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aREnACTIVATE

by: **Greg Brown**

A Terminal Project
Presented to the Faculty of
The College of Architecture at the University of Nebraska
In Partial Fulfillment of Requirements
For the Degree of Master of Architecture
Major: Architecture

Under the Supervision of **Dean Wayne Drummond**
In association with **Keith Sawyers**
Lincoln, Nebraska
May, 2006



PROJECT ABSTRACT

Expanded project proposal developed Spring, 2005

STATEMENT OF INTENT:

The primary focus of the project will be the design of a new multipurpose arena and support spaces on the northern edge of the Haymarket in Lincoln, Nebraska. Additionally, the project will address the schematic master planning of the area, including vehicular and pedestrian traffic access, streetscape design, and parking structures. Addressing the present void between the Haymarket District and Haymarket Park while providing an active link between the two will also be a priority.

The arena will have the ability to host a variety of sporting and entertainment events and will have a capacity between 12,500 and 17,500, depending on the event. Events the arena will accommodate include basketball, hockey, arena football, indoor soccer, volleyball, ice skating competitions, roller skating competitions, rodeos, boxing matches, center stage concerts, end stage concerts, trade shows and exhibitions.

Potential primary tenants of the arena include University of Nebraska Men's and Women's Basketball Programs, Lincoln Arena Football, Minor League Hockey, NSAA championships and tournaments, Lincoln indoor soccer league games, and the National Roller Skating Championships.

Several factors will drive the design process, including the need for extremely flexible arena space, the Haymarket context, and the desire to create a link between the Haymarket District and Haymarket Park.

The goals of the project are multifold: to create a building contemporary to its time, to create a building that is environmentally responsible, to create a building that injects new life and activity into an already active, successful urban environment, to re-examine the traditional box-like arena archetype, and to obtain a superior understanding of the building type and evolution.

SITE DESCRIPTION:

The proposed site on the northern edge of the Haymarket District is bound by 7th Street on the West, 8th Street on the East, T Street on the North, and R Street on the South. Currently, the site is home to a United States Post Office branch. The site has been identified by the city of Lincoln, the Downtown Lincoln Association, the planning firm of Crandall and Arambula, and a Lincoln Chamber of Commerce Study as a possible site for a new arena. The site is positioned two blocks from the western edge of UNL's City Campus, one block from the pedestrian bridge accessing Haymarket Park, adjacent to the current north edge of the Haymarket District, three blocks from the downtown Holiday Inn, and four blocks from Embassy Suites.

INDICATION OF ANTICIPATED METHODS:

Successful examples of this building type will be identified and critically analyzed, and case studies of appropriate facilities will be developed. Relationships within each facility and their contexts will be analyzed. In addition, Haymarket building styles and elements will be studied and cataloged to facilitate the design of an arena that successfully molds into its urban environment.

In addition to the expertise of Dean Wayne Drummond and Keith Sawyers, contacts have been made with the Downtown Lincoln Association, the Lincoln/Lancaster County Planning Department, the Lincoln Chamber of Commerce, and Crandall Arambula PC – the firm currently developing the Downtown Master Plan. Individuals within these groups have indicated their willingness to take part in my design process. In addition, James Poulsen, a UNL graduate and former project architect at Ellerbe Becket of Kansas City and Seattle with years of stadium and arena design experience has agreed to participate in my design process.

COMMITMENT TO MEET NAAB CRITERIA:

My project, in its simplest form, can be broken down into three phases: predesign, design, and presentation. In the predesign phase the following NAAB criteria will be met:

2. Critical Thinking Skills

Critical thinking skills will be used to analyze the site and the surrounding urban Haymarket fabric. Critical thinking skills will also be utilized in the analysis of several different types of arenas in an effort to define my project's program.

3. Graphic Skills

Graphic skills will be shown both through hand sketches and programmatic drawings as well as the overall graphic design of the program and precedent document.

4. Research Skills

Research skills will be employed throughout the pre design phase of the project in order to gain a great understanding of the site, building type, and other programmatic issues. Research skills will also be utilized in an effort to gain a greater understanding of construction methods, acoustics, materials, and site constraints.

11. Use of Precedents

Anxious to dive into the project, a comprehensive study of precedents will take place throughout the upcoming summer. The precedents will include arenas in the United States and abroad as well as successful projects of similar building type. The study will include the evolution of stadium and arena design from the Roman Colosseum to the most modern stadium and arena designs. The study of precedents will also include buildings with innovative structural systems, material choices, and environmental concern. The results of the precedent study will be recorded in the program and the final thesis publication.

12. Human Behavior

A mass of people coming together, this is the core issue at the heart of arena design. Thus the understanding of human behavior is one of the key elements of both the pre design and design phases of my project. Specific issues where expertise must be developed include the understanding of seating arrangements, site lines, mass entry and mass exit of spectators, the connection of service and amenity spaces, and parking arrangements.

16. Program Preparation

The preparation of the program is an essential part of the project and will require much research of the site, the Haymarket context, and the building type. The program will include a detailed assessment of the site, a report of the precedents studied and a summary of what was gained by each study. The program will also include an inventory and description of spaces needed and a preliminary code study. My intention is to complete the program preparation during an independent study course in the summer and will be the guiding document for the design.

17. Site Conditions

The site is located on the northern edge of the Haymarket District with close proximity to both the University of Nebraska – Lincoln's city campus, and downtown Lincoln. The site is pedestrian oriented and will be and special attention will be paid to developing a visual and actual link between the Haymarket district and Haymarket Park.

In the design phase of my project the following criteria will be met:

1. Speaking and Writing Skills

Speaking and writing skills will be employed through the various presentations I make throughout the year, the final written/computer generated documented, and through contact with professionals with arena/stadium design expertise.

2. Critical Thinking Skills

Critical thinking skills will be utilized in an effort to find solutions to the complex problems that the arena design will undoubtedly present.

3. Graphic Skills

Graphic skills will be shown both through hand sketches in informal critiques and polished drawings for more formal presentations. Computer generated diagrams, drawings, and models will all be used in the design phase of the project.

5. Formal Ordering Systems

Overall composition of the building in relation to the site and the city as a whole is critical. The project will inject the currently dead northern border of the Haymarket with no life, energy, and activity.

6. Fundamental Design Skills

Fundamental design skills will be used in the design of the building. Important facets will include the exterior connection to the existing urban fabric, the connection of the interior and exterior spaces, and the choosing and application of the appropriate structural and mechanical systems and building materials.

11. Use of Precedents

The catalog of precedents developed in during the summer will be utilized during the design phase of the project. Lessons learned from each precedent study will be referred to when making design decisions.

12. Human Behavior

The study of human behavior developed for the program document will be utilized when making design decisions. Careful attention will be paid to the individual experience of arriving at, entering into, sitting in, exiting from, and departing from the arena.

13. Site Conditions

The site analysis conducted for the program document will also be utilized while designing. Once again, careful attention will be paid to the relationship to the interior and exterior arena spaces. Careful attention will also be given to the relationship between Haymarket Park, the proposed arena, and the Haymarket district.

14. Accessibility

Today, more than ever, universal design has become the social and ethical responsibility of the architect. Every effort will be made to design a totally accessible building.

23. Building Systems Integration

The design of the building will be to the level where the application of structure, building envelope structures, service systems, and environmental systems are developed in enough detail to show an understanding of how the different components work together.

28. Comprehensive Design

Great effort and thorough examination of all design issues will result in a comprehensive design being achieved.

In the presentation phase of my project the following criteria will be met:

1. Speaking and Writing Skills

While my project will be able to stand alone graphically, insight into the development of the project will be expressed verbally to peers and critics. Writing skills will also be employed when developing my contribution to the terminal project book.

2. Critical Thinking Skills

Interpreting and analyzing criticism from jurors and peers will be crucial to the success of my project. The ability to turn criticism into progress will be a challenge and a strength.

3. Graphic Skills

The development of my project will be insignificant if it cannot clearly be expressed graphically. As in the pre design and design stages of the project, computer generated diagrams, drawings and models will be utilized.

6. Fundamental Design Skills

□

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arena a-re-na n.

an enclosed area for the presentation of sports events and spectacles

a □

the area in the center of an ancient Roman amphitheater where contests and other spectacles were held

activate ac-ti-vate v.

to set in motion; make active or more active

to accelerate a reaction in

reactivate re-ac-ti-vate v.

to make active again

to restore the ability to function or the effectiveness of

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Game On: Research/Analysis

Primary and Secondary Tenant Overviews

University of Nebraska Men's Basketball Program

Nebraska men's basketball has called the Bob Devaney Sports Center its pseudo on campus home since it opened its doors in 1976. While the Huskers have enjoyed the 13,995 seat arena posting a 332-103 record their through 28 seasons, it is time for the program to look to the future. The Devaney Center is currently one of the oldest arenas in the Big XII Conference. Attendance at Nebraska men's basketball games is down significantly since the 1990's. Costly improvements were made to the Devaney Center in 2000 and another round of costly improvements will be needed in the near future if the Huskers want to continue to compete for both recruits and fans. For the first time in over a decade, Nebraska men's basketball failed to turn a profit in 2005.

A partnership between the University and the city makes sense on many levels. Moving in to a new Haymarket arena would bring new excitement, energy, recruits, fans, and perhaps most importantly revenue to a program in need of a shot in the arm.

The ideal arena capacity for Nebraska men's basketball is 14,000. In addition to the playing surface, other space needs include: 2 exclusive team locker rooms, 1 exclusive team lounge, 1 exclusive training room, 1 coach's locker room, 1 head coach's office, 3 assistant coach's offices, 1 secretary's office/reception area, and 1 large storage room for equipment and apparel.

University of Nebraska Women's Basketball Program

Much like the University of Nebraska men's basketball program, the women's program could also benefit from a shot in the arm. A new home in the Haymarket would be a great fit. A new home with flexible seating capacities could also solve the problem with having far too many empty seats at the Devaney Center during women's games.

The ideal arena capacity for Nebraska women's basketball is 6,000 - 8,000. In addition to the playing surface, other space needs include: 1 private locker room, 1 private training room, 1 team lounge, 1 head coach's office, 3 assistant coach's offices, 1 secretary's office, 1 storage room, and 1 private weight room.

Minor League Hockey

The Lincoln Stars of the United States Hockey League are arguably the third most popular spectator sporting option in the city of Lincoln behind University of Nebraska football and men's basketball. Since planting roots in Lincoln in 1996, the Stars have called the 4,700 seat "Ice Box" their home. While the "Ice Box" offers the coziness and intimacy junior hockey fans and teams desire, the fact remains it is a converted cattle show arena located on the Nebraska State Fair Grounds. As the Stars begin their tenth season in Lincoln, there is little doubt that the club is much more than a fad; the club has staying power. In addition, over 90% of "Ice Box" seats have been sold since 1996 and interest in additional luxury box type seating is strong.

The club, its supporters, and the city of Lincoln deserve more than a converted cattle shed. While schedules would have to be carefully coordinated, many examples exist of basketball and hockey teams successfully sharing venues during the winter months. Creighton Basketball and UNO Hockey successfully sharing Qwest Center Omaha is one example close to home.

The ideal arena capacity for Lincoln Stars hockey is 6,000. In addition to the playing surface, other spaces needs include: 2 shared locker rooms, 1 shared weight room, 1 shared training room, 1 coach's office, and one storage room.



End and Center Stage Concerts

Qwest Center Omaha has proven Eastern Nebraskans will purchase overpriced concert tickets to first rate acts. The city of Omaha and the arena boast how quickly tickets to U2, Green Day, Paul McCartney, and Rolling Stones have sold out. Lincoln has absolutely zero chance of attracting headliners to perform in Pershing Auditorium, and even second rate tours are beginning to avoid Lincoln because of the outdated facility. If Lincoln has any interest in competing for first rate acts, it is time to act.

A modern venue for concerts of multiple sizes and scopes in Lincoln makes sense. For every sold out concert in Omaha, thousands commute from Lincoln which still boasts the largest student population in the state. Reciprocally, thousands of concert goers would commute to Lincoln from Omaha if the venue was right. In addition, a Lincoln venue would be able to attract concert goers from other Nebraska population centers such as Grand Island that would not likely be willing to commute to Omaha on a week night.

The ideal seating capacity for center is 8,000 - 17,500. In addition to the concert stage and backstage, other space needs include: 4 dressing rooms, and a staging area.

AFL2 Arena Football Franchise

Arena football first came to Lincoln in 1999 when the Lincoln Lightning became a charter member of the Indoor Football League. In 2001 the Indoor Football League was acquired by Arena Football 2 League and the Lightning were members for one year. A disastrous off season in 2002 led to the total dissolve of the Lincoln Lightning organization. In its place, the Lincoln Capitols of the National Indoor Football League emerged. Stuck in an unstable league and in an arena unable to help get fans through the turnstiles, the Capitols have struggled.

When arena football first came to Lincoln, crowds of 5,000+ were common at the Pershing Center, but as the novelty of the game and the quality of play diminished, so did support. Despite Nebraskan's appetite for football, few have interest in attending a sub par event in an antiquated facility. A new arena would open the door for a Lincoln team to realign with the reputable and successful AFL2. Quality arena football in Lincoln would also fill the summer voids of both the football fan and arena schedule.

The ideal seating capacity for arena football is 6,000. In addition to the playing surface, other space needs include: 2 shared locker rooms, 1 shared weight room, 1 shared training room, 1 coach's office, and one storage room.

NSAA Tournaments and Championships

Omaha (and their Sports Council) is getting aggressive. They have successfully "wrestled" one of the most popular high school tournaments away from Lincoln and they have their eyes on the state high school boys basketball, girls basketball, and volleyball tournaments. Lincoln hotels, restaurants and shops depend on those tournaments to give them business during the often lean winter months. A new multipurpose arena in Lincoln would greatly increase Lincoln's chances of retaining the tournaments they currently have, and reacquiring the state wrestling tournament. In addition, city holiday basketball tournaments, conference tournaments, and district tournaments could also take advantage of a new downtown arena.

The ideal arena capacity size for high school tournaments vary widely from 3,000 to 15,000. In addition to the playing surfaces, other space needs include: 4 shared locker rooms, 1 shared training room, and one coaches and administrators hospitality room.

Small Scale Convention and Exhibition Space

A potential site for a new Haymarket Convention Center has been identified adjacent to the arena site. Until that center is constructed, the arena could be used as exhibition and convention space.

The principle programmatic need on this space revolves around the ability for a high volume of exhibitors to move in and set up, or tear down and move out efficiently. An additional consideration is to ensure the free flow of people through the convention or exhibition space.

NCAA Tournament Events

17,500 seats. That is generally considered the magic number when bidding for NCAA and Big XII tournament events such as the Big XII Men's Basketball Tournament, NCAA Men's Basketball Tournament opening round games, NCAA Women's Basketball Final Four, and NCAA Hockey Frozen Four. The 17,500 seats may seem a bit extreme, however the idea is not to close doors to any potential opportunities before the arena doors are ever opened.

The ideal arena capacity for Big XII and NCAA Tournaments is 17,500. In addition to the playing surface, other space needs include: 4 shared locker rooms, two shared training rooms, press conference area, additional media boxes and space, and corporate sponsor hospitality rooms.

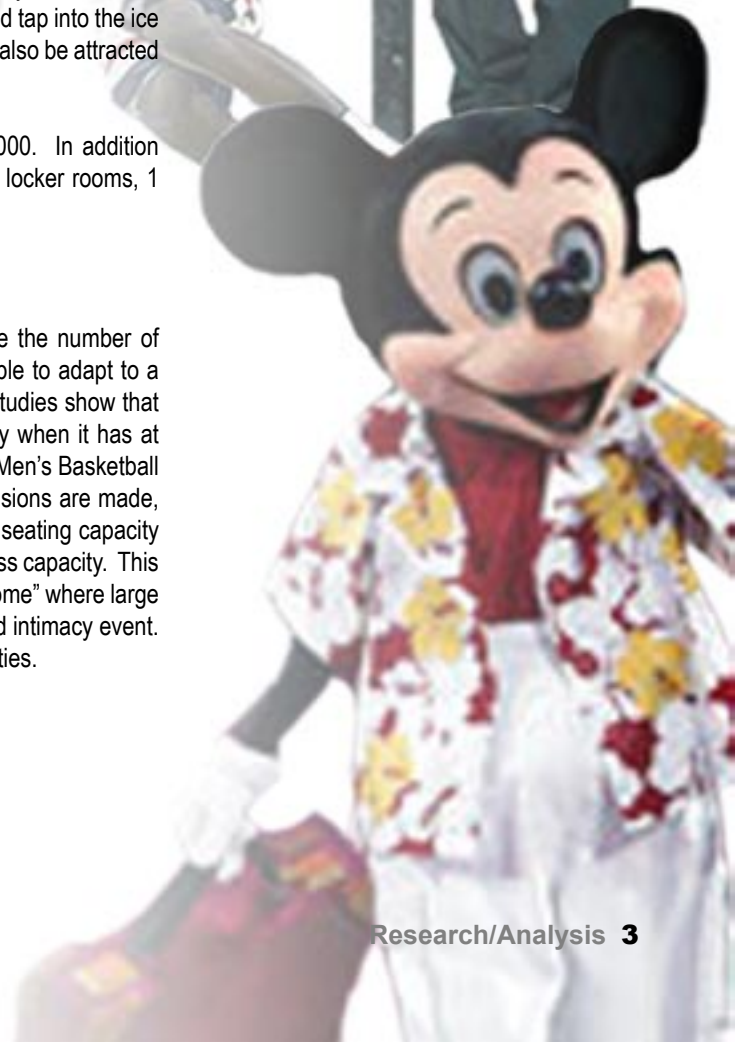
Entertainment and Ice Shows

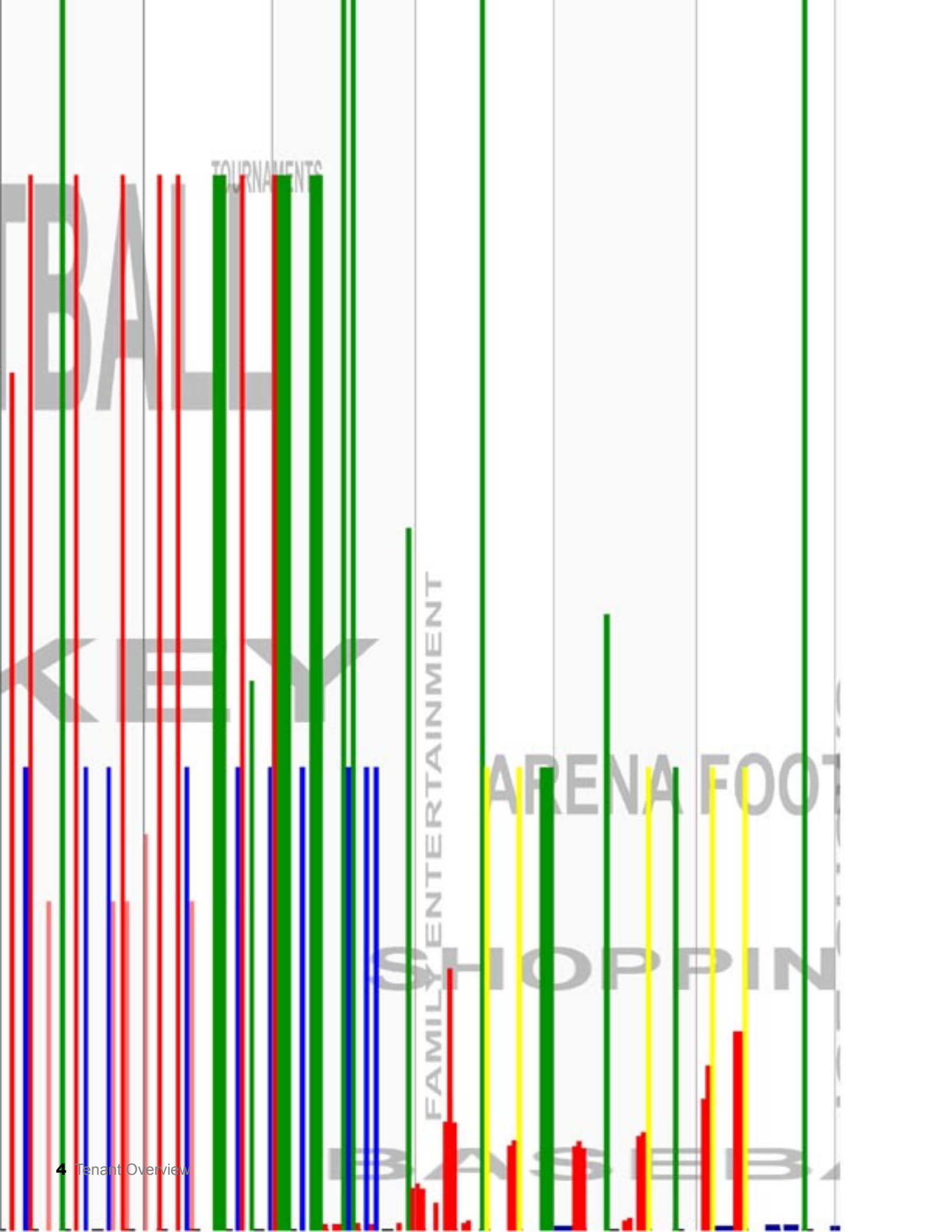
Disney on Ice. Sesame Street on Ice. Barney on Ice. The formula seems to be: strap a pair of ice skates on a big, friendly, animated character, and watch the money roll in. With a family friendly, modern amenity filled arena with an ice sheet, Lincoln could tap into the ice entertainment market. Other entertainment events such as the circus will also be attracted to Lincoln once a new downtown venue is constructed.

The ideal arena capacity for ice and other entertainment shows is 10,000. In addition to the performance ice or surface, other space needs include: 2 shared locker rooms, 1 shared training room, and one staging area.

Summary

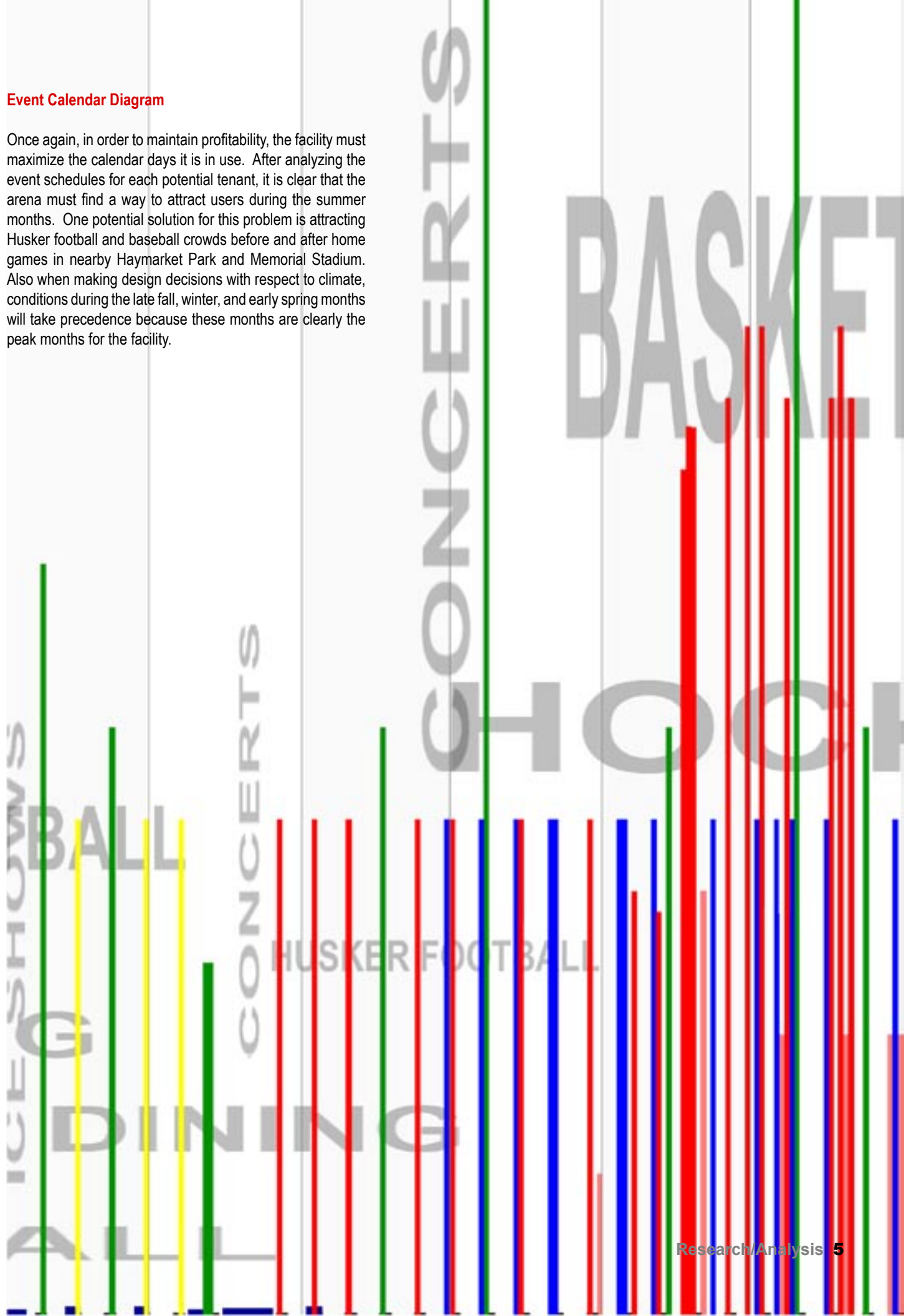
In order to be financially feasible, a multipurpose arena must maximize the number of days each year it brings people through its gates. This means being able to adapt to a number of different activities, events, and potential clients. In addition, studies show that a multipurpose arena is much more likely to be successful economically when it has at least one high profile permanent primary tenant. University of Nebraska Men's Basketball must serve as this tenant in Lincoln. Because of this, when design decisions are made, greater weight will be put on the needs of this program. While the ideal seating capacity for the primary tenant is 14,000, most other tenants require significantly less capacity. This range of ideal seating capacities raises the problem of "empty seat syndrome" where large number of seats are left unoccupied subtracting from the atmosphere and intimacy event. One potential solution to this problem is designing flexible seating capacities.





Event Calendar Diagram

Once again, in order to maintain profitability, the facility must maximize the calendar days it is in use. After analyzing the event schedules for each potential tenant, it is clear that the arena must find a way to attract users during the summer months. One potential solution for this problem is attracting Husker football and baseball crowds before and after home games in nearby Haymarket Park and Memorial Stadium. Also when making design decisions with respect to climate, conditions during the late fall, winter, and early spring months will take precedence because these months are clearly the peak months for the facility.





User Profiles

Fan

The fan is the essence of the arena. It is the arena's breath, its pulse, its soul all at the same time. When at a decision making crossroads during my design process, I must ask myself what would enhance the experience of the fan. While fans come in all shapes and demographics, they have many things in common.

Every fan has the desire and the ability to have an impact on the result of the game. Each fan wants to feel a part of the action. They expect and deserve clear, close views of the playing surface. They expect and deserve a comfortable seat, easily accessible concourses, rest rooms, concessions, and other amenities. They expect and deserve their experience to be enhanced by the latest in audio and visual technology. They expect and deserve to feel safe at all times and to enjoy the game, match, or concert in an intimate atmosphere.

Coach

Perhaps more than anything else, a coach desires an arena that will give his or her team a definite home court advantage, a place that they can effectively teach, and a venue they can effectively recruit to.

The easiest way to achieve a definitive home court advantage is to place as many loud fans as possible as close to the playing surface as possible. Prospective recruits will be especially interested in flush offices, locker rooms, training rooms, weight rooms, and a team lounge. The ability to personalize spaces and give each a sense of ownership will be critical.

Athlete

Today's athletes demand more out of their sporting homes than ever before. Since they will spend more time at this arena practicing, lifting, rehabbing, studying, playing, and hanging out with teammates than they will at their home or dorm room, they have great expectations.

They want an arena that gives them the best chance to succeed, an arena that will help draw supporting fans, and an arena that they will always feel safe in. Much like many fans, many athletes may also depend on the latest audio/visual arena technology to enhance their pregame experience.

The visiting athlete deserves a modern locker room and training room as well as the comfort of feeling safe, if not welcome at all times.

Administration

The primary concern of an administrator is profitability. Administrators want arenas that will attract recruits, that will win games, that will bring in additional attendance and merchandise revenue, that can be reinvested in facilities that will attract fans and recruits, that will help win games, that will bring in additional attendance . . .

Consequently, an administrator wants luxury boxes, suites, and other high value seats that can be sold to major program donors and corporate groups. Other administrative desires include a venue that looks good on camera and is designed with future expansion in mind.

Pep Band

The pep band's wish is pretty simple. They want to have court side seats, feel like they are a critical part of the game and atmosphere, and they want to sound good. Acoustical consideration should be given to where the pep band will be located, and where they will be projecting sound. Additional staging/storage space and convenient concession and rest room access are also important to the pep band.

Dance Team

Dressing/locker room space is the primary programmatic space need for the dance team. This can be shared with female spirit squad members. Additionally, the dance team should feel safe on the arena floor at all times and be able to use the latest audio/visual technology to enhance their performances. The dance team also requires additional space along the baselines to perform during games.

Spirit Squad

Much like the dance team, the spirit squad's basic programmatic space need is dressing/locker room space. Female spirit squad members may share this space with dance team members. Male spirit squad members may require an additional space. In addition, spirit squad members should feel safe on the arena floor at all times and may depend on the latest arena audio/visual technology to enhance their cheers. The spirit squad also requires additional space along the baselines to perform during games.

Officials

Second only to the opposing team on the list of things home fans dislike, officials must feel safe and comfortable to perform their job at all times. They also require a locker room and easy access not only to and from the arena floor but also to and from the arena itself. While home team coaches, players, and fans may wish to be as close to the playing surface as possible, officials require a buffer zone between them and the crowd.

Broadcast Teams

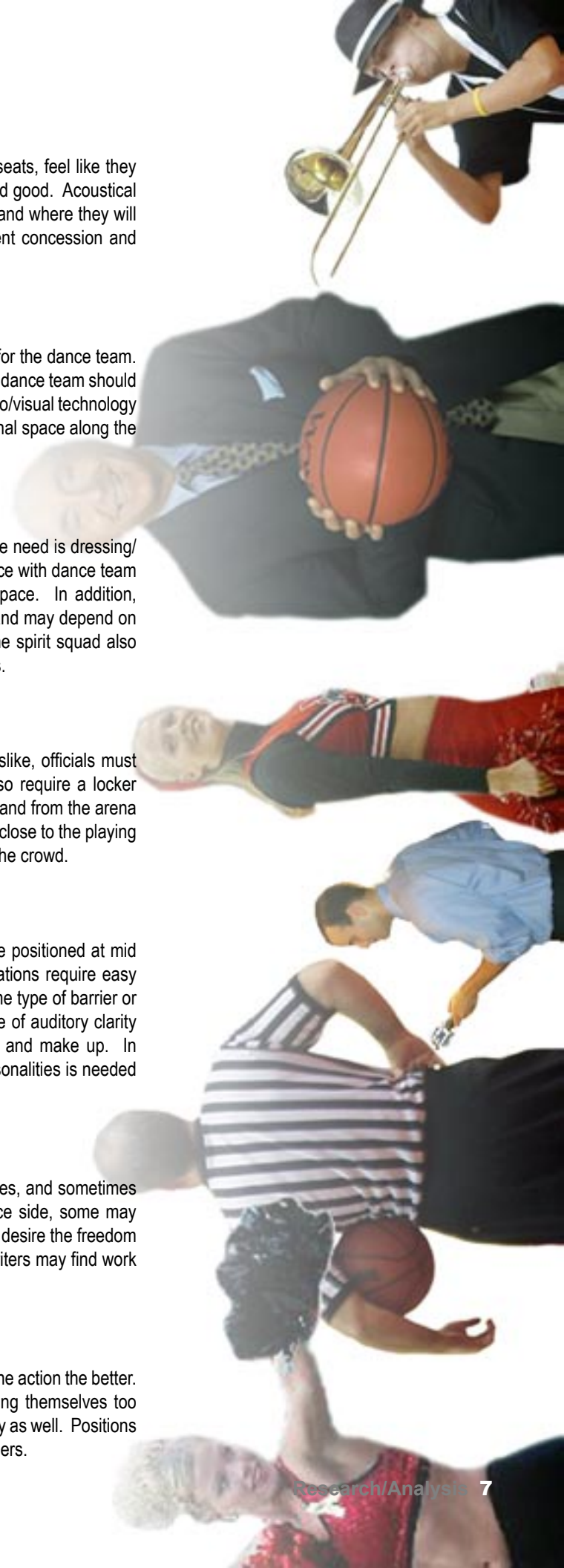
Depending on the sport, television and radio broadcast teams may be positioned at mid court on the arena floor or at suite level at center ice. Broadcast stations require easy access to all necessary data, electrical, audio, and visual outlets. Some type of barrier or buffer zone in between broadcast teams is also desirable for the sake of auditory clarity and privacy. Television broadcasters require an area for prep work and make up. In addition a space for a camera, and camera man to film the on air personalities is needed on the floor.

Print Media

Above all, writers desire access. Access to athletes, access to coaches, and sometimes even access to fans. Some writers may prefer to sit a table court/ice side, some may prefer to sit and watch the action from a table above, while others may desire the freedom to roam about the arena freely. In addition, when facing deadlines, writers may find work space, a computer network, and internet access desirable.

Photographers

Much like the print media, photographers crave access. The closer to the action the better. However, photographers often put themselves in danger by positioning themselves too close to the playing surface. Efforts must be made to ensure their safety as well. Positions on or adjacent to the playing surface will be designated for photographers.





Camera and Production Crews

Camera crews desire many of the same things as photographers. Additional positions for video cameras must be designated. These positions may include crows nests for overall court/ice views, elevated diagonal shots, and television personality access. Video camera crews may share courtside camera space with photographers.

Television production crews require space to park their production trailers. A separate audio/visual control room is also needed for in house arena production such as Husker Vision.

Performers

Depending on the type of performance, performers may require a great deal of luxury and/or privacy. Performers should be provided private access to and from the arena and secure areas within the arena both before and after shows. Some performances may only require a few small dressing/prep rooms while others may require large locker room type space. All performers must feel safe and secure while at the arena.

Roadies and Production Crews

Above all else, roadies and production crews need space. Space to set up, space to store, and space to tear down. Roadies and performance production crews do not require private dressing/locker rooms, rather they may often be able to share one large locker room type space. Roadies and production crews need direct access to and from loading docks and the stage area as well as a production room or booth.

Beermen and Bartenders

A beerman, bartender, and a server's main objective is to sell large quantities of alcohol at very high rates. More sales equal more profit for the concession service company, the arena, and more tips for the workers. Each requires direct access to and from the supply/storage area and open concourses are desirable to facilitate free and efficient movement.

Broadcast Teams

Depending on the sport, television and radio broadcast teams may be positioned at mid court on the arena floor or at club level at center ice. Broadcast stations require easy access to all necessary data, electrical, audio, and visual outlets. Some type of barrier or buffer zone in between broadcast teams is also desirable for the sake of auditory clarity and privacy. Television broadcasters require an area for prep work and make up. In addition a space for a camera and camera man to film the on air personalities is needed on the floor.

Concession Workers and Vendors

The desires of concession workers and vendors are very similar to those of the alcohol vendors. The more efficient they are able to move about, sell, and reload, the more profit for all parties involved. In addition, the fan appreciates not having to wait long in their seat for a vendor or at a long line at the concession stand. Wide concourses and aisles are valued by all vendors.

Families

At times, a general admission seat is not a great place for an impressionable young child to be. With this in mind, a family section shall be identified.

Custodians

More than anything else, a custodian desires a building occupant to clean up after themselves. The more each occupant takes care of their own trash or mess, the less a custodian has to work and the fewer custodians that need to be employed. Design consideration should be given to encouraging and providing opportunities for building occupants to easily pick up after themselves. Custodians also require direct access to all spaces with special importance being placed on the service areas, loading docks, and vertical circulation. They also require a meeting room/lounge area to break and organize.

Maintenance Crew

The arena maintenance crew will likely work in close association with the custodial staff. Because of this many of their needs are very similar. Also, the custodial and maintenance crews may share a meeting/locker/lounge room. The maintenance crew also desires direct access to all arena spaces with special importance being placed on the service areas, loading docks, and vertical circulation.

Trainers

Trainers require a room to work in adjacent to team locker rooms and lounges. Trainers also need ample storage room for supplies.

Restaurant/Shop/Retail Workers

These workers desire spaces that will be able to attract consumers from both outside and inside the arena.

Shoppers

Before a shopper can shop, they like to window shop. Shoppers/restaurant goes appreciate urban shopping environments where they are shielded from vehicular traffic without being totally disconnected from their surroundings. A ticket holding shopper or diner may also appreciate the ability to enter the arena through a shop or restaurant.

Security Officers

Security Officers need easy access to all points of the arena. A visible but unobtrusive presence of security can stop incidents before they start.

Ushers

To save money, often time arena ushers are volunteers. In order to attract capable volunteers, it is important that ushers are able to enjoy the action while performing their job simultaneously. Ushers also desire a clear seating layout and signage so they rarely are required to help someone find a seat.

Ticket Office Workers

Often times, ticket offices are tucked in a dark corner of a facility. While ticket windows to the outside are necessary, ticket office workers could greater enjoy their work if they felt like they were connected to the activity on the inside also. Arena goes could also benefit from access to the ticket office from the arena concourses.

Delivery Workers:

Wide lanes, multiple delivery docks, and large freight elevators are necessary.



Arena Floor 27,500 100' x 275' (Total)
85' x 200' (Ice) 60' x 110' (BB)

Nebraska Men's Basketball Spaces

Locker Room	1,500	
Lounge/Video	750	
Training Room	750	shared with women's basketball
Trainers Office	100	shared with women's basketball
Weight Room	1,500	shared with women's basketball
Head Coach's Office	200	
Assist. Coach's Office	150	x 3
Coaches Locker	500	
Secretary/Reception	150	
Equipment Storage	750	

Nebraska Women's Basketball Spaces

Locker Room	1,500	
Lounge/Video	750	
Training Room	750	shared with men's basketball
Trainers Office	100	shared with men's basketball
Weight Room	1,500	shared with men's basketball
Head Coach's Office	200	
Assist. Coach's Office	150	x 3
Coaches Locker	500	
Secretary/Reception	150	
Equipment Storage	750	

Other Secondary Tenant Spaces

Locker Room	1,250	x 4 two shall be adjacent
Training Room	500	x 2 one per two lockers
Weight Room	1,000	shared by hockey and football
Hockey Coach's Office	150	
Hockey Storage	1,000	
Football Coach's Office	150	
Football Storage	1,000	
Dressing/Locker Room	400	x 4 two shall be adjacent

Additional Arena Floor Spaces

General Arena Storage	1,000
End Stage	1,250
Center Stage	1,250
Back Stage	500
Staging/Prep	500
Performance Storage	750
Audio/Visual Control	100
Pep Band Storage	200

Spectator Spaces (maximum basketball capacity)

Hospitality Room	250	x 2
Premier Courtside Seats		x 40 22" min width
Student Courtside Seats		x 1,000 18" min width
Band Seating		x 50
Premier Lower Bowl Seats		x 5,000 21" min width
Club Seats		x 3,000 21" mini width
Student Middle Bowl Seats		x 1,000 18" min width
Middle Bowl Seats		x 3,000 19" min width
Upper Tier Retractable Seats		x 4,500 19" min width
Handicap Accessible Seating Areas		x 100 30" min width

Twelve Seat Suites	400	x 16
Eighteen Seat Suites	500	x 4
Twenty four Seat Suites	600	x 4
Luxury Club Lounge	1,000	
Luxury Club Kitchen	500	

Media Spaces

Standard Courtside Press		10 seats
Expanded Courtside Press		25 seats
Courtside Broadcast Table		12 seats
Elevated Broadcast Booth	200	x 2
Press Conference/Hospitality	400	
Video Camera Nests		x 2
Courtside Video Camera Space		baselines and table
Courtside Photography Space		baselines
Production Truck Parking	1,200	x 2

Concourse Dependent Spaces

Concourses		min 25' wide
Men's Rest rooms		
Water Closets:		x 30 (17,500/2)/300
Urinals:		x 90 (17,500/2)/100
Lavatories:		x 45 (17,500/2)/200
Women's Rest rooms		
Water Closets:		x 120 (17,500/2)/75
Lavatories:		x 45 (17,500/2)/200
Concessions & Storage	11,250	(17,500/200) = 90 points of sale 5' per point of sale = 450' of sales 25' of depth per foot = 11,250 sq' accessible from outside also located on opposite side of arena sheltered outside
Ticket Office/Will Call	500	
Secondary Will Call	100	
Student Waiting Queue		
First Aid Station	200	x 2
Husker Display Concourse		
Husker Display Cases		
Concourse Bar	200	
Guest Services	200	x 2
Security/Surveillance	400	
Public Relations	200	x 2
Elevators	100	x 2
Emergency Egress Stairs		x 4

Retail/Public Spaces

Leasable Retail Space	1,250	x 6
Green Docks		min 25' wide
Public Plaza		shared with convention center

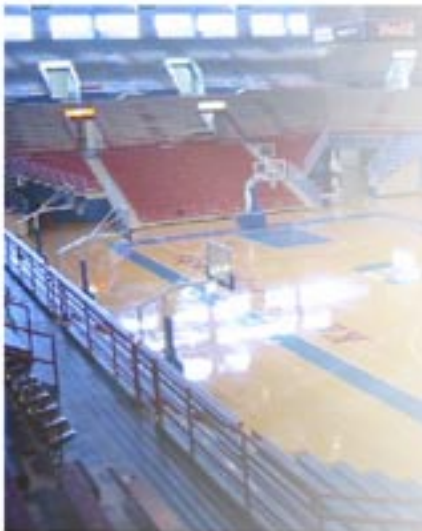
Parking and Entry Spaces

Private Parking		100 spaces
Private Entry		
Premier Parking		500 spaces
Public Parking		2,000 spaces
Public Entry		

Exhibition Spaces

Floor Exhibition Space	27,500	
Upper Tier Exhibition Space	20,000	x 2





Phog Allen Fieldhouse

DESIGN STRENGTHS: natural lighting, proximity of seats to court
DESIGN WEAKNESSES: lack of modern amenities/boxes

Originally constructed on the University of Kansas campus in 1955, the recently renovated Phog Allen Fieldhouse has long been considered one of the greatest home court advantages in college basketball. Dedicating 45% of its seats to students, it is no wonder the Jayhawks have posted an all-time 484 - 97 record in their 16,300 seat home. With very little area devoted to concourse or circulation space, every single seat in the arena is as close to the court as possible. During afternoon games, KU fans can gaze past the retired jerseys and championship banners hanging in the rafters and out the three story windows towards the blue Kansas sky. During night games, those same windows emit a glow from the fieldhouse, reminding the unfortunate fans that were unable to secure tickets what they are missing

Cameron Indoor Stadium

DESIGN STRENGTHS: seats on top of court, intimate atmosphere
DESIGN WEAKNESSES: small capacity, lack of modern amenities



When Duke University's 9,314 seat Cameron Indoor Stadium opened its doors for the first time in 1940, it was the largest indoor arena south of Philadelphia. Today, one of the smallest basketball only venues in the country is home to one of the most magical atmospheres in college basketball. The second highest profile group of students on campus is the Blue Devil's student section. The Cameron Crazies are given priority seating filling the entire lower level bleachers. These seats are not just given away though; the "Crazies" camp outside on an adjacent lawn in tents to hold their spot is line for weeks leading up to big games. While Cameron Indoor lacks most modern amenities, including air conditioning, it provides the ultimate intimate atmosphere. No where in the country does a crowd have a greater impact on the outcome of a game.

Hinkle Fieldhouse

DESIGN STRENGTHS: distinctive long span arches, cantilevered second tier
DESIGN WEAKNESSES: lack of modern amenities



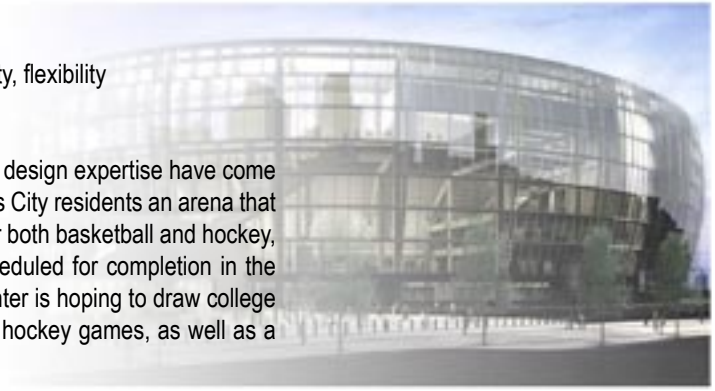
Perhaps the most historically rich basketball venue in the world sits modestly on the campus of Indiana's Butler University. Constructed in 1928, the Butler Bulldogs home court is also the historic home of the Indiana High School State Basketball Tournament and was featured in the movie *Hoosiers*. With its long, arching spans running the length of the court and its second deck nearly hanging over the baseline, Hinkle Fieldhouse is unlike any other basketball venue in the United States. Recent renovations to Hinkle, designed to give each spectator a greater amount of space, have decreased the capacity from 15,000 to 11,043. However, the aura that made Hinkle Fieldhouse one of America's first great basketball venues remains today. Similar to Allen Fieldhouse, natural light streams into the Fieldhouse during afternoon games.

Sprint Center

DESIGN STRENGTHS: technology, glazing, views toward city, flexibility

DESIGN WEAKNESSES: lack of pedestrian scale

Four Kansas City firms with sports and entertainment project design expertise have come together in the design of the Sprint Center. Promising Kansas City residents an arena that will feature a transparent glass exterior, optimal sight lines for both basketball and hockey, and fresh colors and finishes, the 18,500 seat arena is scheduled for completion in the fall of 2007. With no major permanent tenant, the Sprint Center is hoping to draw college basketball tournament events and big games, minor league hockey games, as well as a variety of other concert and entertainment events.

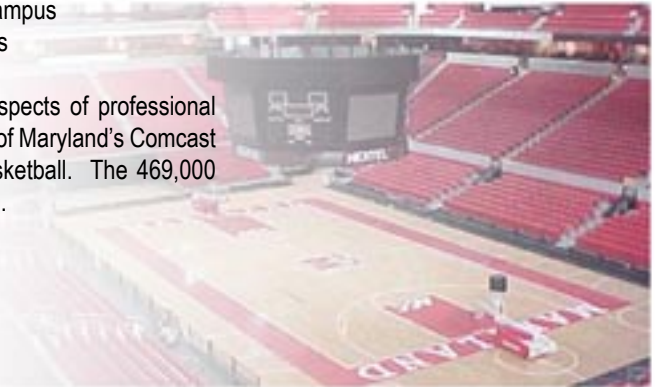


Comcast Center

DESIGN STRENGTHS: “prolegiate advantages,” relationship to campus

DESIGN WEAKNESSES: distance from court to upper tiered seats

Calling it the “prolegiate advantage,” Ellerbe Becket combined aspects of professional facilities with collegiate enthusiasm in their design of the University of Maryland’s Comcast Center in 2002. The 17,000 seat venue is home to Terrapin basketball. The 469,000 square foot arena offers 20 luxury suites and 4,000 club level seats.



Conseco Fieldhouse

DESIGN STRENGTHS: engineering technology, retro feel

DESIGN WEAKNESSES: underdeveloped public entrance plaza

Vowing to do what Oriole Park at Camden Yards did for baseball, Conseco Fieldhouse recalls retro Indiana basketball fieldhouses. Exposed long - span steel trusses not only add to the nostalgic feel of the arena, they save money. By running the trusses the length of the court, less steel was required and multistory glass walls inside the seating bowl were made possible. Ghost painted advertising on interior brick walls, fold out bleachers, and cage style elevators add to the retro theme. The red brick exterior and vaulted forms recall the adjacent warehouse historic district.



Nationwide Arena

DESIGN STRENGTHS: catalyst for redevelopment, open concourses

Located in downtown Columbus, Ohio, Nationwide Arena is home for both the National Hockey League’s Columbus Bluejackets and the Arena Football League’s Columbus Destroyers. Since opening its doors in 2000, Nationwide Arena has sparked a redevelopment known as the Arena District. The trendy entertainment district consists of a unique mixture of business, entertainment, and residential space that attracts tenants from across the country. Other notable design features include a seventy foot glass atrium, open concourses and lobbies allowing views of the ice, and an in house practice facility.



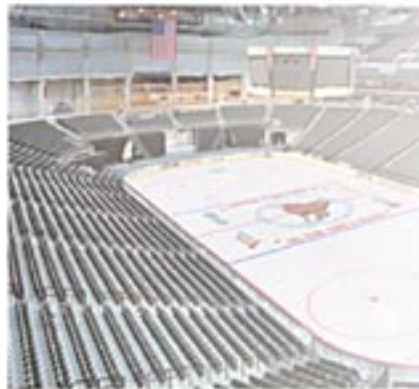


Staples Center

DESIGN STRENGTHS: extreme flexibility

DESIGN WEAKNESSES: cold aesthetic, concrete sea

Referring to most arenas as architecturally irrelevant large indoor sheds, Dan Meis in association with NBBJ Sports developed the unorthodox shaped Staples Center. Adjacent to a recently constructed convention center, the two facilities are able to share infrastructural amenities. The Staples Center is the pinnacle of flexible arena design, recently hosting NBA games, NHL hockey games, concerts, the Grammy Award Show, and the Democratic National Convention. The Staples Center cost 220 million dollars to construct and seats 21,000 for concerts, 20,000 for basketball, and 18,500 for hockey. Responding to the Hollywood demand, it boasts 160 luxury suites, 16 event suites, and 4,500 club level seats.

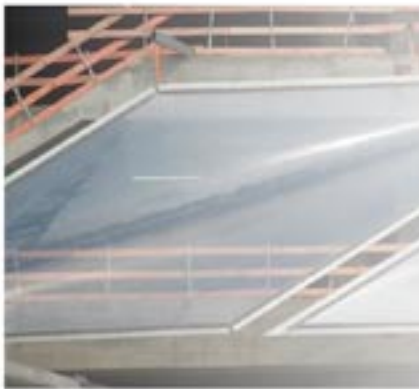


Qwest Center Omaha

DESIGN STRENGTHS: flexibility, open concourse, soaring arena form,

DESIGN WEAKNESSES: current capacity falls just under big event benchmark

Half multipurpose arena, half convention center, full of opportunity for revenue. The arena houses 32 luxury suites, 1,000 club level seats, and seats 17,000 for concerts, 15,500 for basketball, and 14,700 for hockey. Design features include a soaring form gesturing toward the downtown Omaha skyline, an completely open concourse on one baseline, and extreme flexibility - the arena is set to host the United States Olympic Swimming Trials in 2008. In addition to the convention center, a skywalk links Qwest Center to the recently constructed Hilton Hotel. A 500 stall parking garage is also attached to the arena with an additional 4,000 stalls located in surface lots on site. Concourses open up to platforms with views of the Missouri River and pedestrian walkway toward downtown.



Allianz Arena

DESIGN STRENGTHS: engineering, technology, plaza

DESIGN WEAKNESSES: oversimplified facade, life span of lights

Faced with the problem of creating a distinct home stadium for two rival Munich Football Clubs, as well as the upcoming FIFA World Cup tournament, Herzog and DeMueron explored technology and light to work out a solution. The organically formed, monolithic exterior has the ability to change color in a split second. The roughly 24 foot by 16 foot ETFE foil panels each are 93% transparent and contain four fluorescent tubes that each have an expected life span of 8,000 hours. Other design features include 66,000 covered seats, 2,200 press and business seats, 106 luxury suites accommodating 1,374 people. The stadium is located along the outer ring of Munich and is surrounded by a innovative landscaped plaza.



Paul Brown Stadium

DESIGN STRENGTHS: broken, fragmented forms, asymmetrical seating bowl

DESIGN WEAKNESSES: seemingly arbitrary form making

Designed as the one of the centerpiece of the largest urban redevelopment project currently underway in the United States, Paul Brown Stadium helps connect downtown Cincinnati to the historic riverfront district. The most powerful design feature of NBBJ's 67,000 seat Cincinnati Bengals stadium is its broken, fragmented facades that connect the seating bowl to downtown and the river front rather than isolate it. The stadium includes 117 suites, 10 party suites, and 16,000 club level seats.

[New] Wembley Stadium

DESIGN STRENGTHS: iconic image, exterior video application, acoustics

Replacing one of the most iconic stadiums in international history is no small task. For validation of that claim, refer to the 350 foot tall arch that soars over the new Wembley Stadium. A collaborative design by Sir Norman Foster and HOK Sport London, Wembley will play host to international and championship soccer and rugby matches as well as the 2012 Olympic soccer matches. Much like the old Wembley, the new stadium promises to provide the finest stadium concert acoustics in the world. The arch not only gives the 90,000 seat stadium an iconic image but serves as support for the roof structure, eliminating the need for columns and ensuring unobstructed views to all. Another notable feature is the application of large scale video displays to the curvilinear exterior allowing arriving, departing, or shut out supporters to watch the action inside or another match across the world.



Miller Park

DESIGN STRENGTHS: innovative roof design, open concourses

DESIGN WEAKNESSES: scaleless outfield exterior elevations

The most dominant design feature of the Milwaukee Brewers new home, Miller Park, is also its most innovative, its fan shaped retractable roof. Arching out from a pivot point directly above home plate, its fin-like trusses have the ability to completely open or close in minutes. The fan shaped roof is a elegant variation from standard retractable roof concept. In addition to the 590 foot free span roof, the 42,500 seat park also offers open concourses, multi-story glass walls, and state of the art amenities.



American Airlines Arena

DESIGN STRENGTHS: loge boxes with terraces, unconventional exterior skin

Situated on the Miami, Florida coastline, American Airlines Arena is first in the country to offer "loge" boxes with terraces overlooking the ocean front. Other design features that 360 Architects incorporated into the Miami Heat's new 20,000 seat home include "star box" seating, a private club on the arena floor for celebrities that prefer to sit courtside rather than at suite level, and a scoreboard that changes color and emits smoke.

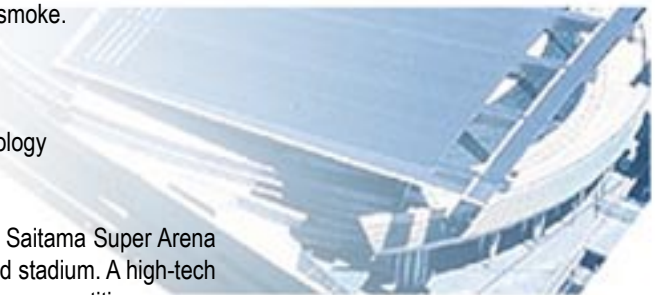


Saitama Super Arena

DESIGN STRENGTHS: extreme large scale flexibility, smart technology

DESIGN WEAKNESSES: lack of exterior human scale

An arena? A stadium? A concert venue? In about 20 minutes, the Saitama Super Arena near Tokyo converts from an intimate concert venue to a full-fledged stadium. A high-tech concept called Moving Block, developed in an international design competition, moves 9,200 seats—along with rest rooms, concessions and hallways—a distance of 231 ft. (70 m) to convert the arena in to a stadium and back again.



Soldier Field

DESIGN STRENGTHS: extremely bold design form, intimacy of seating bowl

DESIGN WEAKNESSES: at times awkward proportional relationship of forms

In collaboration with the City of Chicago, the Chicago Park District and the Chicago Bears Football Club, Wood + Zapata developed a scheme juxtaposing a new, state-of-the-art, open-air stadium configured within the memorial colonnades of the original Soldier Field.



Haymarket Context

Originating in 1867, Lincoln's first "Market Square" was between O and P streets from 9th to 10th. What started as a place of shops and dwellings quickly changed as the city of Lincoln began to prosper. During the 1880's the open-air market was replaced by the wholesale jobbing and manufacturing businesses that came to Lincoln with the railroad. The Market Square was bustling with everything from wagons to tin-horn gamblers - the new frontier had arrived.

Today, the Haymarket is located immediately west of the Old Market Square, near Downtown Lincoln, and marks the location of Lincoln's first City Hall built in 1886. The Haymarket has since been certified by the National Park Service and is a federally certified historic district. The Haymarket is more than just a tribute to history, it has become a thriving neighborhood. Over 150 people reside in The Hardy and The Grainger buildings, as well as in several privately owned dwellings. Nearly every building in the Haymarket has been restored and developed as office, retail, or restaurant space.

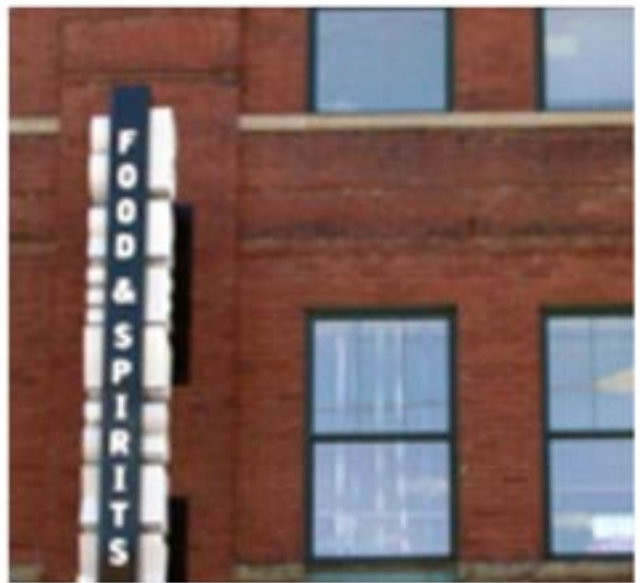
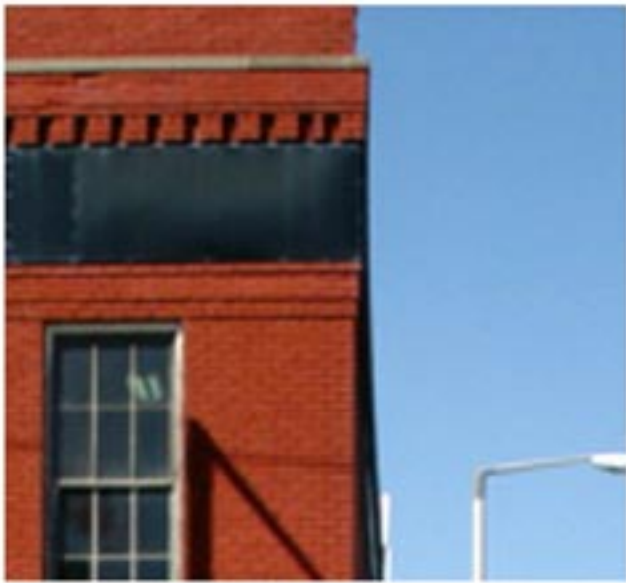
The Haymarket District is a pedestrian friendly urban environment. This may be its greatest strength. Contributing to this feel are the presence of four-way stops rather than traffic lights, developed streetscapes, active storefronts and street level, narrow roads, wide sidewalks, and redeveloped and utilized loading docks. In addition to the brick warehouse building type, on a smaller scale the loading docks are the district's most distinguishable feature. Once serving as a platform for loading and unloading trucks, the docks now provide an intermediate space that can be considered interior or exterior space. The docks allow the building's activities to spill outside onto the street. Transversely, the docks allow the street life to filter into the interior of a building.

The images on the following pages provide snapshots of Haymarket building elements provided in order to gain a greater understanding of the Haymarket building typology.









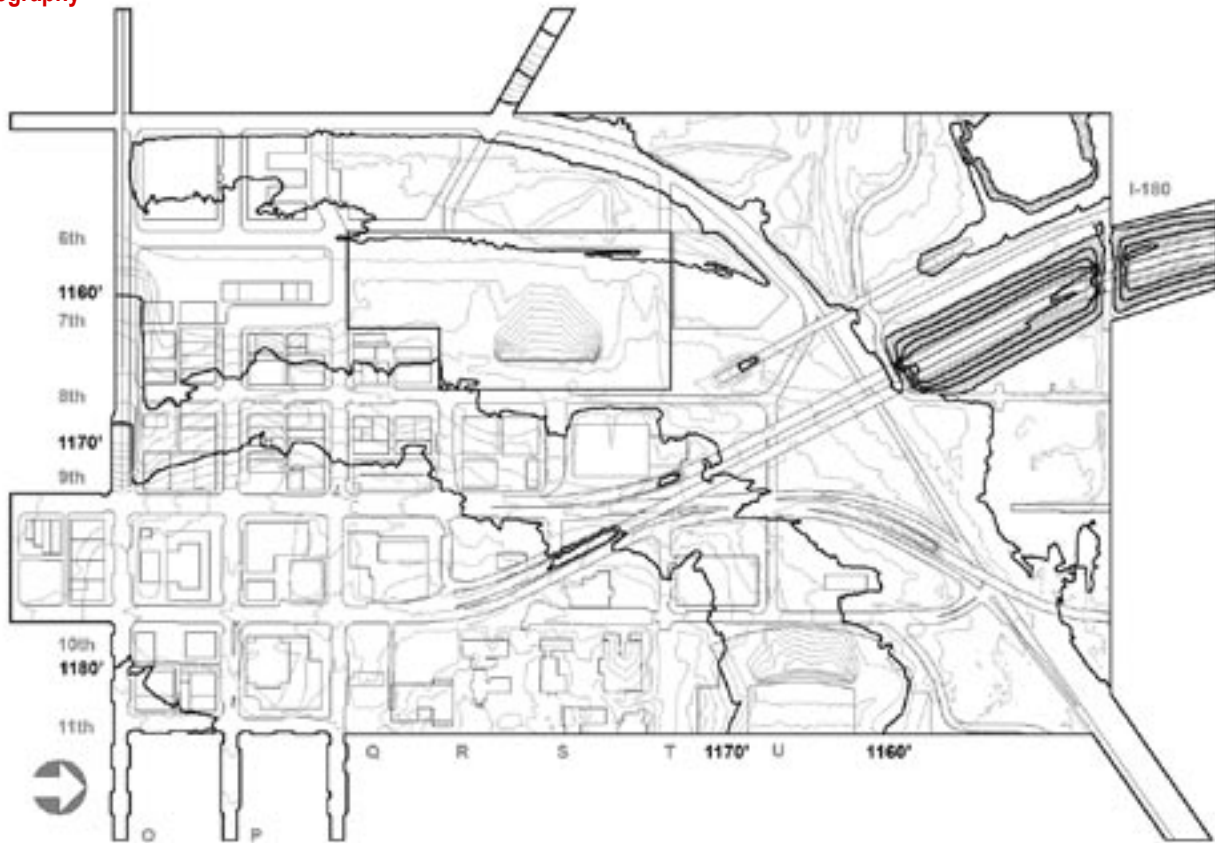
Downtown Master Plan

On September 26th, the Lincoln City Council approved the recently developed Downtown Master Plan. Perhaps the most ambitious section of the plan calls for expanding the Haymarket District to the west with the creation of a new civic development. The plan calls for a 15,000 - 18,000 seat arena to be the catalyst for the development. Other elements of the plan include a convention center with large scale exhibition space, a anchor hotel, and two parking structures. I have chosen to largely accept the plan and the site that has been identified for the arena development.





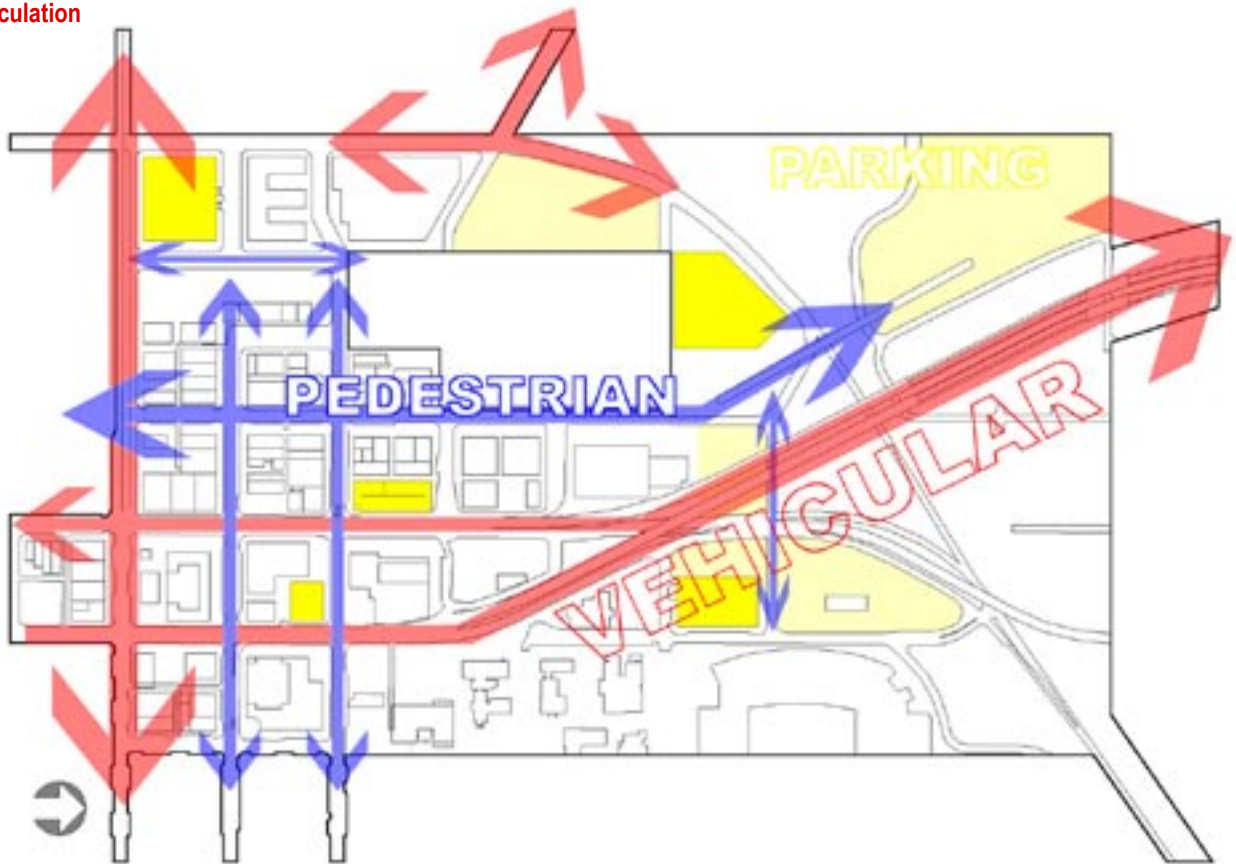
Topography



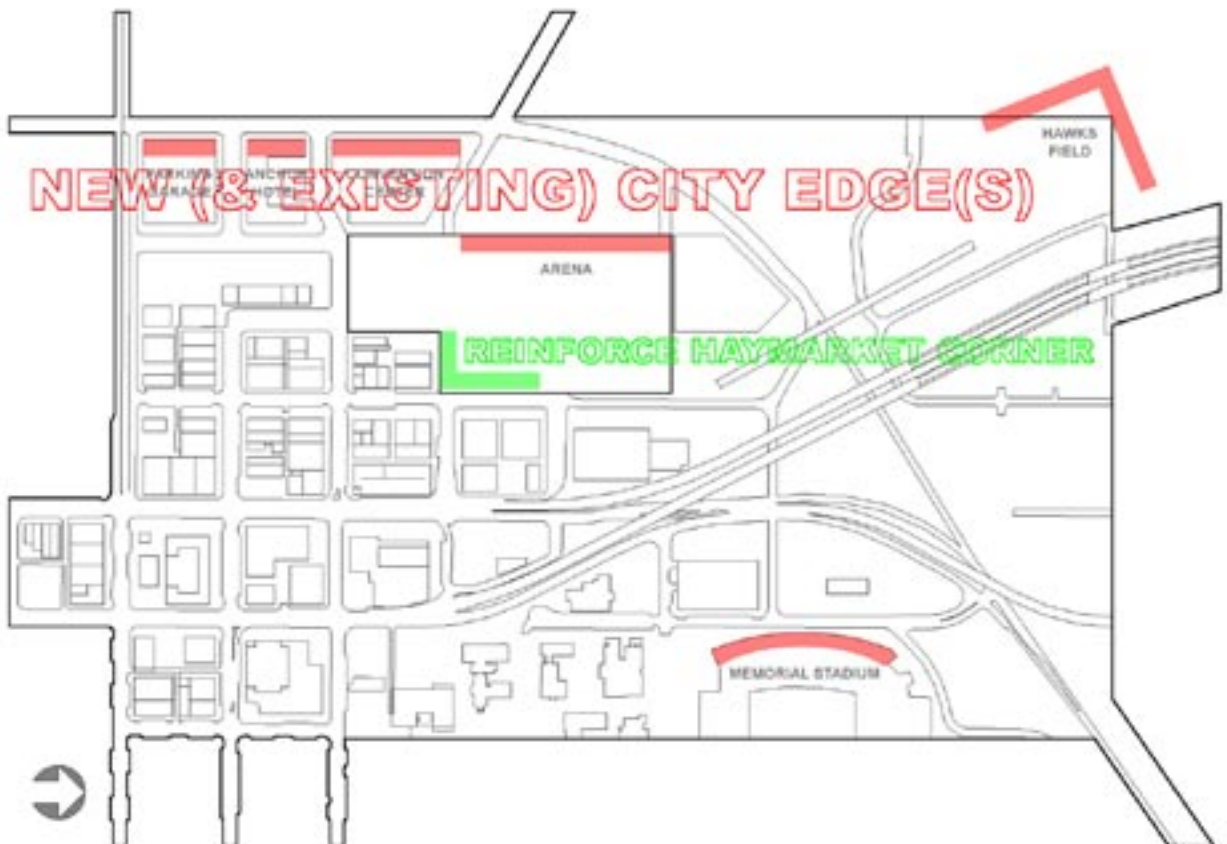
Solid/Void Study



Circulation



City Edge Conditions



8th Street Elevation



8A

8B



8B

8C



8C

8D



8D

8E





8E

8F

S Street Elevation



8A

8B



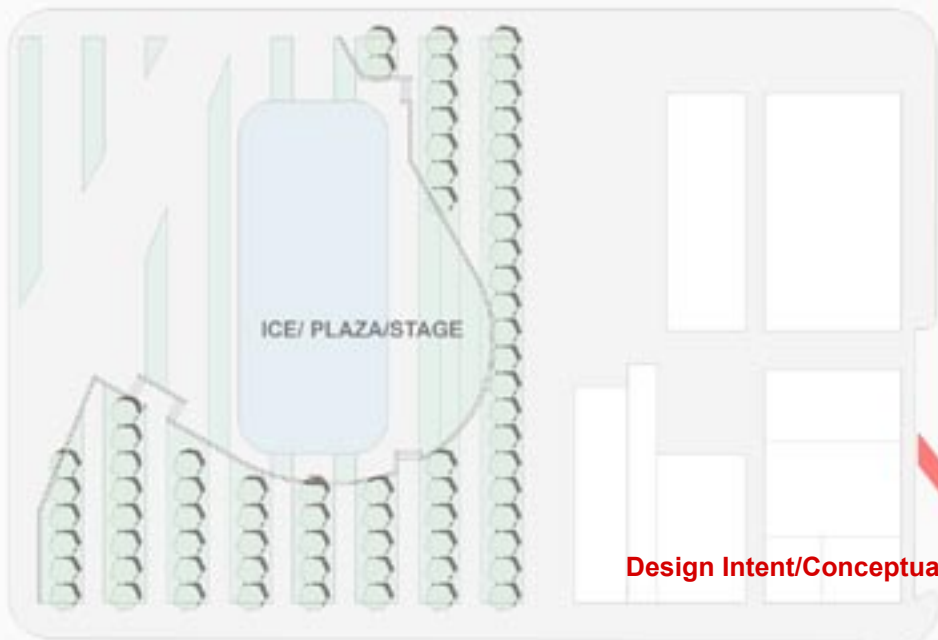
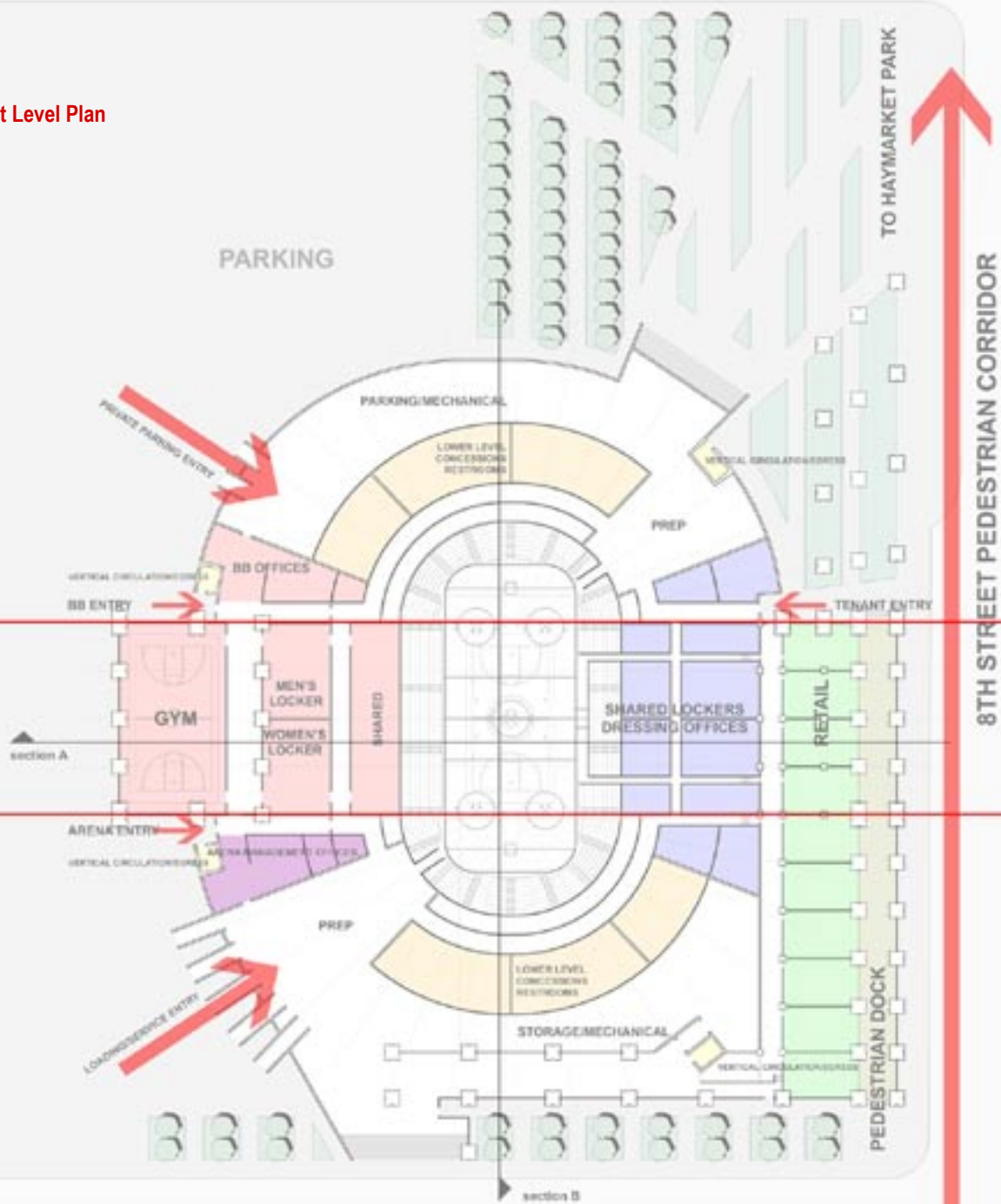
8B

8C

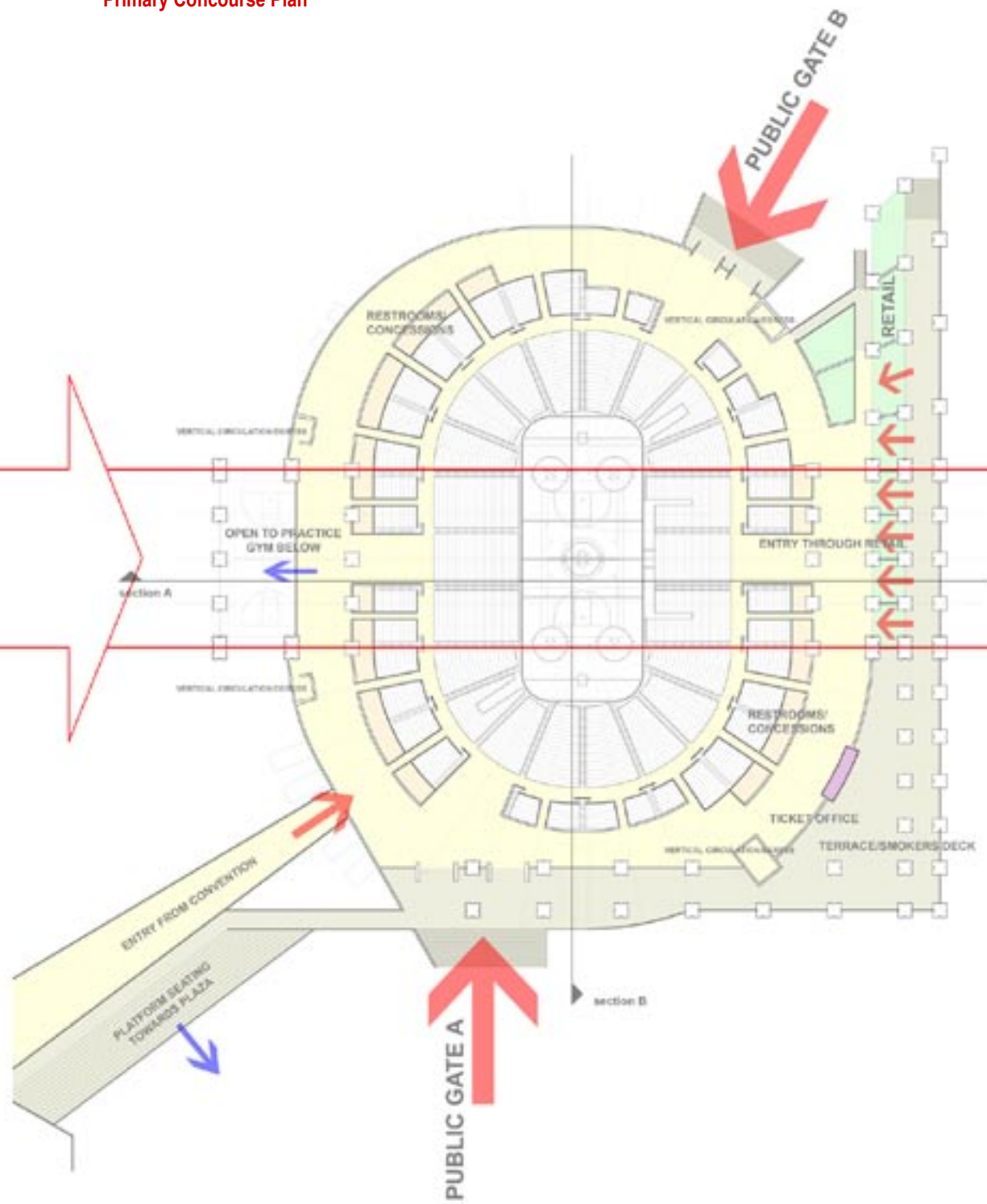


Design Intent/Conceptual Design

Event/Street Level Plan



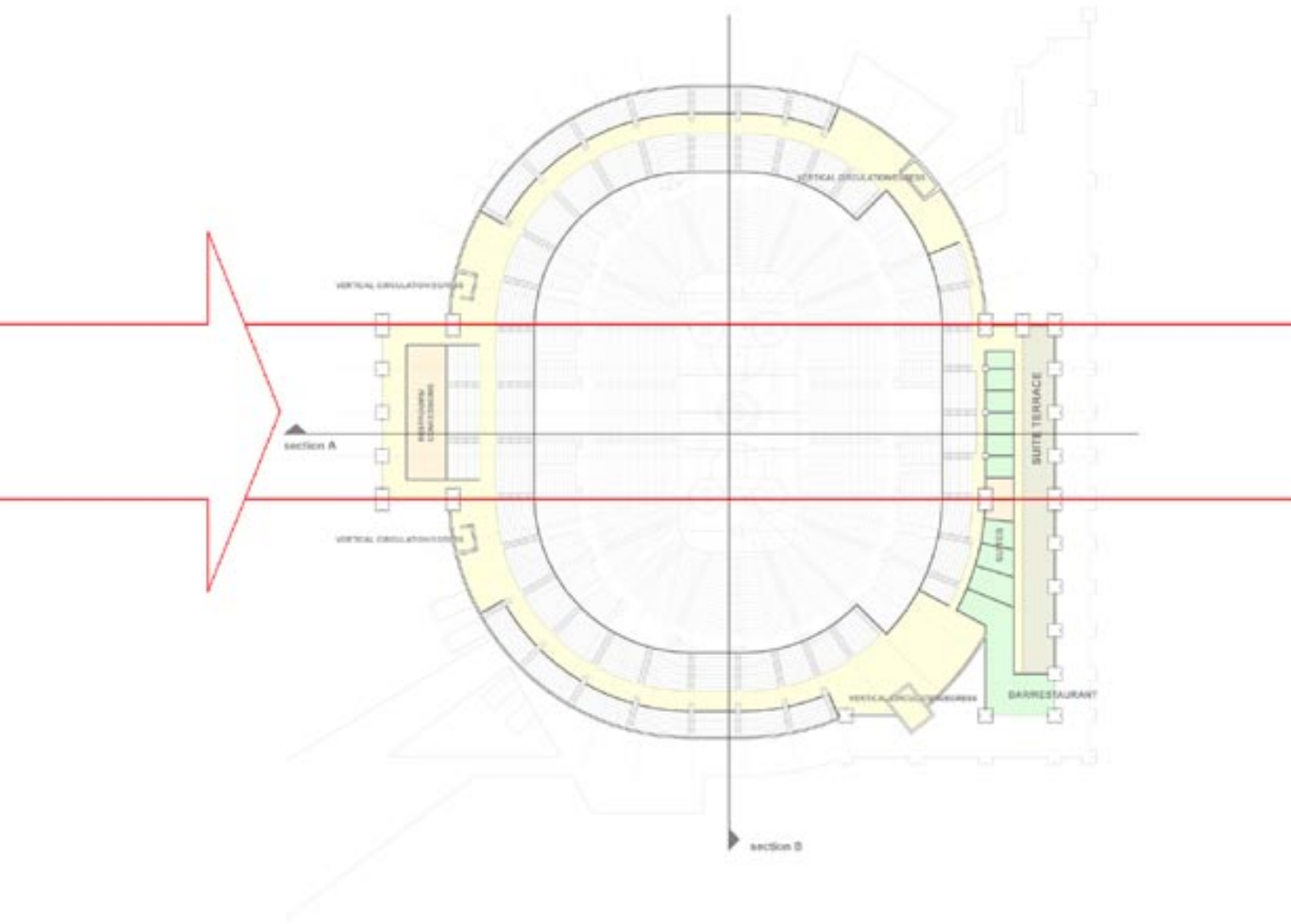
Primary Concourse Plan



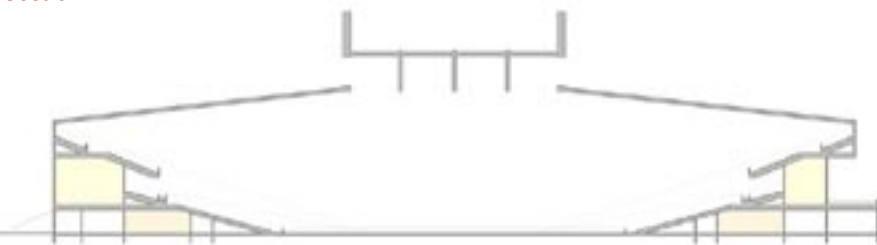
Schematic Transverse Section



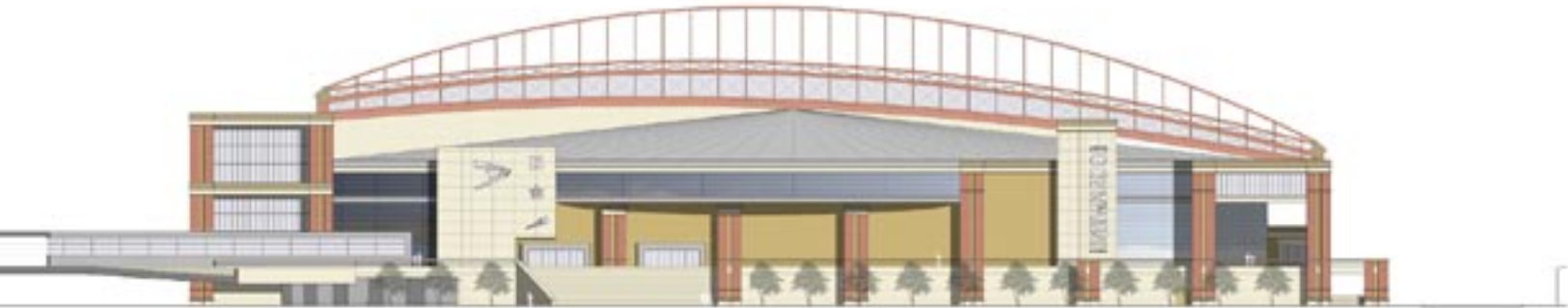
Upper Concourse Plan



Schematic Longitudinal Section



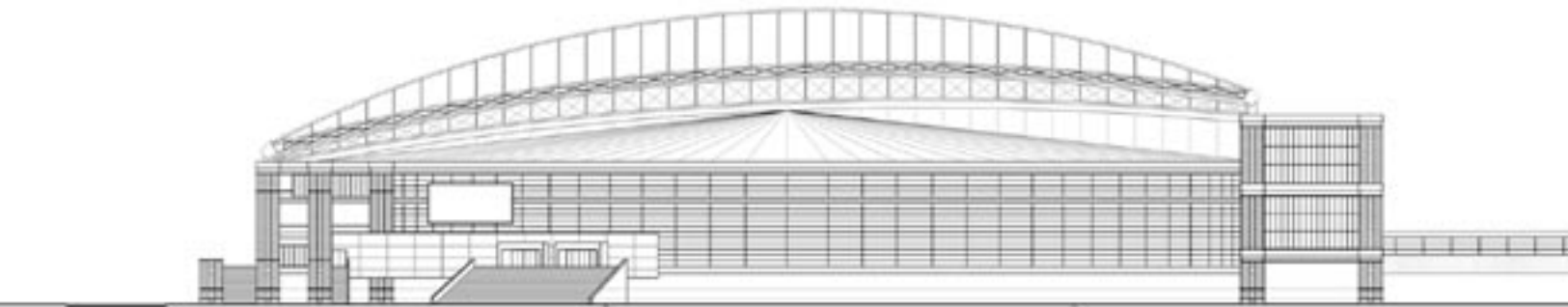
South Elevation



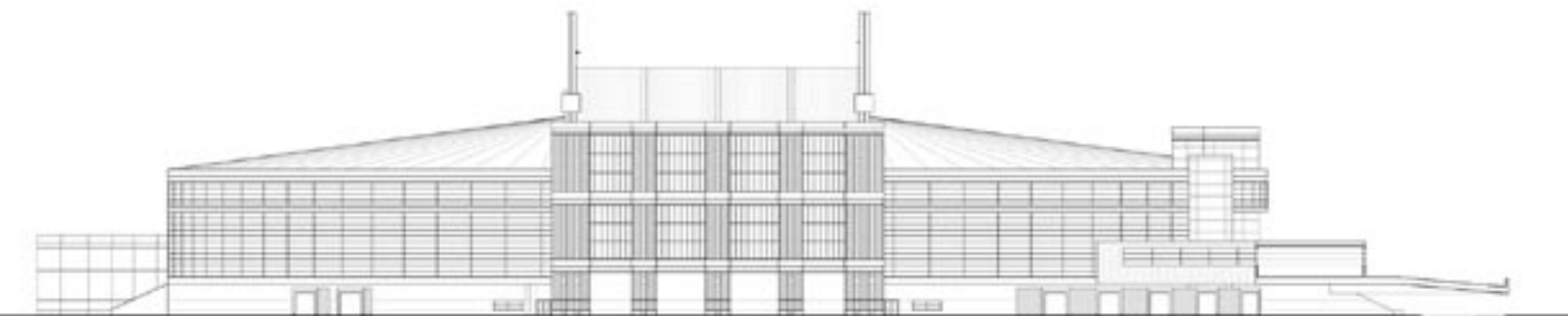
East Elevation



North Elevation



West Elevation



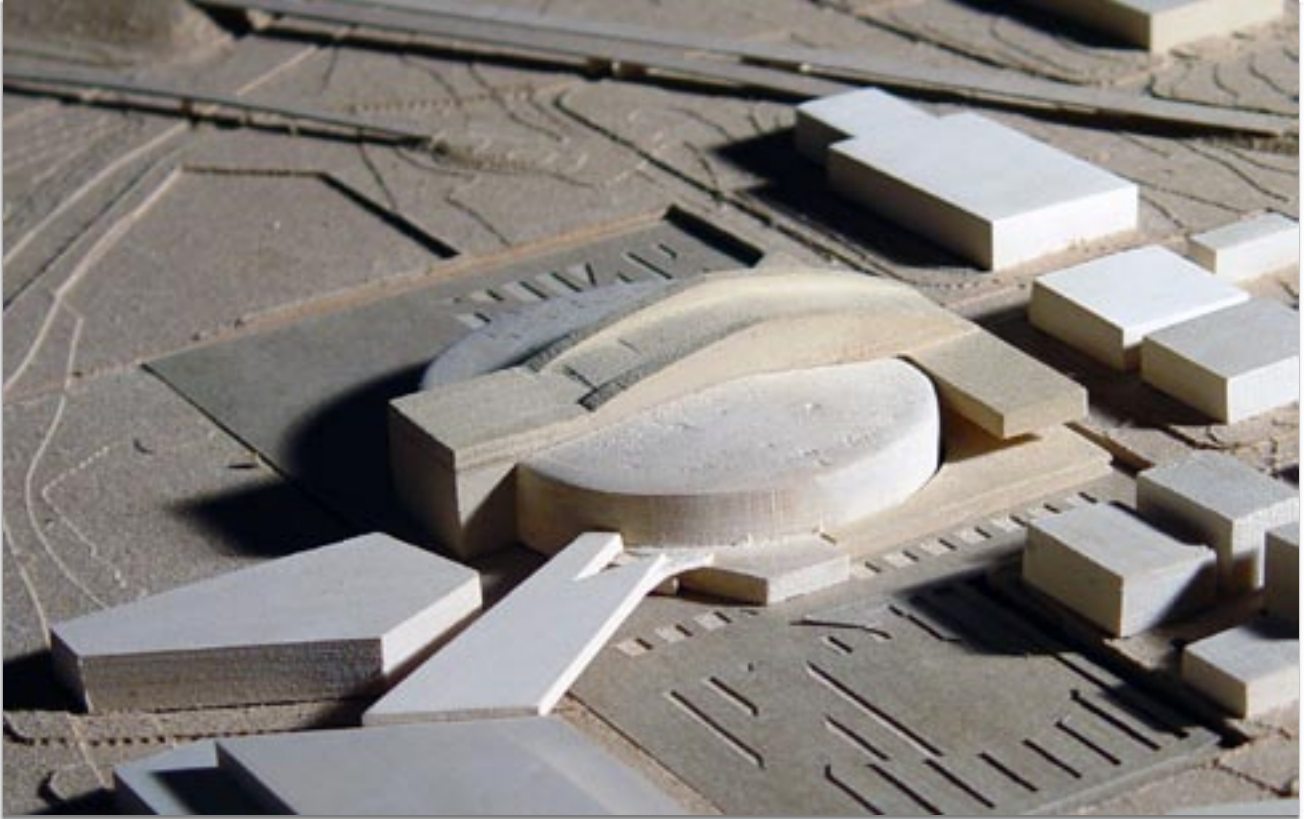
Model1 From Southwest



Model2 Down 8th Street



Model2 From Southwest



Model2 From Above



Revised Statement of Intent

Lincoln, the once proud sports and entertainment city and state capital is struggling to keep up with competing Midwestern cities. In a day and age when people, products, and information move from city to city with greater ease than ever before, Lincoln must act now to not only keep sports and entertainment dollars at home, but also continue attracting fans, spectators, and dollars from outside the city.

The city of Lincoln has recently adopted a new Downtown Master Plan. The plan identifies potential sites for a new multipurpose arena, convention center, plazas, hotel, and parking facilities. I have chosen to pursue the design and development of the multipurpose arena and accept the siting recommended by the Master Plan. In the process, I hope to give the city of Lincoln a glimpse in to the future.

The United States Post Office currently sits on the site identified by the Downtown Master Plan for the potential development in the northwest corner of the Haymarket District. One of the two most historically significant and rich urban environments in Nebraska, the Haymarket District is a vital cog in Lincoln's Urban fabric. The district must not only be considered and respected, but responded to.

The multipurpose arena will house the University of Nebraska men's and women's basketball programs, host hockey, arena football, indoor soccer, and roller skating competitions, and will attract headline concerts and entertainment events. The maximum arena seating capacity will be 17,500. Three primary objectives of the project include:

Activate the Haymarket

Already an active and successful urban environment, the district can be enhanced. Careful consideration has been paid to creating an active pedestrian link from the existing Haymarket north towards the pedestrian bridge and future growth.

Elevate the Typical Arena Archetype

Through artistic and dynamic form making, clear and elegant structural expression, and emphasis on pedestrian scale and experience; the bar for arena design projects will be effectively raised.

Integrate

Successfully integrate a necessarily large structure into the intimate pedestrian friendly environment of the Haymarket District while juggling the complicated and diverse programmatic needs of city, university and state.

Exploded Axonometric

1 Roof

Two 36' deep long span trusses carry the bulk of the roof structure. The upper 18' of the trusses are left exposed and raised above the secondary roof elevation allowing natural light into the arena bowl during day time hours and emitting a light from the arena bowl during evening and night time hours. In essence, this halo of light is an advertisement to people great distances away that an event is happening. The details of integrated operable louvres in the glazing system will be explored during design development in order to achieve total blackout conditions inside the bowl when necessary.

2 Skin

The arena bowl skin is a light semi-transparent double skin facade. The potential for passive cooling and natural ventilation for the arena volume during the lower use summer months will be explored during design development. Holes punched into the skin break up the facades allowing viewing "needles" to frame views of the city such as the Capitol Building and downtown, Memorial Stadium, and Haymarket Park. At its base, the skin seemingly wraps the form an ellipse. As the skin increases in elevation it widens on the northwest and southeast slowly forming a perfect circle creating space for more rows of seats on the sidelines where seats are in greater demand than the baselines.

3 Upper Concourse

The upper concourse is accessed via open vertical circulation located on northwest and southeast corners of the concourse. The concourse floor plane is broken at these two spaces allowing largely unobstructed views outward on the ellipse's axis from anywhere in the arena bowl. Score and video boards are mounted on the vertical planes created by the rest room walls rather than suspending an obtrusive multisided board in the center of the arena. Views of downtown and the Capitol Building, Memorial Stadium, and Haymarket Park are framed on the upper concourse level. Rest rooms and concessions are also available.

4 Suite Level

The suites are accessed primarily through a system of catwalks allowing the concourse volume to remain open. A private restaurant, bar, and all club level seats are accessed from the suite level. A terrace overlooking the Haymarket is formed by the entry level concrete plane slowly bending upward. A brick exterior compliments the surrounding Haymarket buildings.

5 Primary Concourse

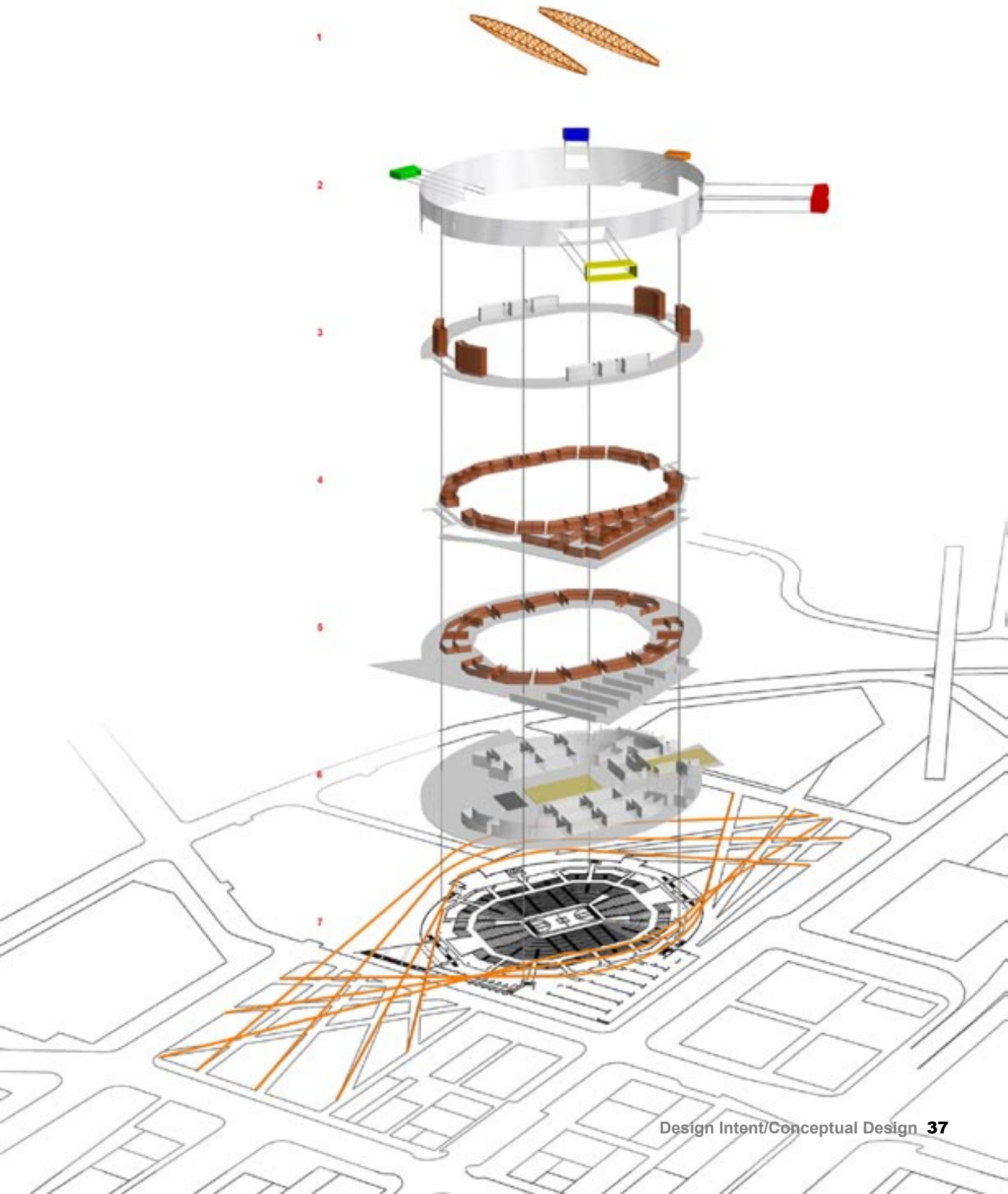
In addition to the ticket office, concessions, rest rooms, the primary entrances, and the base of the public vertical circulation path, this concourse contains leasable commercial/retail space that may be accessed from both inside and outside the arena. A pedestrian dock raised four feet above grade allows arena users to circulate freely from street, to shop, to arena.

6 Event Level

The basketball court (which is laid on top of the ice sheet) is centered in the arena bowl. The seats behind the southwest basket are retractable providing space for a large end stage and full sheet of ice. Spaces dedicated exclusively to University of Nebraska men's and women's basketball occupy the northeast quarter of the event level. The southwest corner consists of the service/loading docks as well as open flexible prep/storage/ marshalling space.

7 Arena Hammock

Conceptually, these elements extend their arms toward campus, the Haymarket and downtown while bringing a dynamic, active, free form to the design. The hammock elements also define the adjacent plazas three - dimensionally creating a webbed canopy above (similar to Frank Gehry's Millennium Park in Chicago). The pieces also imply movement across the site while proposing a relationship between the arena and its surroundings. In addition, they help minimize the vertical scale of the arena by slowly elevating while allowing one to touch and experience the scale first hand. Functionally, the members serve as a "hammock" for the arena bowl, supporting the bowl as it slowly leans outward as it increases in elevation.

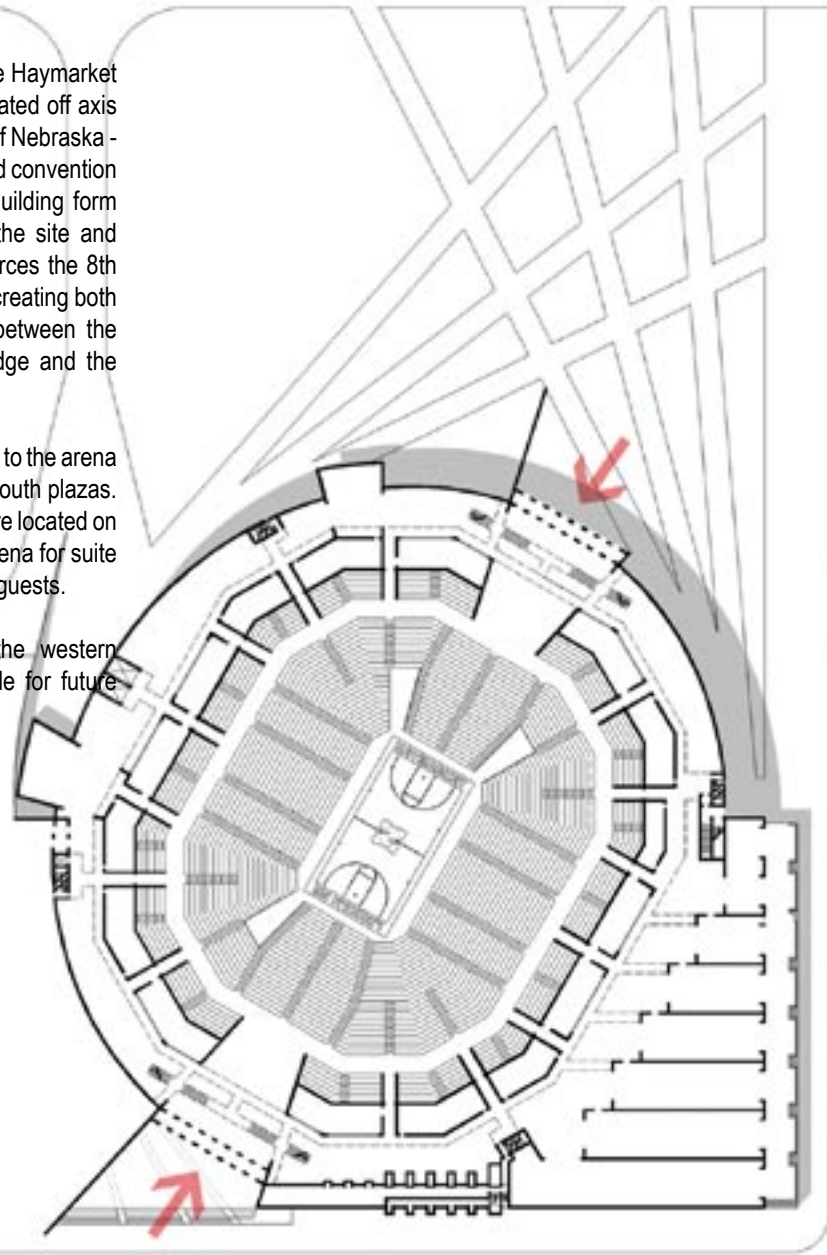


Street Level Plan

Originally placed on axis with the Haymarket street grid, the arena bowl is rotated off axis gesturing toward the University of Nebraska-Lincoln campus and the proposed convention center and public plaza. The building form holds the southeast corner of the site and the pedestrian retail dock reinforces the 8th Street pedestrian corridor while creating both a perceived and physical link between the Haymarket Park pedestrian bridge and the Haymarket District.

The two primary public entrances to the arena are located off of the north and south plazas. Smaller, semi public entrances are located on the east and west sides of the arena for suite ticket holders, staff, and special guests.

Surface parking is sited on the western edge of the site and is available for future development.

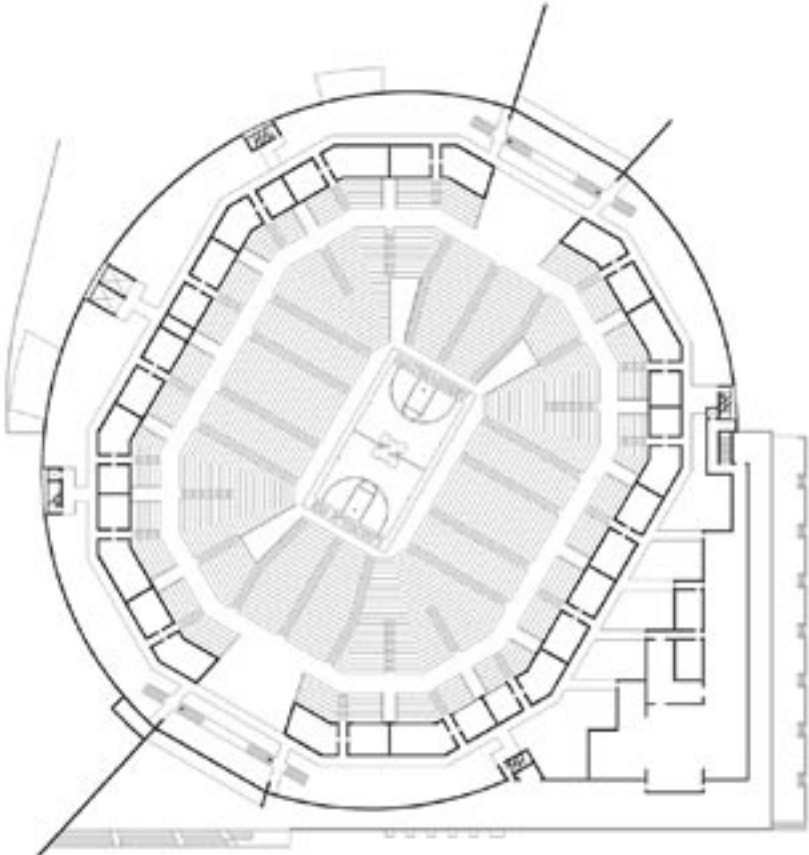


8th Street Pedestrian Corridor (Haymarket Park Pedestrian Bridge to Haymarket)

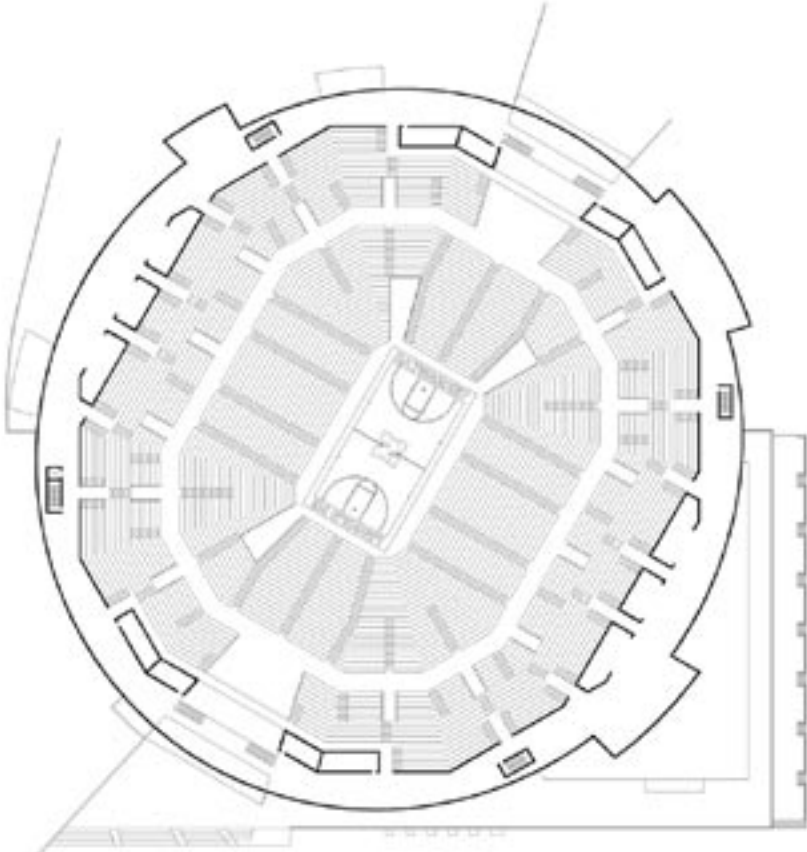
Event Level Plan



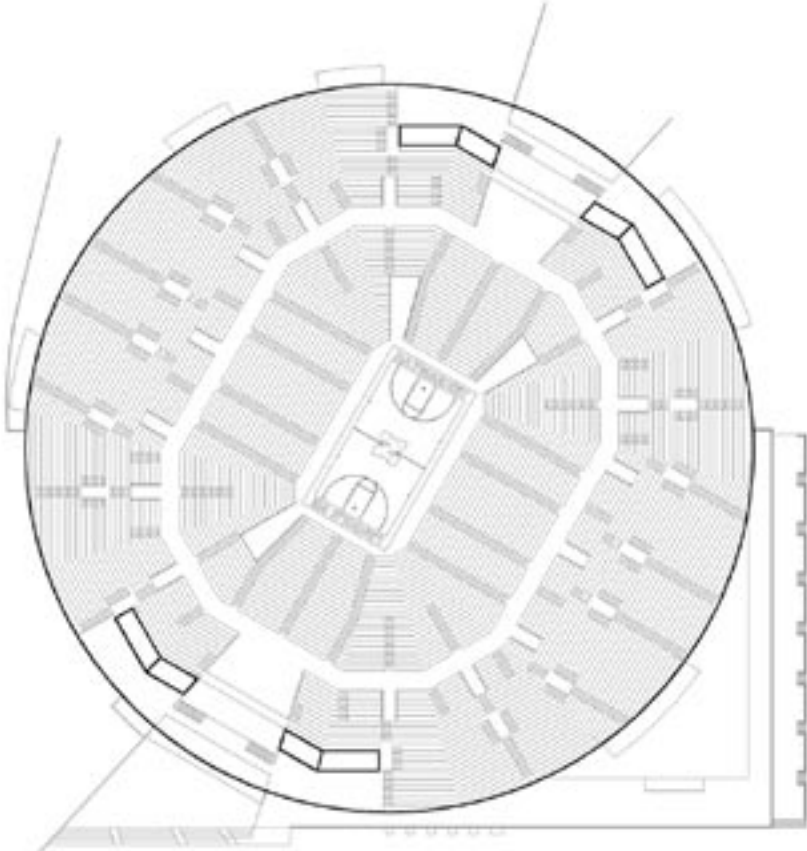
Suite Level Plan



Upper Concourse Plan



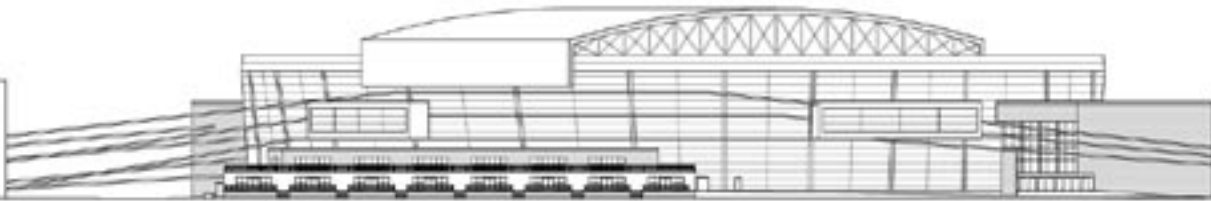
Overall Arena Bowl Plan



South Elevation



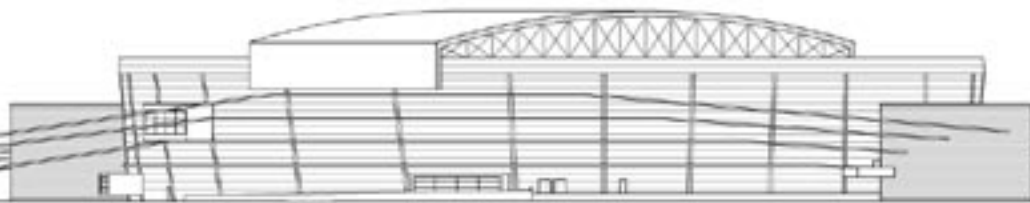
East Elevation



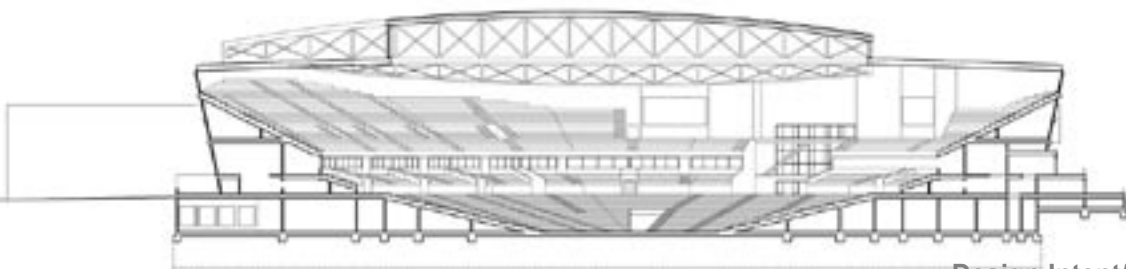
North Elevation



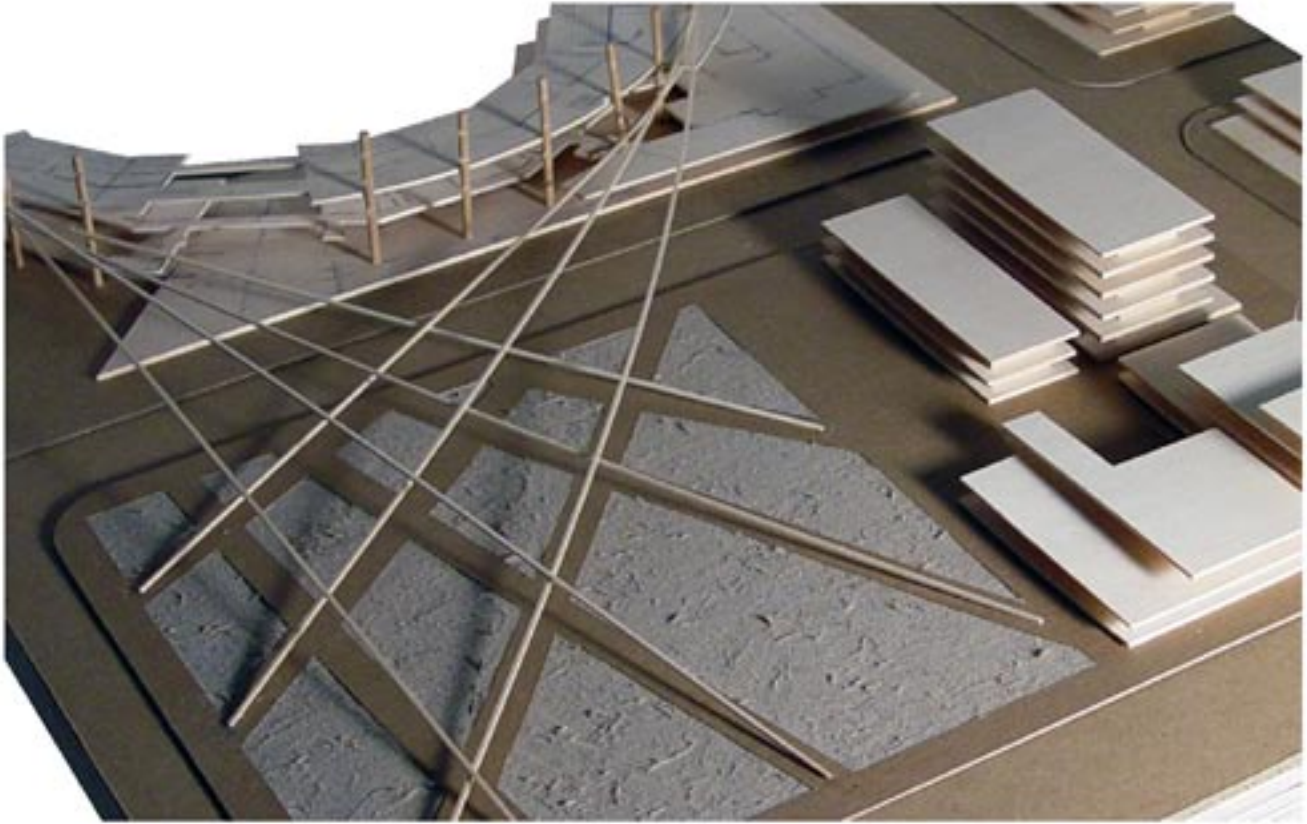
West Elevation



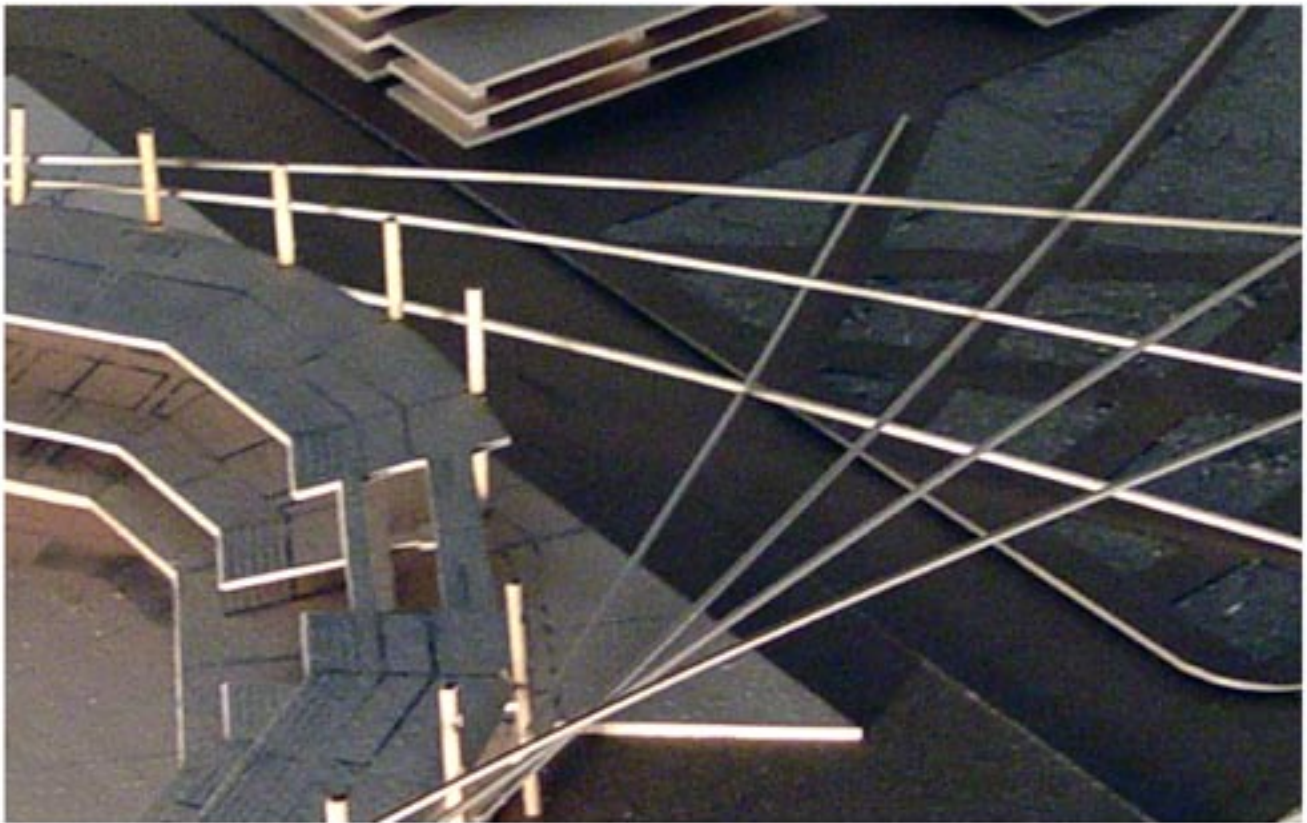
Transverse Section



ModelB Arena Bowl Extentions and Plaza



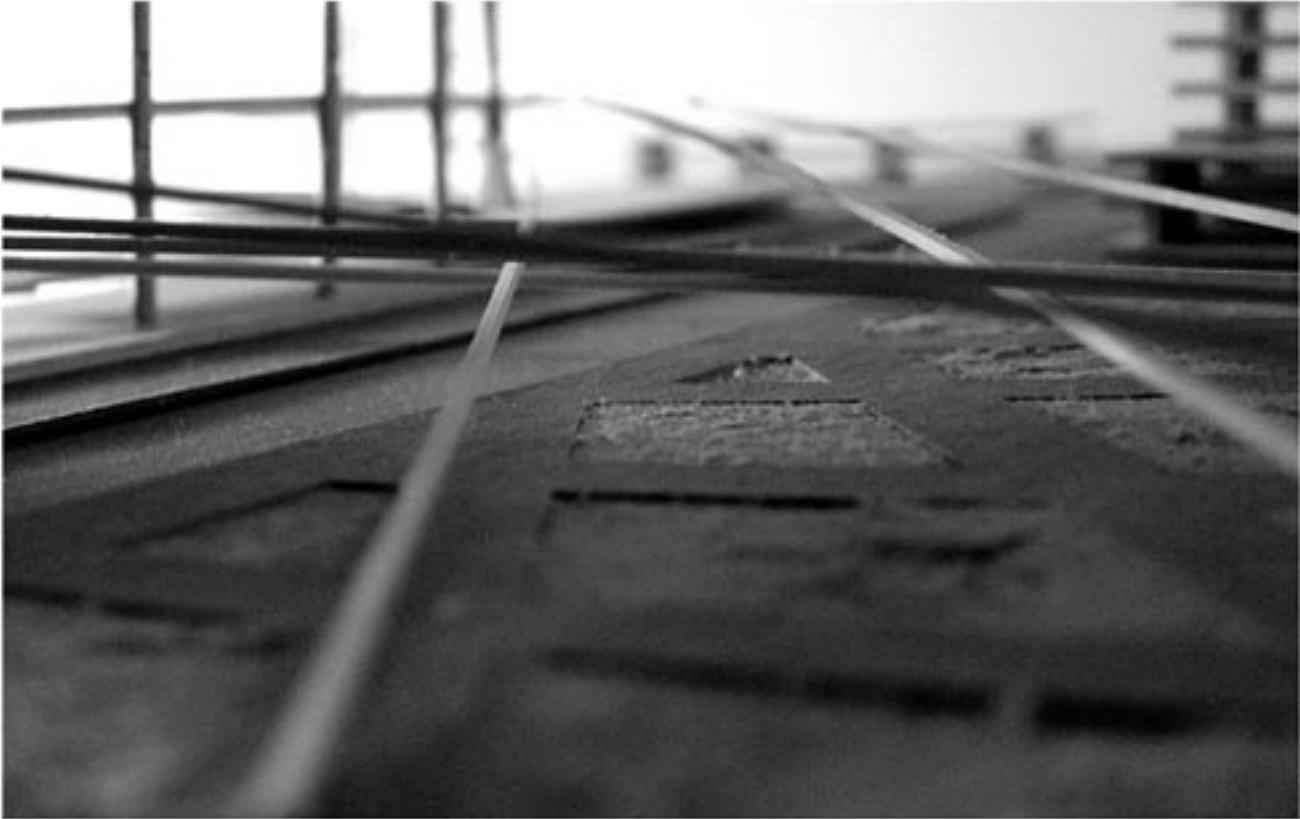
ModelB Arena Bowl Extentions and Plaza



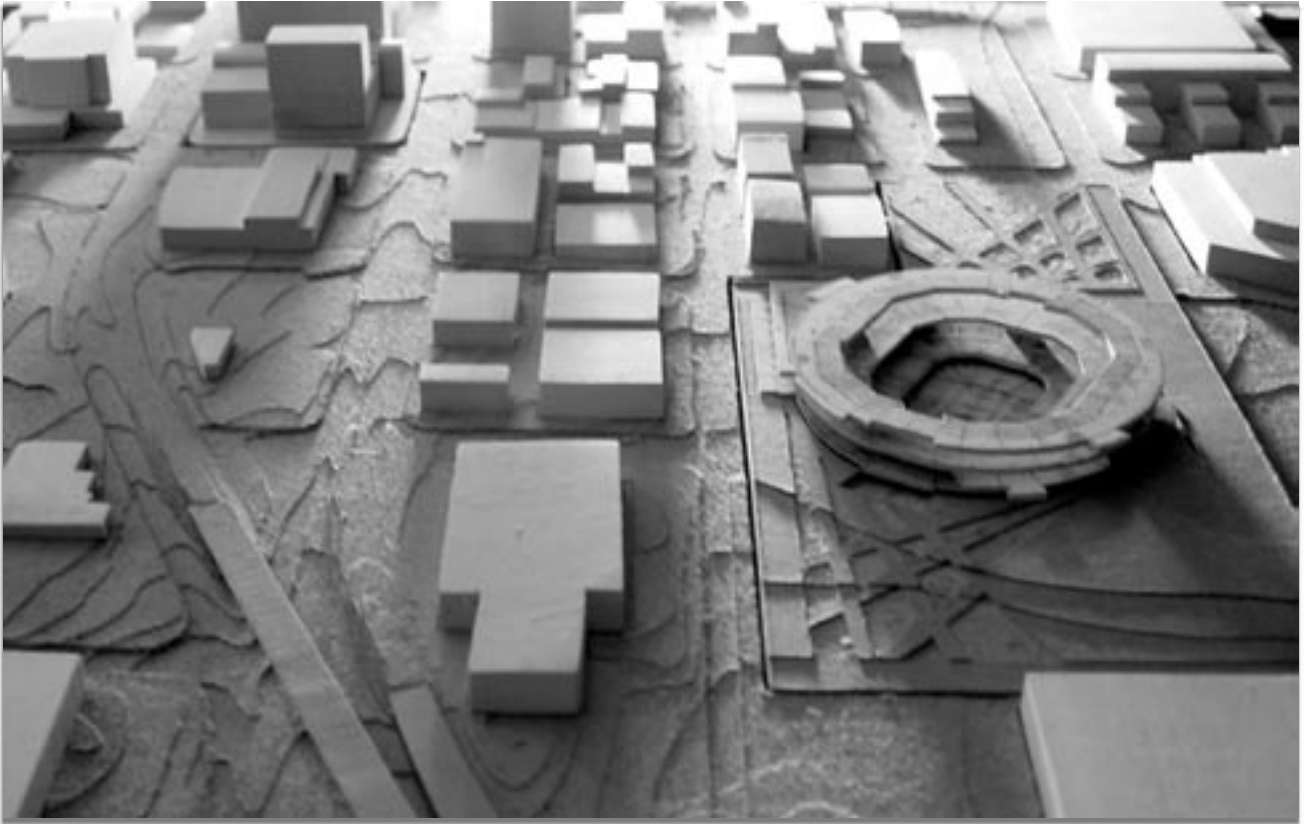
Model3 From Southwest



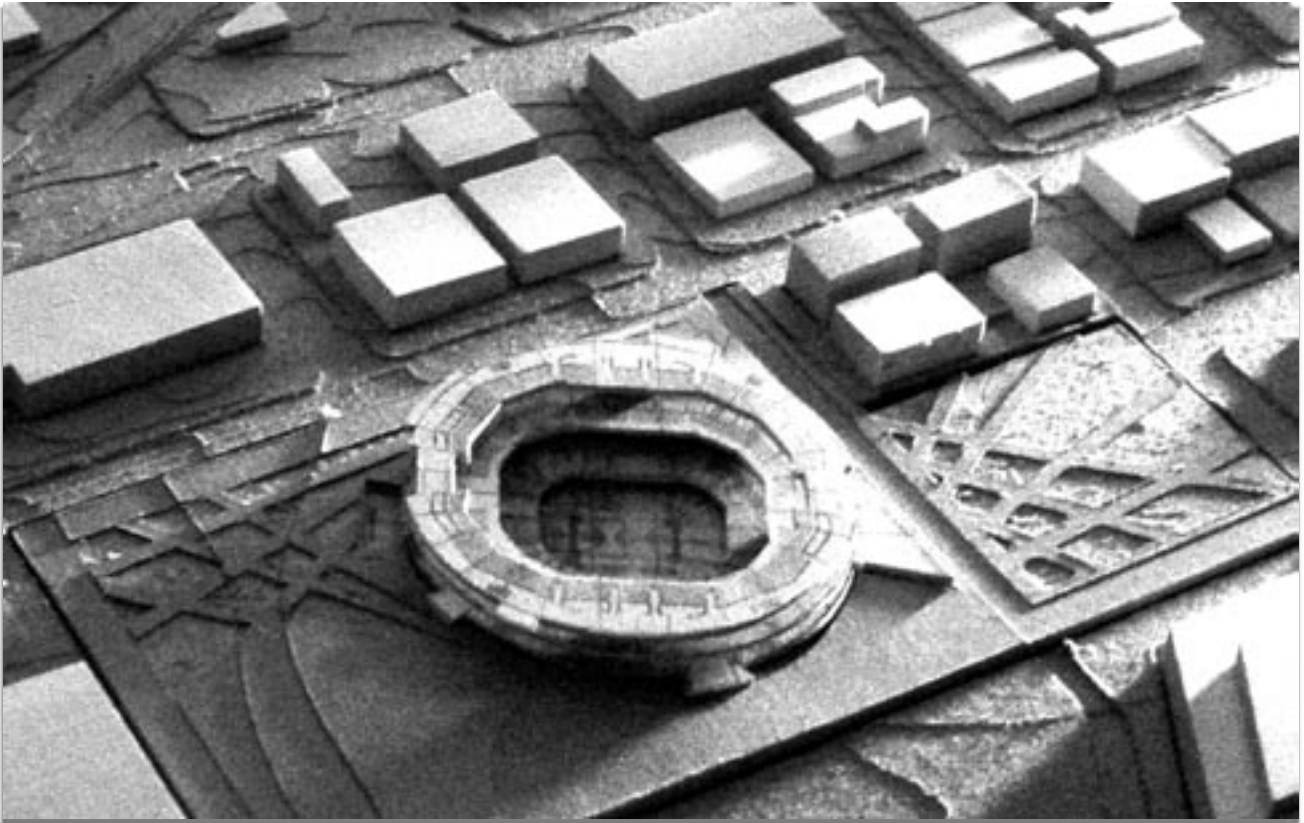
Model3 Plaza



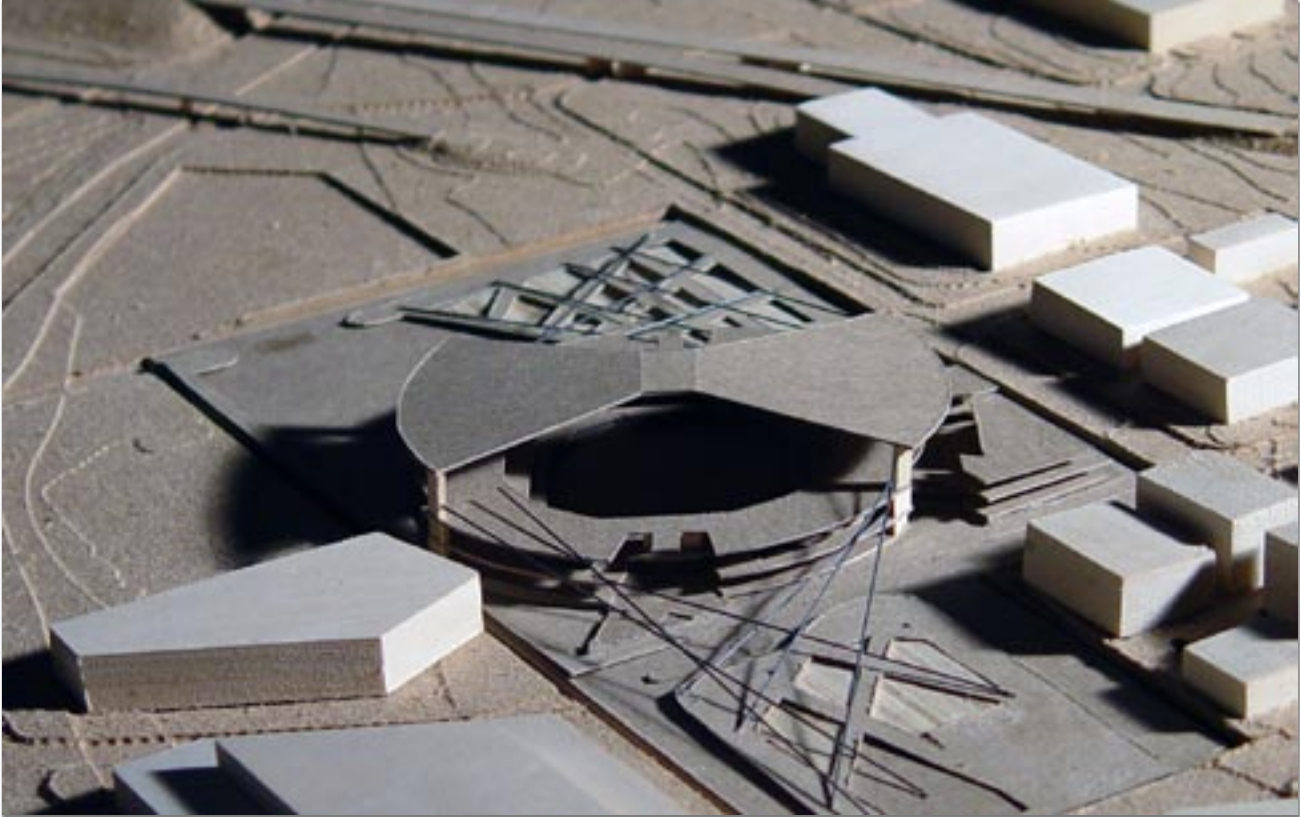
Model3 8th Street Pedestrian Corridor



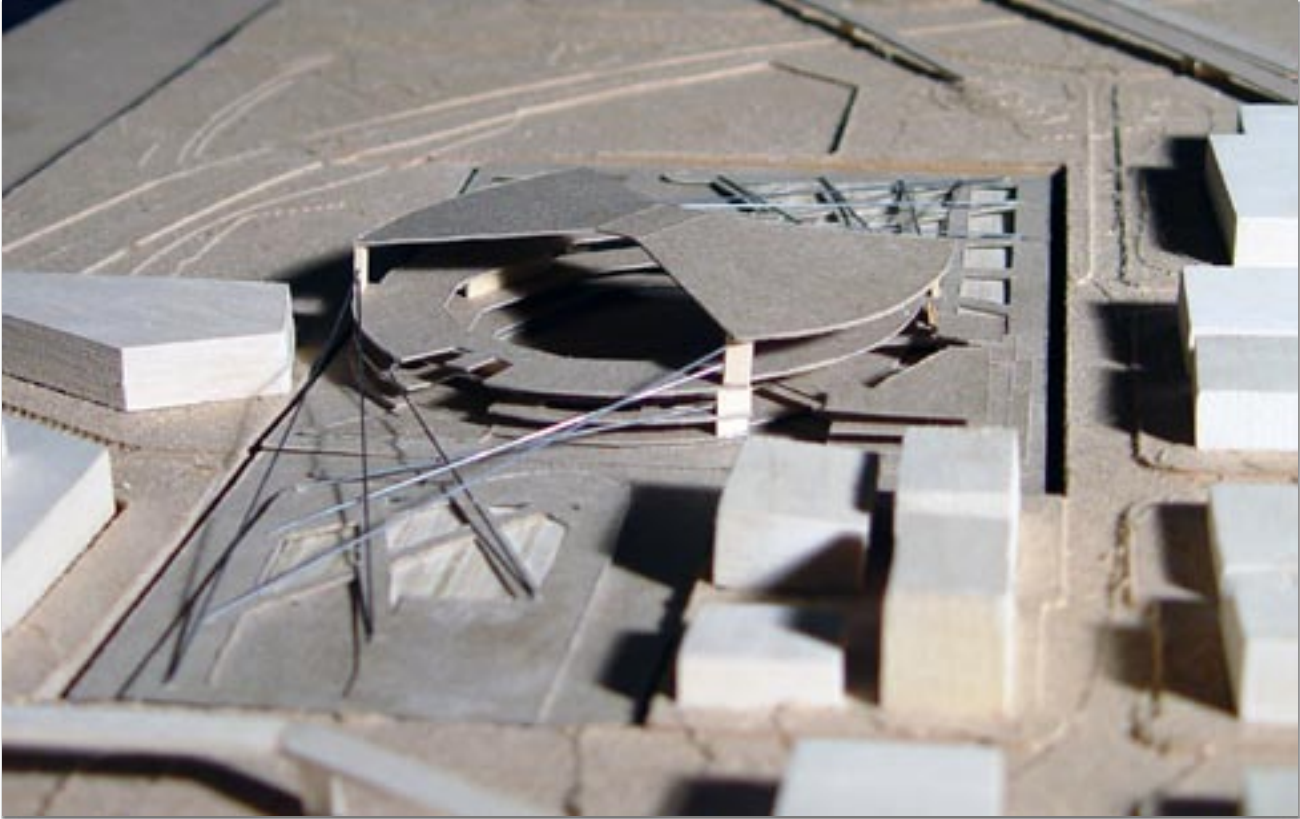
Model3 From Northwest



Model4 From Southwest

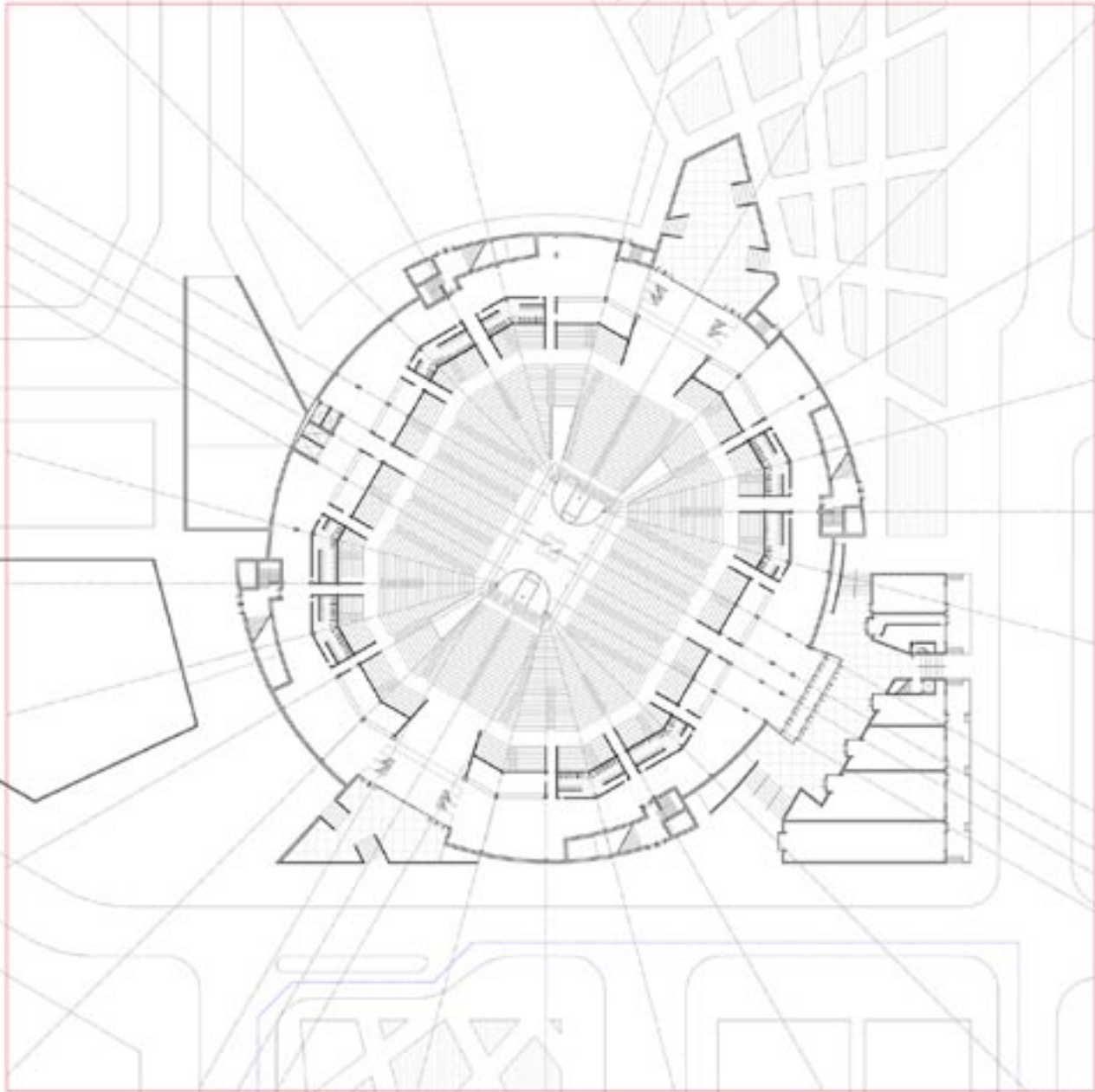


Model4 From South

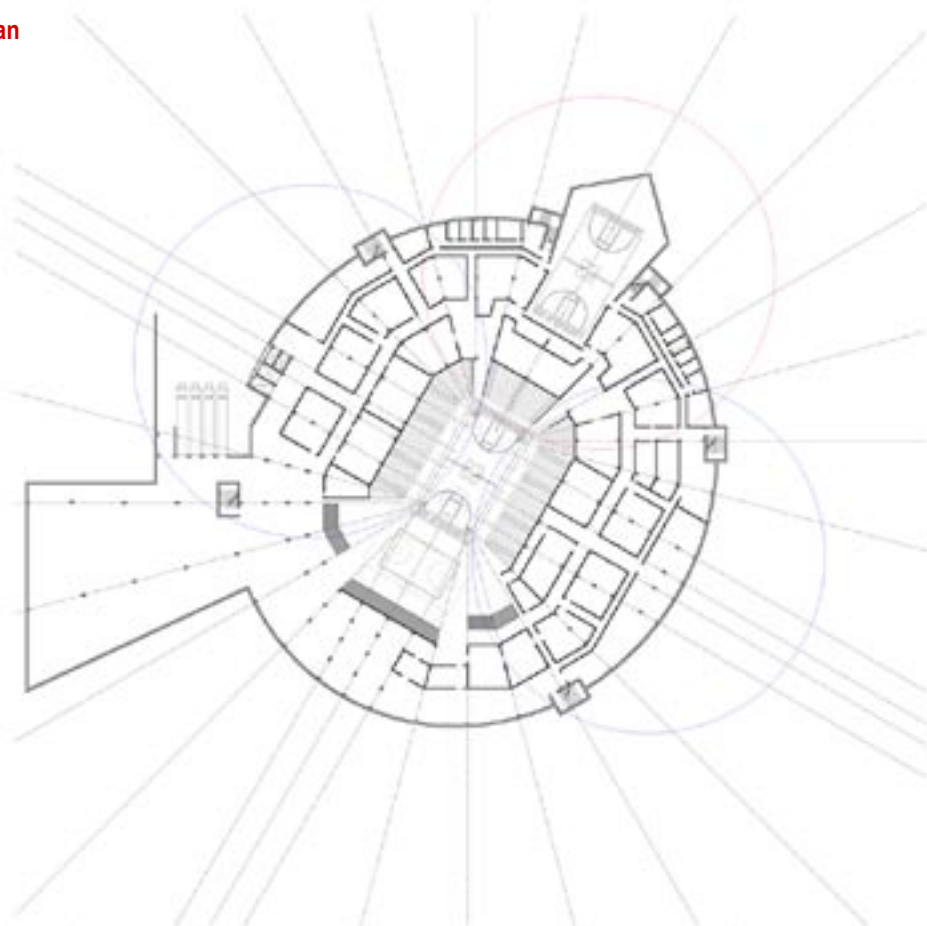


Continued Development

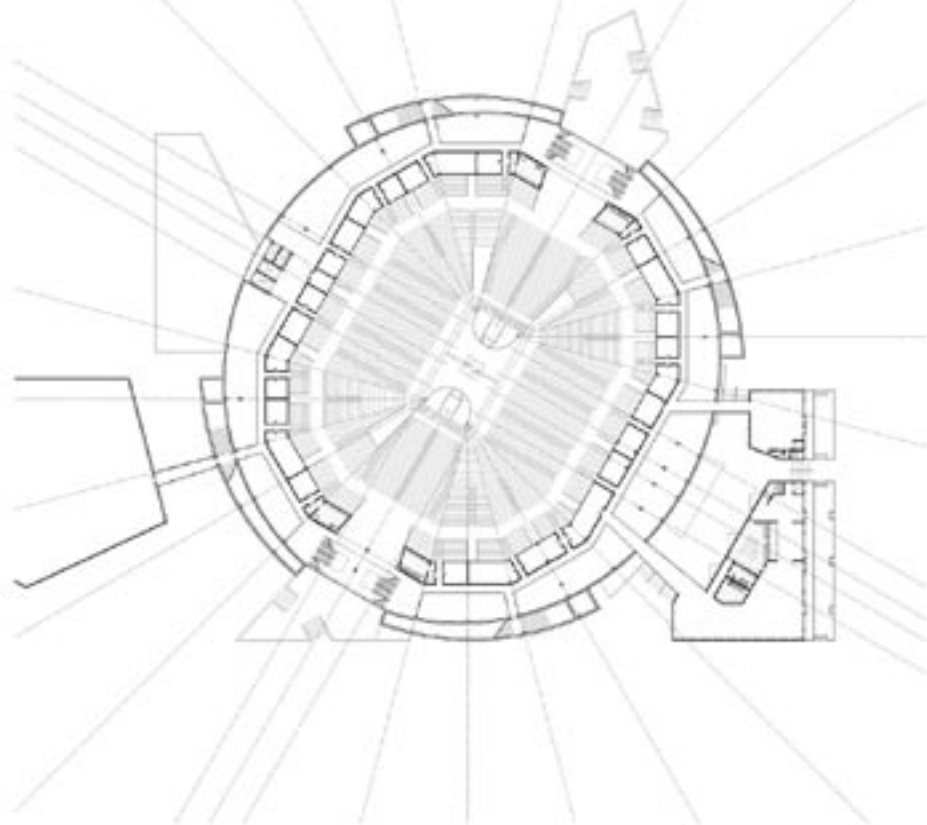
Primary Concourse [Street Level] Plan



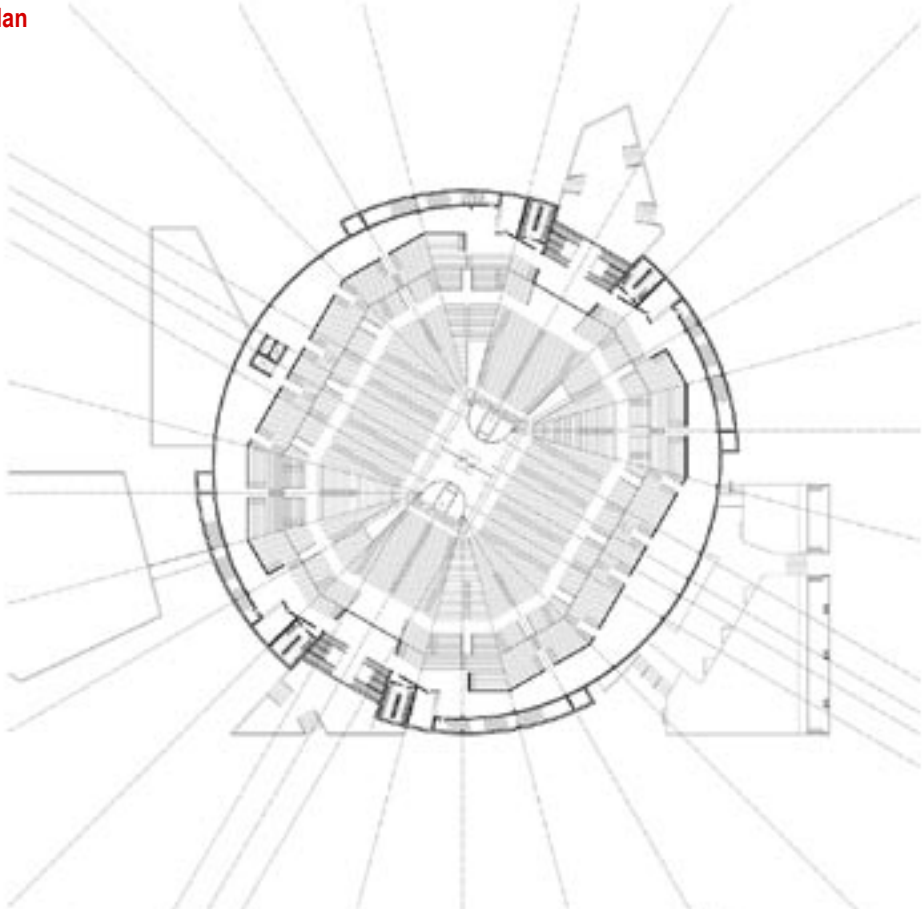
Event Level Plan



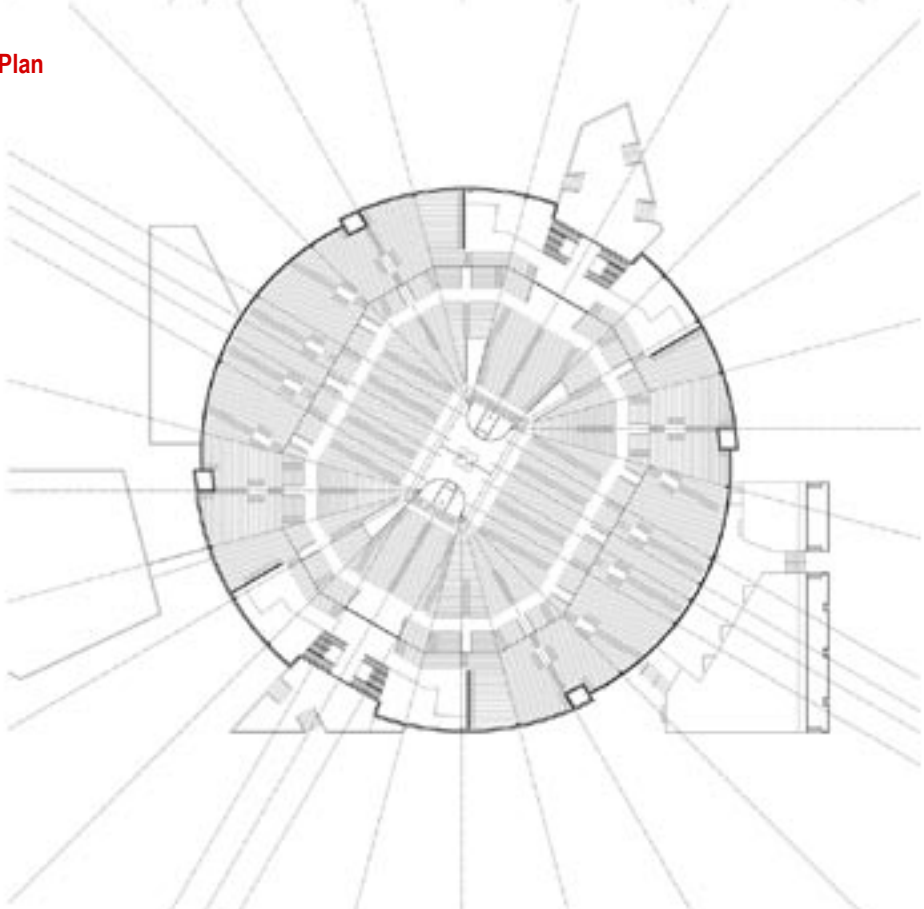
Suite Level Plan



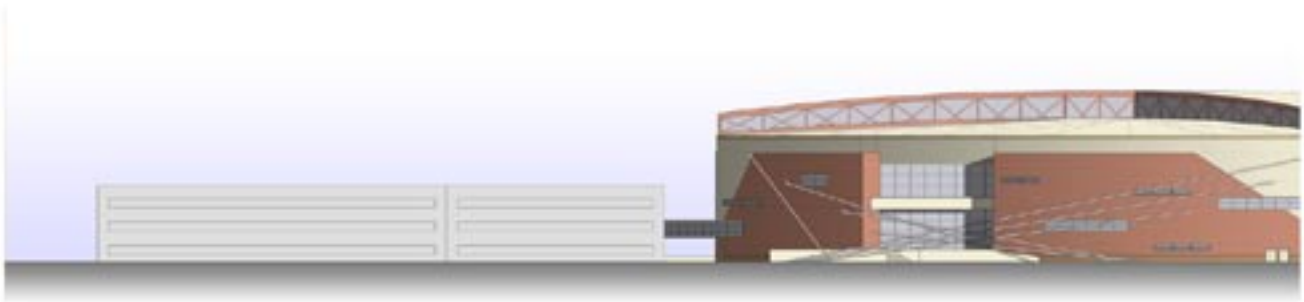
Upper Concourse Plan



Overall Arena Bowl Plan



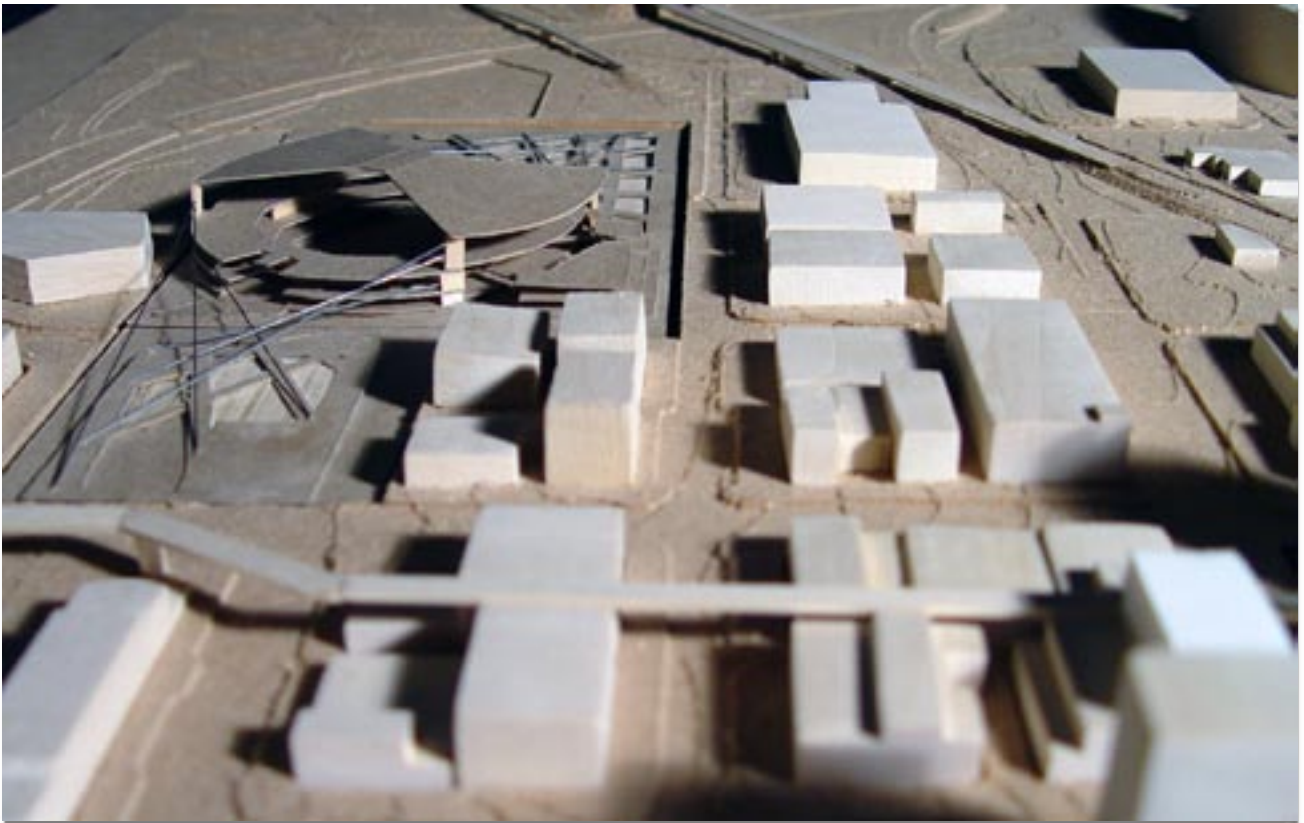
South Elevation



East Elevation



Model4 Down 8th Street





Model4 From Southwest



Final Documentation

Model5B South Plaza From Northeast



Model5B South Plaza



Exploded Axonometric

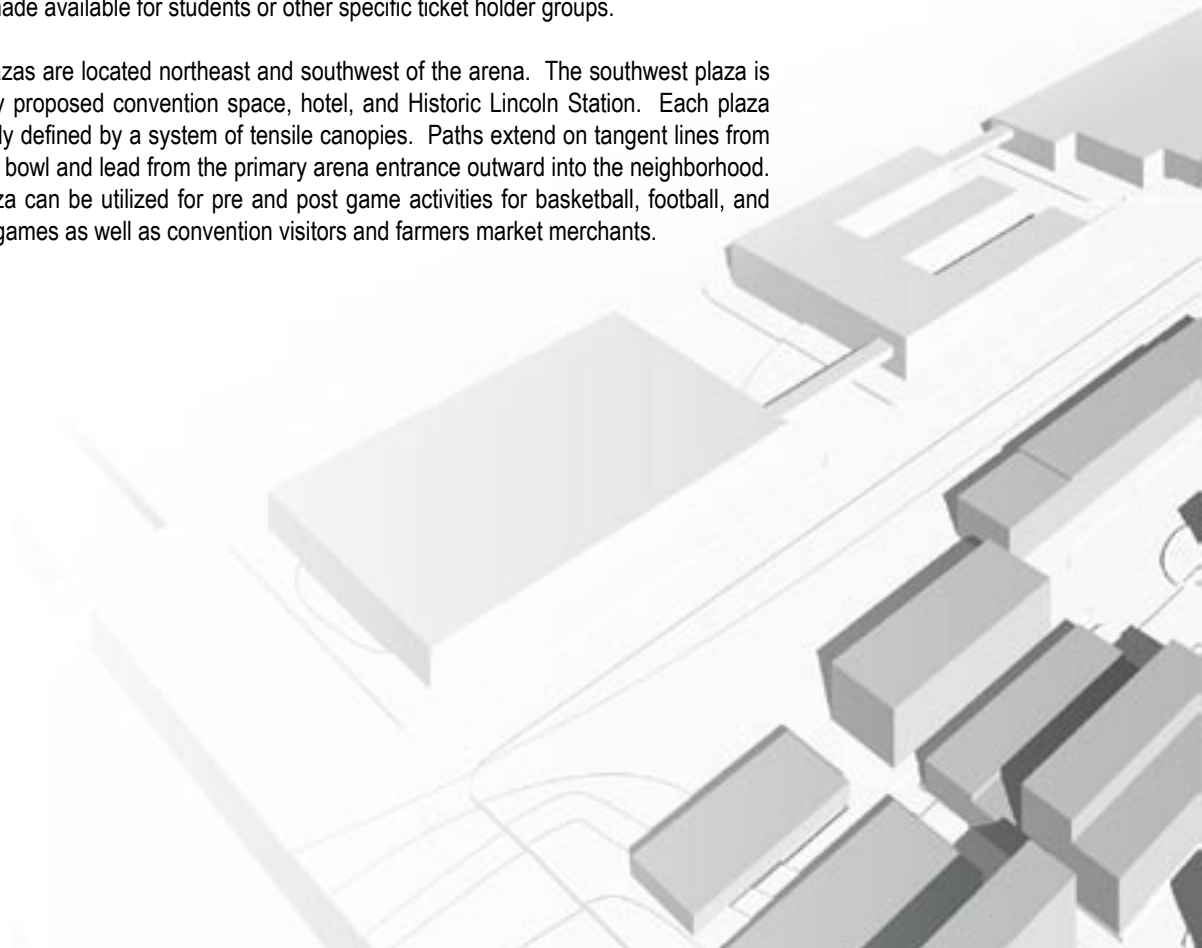
Two 24' deep composite long span trusses and collar make up the primary roof structure of the arena. Secondary structural members span in between the two trusses and radiate outward from the collar to the concrete bearing walls. The outer secondary structural members are hung below the top of the primary elements allowing sliver of light to be filtered in to, or projected out of the arena depending on time of day.

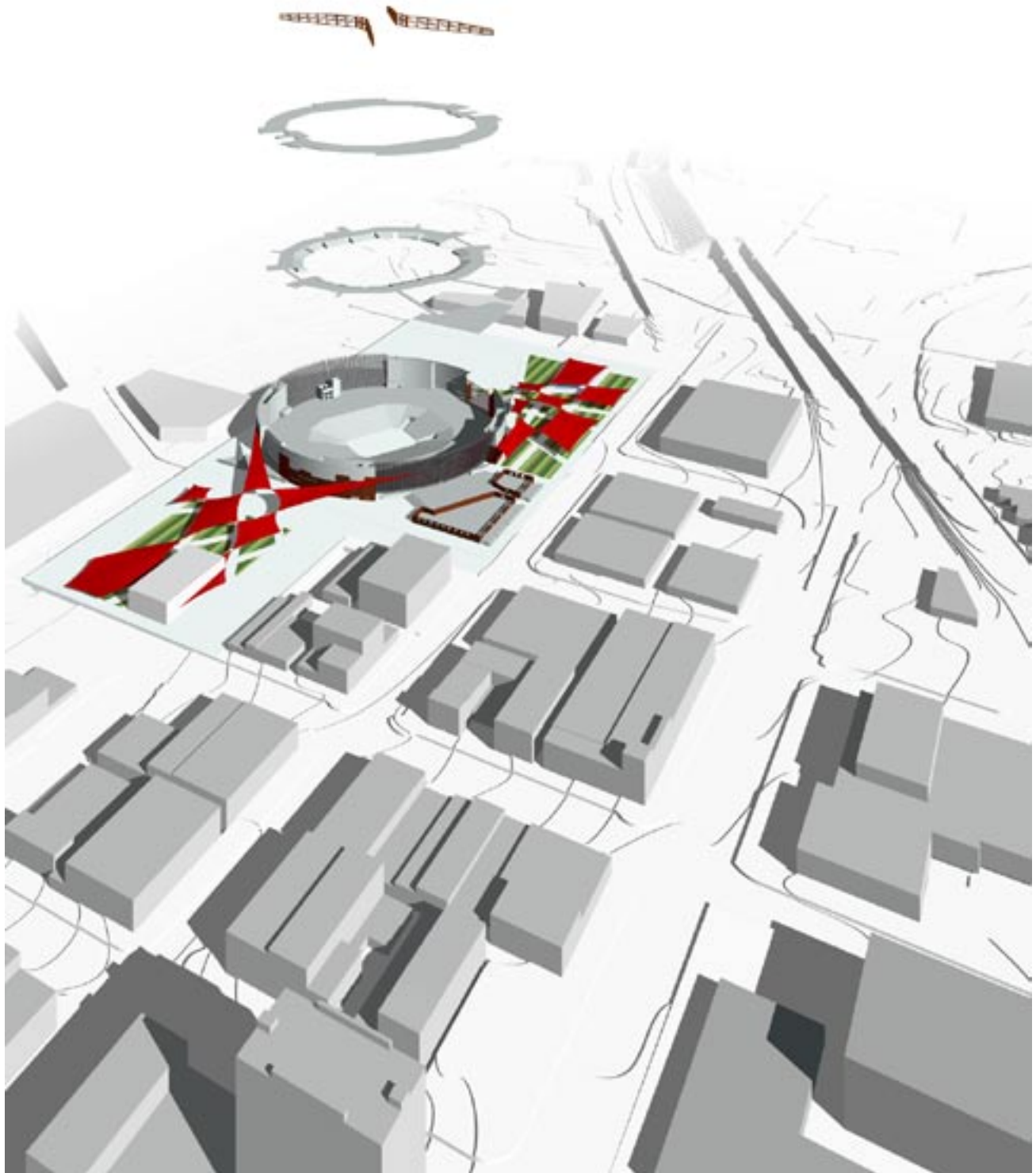
The upper concourse is accessed from vertical circulation on the northeast and southwest edges of the arena bowl. The concourse allows access to the upper seating bowl as well as ample concession and rest room spaces. A "beer terrace" and additional audio/visual control and security are also accessed from the upper concourse. One of the canopies extends up from the plaza below and engages one of two exterior upper concourse terraces. The arena bowl tapers outwards allowing a greater number of in-demand seats to be located along the sidelines of the arena.

The suite level contains private suites, dining suites, administrative suites, broadcast suites, and audio/video control suites. Five rows of club seating are also placed in front of the suites and are accessed from this level. Circulation takes place on a series of cat walk like pathways. A private restaurant and bar that can be made available to suite holders during events and leased out to private parties is also located on this level. In addition a terrace overlooking the Haymarket District is available to restaurant patrons.

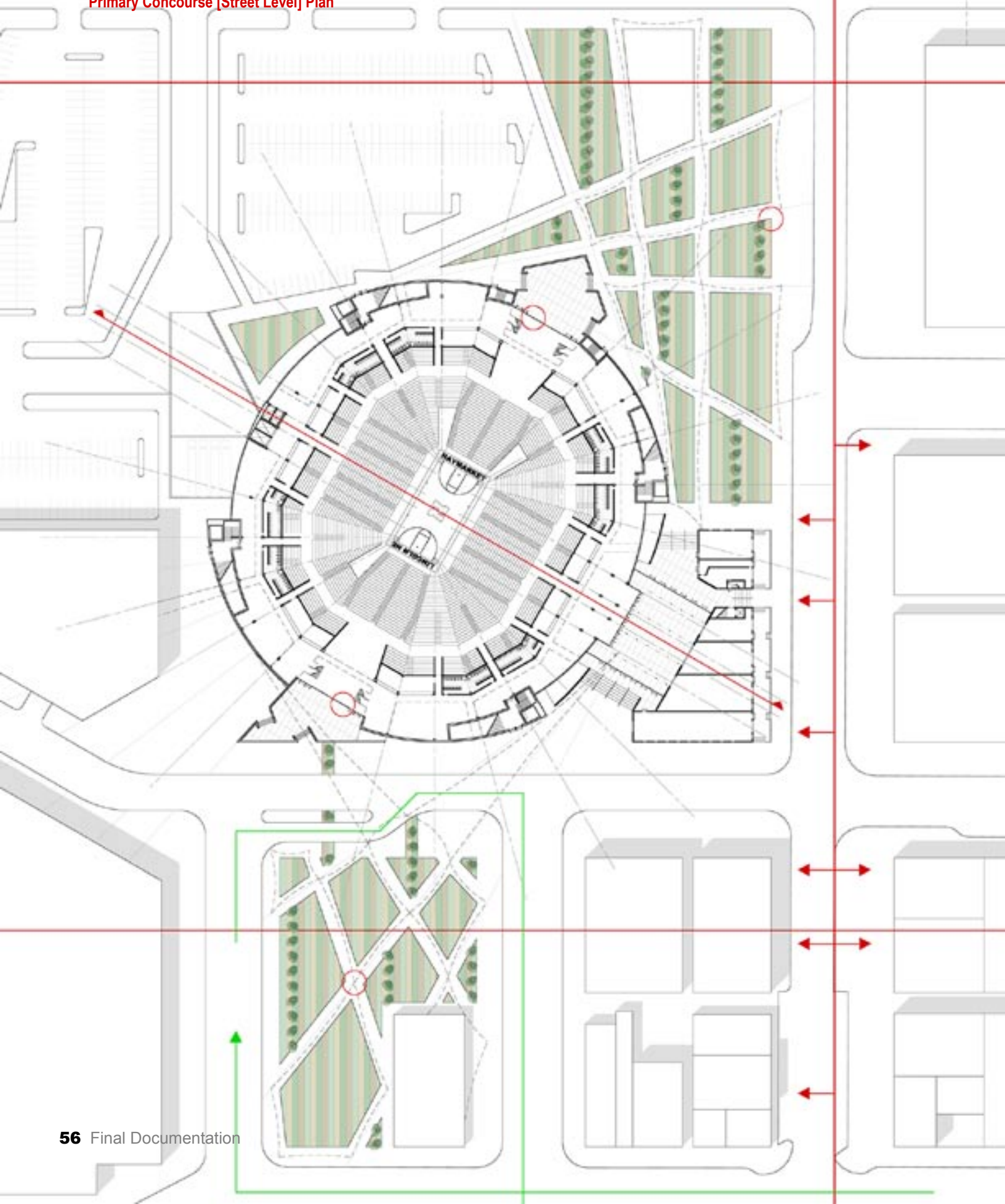
The primary entrance to the arena is sandwiched between the arena bowl and leasable retail space in a galleria like atrium. Secondary entrances and exits with adjacent plazas are available off of the plazas on the northeast and southwest corners of the bowl. The southwest entrance may be designated for VIP's and suite owners. The northeast entrance may be made available for students or other specific ticket holder groups.

Public plazas are located northeast and southwest of the arena. The southwest plaza is shared by proposed convention space, hotel, and Historic Lincoln Station. Each plaza is vertically defined by a system of tensile canopies. Paths extend on tangent lines from the arena bowl and lead from the primary arena entrance outward into the neighborhood. Each plaza can be utilized for pre and post game activities for basketball, football, and baseball games as well as convention visitors and farmers market merchants.

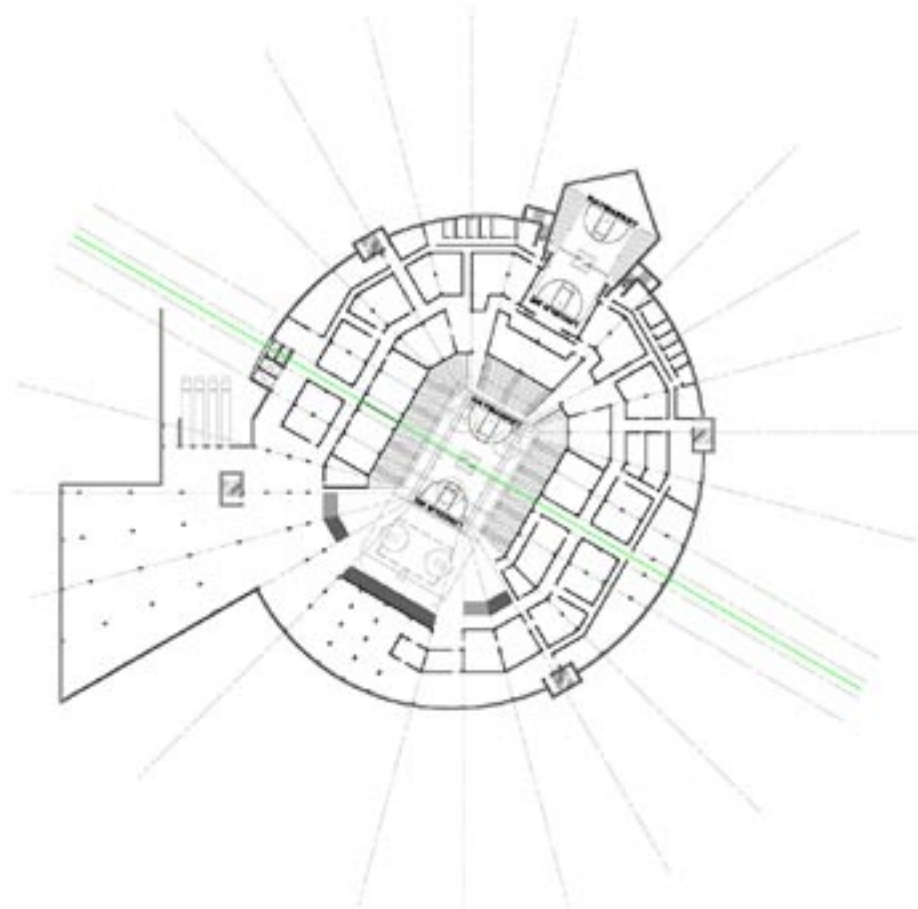




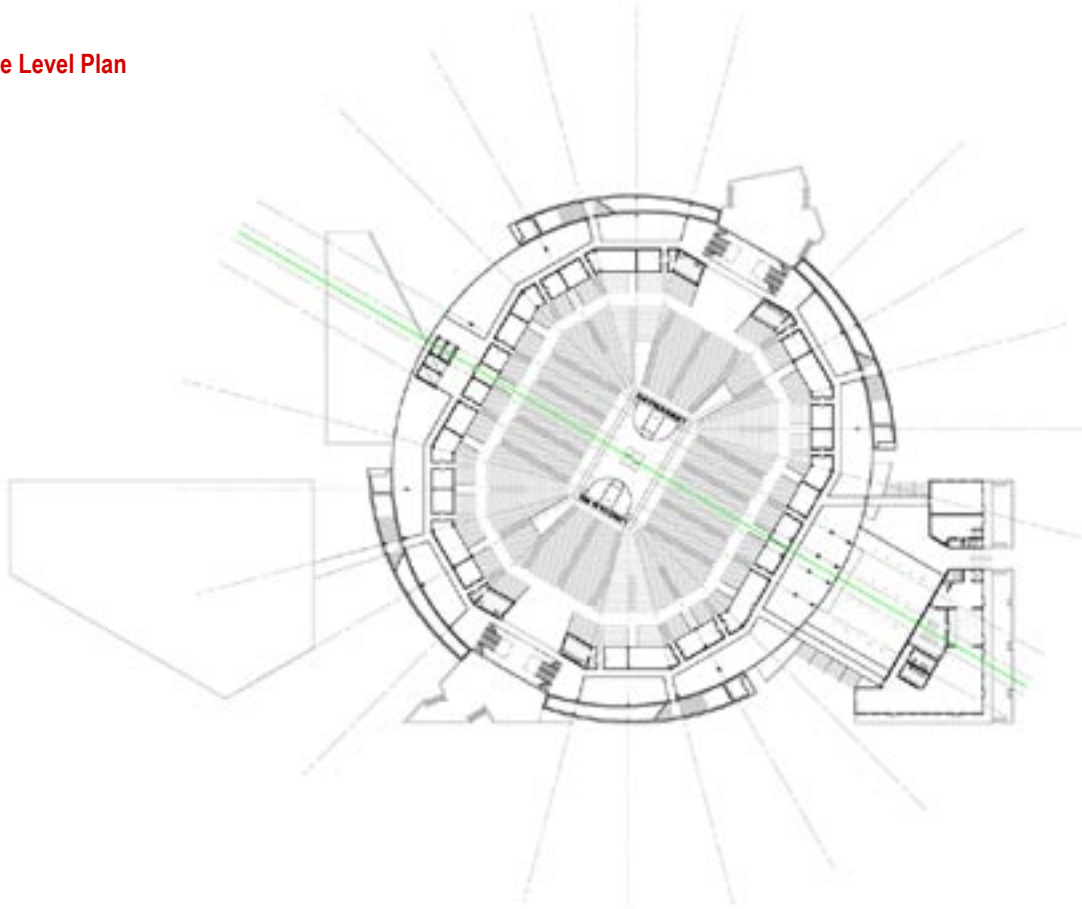
Primary Concourse [Street Level] Plan



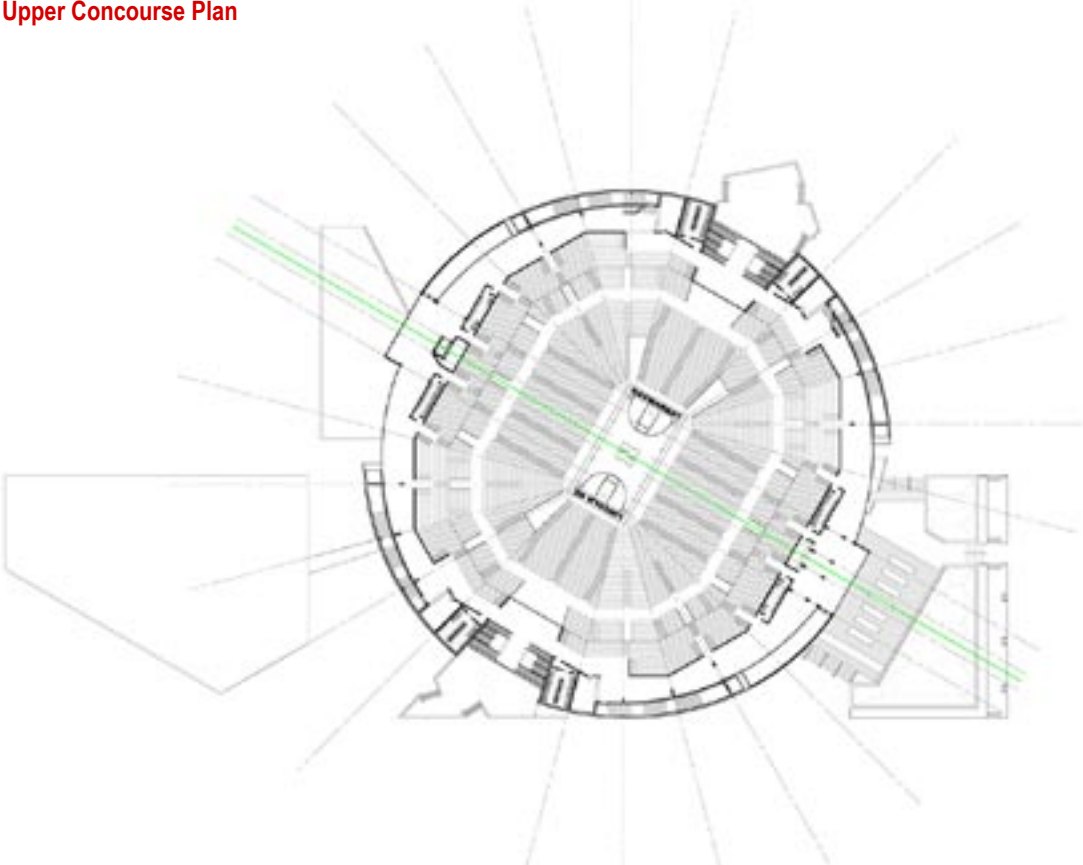
Event Level Plan



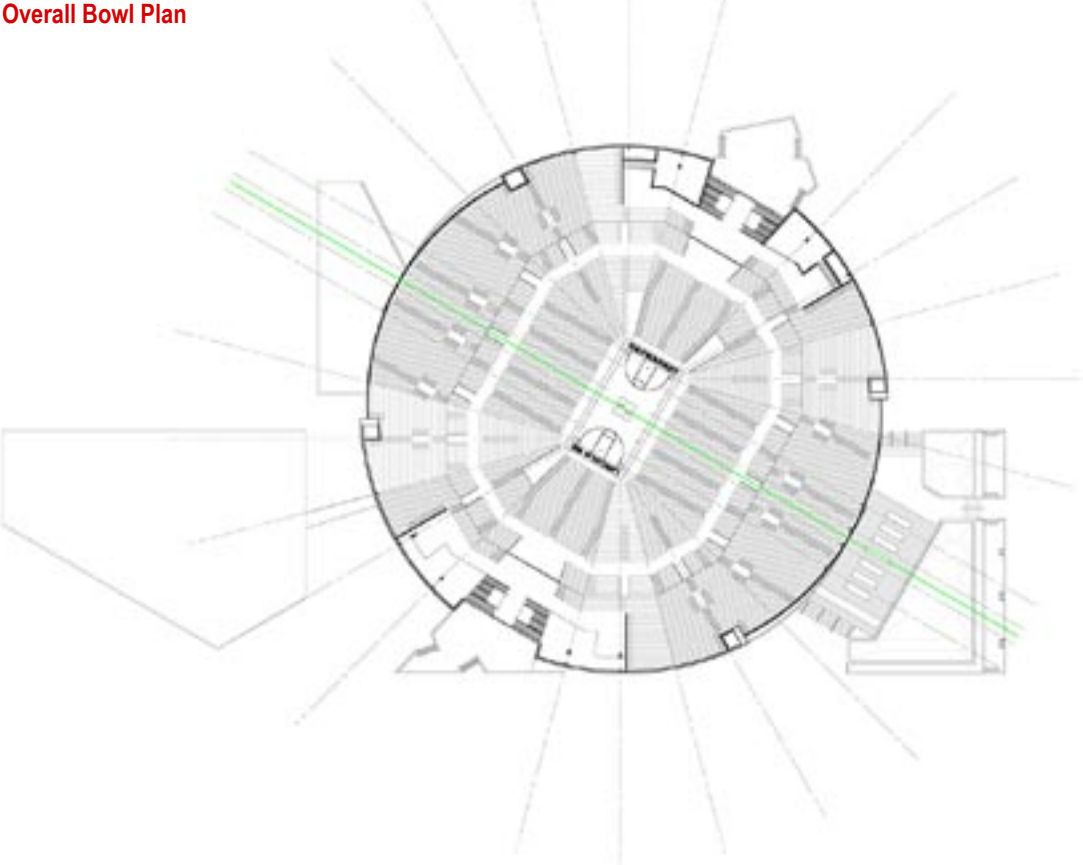
Suite Level Plan



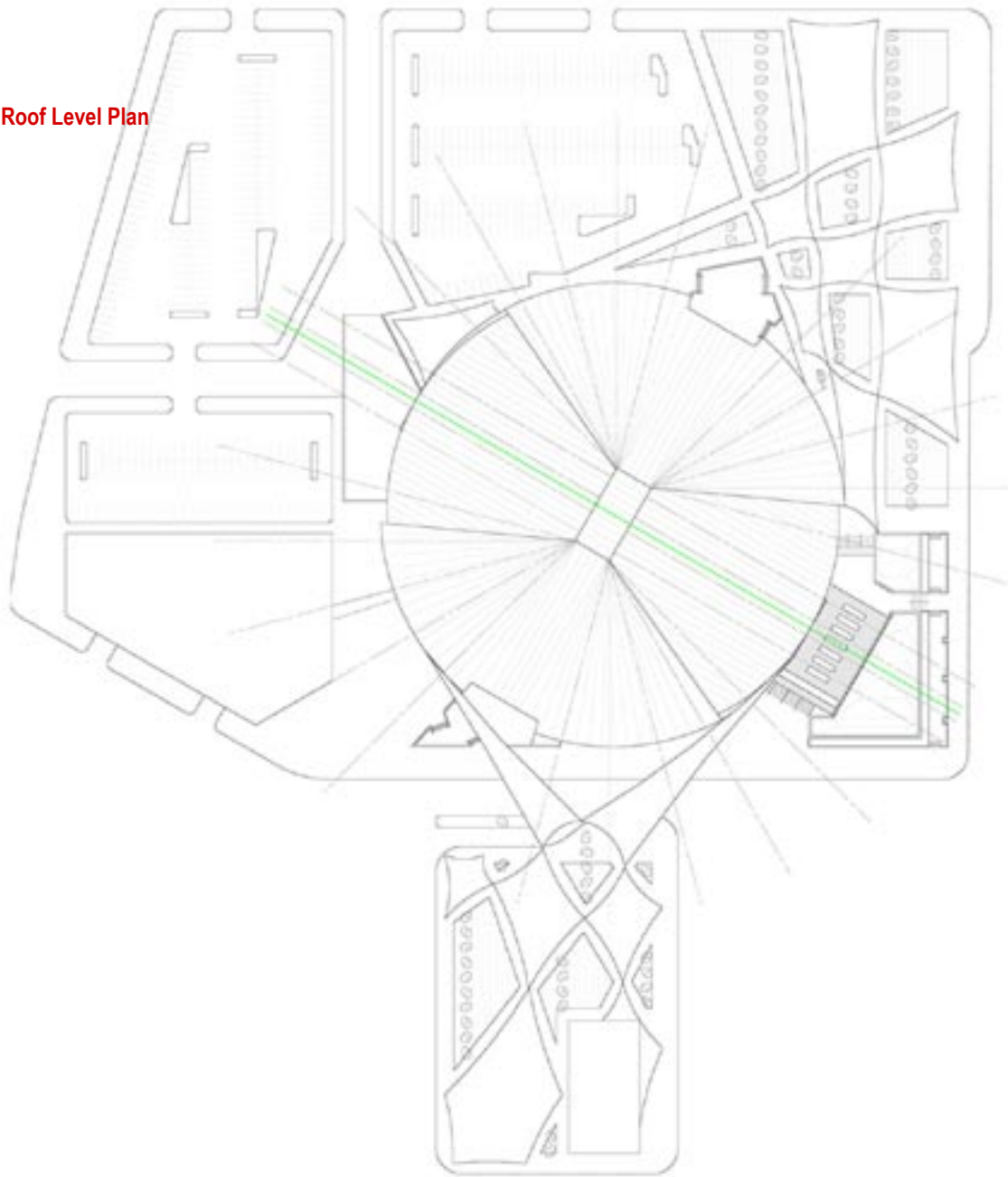
Upper Concourse Plan



Overall Bowl Plan



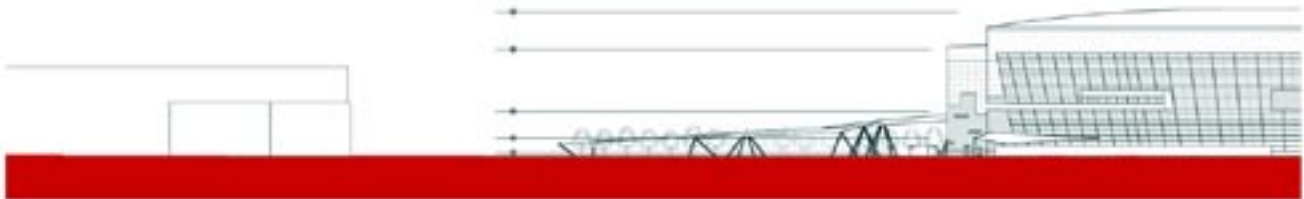
Roof Level Plan



Model5B South Plaza



West Elevation



South Elevation



East Elevation

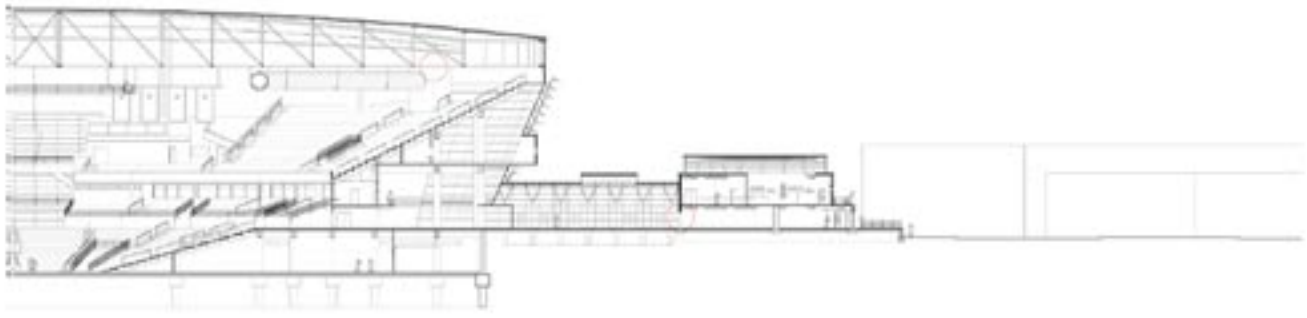
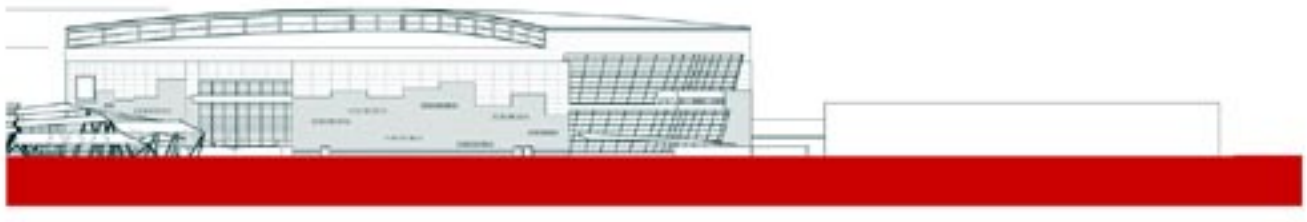


North Elevation



Transverse Section





Primary Entrance



The primary entrance to the arena is located in an intermediate space sandwiched between the arena bowl and a brick wrapped two-story form that anchors the design on the corner of 8th and R Street. In the evening this galleria type space illuminates the area clearly demarcating the entrance. Additional signage is integrated into the glazing system of the walkway that connects a restaurant and bar to private and dining suites located inside the arena bowl.

8th Street Pedestrian Corridor



Reinforcing the existing 8th Street pedestrian corridor is a critical component of the arena design. On the north, the corridor is defined by a pedestrian bridge crossing rail lines and leading to Haymarket Park. Consistent with the existing Haymarket building vocabulary, a pedestrian dock is raised four feet above grade allowing access to leasable retail spaces, a galleria, and the primary entrance.

Primary Concourse



The spacious primary concourse of the arena is washed with filtered natural light through out the day. Open to the catwalks of the suite level above, the concourses allow the user to maintain a conscience awareness of the Haymarket at all times.

Vertical Circulation



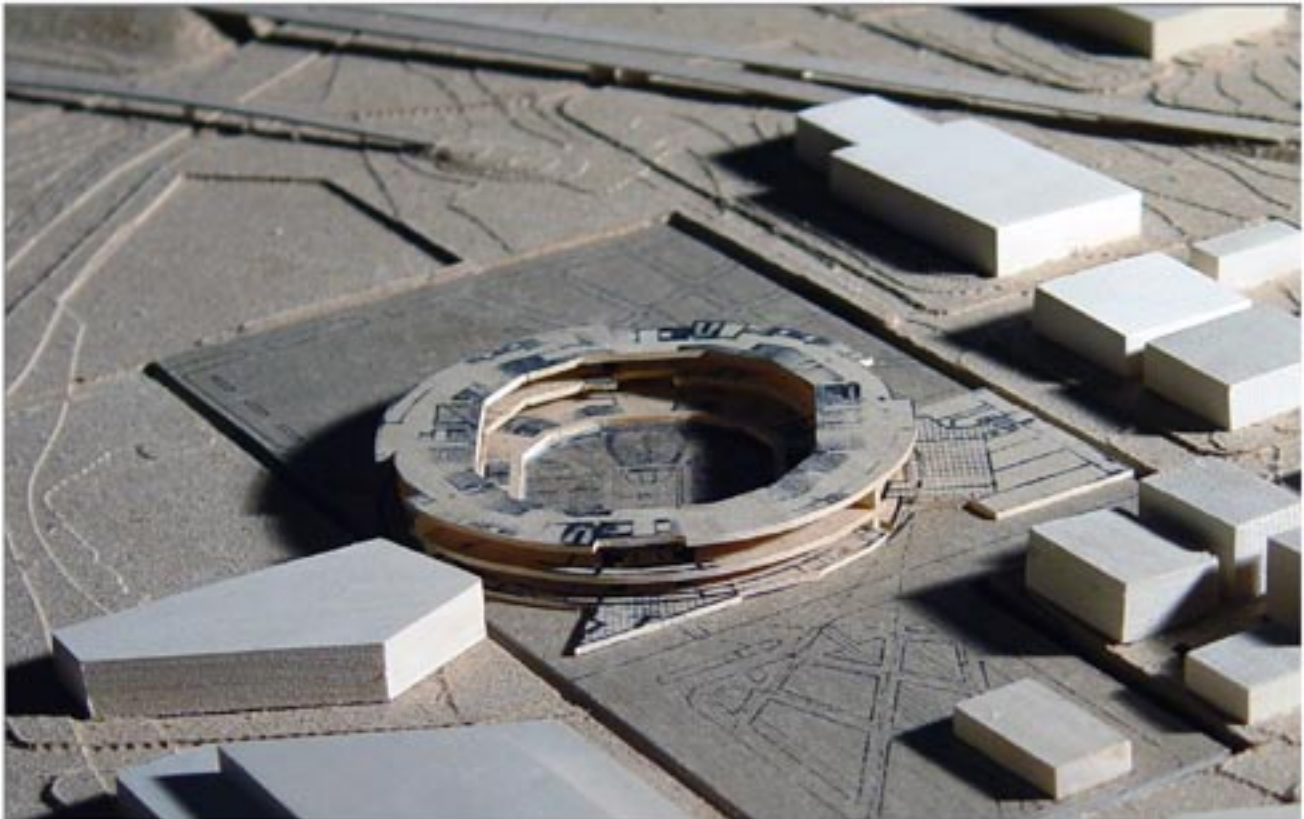
Conceptually, a slice running from northeast to southwest is cut through the arena bowl through the center of, and on axis with, the playing court. Two stairways and two escalators are located within this slice on the northeast and southwest corners of the arena for vertical circulation.

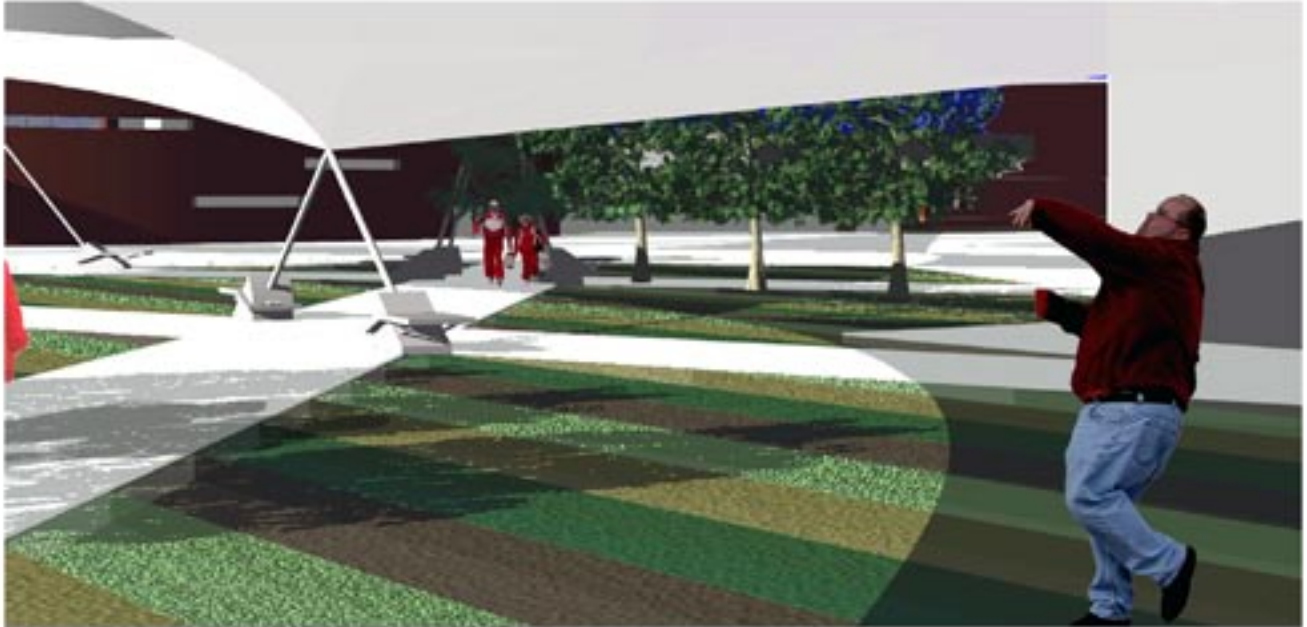
Public Plaza



Public plazas are located northeast and southwest of the arena. The southwest plaza is shared by proposed convention space, hotel, and Historic Lincoln Station. Each plaza is vertically defined by a system of tensile canopies. Paths extend on tangent lines from the arena bowl and lead from the primary arena entrance outward into the surrounding neighborhood.

Model5 From Southwest



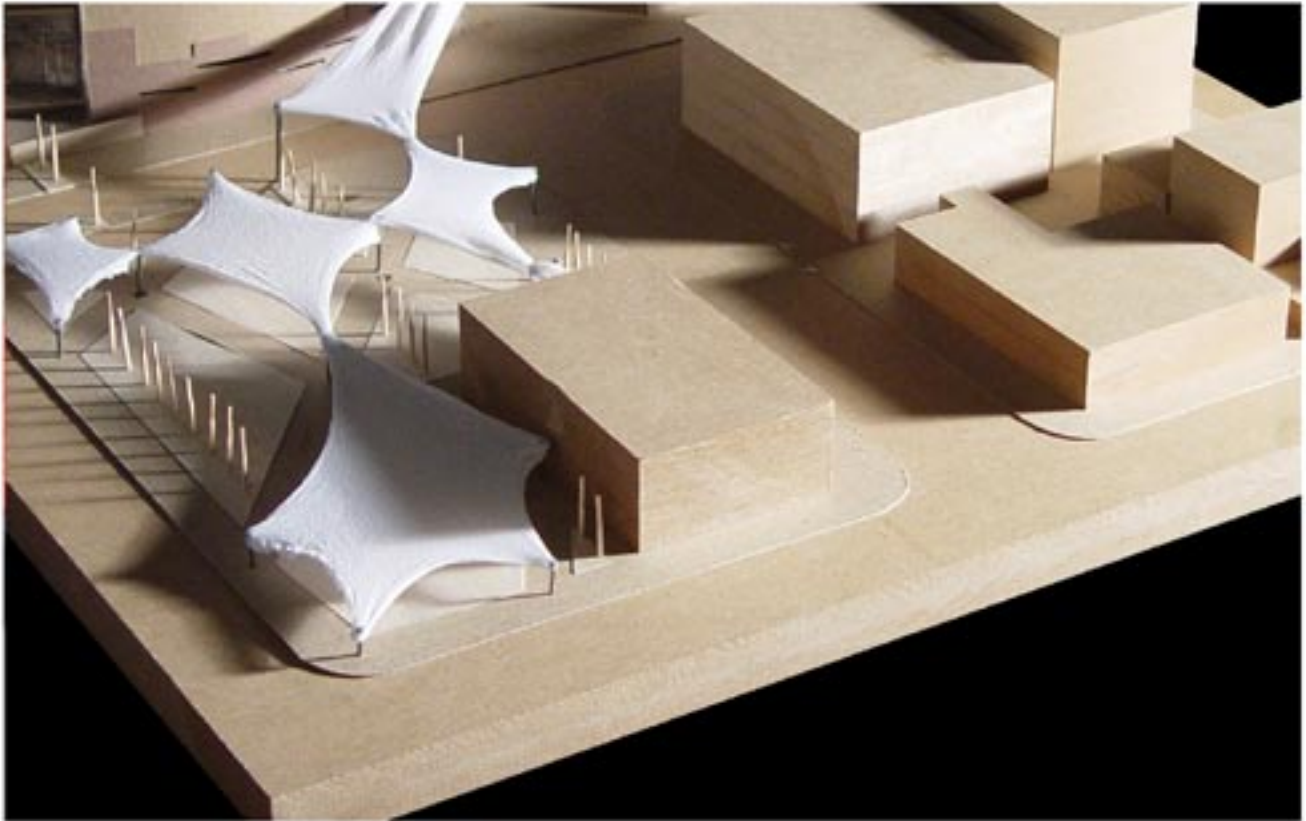


Each plaza can be utilized for pre and post game activities for basketball, football, and baseball games as well as convention visitors and farmers market merchants.

Model 5B



Model5B Early Morning



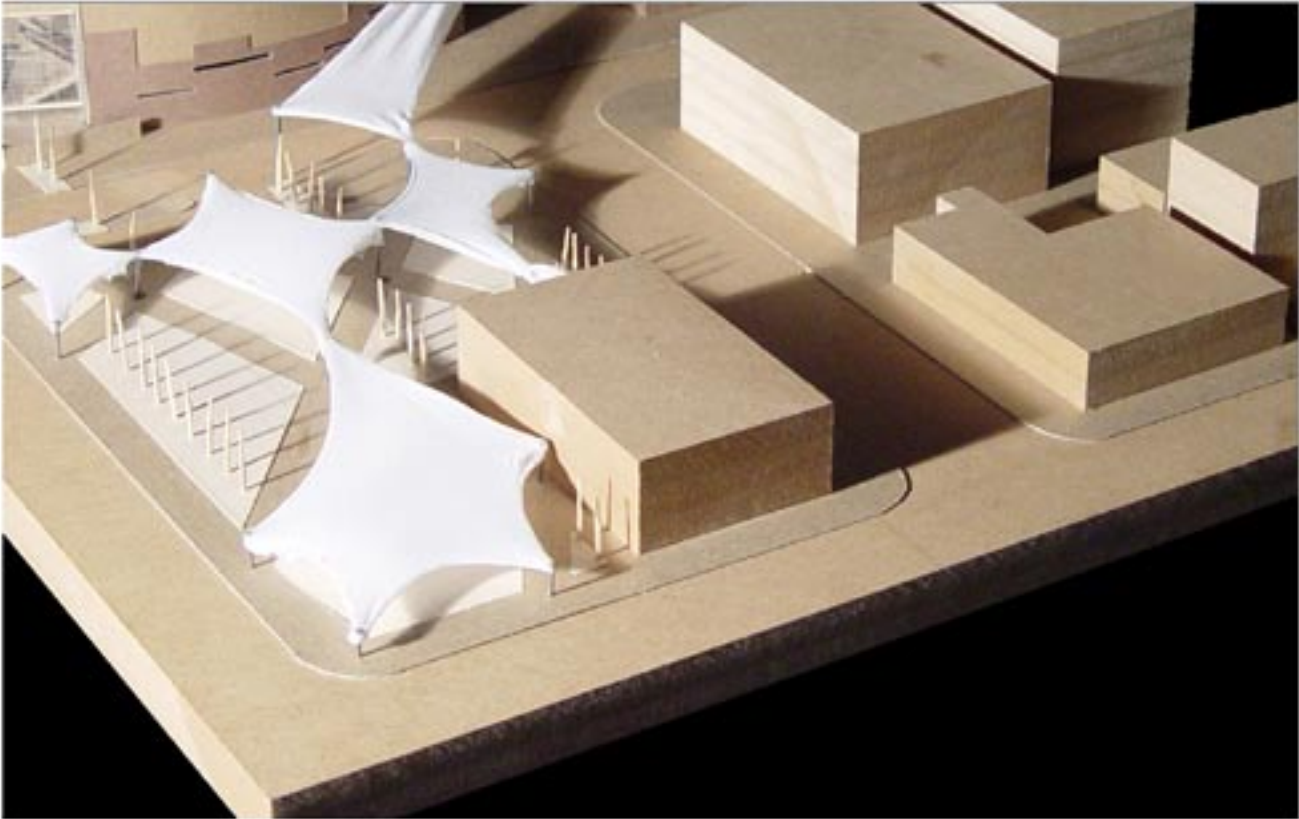
Model5B Late Morning



Model5B Early Afternoon

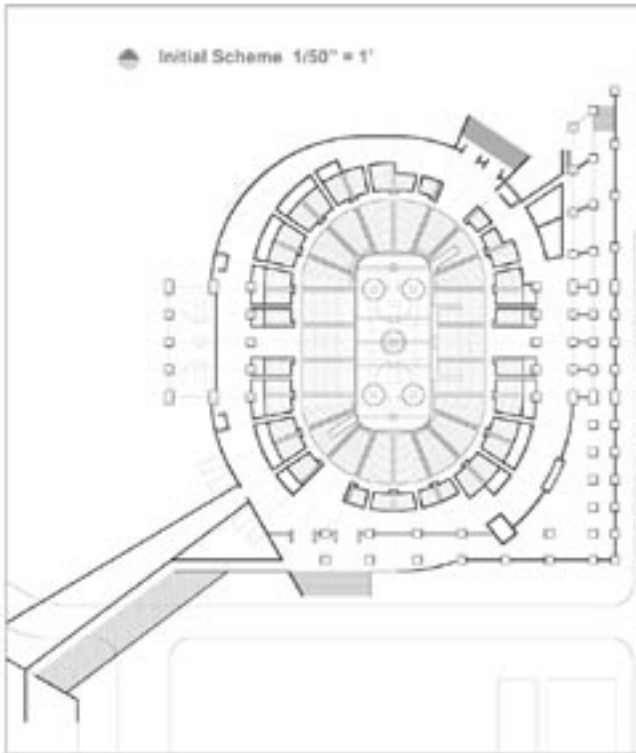
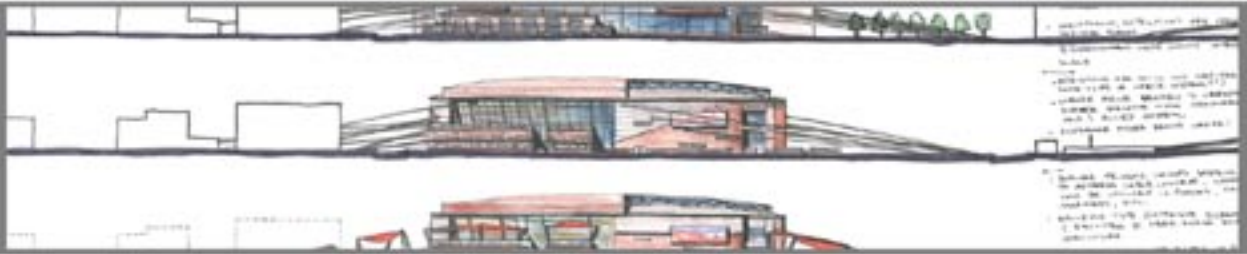


Model5B Late Afternoon



Project Book

The design in this book is a synthesis of an initial conceptual design. The drawings before this one are the result of a process of design development. The drawings in this book are the result of a process of design development. The drawings in this book are the result of a process of design development.



Initial Scheme 1/50" = 1'

Developed Scheme 1/50" = 1'



1



2



3



4

Primary Entrance

The primary entrance to the arena is located in the center of the arena and is a large, open-air space that will be the main point of entry for the arena. It is located in the center of the arena and is a large, open-air space that will be the main point of entry for the arena.



on Street Pedestrian Corridor

Accessibility for walking on street is a key component of the arena design. The arena is located in the center of the arena and is a large, open-air space that will be the main point of entry for the arena.

areACTIVATE

activate

an enclosed area for the presentation of sports events, a place to activate urban spaces, and to activate the area in the center of an urban neighborhood where concrete used here

activate **activate**

to add in motion, create energy, to make public again, to activate a location in

Lincoln, the most vibrant sports and entertainment city and state capital is struggling to keep up with competing Midwestern cities. In a city and state where people, products, and experiences move from city to city with greater ease than before, Lincoln must not only keep sports and entertainment dollars at home, but also continue attracting fans, spectators, and dollars from outside the city.

The city of Lincoln has recently adopted a new Downtown Master Plan. The plan identifies potential sites for a new multipurpose arena, entertainment center, plaza, hotel, and parking facilities. I have chosen to pursue the design and development of the multipurpose arena and accept the siting recommended by the Mayor Plan. In the process, I hope to give the city of Lincoln a glimpse of what could be.

The United States Post Office recently sits on the site identified by the Downtown Master Plan for the potential development in the northeast corner of the Haymarket District. One of the two most historically significant and rich urban environments in Nebraska, the Haymarket District is a vital step in Lincoln's urban fabric. The district must not only be considered and preserved, but reimagined.

The multipurpose arena will house the University of Nebraska men's and women's basketball programs, host hockey, arena football, indoor soccer and roller skating competitions, and will attract headline concerts and performance events. The maximum arena seating capacity will be 17,000. Primary objectives of the project include:

Activate the Haymarket

Actively an active and successful urban environment, the district can be enhanced. Careful consideration has been paid to creating an active pedestrian link from the existing Haymarket north towards the pedestrian bridge and future growth.

Elevate the Typical Avenue Archetype

Through artistic and dynamic form-making, clear and elegant structural expression, and emphasis on pedestrian scale and experience, the bar for arena design projects will be effectively raised.

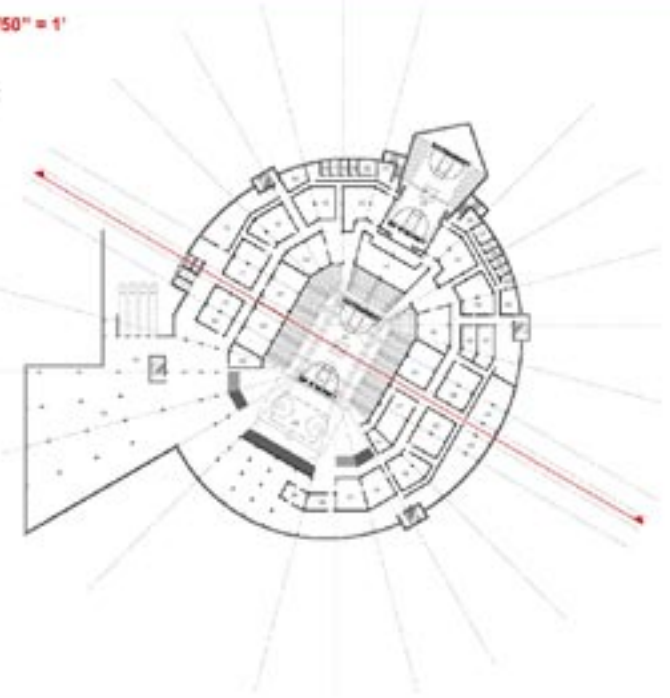
Integrate

Successfully integrate a necessarily large structure into the delicate pedestrian friendly environment of the Haymarket District while juggling the complicated and diverse programmatic needs of city, university and state.

Event Level Plan 1/50" = 1'

Open Key

- 01 2nd Floor
- 02 3rd Floor
- 03 4th Floor
- 04 5th Floor
- 05 6th Floor
- 06 7th Floor
- 07 8th Floor
- 08 9th Floor
- 09 10th Floor
- 10 11th Floor
- 11 12th Floor
- 12 13th Floor
- 13 14th Floor
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- 17 18th Floor
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- 26 27th Floor
- 27 28th Floor
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- 32 33rd Floor
- 33 34th Floor
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- 35 36th Floor
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- 41 42nd Floor
- 42 43rd Floor
- 43 44th Floor
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- 47 48th Floor
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- 85 86th Floor
- 86 87th Floor
- 87 88th Floor
- 88 89th Floor
- 89 90th Floor
- 90 91st Floor
- 91 92nd Floor
- 92 93rd Floor
- 93 94th Floor
- 94 95th Floor
- 95 96th Floor
- 96 97th Floor
- 97 98th Floor
- 98 99th Floor
- 99 100th Floor



Two 10' deep concrete ramp walls will define the primary circulation of the arena. Secondary circulation includes stairs and walkways that will connect the arena to the existing building north. The main secondary circulation will be located on the top of the primary structure allowing those of light to be drawn in to be perceived as the arena's main entrance.

The arena entrance is located in the center of the arena and is a large, open-air space that will be the main point of entry for the arena. It is located in the center of the arena and is a large, open-air space that will be the main point of entry for the arena.

The main entrance provides a clear, direct path to the arena and is a large, open-air space that will be the main point of entry for the arena. It is located in the center of the arena and is a large, open-air space that will be the main point of entry for the arena.

The arena entrance is located in the center of the arena and is a large, open-air space that will be the main point of entry for the arena. It is located in the center of the arena and is a large, open-air space that will be the main point of entry for the arena.

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Site [Primary Concourse] Plan 1/50" = 1'

8th Street Pedestrian Corridor

D1, Transit Canopy Awning
54' x 1'

- 1. Awning structure
- 2. Awning canopy
- 3. Awning base
- 4. Awning support
- 5. Awning edge
- 6. Awning detail

D2, Northeast Curtain Wall
60' x 1'

- 1. Awning structure
- 2. Awning canopy
- 3. Awning base
- 4. Awning support
- 5. Awning edge
- 6. Awning detail

D3, Southeast Curtain Wall
Retrofitted Panel System
60' x 1'

- 1. Awning structure
- 2. Awning canopy
- 3. Awning base
- 4. Awning support
- 5. Awning edge
- 6. Awning detail

D4, Transit Canopy Joint
6' x 1'

- 1. Awning structure
- 2. Awning canopy
- 3. Awning base
- 4. Awning support
- 5. Awning edge
- 6. Awning detail

Exterior Space Key

- A. Bicycle Development (Bicycle Racks)
- B. Retractable Park Pedestrian Foot Bridge
- C. Retractable removing 8th entry to allow through traffic
- D. W/P Parking Structure
- E. Proposed Concourse Space
- F. Proposed Small Space West Side Development
- G. Proposed Small Space East Side Development
- H. Livable Station
- I. Proposed High Volume Parking Structure

Space Key

- 104 Surface Parking (144 Stalls) Future Development
- 101 Surface Parking (222 Stalls) Future Development
- 102 Ice Skating Rink/Recreation/Clubhouse
- 103 Surface Parking (24 Stalls) Future Development
- 104 Basketball/Softball Entrance Exit Terrace
- 105 Basketball/Softball Entrance Exit Terrace
- 106 Concessions
- 107 Women's Rest room
- 108 Emergency Egress/Exit
- 109 Men's Rest room
- 110 Concessions
- 111 Primary Entrance
- 112 Entry Spillover/Buffer
- 113 Concessions
- 114 Men's Rest room
- 115 Emergency Egress/Exit
- 116 Women's Rest room
- 117 Concessions
- 118 Secondary/Event Concessions
- 119 Secondary/Event Entrance/Exit Terrace
- 120 Without Concessions
- 121 Concessions
- 122 Women's Rest room
- 123 Emergency Egress/Exit
- 124 Men's Rest room
- 125 Concessions
- 126 Elevators
- 127 Concessions
- 128 Men's Rest room
- 129 Emergency Egress/Exit
- 130 Women's Rest room
- 131 Concessions
- 132 Women's Basketball/Private Entrance
- 133 Concessions/Space
- 134 Trade/Dissemination Case
- 135 Commercial Space
- 136 Commercial Space
- 137 Commercial Space
- 138 Commercial Space
- 139 Pedestrian Deck

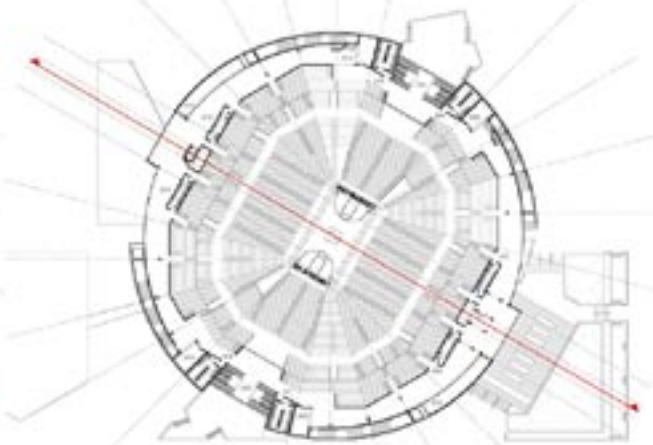
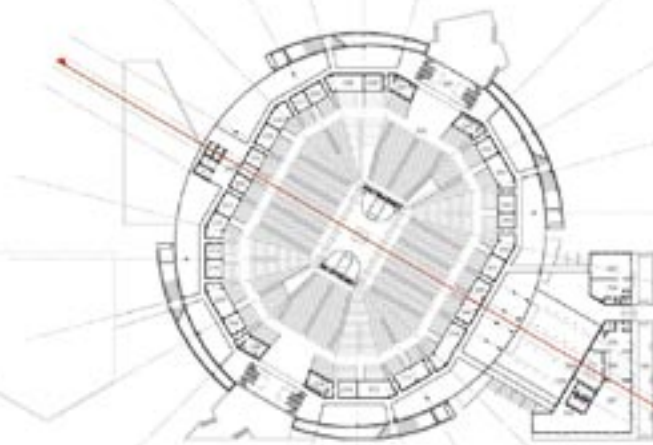
Public Plaza South

Public plaza surrounded by retail and residential uses. The courtyard is enclosed by a perimeter of glass, steel, and concrete. A central courtyard is enclosed by a perimeter of glass and concrete. The central courtyard is enclosed by a perimeter of glass and concrete. The central courtyard is enclosed by a perimeter of glass and concrete.



Suite Level Plan 1/50" = 1'

Upper Concourse Plan 1/50" = 1'



EW: Double Skin Layered Curtain Wall System 3/4" = 1'

- 1. Exterior glass pane
- 2. 1" air space
- 3. Interior glass pane
- 4. Aluminum mullion
- 5. 1/2" gasket
- 6. 1/2" gasket
- 7. 1/2" air space

DN: Primary Truss Bearing Point 3/16" = 1'

- 1. Steel truss member
- 2. Diagonal bracing
- 3. Diagonal bracing
- 4. Diagonal bracing
- 5. Diagonal bracing
- 6. Diagonal bracing
- 7. Diagonal bracing
- 8. Diagonal bracing

Q1: Cavity Masonry Pier 3/8" = 1'

- 1. Masonry pier
- 2. Masonry pier
- 3. Masonry pier
- 4. Masonry pier
- 5. Masonry pier
- 6. Masonry pier
- 7. Masonry pier
- 8. Masonry pier

Transverse Section 1/16" = 1'



Terminal Review Transcription

The terminal project was presented on Tuesday, March 28th, at 4:30 in the afternoon at Architecture Hall. The following critics participated:

Wayne Drummond, Dean, College of Architecture, University of Nebraska – Lincoln
Mark Hoistad, Program Director, Department of Architecture, University of Nebraska – Lincoln
James Potter, Professor, College of Architecture, University of Nebraska – Lincoln
Chris Ford, Associate Professor, College of Architecture, University of Nebraska – Lincoln
Greg Garlock, Senior Associate, DLR Group, Omaha, Nebraska

After a thirty-minute presentation of predesign, process, and architectural design work, discussion began. Generally, the critics were complimentary of the execution of the project and especially the drawings. All critics seemed convinced of the relatively high execution of the scheme and its organization. Very little attention was given to the physical models presented or the renderings developed.

The bulk of the discussion centered on the theoretical role of a large-scale civic building, such as a multipurpose arena, and its role within its urban context. This discussion was prompted by a perceived apologetic position of the design on its east side in contrast to its unapologetic stance on the west.

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Game Over.