ABSTRACT

Title of Document:	A PLACE OF WORSHIP FOR THE DIGITAL GENERATION
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This thesis will explore how a local church can be relevant in today's fast evolving culture. The historical church principles have become a foreign idea to the 21st century generation, and many of the church facilities are inadequate to address the needs of the younger generation.

The core principles of a Christian church worship, fellowship, discipleship, ministry, and evangelism have remained unchanged for almost two-thousand years. However, churches are now seeing that the culture of their people is changing towards an informational era aided by technology and media. Those who are most affected by this cultural change are the younger generation who have grown up with a steady diet of visual and auditory information and stimulation through mass media.

The "sacred ground" of church life is not immune to such cultural shifts. This thesis will use elements of architecture to support worship and ministry through multi-media and visual arts to communicate Christian faith. The proposed building is a Ministry Center for the Agapé Mission Church, a congregation of 300. The site chosen for this building is in Baltimore, Maryland adjacent to the Maryland Institute College of Art.

A PLACE OF WORSHIP FOR THE DIGITAL GENERATION

By

Hee Jong Ko

Thesis submitted to the Faculty of the Graduate School of the
University of Maryland, College Park, in partial fulfillment
of the requirements for the degree of
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2006

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Dedication

I dedicate this to my Lord and Savior Jesus Christ. He gave me the strength and the

reason to so this thesis. I started this thesis process wanting it to be my own

expression of faith and worship unto Him and I pray that this process will continue in

my life.

Acknowledgements

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Chapter 1: Design Goals and Issues

The goal of this thesis is, in the broadest sense, to examine the image of the 21st

century church and to explore new forms and spaces within a church structure that will

embrace today's generation's ways of learning. This rather ambitious desire to look at new

forms of a church building is prompted by the appearance of the "emerging churches" that

address the fast-changing culture of the present time.

> e·merg·ing[1] - *adj.* newly formed or just coming into prominence
> *v.* to come into light, being discovered

Church leaders are realizing that changes in today's culture can no longer be ignored.

Perhaps, they've been awakened by the diminishing number of people from younger

generations in the churches. Clearly interest is growing in how the church can reach out to

emerging generations in what some call a postmodern or post-Christian context. The

Protestant Reformation that followed the invention of the Gutenberg press in the 16th century

ushered in an architectural revolution. To move the church into a print culture, in which

people could read instead of simply absorbing what others told them, required massive

changes in spaces that would be used for worship and teaching. Today we are undergoing

another kind of spiritual awakening as the church undergoes a postmodern Reformation from

print to screen. This time, the audience is the digital generation. As media technology

improves, the way people receive and process information has been changing. They have been

fed to the brim with visual and auditory stimulation through mass media, and they've learned

to live with information overload. For this generation, digital medium encompasses all aspects

of their lives. Academia, entertainment, arts, finance, communications and so on, have been

digitized and even relationships can be established through Internet and e-mails. Many

churches are starting to address this phenomenon by simply changing their liturgy. An older

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[1] http:\\www.dictionary.com

generation may cringe at the thought of theater/stadium influences and the intrusion of projection screens, believing that we've stooped to a need to be entertained by church. However, churches are installing retractable projection screens in front of the sanctuary to show images, scripture text for the sermon, etc. And with the increased sales and use of i-pod, a small portable mp3 audio player, some churches have begun to record the sermons and teaching sessions to be available for podcasting[2]. Although these are steps toward addressing the issue, it is disappointing to see the lack of change in church architecture itself. Revolutionary change in how the Christian church functions can't happen without altering the physical space of the church. So what might this "emerging" church look like? This thesis is concerned with exploring a new form of church that will engage the younger seekers in their spiritual journey.

Perhaps the greatest challenge of this thesis is trying accommodating Christian traditions and rituals associated with sacred spaces in traditional church buildings. But spaces can have more than one purpose. The challenge will be that a new kind of a church must creatively accommodate Christian faith's two thousand year old traditions yet be relevant to the young generation. The key is to capture both: innovation and tradition, improvisation and structure, transience and permanence.

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[2] **Podcasting** is a blanket term used to describe a collection of technologies for automatically distributing audio and video programs over the internet via a publish and subscribe model.

Chapter 2: Church

History of Church Structure

Apostle Paul writes, "We are the temple of the living God,"[3] and the first century

Christians did not have any sense of need for a specific locus. From the beginning they

gathered to "break bread" in their homes and other private places. This continued into the

time of Roman Empire. In a culture where a variety of religious deities existed with multiple

shrines, temples, and holy places, the Christians viewed themselves as unique. They were a

"community of faith *unattached* to any place."[4] To them, the church is not a place but as

Clement of Alexandria c. 200 A.D. states, "It is not the place but the assembly of the elect that

I call the church." However, this changed after Constantine established Christianity as the

official religion of the Empire. There was a move toward associating God's presence with

places rather than with people. The pagan idea of holiness attached to objects and places was

now accepted by Christians, and the religious life, which earlier had comprehended all of life,

became a separate category, apart from the "secular" life. So the division between "sacred"

and "profane" came into being. The emergence of the monastic movement further emphasized

the ideals of the Christian community at that time. The church had changed to accommodate

itself to patterns of worship and this naturally prescribed patterns of architecture which, it is

sometimes argued, even oppose the teachings of Jesus[5]. The original idea of people as the

Temple of God was replaced by the notion of holy places. The continuity of secular and

sacred was exchanged for a dichotomy. And so, the church building has been an established

"holy place" and, from medieval times, continued to build with strong ecclesiastical character

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[3] 2 Corinthians 6:16 New International Version
[4] Sovik, 13
[5] Sovik, 18

and even teach the people around them that there ought to be such a place as a "house of God."

Around 1840's a movement called the Ecclesiological Movement rose in England by John Mason Neale, the hymnologist. And although its influence spread in many corners of the world, it had the most thorough impact in America because most of American churches were built since 1840's. The forms that most Americans consider traditional are the forms which were most forcefully promoted by the Ecclesiological Movement. Neale's view on church structure was that the Gothic structures of the Middle Ages were the only appropriate form of Christian architecture. His principles were adopted and amplified by others so that a hundred years later, the same architectural form continued to the present.

These characteristic of neo-gothic structures are built in stone, with buttresses, high arched vaults and steep roofs, towers, pointed windows with stained glass, an axial plan with a central aisle, a deep chancel divided from the nave. There are ornamental carving and painting, especially about the altar. Thousands of such churches stand in the United States and many more are merged with variant plans, structures, or denominational specifics.

Return to the Non-Church

The First Gesture

In the late nineteenth and twentieth centuries, steel and concrete construction began to replace masonry and timber. Since the technical matters are a part of the architect's profession, it is reasonable to say that the elements of building that first gave way to the pressures of the new age were technical factors.

A German architect named Otto Bartning was commissioned to design a church in Cologne. Using exposed steel framing and a copper panel curtain wall, he steered towards modern technology of that time. In 1922 Auguste Perret built Notre Dame du Raincy near

Paris. It was made of concrete- partly cast-in-place, and partly pre-cast and it has been considered an early classic and inspired other builders to break traditional patterns. A number

Figure 1- Notre Dame du Raincy interior view.

of architects designed church buildings with a high degree of response to that as a new technology appears, a new esthetic should also. The transformations of tradition into modern dress signified that the church wishes to be understood as a lively institution that can relate to the currents of life and responsive to the twentieth century culture.

To the people

Even though the previous efforts of changing the building structure language recognizes a change in culture, in order to adequately address this, the changes needed to be more substantial. Otto Bartning also proposed earlier that the long narrow processional plan of traditional buildings was inappropriate to Christian understanding. The proper view of the gathered congregation is that of a "cohesive community of clergy and laymen whose members should be aware of their unity as the Body of Christ, the family of God, the household of believers."[6] When a congregation meets it is not as individuals and not as a congregation of observers in attendance at a clerical ritual, but as a community acting together. Bartning made a model of *Stern Kirche* in which a circular space with an altar at the center is surrounded by a full ring of people. The goal is that it is a single unified space, and though it may have specific zones or functional areas articulated, such as a place for eucharist or baptism, it is no longer

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[6] Sovik, 31
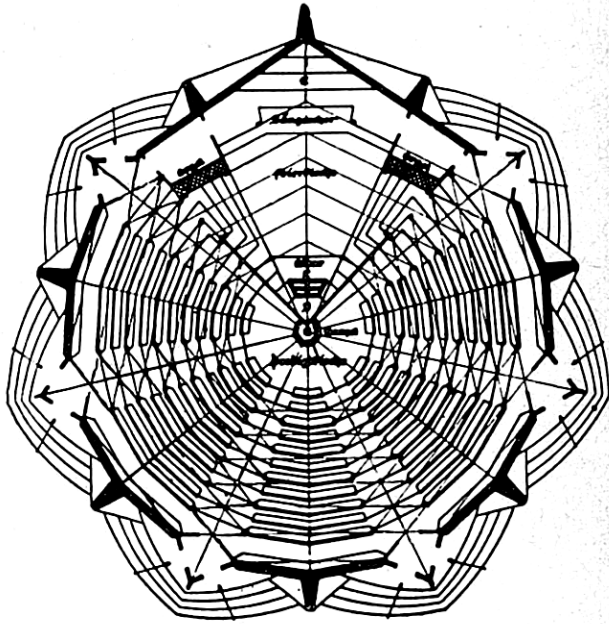
Figure 2- Plan of Otto Bartning's Sternkirche

comprised of nave and chancel. This even raised question of use of such vocabulary. The Lord's Supper had, in the course of history, become something of an exotic ritual more than of a personal spiritual experience. The study of sacramental practice, then led into a redefinition of the word. Sacrament[7] is an act rather than a thing. It is not the table that makes sacrament but it is the people and what they do.

There is now a movement towards the church recognizing the relative unimportance of things and putting the importance on people of the faith. Therefore, things such as altar or a sacrament table do not serve as symbols of worship but the act becomes the worship.

Figure 3- Portable tables and furniture emphasize the importance of people rather than in things in this Finnish Chapel.

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[7] **Sacrament-** a formal religious act conferring a specific grace on those who receive it; the Protestant sacraments are baptism and the Lord's Supper; in the Roman Catholic Church and the Eastern Orthodox Church there are seven traditional rites accepted as instituted by Jesus: baptism and confirmation and Holy Eucharist and penance and holy orders and matrimony and extreme unction

One of the fundamental elements of Christian faith is the doctrine of the incarnation. God comes to earth, enters the human scene, and acts within in. The encounter takes place not because men leave their ordinary lives and move to a different place where God is, but God enters their world and their lives where they are. In order to provide a witness to this kind of message in church building structure, it cannot be by isolating places and designating it a place of holiness as the place of God's presence. When this happens, people naturally compartmentalize their lives. The presence of God is localized in their minds and "going to church" only turns out to be the way to practice religion. All places are potentially the places of his presence.

In the course of the last century, the movement toward building places of worship with a secular character has been more and more explicit. Void of any cultic images or furnishings, a place is prepared for the event of worship by bringing in and arranging furnishings or ornaments to cater to a specific event and such a preparation becomes a part of worship. It is this principle that this thesis is exploring. With continual change in current culture, the worshipping place needs to be responsive to changes of people, occasion, and circumstances.

Chapter 3: A New Church for the Emerging Generation

Technology and Art

Influence of Technology

When a Japanese manufacturer was asked by his North American counterpart, "What is the best language in which to do business?" the man responded: "My customer's language."

The unprecedented advancement in electronic information processing and communication technology of this century has resulted in the information explosion and has ushered this culture into an information era. Technological advancement has created a new environment in which one is exposed to much greater and more complex information than in generations before and this is most apparent in today's young generation. What makes this generation different from its predecessors is that they are the first to grow up surrounded by digital media. Twenty years ago computers were expensive tools for everyday users. Today they appear in all aspects of lives. Computers and other digital technologies, such as digital cameras, are common place to this generation. They work with them at home, in school, and they use them for entertainment. Increasingly these technologies are connected to the Internet, an expanding web of networks which is attracting a million new users monthly. Constantly surrounded by technology, today's youth are accustomed to its strong presence in their lives. And it is through their use of the digital media that the youth will develop and superimpose its culture on the rest of society. Already this generation is learning, playing, communicating, working, and creating communities very differently than their parents.

This new generation is exceptionally curious, self-reliant, smart, focused, able to adapt, high in self-esteem, and has a global orientation. And the way they gather, accept, and retain information is through interactive media rather than broadcast media. Nothing reflects this preference more than the decline in television viewing hours. Television audiences are becoming smaller and more discriminating. One might go so far to say that youth and the young adults are refusing to be reduced to spectator status. It is not only television specifically that is becoming irrelevant, but rather, the nature of broadcast culture itself. According to Don Tapscott, the Chair of the Alliance for Converging Technologies, Broadcast technology, like television, is hierarchal.[8] It depends upon a top-down distribution system. Someone somewhere decides what will be broadcast and our role in this is limited to what we choose, or do not choose to watch. There is no different feedback from the viewer to the broadcaster. Nor is there any direct interaction between viewers unless they are sitting on a couch in the same living room. In TV culture, viewers have no real power, except to channel surf. Internet gives the user power because it depends upon a distributed, or shared, delivery system rather than a hierarchal one. This distributed, or shared, power is at the heart of this culture of interaction.

Figure 4- Cartoon depicting TV culture.

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[8] Tapscott, 127

Technology as Art

"…Several centuries of modernity have made the Western church aesthetically anorexic. The triumph of reason, when added to an historic suspicion of images and the feminine has provided thin gruel for embodied human beings. Paganism becomes an attractive option when compared to the asthetic and colourless face of demythologised Christianity. What has become of the art, the symbolism, the mystery, the wonder and the transcendent earthiness of Christian faith? It is no surprise to me that those sections of the church which are resistant to current hemorrhaging are those such as the high Catholic and Eastern Orthodox traditions which have preserved some colour and bodily resonance in their worship... In practical terms, the recovery of sensuality would mean a new romance between faith and artistic expression…" [9]

Figure 5- *An interactive digital display at Interaction Design Institute Ivrea.*

In the Middle Ages, much of the congregation of a church could not read or understand Latin, which was the language in which the sermons were given. Therefore, the stories of the Bible were communicated through the arts displayed in the church building. Stained glass windows, tapestry, paintings, and sculptures were all used to teach the congregation the principles and the message of the Gospel visually rather than vocally. In a period of several hundred years, the Western world has become verbally oriented and there is a tendency to

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[9] Mike Riddell, Beyond Ground Zero: Resourcing Faith in a Post-Christian Era.
http://www.jonnybaker.btinternet.co.uk/text/BeyondGroundZero.html

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believe that knowledge is best expressed through science and other rational disciplines. However, today's youth retain information and experiences visually because of their constant exposure to Internet, video games, and other digital media. Even their expressions through art have become digitized and are completely different from what the older generation has been seeing. Using computers and a number of new software programs technologies that seem to continually grow exponentially, digital art goes beyond what a normal painting would do. It can engage the viewers to participate in making or changing of the art. Another characteristic of digital art is that it is not permanent and therefore it can happen anywhere in various forms.

Therefore, the experiencing of the art can be changed depending upon location, occasion, and other particularities.

In viewing the prevalent culture of today, church must learn to speak the language of the place where they are. This means that in today's electronic world, church architecture, as well as art, must come to terms with electronics.

Figure 6- Digital graffiti by Graffiti Analysis. By motion tracking,computer vision technology records a graffiti writer's pen movement over time. These gestures are processed and later produce digital projections which appear at night in motion on surfaces of buildings in random locations.

Figure 7- Digital art print for Status, a Christian group based in NYC by Danny Jones.

Agapé Mission Church (AMC) has been engaged in the idea of effectively communicating the messages of the Christian faith to attract and engage a younger generation and translating them through digital media and arts. The primary means is a program called W2.0. The name simply means second worship service on Sundays. However, it is radically different from what today's Christians are used to seeing in traditional churches. Mostly geared towards college students and young professionals, W2.0 engages the congregation with what they are familiar with in their everyday lives, media. One typical worship service can be comprised of a video clip, a drama, reflection of art displays, worship through songs, and small group discussion.

Figure 8- *A drama presentation with video projection in the background.*

In order to support this program, Multi-media team, made up of artists and designers among

the AMC congregation, produces each elements included in W2.0 throughout the week.

Chapter 4: Building Program

The program for this thesis was developed from an assessment of Agapé Mission Church's (AMC) current liturgy, activities, and programs as well as additional designs to support future growth and new programs as expressed by Pastor Tim Rapp and Wayne Wu, the Creative Director of W2.0. As previously argued, the designed structure is not to be a church; instead it is a place through which the church (people of the faith) can minister. Therefore, this thesis is to create a Ministry Center for AMC to continue to minister according to their mission statement, "For His glory in this generation."

Program Description

Worship:

Worship room- Normally the worship room is the most important program piece in a church. Programs or activities that require all the congregations to be in the same room will happen here.

Reflection/ activity rooms- These are series of rooms that can be changed easily according to the specific program of one Sunday.

Fellowship:

Lobby- All congregation will enter through a lobby space allowing access to different elements of the building. Occasionally, works of art can be displayed to begin processional program for certain events.

Gallery- Many of the art installations as well as digital videos will be displayed in the gallery. The space can be used as a part of Sunday's liturgy and also be open to public for viewing during Artscape or on weekdays.

Café- AMC congregation will use this place as fellowship space before and after a typical Sunday worship. The café will be adjacent to the gallery to encourage the congregation to continually converse about that particular Sunday's topic.

Kitchen- Small kitchen is attached to support the café.

Studio:

Digital Art studio- The studio will be comprised of production labs, video taping room, projection room. This studio will be used by the artists of AMC on a daily basis.

Server room and storage for electronics

Sculpting (medium art) Studio- This studio will be mostly an open space for sculpting, painting, and constructing for installations displayed in liturgy or in the gallery.

Storage- Will store supplies and building materials for the sculpting studio.

Administrative:

Offices

Conference room

Educational:

Library

Classrooms

Nursery

Service:

Lavatories

Building Storage

Parking:

The close proximity to various public transportations around the site allows for the congregation the option not to drive to the Ministry Center. However, a new parking garage and surface parking will be provided in the proposed master plan.

Program Tabulation

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Worship room	4000 sf
Multi-purpose rooms (3)	2000 sf
Library	500 sf
Classrooms (3)	1200 sf
Nursery	400 sf
Lobby	1500 sf
Gallery	1000 sf
Café	600 sf
Kitchen	300 sf
Offices	1000 sf
Digital Art Studio	1500 sf
Server room	200 sf
Sculpting (medium art) studio	2000 sf
Storage	600 sf
Lavatories	600 sf
Storage	600 sf
Subtotal	**18,000 sf**
Mechanical	1,880 sf
Ciculation	3,976 sf
TOTAL	**23,856 sf**
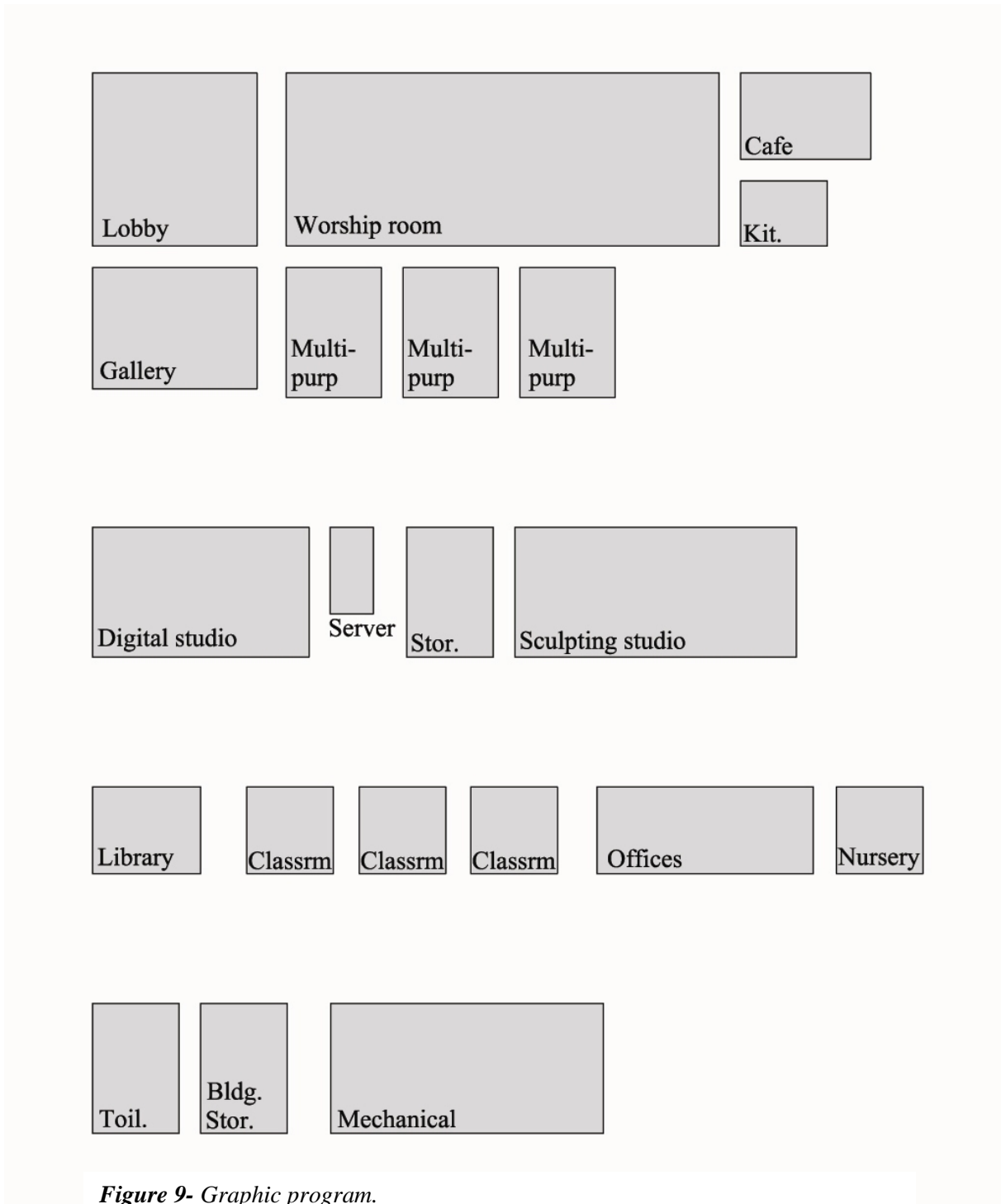
Figure 9- *Graphic program.*
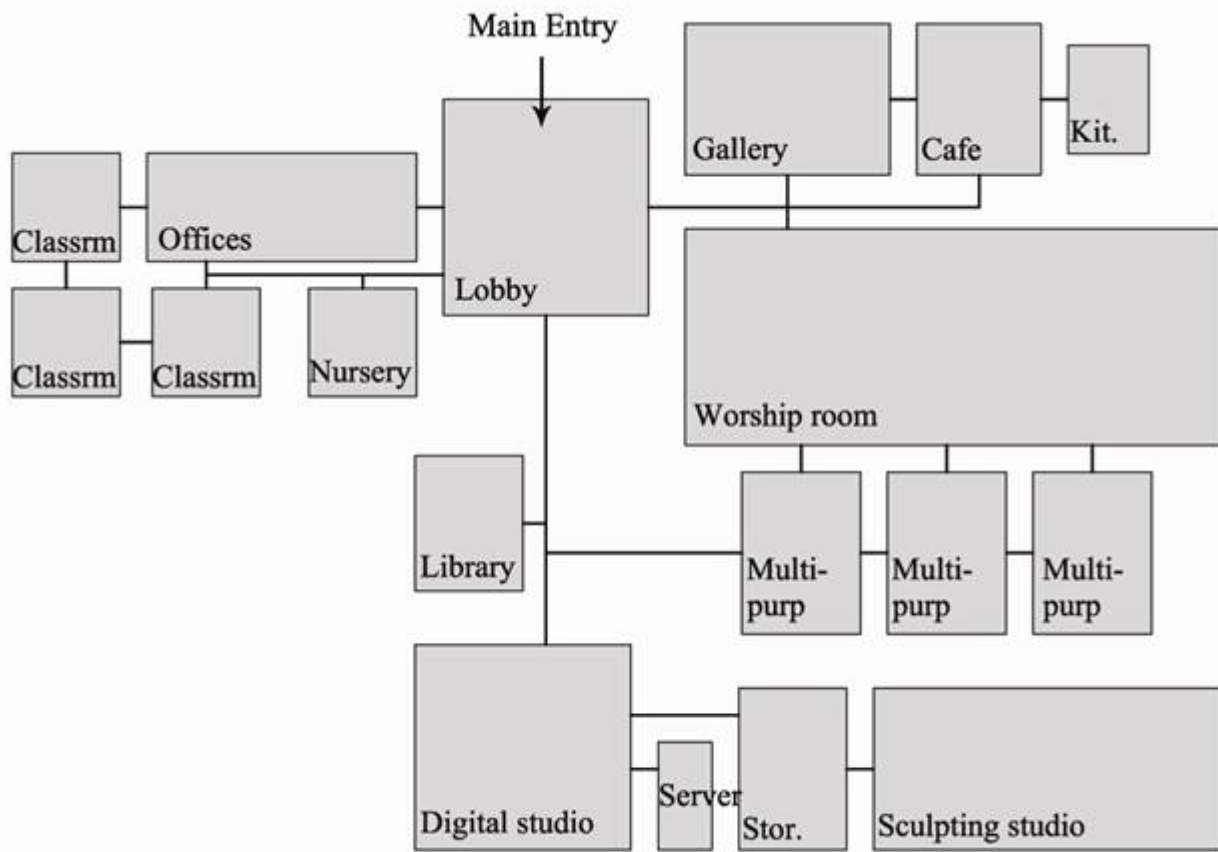
Figure 10- *Relationship Diagram.*

Chapter 5: The Site

Overview

The site is located in Baltimore, Md, on the east side of Bolton Hill. The site, approximately 1.6 miles north-west of Inner Harbor, is bounded by railroad tracks, Howard Street, and Mount Royal Avenue. The neighborhood is bounded on the north by North Avenue, on the west by Eutaw Place, on the east by Mt. Royal Avenue, and on the south by Dolphin Street. Penn Station with Amtrak and MARC is a five minute walk and three light rail stations serve the neighborhood. The Jones Falls Expressway (I-83) and Martin Luther King Boulevard are major vehicular roads into the area.
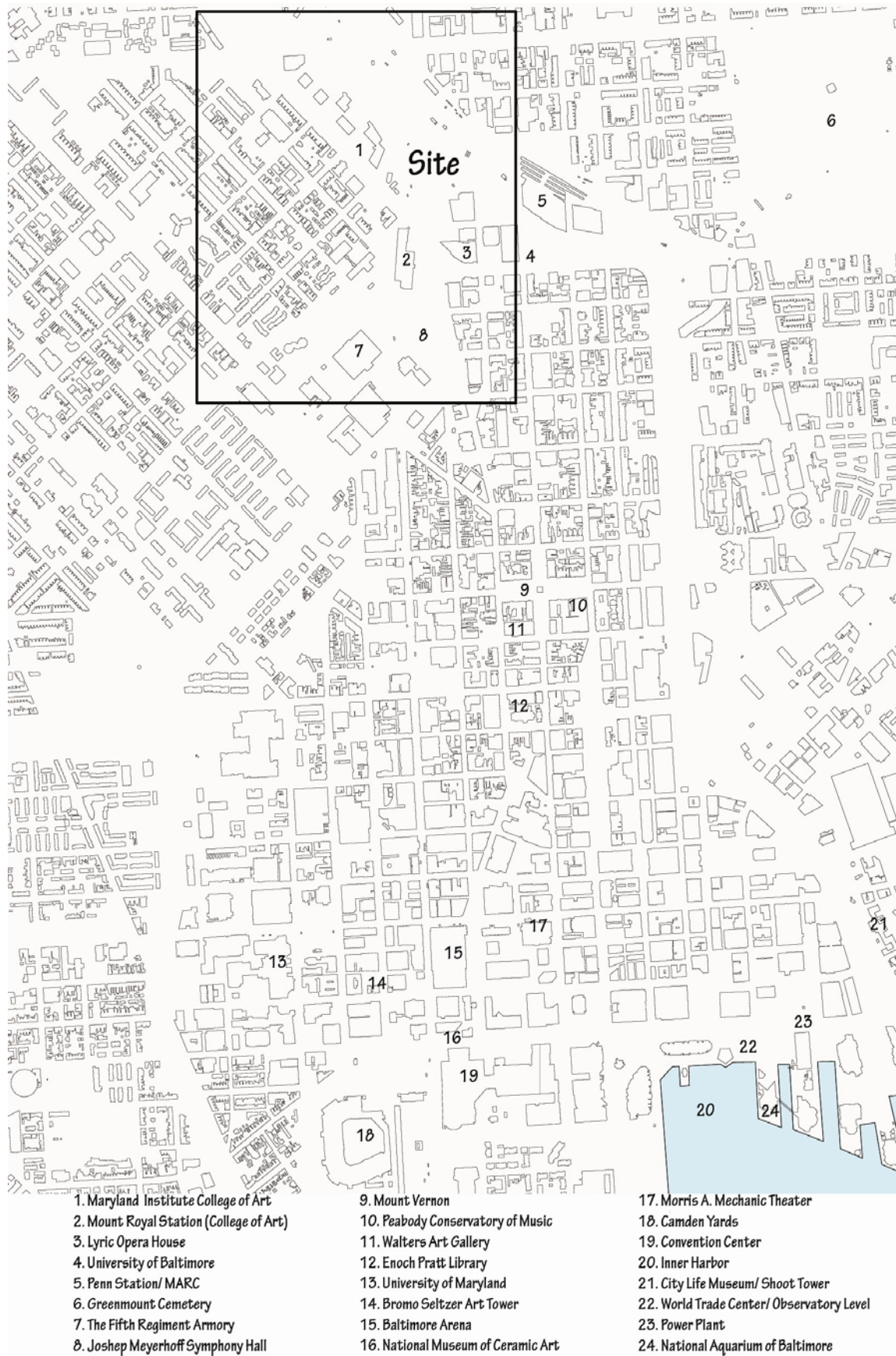
Figure 11- *Major landmarks and institutions.*

1. Maryland Institute College of Art
2. Mount Royal Station (College of Art)
3. Lyric Opera House
4. University of Baltimore
5. Penn Station/ MARC
6. Greenmount Cemetery
7. The Fifth Regiment Armory
8. Joshep Meyerhoff Symphony Hall

9. Mount Vernon
10. Peabody Conservatory of Music
11. Walters Art Gallery
12. Enoch Pratt Library
13. University of Maryland
14. Bromo Seltzer Art Tower
15. Baltimore Arena
16. National Museum of Ceramic Art

17. Morris A. Mechanic Theater
18. Camden Yards
19. Convention Center
20. Inner Harbor
21. City Life Museum/ Shoot Tower
22. World Trade Center/ Observatory Level
23. Power Plant
24. National Aquarium of Baltimore

Bolton Hill has the advantage of having close proximity to city's cultural district that

includes Lyric Opera House, the
Meyerhoff Symphony Hall, Walters Art
Gallery, Everyman Theater, and Charles
Theater. Some of the prominent
neighboring areas are Mount Vernon to
the east and Station North Arts and
Entertainment district across Jones Falls
Expressway providing vibrant activities to
the residents. Coupled with great
accessibility by many public transits,
Bolton Hill has attracted many young
professional and student residents to its
neighborhoods keeping it young and
energetic. It is also in walking distance to
the University of Baltimore and the
Maryland Institute College of Art. The
site is directly across from the Brown
Center, a new state-of the-art visual and
performing art facility for the Maryland
Institute College of Arts (MICA). With
classrooms and production spaces for
MICA's growing digital-arts program,

Figure 12- *Neighboring districts boundary.*

Figure 13- *School campuses near the site.*

along with 550-seat auditorium, Brown Center anchors a growing campus.

A large part of congregation of the new Ministry center for AMC will come from these neighboring districts and campuses with young residents.

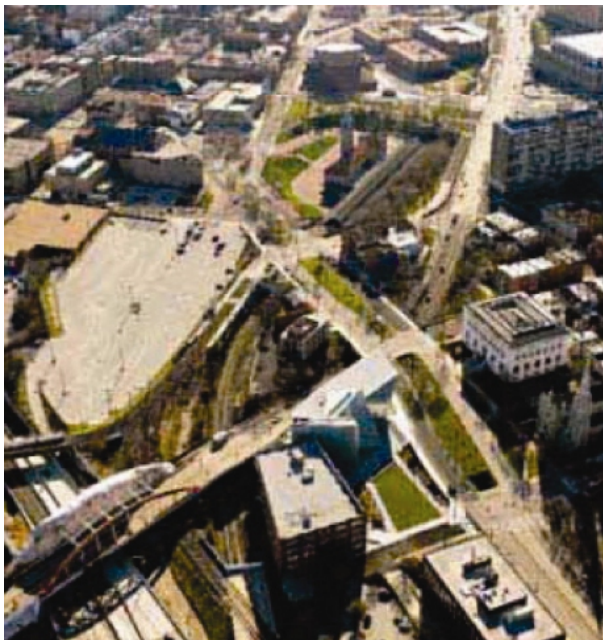*Figure 14- View of MICA Brown Center and Mount Royal Avenue.*

Figure 15- Aerial view of the site.

Figure 16- View of MICA Brown Center from Mount Royal Avenue.

Bolton Hill is a diverse neighborhood. Since the late 19th century, Bolton Hill has consistently remained a residential neighborhood. Attracting prominent businessmen, professional, and many well-known Baltimore families, it grew to be a distinctive community with elegant homes, landscaped boulevards, and decorative civic monuments. Although Bolton Hill underwent a period of decline in the mid 20th century, the construction of Maryland Institute in Mount Royal Avenue and several adaptive reuse constructions by the city started to bring eclectic group of students and young families to the neighborhood.

Figure 17- View of MICA Main Building and Corpus Christi Catholic Church

Also, because of its strategic location near two major cultural districts in Baltimore, Bolton Hill has been annually hosting Artscape, the mid-Atlantic's largest celebration of the arts, since 1981. Artscape attract hundreds of thousands of people from Maryland and beyond each July along Mount Royal Avenue on the eastern edge of Bolton Hill. The festival takes full advantage of the cultural institutions in and around Bolton Hill, including the Lyric Theatre, Meyerhoff Symphony Hall, and the

Figure 18- Performance at Mount Royal Avenue during Artscape.

Maryland Institute College of Art. It features arts and craftspeople from across the country; visual art exhibits both on and off Mount Royal Avenue; live concerts on four outdoor stages; a full schedule of performing arts including dance, opera, theater, fashion, film and classical music, hands-on projects, and children's entertainments. Mount Royal Avenue is completely closed off from the Charles Street intersection to the North Avenue. Every inch of open space is used for displaying of art work and every major facade is used as a backdrop for performances. Therefore, an option of adding an open plaza facing Mount Royal Avenue can be considered to enhance this thesis' exploration of placing a worship space into this site.

Figure 19- *Artscape path diagram. The parking lot located in the site is used as pad for food pavilions.*

Figure20- *View towards the south of Mount Royal Avenue during Artscape. In the background is the Belvedere Hotel.*

Figure 21- *Religious institutions within 5 min. & 10 min. walk from the site.*

The site has many religious institutions within a walking distance. In the nearest distance, Corpus Christi Catholic Church stands at the corner of Mount Royal Avenue and West LaFayette Avenue. Although it is historically a church of the Bolton Hill community, most of the congregation is comprised of older generation and many of the younger residents and students do not participate in the worship service.
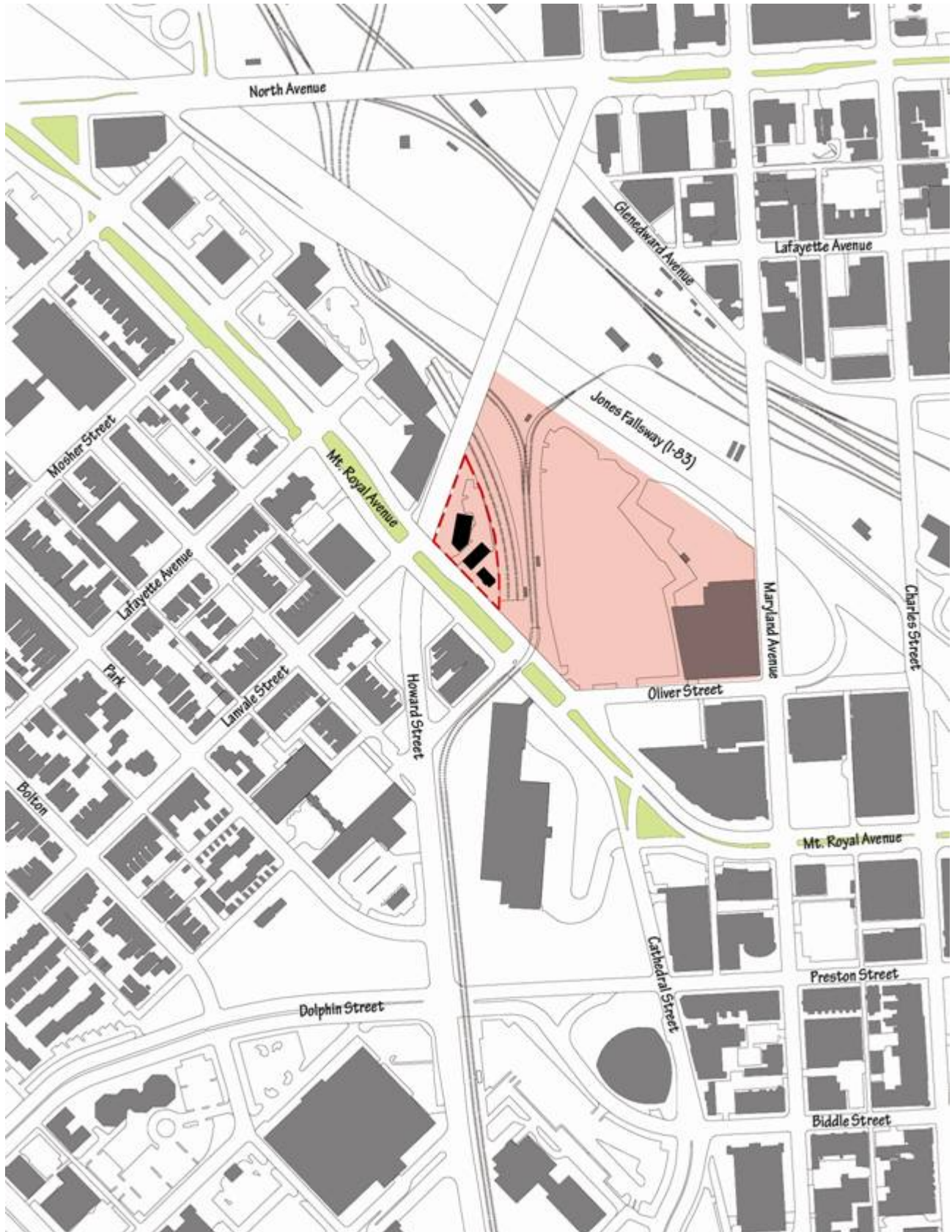
Figure 22-Existing site plan.
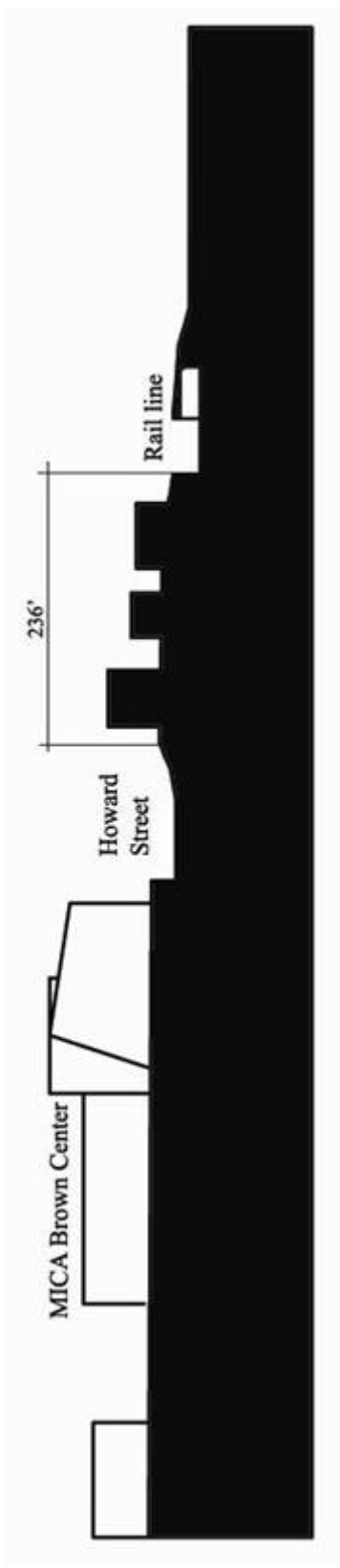
Figure 23- *Site section, northwest-southeast*
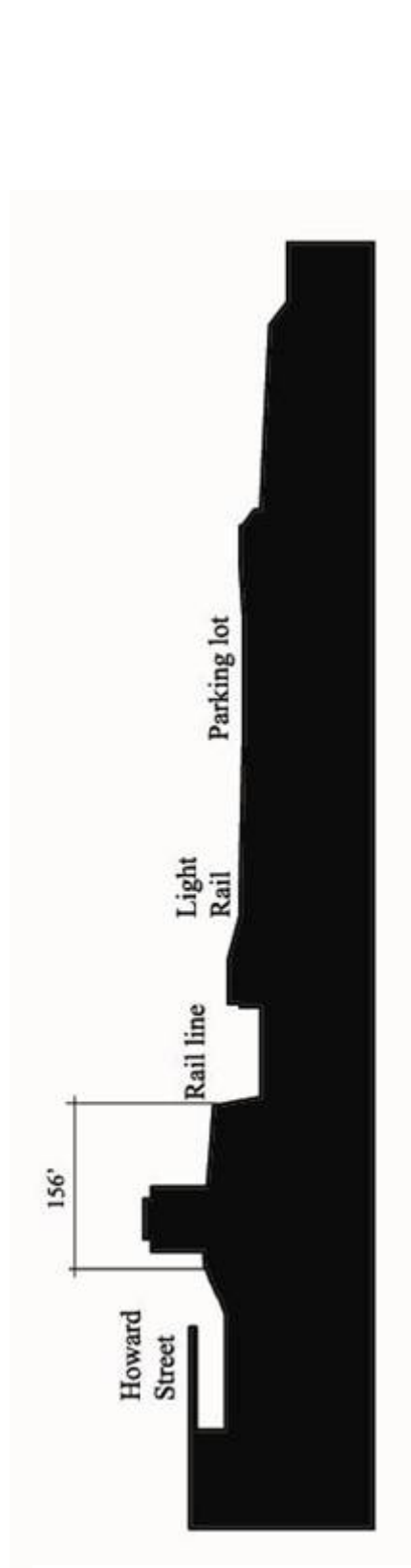
Figure 24- *Site section, west-east*

Figure 25- *Figure ground plan.*
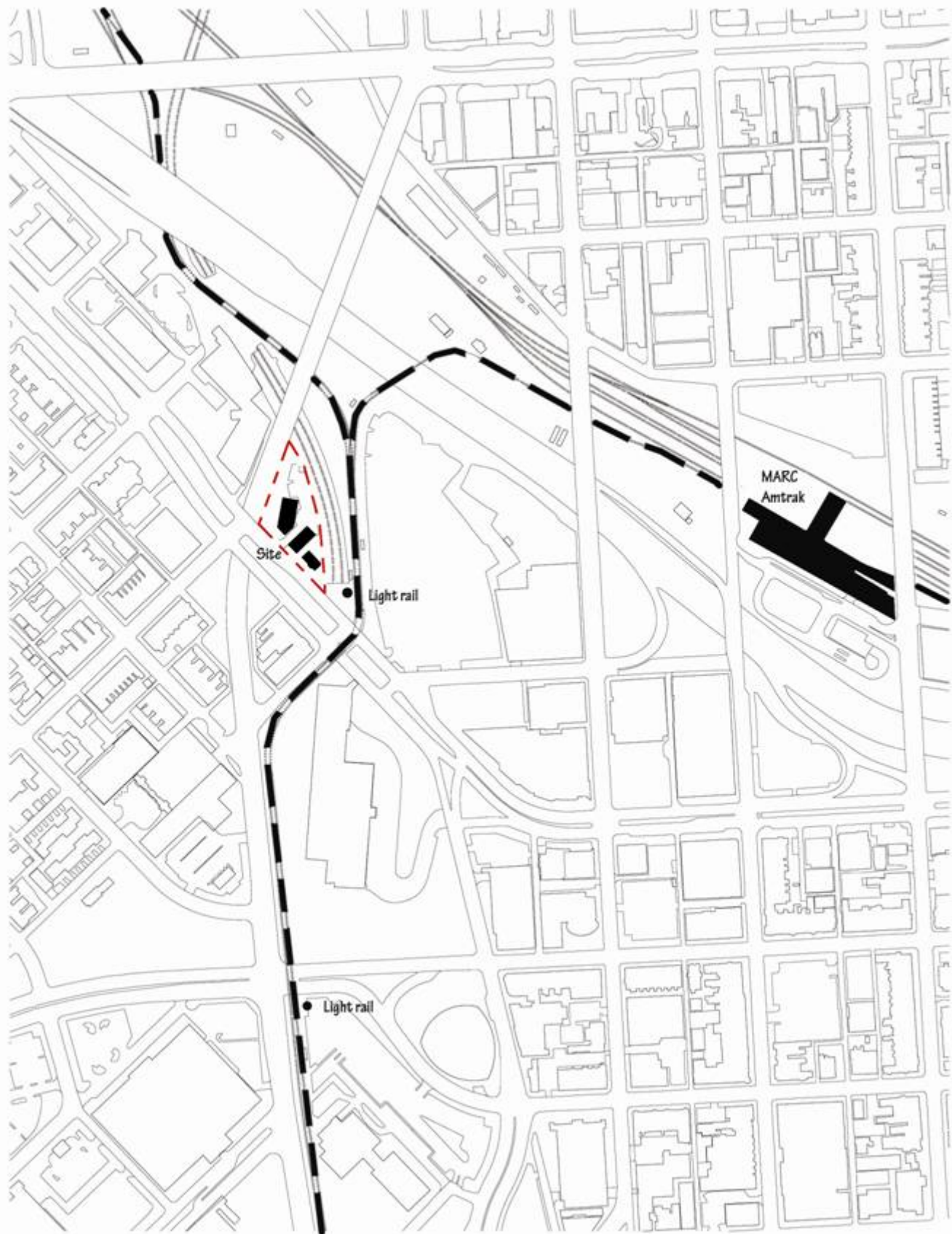
Figure 26- *Public transit to site includes light rail, metro, and train systems (MARC and Amtrack)*

Figure 27- *Highway I-83 adjacent to site.*

Figure 28- *Railroad tracks adjacent to site.*

Figure 29- *Parking lots near the site.*
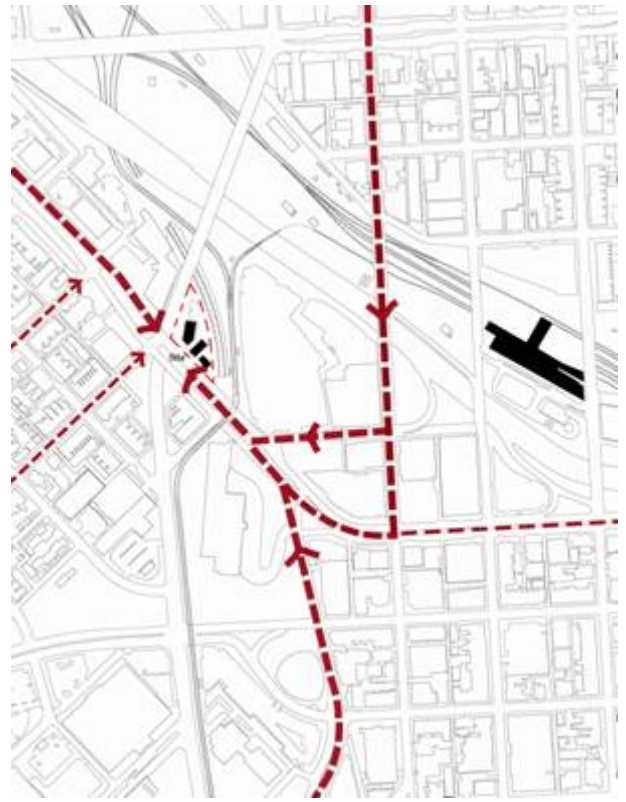
Figure 30- *Approach to site.*

Figure 31- *View of the site looking northeast along Mount Royal Avenue.*

Figure 32- *View of the site looking south east along Mount Royal Avenue from Brown Center, MICA.*

Figure 33- *View of the light rail and the site beyond.*

Figure 34*- View of the site looking from light rail stop.*

Figure 35- *View of the site looking from the parking lot.*

Figure 36- *View of the site and Mount Royal Avenue from North Howard Street.*

Figure 37- *View of the rail line and the site's retaining wall on the right.*
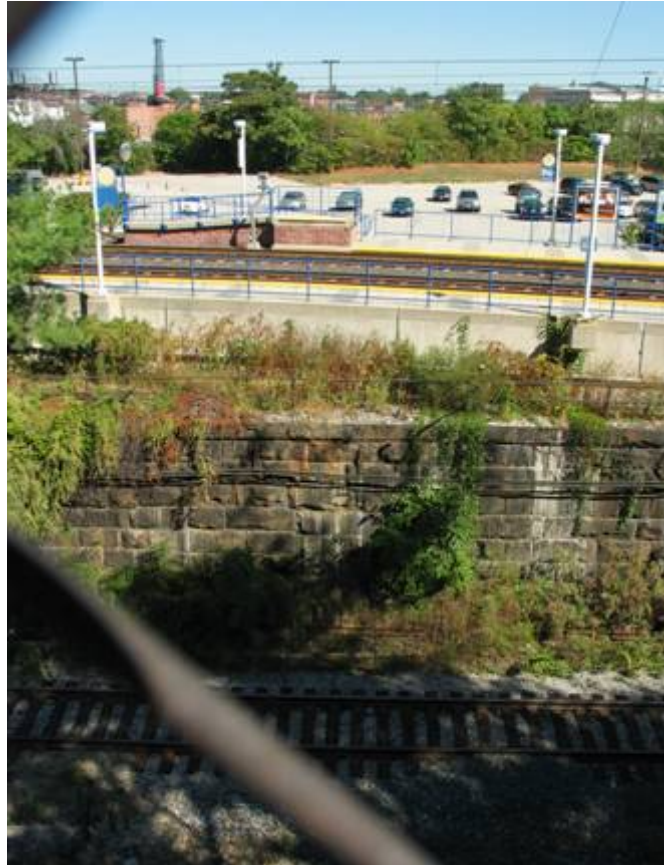
***Figure 38-** View of the rail line from the site.*

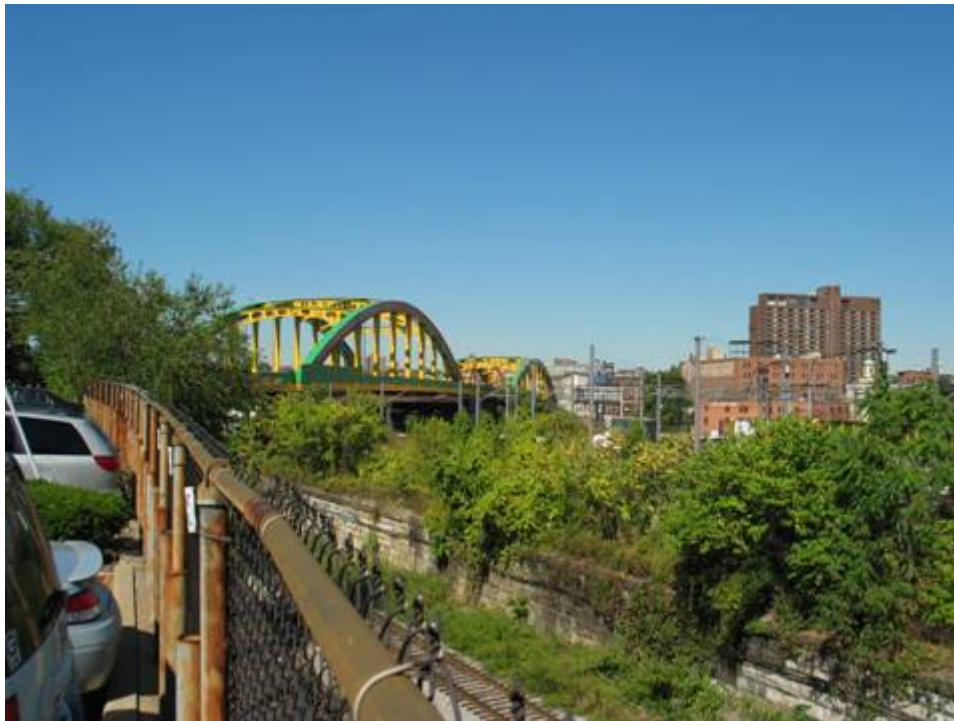***Figure 39-** View of the rail line and Howard Street from the site.*

Figure 40- *View of the parking lot from the site.*

Figure 41- *View looking at southeast with the Belvedere Hotel in the distance.*

Figure 42- *View of the Main Building and Corpus Christi Catholic Church across Mount Royal Avenue.*

The site chosen for this thesis is in the Office-Residence District 2 (O-R-2) established by the Zoning Ordinance of Baltimore City (1994).

Set back:

The minimum yard requirements in this district are as follows:

Front: not less than ten feet in depth

Interior side: none required. If interior side yard is provided, not less than ten feet in width.

Street Corner side: not less than ten feet in width.

Rear: not less than ten feet in depth.

Floor Area Ratio (FAR):

The maximum floor area ratio shall not exceed 3.0.

Chapter 6: Precedents

Overview

The goal of the precedent analysis is to discover a possible way to merge the culture of today's trend of multi-media and electronics and the Christian activities and liturgy. The following precedents were chosen for study based on relevance to the design problem of this thesis. Furthermore, several categories were established for the selection of precedents. The criteria include building program, site intervention, and tectonics.

Program

Agapé Mssion Church, Elkridge, Maryland (2003)

In looking at the program, one of the difficulties was to find precedents that would adequately address the spatial changes that are required by this thesis. Because of the church's effort to integrate media and arts into the liturgy is fairly new, the architecture that can support the new program has not been yet designed. Therefore, analyzing AMC Ministry Center and how their space is being used is vital to the research.

Before AMC acquired the property, the Ministry Center was a one story industrial office building of a package food distributor company occupying the west bar of the building and Benfield Electric Company's garage occupying the east. From the beginning of the design, the pastoral team of AMC was keen on designing a space that would encourage movement of the congregation and also be able to transform easily to hold different activities than what each of these spaces were meant to hold. Because of the limited budget, many of these accommodations were done very simply. The sense of movement is achieved by curved grid frames that hang in the ceiling of both the long café and main worship room. Because of

the narrow threshold from the lobby to café, the grid acts as a visual guide to the congregation to flow into the main worship room.
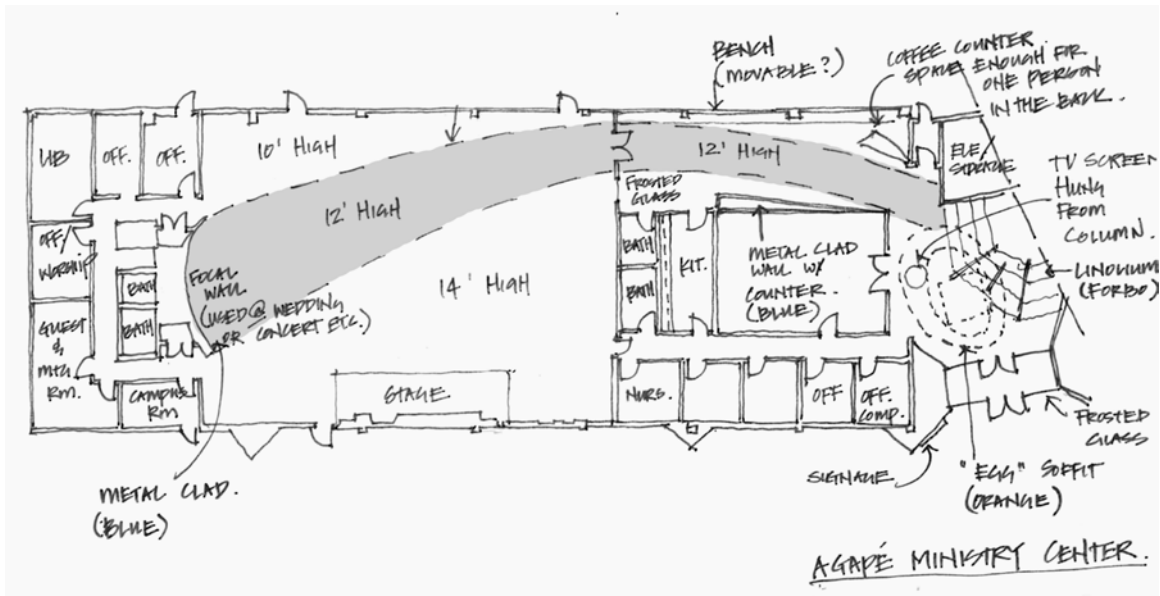

Figure 43- *Design Concept drawings for the west wing showing the ceiling grid that extends from café to the main worship room.*

Also, there are two focal points in the main worship room. The majority of the worship setting is done with the focal point towards the stage south of the room. However, in the special occasions such as weddings, the focal point is changed to the curved wall on the west side of the room taking advantage of the elongated room size. Stage is movable and easily reassembled for other events that can be held in the worship room.

The main investigation of the AMC ministry center is to outline the spatial uses and sequences in its liturgy. In the course of one Sunday worship service, one is taken through a journey of experiences from the moment he or she enters the

Figure 44- *View of the café area with a piece of art installation in the space.*

building. Usually an art installation or video projection would be set up in the lobby to start

to inform the congregation of that Sunday's topic. As the congregation moves towards the

café area, more images and art pieces are displayed to provoke conversations and thoughts

about the topic. When arriving at the main worship room, the congregation is fully ready to

engage in worship.

Figure 45- Diagram of movement. From the moment the congregation arrives, they are taken through a spiritual journey and discovery through visual arts. This can take place in the shown order or in opposite order and however the Sunday liturgy is structured by the main message that needs to be conveyed.

AMC Ministry Center Program:

Main Worship room-   5330 sq.ft.

Café-   1200 sq.ft.

Meeting room-   875 sq.ft.

Kitchen-   250 sq.ft.

Lobby-   990 sq.ft.

Gallery/ art storage-   5200 sq.ft

Offices-   2315 sq.ft

Children's wing (worship room and classrooms)-   3200 sq.ft.

Everson Museum, Syrcuse, New York, I.M. Pei

Figure 46*- Activity diagram*

Everson Museum is studied for how it handles the movement of people. The visitors would enter in from the entrance plaza that can lead down to the main auditorium space on the left or the open plaza on the right. The gallery exhibits starts from there and lead to the second floor. Visitors travel between four box-like galleries on small bridges at the corner of the central plaza rendering this space to be an exhibit itself observed from the second floor, as well as a circulation and orientation hub.
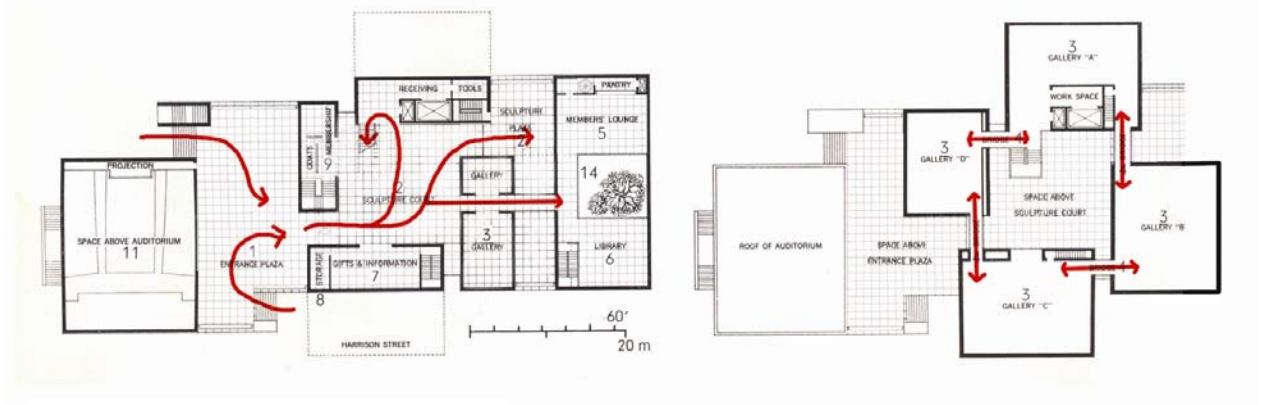
Figure 47*- Circulation diagram*

Auditorium and the sculpture plaza are viewed as spaces of permanence where as the four galleries on second floor can be more flexible with the demands imposed by the changing circulating type of exhibit. Having the auditorium separated from the main activites of the

exhibit gallery spaces can be an approach that this thesis can take in developing series of worshipping spaces that the congregation can move through and experience.
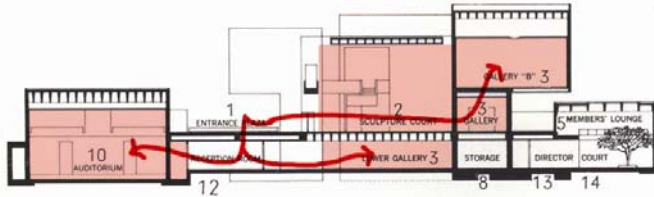
Figure 48- Sectional diagram of circulation. Auditorium and exhibit spaces are separated for more diverse use of the museum.

<u>*Site Intervention*</u>

Cemetery and Chapels of Rest, Vaasa, Finland, Juha Leiviska (Competition project, 1968)

Given the constraints of the site, it is important for this thesis to address the edges and the slope of the site. The Cemetery and Chapels of Rest addresses these same issues in two ways: one, by using the hill to create a spatial progression to arrive at a plaza: two, by putting the chapels and its towers at the edge of the lake to create a cliff-like wall.
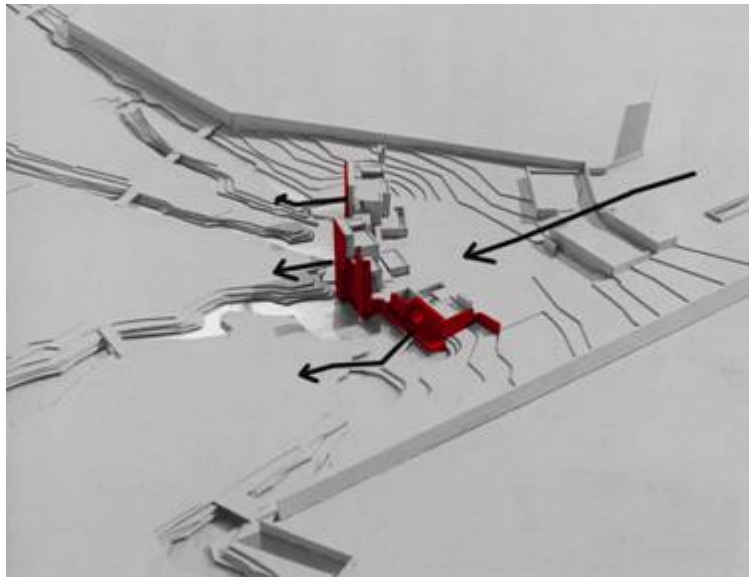
Figure 49- Project model showing the approach to the chapels and the edge conditions of the site.

Instead of the traditional rectangular areas of graves and planting separated by wide aisles, Leiviska proposed a system of radiating canals connected by a narrow river that flows past the site. These canals meander through a small lake, from which the chapels rise. The

access to the graves from the chapels is by bridges. The chapels and its towering walls act as a fixed point of reference from the vistas within the cemetery as well as holding the edge of the open plaza where people can congregate before entering the internal volumes of the chapels.

The tectonic aspects of this precedent can be also noted for a study for the thesis. The most interesting architectural detail is the section of these chapels. The retaining walls that hold the edge of the lake rise from the water and become the tower walls that wrap around to create a cliff-like look.

Figure 50- Site plan showing the approach to the chapels. Buildings act as visual retaining wall keeping the view to the cemetery until the visitor is at the chapels.
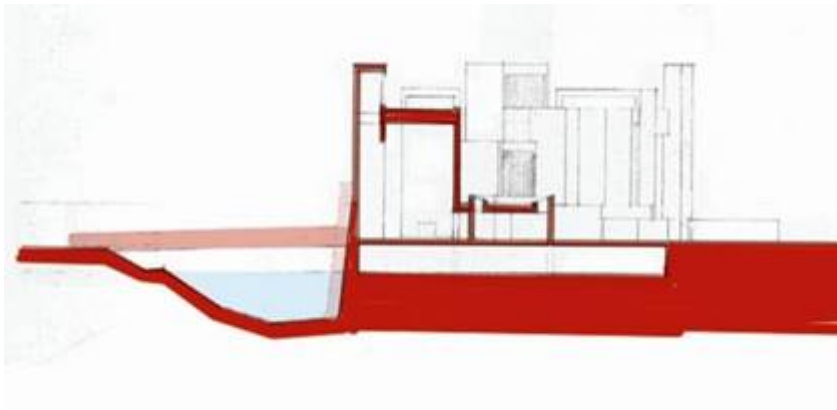
Figure 51- Section through the chapel and the lobby showing the retaining wall along the edge of the lake.

43

Notre-Dame-du-Haut, Ronchamp, Le Corbusier (1950-1954)

The precedent is a great example of a "play of volumes brought together in light". The light filtering through the different colors of glass against the whitewashed walls creates a extraordinary effect inside the church. The wall itself becomes two things: one, it is a dynamic backdrop of an activity and two, it is an object of reflection.

Figure 52- *Notre-Dame-du-Haut. Massive masonry wall becomes playful and engaging with colorful glass punctuating through.*

Because digital art presentation demands controlled light, natural light must be shaped and directed as much as possible.

Bloomberg ICE, Tokyo, Japan, Klein Dytham Architecture (2002)

Figure 53- ICE- Interactive Communication Experience.

Because it was important to integrate current digital media technology into this thesis' design, there were some studies on interior design precedents. Bloomberg is a financial data

Figure 54- A visitor playing with ICE.

and news center and this showcase is located at a public space opposite Tokyo Station. Bloomberg harvests information data from all over the world and processes it into a pure understandable form. The showcase design conveys this idea of processing and playing with data in a tangable way. A pure white element in the space allows clouds of information to condense. Something like an icicle suspended from the ceiling where data magically forms. ICE is interpreted as Interactive Communication Experience.

In its resting mode with no one interacting with it stock tickers are expressed in a fun and easily understandable way. If the

stock is up the stock sign swells - if it drops the stock shrinks and drops below the line. When you approach ICE the infrared sensors behind the 5.0m x 3.5m glass wall detect your presence and you begin to interact with the data. You don't actually have to touch the glass - the sensors detect you from about 500mm away.

Figure 55- A view of the display of interacted data.

Figure 56- A view of visitors at ICE

Chapter 7: Design Approach

Overview

To begin exploring the possibilities for design strategies, many conceptual designs were developed based first on the liturgical methods of experiential movement relating to Agapé Mission Church's liturgical needs. The building partis will examine the massing of the building relative to the site. Because the building lot is oddly shaped, the key consideration in the conceptual design was to take advantage of the site conditions given. The proposed site plan shows the master plan for the existing adjacent parking lot and the new green space.
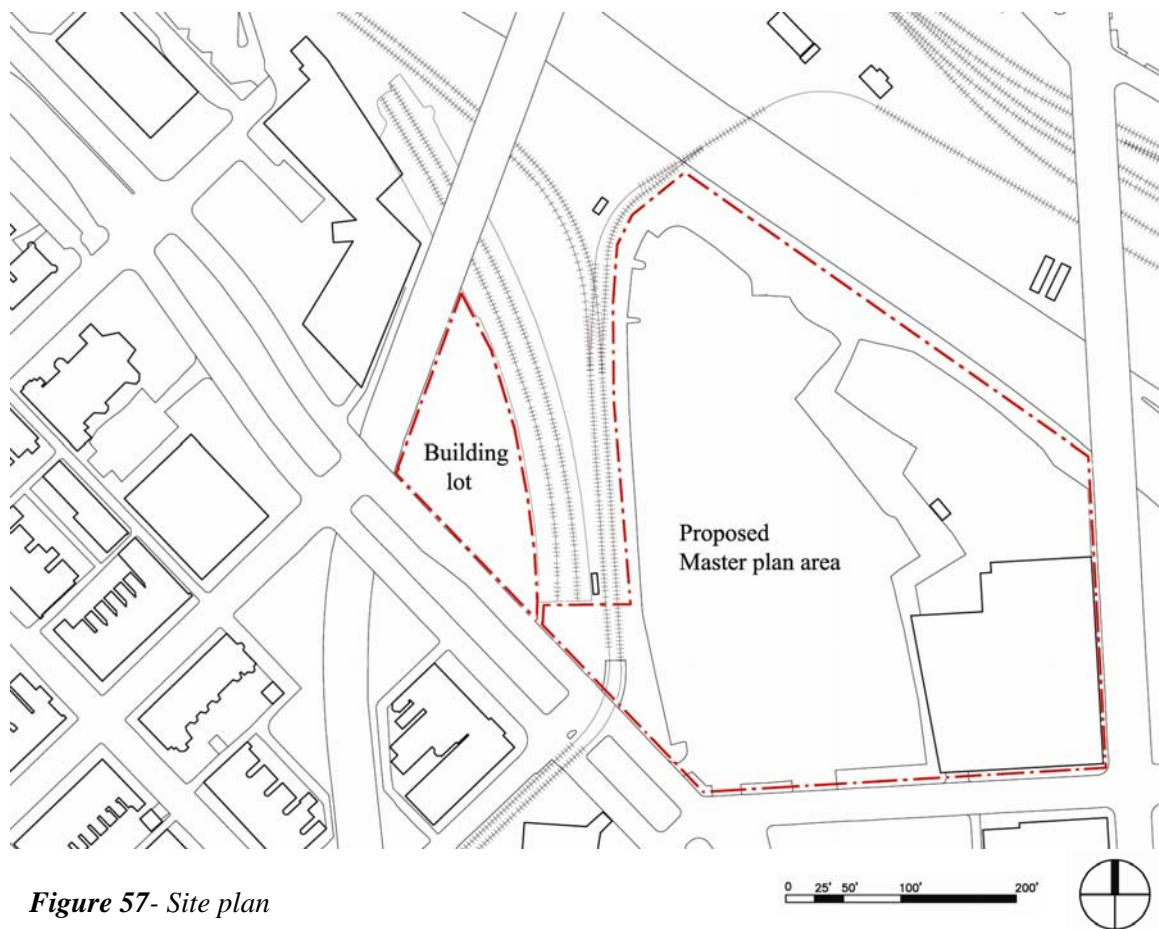
Figure 57*- Site plan*
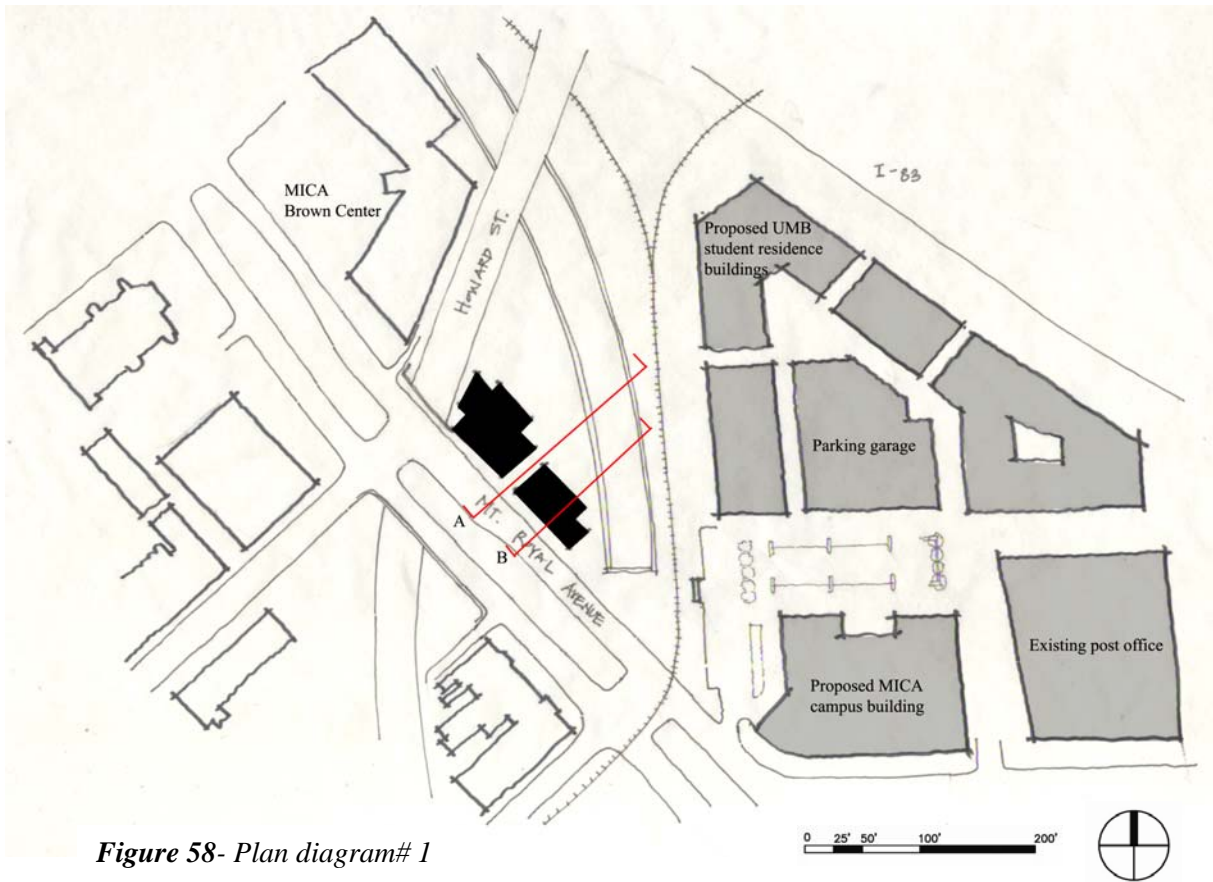
Figure 58*- Plan diagram# 1*

The first parti takes advantage of the street edge condition at the Mt. Royal Avenue.

The building lines at the south of the site to create solid edge along Mt. Royal Avenue. At the

northeast side, the building opens up to a lower plaza space that slopes down to the edge of

abandoned rail line that is depressed 30 feet below. This creates a private open space to be

used by the AMC congregation and possibly used in liturgy. The main entrance to the

building will be from the lower plaza level. The main worship room, which is a double height

space, is located near the Howard Street and act as a landmark volume.

Figure 59- *Massing diagram #1*
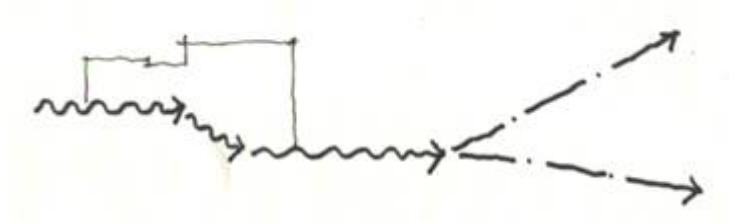
Figure 60- *Movement diagram #1*
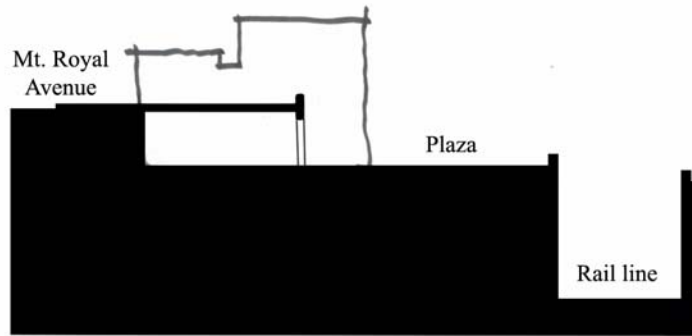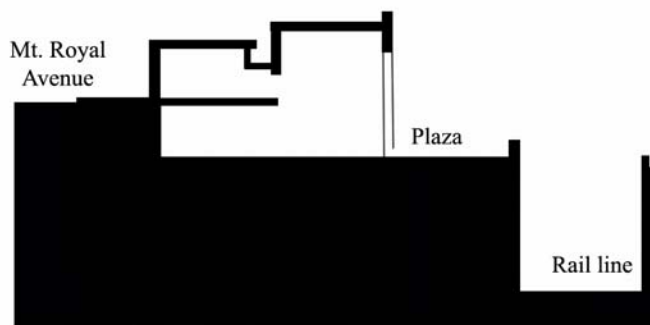
Figure 61- *Section diagram #1*
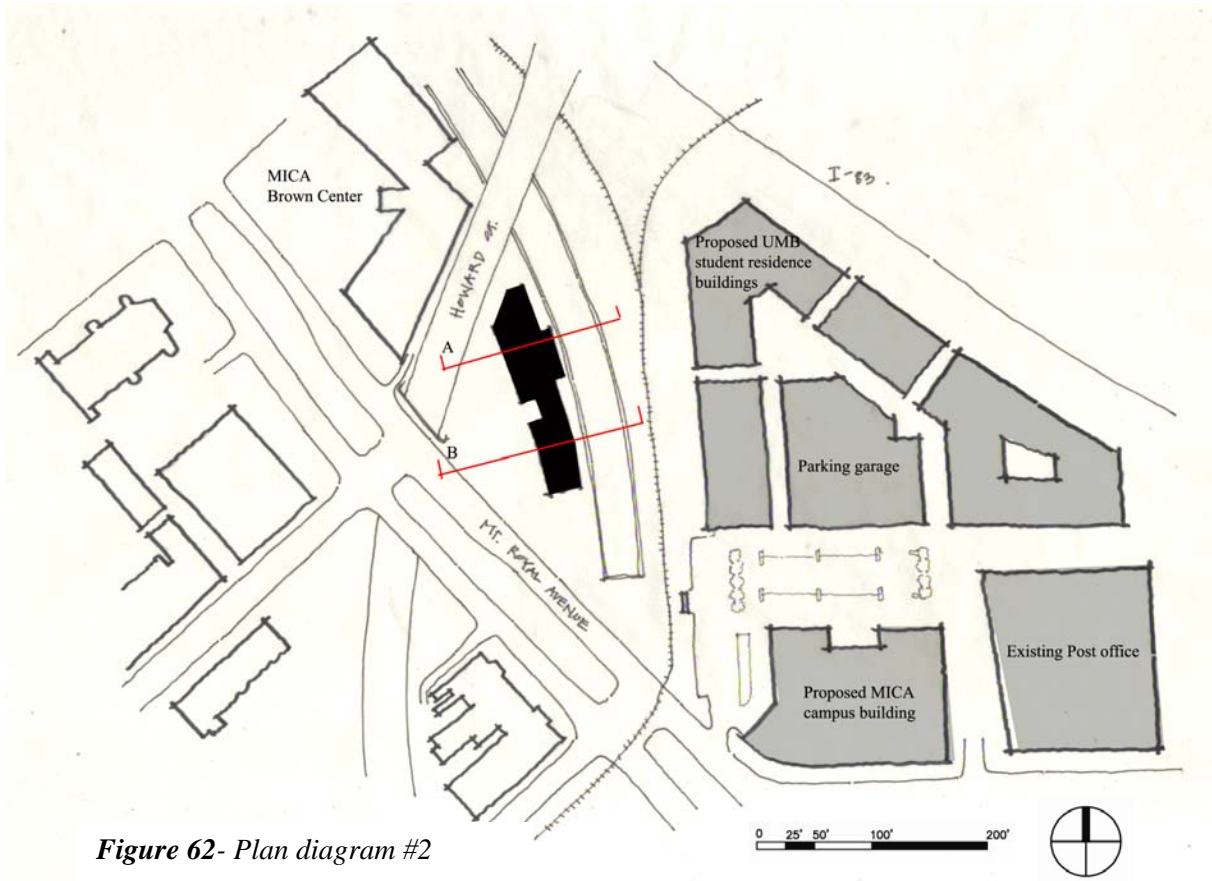
Figure 62*- Plan diagram #2*

The second parti is addressing the edge line of the depressed rail line at the north east

of the site. Imitating cliff planes, using tall heights of worship room and massing, the building

can relate back to Station North neighborhood across I-83. The main entry will be through the

main street plaza off Mt. Royal Avenue. The main worship rooms are near the rail line so that

only access is through the front entrance. The plaza will be used for everyday use by the

MICA students as well as the Bolton hill community. This plaza can also be included as a part

of the Artscape grounds during the summer weekends.

Space used in luturgy
Creative space (studios)
Support
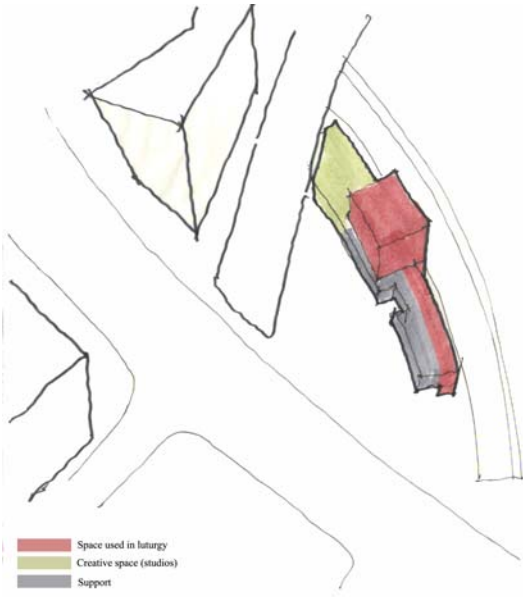
Figure 63- *Massing diagram #2*   *Figure 64*- *Movement diagram #2*

Mt. Royal Avenue   Plaza

Rail line

Section A

Howard St.   Plaza

Rail line
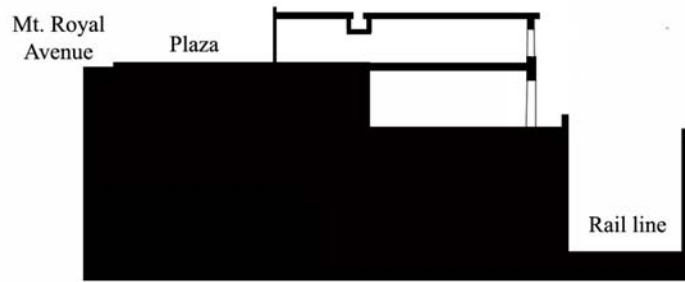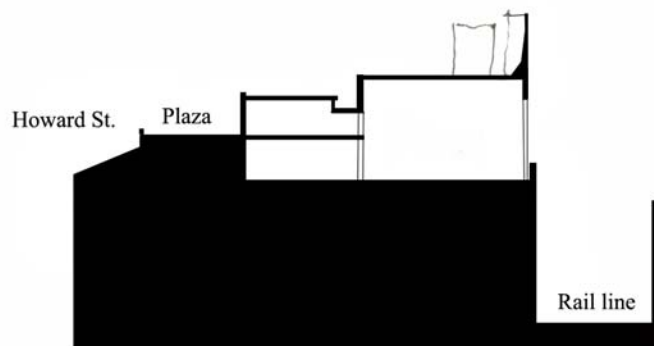
Section B

Figure 65- *Section diagram #2*

0   25'   50'   100'

51

Building Parti #3

MICA
Brown Center

HOWARD ST.

MT. ROYAL AVENUE

I-83

Proposed landscape space

Parking garage

Light rail stop

Existing Post office

Proposed MICA
campus building

0   25' 50'   100'   200'
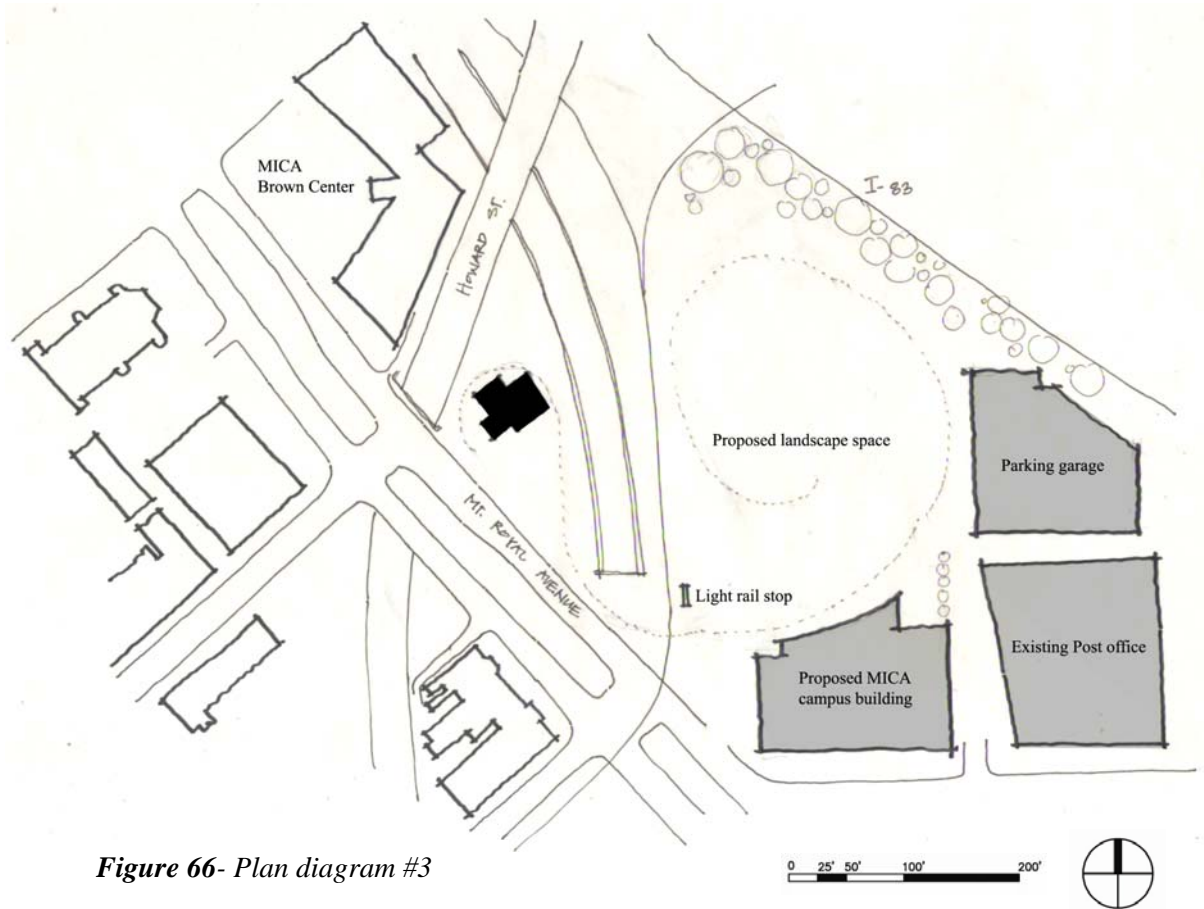
Figure 66- *Plan diagram #3*

The third parti takes a more sculptural approach by setting the massing in the center of the site. It takes a position of an object set in the urban landscape. The experiential movement is not only from the light rail stop to the building but it will also take place at the landscape (horizontal) and through the building (vertical). This concept is a departure from a traditional movement in a religious architecture which is more horizontal. Because the thesis itself is addressing a new form of liturgy than what is already known in the current society, the vertical movement through a church space is another option to be explored in this study.

Space used in luturgy
Creative space (studios)
Support

Figure 67*- Massing diagram #3*   ***Figure 68****- Movement diagram #3*
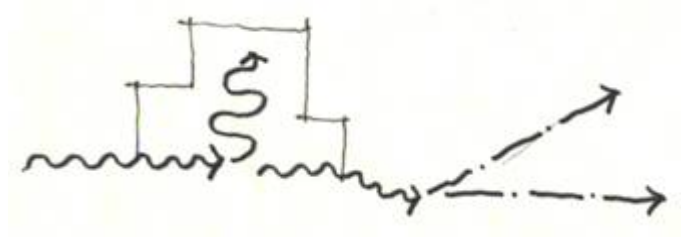
Design Conclusion

After about two weeks of attempting to design with the previous parti designs, it was brought to attention that the strong site geometry had to be the driving force in the building form. In occupying most of the square footage of the site, the parti began to address street edge conditions at both Mount Royal Avenue, which serves as entry point to the church, and Howard Street, which serves as a visual corridor into Bolton Hill neighborhood.

The design process is summarized by the diagrams on the next page (Figs 69- 70). Adjacent Brown Center's skewed angle toward Mount Royal Avenue has a strong presence on that street. It was decided that instead of fighting with this dynamic move by adding another big gesture toward this street, the church will focus more onto Howard Street becoming a visual corridor for the area. The intention of the exiting parking lot master plan was to give back to the community as an event space. The semicircular plaza (Fig. 71) is formed by glazed wall partitions that can be lit at night. Because of annual art festivals that happen on Mount Royal Ave., it was important to designate an open space for the community as well as announce a light rail stop located south of the plaza. The curve of the plaza was primarily driven by the curvature of the church's main corridor. The curvature extends outward as a bridge over the CSX line and onto informing the edge of the plaza tying all the elements back to the church itself.

In previous discussion about the purpose of this church was to reach the digital generation whose numbers are slowly decreasing in current churches. And the means to that goal was through experiencing faith through artistic expressions whether it maybe digital or physical. In designing the interior program, the first thing the visitor will see is the art studio below. By seeing the act of making, creating, and preparation of the art that are a part of worship that Sunday, the visitor or the congregation will already be participating in worship.

The second part of the experience is through the gallery space which is adjacent to the main worship room. It is separated only by a mural wall that faces west and can be seen from the exterior through a huge opening of the façade. The gallery continues the experience of Biblical messages through digital arts, sculptures, painting, and other art installations that are scattered throughout the space encouraging discussions and reflections of that Sunday's topic. The mural wall acts as a backdrop for these installations but also as an evangelistic tool for the community. Just observing the form of the building, it's hard to tell that this building is a religious building. However, the mural, that is visible from Mount Royal Avenue as well as Howard Street, can visually communicate to the public about Christianity and also the goals of this church without being forceful. The mural can also be changed periodically to announce certain events or to indicate the visions of this church. In designing the main worship space, one of the challenges was to create a room with light control. Because of the services that have to have complete darkness for video projections, having the ability to shut out any light was important. Vertical fins on the north end of the worship space allows for the dark services when they are closed but also allows for light filled wedding or other community services when they are opened. This flexibility also allowed for the main worship space to be multi directional. Rather than having one directional worship room, the space has no dominant direction except for the placement of the projection screen.

A new church for a digital generation was an incredible undertaking in understanding the need of a generation and translating that into an architectural form. Although there were many challenges, the major goal of exploring how a local church can effectively communicate Christian faith to a digital generation was demonstrated, not necessarily with digital technology but by addressing the needed experiential journey for that specific audience.
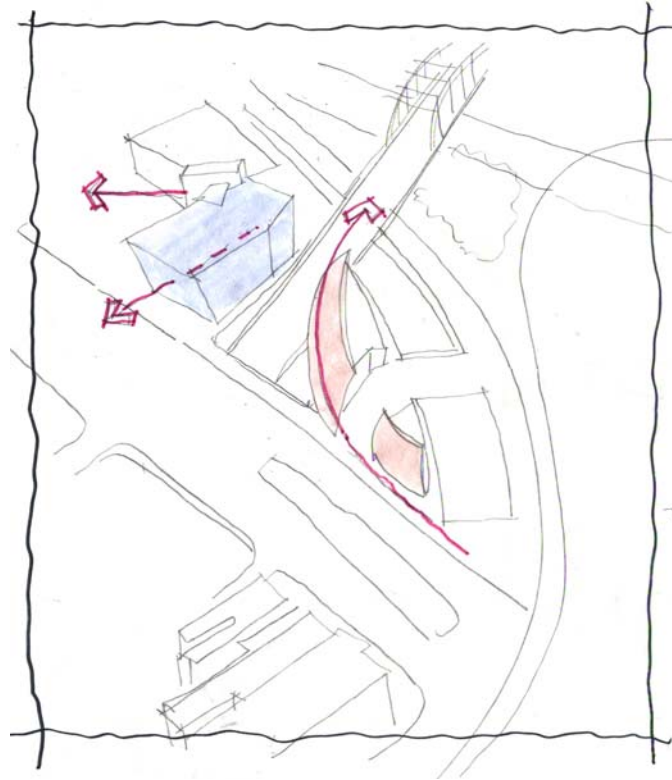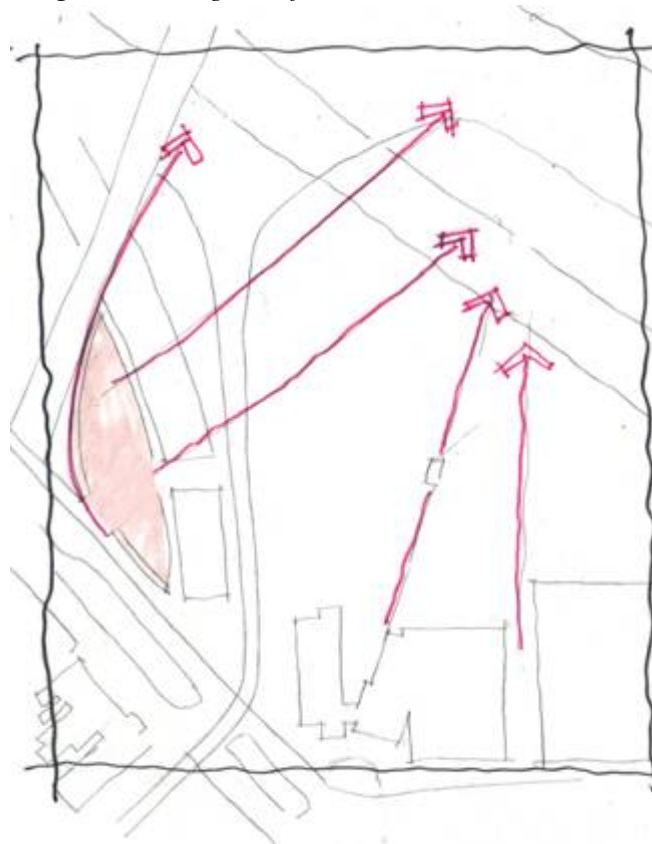
Figure 69- Diagram of street move.

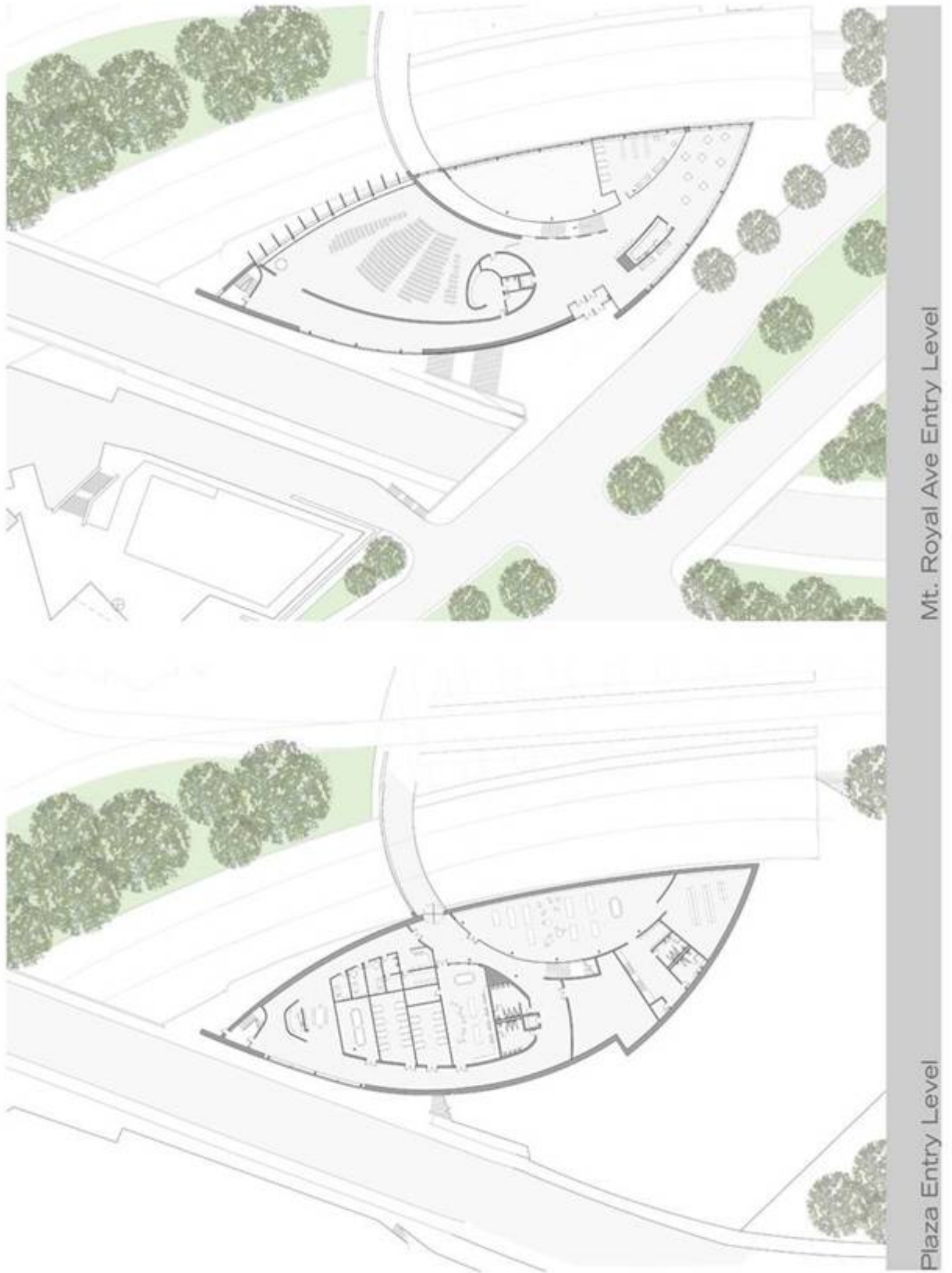*Figure 70- Diagram of views from the site.*

Figure 71- Site Plan

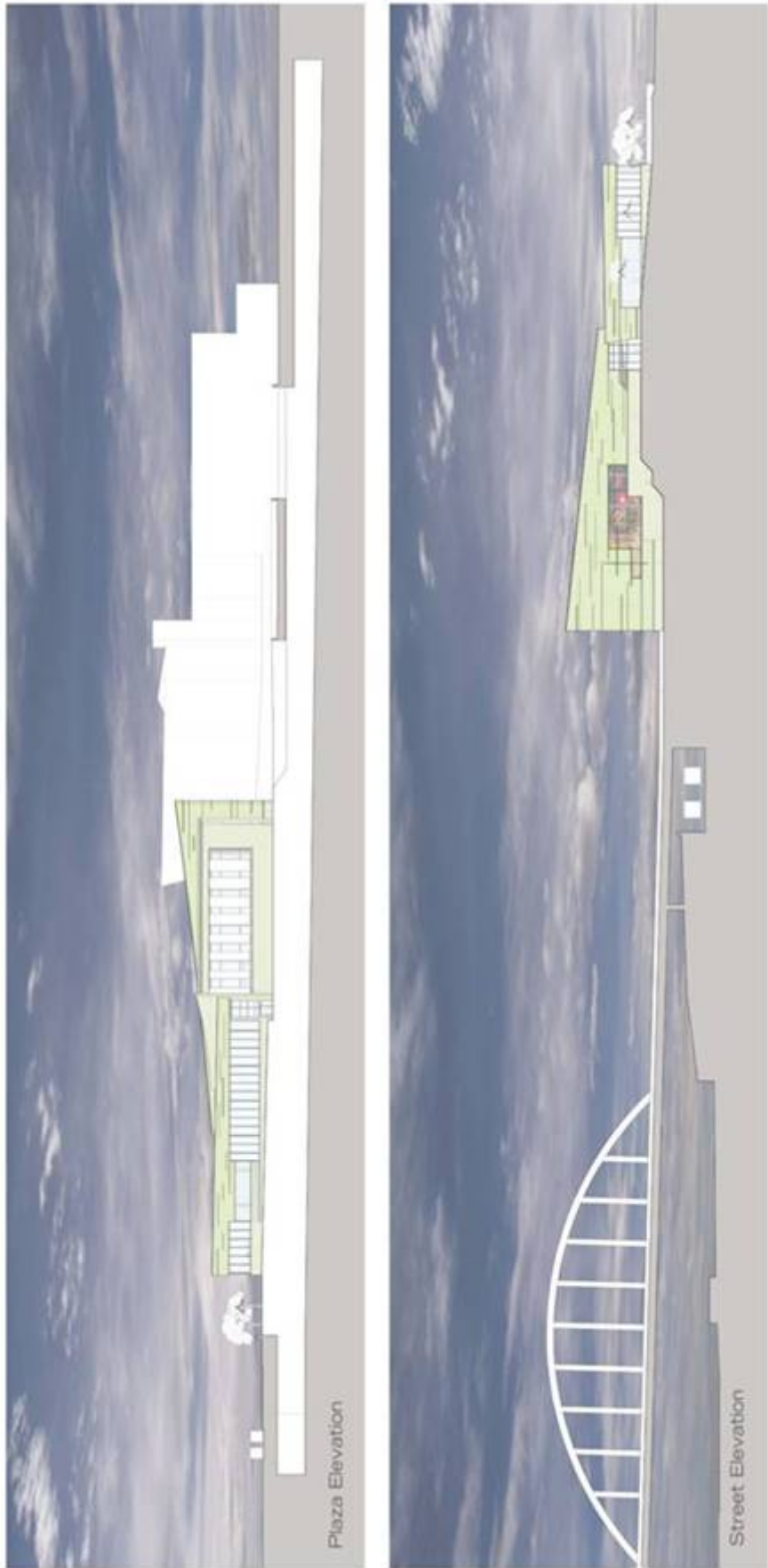*Figure 72- Floor plans*

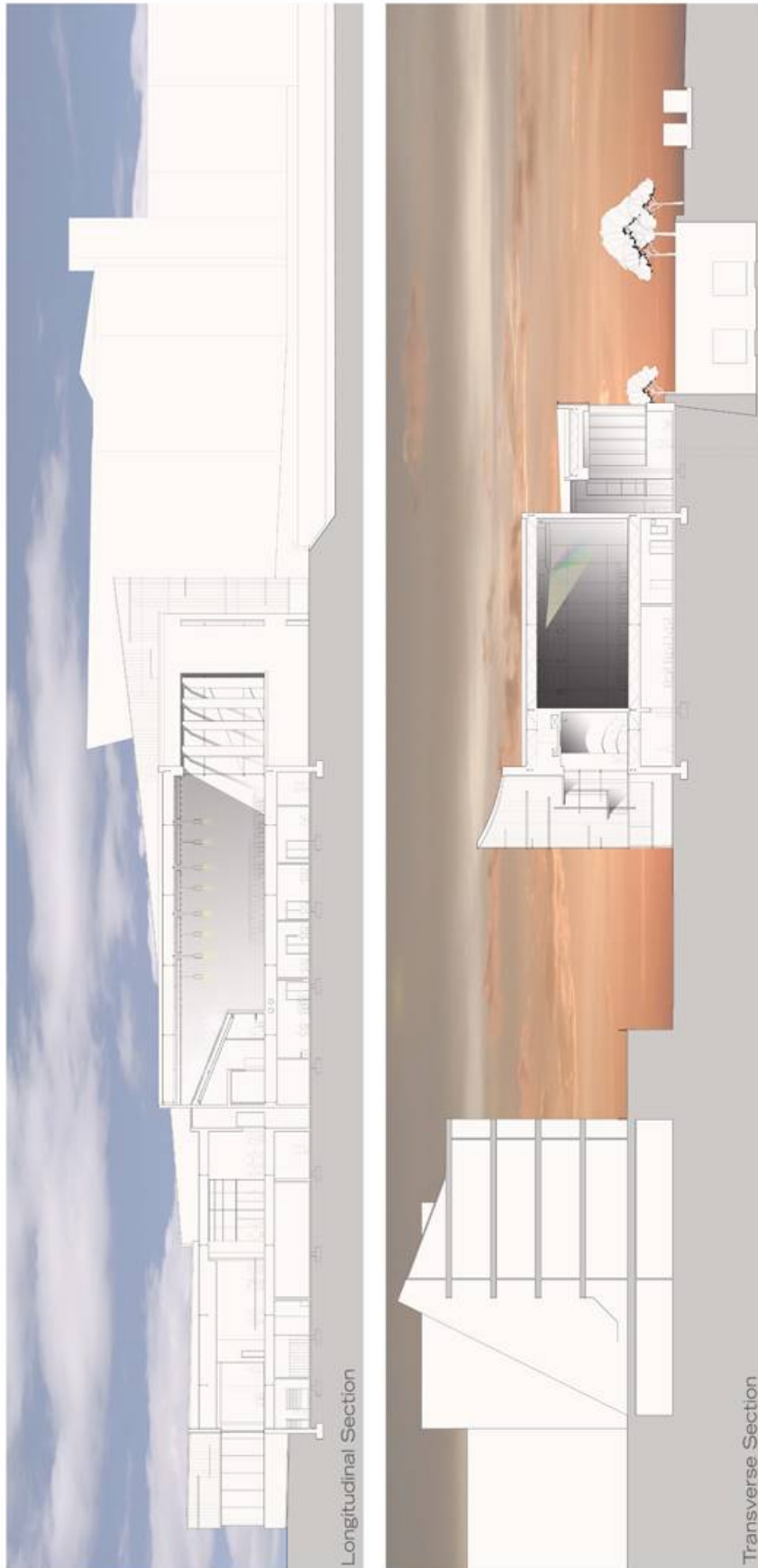*Figure 73-* *Site Section*

Figure 74- *Building Elevations*

60

Longitudinal Section

Transverse Section

Figure 75- *Building Sections*

61

Figure 76- *Lobby and Studio View*

Figure 77- Gallery View

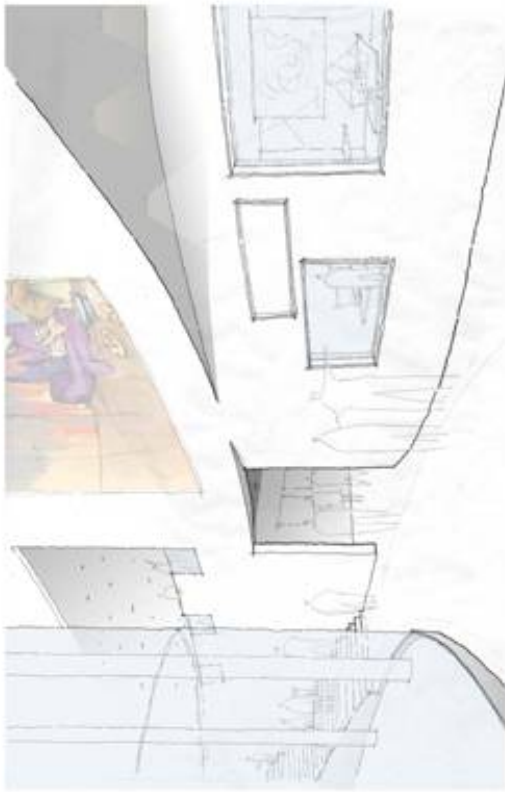View from Light Rail Station and Plaza
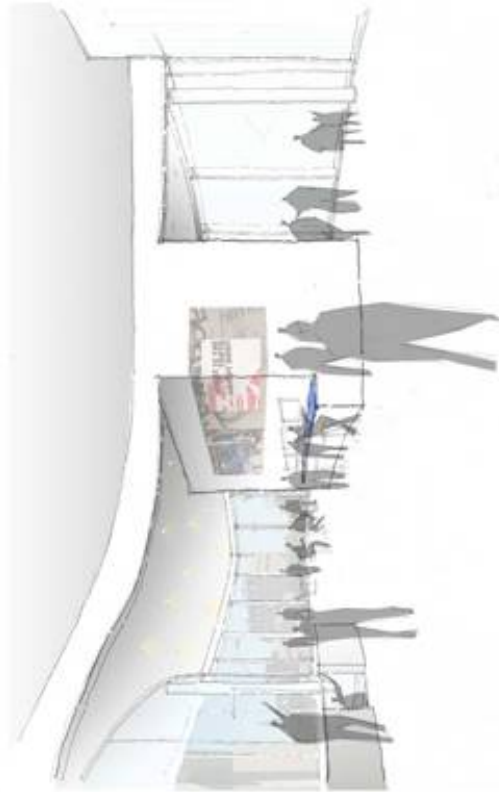
View from the Bridge
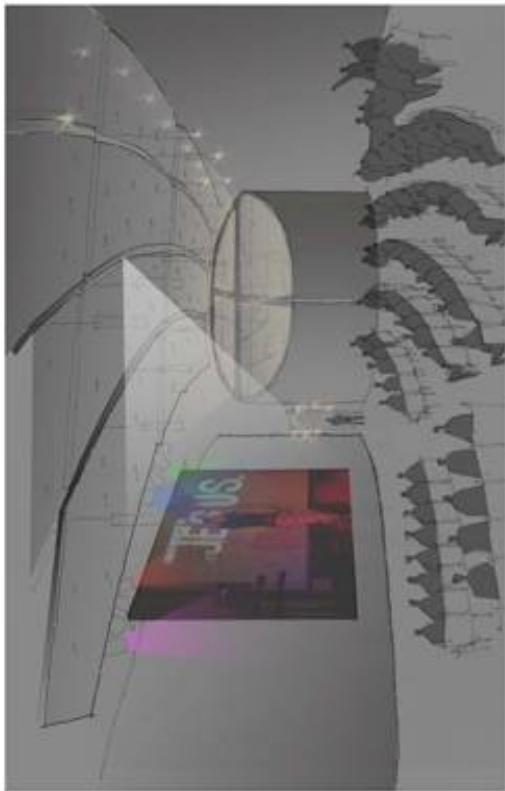
View of Artscape on Mt. Royal Ave.

View from Brown Center

Exterior Views

Figure 78- Exterior Views

View from Plaza Level Entry

View of Lobby and Cafe

View of Typical Worship
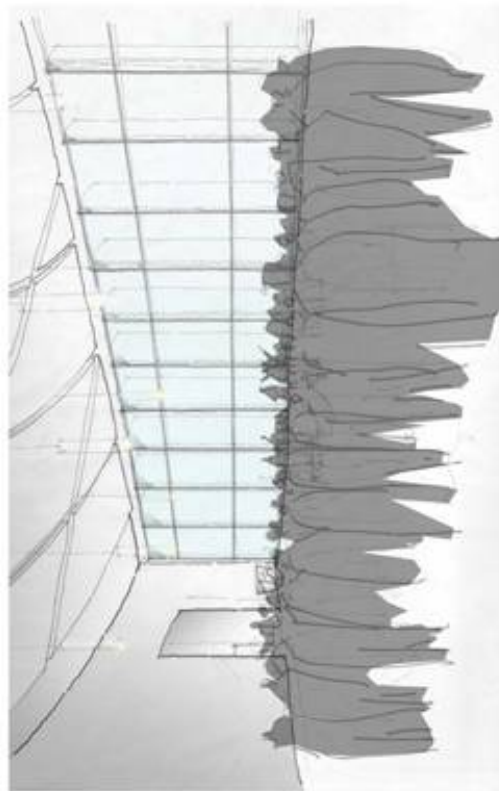
View of Baptism Worship

Interior Views

Figure 79- Interior Views

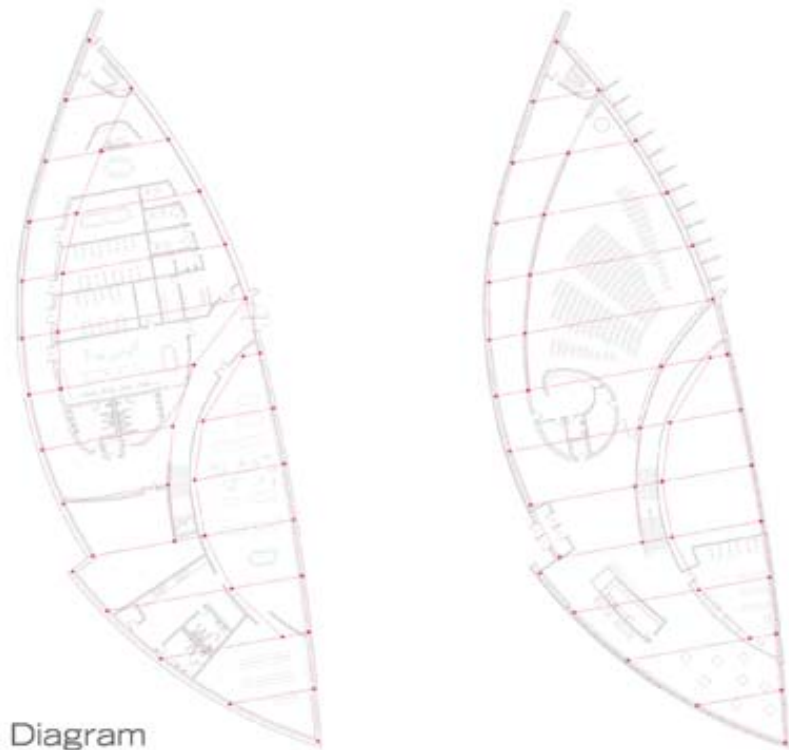65

Wall Section @ Gallery
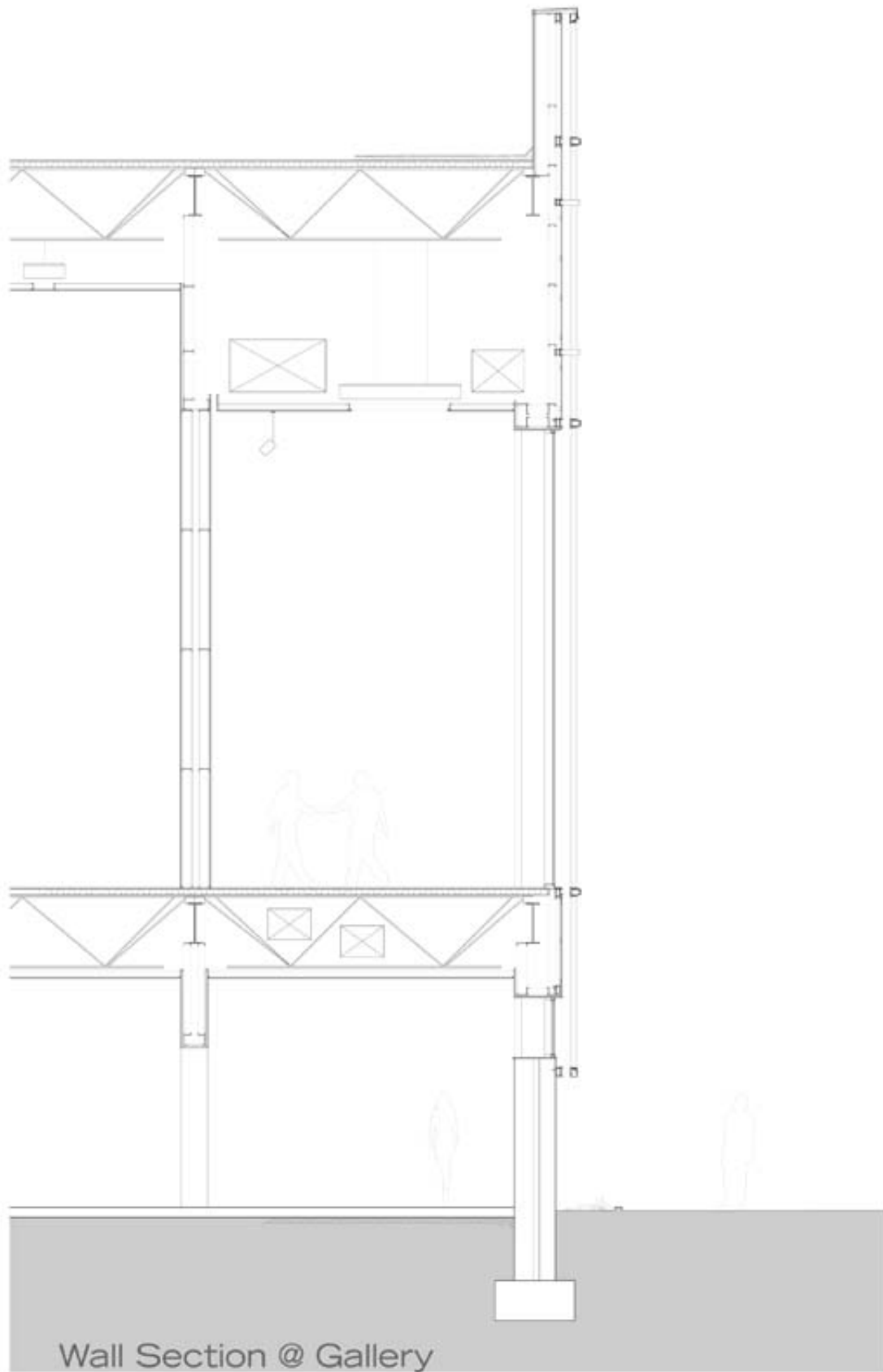
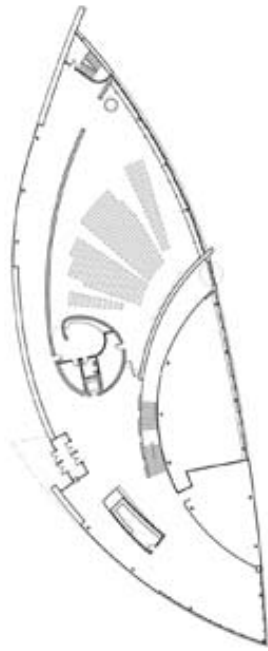***Figure 80-*** *Wall section details*
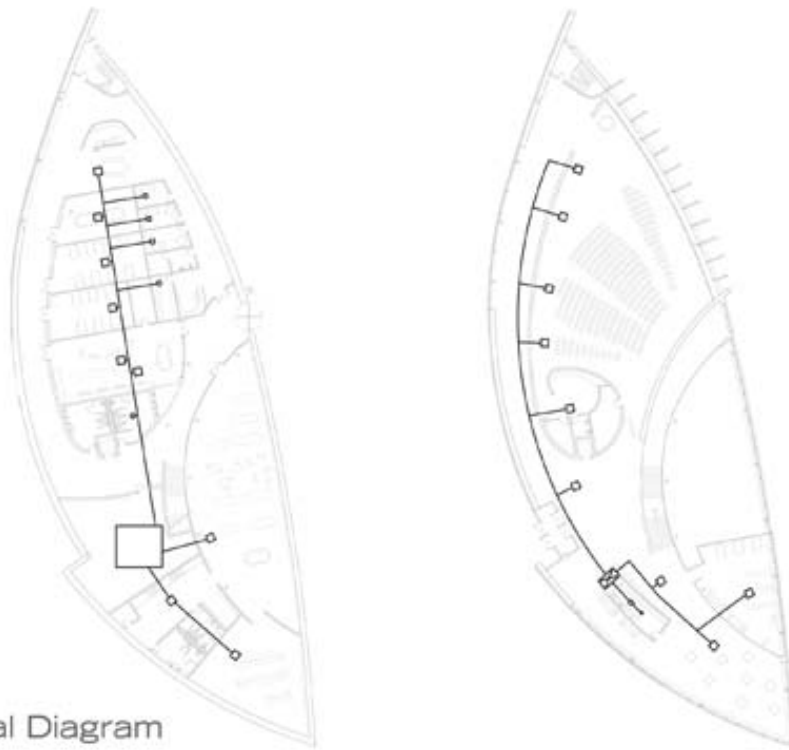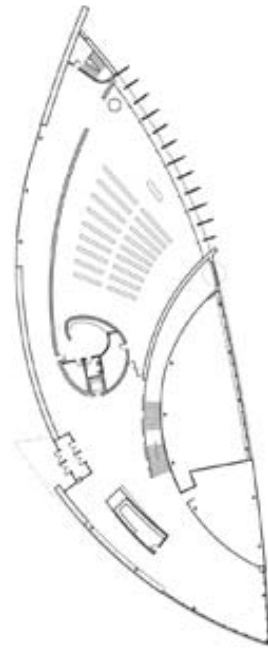
Mechanical Diagram
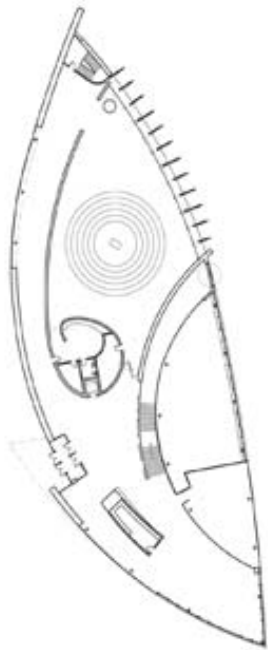
Structural Diagram

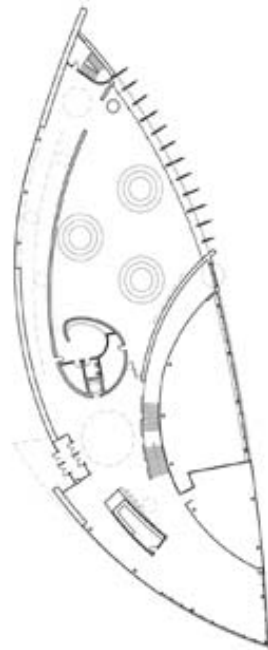*Figure 81- Mechanical and Structural Diagrams*

Typical Sunday

Baptism / Wedding

Funeral /
Lord's Supper

Interactive

Worship Room Usage Diagram

Figure 82- Worship room usage diagram

Figure 83- *Site model*

Figure 84- *Sectional model. View of the façade.*

Figure 85- Sectional model. View of the north end of the church.
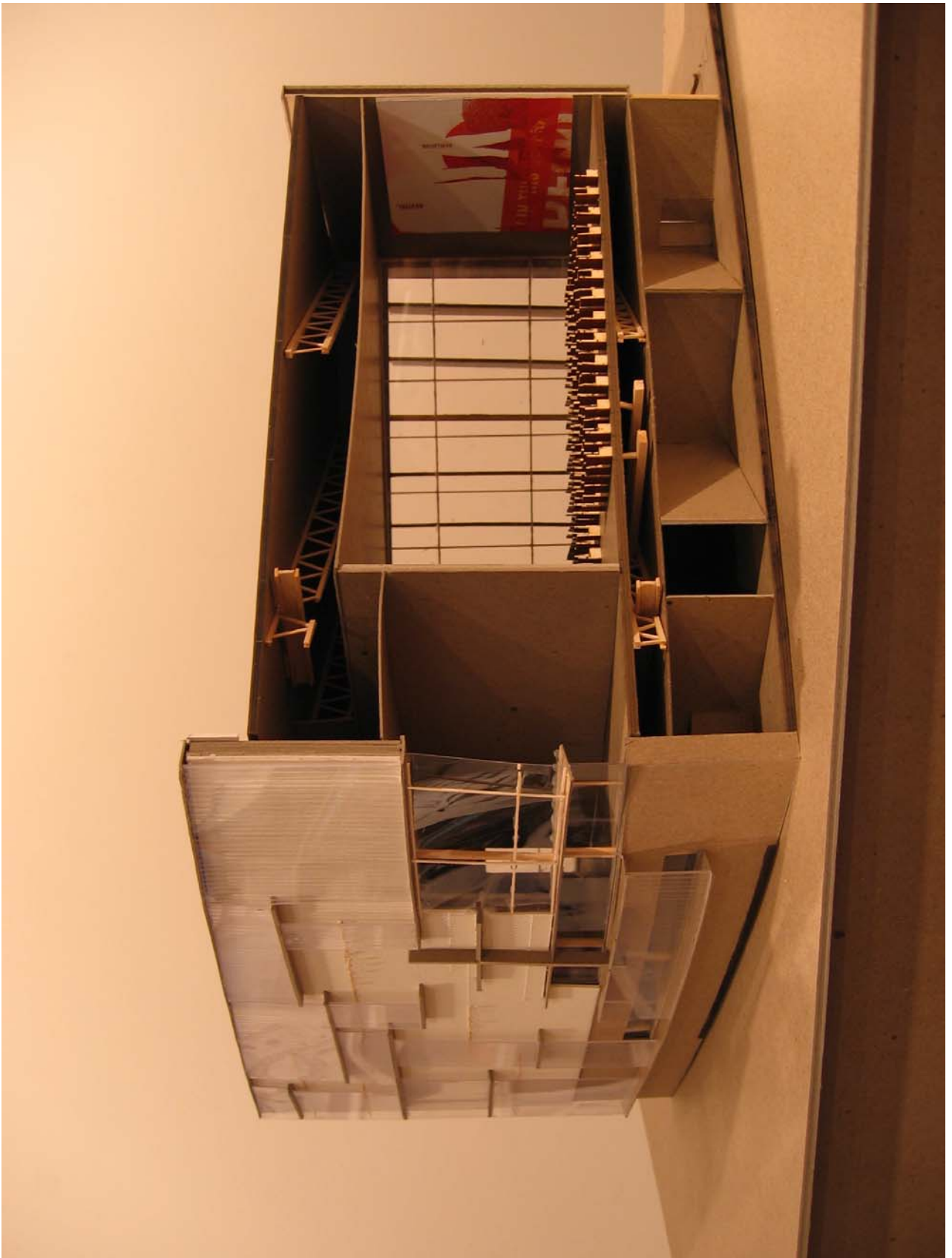
Figure 86- *Sectional model. View of the gallery and the main worship room.*
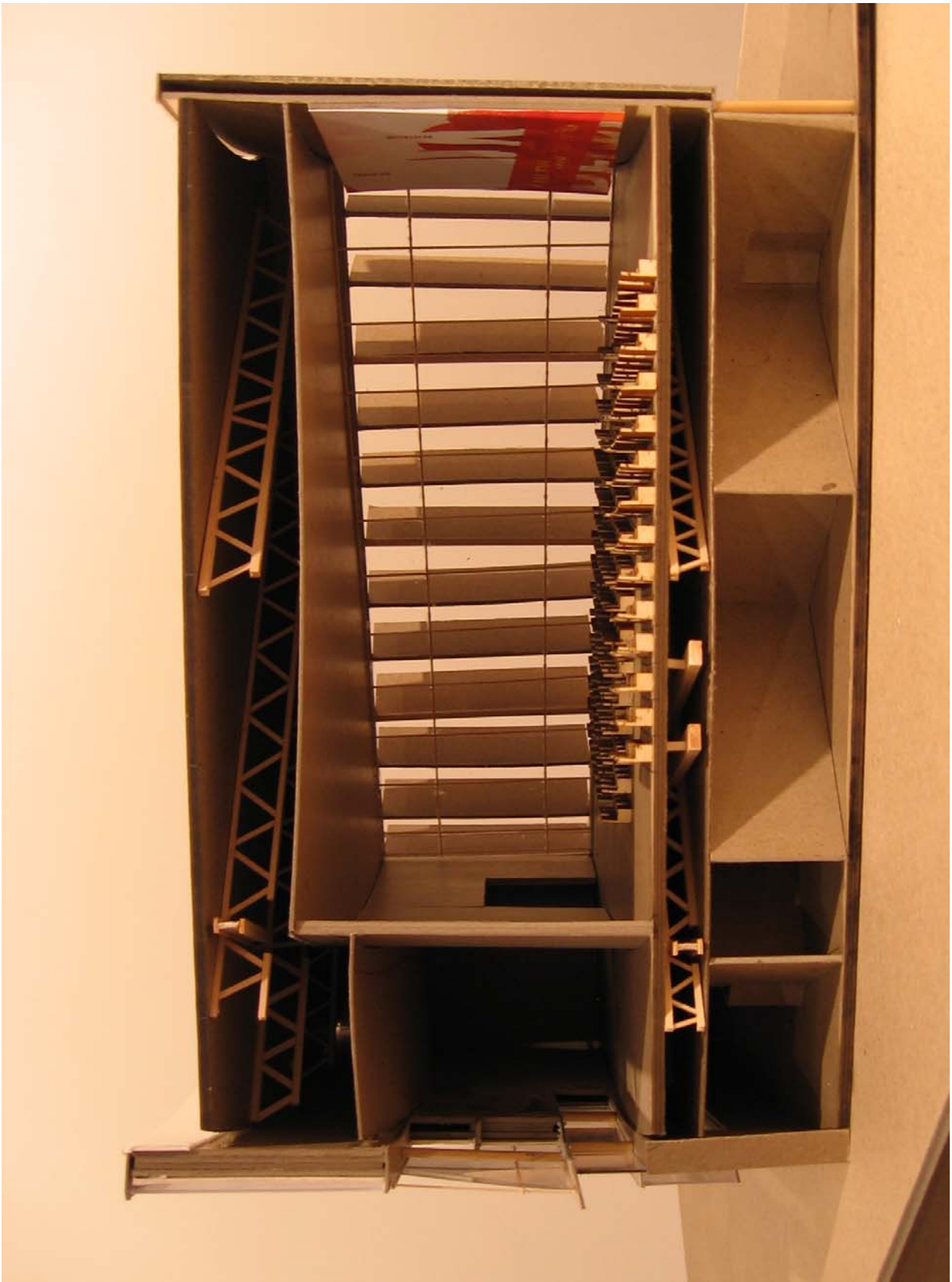
Figure 87- *Sectional model. View of the main worship room.*

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