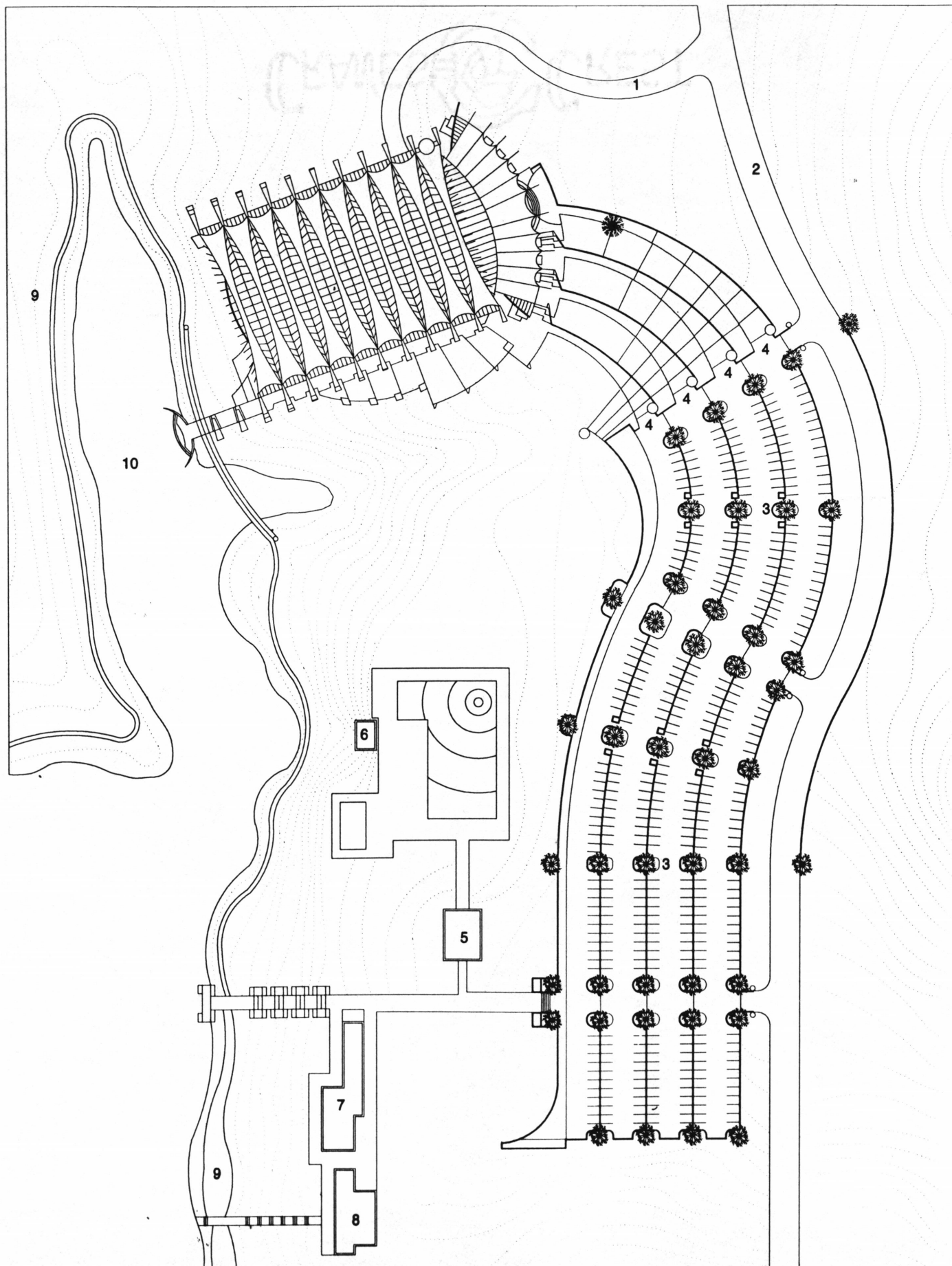


A large swale extends from the water to the parking. The idea is to use this prominent site feature to divide the large expanse of cars from the building. Through the use of retaining walls that separate each parking level, the parking lot gradually terraces down the site.

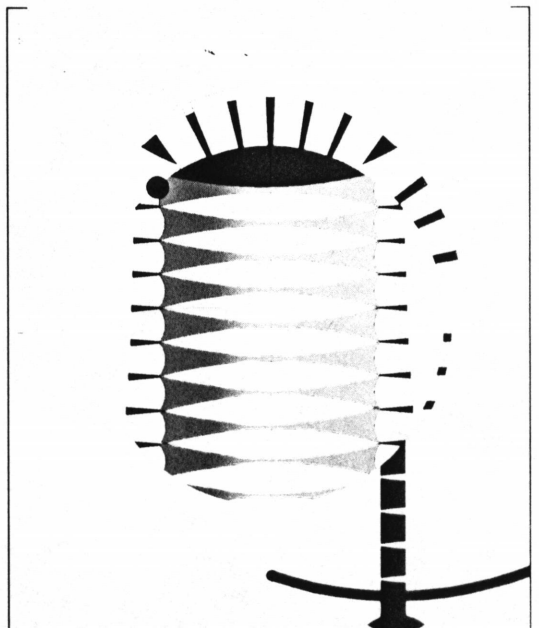


A person that first discovers the Ice Rink after entering the park area would enter the parking lot and exit his car. Proceeding to one of four tree lined paths that terrace toward the water and are flanked by long retaining walls, the visitor follows one of these to the lake. These paths, stretching from the edge of the building, reach out and grab the visitor, emphasizing the swale in the landscape by curving around it's tip. The idea is that the building acts as an intermediate point between the person's departure from the car and the water.

Site Model
View from across lake.
Model Scale 1"=50'-0"
Site Model
Relationship of parking to bldg.
Model Scale 1"=50'-0"

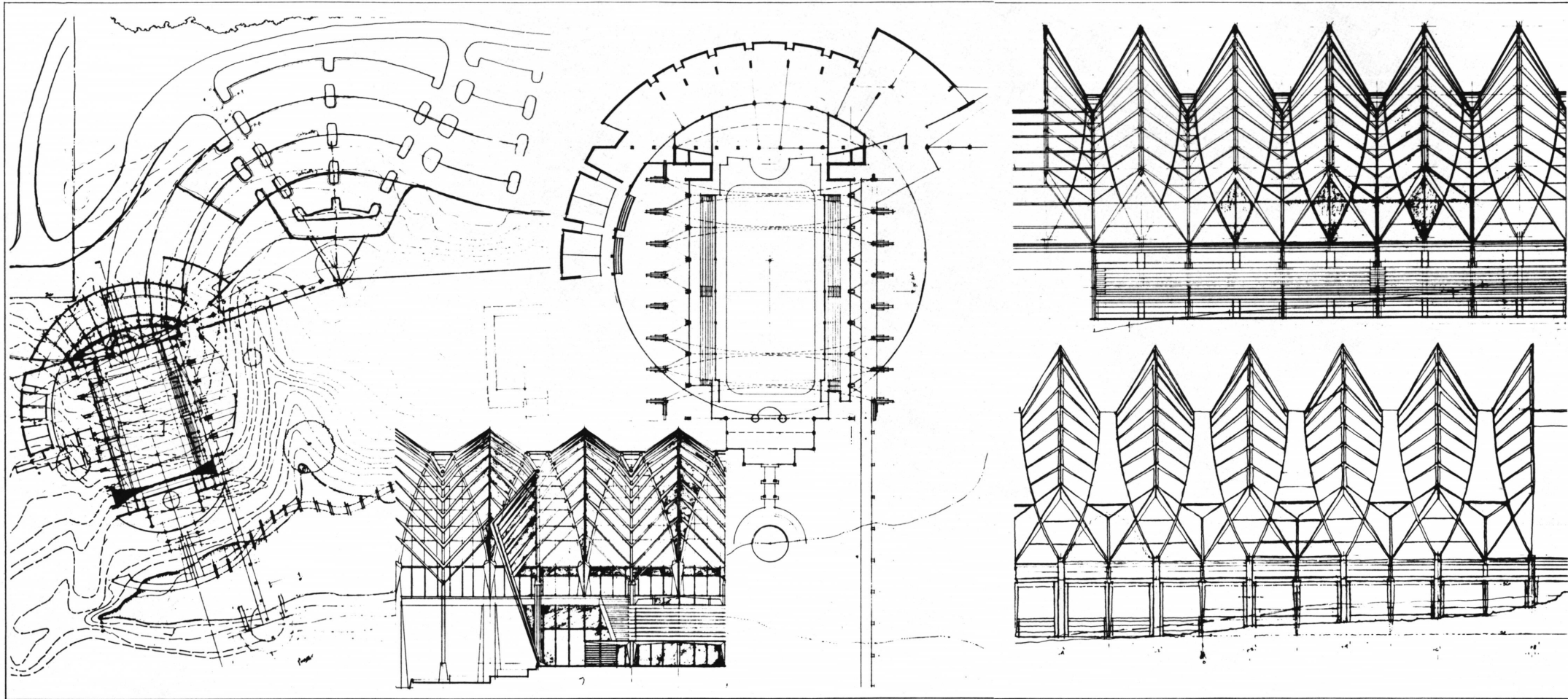


- 1. Service Road
- 2. Main Entrance Road
- 3. Parking
- 4. Pedestrian Paths to Bldg.
- 5. Pool House (Exist.)
- 6. Pump Room (Exist.)
- 7. Park Authority Bldg.
- 8. Maintenance Bldg.
- 9. Jogging Path
- 10. Lake Fairfax



Once I began the project, the most critical aspect of the relationship between the Ice Rink and the site became the steep slope. The two approaches that I believed could be investigated were to either build with the slope or against it. After much site analysis, it seemed apparent that in dealing with the issue of building into the hillside, the approach would be to construct a retaining wall and build into the existing landscape. This retaining wall became a major design element in the project as an organizer of the Ice Rink's functions and a generator of different spaces. This approach also oriented the long axis of the Ice Rink directly north/south, opening one end to capture northern light and the other end to reveal views of the lake to the skaters and spectators inside. This approach also provided an area near the lake edge that could be used as a shelter for the recreational ice skaters outside during the winter.

One idea that developed from using the swale as a separator was to construct a bridge over the ravine and unite the building with the parking lot. The idea of using the building to unite the primary areas of the landscape, the parking and the lake, generated many different schemes. Structurally, the form of the building began to evolve, with the original concept in mind, as different programmatic concerns arose. The curved retaining wall in plan related to the curved truss section which was inherent to the project and its ideas.

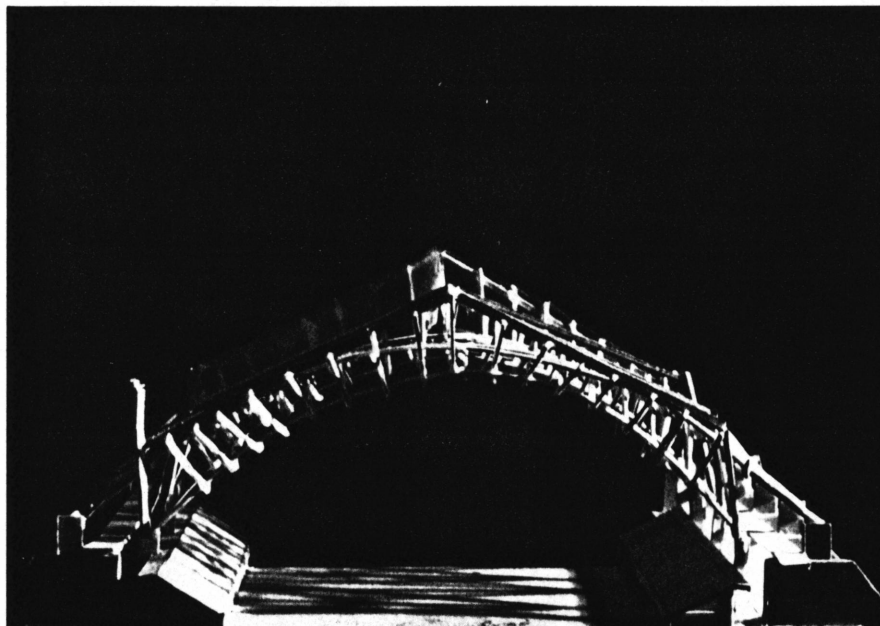
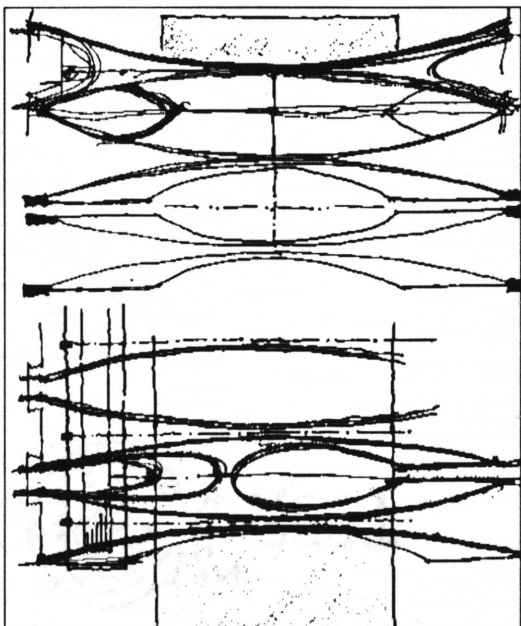


Concept Model

Preliminary roof structure and seating.
No Scale

Concept Model

Roof study between head of building & rink.
No Scale



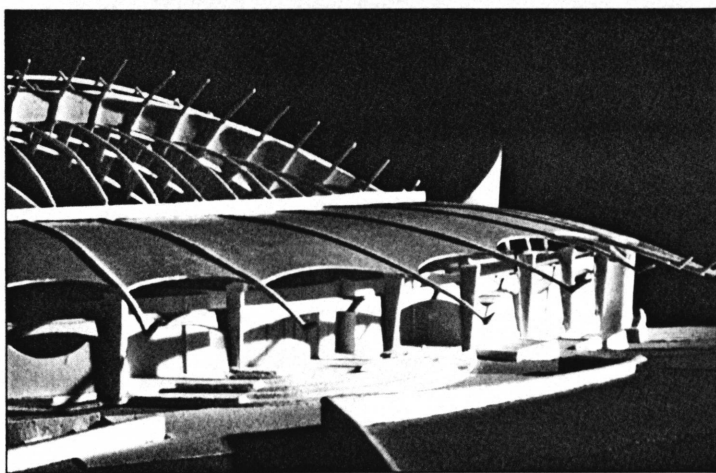
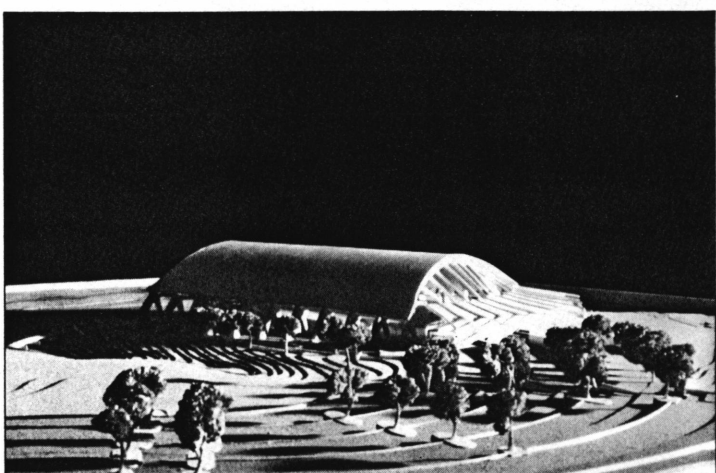
The form of the building in plan began to reflect the idea of the figure eight and its inherence to skating. The main curved retaining wall emphasizes this and resists the forces of the earth while defining the ice level where all of the activities take place. Here, one descends down the stairs from the main level and begins to ice skate.

Lockers and benches are provided near the stairs which are covered in brightly colored rubberized flooring. Also provided are four team locker rooms, located underneath the spectator seating, where hockey players can change. Because these rooms are below grade, the perimeter retaining walls stop just above grade, leaving a space between the top of the wall and the underside of the seating. At this junction, translucent fiberglass is used to admit light and obstruct views.

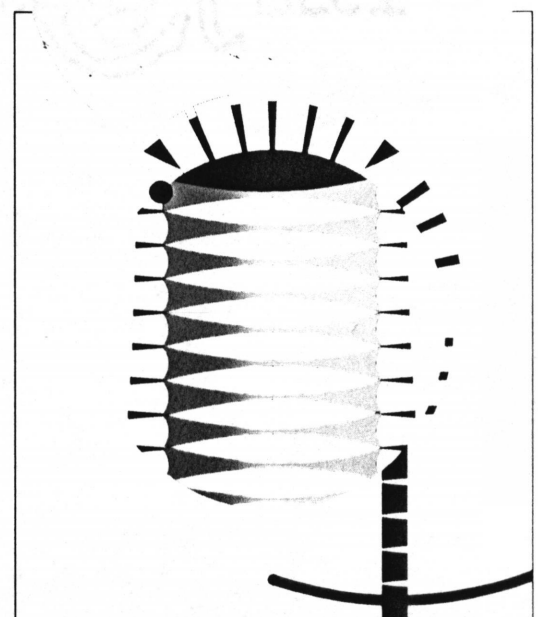
A service entrance, elevator to all floors of the building, and large mechanical room is provided. There is also a Zamboni room located at the head of the rink. This room is a prominent feature that is seen by all who enter the Ice Rink. It is constructed out of fiberglass and lighted from within.

Underneath the spectator seating, at the south end of the Ice Rink, tables and chairs are provided to function as a snack and rest area. At this point, the rink's surface is above grade and glass replaces the retaining walls. This makes the rink visually open and presents the opportunity for people skating inside to see the site and the lake.

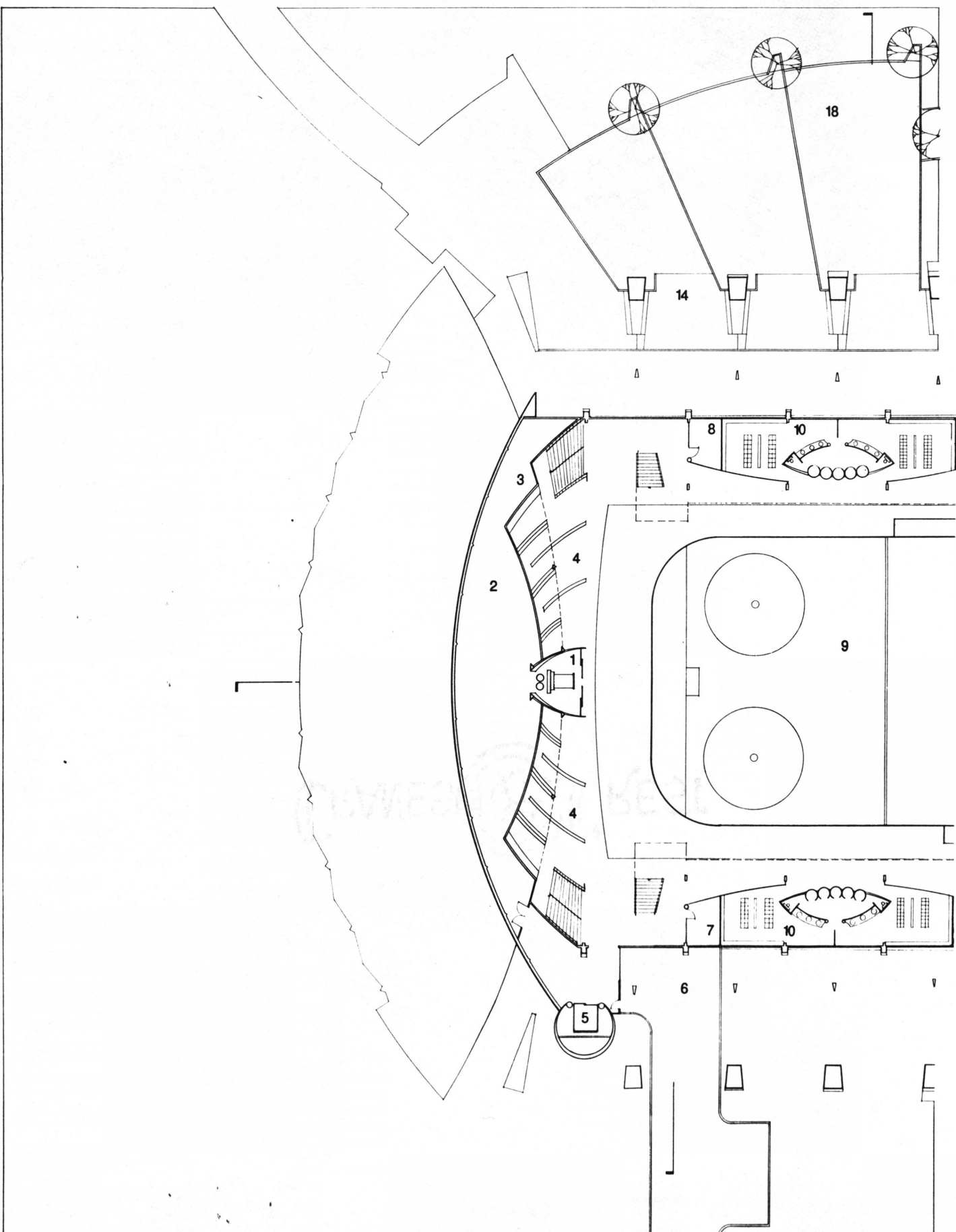
ICE LEVEL

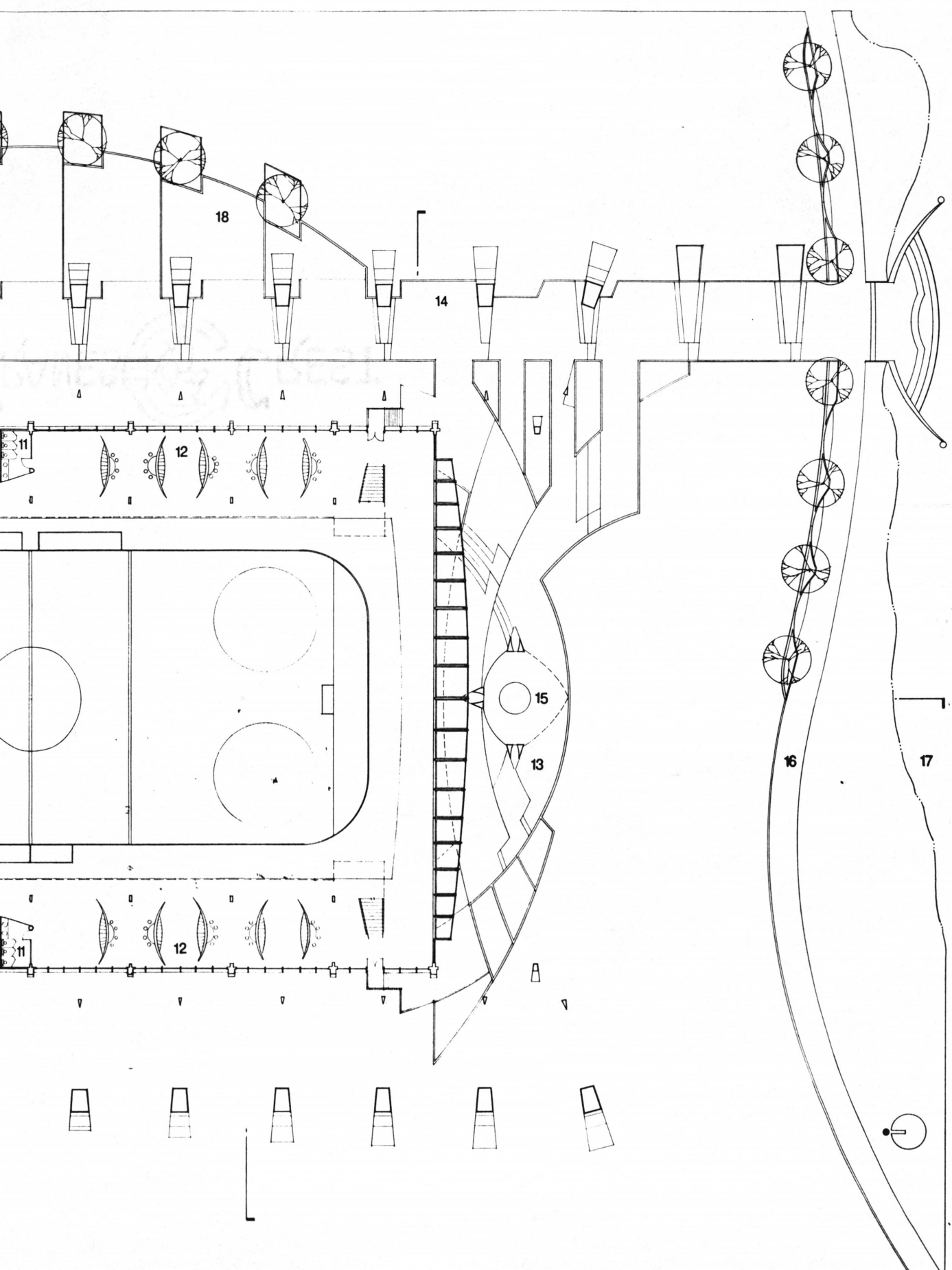


■ Site Model
View from parking lot.
Model Scale 1"=50'-0"
■ Building Model
View of main entrance along path.
Model Scale 1"=20'-0"



- 1. Zamboni
- 2. Mechanical
- 3. Electrical
- 4. Skate Change
- 5. Elevator
- 6. Service Entrance
- 7. First Aid
- 8. Instructor's Room
- 9. Ice Rink
- 10. Team Lockers
- 11. Public Restrooms
- 12. Snack Area
- 13. Outdoor Seating
- 14. Path to Lake
- 15. Fire Place
- 16. Jogging Path
- 17. Lake Fairfax
- 18. Terraces (Picnic Area)

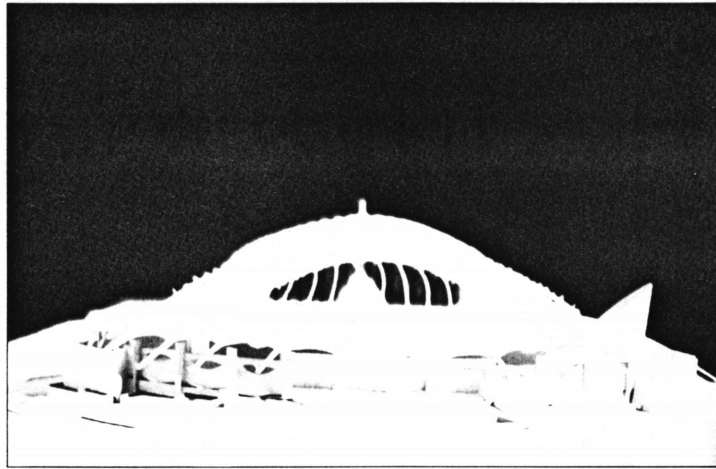
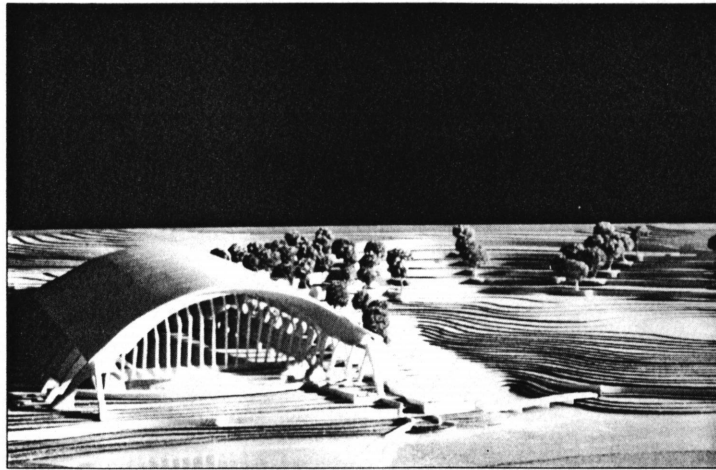




CLIMATE & CHEER

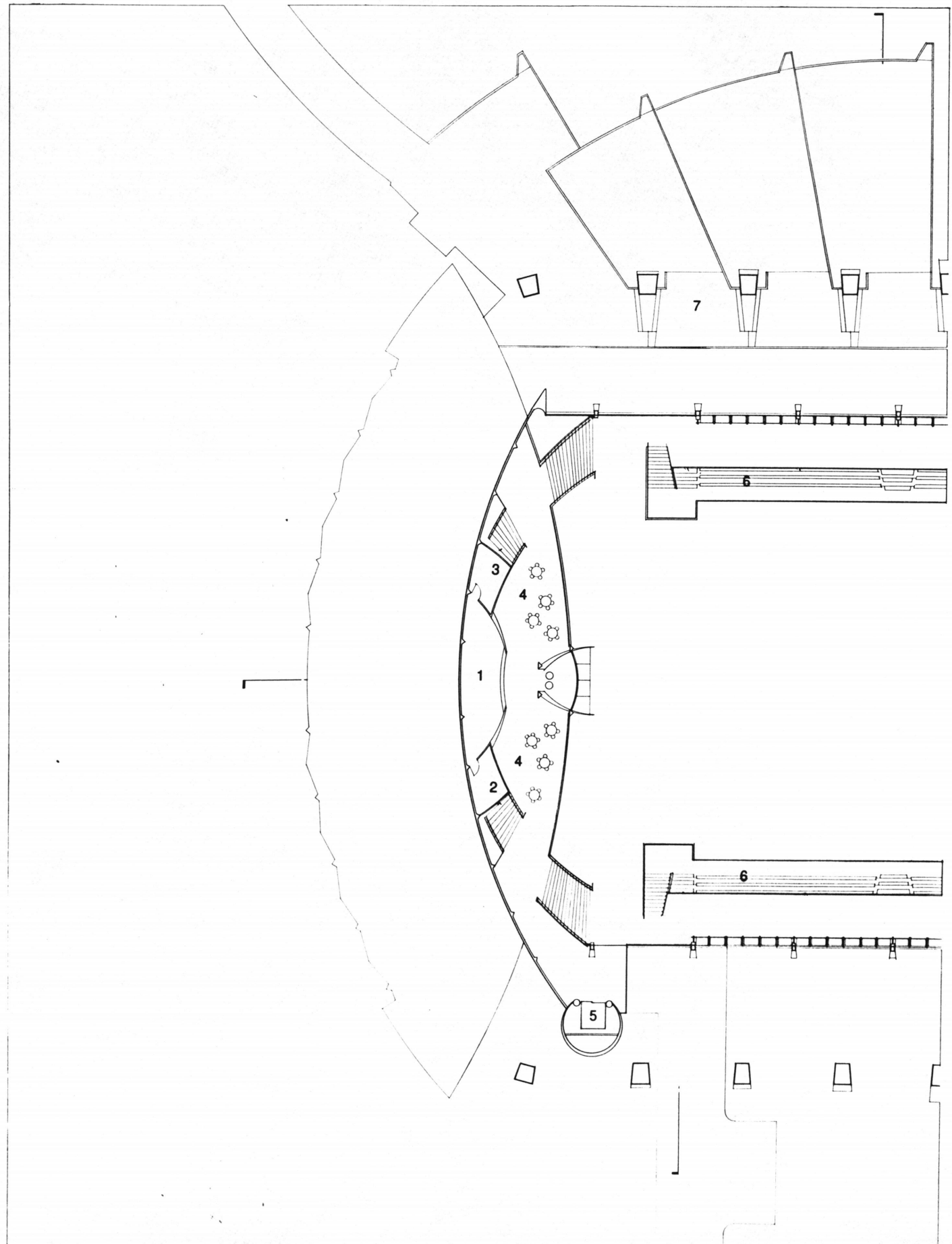
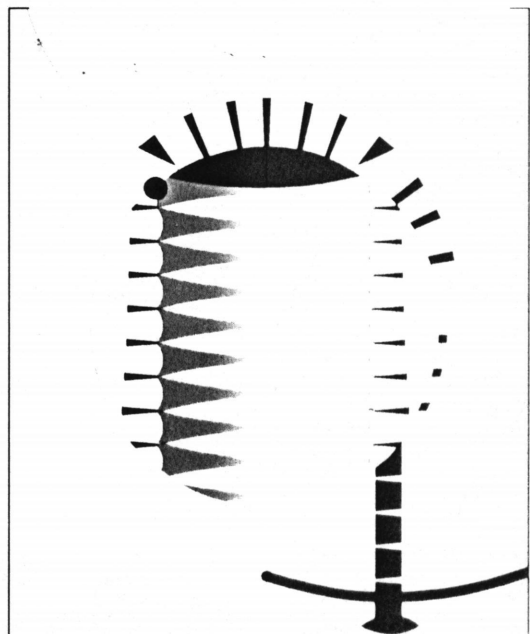
On this level, the intention is to provide not only an eating area but a place for people to gather and socialize without having to skate. From this location, people can eat, relax, and watch the skaters below as well as see across the ice through the rink's glazed south end that provides a panoramic view of the lake beyond. The concession area's main purpose is to act as more than just a place for the skaters to get food. By developing a continuity between the inside and outside of the building and providing a place to gather and socialize, the ice rink becomes a generator of life, energy, and purpose for the visitors, spectators, and skaters.

CONCESSION LEVEL



■ Site Model
View of south elev. across inlet.
Model Scale: 1" = 50'-0"
■ Building Model
View of north elevation & entrance.
Model Scale: 1" = 20'-0"

- 1. Concession Stand
- 2. Food Storage
- 3. Trash Room
- 4. Eating Area
- 5. Elevator
- 6. Spectator Seating
- 7. Path to Lake

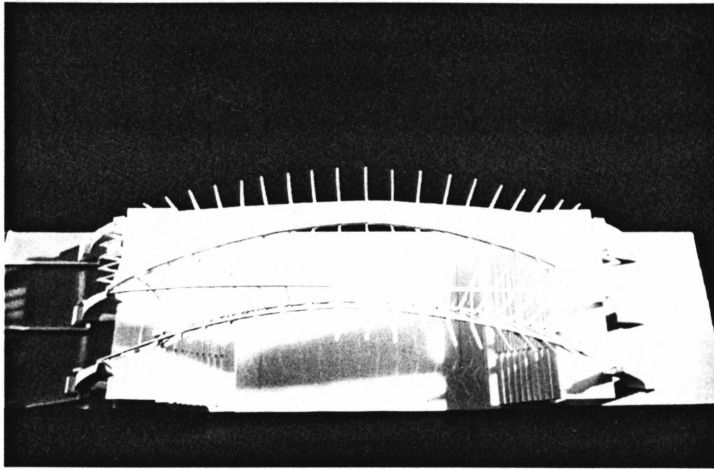
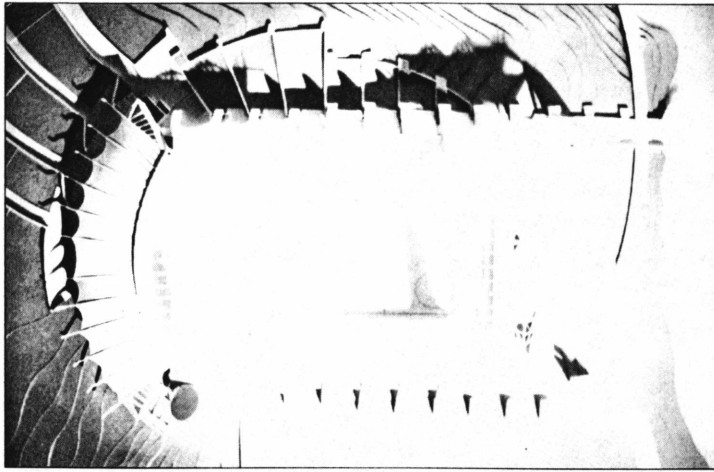


After leaving the parking lot and proceeding along one of four tree-lined paths that terrace down the site and lead to the building, one can either proceed up steps along the fiberglass paneled facade of the building or walk down to the lake underneath the Ice Rink's structural concrete piers. Once entering the building, the visitor is greeted with a framed view directly into the rink area. Tickets, park information, and a place to rent ice skates are provided before actually entering the Ice Rink arena.

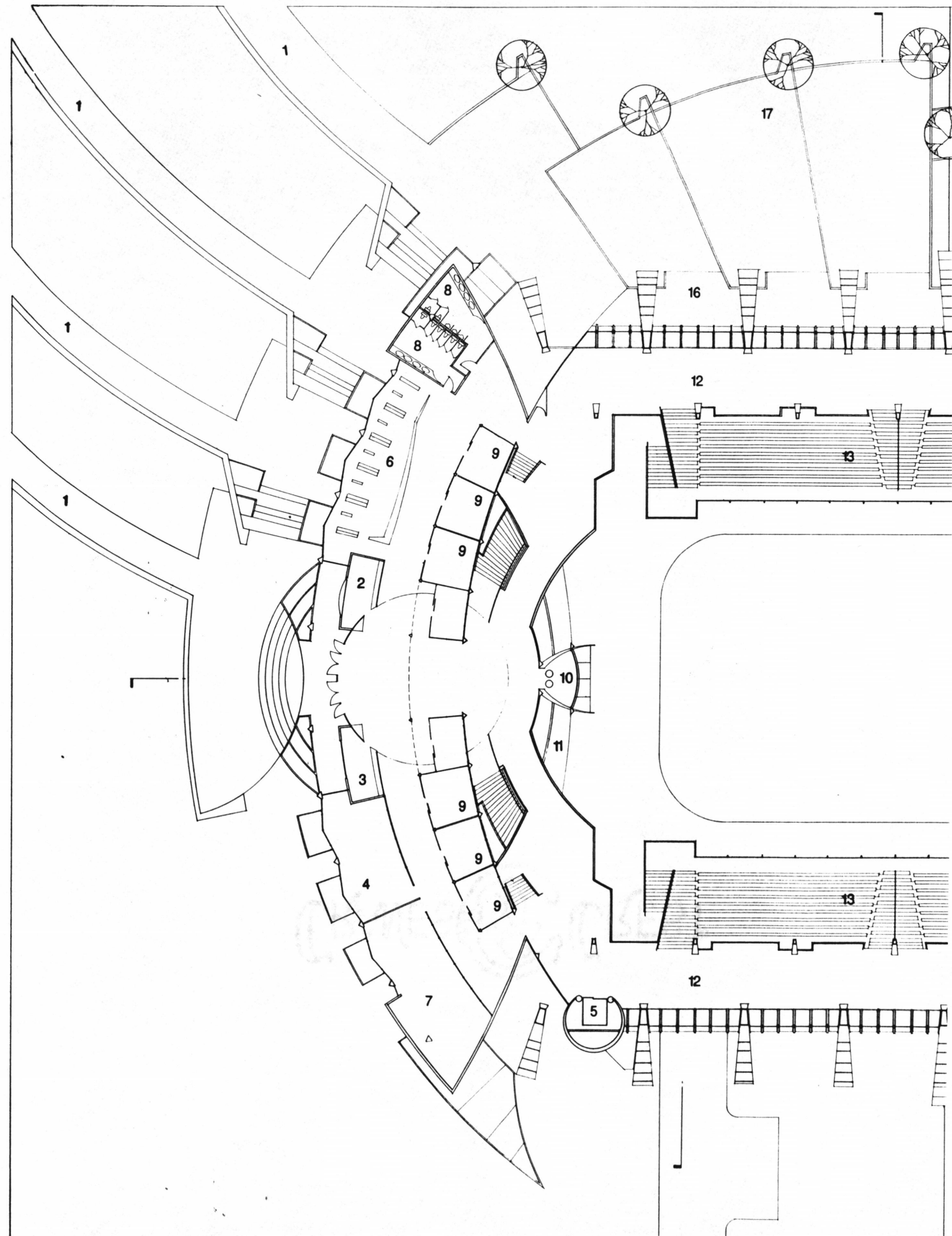
Passing through the main organizing wall of the building that separates the Ice Rink functions from the rink's seating, the spectator is greeted with a much different spatial experience due to the abundance of natural light.

The large expansive rink has two main circulation paths that run the length of the building and service the spectator seating. Clear glass separates the spectators from the elements along the circulation path. The Ice Rink supports up to 2,500 people for all events including figure skating and hockey.

Located at the south end of the Ice Rink is an exterior seating and garden area that unites the Ice Rink with the edge of Lake Fairfax and the different events that occur throughout the year.

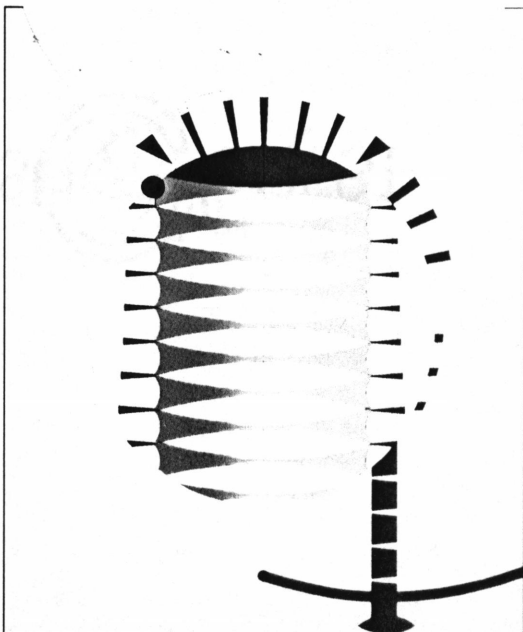


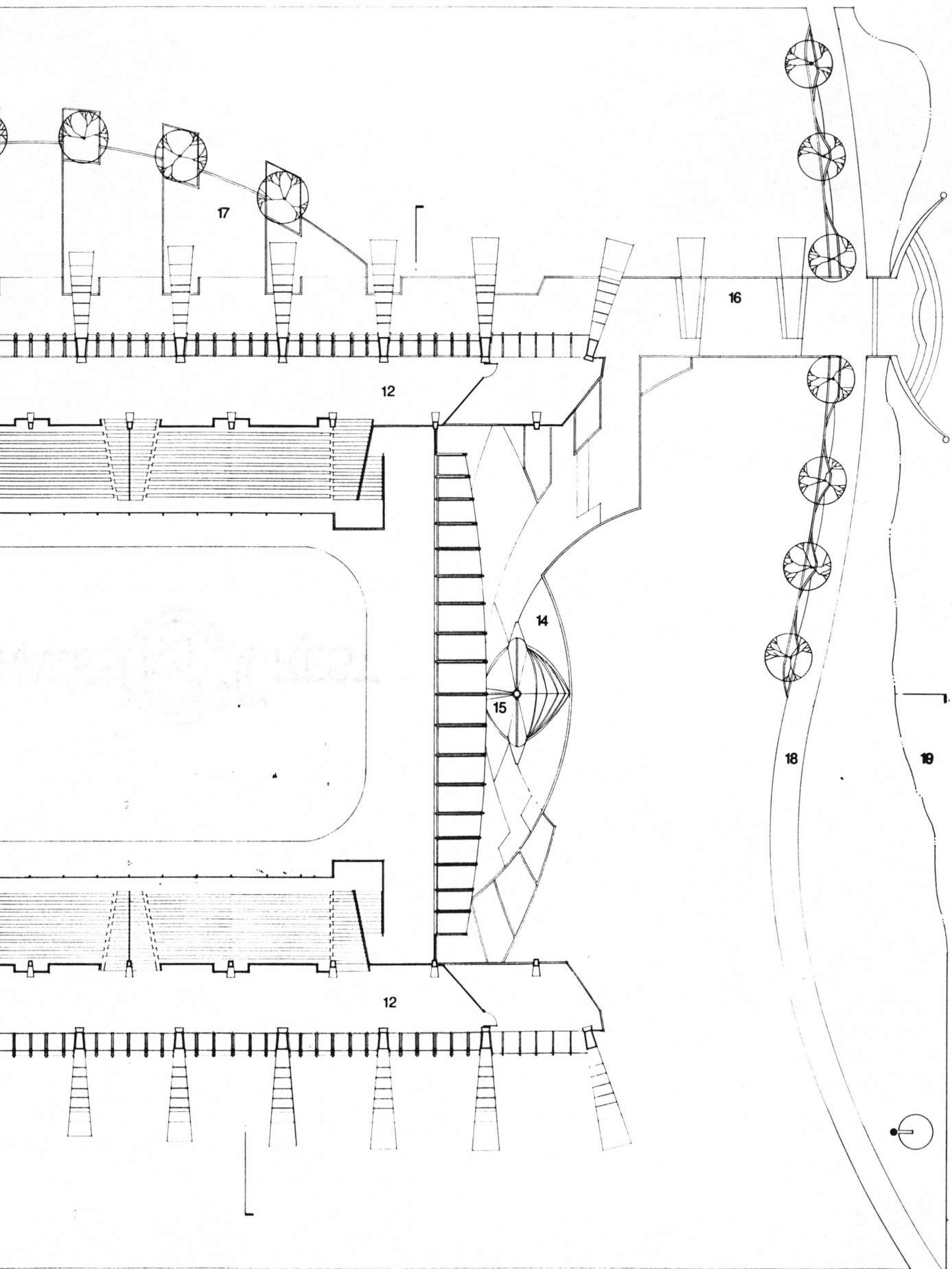
MAIN LEVEL



■ Site Model
 ■ Relationship of bldg. to site
 ■ Model Scale 1"=20'-0"
 ■ Detail Model
 ■ View of roof from above.
 ■ Model Scale 1"=10'-0"

1. Entrance Paths
2. Tickets
3. Reception/Information
4. Pro Shop
5. Elevator
6. Skate Rental/Sharpening
7. Multi-Purpose Room
8. Public Restrooms
9. Offices (Skate Mgt.)
10. Overlook
11. Concession Area Below
12. Main Circulation Path
13. Spectator Seating Area
14. Outdoor Seating
15. Fire Place
16. Path to Lake
17. Terraces (Picnic)
18. Jogging Path
19. Lake Fairfax

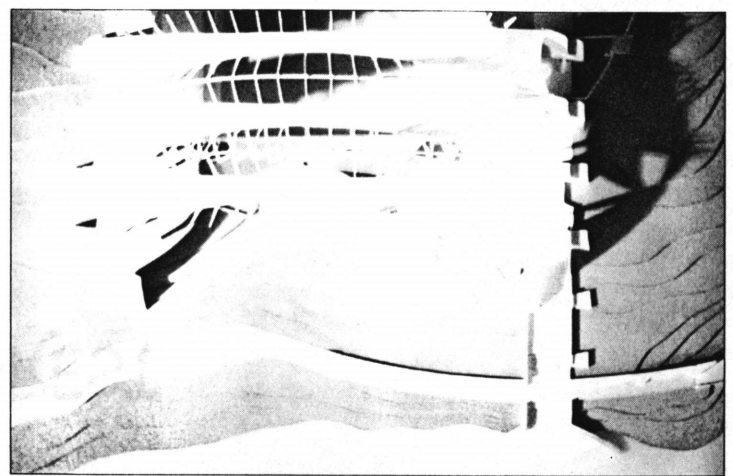




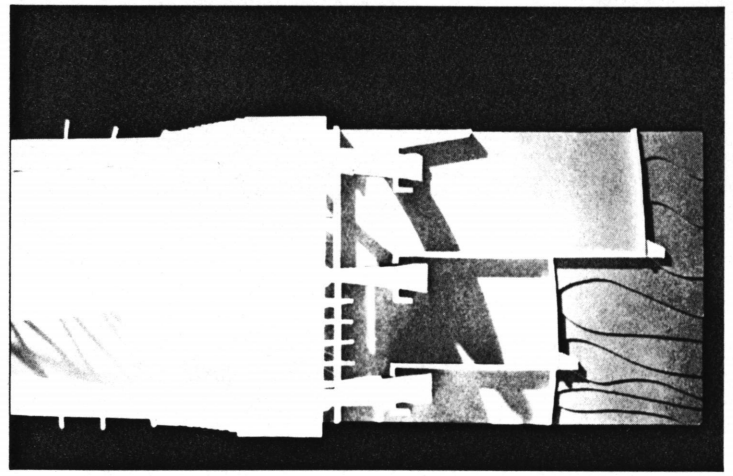
OFFICE LEVEL



The upper offices, accessed by a catwalk and stairs at either end, are provided for the Fairfax County Park Authority to house its staff. These staff members are in charge of Lake Fairfax Park as well as other surrounding Fairfax County Parks. The offices are located under the entrance area roof and within the trusses at the head of the building. The structure divides each of the eight offices from one another. A combination of fiberglass panels and clear glass have been placed perpendicular to each truss and separate the offices from the rest of the rink. This provides visual privacy and permits the staff to see the Ice Rink's activities.



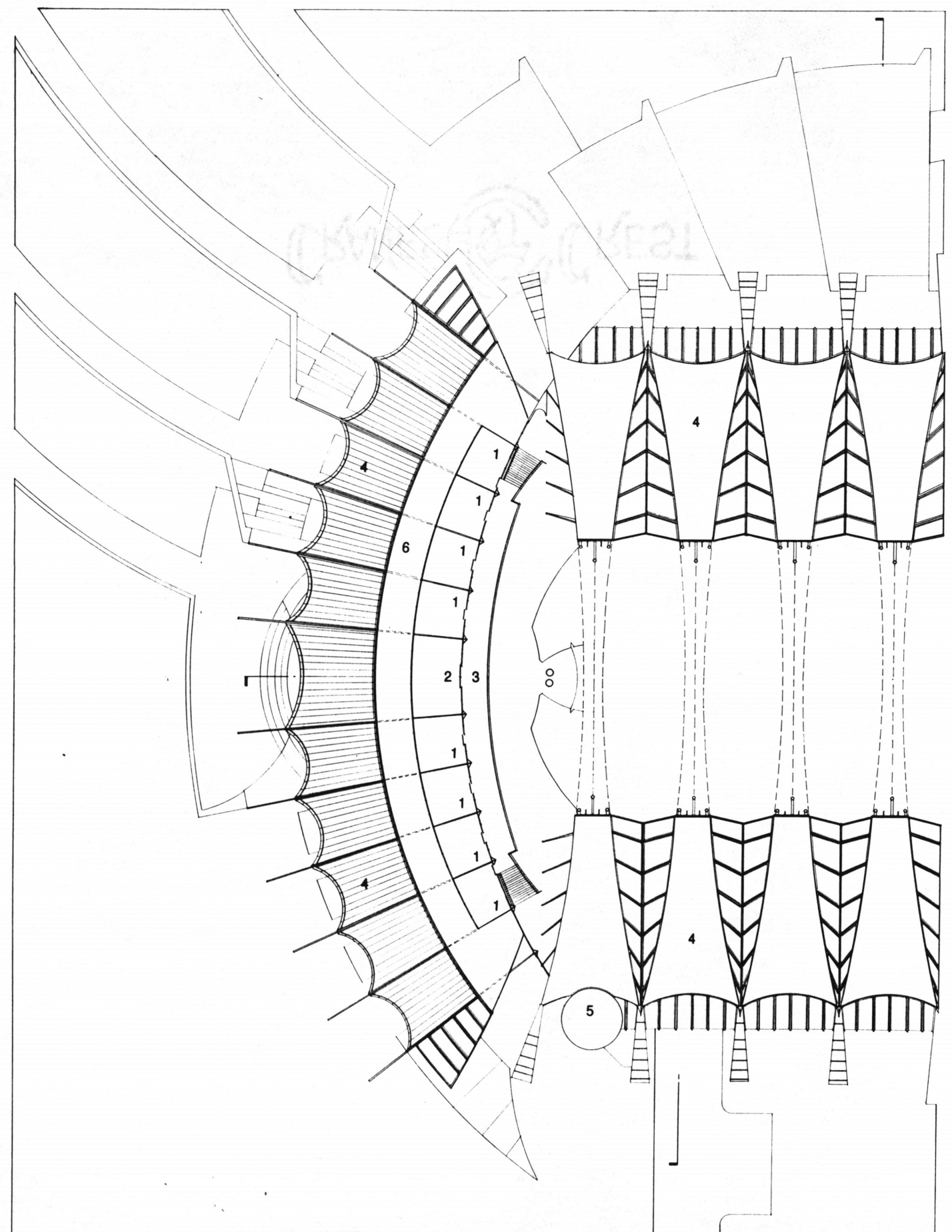
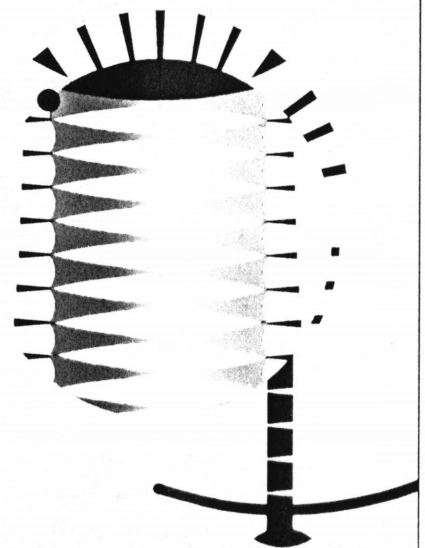
The section of roof over the head of the building is made up of stainless steel standing seam panels. Supported by the trusses within, the roof gently slopes toward the entrance paths. Water is directed toward each supporting truss and along the top chord member. The stainless steel clad trusses extend over the entrance path and beyond the roof to reach out and grab the visitors. These extensions are intended to resemble, in shape and finish, the blades of a skate.



The entrance structure prepares the visitor for the spatial experiences inside the building. Seen in plan are fiberglass panels that infill the area between the steel members of the trusses over the Ice Rink surface.

Site Model
Bldg. & path to water's edge.
Model Scale: 1" = 20'-0"
Detail Model
View of terraces from above.
Model Scale: 1" = 10'-0"

- 1. Offices (Park Authority)
- 2. Meeting Room
- 3. Catwalk
- 4. Roof
- 5. Elevator
- 6. Open to Below

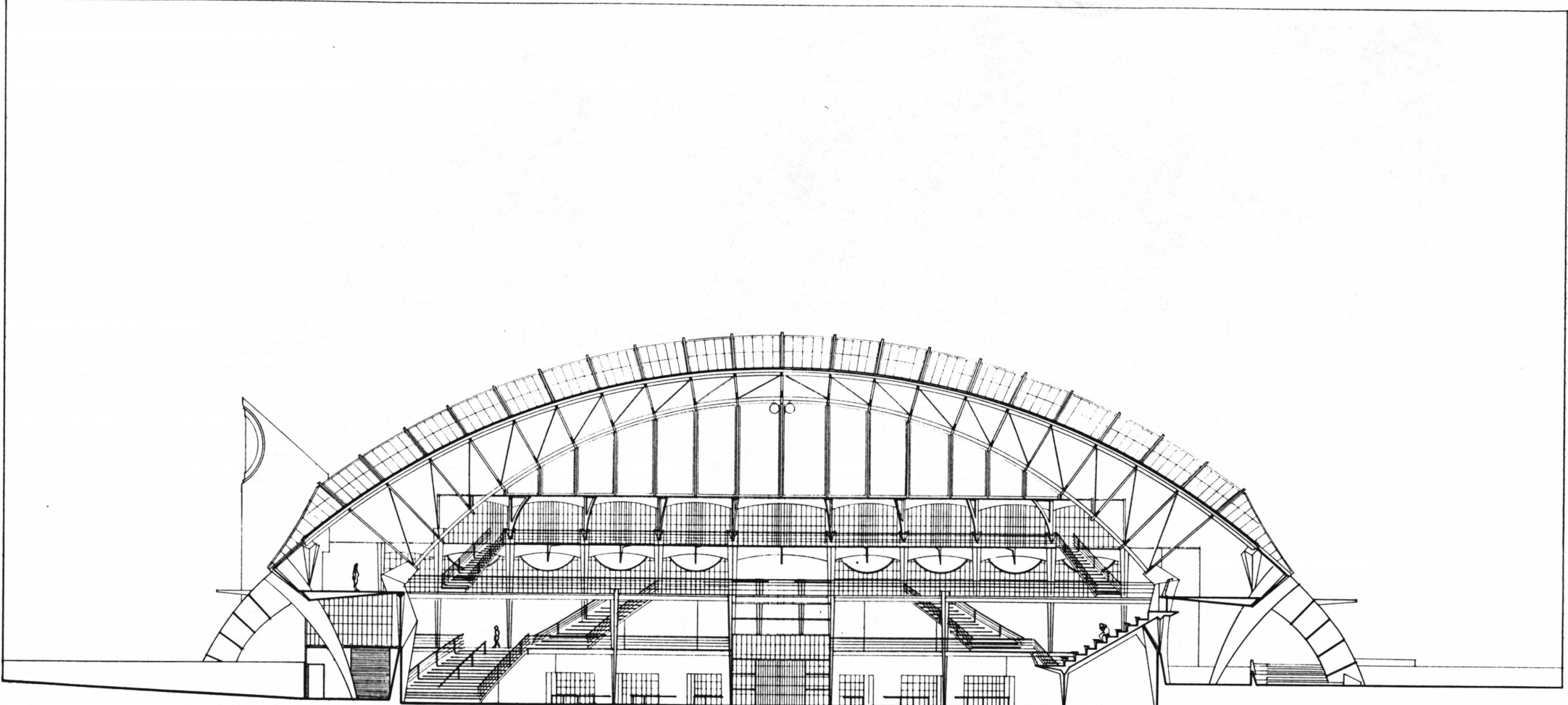


CROSS SECTION NORTH



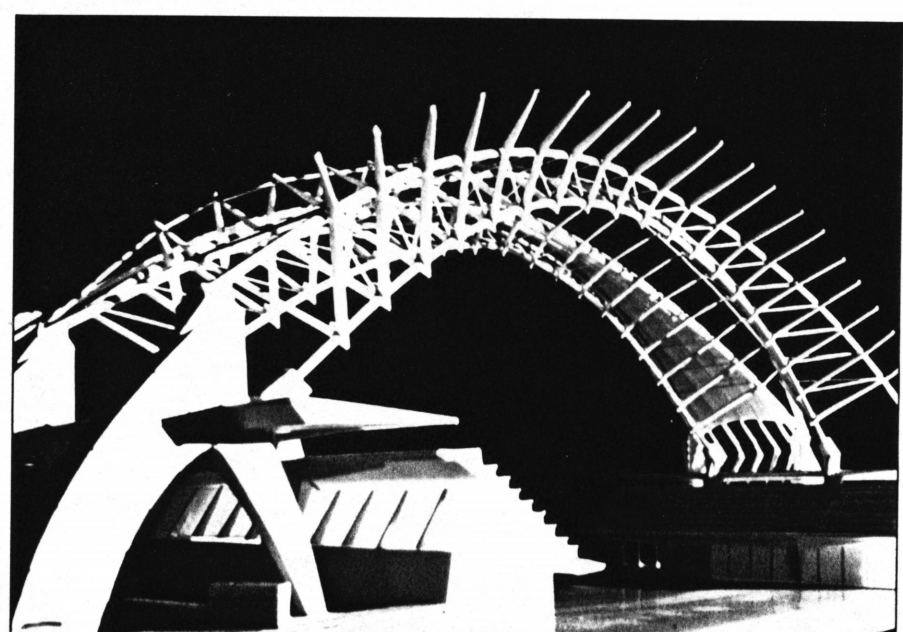
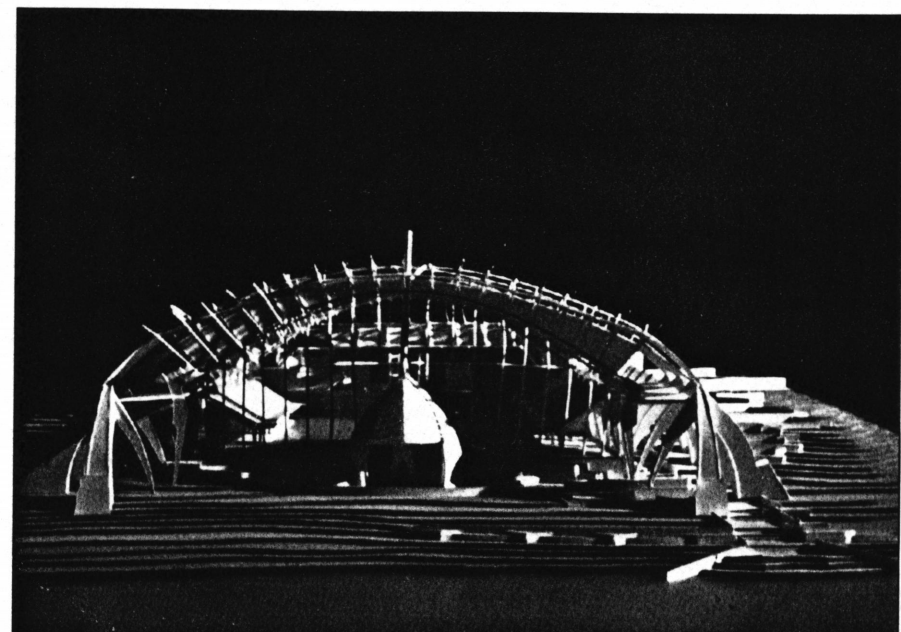
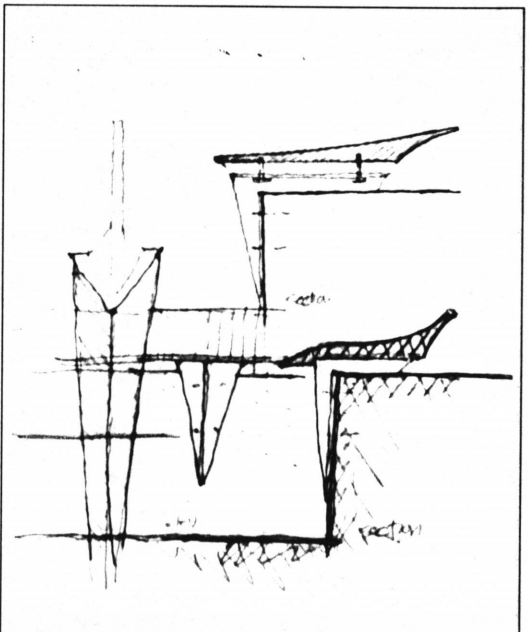
This section best illustrates the idea of the complex curved retaining wall that articulates the Ice Rink entrance and service functions (head) from the Ice Rink (body). The form originated out of the need for a retaining wall that best resists the forces of the earth. This curved wall, dividing the head from the body, is a complex wall made up of many different materials and levels of opacity. The two lower areas of the concrete wall encompass the skate change, mechanical area, and restaurant which are all below grade. Concrete pilasters, originating from the base of the wall grow larger as they reach the upper floor levels.

At the main level, the retaining wall ends and the pilasters become columns that divide the offices and support the stainless steel trusses that enclose the head of the building. The ends of these trusses are poking through the fiberglass panels of the upper offices into the rink. The combination of clear glazing and translucent fiberglass at the offices allows light, privacy, and the monitoring of rink activity. Stainless steel angles that support the catwalk above are extending down in front of the office glazing. The overall concept seen in this section is of a wall that begins as a curved concrete retaining wall with pilasters and ends as a series of columns separated by a mixture of fiberglass panels, glazing, and openings. Providing a view of the sky, clear glazing infills the area between the top of the upper offices and the arching structure over the Ice Rink.



Building Model
View of south elevation across inlet.
Scale of Model 1"=20'-0"

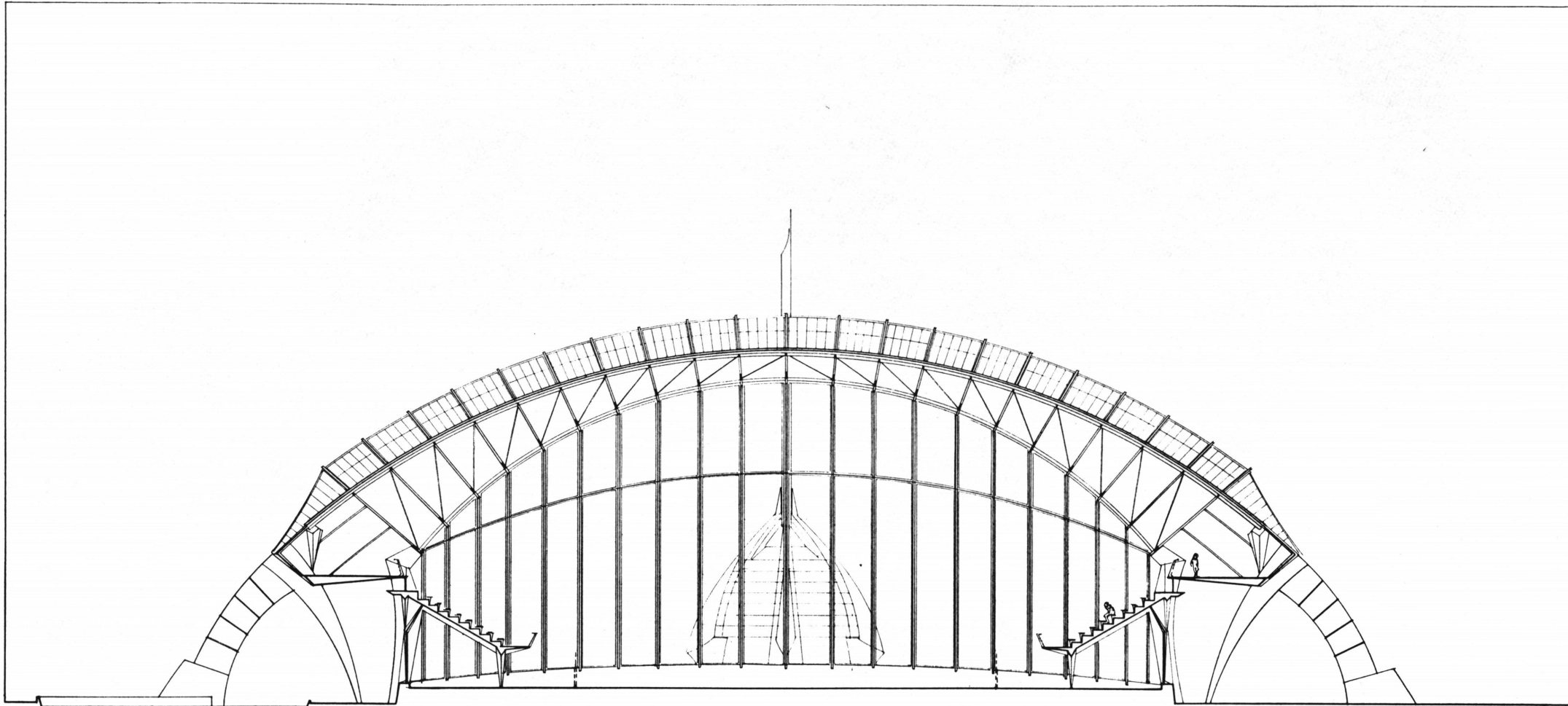
Detail Model
View of pier & roof relationship.
Scale of Model 1"=10'-0"



The concept of orienting the building on a north/south axis is best exemplified in this section. By orienting the building this way, I was able to take advantage of the open end of the vault, inherent to the structural system, and present a beautiful view of the lake and all its winter and summer activities to the Ice Rink spectators. This enables the occupants to visually participate with the exterior activities as well as the interior activities.

The spectator seating is elevated to enable the area underneath to be used. This area functions as a place for the ice skaters to get snacks and rest without having to go upstairs to the concession area. Because this area is above grade and glazing sits between the deck and the underside of the spectator seating, the ice skaters are able to see the changing seasons while they skate. The Ice Rink is visually open to the outdoors on three sides at ice level.

CROSS SECTION SOUTH

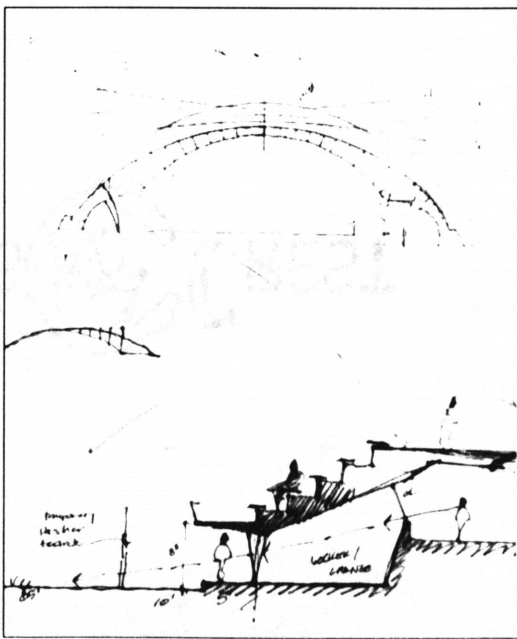


Building Model

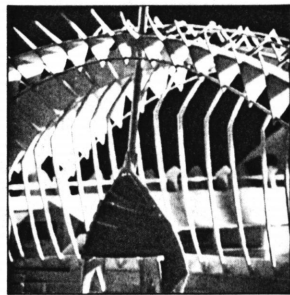
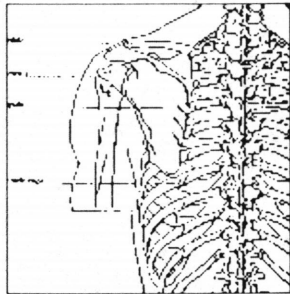
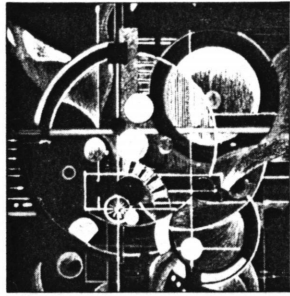
View of circulation path through roof.
Scale of Model 1"=20'-0"

Detail Model

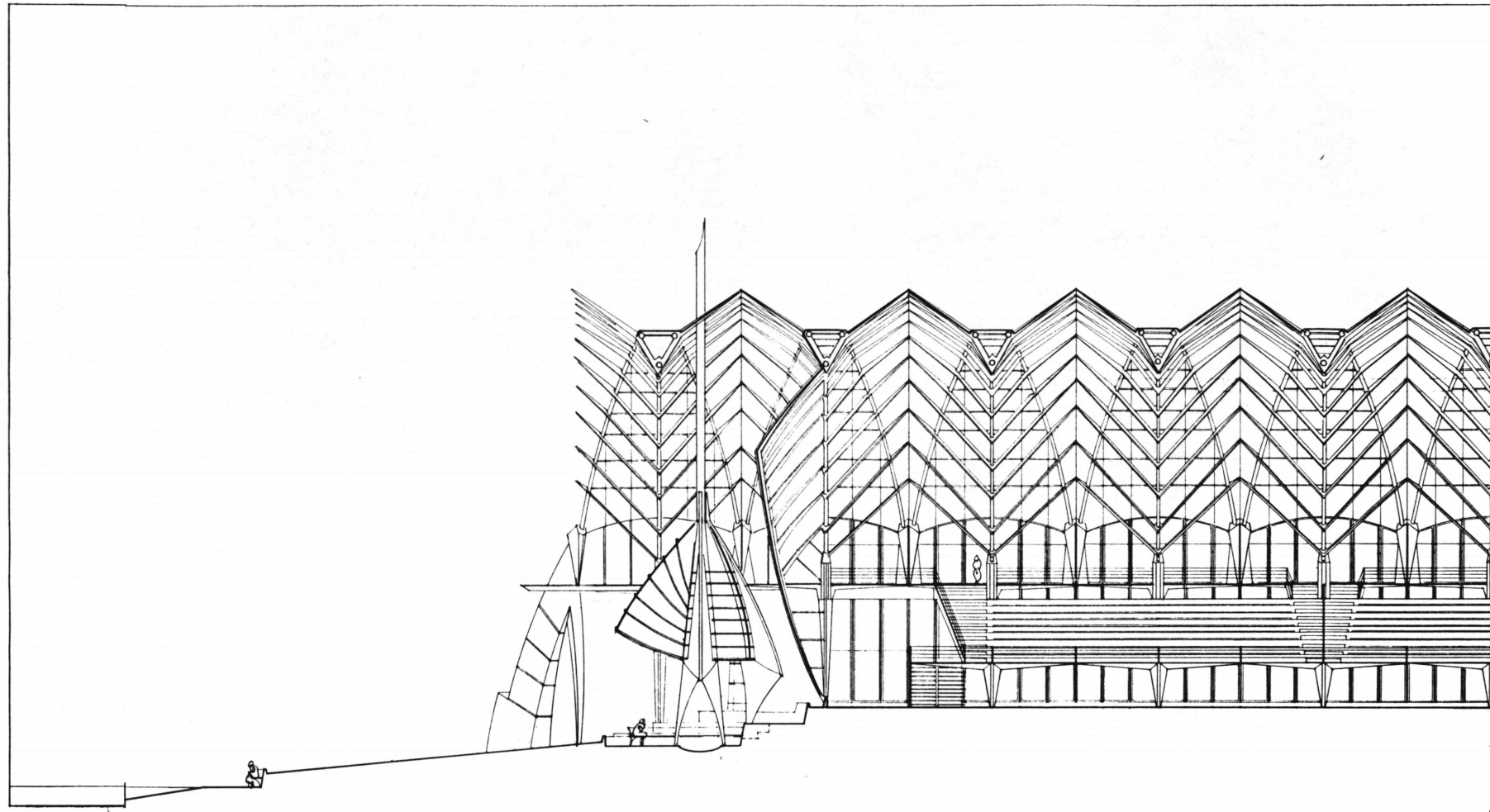
View of circulation path above seating.
Scale of Model 1"=10'-0"



The entrance and first areas in the head of the Ice Rink are low, dark, and act as a compression chamber in preparation for the dramatic expanse of space and natural light revealed once inside the rink area. Colored fiberglass panels span between the ice deck and the underside of the spectator seating to hide the team lockers below. Farther along the path is an area for the ice skaters to rest and see outside. Beyond the seating, structural concrete piers receive the steel roof trusses. The inner and outer arches of the trusses and the ribbed character of the structure gives the impression of the backbone of the human body. The steel spines are separated by translucent insulated fiberglass panels or vertebrae that are colored sky blue while the steel trusses and lattice work are painted white. This concept allows natural light while providing for a sculpturally continuous and bright space. Angled glazing infills the area between the scalloped end of the trusses and the concrete walkway which gives the spectator the opportunity to view the site beyond. The structure has been extended one extra bay to provide shade for the large glazed opening at the south end and the glass is supported by vertical stainless steel mullions, reminiscent of the blades of a skate, that project outward to resist the wind. The extension of structure also provides a place for the lake skaters to receive shelter and warmth from a concrete and stainless steel fireplace.



LONGITUDINAL SECTION

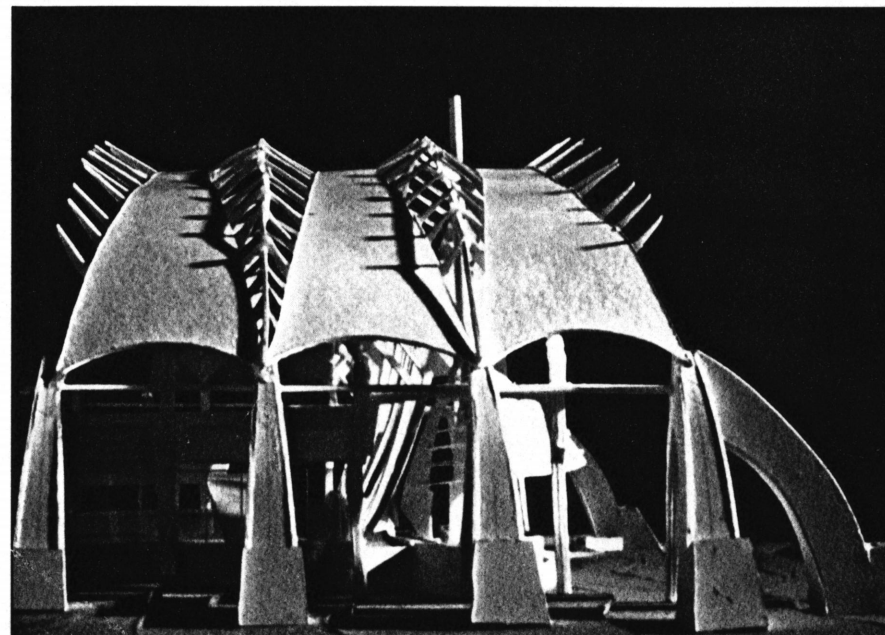
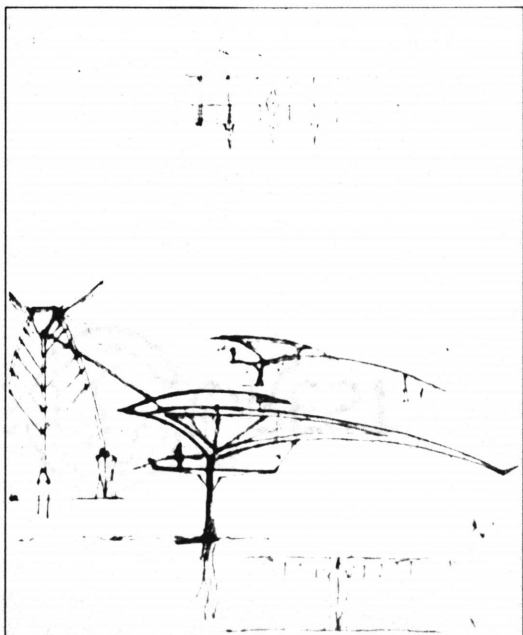


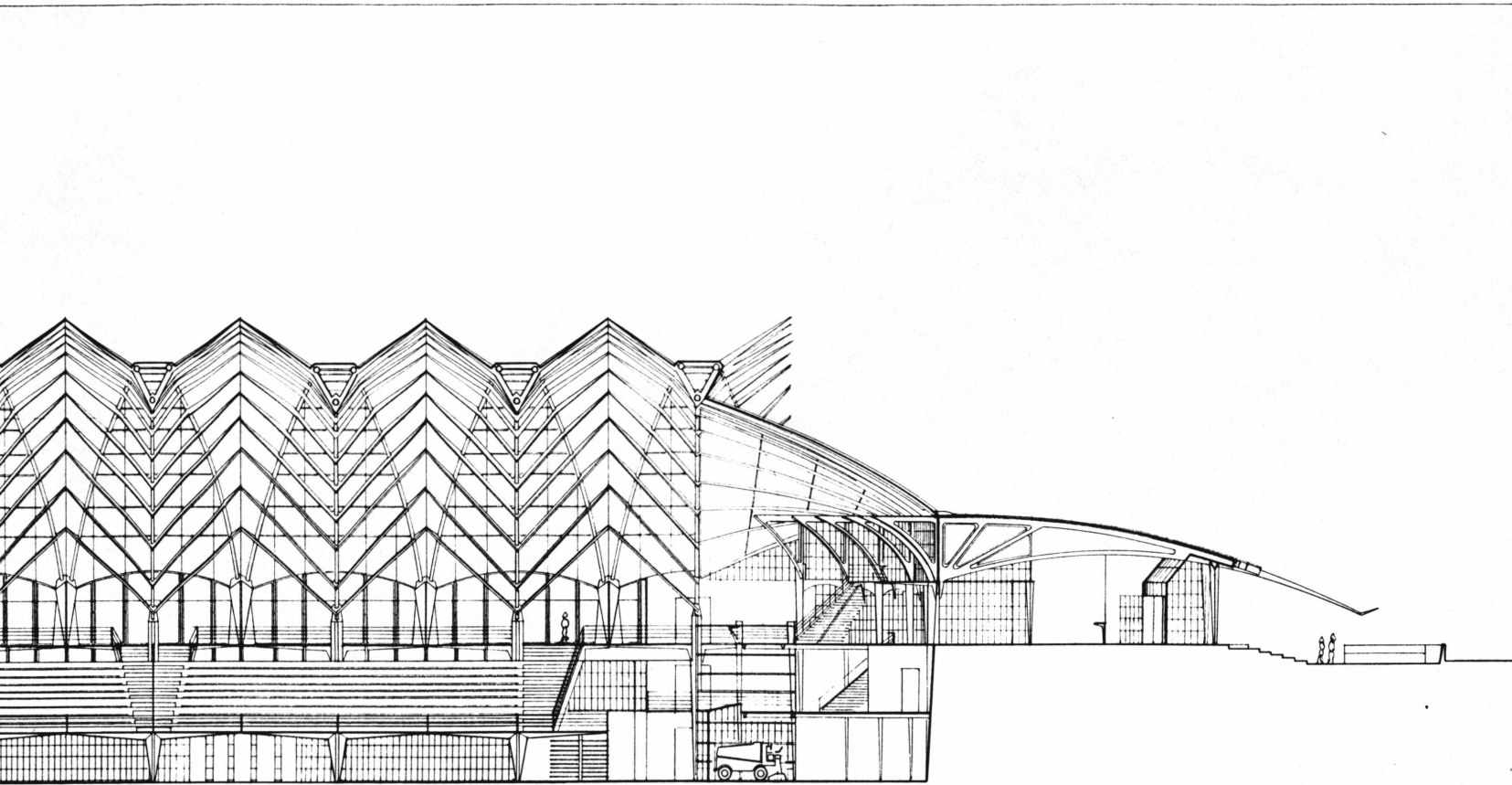
Building Model

View of roof & pier intersection.
Scale of Model 1"=20'-0"

Detail Model

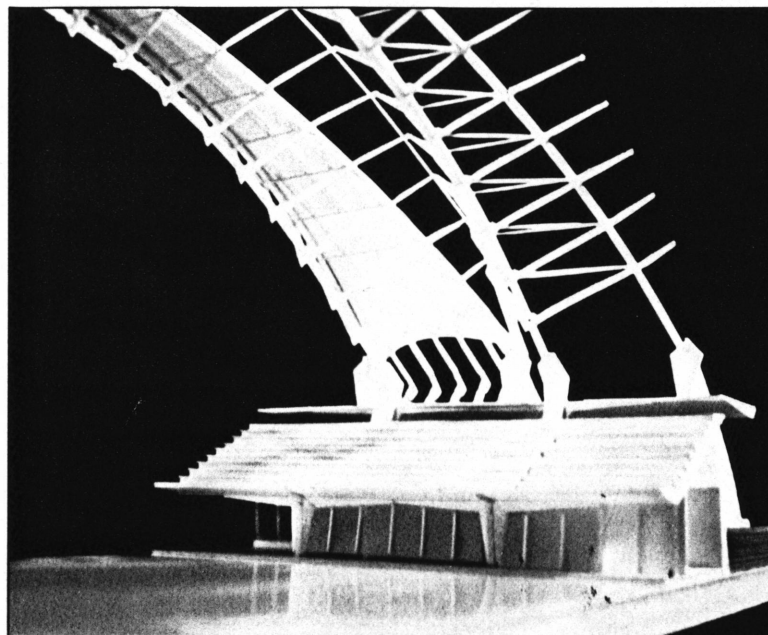
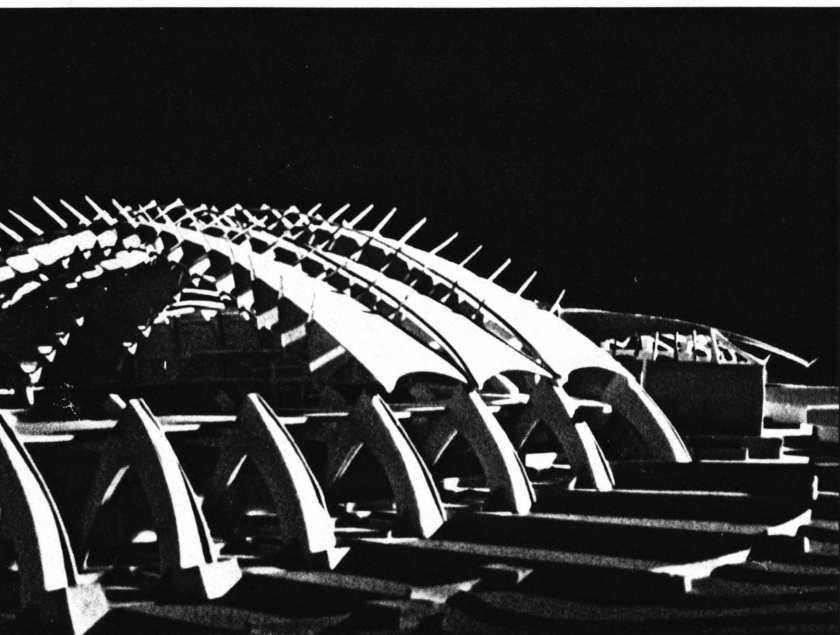
View at southeast end along water's edge.
Scale of Model 1"=20'-0"





Model
 View of path, terraces, and concrete piers.
 Scale of Model 1"=20'-0"

Building Model
 View of glazing below spectator seating.
 Scale of Model 1"=10'-0"



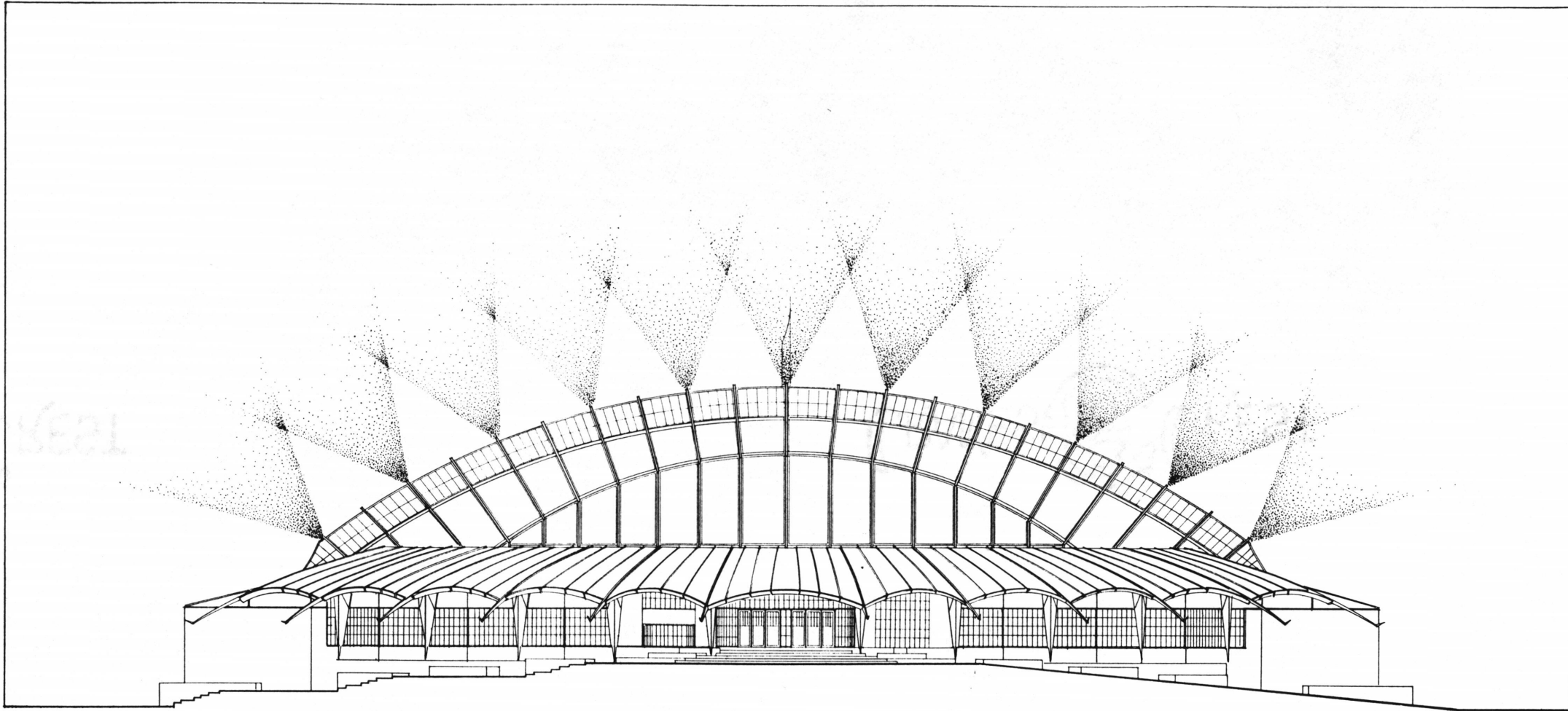
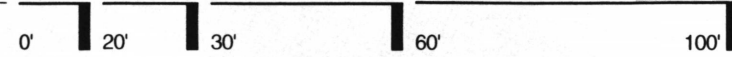
By recessing part of the ice rink into the landscape, the scale of the north elevation is reduced. This not only adds an element of surprise to the first-time visitor by disguising a much larger space that is revealed once the visitor has entered the building, but it emphasizes the idea that the entrance is to act as a

compression chamber for the large, expansive ice rink area that is beyond. The visitor's and skater's arrival is celebrated as he ascends the stairs leading to the main entrance. The stainless steel trusses, extending out like the blades of a skate, greet the visitor from above. A scalloped stainless steel roof, hovering above, will reflect the changing light of day. Walls made from fiberglass panels are located between the concrete piers that support the trusses over the entrance or head of the building. At night, lights mounted to the tops of the truss's structural extensions announce special skating events as the fiberglass panels of the arching roof glow from the light within the building.

Set between each of the outer truss extensions are white steel panels that match the chords of the trusses over the

rink. These panels close the area between the upper and lower chords. Just below these panels, clear glazing is located between the Rink trusses and the entrance roof. This glazing provides the occupants with a view to the north and admits an abundance of natural light.

NORTH ELEVATION

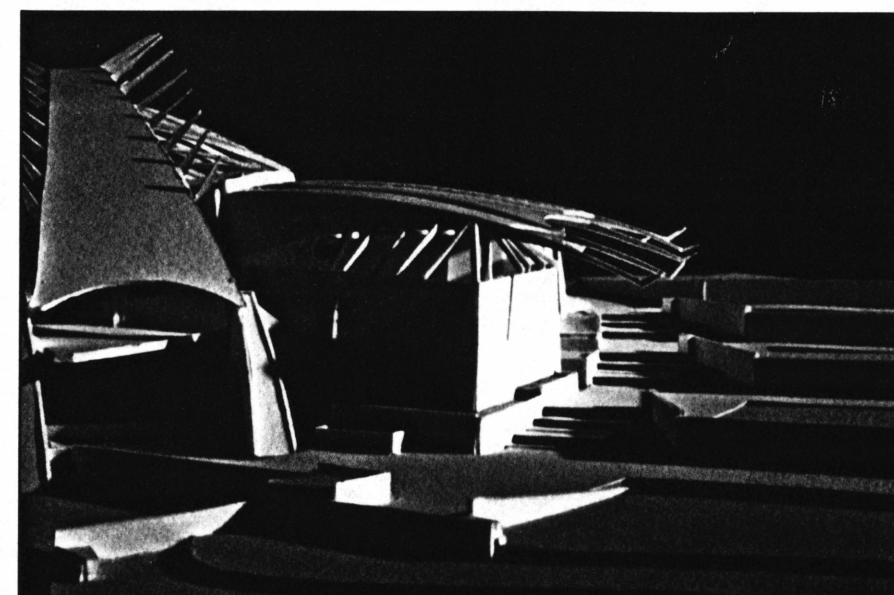
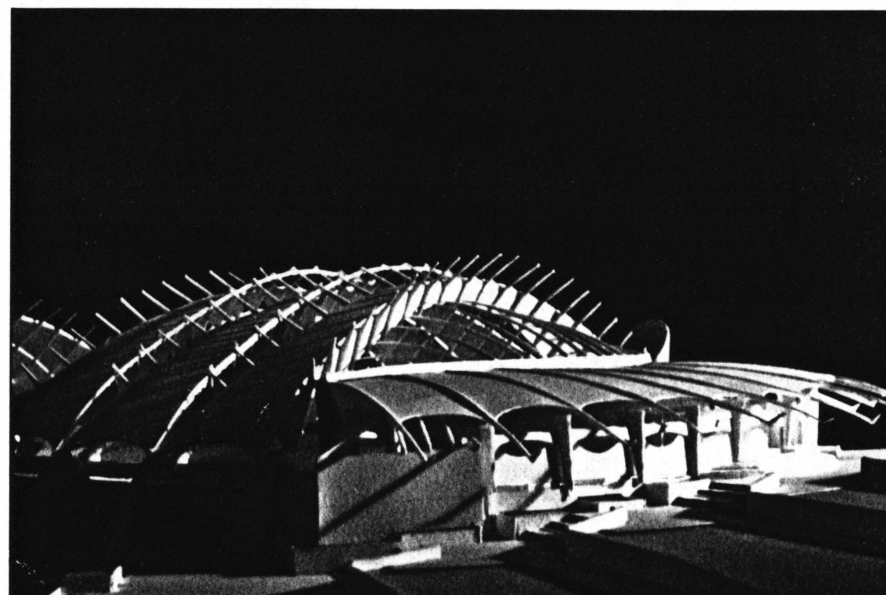
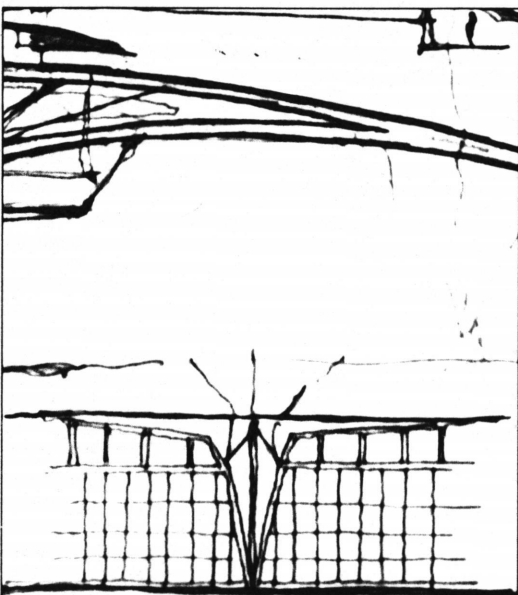


Building Model

View along entrance paths.
Scale of Model 1"=20'-0"

Building Model

View looking under truss extensions at entrance.
Scale of Model 1"=20'-0"

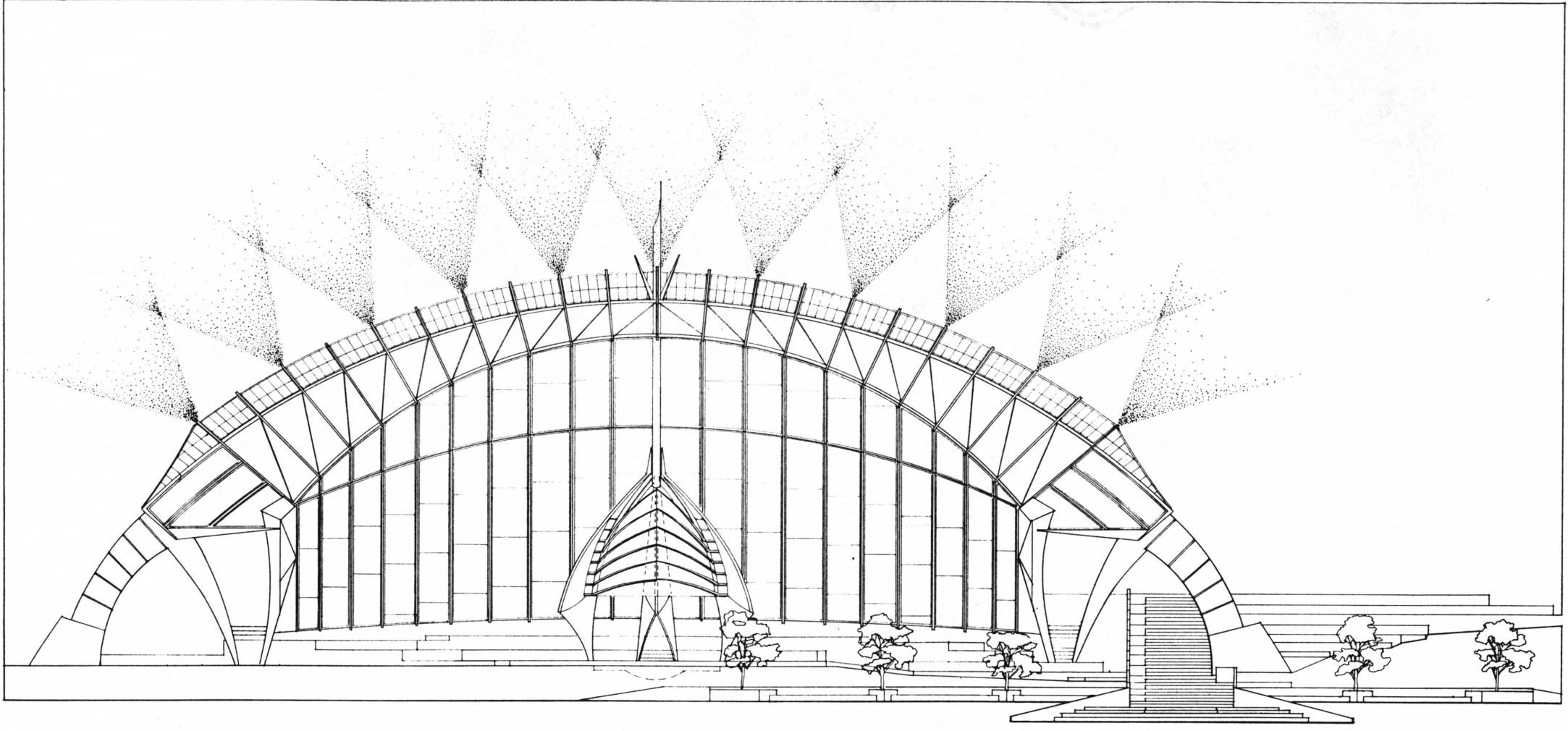


SOUTH ELEVATION

0' 20' 30' 60' 100'

The concrete buttresses, resisting the tremendous outward thrust of the steel trusses or spines, provide support for the interior concrete walkways and express a transfer of forces from the steel trusses to the ground. Emphasizing the sloping of the ground, the piers' foundation gradually appears as the grade slopes away, almost as if it has been eroded from the base of the buttresses. The terraces and steps that lead from the head of the building pass through the concrete buttresses on their way to the lake edge. This path can be seen in the foreground with the steps beyond. The intention here is that the visitor will participate with the building by being able to not only see in it, but be above the building and below it.

Infilling the lower chord of the trusses is a large, glazed opening with stainless steel mullions. This structural extension over the garden area provides shelter, seating for the recreational lake skaters in the winter, and reveals the lake to the spectators and ice skaters inside. Located on axis, concrete support piers and a ribbed stainless steel hood make up a sculptural fireplace that contains the heat of an outdoor fire and provides a place for the recreational lake skaters without having to go into the building. A stainless steel smoke shaft extends between the roof structure, punctuates the sky, and acts as an idiosyncratic element in the landscape. This area unites the Ice Rink with the edge of the Lake Fairfax and it's year-round events.

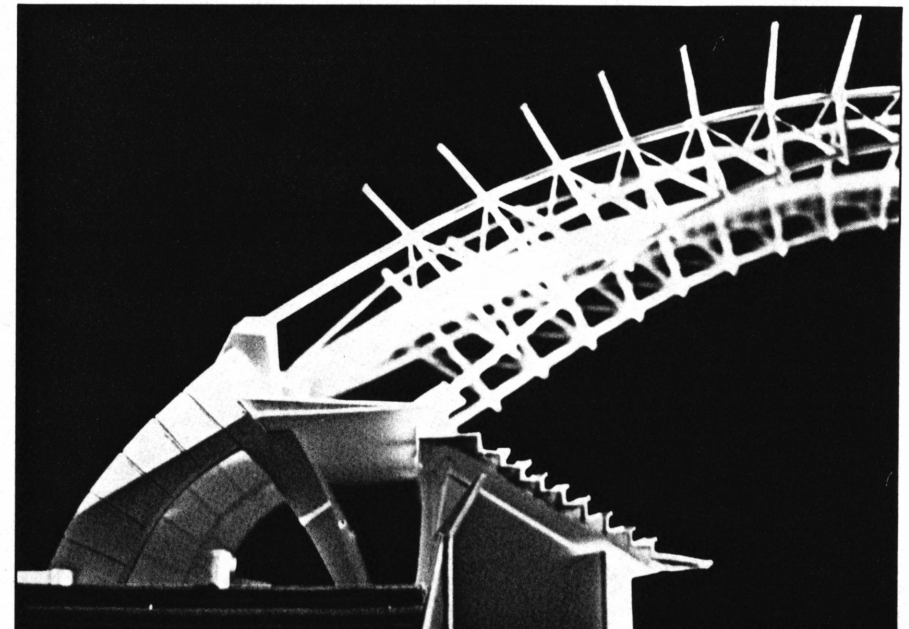
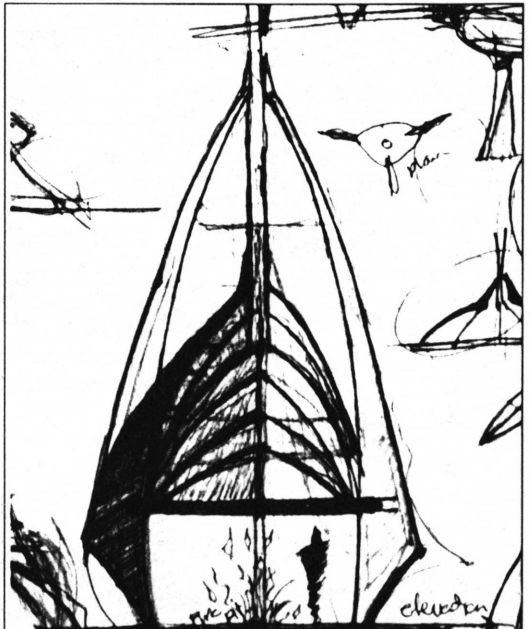


Building Model

View of seating at fire area.
Scale of Model 1"=20'-0"

Detail Model

View of main paths & seating.
Scale of Model 1"=10'-0"

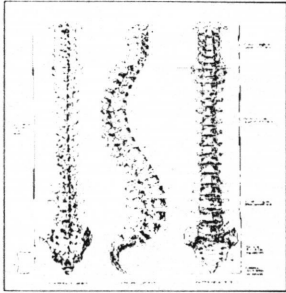
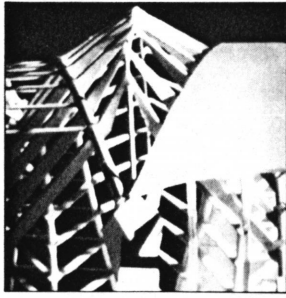


At the head of the building, the retaining walls and tree lined paths, leading from the parking lot, come into view and meet the steps that surround the edge of the building. Stainless steel trusses extend beyond the scalloped roof panels and stainless steel mullions span between the main building structure and the entrance roof.

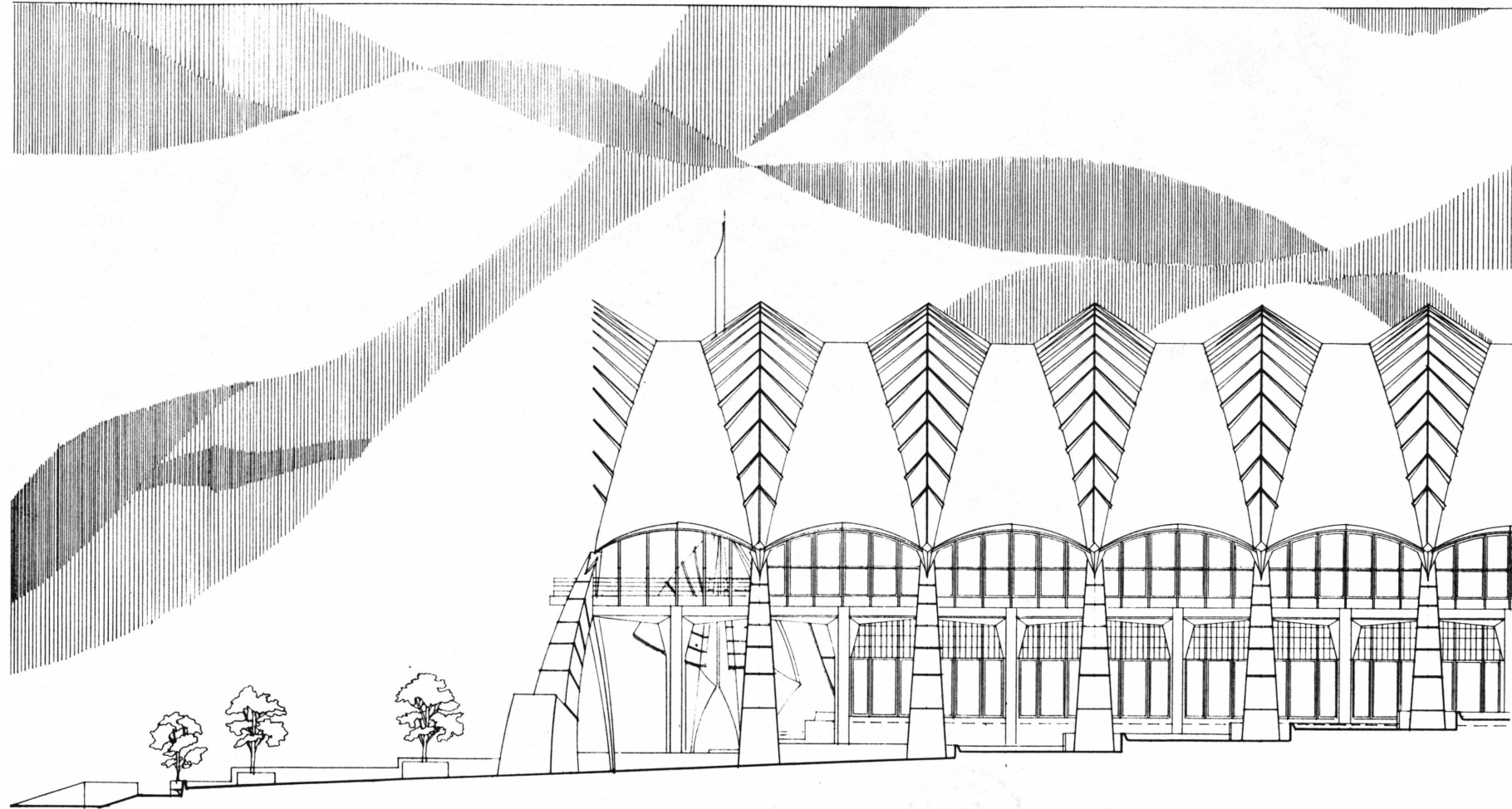
Instead of ascending up the stairs to the main entrance, a visitor might descend to the lake edge. This path takes the person underneath the large structural concrete buttresses and along the concrete retaining wall enclosing the Rink. Emphasizing the slope of the ground, the piers foundation gradually appears as the grade slopes away. From the piers base, it is as if the ground has eroded. Terraces used for picnicking and park events are located along the path.

As the ice inside slowly begins to reveal itself above grade, clear glazing infills between the upper walkway and the base of the Rink which presents a person walking towards the lake the opportunity to see the skating activity inside.

Steel lattice members extend beyond the arches and are separated by fiberglass panels. These panels allow varying amounts of natural light according to the time of day while adding variety and repetition to a sculpturally continuous exterior. A white roof membrane covers the arches as stainless steel scuppers direct the water away from the angled clear glass and down the face of the concrete buttresses.



EAST ELEVATION

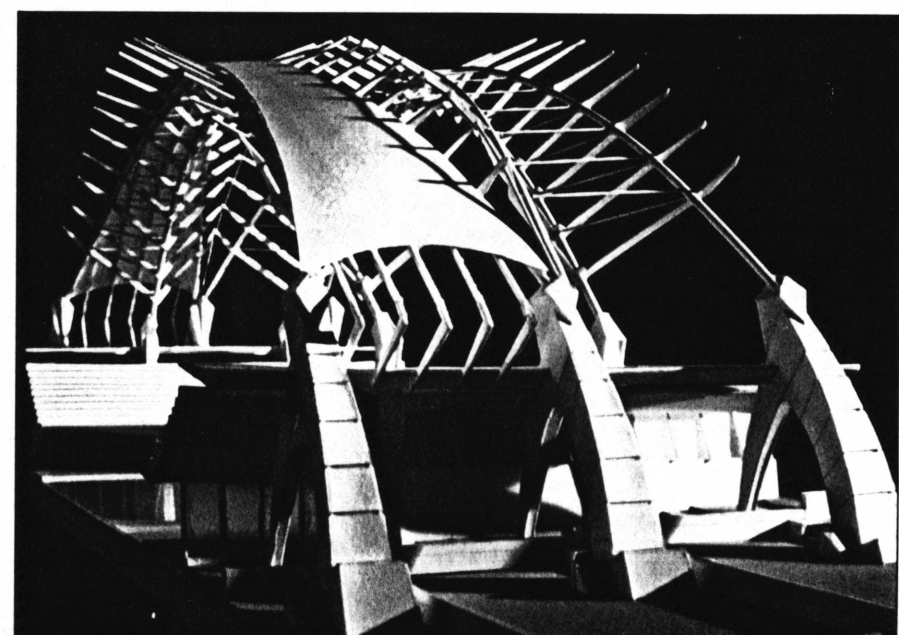
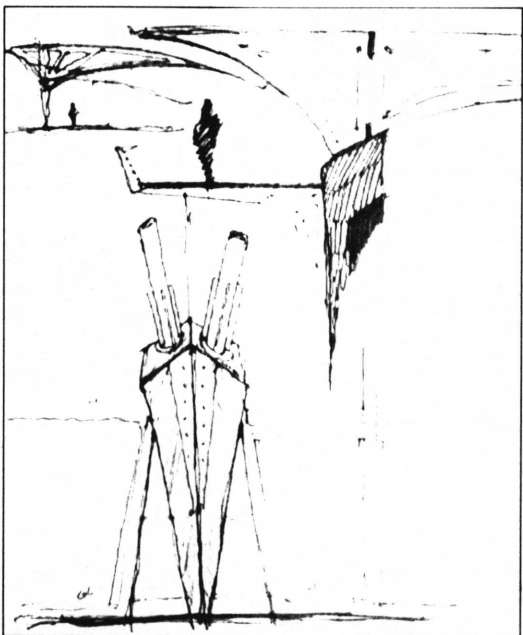


Building Model

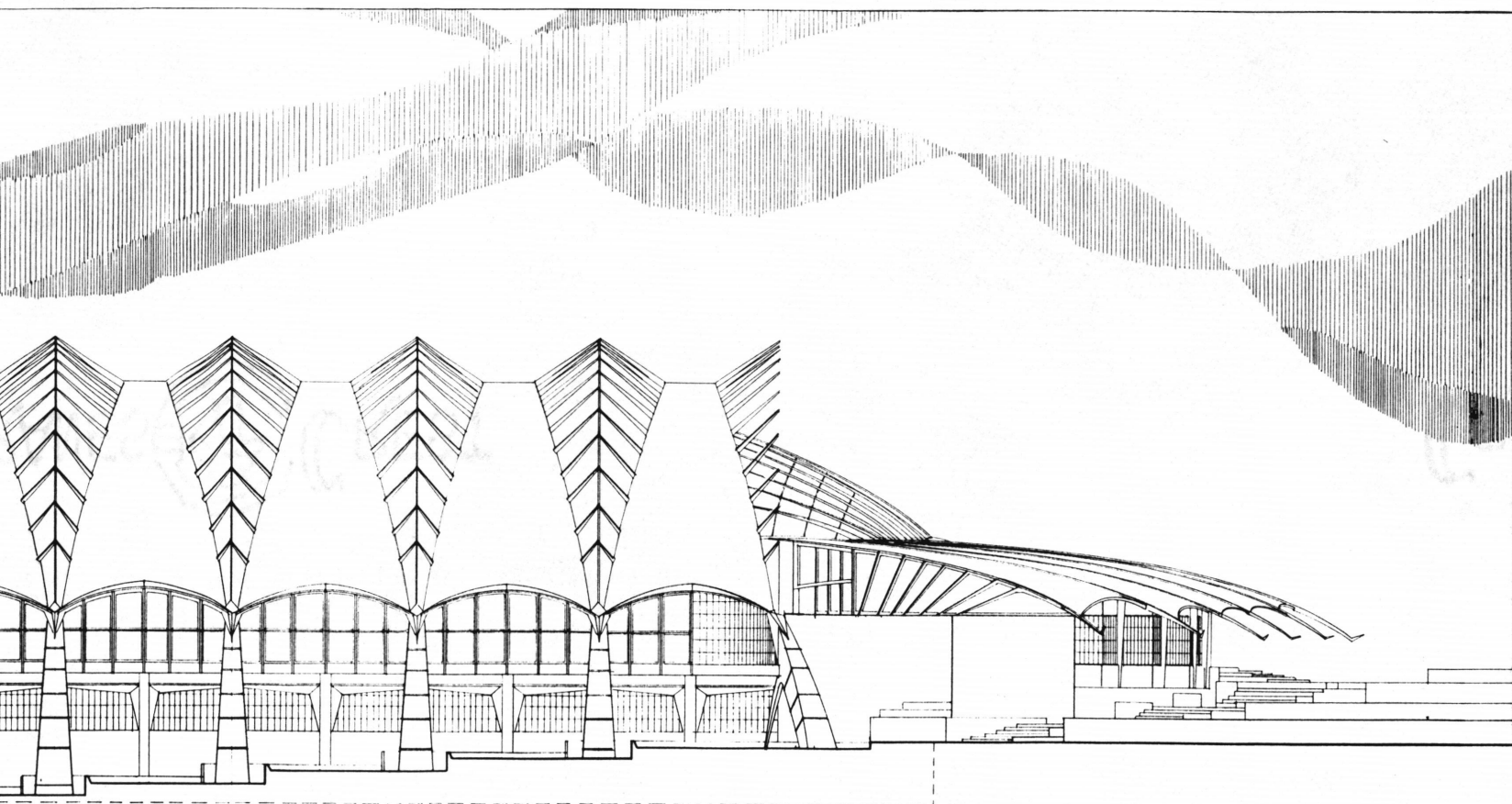
View of repetitive piers and roof.
Scale of Model 1"=20'-0"

Detail Model

View of path to lake under piers.
Scale of Model 1"=10'-0"

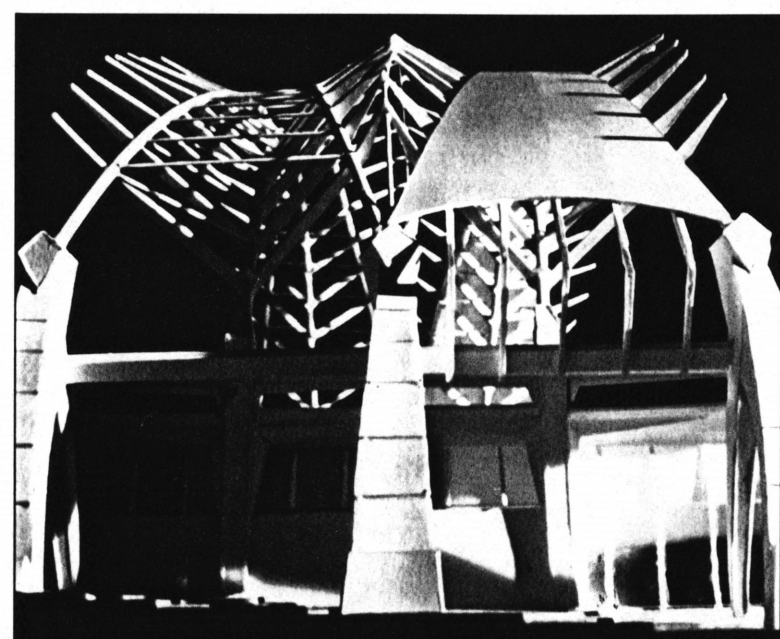
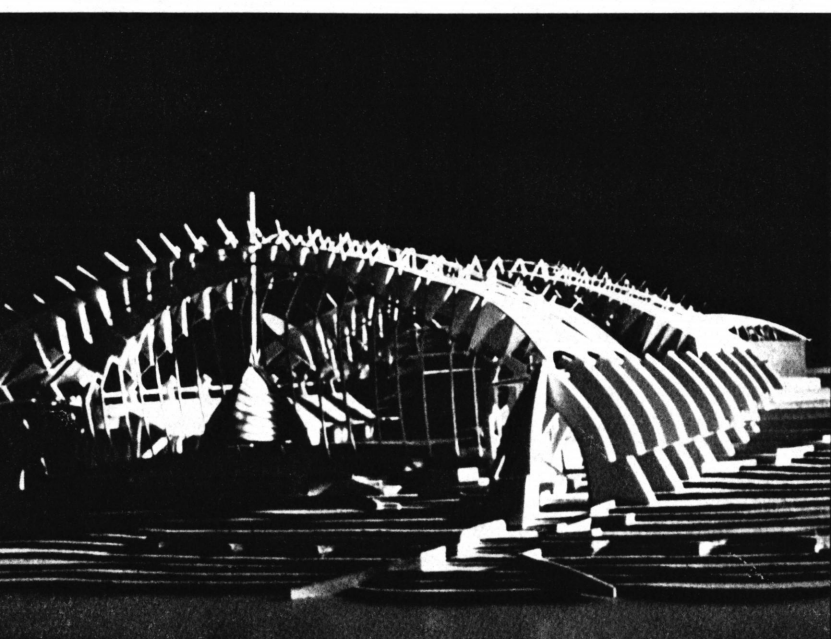


0' 20' 30' 60' 100'



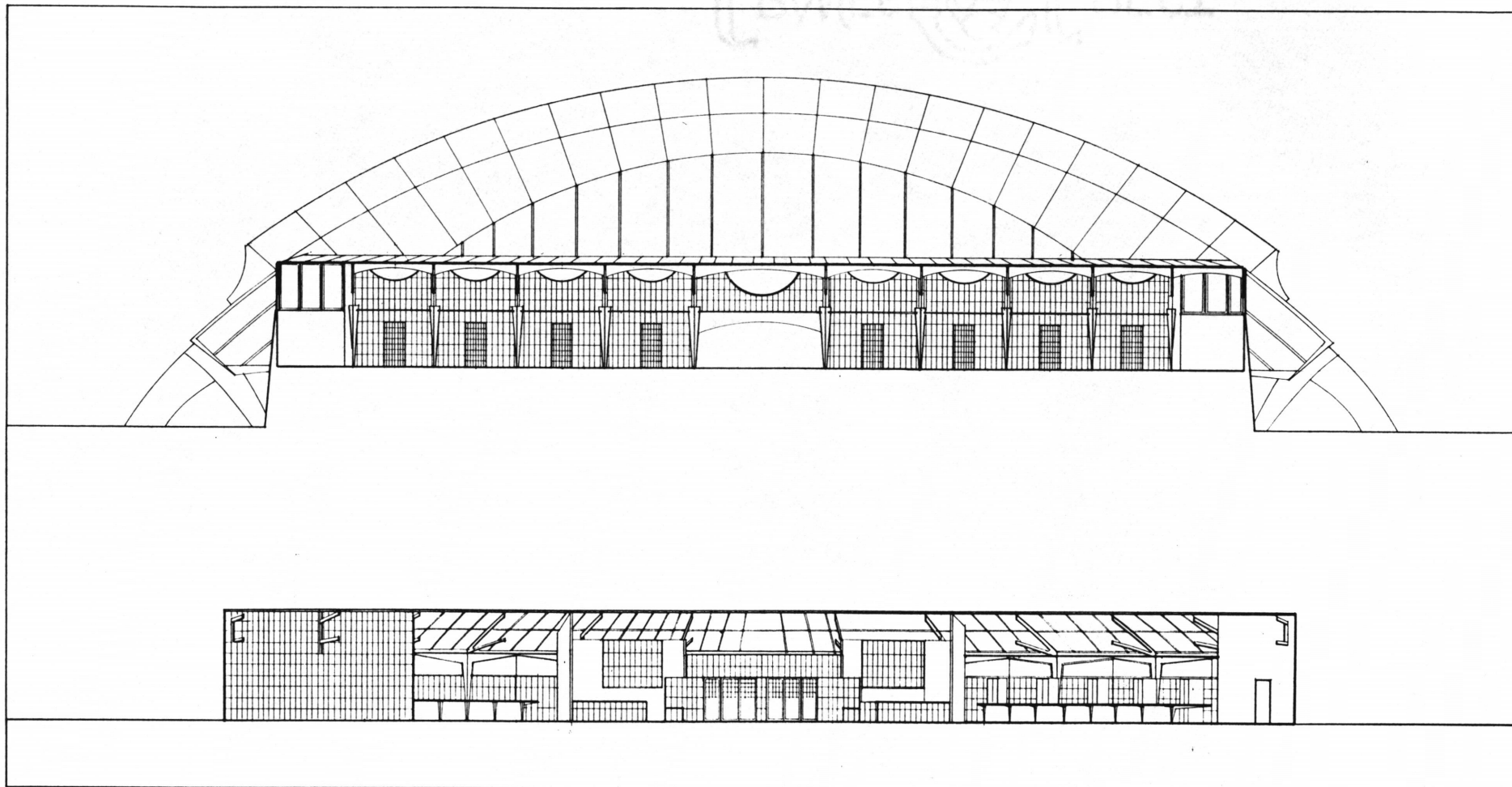
Model
View of lake path to parking.
Scale of Model 1"=20'-0"

Building Model
View of team rooms & concrete piers.
Scale of Model 1"=10'-0"



INTERIOR ELEVATIONS

0' 20' 30' 60' 100'

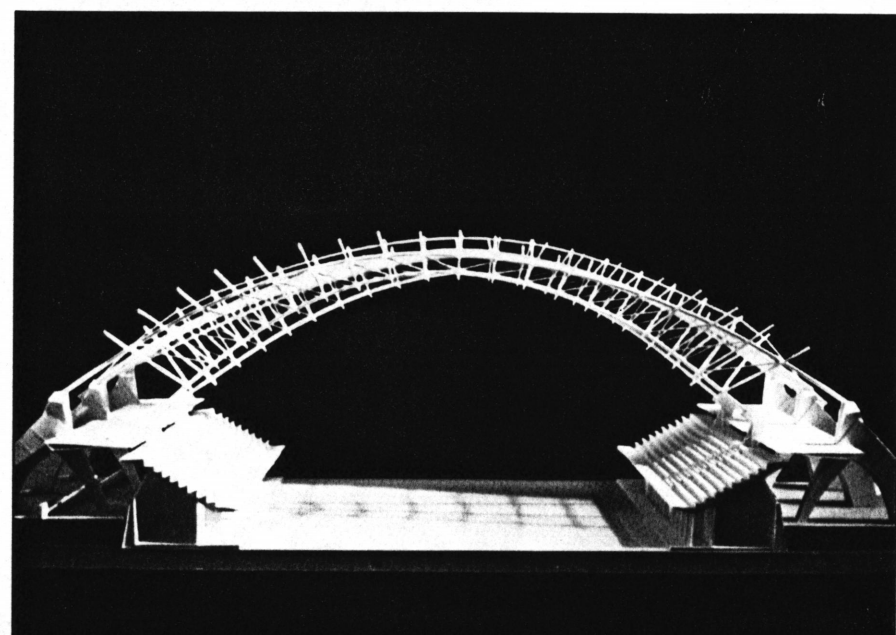
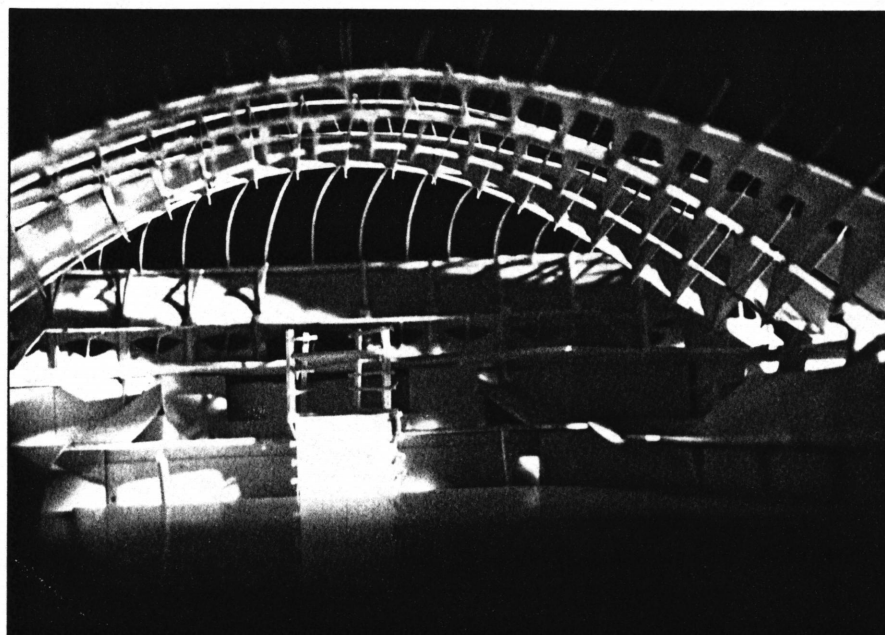
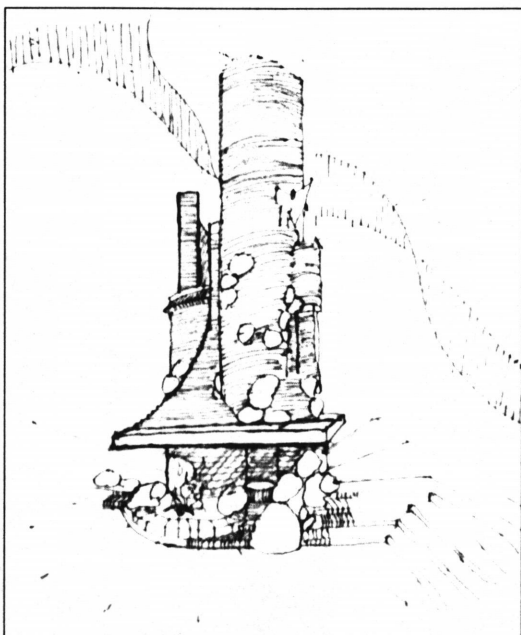


Building Model

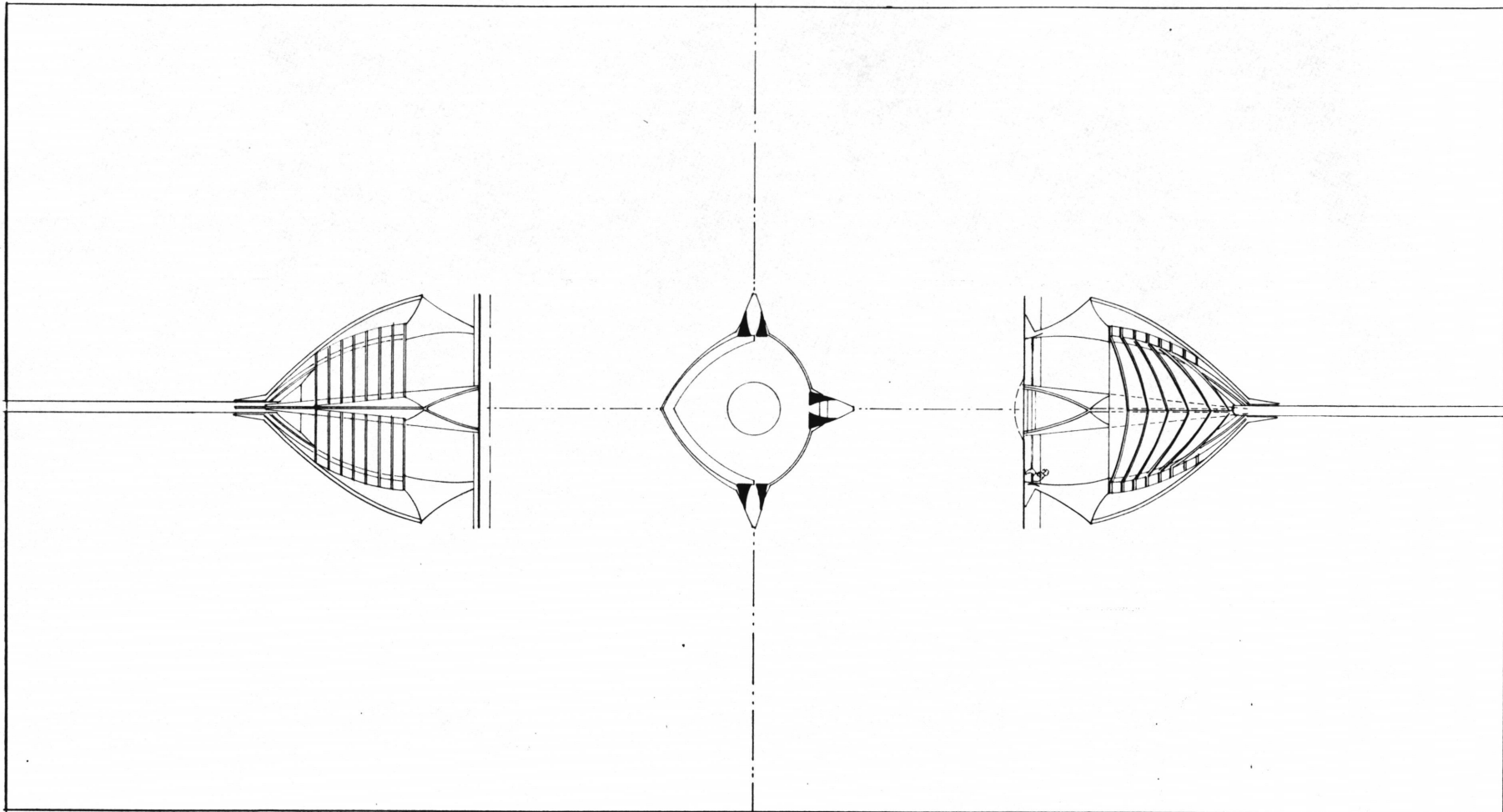
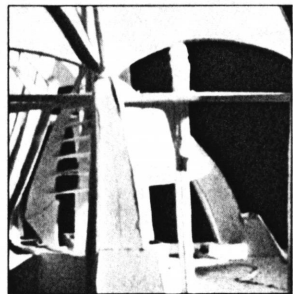
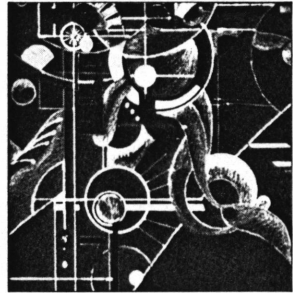
View of Rink interior and Zamboni room.
Scale of Model 1"=20'-0"

Detail Model

View of structural relationships.
Scale of Model 1"=10'-0"



FIREPLACE

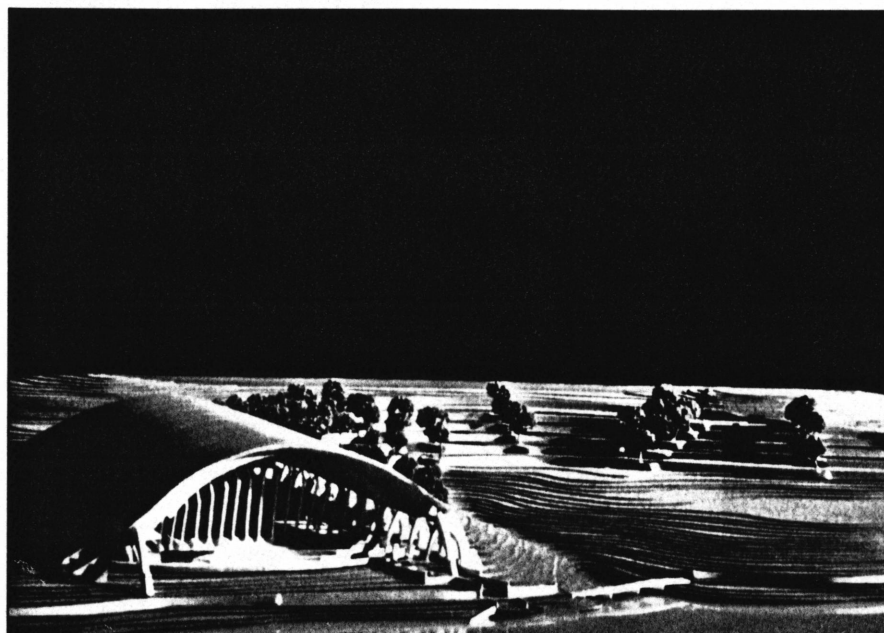
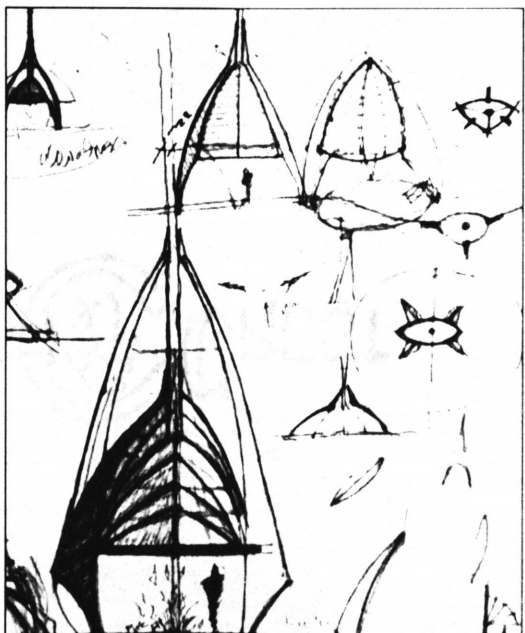


Site Model

Relationship of Ice Rink to ravine & inlet.
Scale of Model 1"=50'-0"

Building Model

View of fireplace & seating area.
Scale of Model 1"=20'-0"





COVE

Sean
Patrick
Wayne

I would like to thank
for her exceptional guidance
during this Thesis project and
who provided the energy and inspiration
needed to complete a successful design.

Thanks to my parents for their support
and my wife for her patience and
understanding during those long hours in
the studio.

Typesetting for this book was done in
Microsoft Word for Windows® ver. 2.0 and
composed in Aldus PageMaker® ver. 5.0.
The font is Adobe Helvetica. Photographs
and graphic images were touched up,
enhanced and created using Aldus
PhotoStyler® ver. 2.0.

The original Thesis drawings were re-
produced into photographic line nega-
tives. The Site Plan drawing was created
in AUTOCAD Release 12 and imported
into PageMaker as an EPS file. Color
slides of the models were scanned using
a Nikon 3520 slide scanner with a scan
pitch of 3.73 and an output resolution of
225 pixels/inch. These images were later
resampled to 300 dpi before final printing.
The book was outputted to film using a
line screen of 150 at 2540 dpi. Special
thanks to Darby Graphics for all of their
printing help.

