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A Spiritual Journey: Redefining the 21st Century Catholic Church

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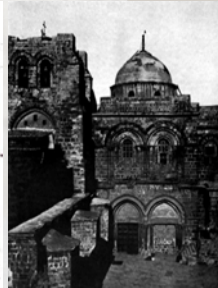
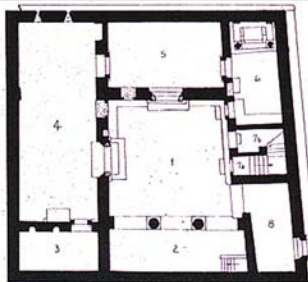
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A Spiritual Journey

Redefining the 21st century Catholic Church



Kevin R. Correia
Bachelor of Science in Architecture/Master of Architecture Dual Degree
Graduate Thesis: Submitted to Roger Williams University
School of Architecture, Art, and Historic Preservation
Fall 2009

A Spiritual Journey

Redefining the 21st century Catholic Church



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Fall 2009

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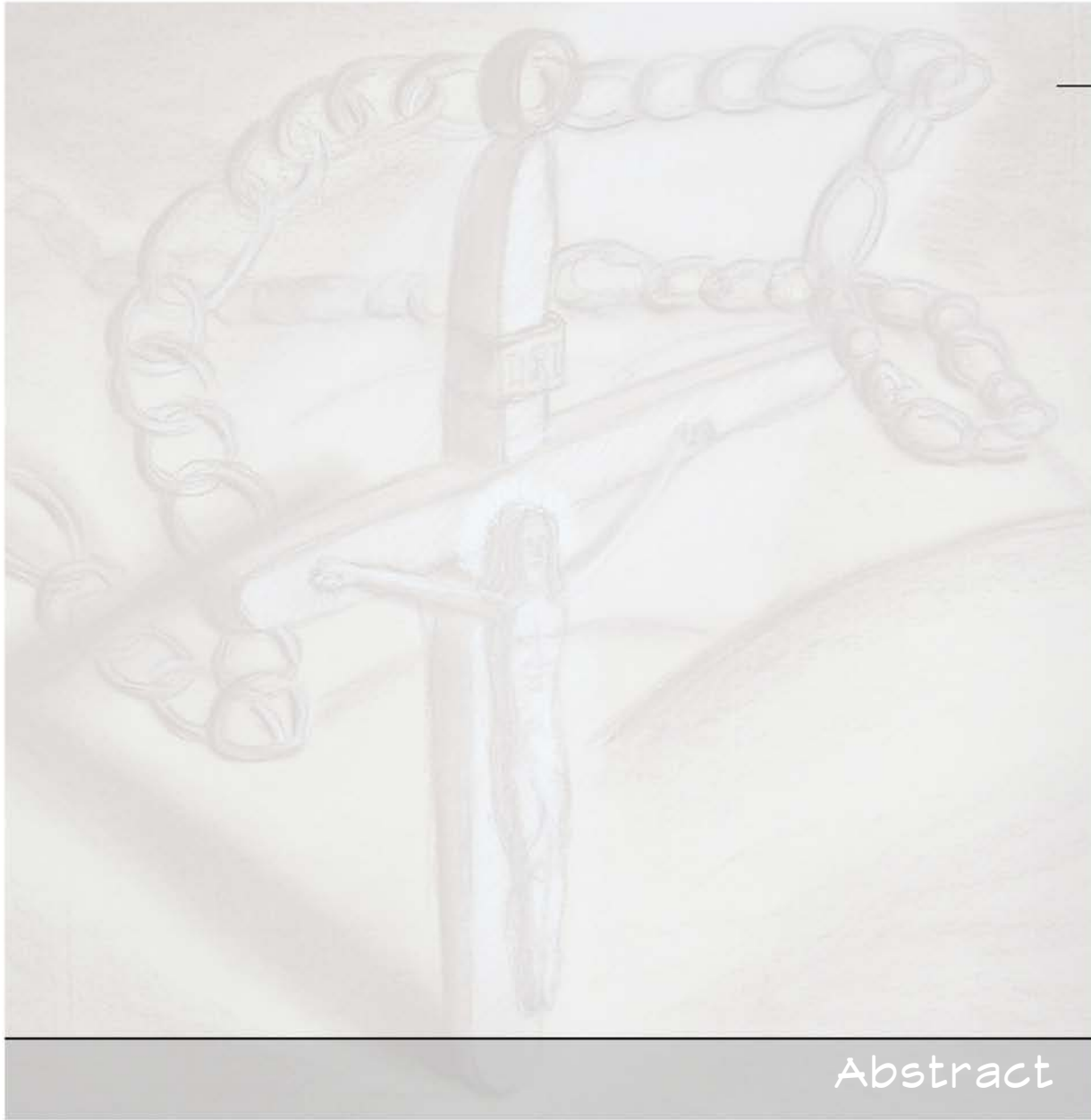


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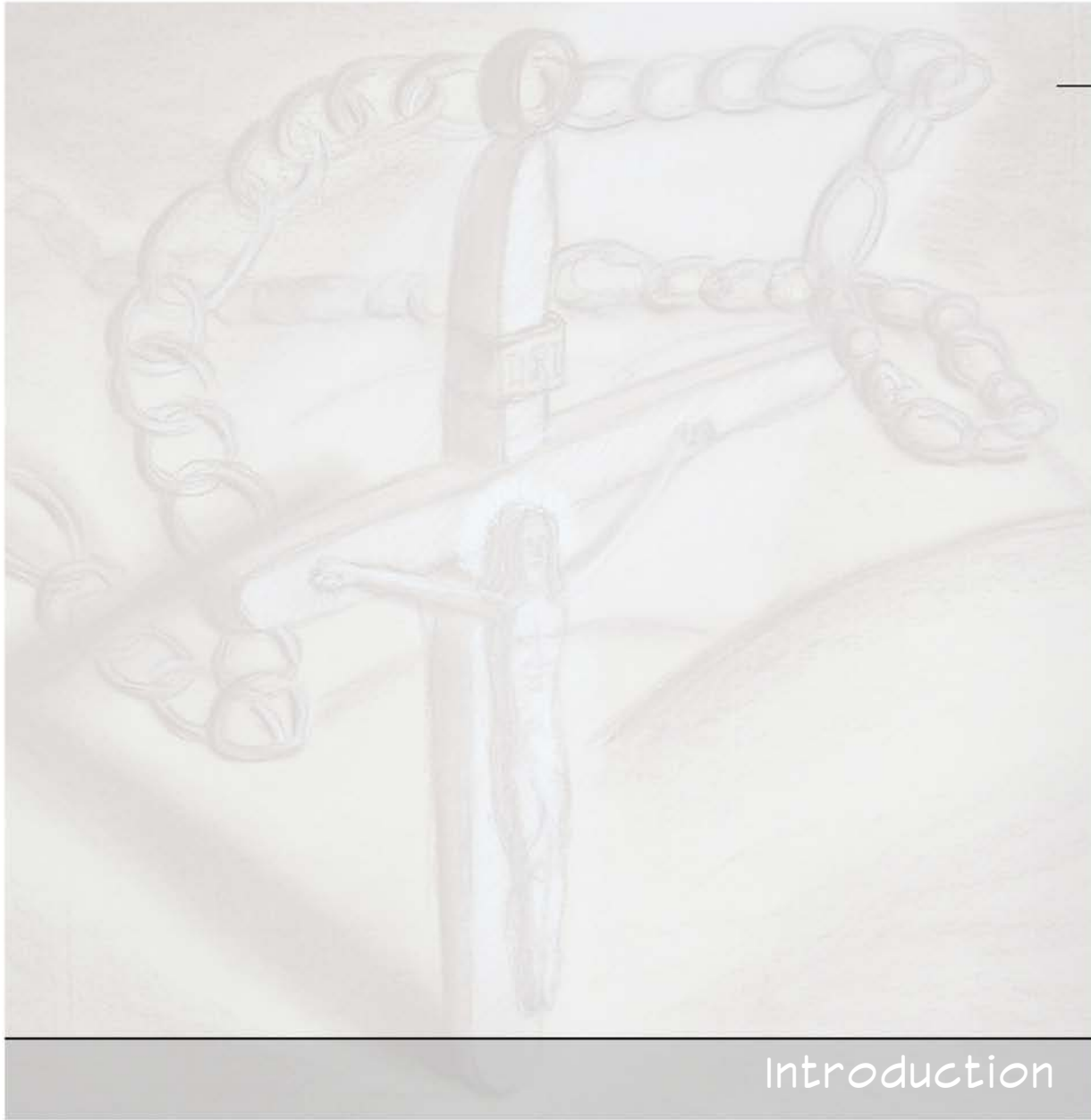
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Abstract



With an increasing Catholic population and diminishing vocations to the priesthood, Catholic parish communities are rethink their church buildings, as they are forced to combine with other communities. The design of a Catholic Church and parish center that respects the tradition of the past and embraces the contemporary religious, architectural, and social needs is the vision for the 21st century Catholic Church. Catholic churches must respond to the Second Vatican Council's amendment to have a greater participation of the laity in the liturgy. The design focuses on the procession, moments of use, and light that guide the spiritual journey throughout the church. While the primary objective is to enhance the liturgy of the mass, connecting all social zones and defining clear transitions between the different points of celebration was also significant. This allows for a more personal spiritual experience for all community members.



Introduction

Introduction

A Manifesto:
"Thoughts on Architecture"

Architecture is much more than a response to an existing set of conditions. It is a way of thinking, a way of examining, a way of testing, and a way of solving. Architecture, in its purest state, is a graceful pairing of form and function that together serve a societal need.

There are four fundamental principles that generate great architecture: function, social interaction, context, and craft. No one component can stand alone in solving an architectural problem. It is in the way one achieves elegant harmony between the four that will bring a design to fruition.

FUNCTION:

Function, in broad terms, goes beyond the necessity for individual programmatic spaces of a given typology. It is about the communication of the spaces and the way in which all of the components reinforce the goals and needs of the design. Keeping in mind the user, it remains essential that physical and visual connections provide a clear understanding of spatial relationships that indicate organization, circulation, and hierarchical arrangements.

SOCIAL INTERACTION:

Architecture is more than a building. It is about the interaction of the users. It is vital to understand who will inhabit a space and for what purpose. Architects have the responsibility of providing spaces that facilitate the desired social interaction for the building type. Ultimately, presenting a context in which people can interact in the realm of the function is the goal of design. Too often architects invest so much effort into the form and aesthetic of a project

Introduction

A Manifesto:
"Thought on Architecture"

that the societal need suffers. What good is a beautiful building if it does not meet the needs of the people who use it?

CONTEXT:

Context can have an incredible impact on architecture, as it should. There needs to be a connectedness to place. This includes not only the building, but also its relationship to the landscape, the immediate site surroundings, and a broader "neighborhood" context.

CRAFT:

The aesthetic quality of design is an obvious opportunity for an architect to use their creative intuition. The form, material, and fenestration are examples of the artistic decisions that can make a building or landscape beautiful. In relation to the principles already discussed, however, craft is more than that. The ways in which architects craft space and function, social dialogue, and community context are as important as the crafting of form and material details.

Architecture is about process, a process in which all things must be considered. It is of the utmost importance, that the end results of any architectural work provide a better quality of life for the user in the given context. It is the user for whom we should create.



Problem Statement

The Issue

The design of churches has played a vital role in architectural development throughout history from Roman Basilicas to Gothic Cathedrals. With changing times comes the need for new and improved spaces. So what is the image of the 21st Century Catholic Church? While many of the acclaimed architects of today have put forth their ideas, we have still only begun to scratch the surface. Church architecture today has not fully recognized and enhanced the liturgical changes brought forth by the Second Vatican Council in the early 1960's. The central idea of the Council was that there ought to be a greater participation of the laity in the liturgy. This resulted in two major changes in the celebration of the mass. The first is that mass would be celebrated in the native tongue of the region as opposed to the traditional Latin. The second was that the altar must be situated so that the priest can move around it and face the congregation provoking a more active dialogue throughout the mass. The Catholic religion is so rich in history and tradition and requires many special considerations. So how can we embody such traditions with new architectural solutions that meet today's societal needs?

Over 40 years since the convening of the Second Vatican Council, Catholic parish communities are facing an increased demand in population while vocations to parish ministries are decreasing. This is creating a need for new worship spaces, and in many cases a need to combine multiple parishes in

Secondary Title

Body of Text

one community. An exploration of church design and future planning will allow traditions in these communities to continue, while creating a new image for the 21st century Catholic church.



Project Statement

The Solution

The project consists of revitalizing a Catholic parish community that will result from a combination of multiple parishes due to the growing number of parishioners and lack of priests to serve the church. The project consists of a design for a new church, parish center (including an administrative area), and rectory. The design reflects the social responsibility the church is known for and will strengthen it in this community. The design seeks to create a complex that fits into the current master plan strategies for the Town Center of Merrimack, NH. In defining an image for the 21st Century Catholic Church, it is important to consider historical, liturgical, and contemporary requirements. Flexibility of space and potential multipurpose uses, along with the incorporation of community functions, will create a church that becomes a spiritual center for the community it serves. Sustainable materials, building practices and systems integration all are in accordance with church teaching in respecting the earth and not wasting what God has given the world. The goals of the thesis are to create a renewed sense of the spiritual journey amongst the church complex, creating an environment for interaction between the various user groups, and to explore the use of natural light in worship.



Program Outline and Areas

Program Summary	Net Square Ft.	Building Factor	Gross Square Ft.
-----------------	----------------	-----------------	------------------

Church

Total	21260 SF	1.3	27638 SF
-------	----------	-----	----------

Parish Center & Administration

Subtotal- Parish Center	14920 SF	-	-
Subtotal- Administration Space	2500 SF	-	-
Total	17420 SF	1.3	22646 SF

Rectory (Priest Living Quarters)

Total	1640 SF	1.2	1968 SF
-------	---------	-----	---------

Parking & Site Work

Parking			
Church	-	-	49005 SF
Church Prayer Garden			
Parish Center Garden			
Rectory Garden			

Areas

Summary

The program consists of a new church, parish center including an administrative area, and rectory.

Master plan considerations as well as adaptive reuse strategies were explored to develop an appropriate needs assessment for the parish community. The design will incorporate the typical program needs of a church including: sanctuary with an altar, nave, narthex, sacristy and storage, shrine for patron saint of the church, and baptistry. In addition, classroom spaces for youth bible study, administrative offices, rectory and living quarters, and community spaces will be incorporated into the parish center.

Program Outline

Areas

Church

The church program is typical of the Roman Catholic tradition in all of its components. The liturgical process and services the church provide creates a clear delineation of needed spaces. The size and dimension of these spaces reflect the need for a larger worship space in the town to serve the joining of two parishes. The nave will allow for a maximum seating capacity of 1100 people. Exterior program elements such as, prayer gardens and worship overflow space for outdoor services are mentioned later, but do not have a specific size. The building factor accounts for circulation and mechanical equipment/room.

Label	Program	Quantity	Unit Area (SF)	Total Area (SF)
-------	---------	----------	----------------	-----------------

Church

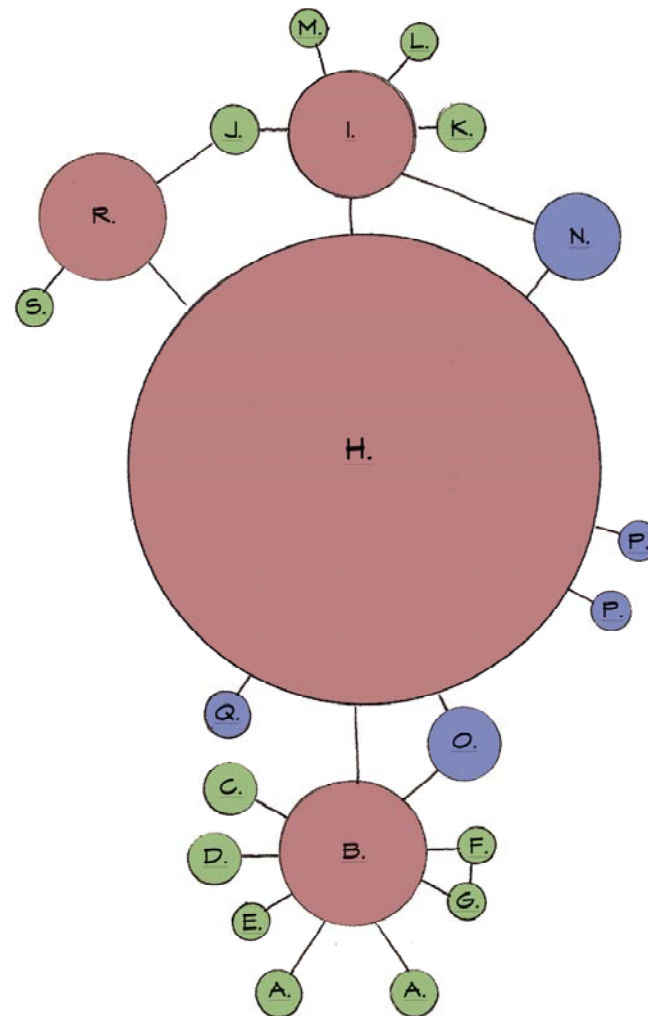
A	Entrance Vestibule	2	400 SF	800 SF
B	Narthex (Lobby)	1	1 200 SF	1 200 SF
C	Men's Room (See Parish Center)			
D	Women's Room (See Parish Center)			
H	Nave (Worship Space)	1	1 2000 SF	1 2000 SF
I	Sanctuary (Altar Space)	1	900 SF	900 SF
J	Vesting Sacristy	1	240 SF	240 SF
K	Alter Server Room	1	150 SF	150 SF
L	Restroom	1	60 SF	60 SF
M	Storage Room	4	100 SF	400 SF
N	Choir Space	1	1 600 SF	1 600 SF
O	Baptistry (Baptismal Font)	1	600 SF	600 SF
P	Confessional	2	80 SF	160 SF
Q	Cry Room	1	450 SF	450 SF
R	Day Chapel	1	2 500 SF	2 500 SF
S	Bride Room	1	200 SF	200 SF

NSF	2 1260 SF
Building Factor (x 1.4)	1.3
GSF	2 7638 SF

Diagrams

The diagram of the church spaces reflect the proportions of the spaces as well as the program adjacencies.

The letters correspond to the program areas on the previous page.



Program Outline

Areas

Parish Center

The parish center building will serve as the community component of the church. These spaces will be used by parishioner and the various organization within the church such as: Knights of Columbus, Bible Study, Religious Education, A.C.T. Kindergarten & Preschool. Many of these spaces will also be able to be used by the larger community for functions and events.

The parish center will also house the administrative needs of the church. The administrative area will be used by the parish council and pastoral council to run the church and their respective group programs efficiently.

	Program	Quantity	Unit Area (SF)	Total Area (SF)
--	---------	----------	----------------	-----------------

Parish Center & Administration

Parish Center				
A	Entrance Vestibule	1	400 SF	400 SF
	Church Entry	1	1500 SF	1500 SF
	Fellowship Entry	1	1500 SF	1500 SF
B	Fellowship Hall	1	3600 SF	3600 SF
C	Men's Room	1	600 SF	600 SF
D	Women's Room	1	600 SF	600 SF
	Janitor's Closet	1	320 SF	320 SF
E	Kitchen/ Serving Area	1	2000 SF	2000 SF
G	Elevator	1	100 SF	100 SF
I	Classrooms	5	600 SF	3000 SF
J	Meeting Rooms	1	400 SF	400 SF
K	Choir Practice Room	1	900 SF	900 SF
	Storage/ Closet (Basement)			
Subtotal- Parish Center				14920 SF

Administrative Space				
M	Reception	1	700 SF	700 SF
N	Office	3	200 SF	600 SF
O	Meeting Rooms	1	300 SF	300 SF
P	Library	1	300 SF	300 SF
Q	Storage/ Closet	4	100 SF	400 SF
	Men's Room	1	100 SF	100 SF
	Women's Room	1	100 SF	100 SF
Subtotal- Administrative Space				2500 SF

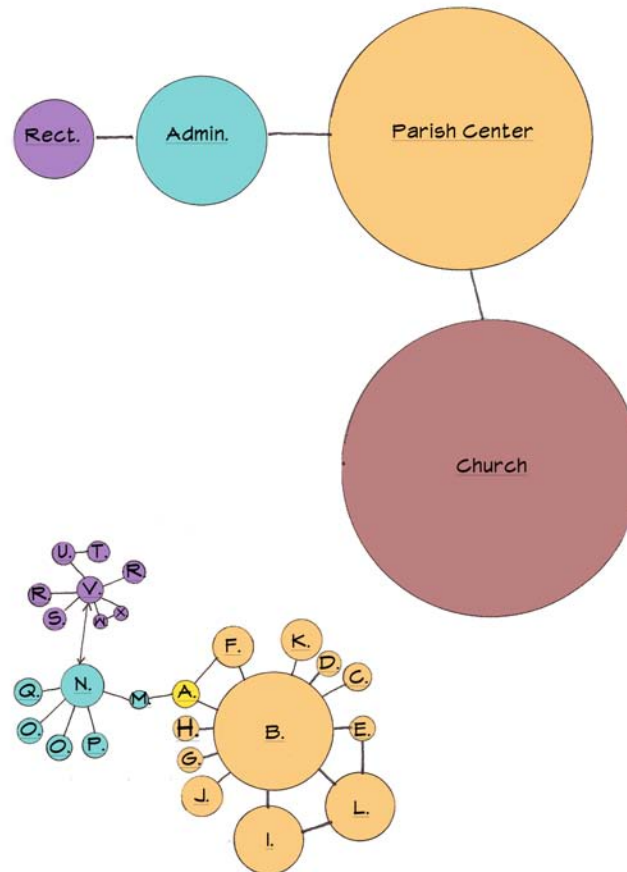
NSF	17420 SF
Building Factor (x 1.4)	1.3
GSF	22646 SF

Diagrams

The diagram of the parish center and administration spaces reflect the proportions of the spaces as well as the program adjacencies.

The diagram on top also indicates the relative sizes of each total program in comparison to one another.

The letters correspond to the program areas on the previous page.



Program Outline

Areas

Rectory

The rectory is the housing for the pastor and priests of the church. These spaces will be typical of that of a house. A second bedroom will be incorporated for guests and possible future priests joining the parish.

Label	Program	Quantity	Unit Area (SF)	Total Area (SF)
-------	---------	----------	----------------	-----------------

Rectory (Priest Living Quarters)

R	Bedroom	2	300 SF	600 SF
S	Bathroom	1	100 SF	100 SF
T	Kitchen	1	150 SF	150 SF
U	Dining Room	1	150 SF	150 SF
V	Living Room	1	300 SF	300 SF
W	Laundry Room	1	100 SF	100 SF
X	Storage/ Closet	3	80 SF	240 SF

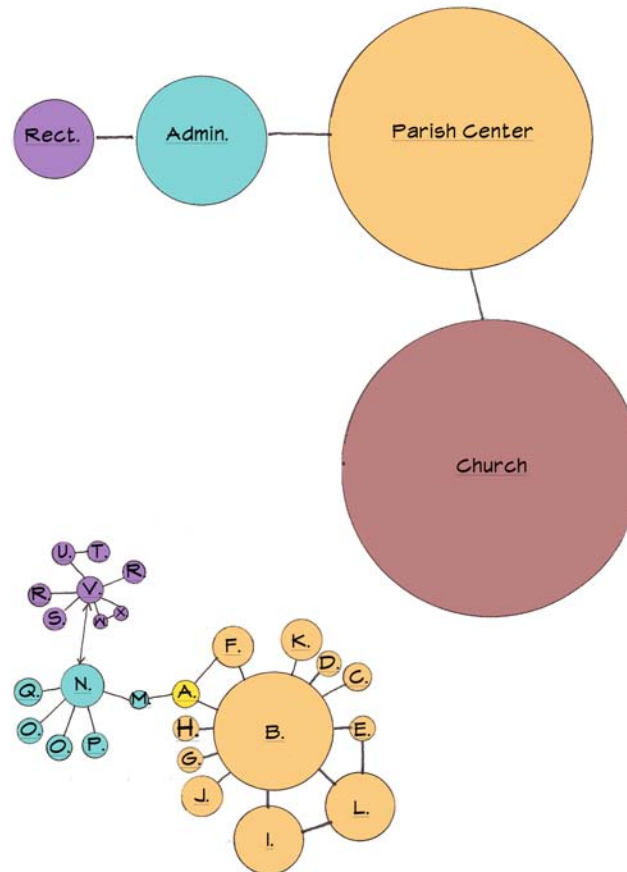
NSF	1640 SF
Building Factor (x 1.2)	1.2
GSF	1968 SF

Diagrams

The diagram of the parish center and administration spaces reflect the proportions of the spaces as well as the program adjacencies.

The diagram on top also indicates the relative sizes of each total program in comparison to one another.

The letters correspond to the program areas on the previous page.



Program Outlines

Areas

Parking & Site Work

Off-site parking will be provided for the church, parish center, rectory, and elderly housing. Due to the specific daily time usages of the church, some of that parking can be used for the parish center as well.

Outdoor prayer gardens, courtyards and landscaped walking areas will be incorporated into the building and site design strategies.

Program Summary	# of Occupants	# of Spaces / Occupant	# of Spaces	Ft. ² / Space	Driveway Factor	Gross Square Ft.
-----------------	----------------	------------------------	-------------	--------------------------	-----------------	------------------

Parking & Site Work

Parking	(9x18)					
Church	1100	0.25	275	162 SF	1.1	49005 SF

Church Prayer Garden	-	-	-	-	-	-
Parish Center Garden	-	-	-	-	-	-
Rectory Garden	-	-	-	-	-	-



Problem Themes & Architectural Intentions

The design explores the connection between form and function, context and meaning, and the beauty of craft in relation to the revitalization of a Catholic parish. The design is sensitive to the ministries of the church in terms of liturgical needs. It meshes the historical traditions of the church with the advancements in design that meet the current needs of the parish community. The new church strengthens the town center and aids in enlivening the community through its various outreach programs. Procession, Light, and the Spirit are focus points for the design.

Project Goals



Site Identification/Analysis/ Rationale

Site Analysis

The Site

43 Baboosic Lake Rd.
Merrimack, NH 03054

Zone: Residential
(Town Center & Elderly
District Overlays)

Area.: 179,000 SF
4.1 Acres

Existing Features:

American Legion
Building
Communication Tower
Storage Shed
Softball Field
Parking

Access:

Baboosic Lake Road

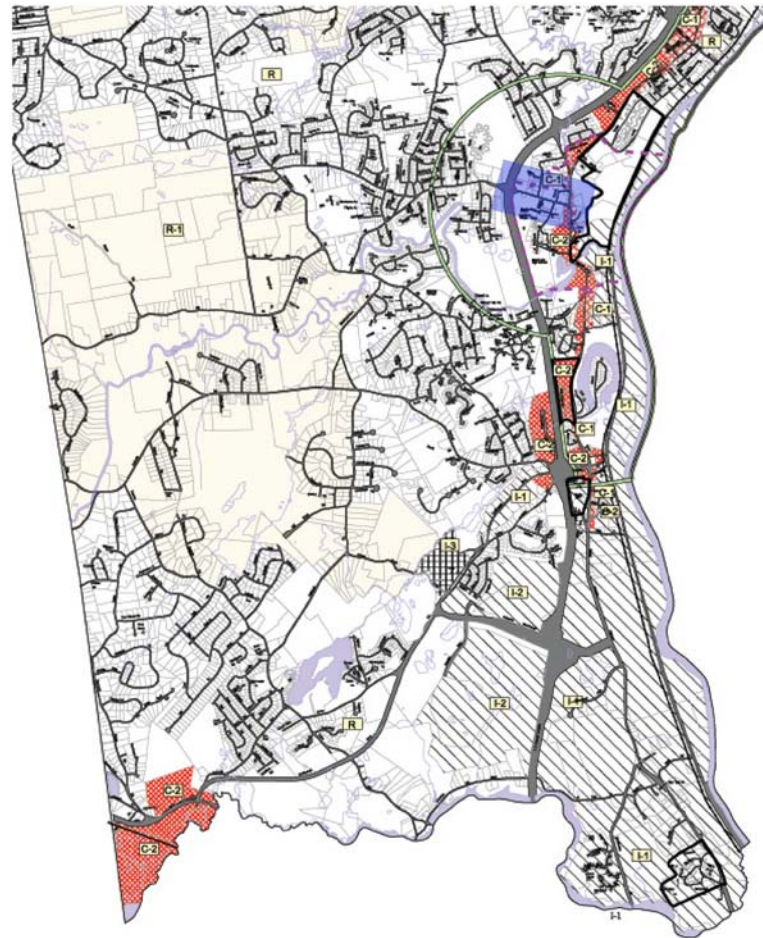


Zoning

Zoning Map, Merrimack, NH

The site, indicated in blue, sits in a residential zoning district. There is, however, a Town Center District and Elderly District overlay which allows for this project to exist on this site.

Various zoning ordinances and code considerations apply to designs in these districts and can be found in the regulatory section of this report.



- Town of Merrimack, James W. Sewall Co.
Town of Merrimack, May 2000 Digitized
and, Feb. 2001.

Site Analysis

Town Center

Town Master Plan Strategy

The highlighted area of the map indicates the project site in the context of the Town Center District.

The high school, middle school, elementary school, cemetery, Our Lady of Mercy Catholic church, Town Hall, courthouse, library, and baptist church are all located in the town center along Baboosic Lake Rd.

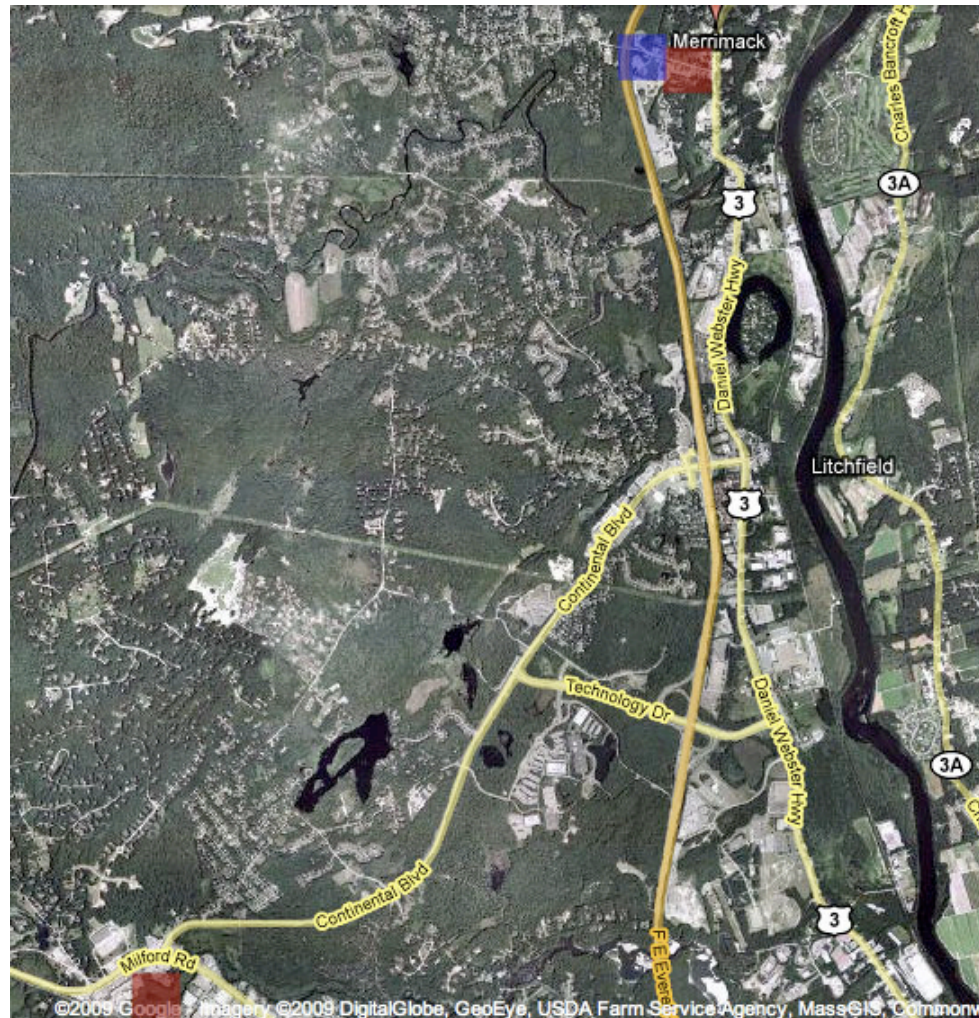
The new church complex will need to respond to these buildings in terms of architectural expression and community connection.



Existing Conditions

The red areas at the top and bottom of the map indicate the two current catholic churches in Merrimack, Our Lady of Mercy and St. John Neumann.

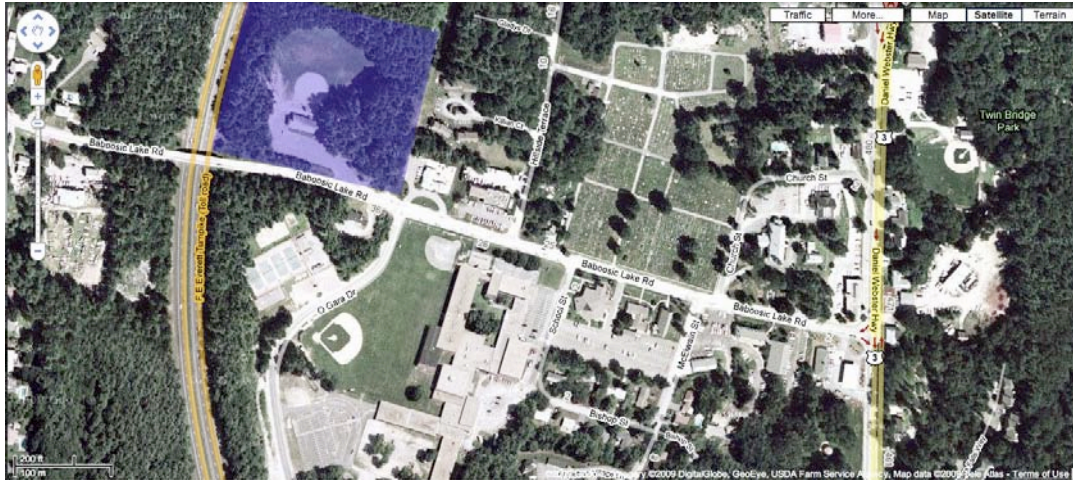
The blue indicates the chosen site for the new church complex. While several sites were looked at in terms of their proximity to the current parishes, this site was selected in order to fully immerse the church in the community and Town Center District.



Site Analysis

Site Maps

The two maps show the site in relation to its immediate and broader neighborhood context.



Site Photos

The panoramic photos show the existing conditions of the site and general access point from Baboosic Lake Rd.



1



2



2

Site Analysis

Site Photos

The photos show more of the building components existing on the site and the visual and physical connection back to the Town Center.

4



5



6



7



Site Photos

These image show some of the existing Town Center buildings along Baboosic Lake Rd. and indicate the architectural character of the surrounding area.

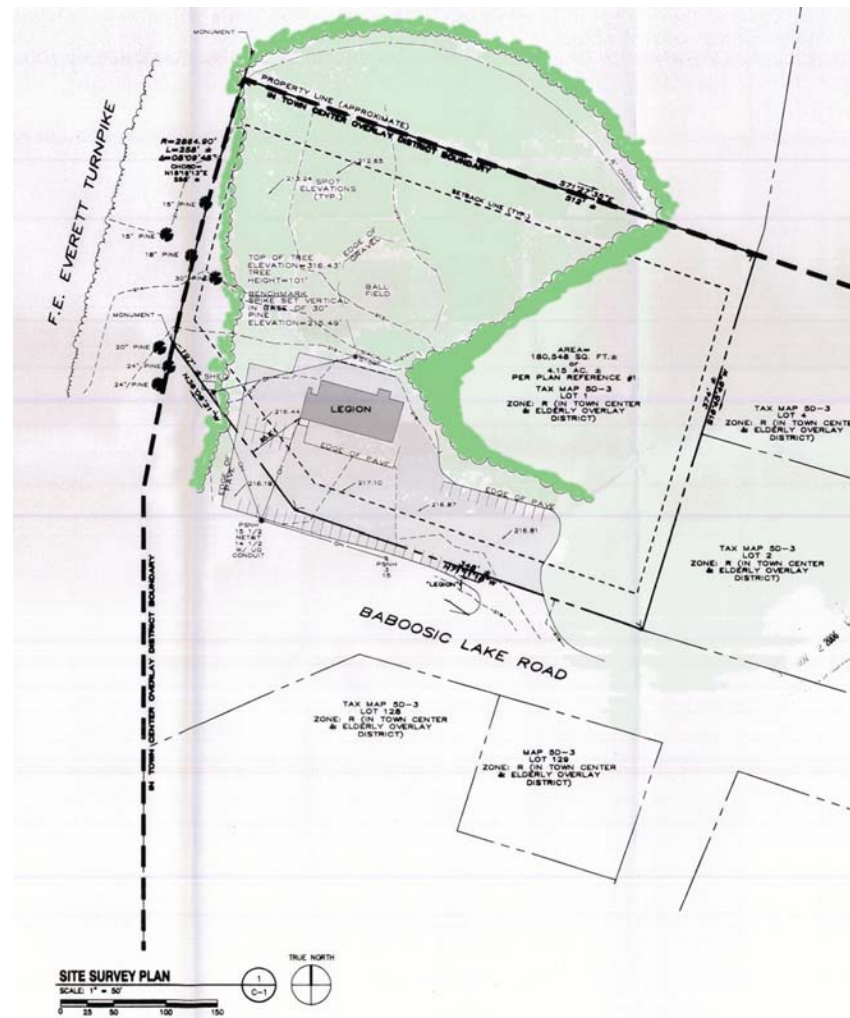


Site Analysis

Site Plan

The site is an interesting location. It sits at the end of the Town Center District, nestled off the main road amongst trees. On the western side of the site, the vegetation is thin, allowing for the major highway, Route 3, to have visual glimpses of the site. This will be an important design feature to consider as historically the church served as a beacon for the town. The new church complex will be able to be seen as a destination point from the major town artery.

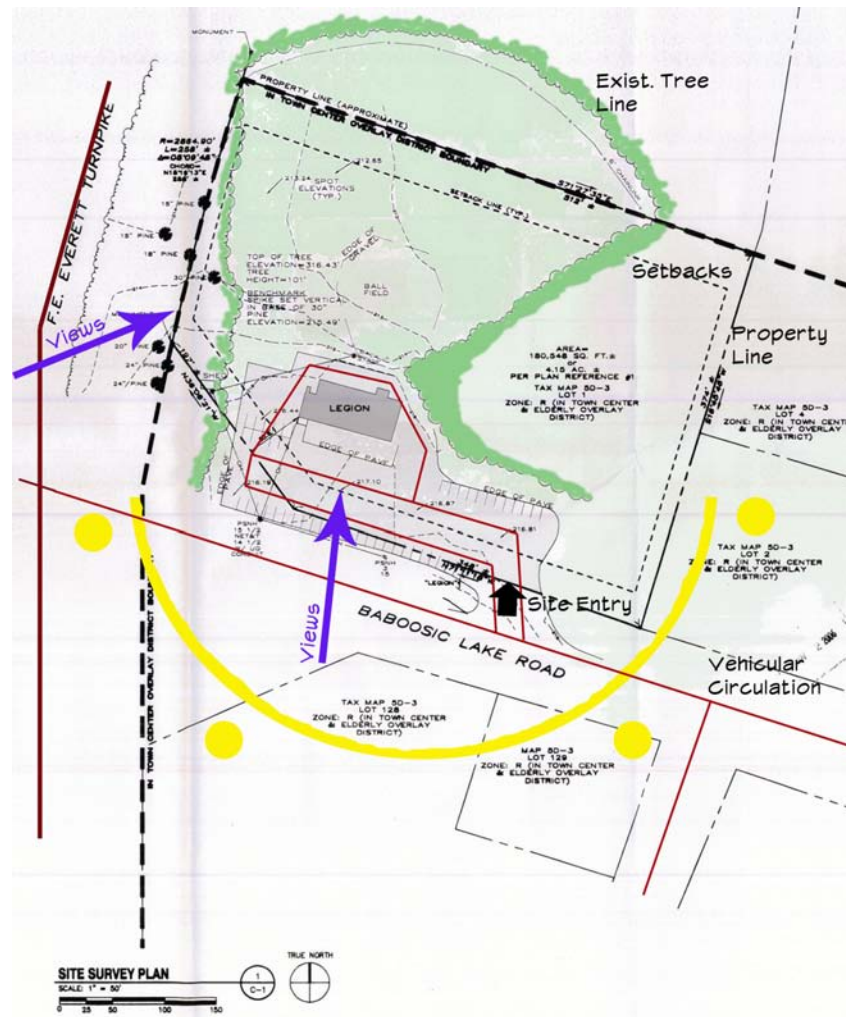
The existing storage sheds and ballfield will be removed. The existing Legion building creates some interesting possibilities between moving it on the site, reusing the space, or removing it entirely.



Site Diagram

The diagram indicate the major view corridors to and from the site. it also indicate the path of the sun, which shows a great deal of southern exposure. The site entrance and vehicular circulation are also indicated.

The topography of the site is fairly minimal because of the existing ball field. It does, however, slope from the street back to the trees at a fairly small increment over the length of the site.





Regulatory Environment Summary Report

Zoning Regulations:

Residential District (w/ Town Center & Elderly District Overlays)

Town Center District [2.02.13, Town Code]

Frontage: 125 FT.

Setbacks:

Front: 30 ft.

Side: 15 ft.

Rear: 40 ft.

No site improvements, except for access ways, parking areas, fencing, ground signs, utility lines, landscaping and lighting fixtures may be located within required front yard setbacks as established above.

Ground signs shall be setback not less than 10 feet from the front property line.

Elderly Zoning District [2.02.9, Town Code]

Use and Occupancy Classification [Ch. 3 IBC 2006]:

Church: Assembly (A-3)

Parish Center: Assembly (A-3)

Rectory: Residential (R-2)

Elderly Housing: Residential (R-2)

* Residential (R-4) For Assisted Living Component

Means of Egress [Ch.10 IBC 2006]:

Occupancy Load:

Church: Seating Booth, Based on 1 person/ 24" of booth seat length measured at backrest.

Parish Center: 15 SF of floor area per resident

Residential: 200 SF of floor area per resident

Exit Access Travel Distance:

R & A Occupancies: 250 LF (w/sprinkler) & 200 LF (w/o sprinkler)

Min. Number of Exits:

1-500 Occupants/ Story = 2 Exits/ Story

Parking Requirements [7-1, Town Code]:

Church:

1 Space for every 4 Occupants

Accessible Parking Spaces [Ch.11 IBC 2006]:

201-301 Parking Spaces= 7 Accessible Parking



Precedent Analysis

Jubilee Church

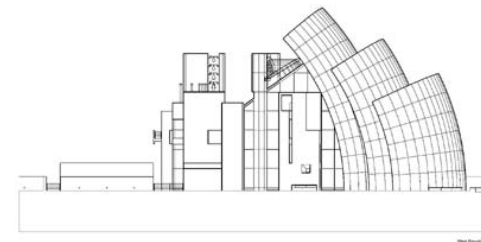
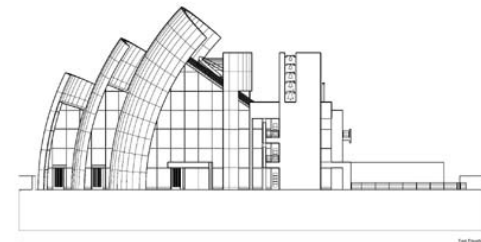
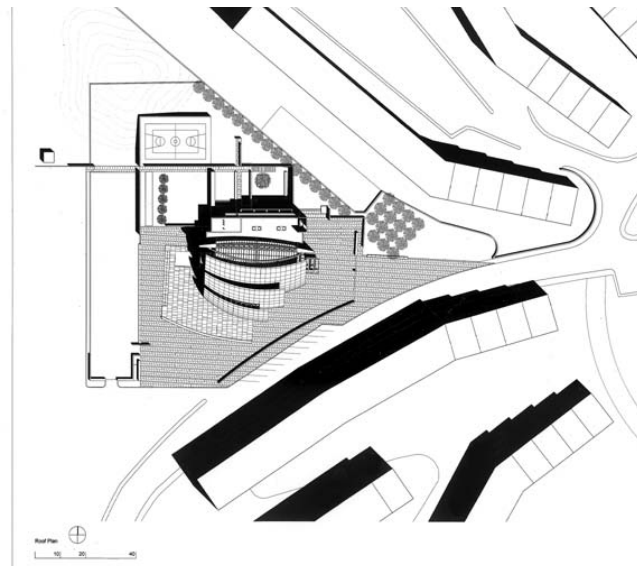
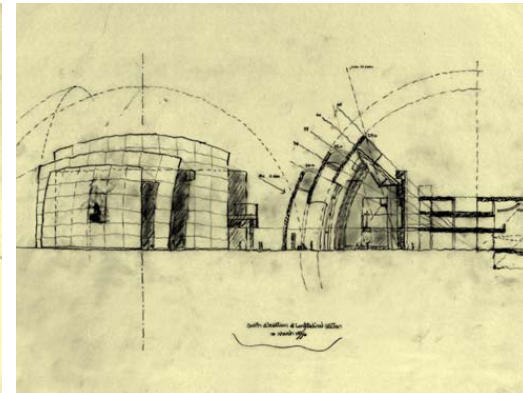
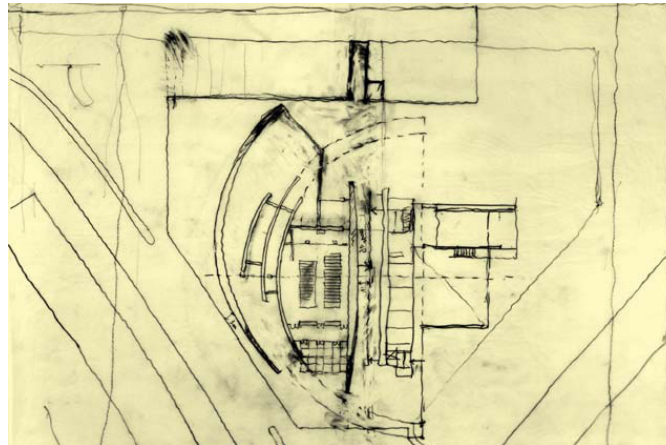
Richard Meier & Partners
Rome, Italy
2001



Jubilee Church

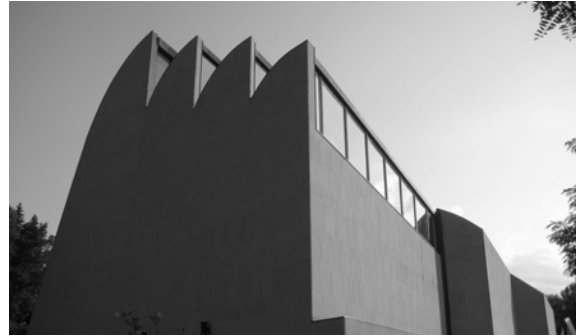
The Jubilee Church provides an interesting look at a progressive architectural expression meshing with an entity that is so rich in cultural, social, and historic traditions. Meier is able to use extensive glazing and metal cladding that allows for a great play of light and inside/ outside transitions connecting to the community.

The form of the church and its organization in plan also create an interesting dichotomy between function and formal expression.



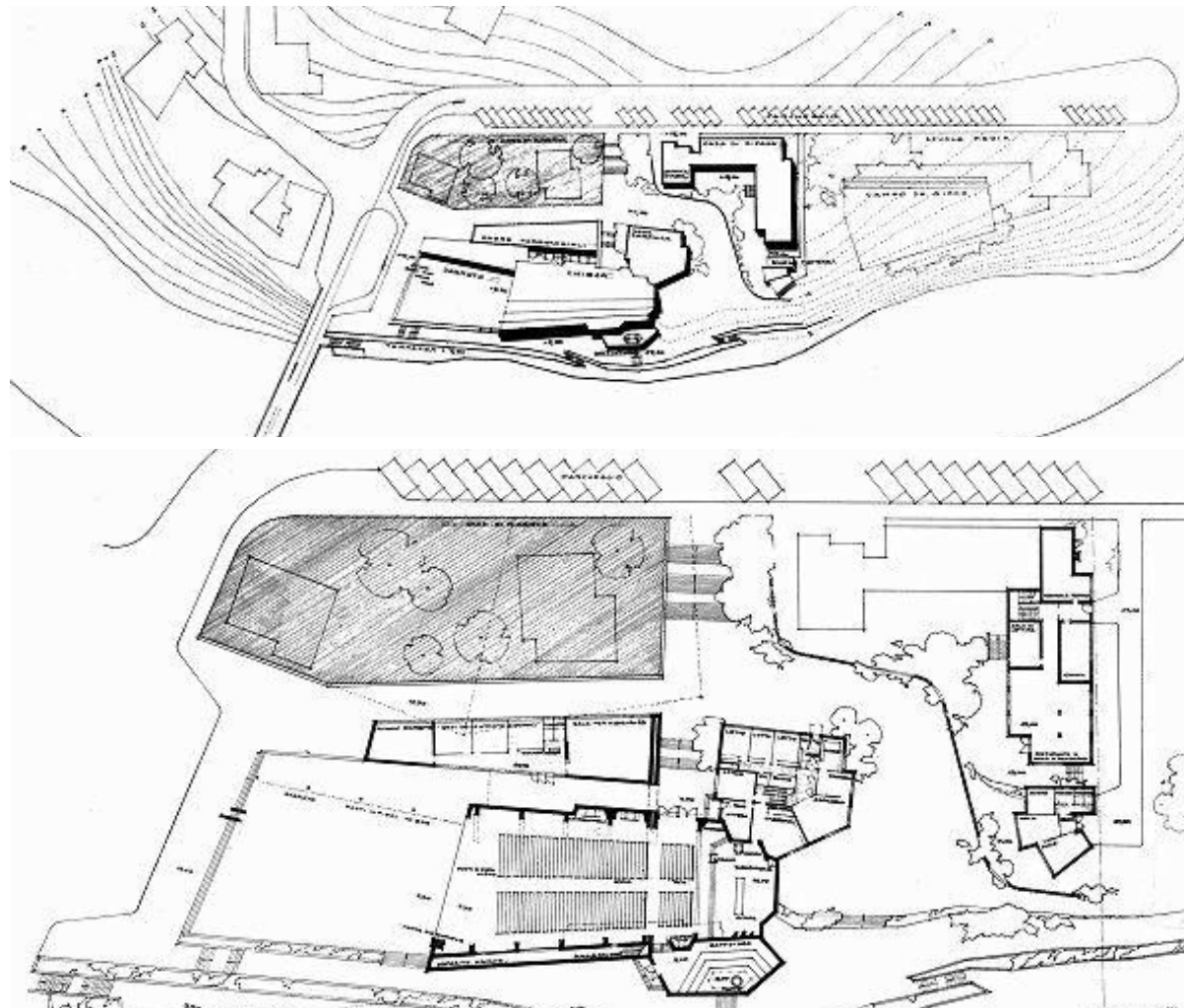
Riola Parish Church

Alvar Aalto
Riola, Italy
1975-78



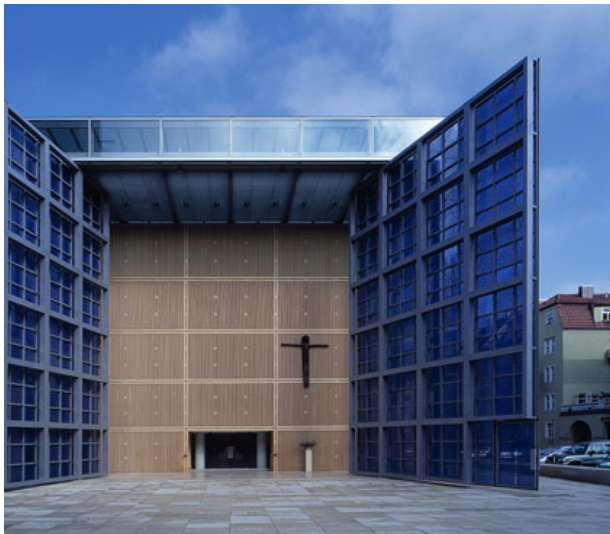
Riola Parish Church

Structure and light are always big components in any Alvar Aalto project and he does not disappoint here. The spatial volume of the worship space is articulated by the exposed structural members and interact with the clerestory glazing. The light pours down into the space from above and bounces off the white surfaces of the wall and structure. The light pours down into the space from above and bounces off the white surfaces of the wall and structure. The white is contrasted with the wood furniture and ornamentation creating a spiritual atmosphere.



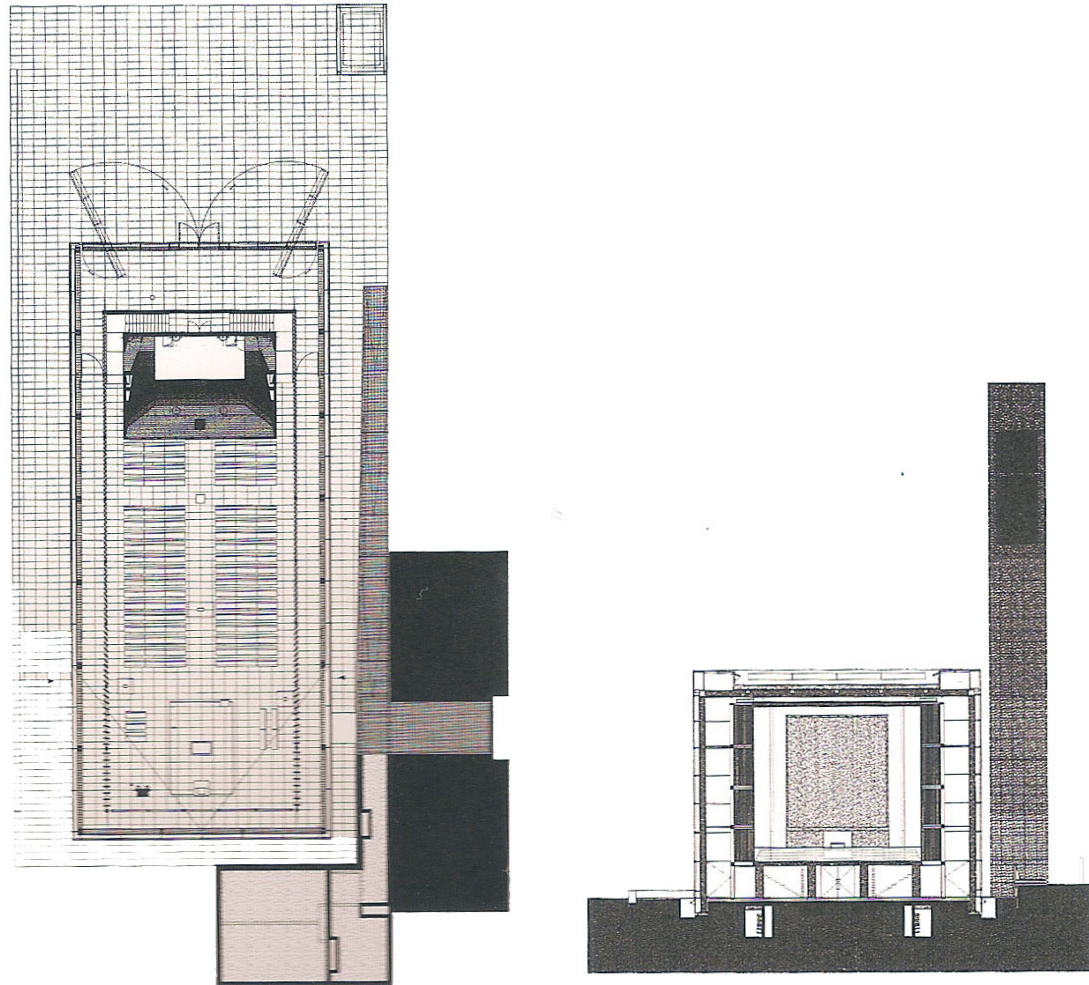
Church of the Sacred Heart

Allmann Sattler Wappner
Architekten
München, Germany
2000



Church of the Sacred Heart

This church is really simple in its formal moves: a box within a box. The church worship space is enclosed in a larger glass volume with large doors that open up to the entry court and plaza. This presents the idea of overflow space into an outdoor environment. The lighting effects that the interior space gets from the glass enclosure provides a spiritual atmosphere.



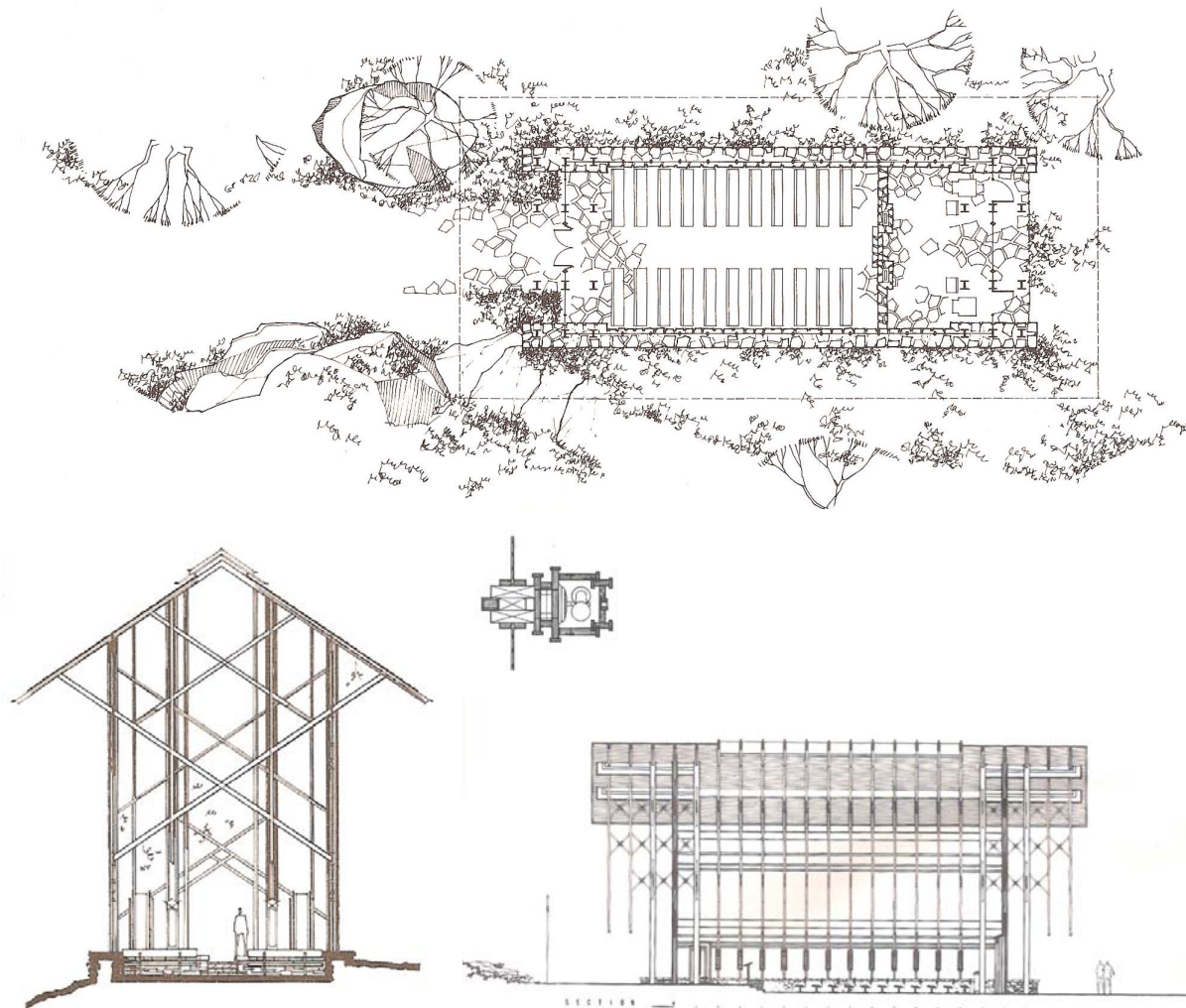
Thorncrown Chapel

E. Fay Jones
Eureka Springs, Arkansas
1980



Thorncrown Chapel

Fay Jones greatly respected the site context and surroundings when nestling this small chapel into the woods of Eureka Springs, Arkansas. His philosophy was not to disturb the surrounding landscape, and thus every wood component of the building must be able to be carried and put into place by no more than two men. The building is built entirely of dimensional lumber, which really makes the chapel seem like a part of the trees. The rest of the enclosure is made of glass, and fieldstone at the base of the walls. The interior to exterior relationships of the chapel allow for visual and physical connections with nature.



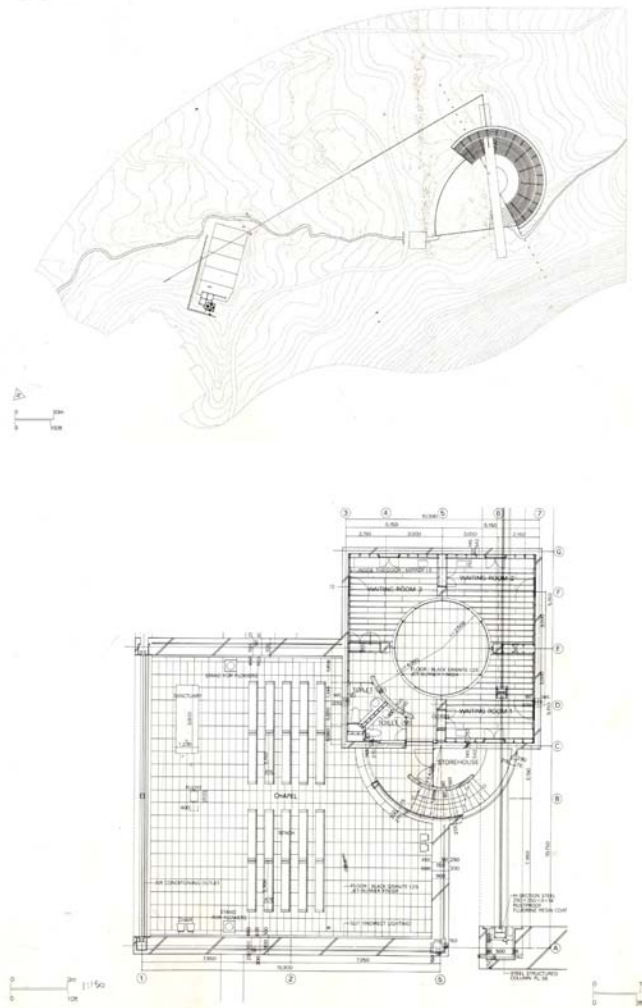
Church of the Light

Tadao Ando
Ibaraki, Osaka
1989



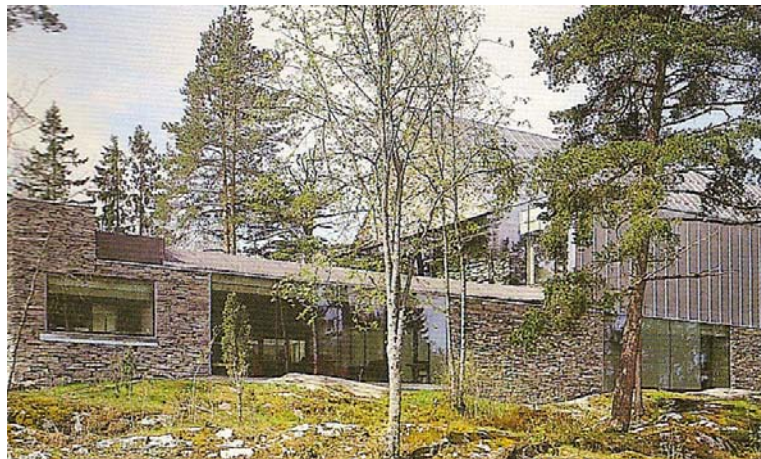
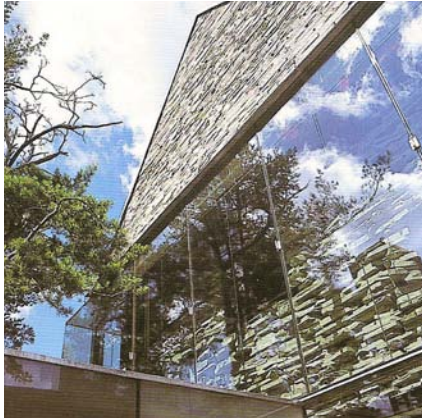
Church of the Light

Ando's use of materials, primarily concrete, create a simple environment that through the use of natural light develops serene, calm spaces that evoke the spiritual nature of the church complex. The furniture is comprised of light and dark woods and create a nice juxtaposition with the concrete. The formal organization of the church space is simple and clear, with circulation elements merely being breaks in the volume of the space.



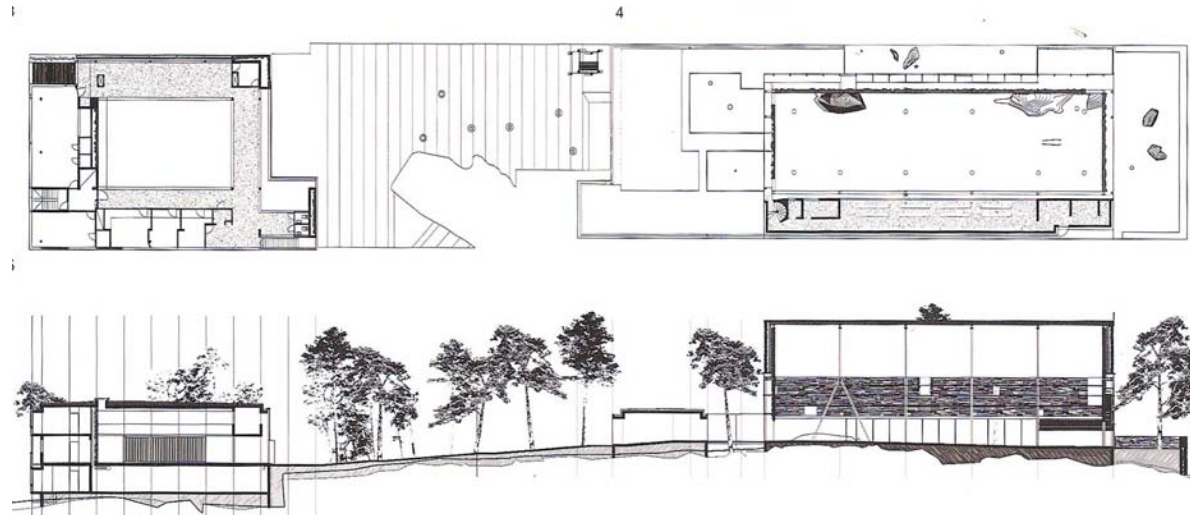
Mortensrud Church

Jensen & Skodvin
Arkitektontor
Oslo, Norway
2002



Mortensrud Church

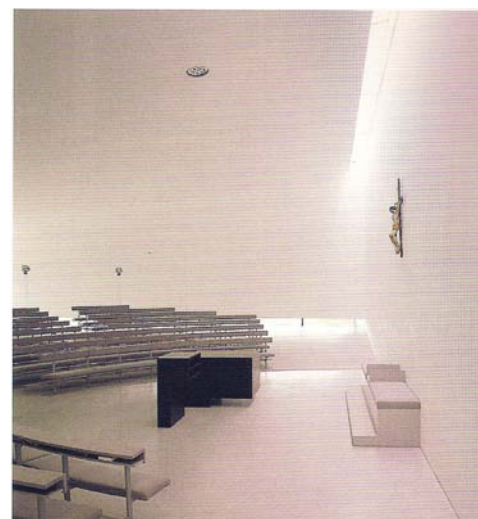
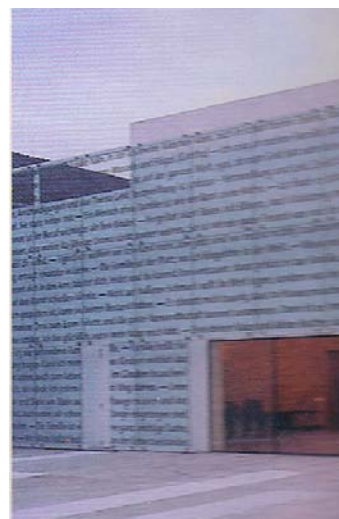
The use of natural materials, fieldstone at the base, wood structure elements, and fieldstone veneer walls above create a building that is rooted in its site. The church is then enclosed with a glass facade that allows for light to seep into the worship space and create visual and physical connections with the natural surroundings. The church also makes a return to Italian Catholic tradition with the detached bell tower, which stands vertically amongst the trees.



Precedent Analysis

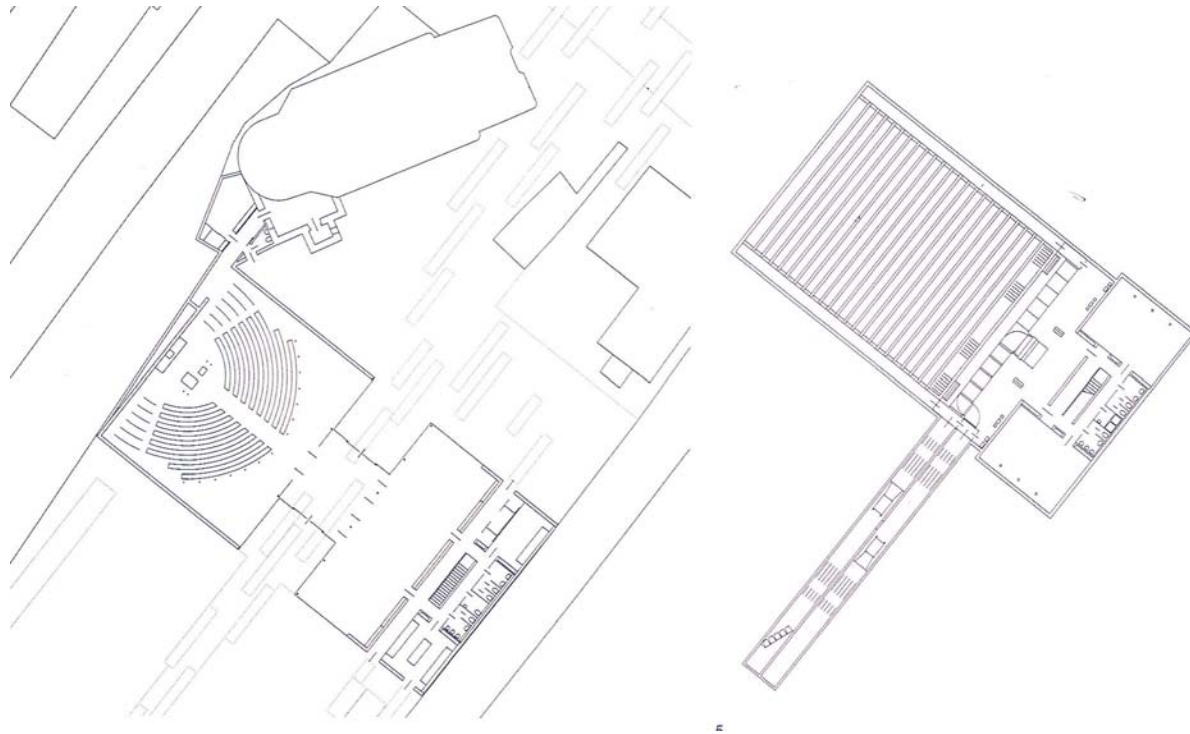
Podersdorf Parish Center

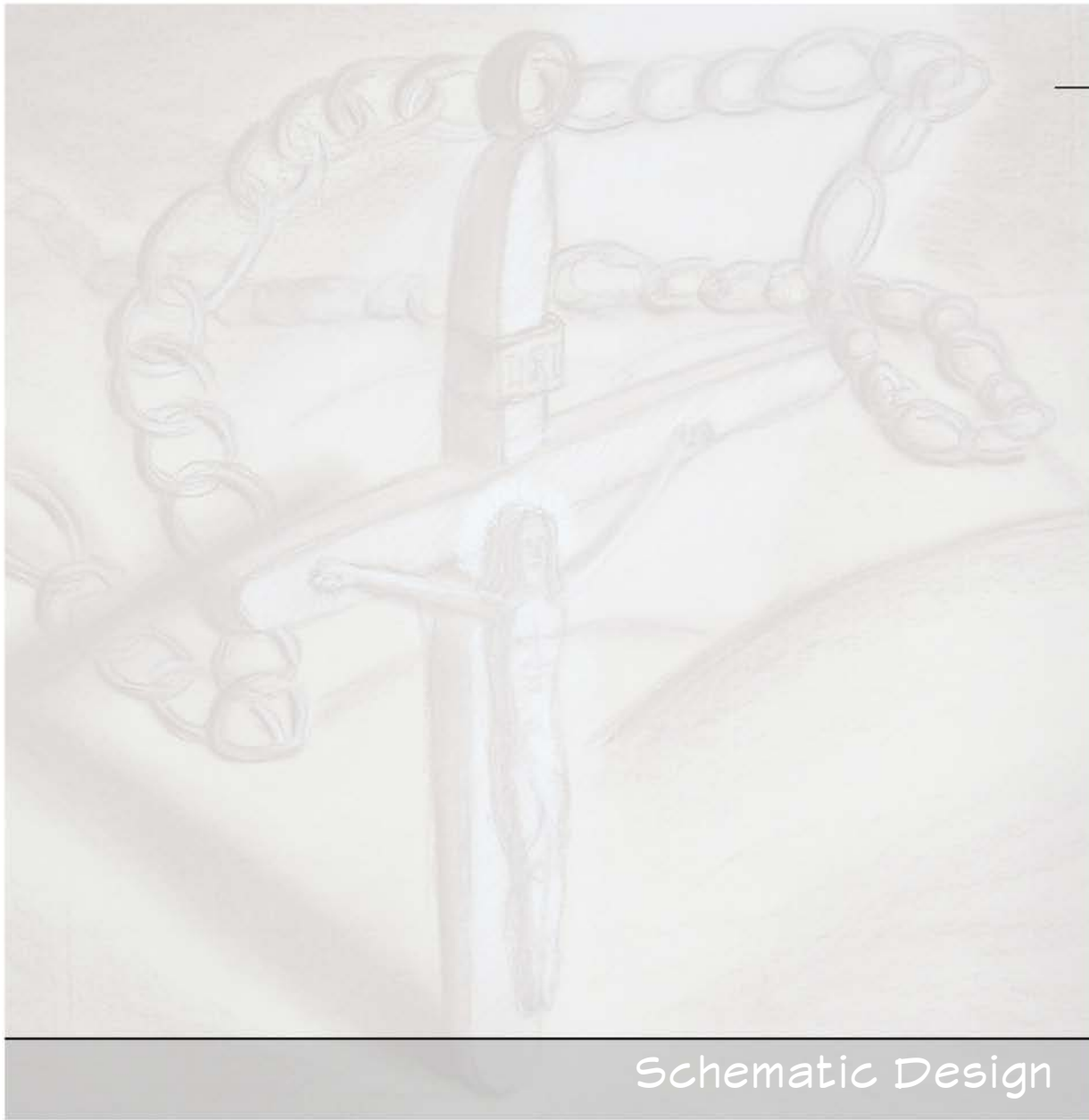
Lichtblau Wagner
Architekten
Podersdorf am see, Austria
2002



Podersdorf Parish Center

The parish center is simple in organization, form, and even material but what it calls to mind is the iconic nature of the church. The use of a glass facade element that stretches around the building containing passages of scripture from the bible and messages written by the community, create a decorative symbolism to what the building is about.





Schematic Design

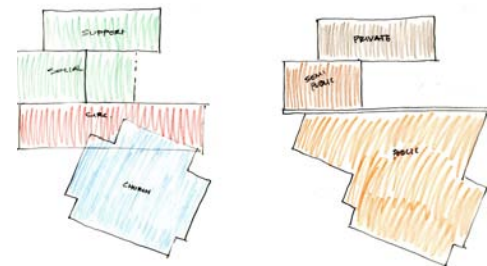
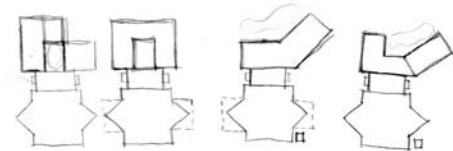
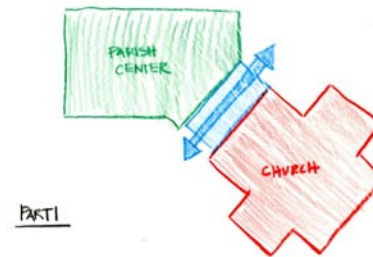
Project Goals

The early photo montage was created to establish key design criteria and objectives. The focus areas were: materiality, exterior space, light, and image. All of these revolving around the central focus of the church and the spiritual journey.



Parti

An exploration of the party revealed a number of issues. Resulting from this was the clear delineation of having one building that incorporated both the church and the parish center connected by a "spiritual highway."



Schematic Design

Detail

Religious art, furniture, and ornamentation are important to the aesthetic character and spiritual atmosphere of the church and support spaces. From an early stage, the juxtaposition of the rigorous nature of religious celebration and the fixed components was vital to understand the components of the journey.

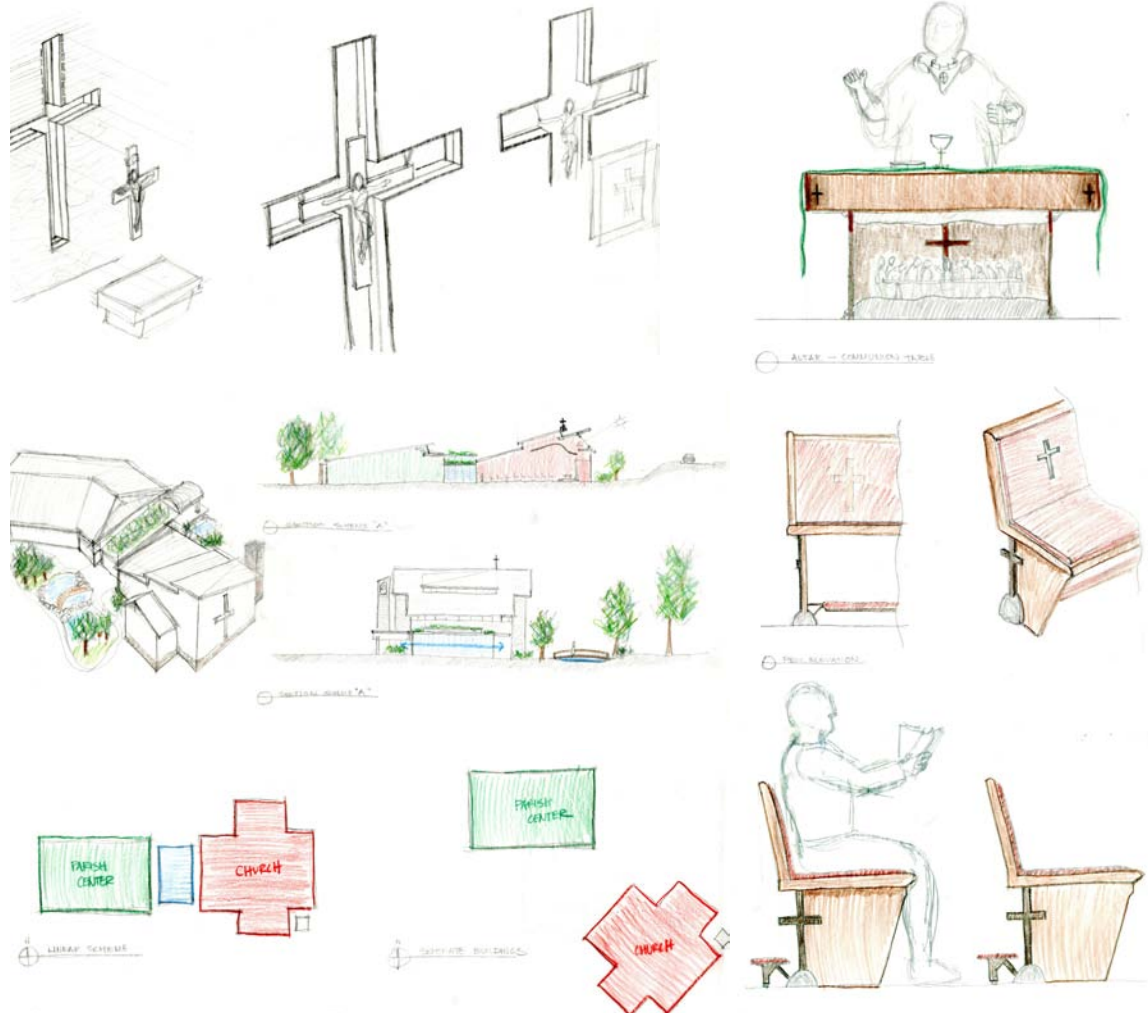
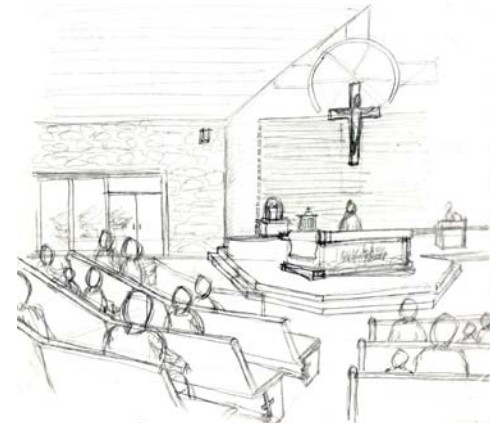
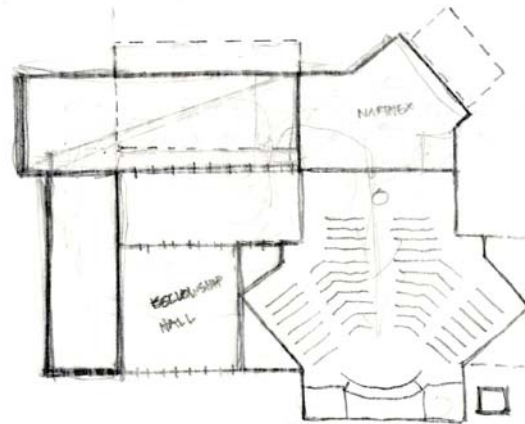
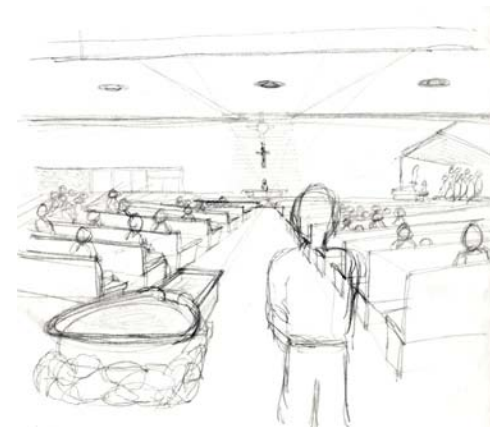


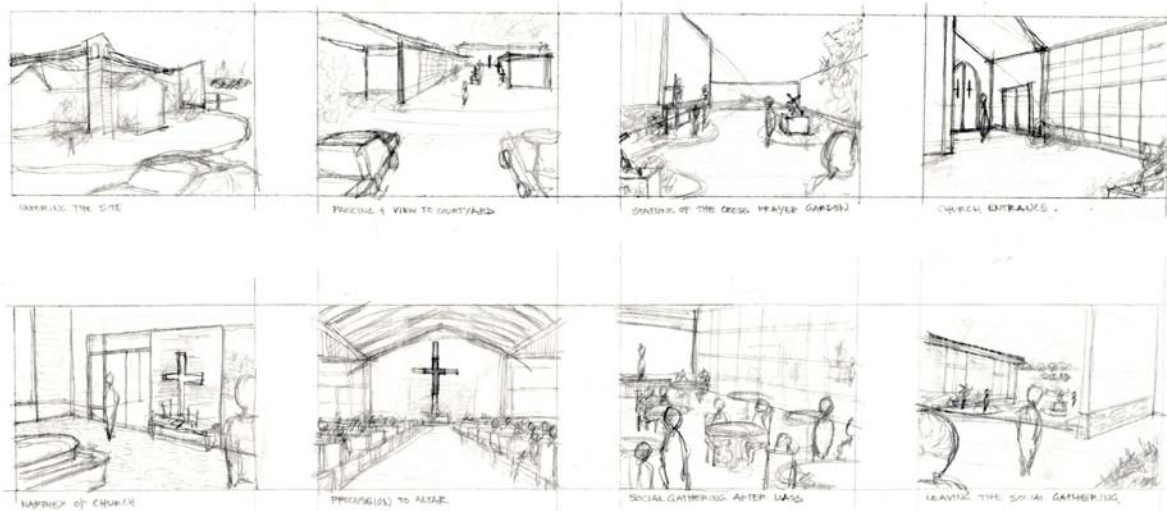
Image & Character

The image of the church and the aesthetic quality of spaces were an area of focus, in order to create an architecture that speaks a clear visual religious language.



Procession & Use

The sequence of spaces, transition of zones, and function of the various program components was explored. This provided for an understanding of the various user groups and their respective needs to function in the new space.

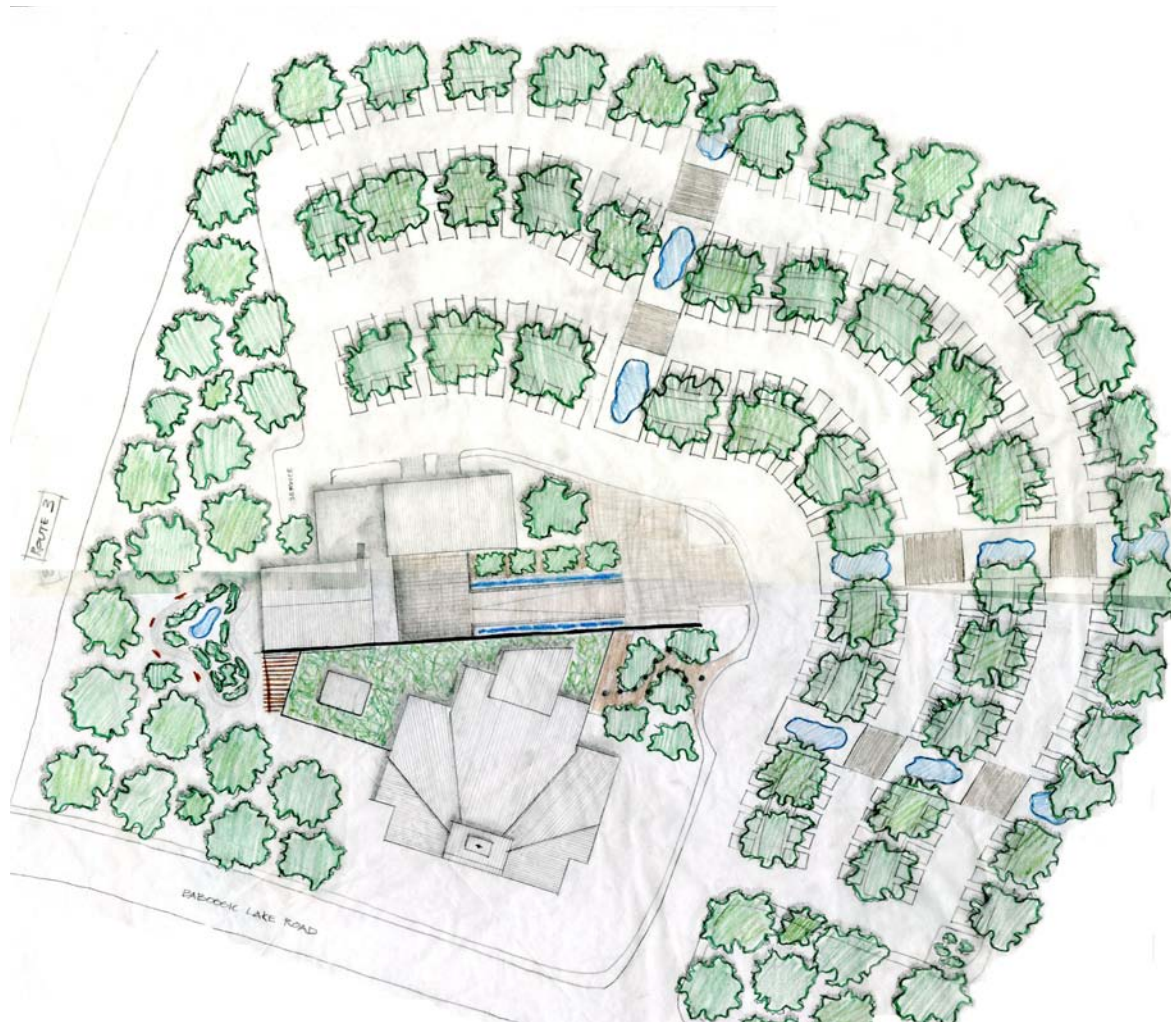




Design Development

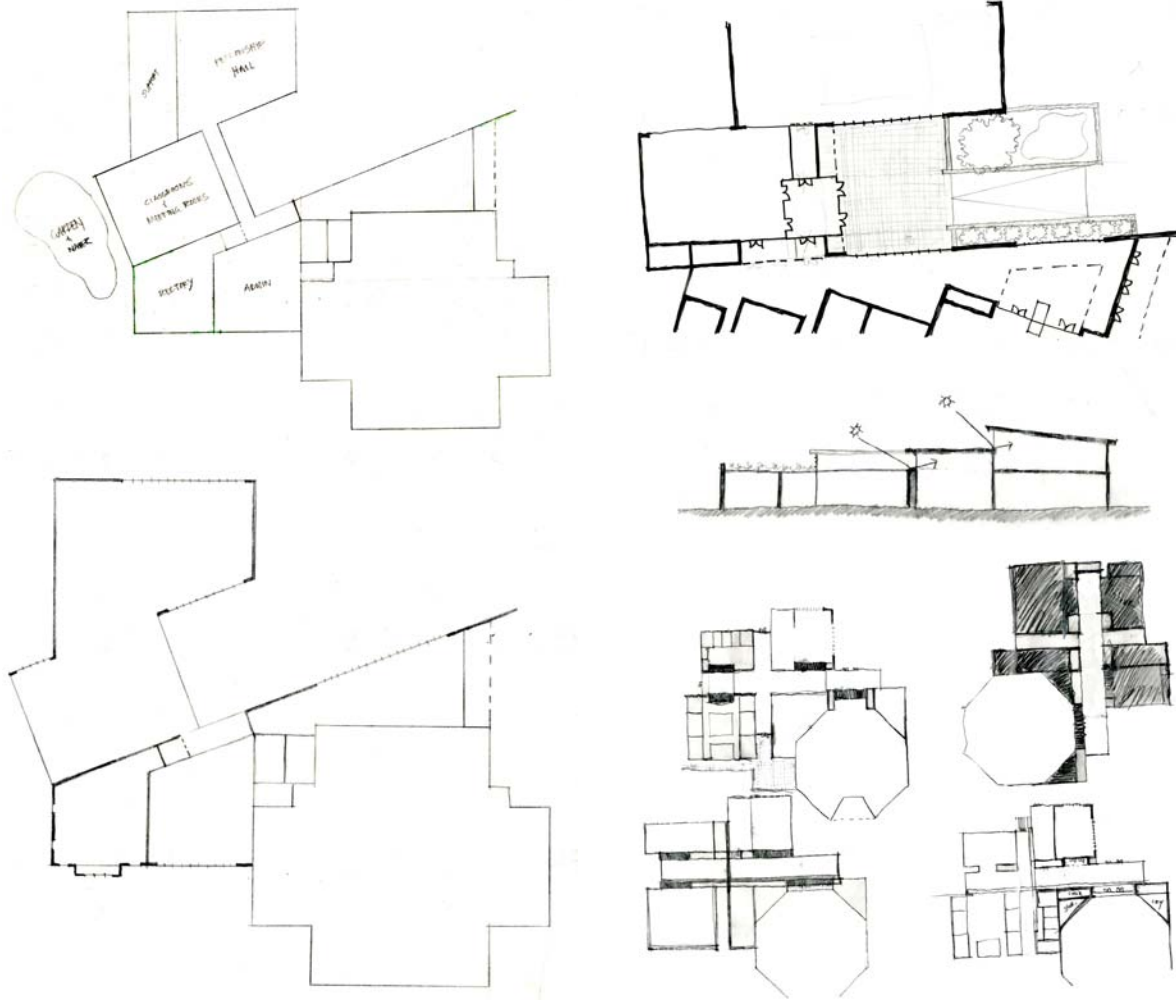
Site & Community

As a vital connection to the community, the siting of the church needs to be clear. Anchoring one end of the Town Center gave the church an opportunity to have visual prominence and serve as a beacon for the town of Merrimack. Pushing the building close to the road edge creates a welcoming front, and allows for more tranquil, intimate prayer gardens to happen in remote areas. The periphery of the site was thought as an organic parking area nestled amongst the existing wooded area.



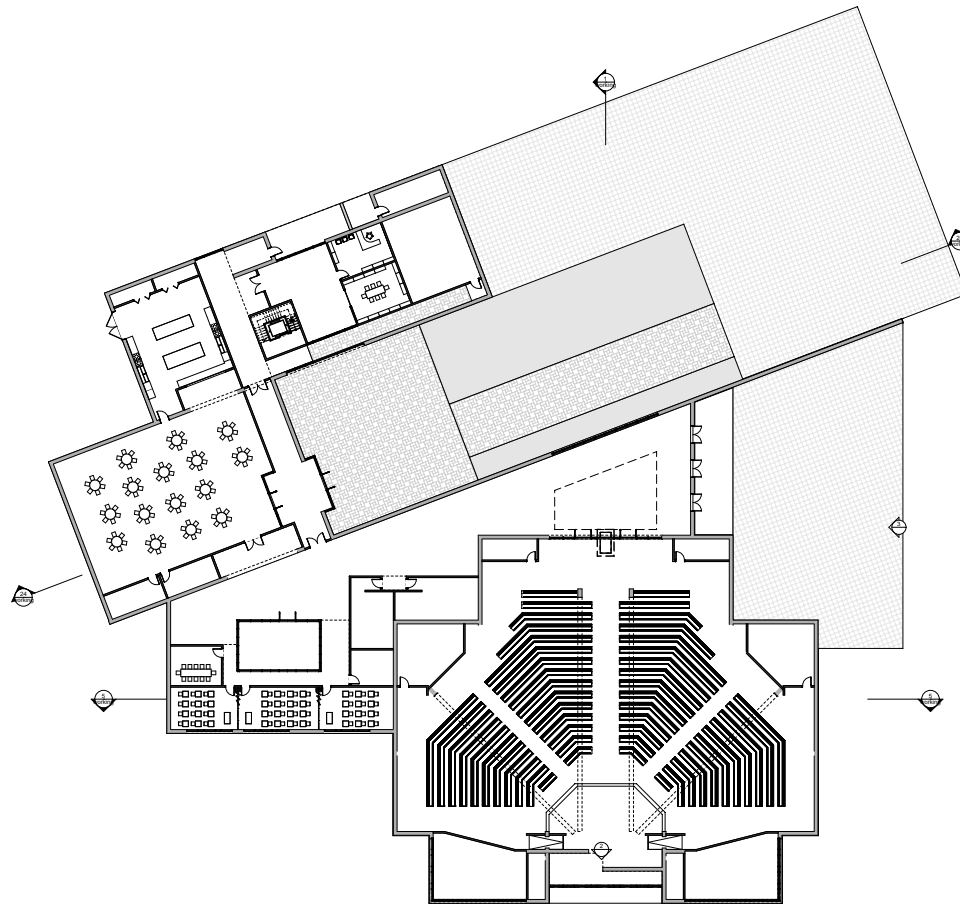
Development of the Plan

While the juxtaposition of interior spaces is important, the delineation between interior and exterior is also crucial. The realm at which one moves between the natural and built environments is a major part of the procession that is so important to the spiritual journey of the church.



Development of the Plan

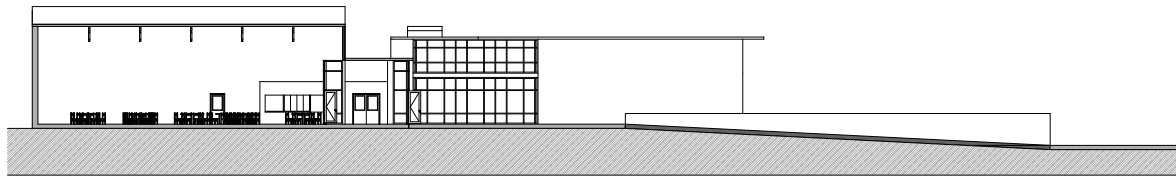
There was a lot of scrutiny of the individual shape of program elements as well as the overall form of the complex. How the building responded to the existing conditions of the site and the surrounding community was essential.



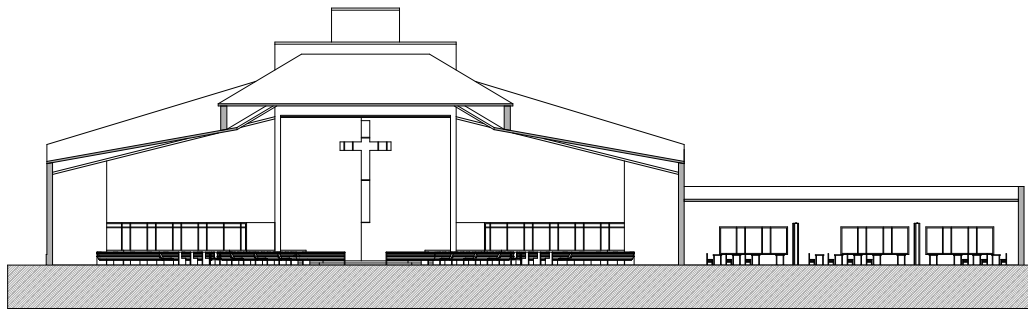
1st Floor
SCALE 1/8" = 1'-0"

Elevations & Sections

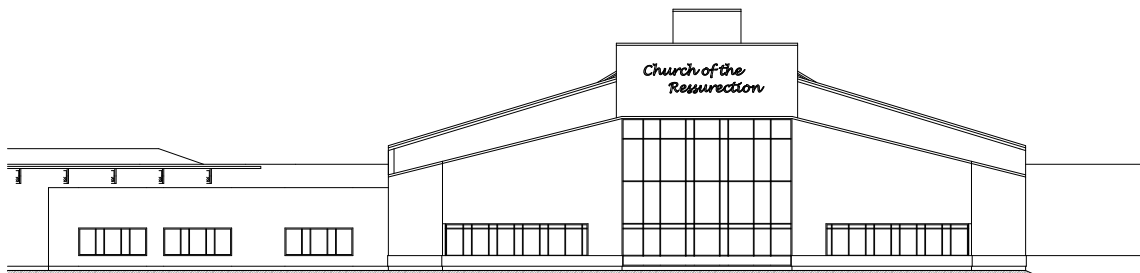
Exploration of the volumetric relationships, material composition, and structure of the design .



working
scale 1/8" = 1'-0"

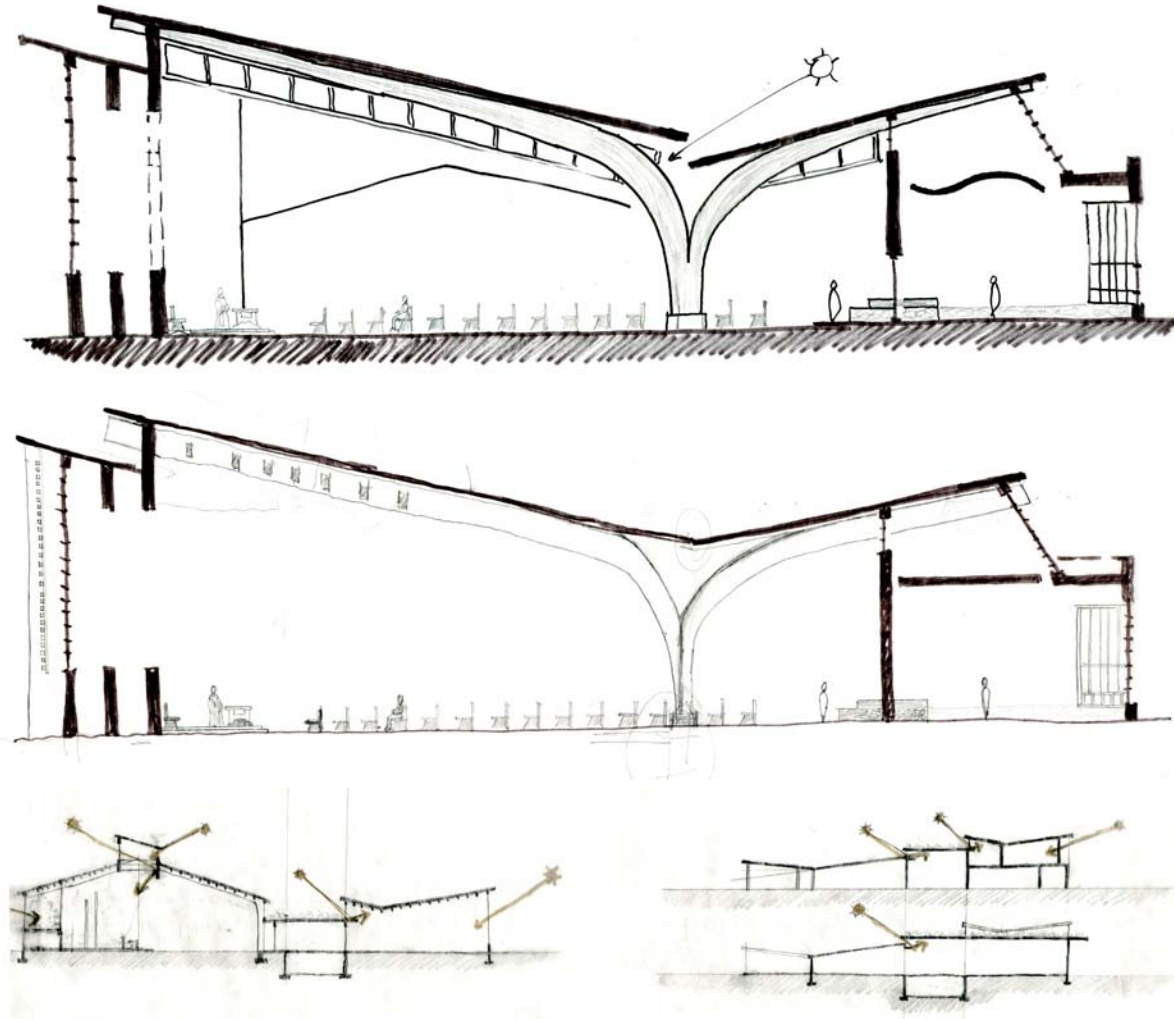


working
scale 1/8" = 1'-0"



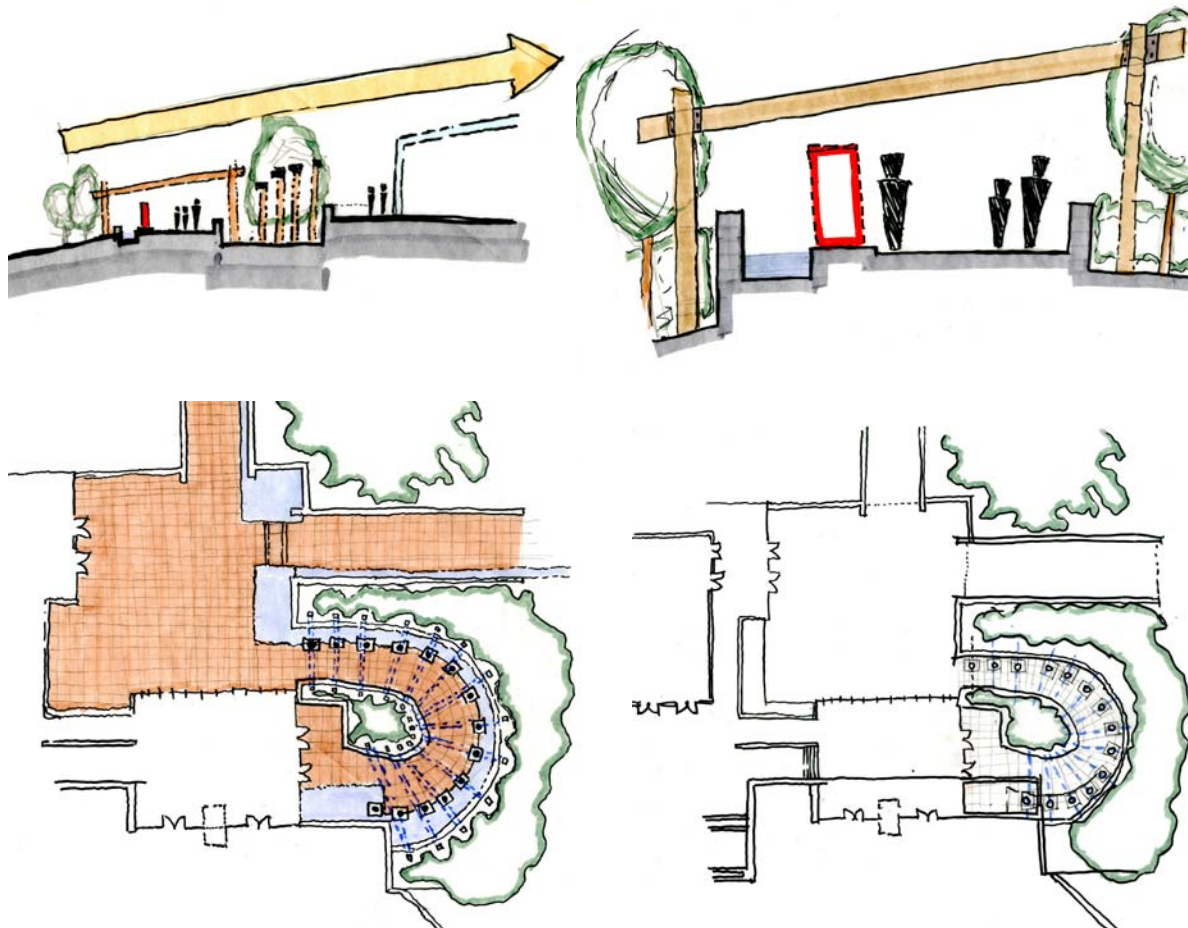
Sections

Exploration of the sectional qualities of structure, penetration of natural light, and visual connections.



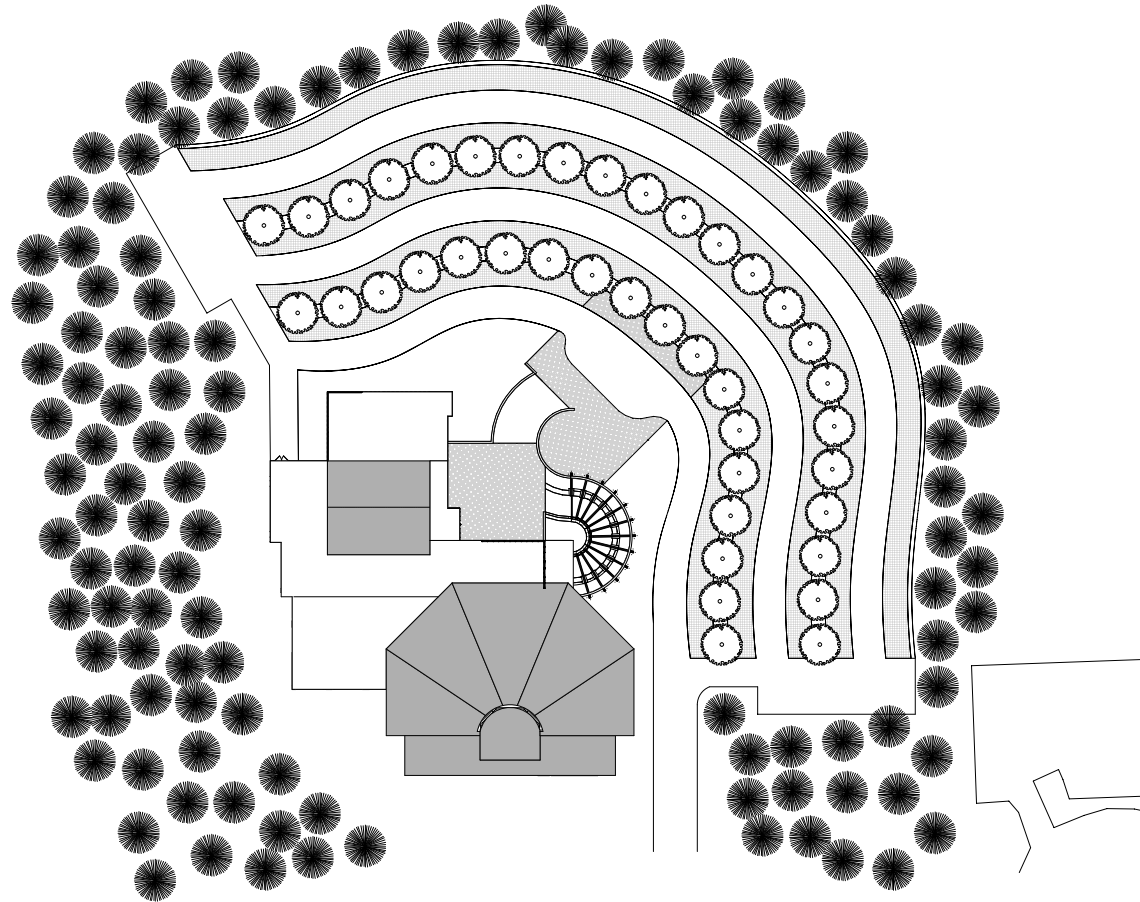
Stations of the Cross

Part of the spiritual journey is to walk alongside Jesus. To physically walk the steps he took toward the ultimate sacrifice of dying on the cross adds another element of emotion. The Stations of the Cross have always been a big part of the Catholic faith. By designing a life-size interpretation of this journey through natural elements of wood, water, stone, and trees parishioners can participate more fully in this ritual.



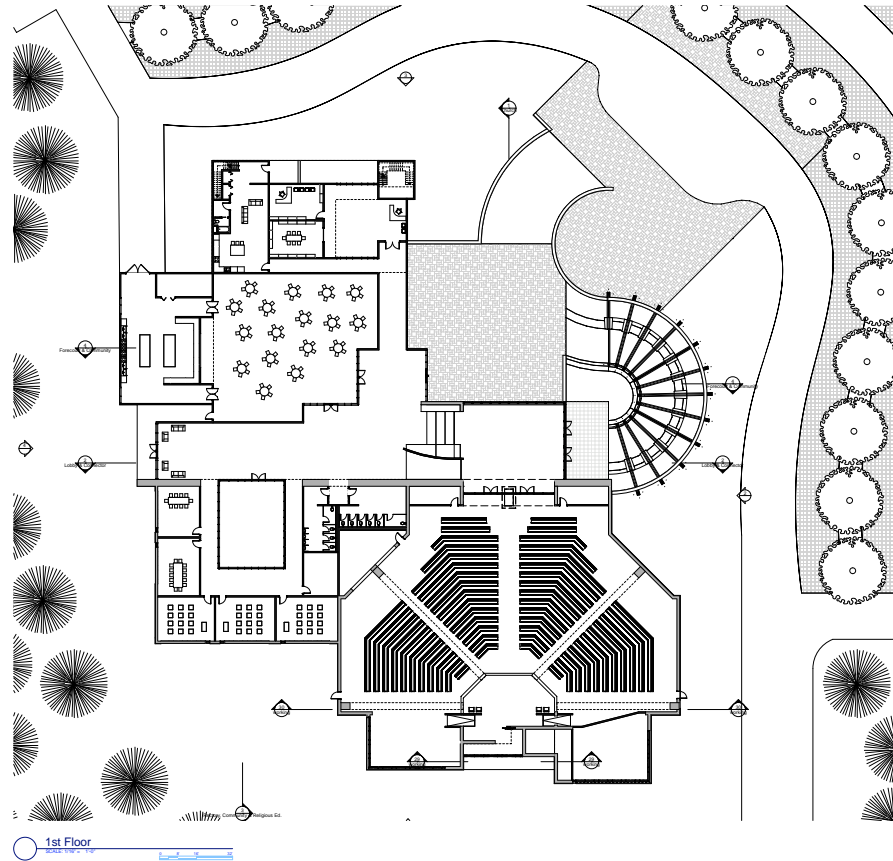
Site Strategy

A continued emphasis placed on the image of the church and the integration of the surrounding landscape.

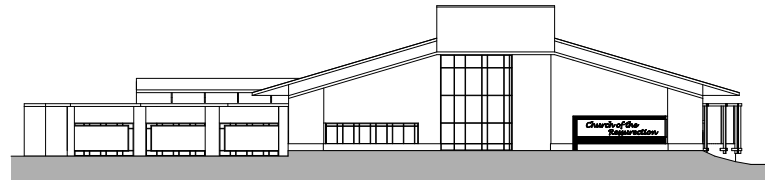


Site Plan (Overlay)
SCALE: 1/8" = 1'-0"

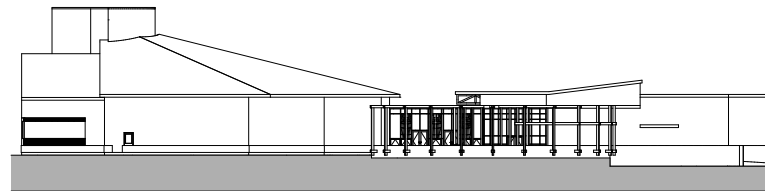
Development of the Plan



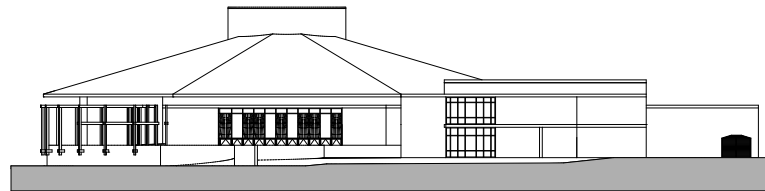
Sections



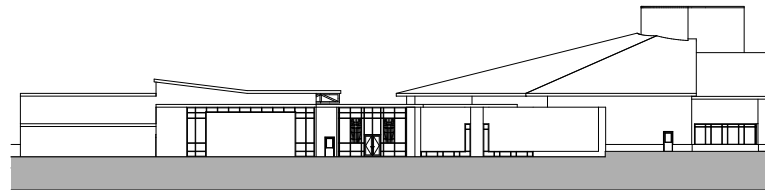
○ South Elevation



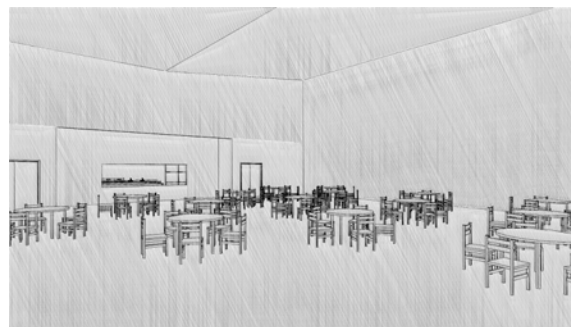
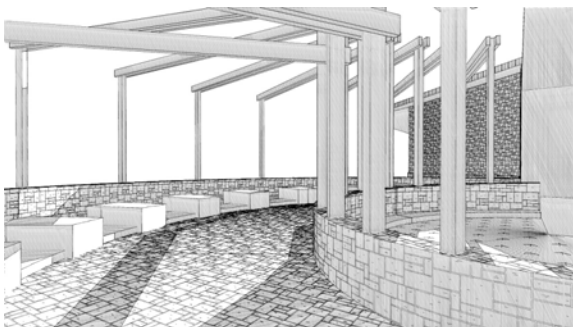
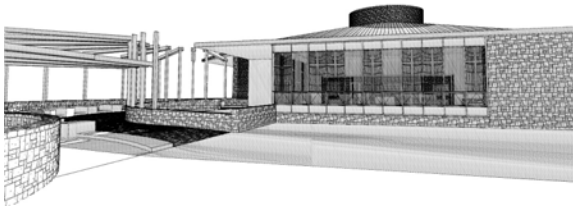
○ East Elevation



○ North Elevation

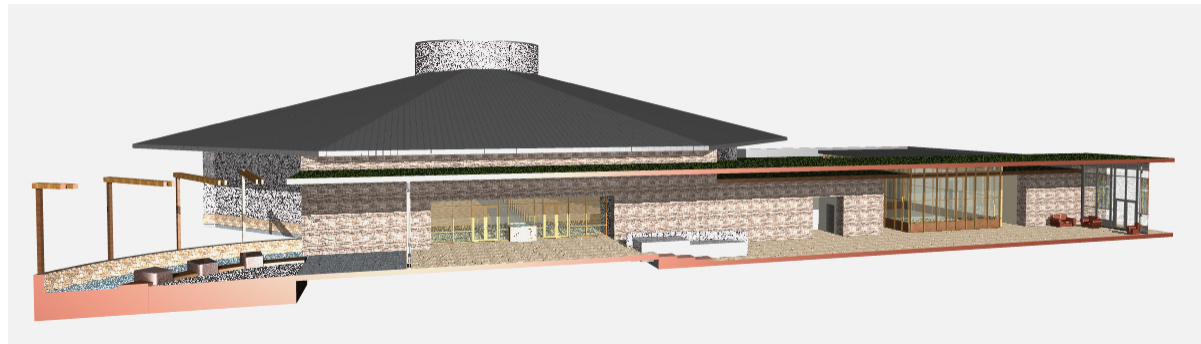


○ West Elevation



Procession & Use

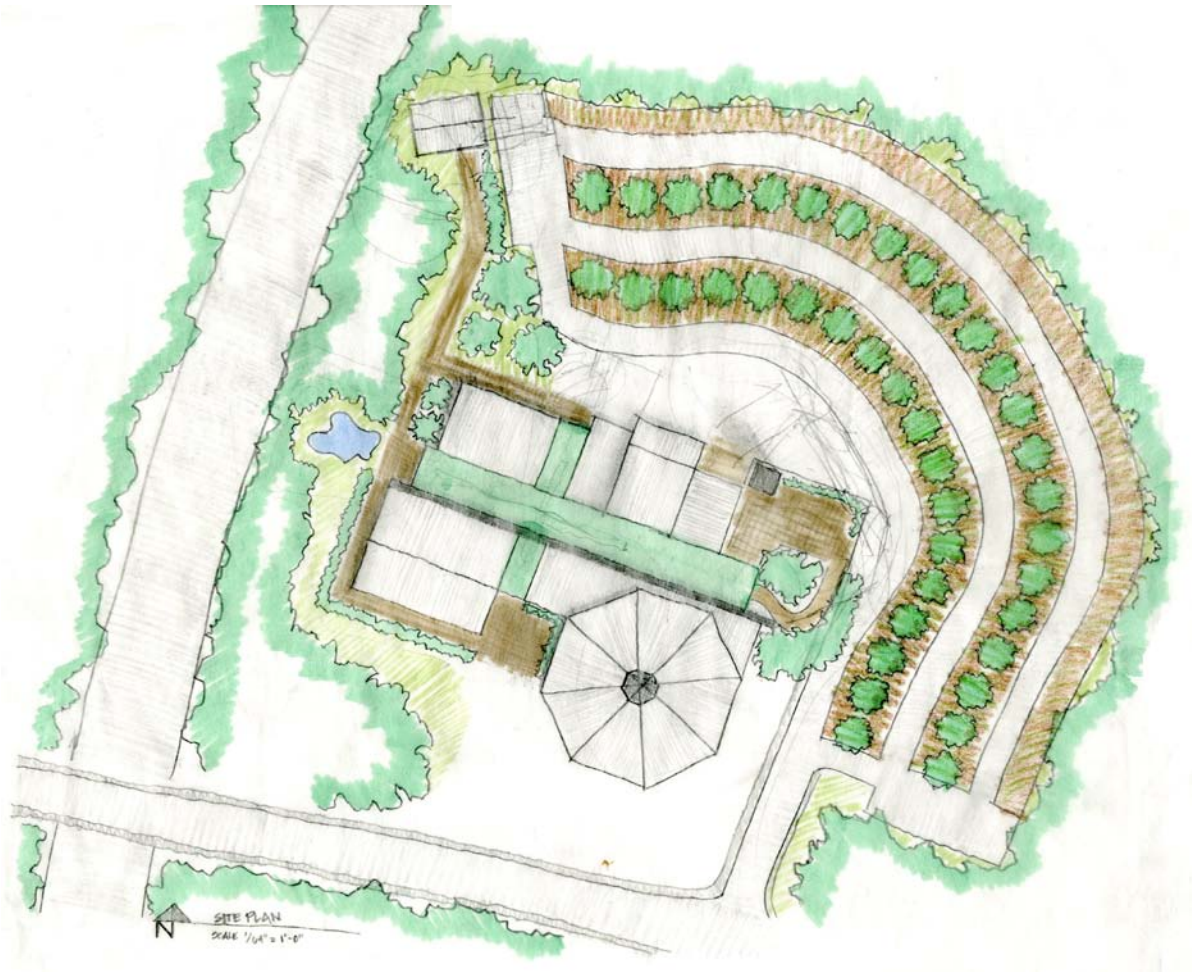
Snapshots along the spiritual journey, give a better understanding of the character of the experience.

3D Cutaways

3D Details

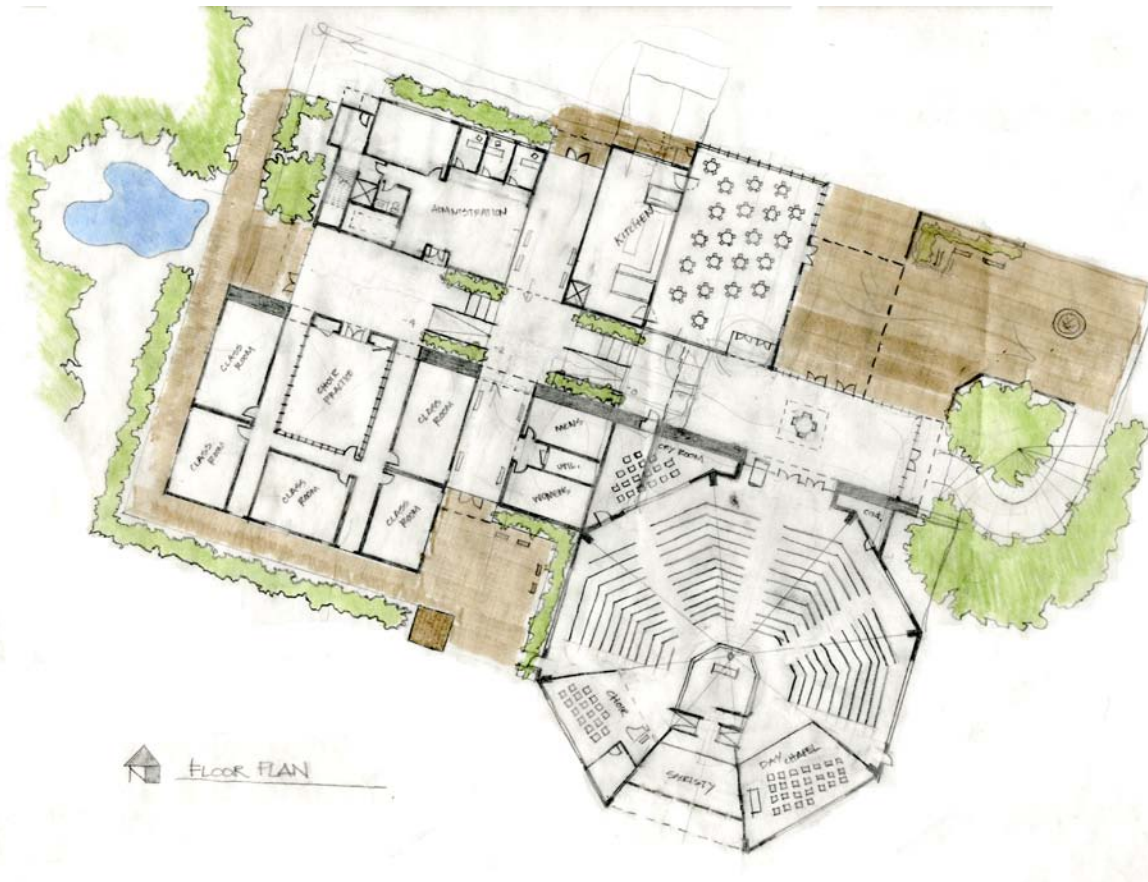
Site Plan

The development of the site to incorporate movement in and out of the building and connections to the parking and exterior gardens.



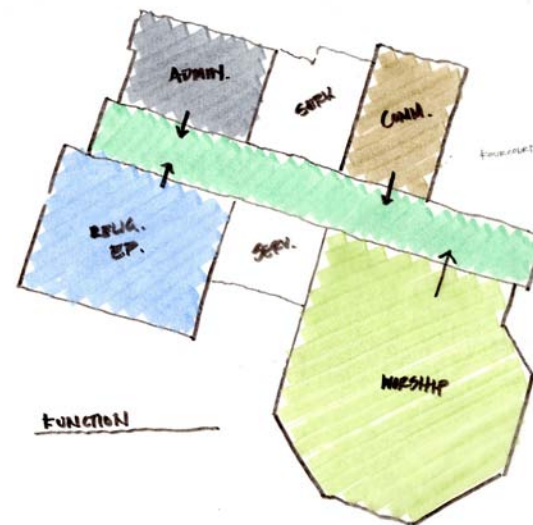
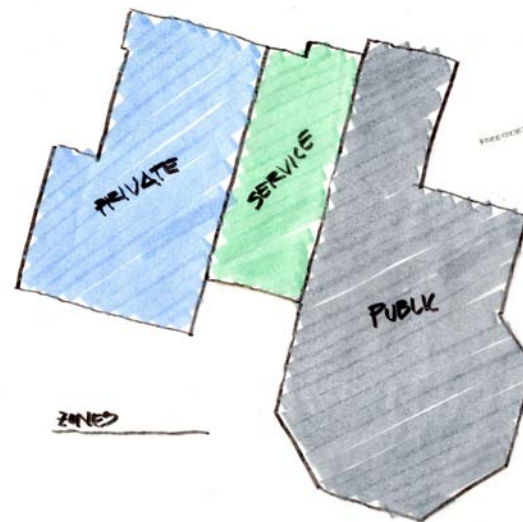
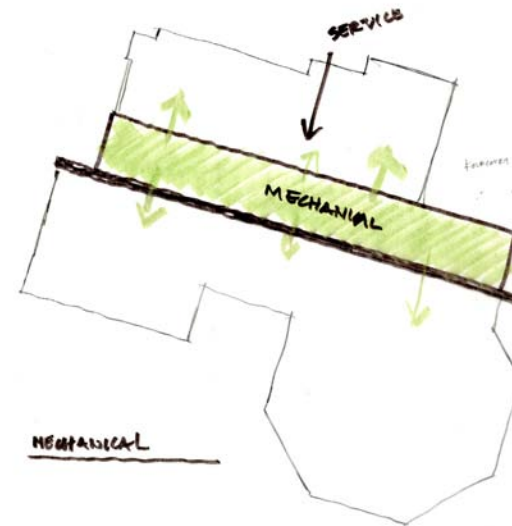
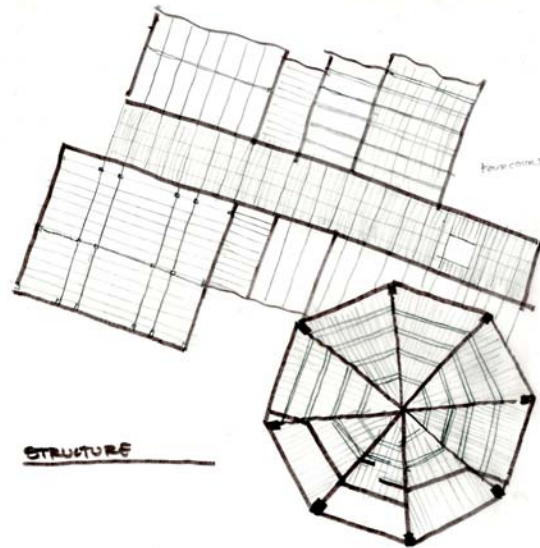
Plan

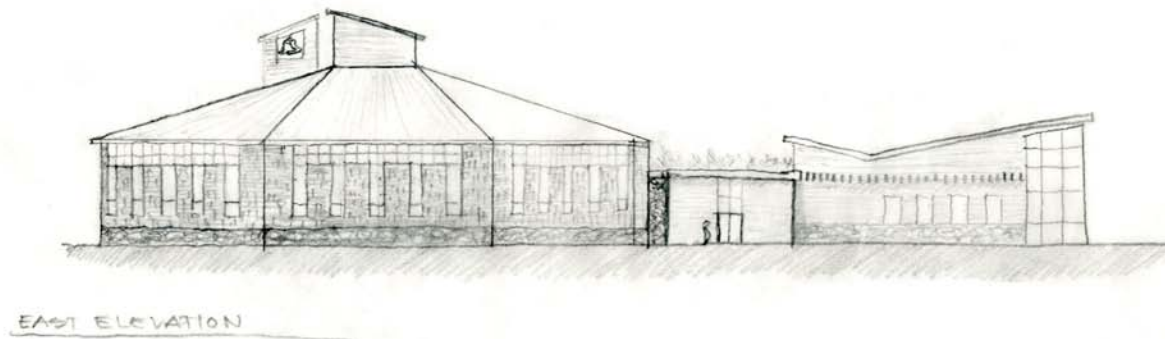
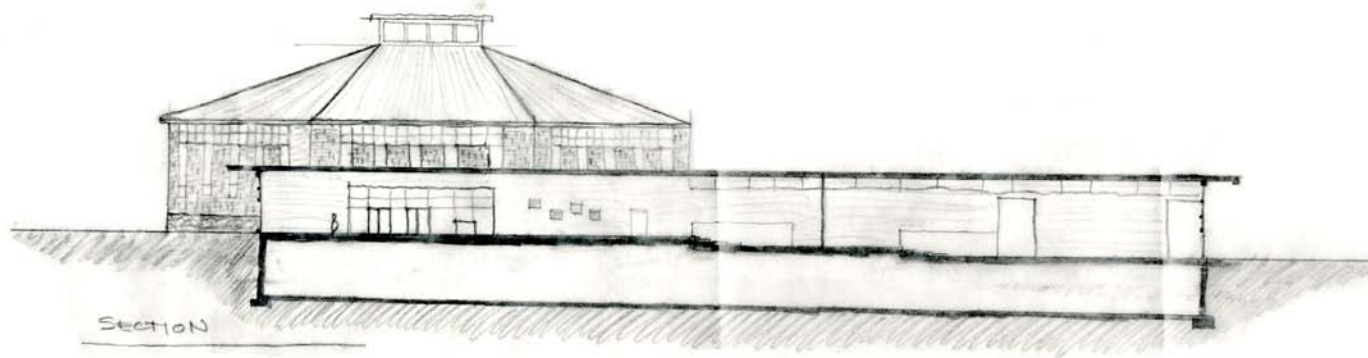
To create a more centralized focus on the procession to the altar, the form of the Nave takes on an octagonal shape which emphasizes the structure and light above the altar. The support areas of the church are delineated along the connector, interacting with each other and the exterior space.



Diagrams

Structure
Mechanical
Zones
Function (Program)

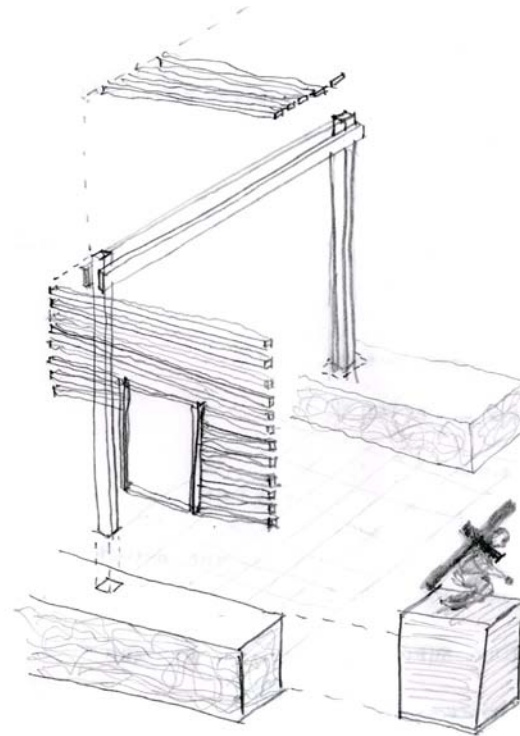
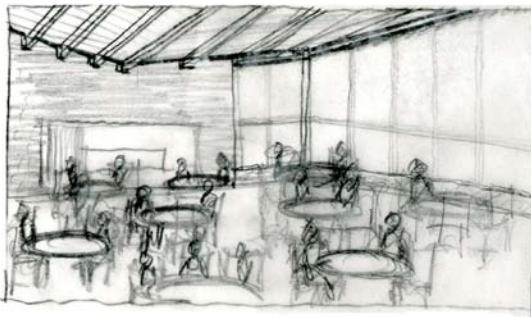
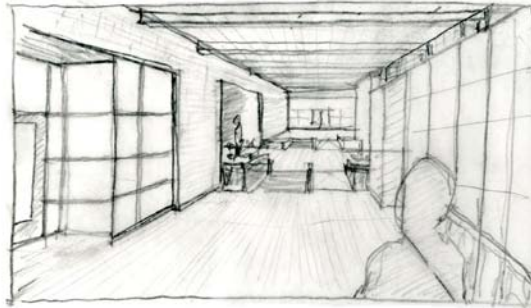


**Section &
Elevation**

Detail

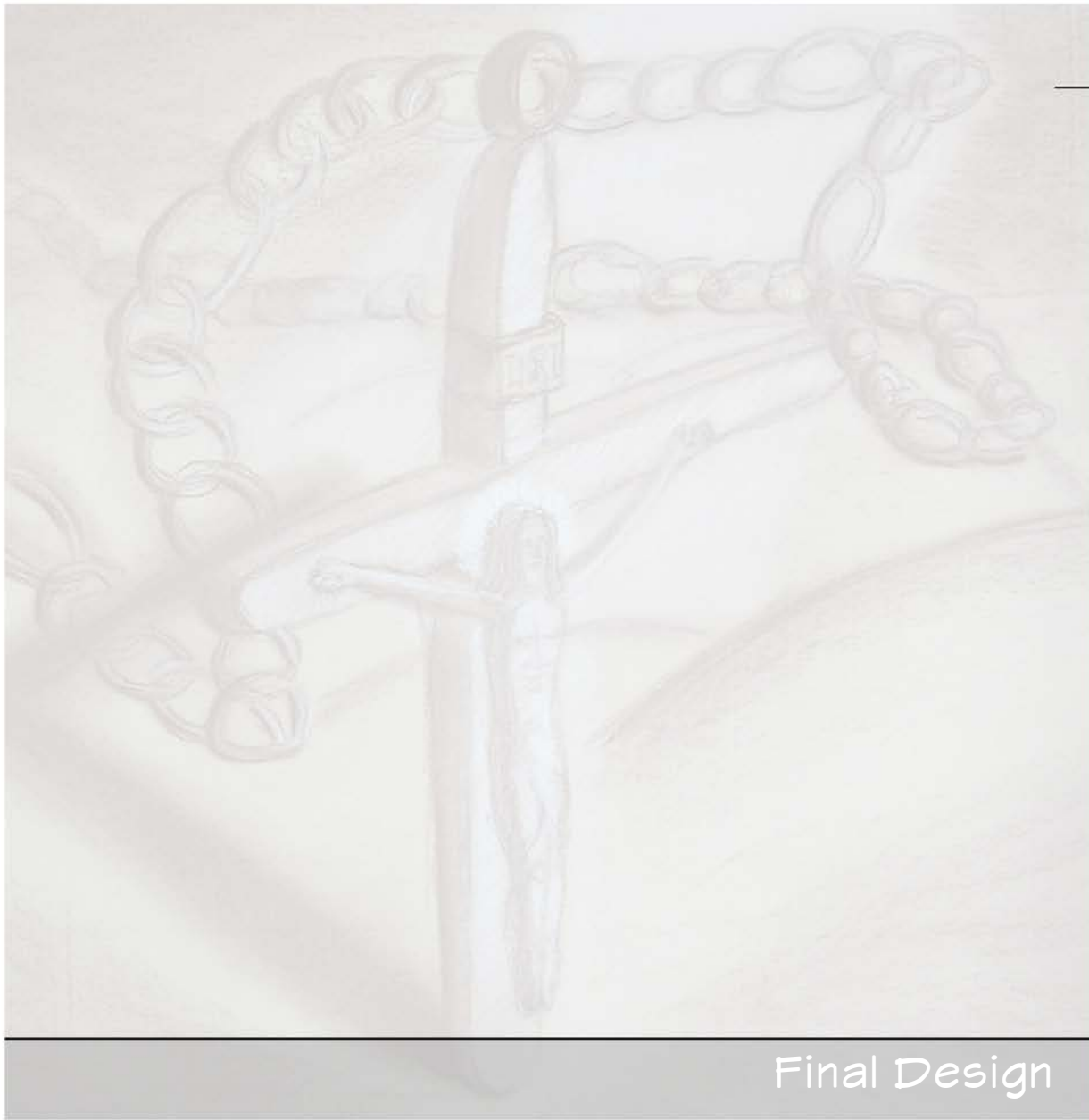
Sketches of major program spaces: Church Nave, Connector, Fellowship Hall

Exploded axon of structural components for Stations of the Cross garden.



"STATIONS OF THE CROSS"

① TRELIS DETAIL



Final Design



Church Nave

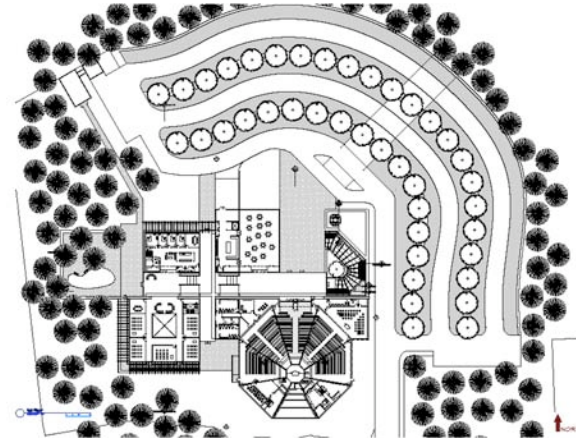
**Church Sanctuary &
Altar**

**Entry Forecourt @
Night**

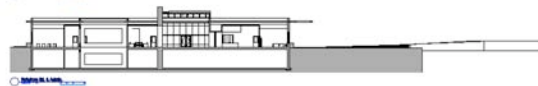
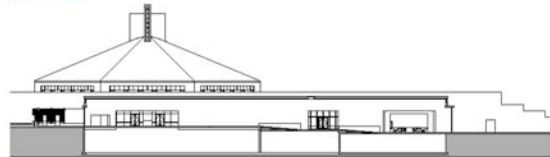
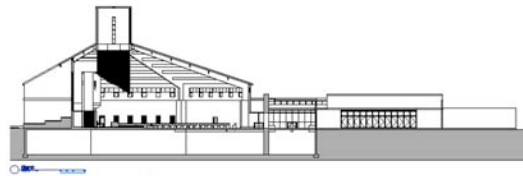
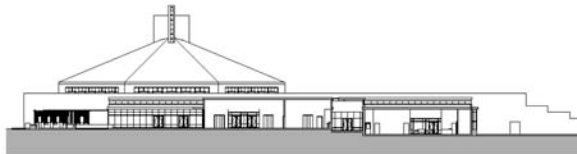
Final Presentation

Thầy: Nguyễn Văn Khoa
Thầy: Nguyễn Văn Khoa
Thầy: Nguyễn Văn Khoa

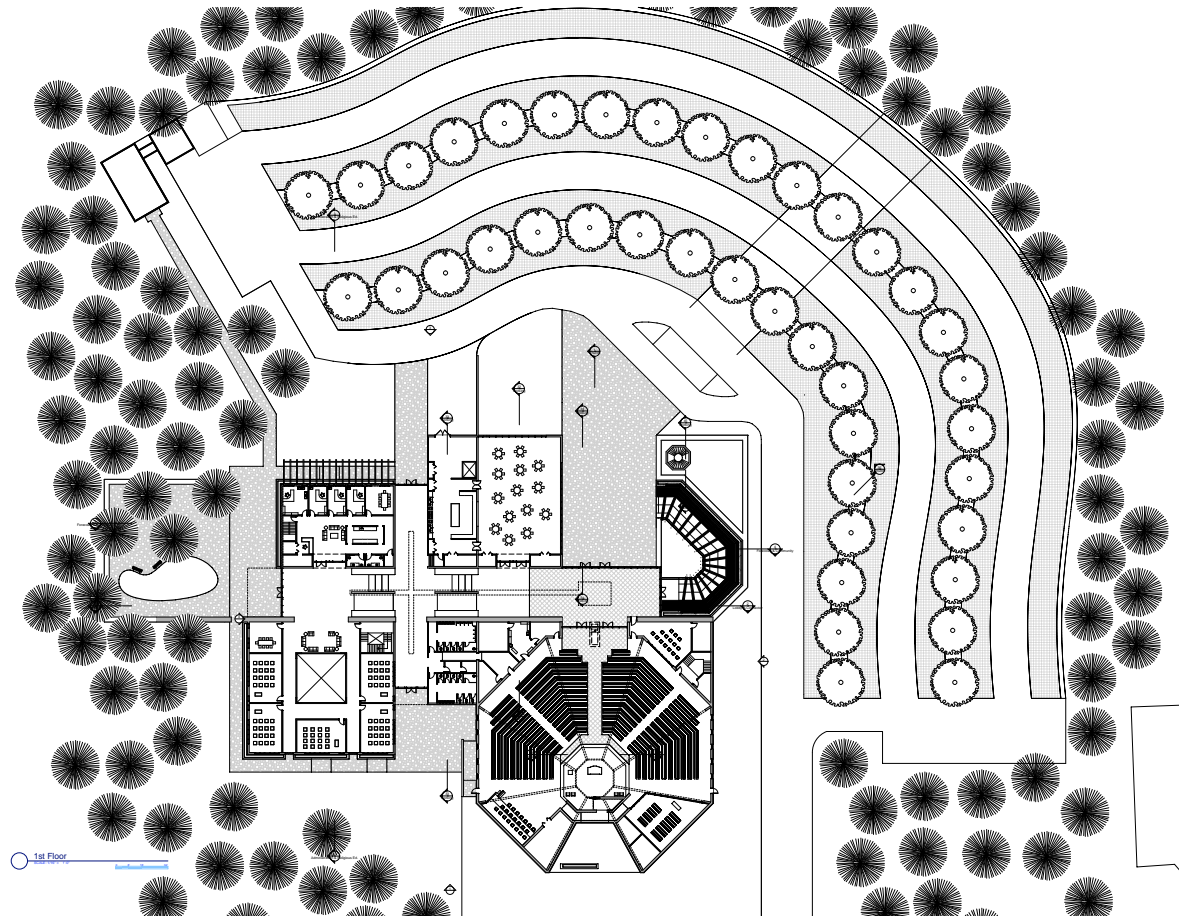
Kigali (DPA) – The Protestant church in Kigali, Rwanda, is a large, modern building with a high, vaulted ceiling and wooden pews. The church is located in the Kigali city center. The interior is spacious and well-lit, with a large organ and a high altar. The church is a significant landmark in the city and is a popular place of worship for many people.



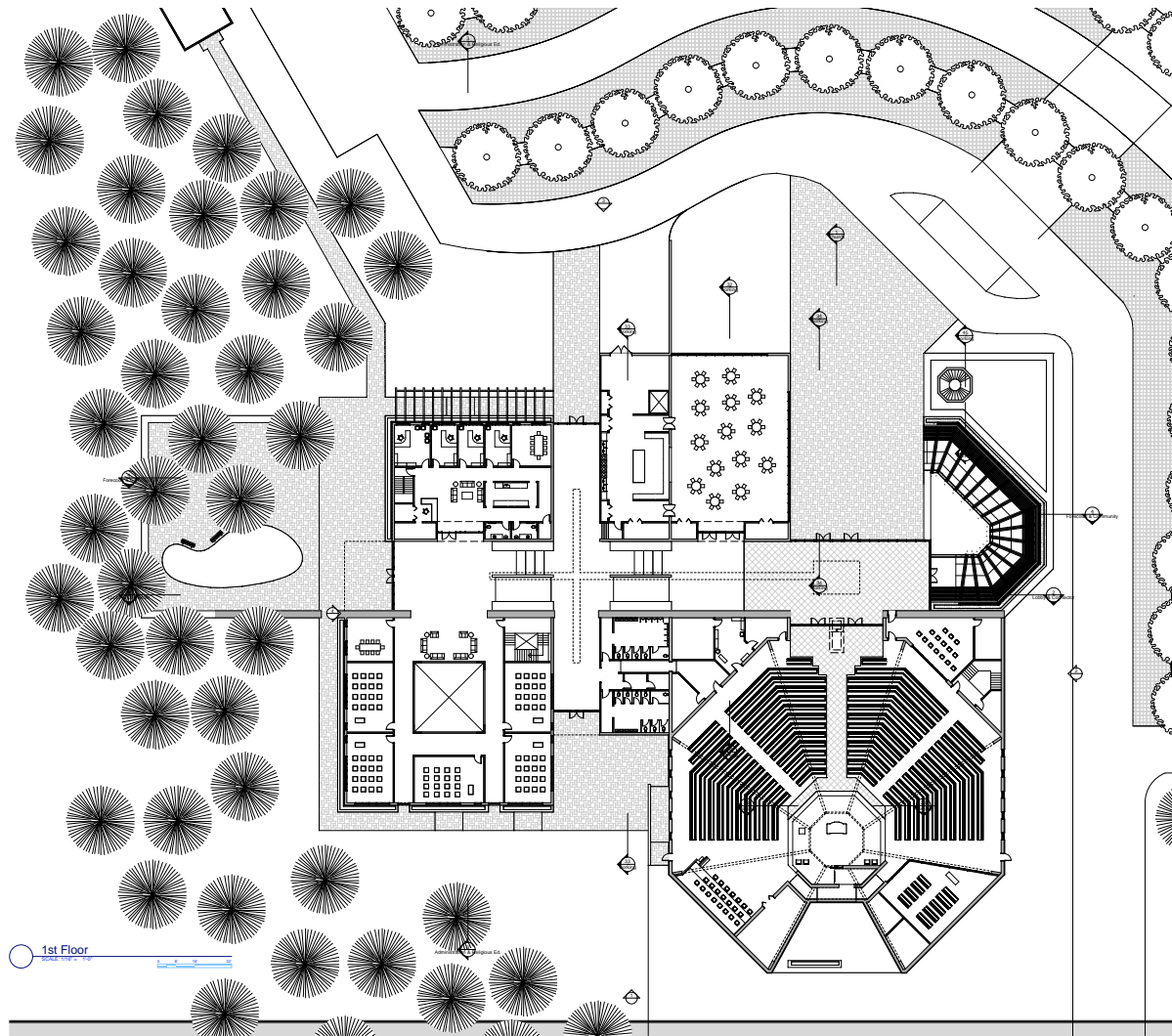
Final Presentation

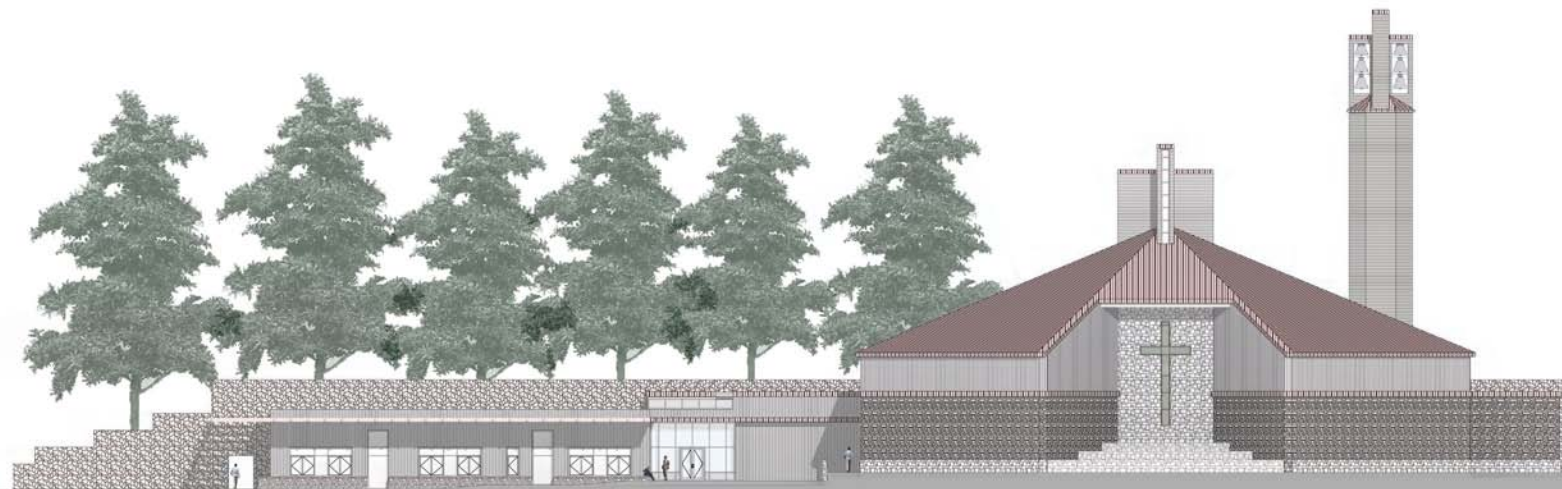


Site Plan

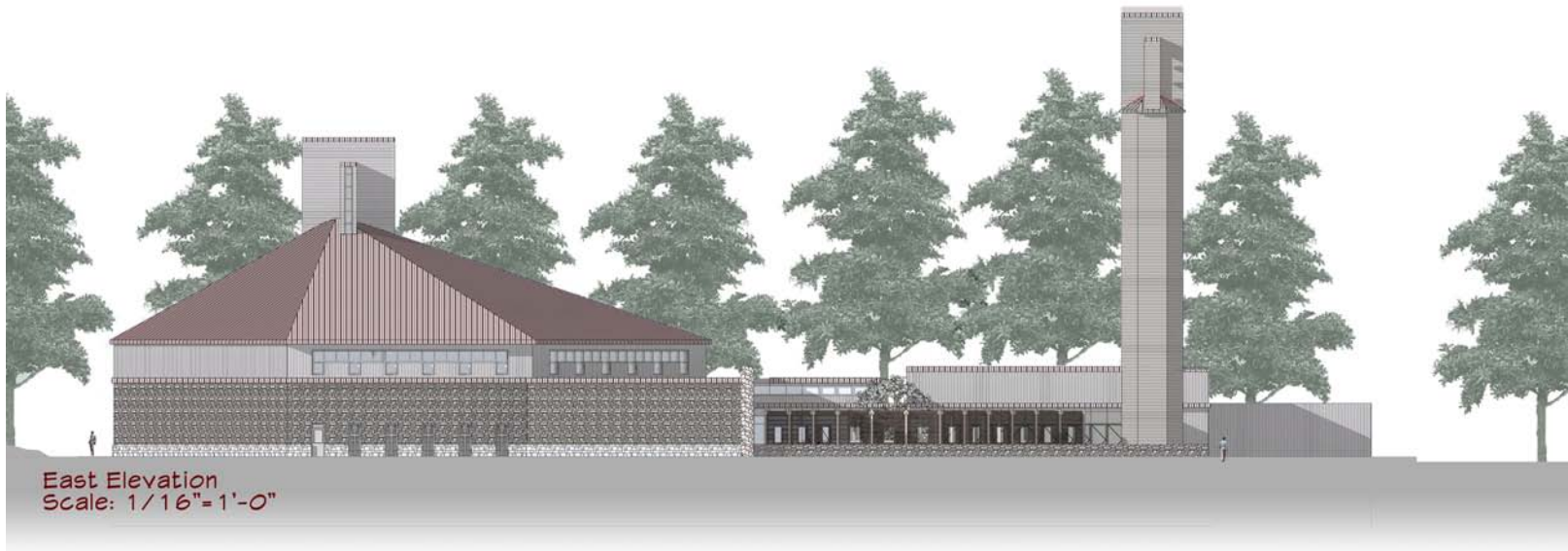


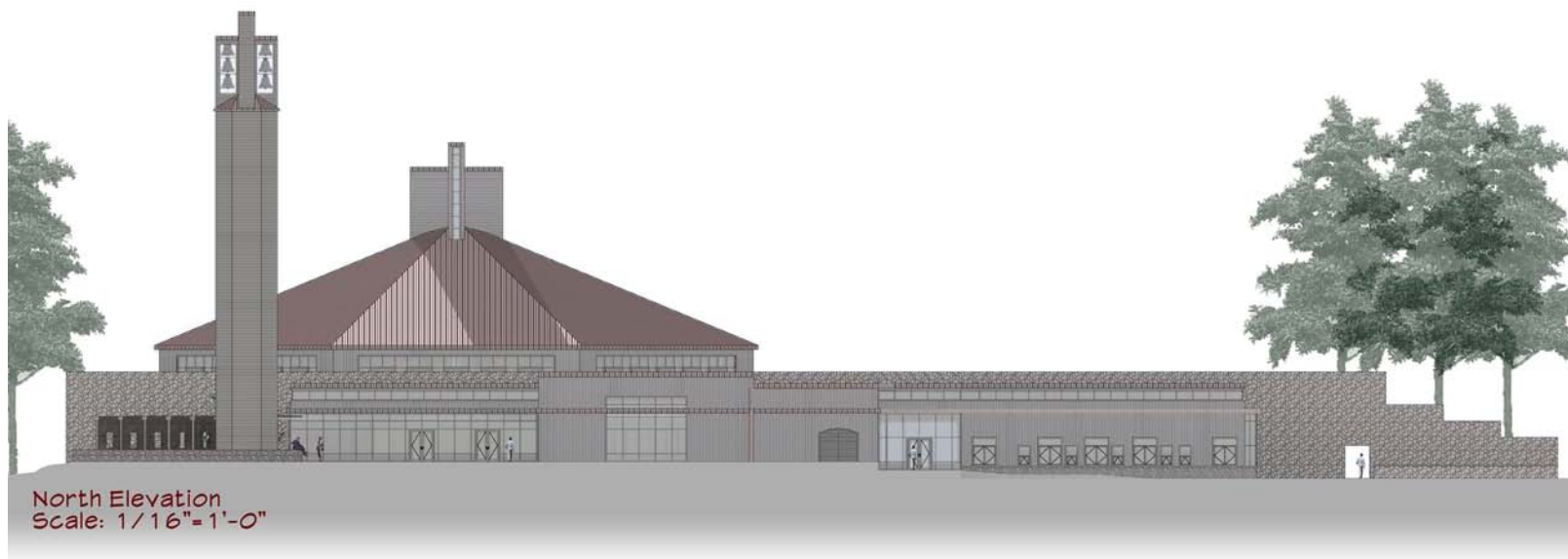
Floor Plan



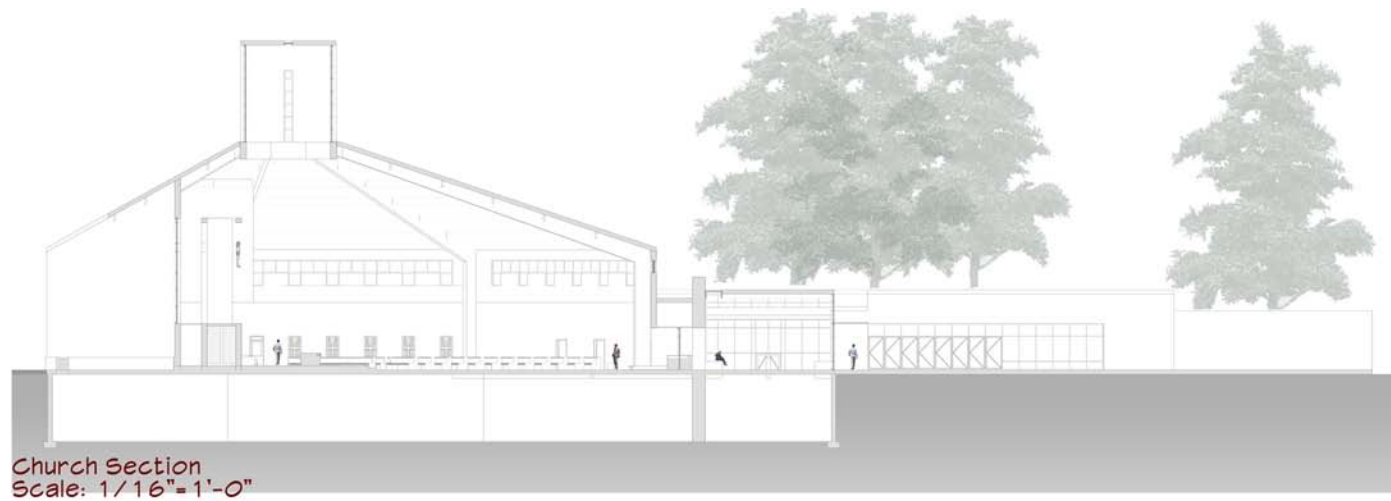


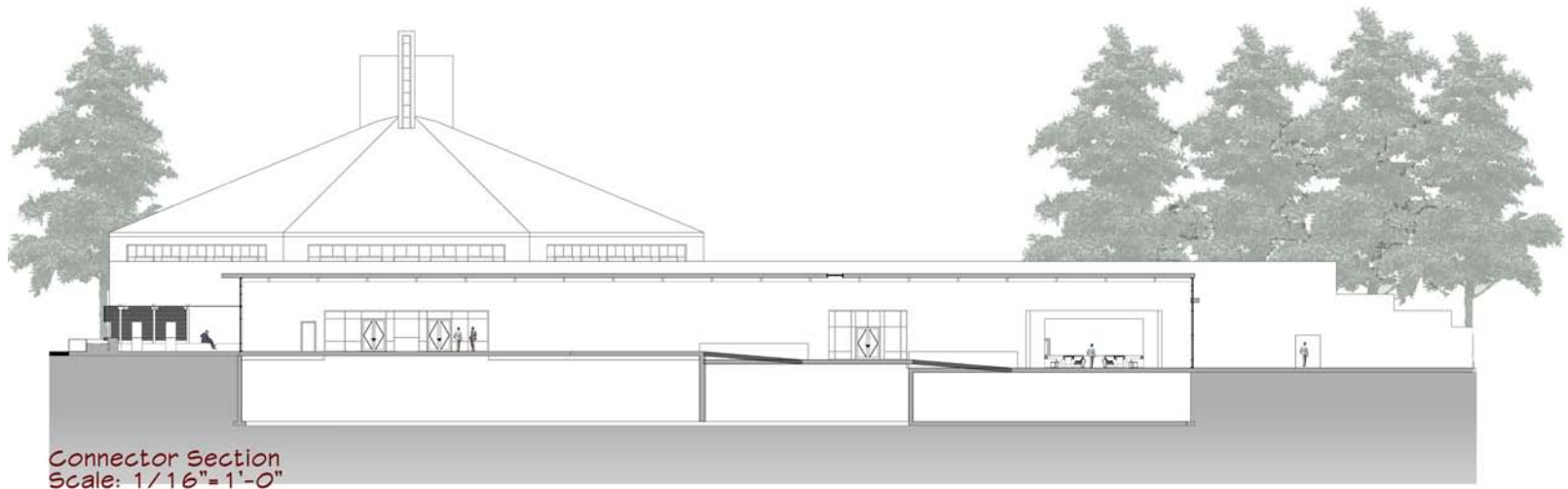
South Elevation
Scale: 1/16"=1'-0"

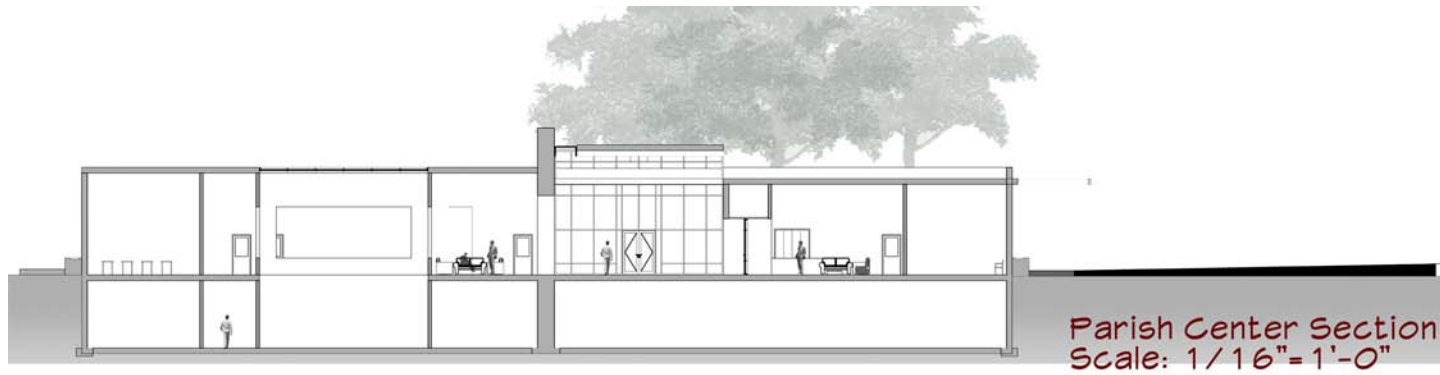












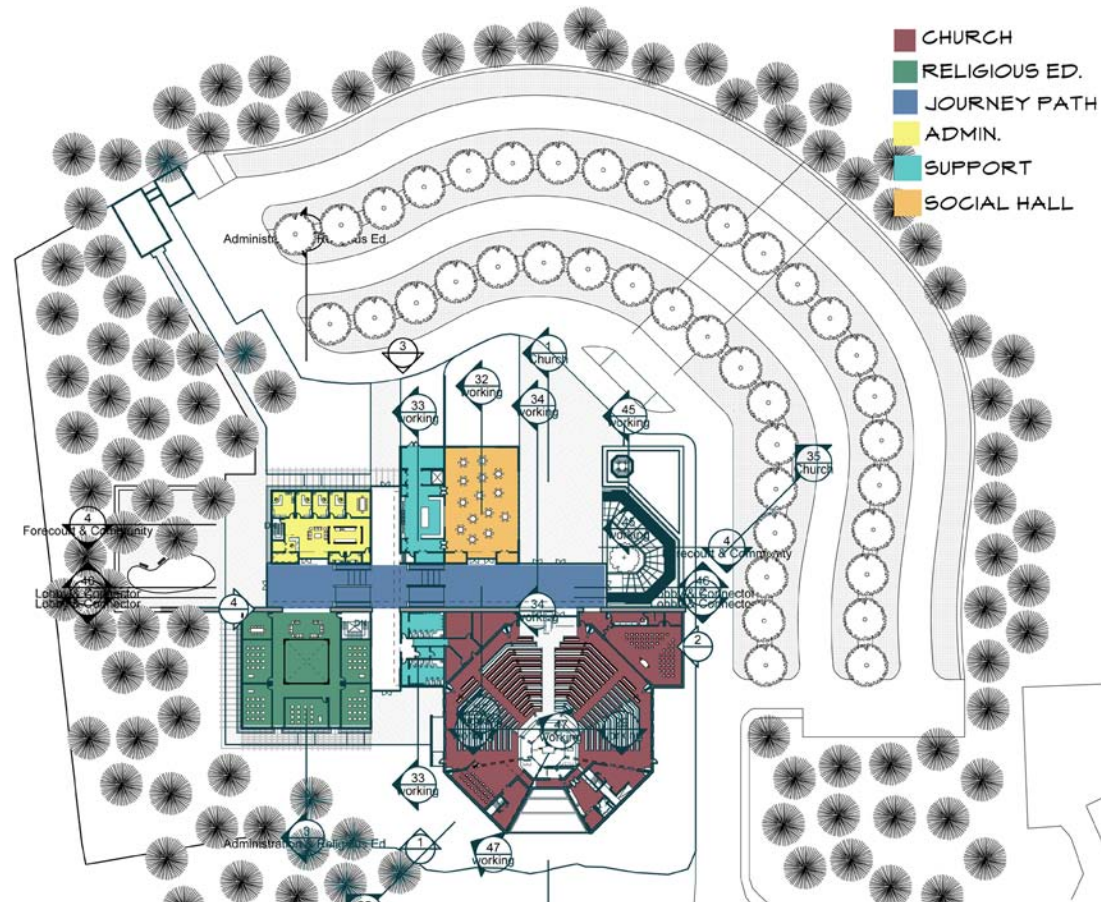
Sunset Renders

The view from the street
and Town Center.



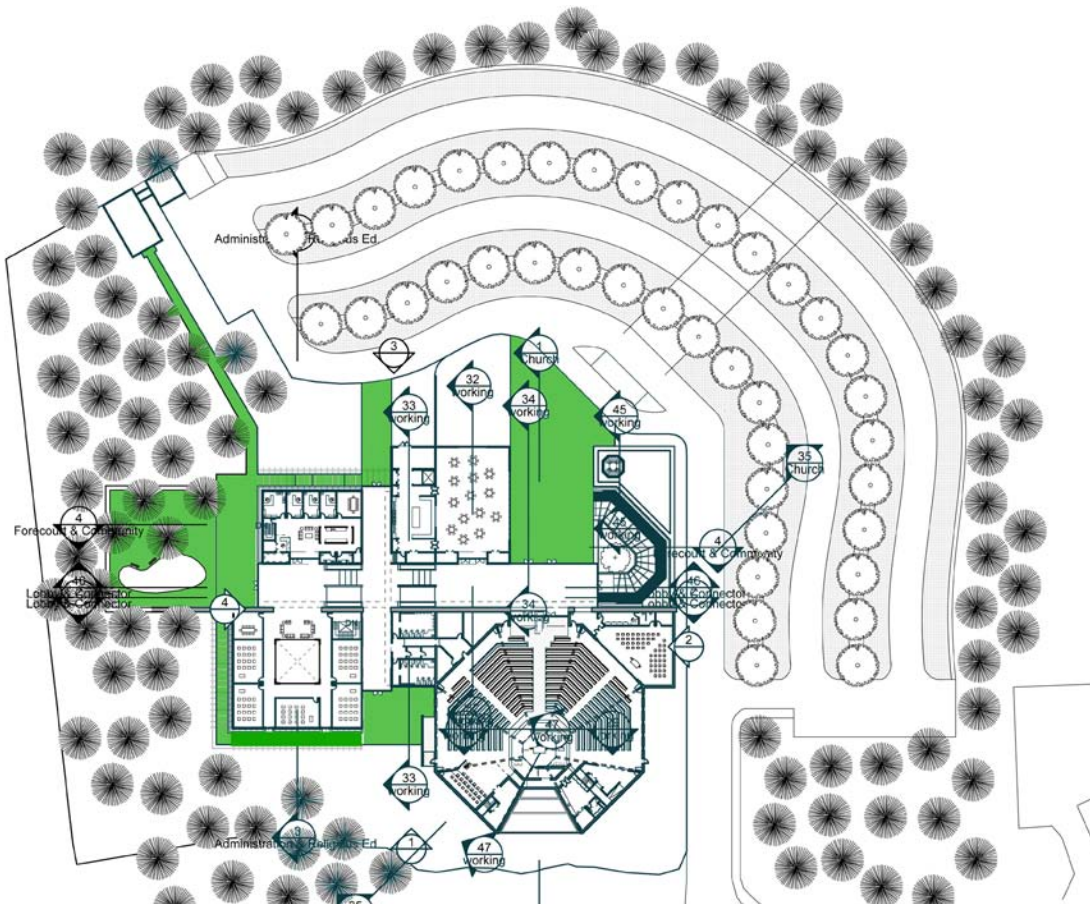
Program Diagram

Church
 Social Hall
 Religious Education
 "Spiritual Highway"
 (Connector)
 Administration
 Support Spaces



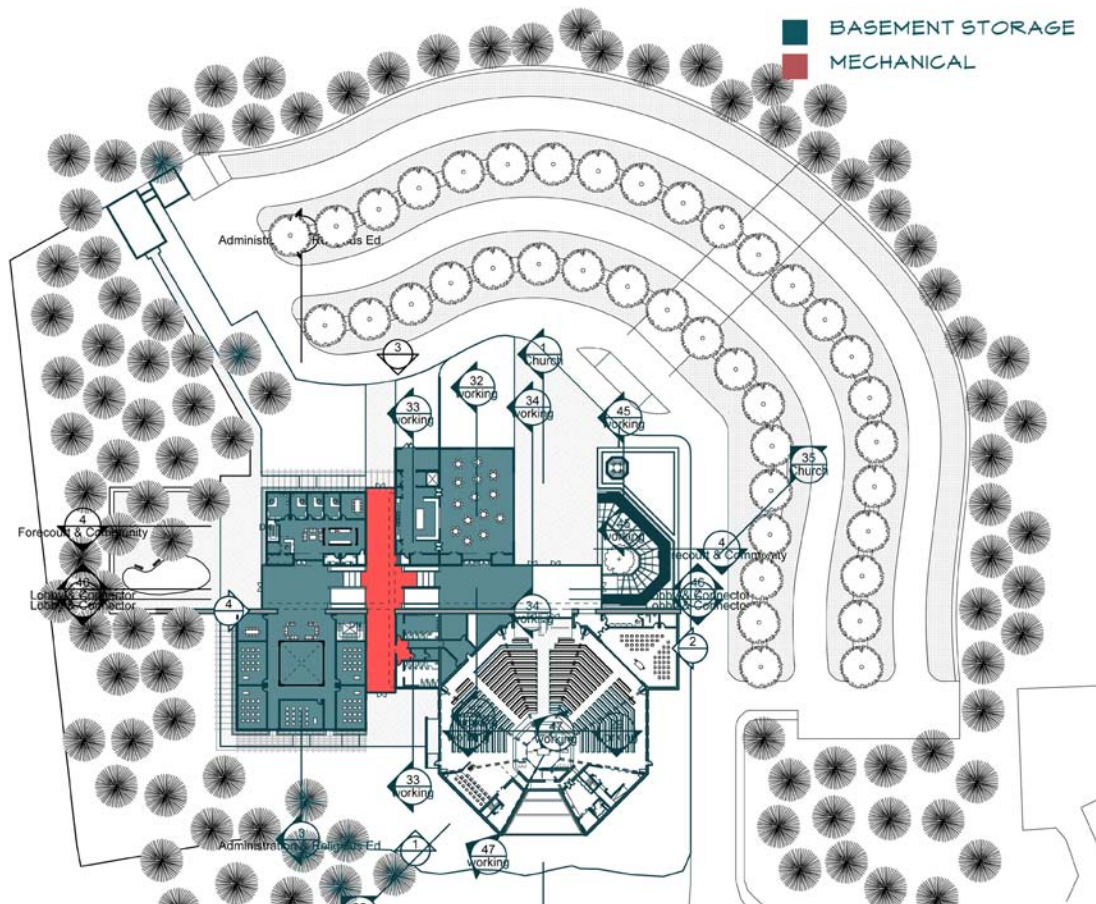
Exterior Space

The church ground have two major exterior garden spaces: the Stations of the Cross Garden and the Reflecting Pond Healing Garden. Connected by exterior walks and forecourts, the gardens provide opportunity for reflective prayer amongst nature.

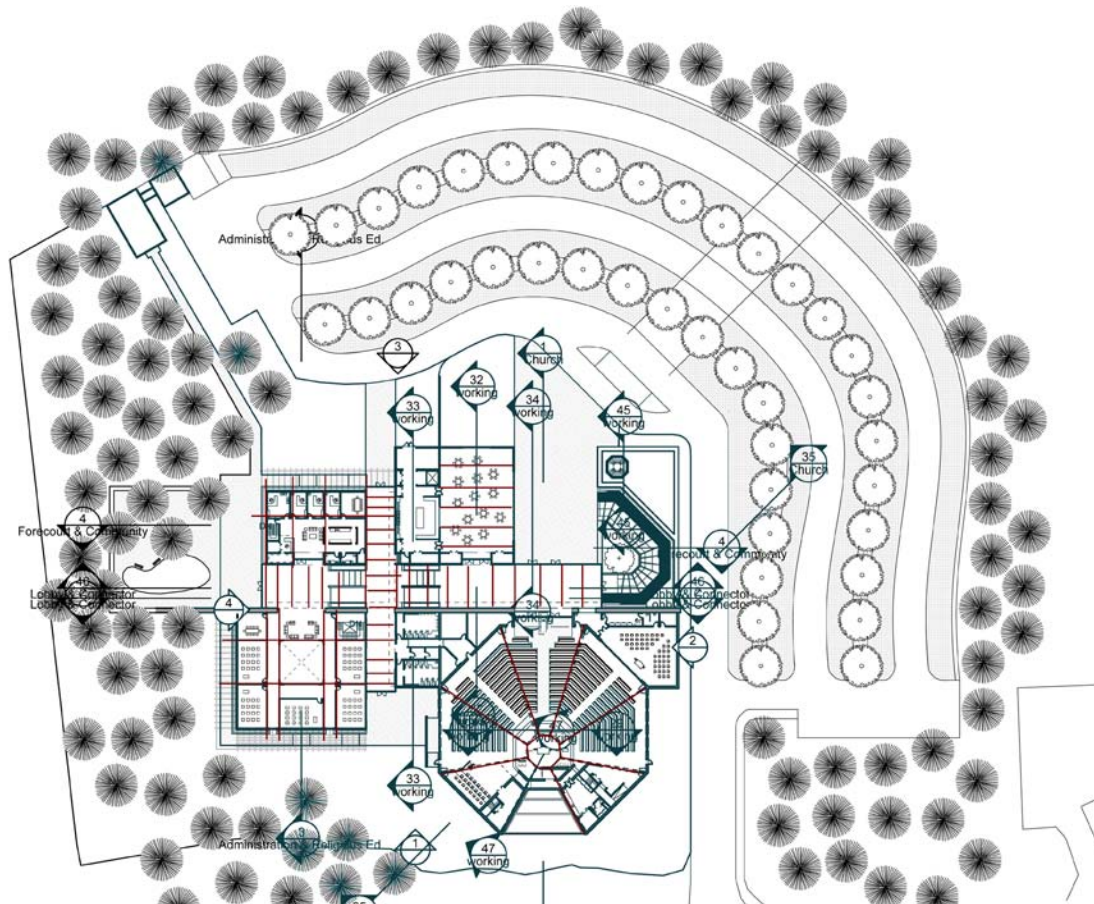


MEP Diagram

The basement of the parish center provide for additional storage, future build-out, and the mechanical, plumbing, and electrical services of the building. The core of the connector is the mechanical room which feeds the chase within the thickened stone wall allowing for the dispersion of systems throughout the building.

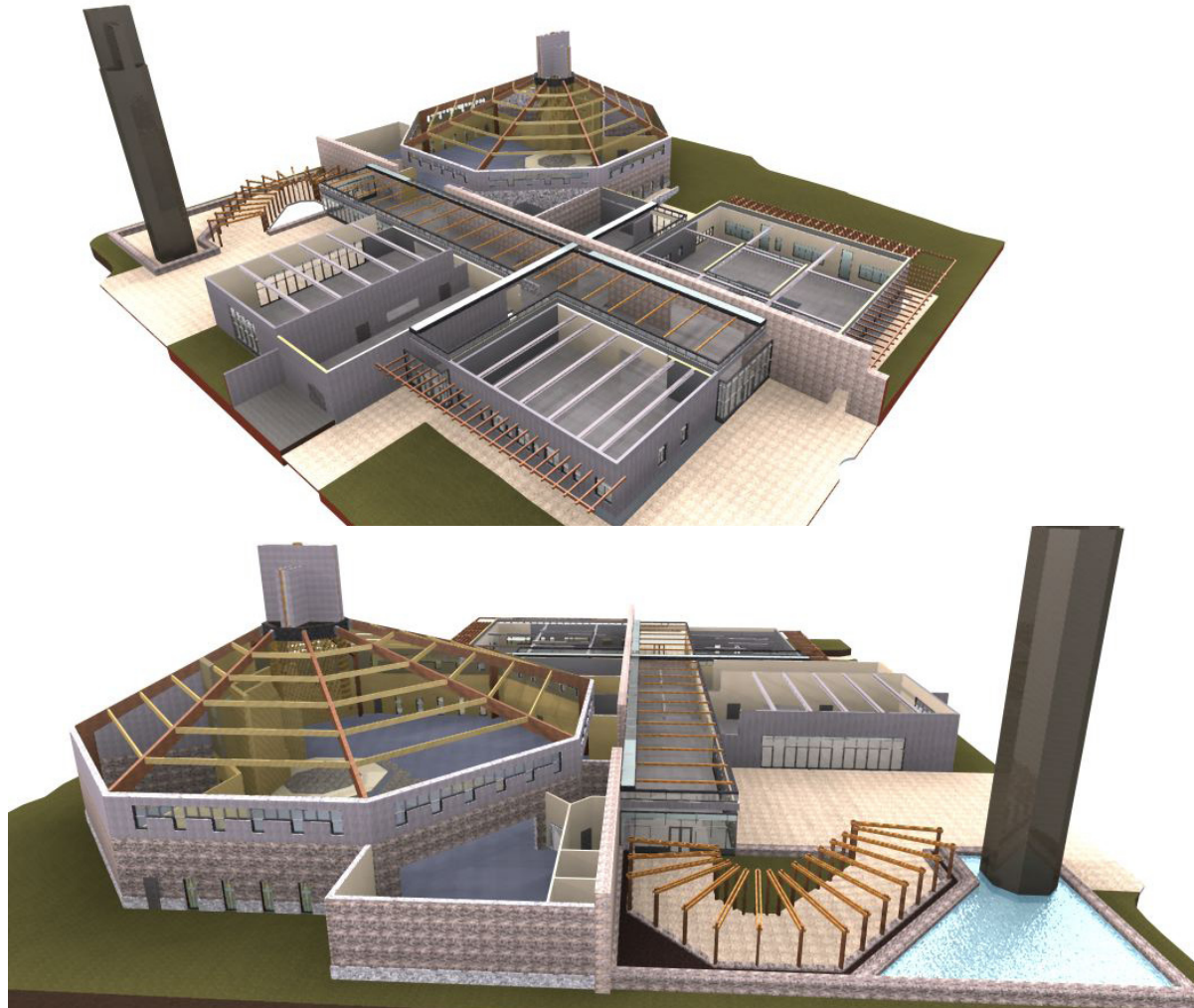


Depicting the gridlines for structure. The structure consists of Glu-Lam beams and stone masonry walls in the church and steel beams in the parish center.



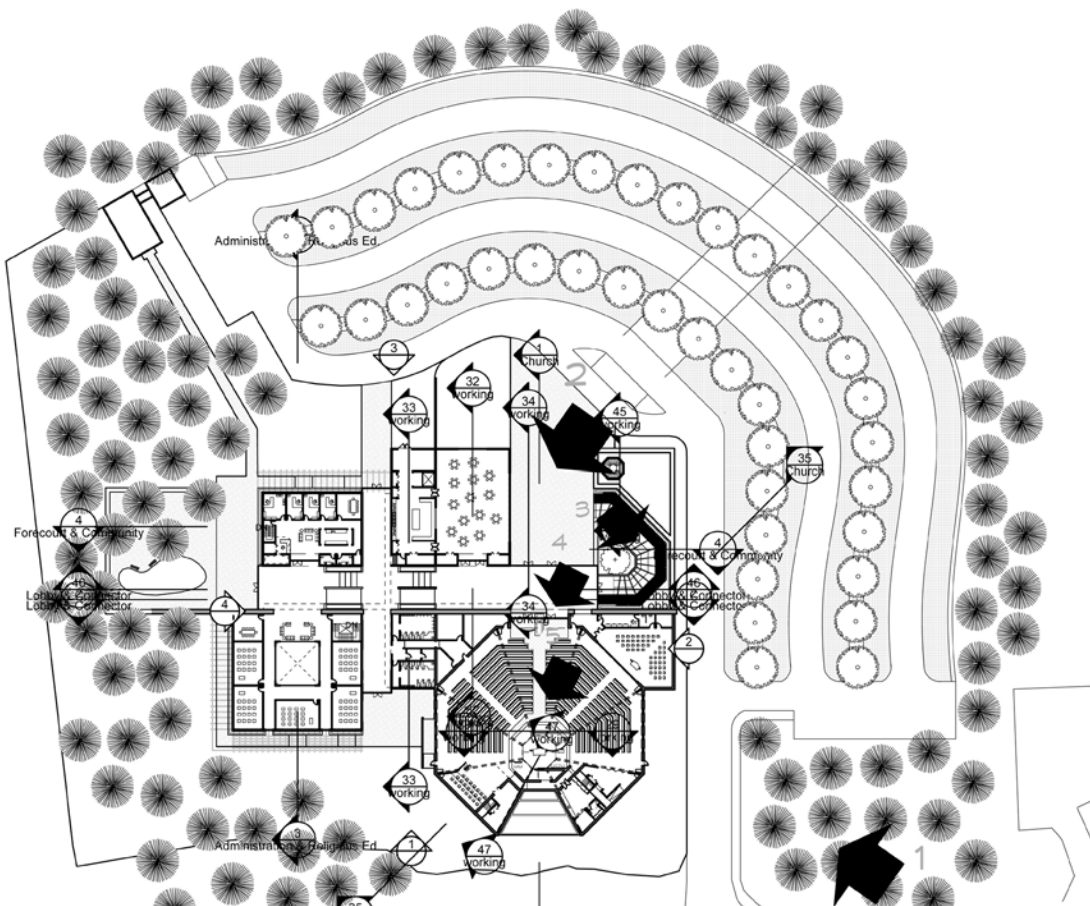
Structural Axons

With the roofs removed, the structure of the building is exposed.



1. Approach

2. Forecourt
3. Stations of the Cross
Garden
4. Narthex
5. Nave
(Sunday Mass)



“A Day in the Life”The Parishioner

1. Approach



**“A Day in the Life”**The Parishioner

2. Forecourt



“A Day in the Life”

The Parishioner

3. Stations of the Cross Garden



**“A Day in the Life”**The Parishioner

4. Narthex



“A Day in the Life”

The Parishioner

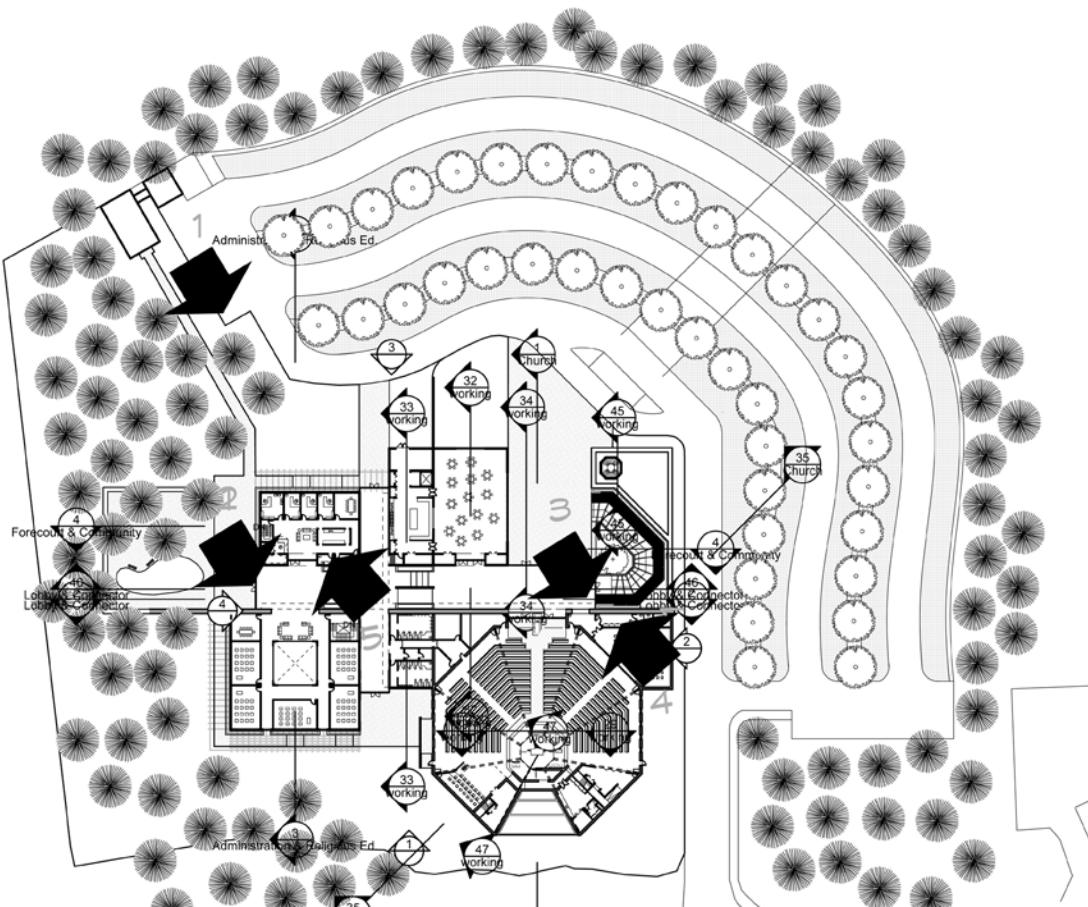
5. Nave
(Sunday Mass)





1. Approach

2. Forecourt
3. Day Chapel Entry
4. Day Chapel
(Daily Mass)
5. Administration Entry



“A Day in the Life”The Priest

1. Approach



**“A Day in the Life”**The Priest

2. Forecourt



“A Day in the Life”The Priest

3. Day Chapel Entry



**“A Day in the Life”**The Priest**4. Day Chapel
(Daily Mass)**

“A Day in the Life”The Priest

5. Administration Entry



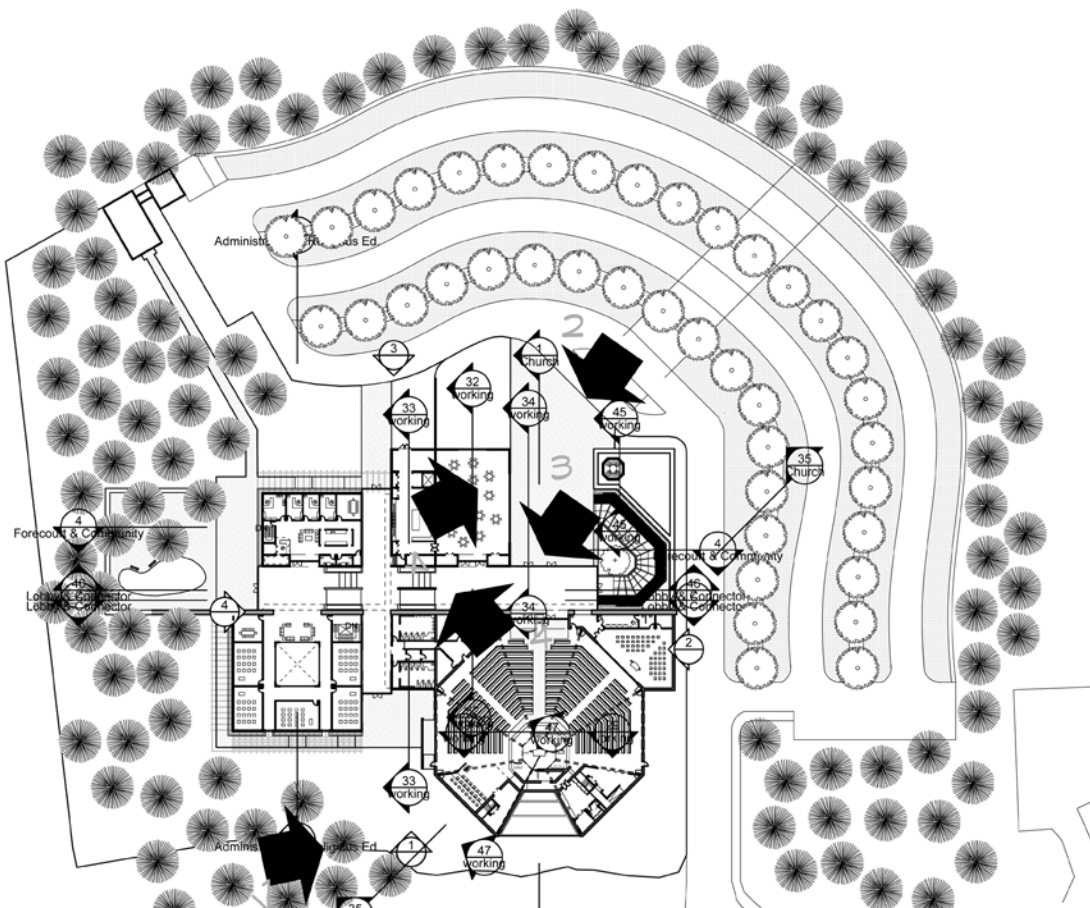


Final Design

“A Day in the Life”

The Community Member

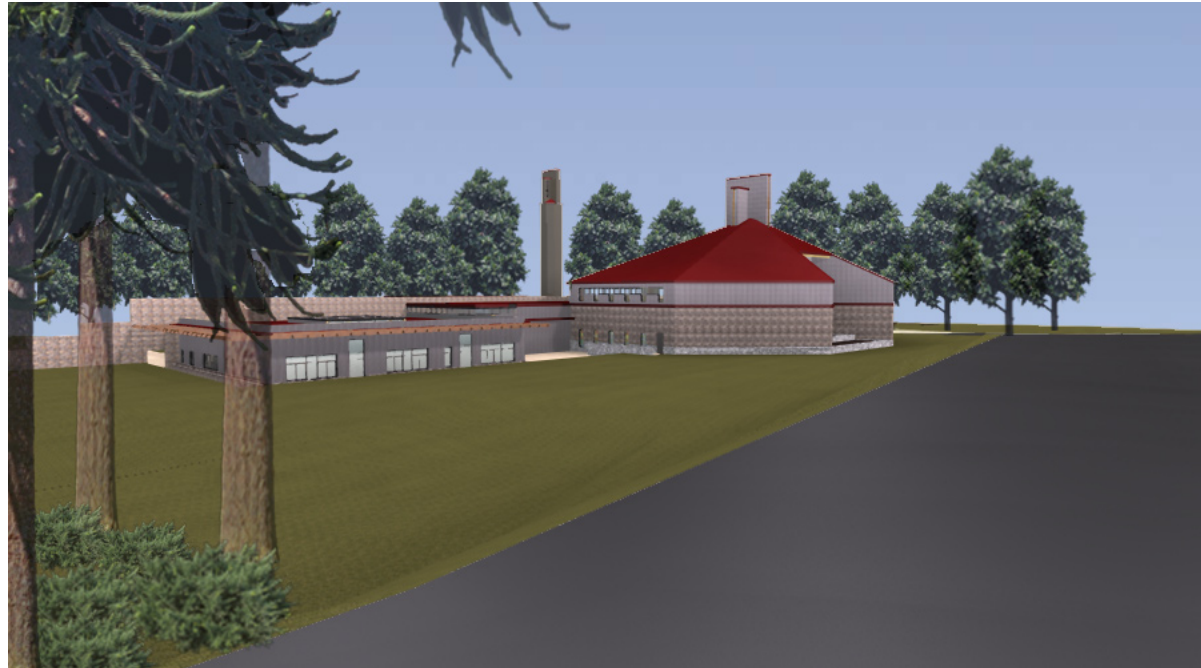
1. Approach
2. Drop-Off
3. Forecourt
4. Fellowship Hall Entry
5. Fellowship Hall (Social Gathering)



“A Day in the Life”

The Community Member

1. Approach



**“A Day in the Life”**The Community Member

2. Drop-Off



“A Day in the Life”

The Community Member

3. Forecourt



**“A Day in the Life”**

The Community Member

4. Fellowship Hall Entry



“A Day in the Life”

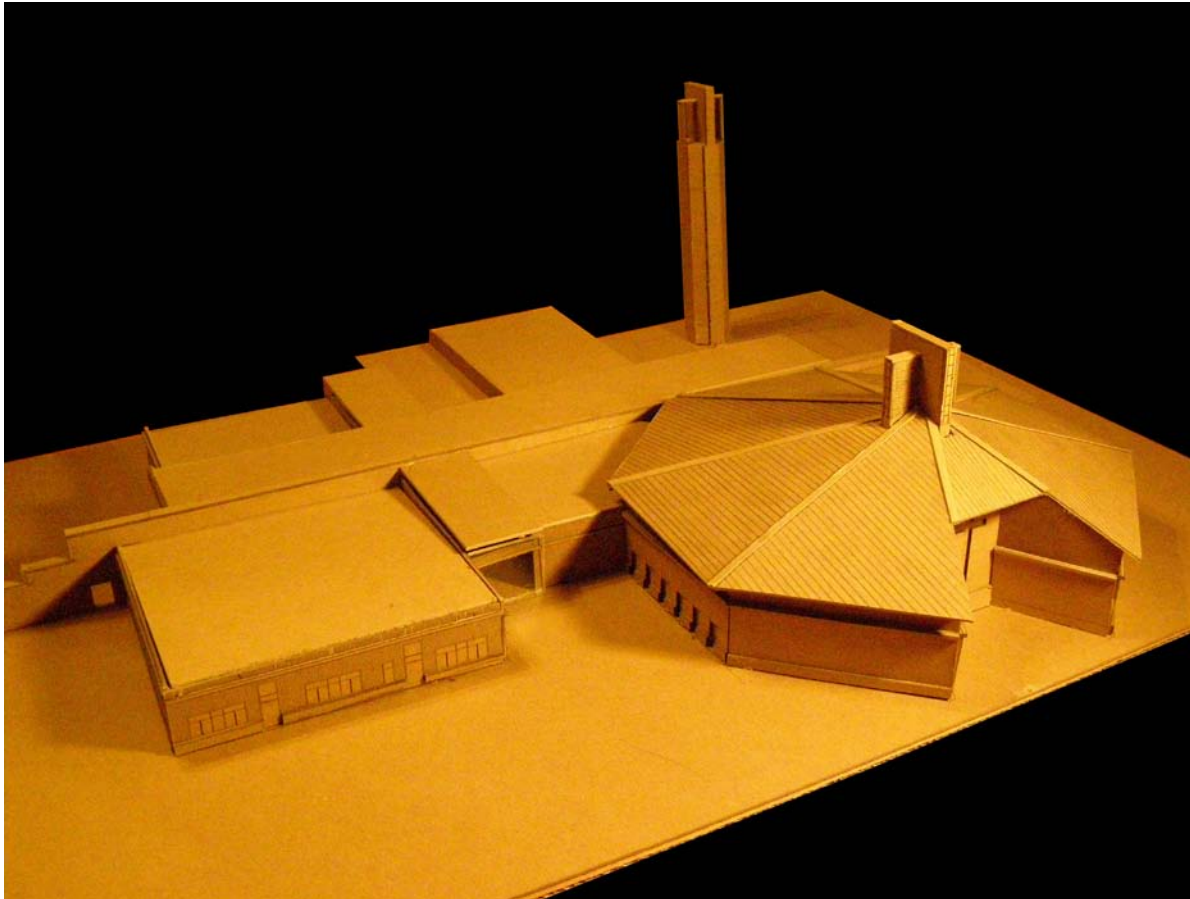
The Community Member

5. Fellowship Hall
(Social Gathering)



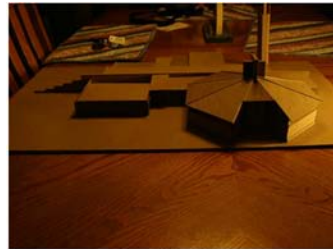
Massing Model

Scale: 1/16"=1'-0"

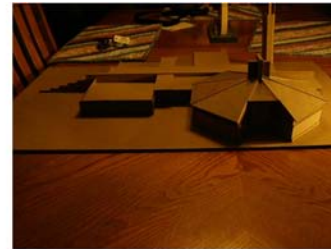


Massing Model

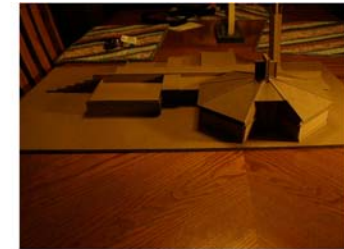
"Sun-Study"



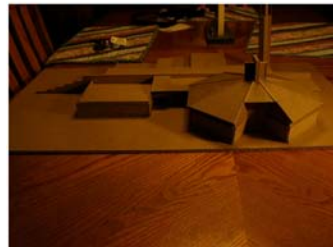
8:00 AM



8:30 AM



9:00 AM



9:30 AM



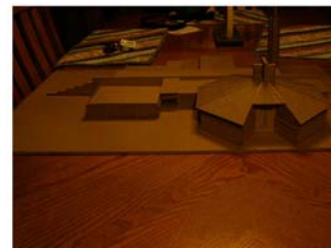
10:00 AM



10:30 AM



11:00 AM



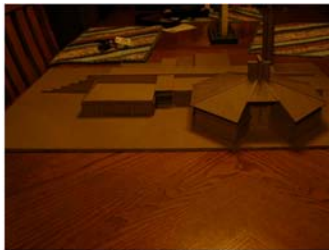
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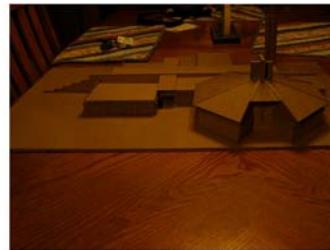
12:00 PM

Massing Model

"Sun-Study"



12:30 PM



1:00 PM



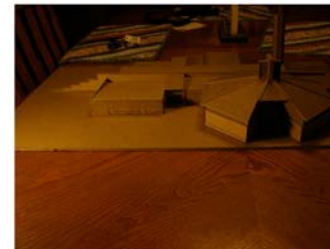
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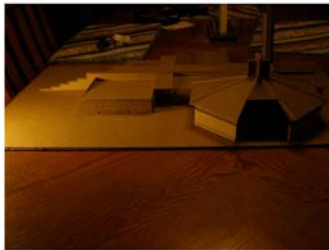
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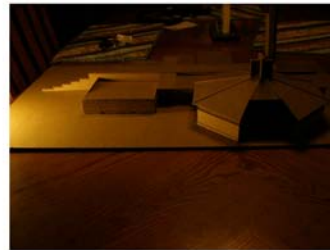
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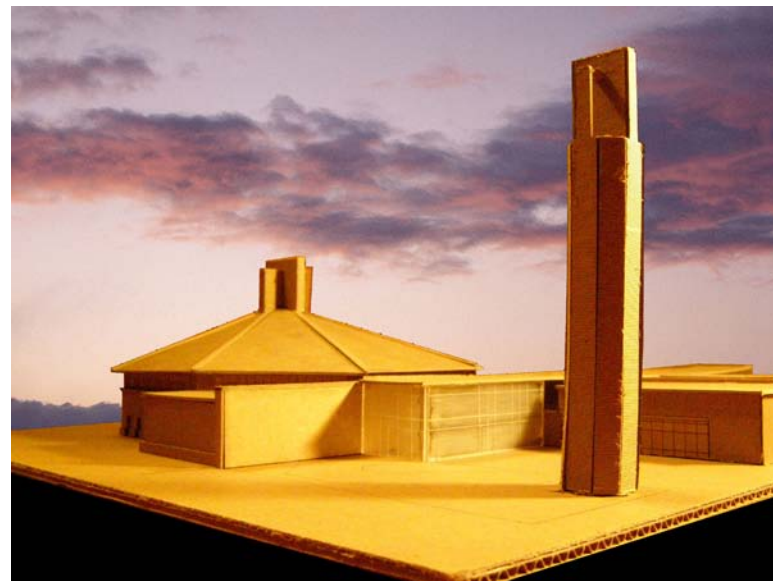
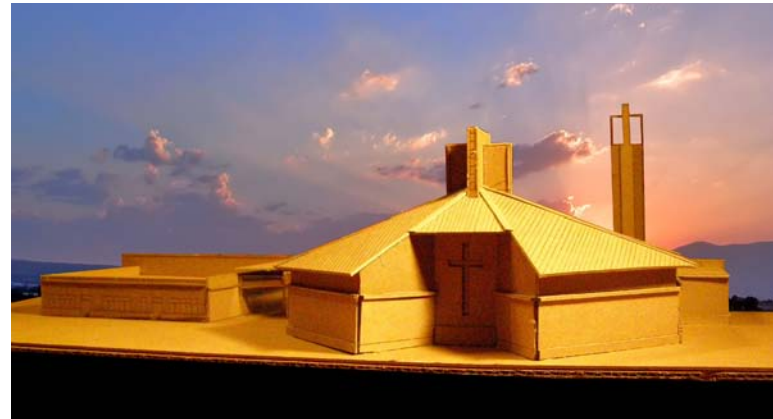
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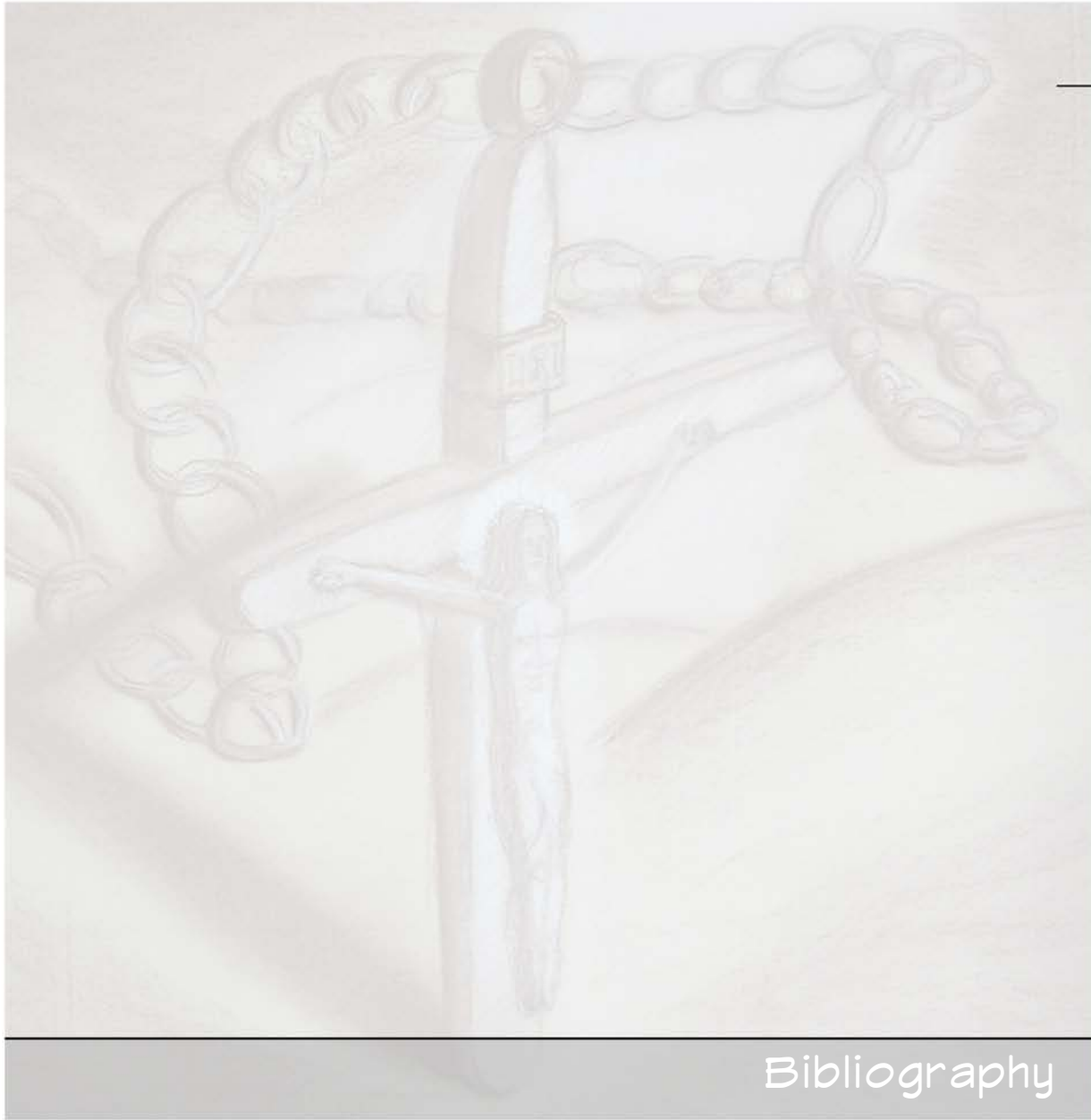


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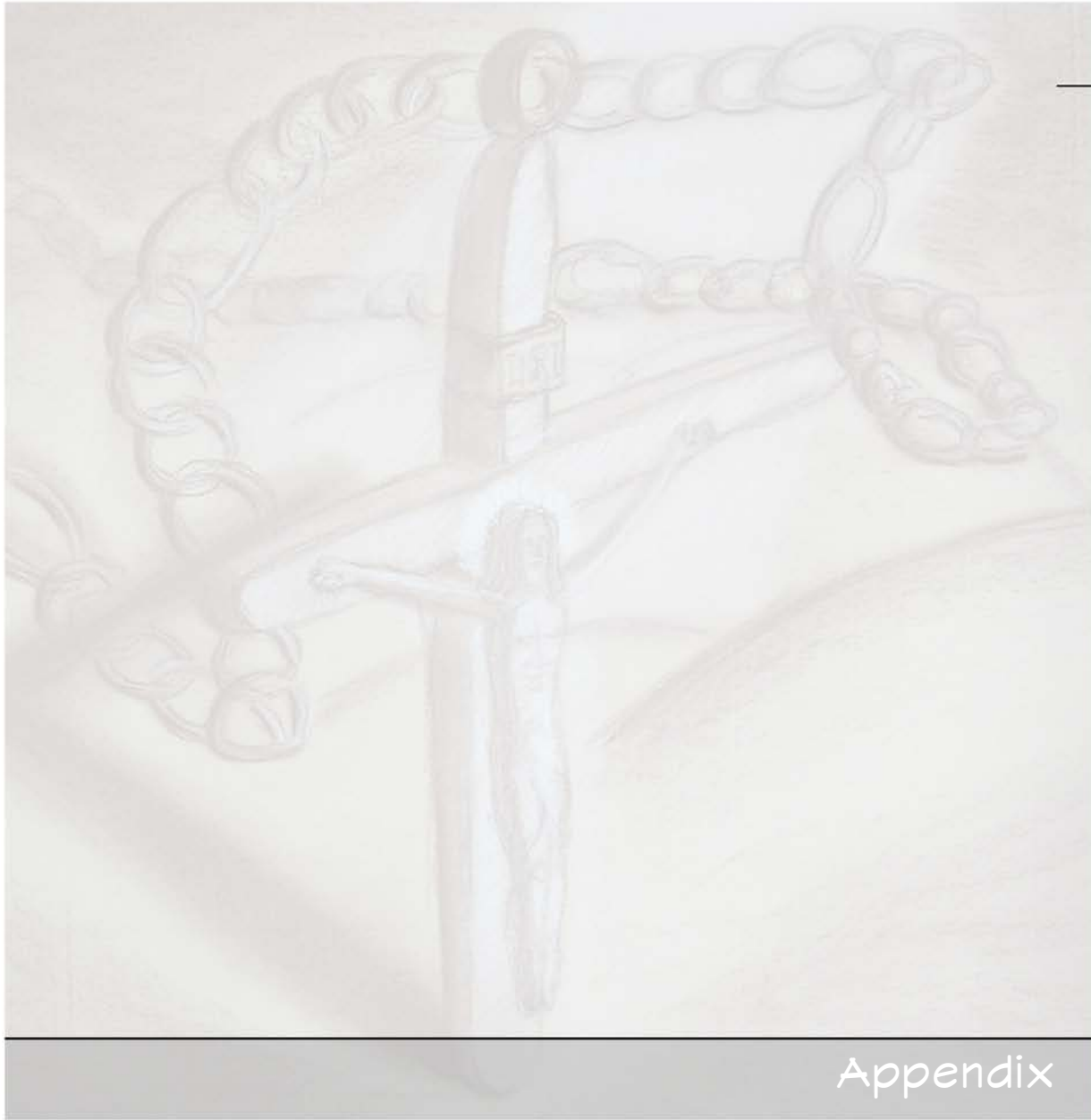
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Appendix

Altar

The altar is the table in the chancel that the clergy use for Communion. During the Protestant Reformation, some people felt that the traditional term was theologically misleading. As a result, many people preferred to call it a Communion Table. Anglicans decided that both terms were correct, because it is the altar from which we receive the sacrifice of Jesus Christ, and because it is, literally, the table on which we celebrate Communion. Today, Anglicans and Lutherans generally call it the altar, while churches in the Reform tradition tend to call it a Communion table.

Apse

If the wall behind the altar (the east wall) is curved, it forms a semicircular area that is called an apse. In ancient times, large church buildings were modeled after a type of Roman public building that had such a wall.

Ambo

If there is one speaker's stand in the center of the front of the church, as is typical in churches with a lecture-hall floor plan, it serves the functions of both lectern and pulpit. The word ambo comes from a Greek word meaning 'both.' In common usage, however, ambos are incorrectly called pulpits.

Ambry (or Aumbry)

An ambry (or aumbry) is a niche in the wall in a large church. It is generally used for storing various articles that are used in worship.

Baptistery

In a Roman house, the household's water source was in the atrium just inside the front door. When early Christians converted a house to a church, that water source became the place where baptisms could take place if it wasn't possible to baptize outdoors. Even though the position of the baptistery was determined by the existing architecture of the house, it took on a symbolic meaning, because

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baptism is the entrance to the Christian life. Today the position of the baptistery varies. It can be in one of three places: just inside the doors, in the nave in front of the congregation, or behind the chancel.

In churches that usually administer baptism by pouring, the baptistery consists of a stand with a water basin on top. It could be a permanent structure in the front of the congregation or just inside the church doors, or it could be a portable structure that only appears when there is a baptism.

In Protestant churches that administer baptism by immersion, the baptistery is a large tank that is located in the front of the church, either behind the chancel or to one side.

The Catholic Rite of Christian Initiation for Adults calls for baptism by immersion. In newer Catholic churches that are built with this rite in mind, the baptistery is generally an artificial pool with a water pump so there is a continuous flow of water. It can be located just inside the entrance of the church, or in the nave in front of the congregation.

Chapel

A chapel can either be an alcove with an altar in a large church, or a separate building that is smaller than a full-sized church. Chapels have the same function as church buildings and are equipped the same way, but they are usually dedicated to special use. For example, a large estate might have a chapel in which worship services are held for family members, staff, and guests. If a church builds a new and larger sanctuary, but keeps the old one, the old one is often called a chapel.

Communion Table

See altar.

East Wall

The wall behind the altar, as viewed from the nave, is the “east wall,” no matter what direction you are actually facing. In the past, all church buildings faced east, and it is still the case for eastern Orthodox churches today. A person who enters the church goes from west to east, which symbolizes going from the evil of the present world to the glory of the New Jerusalem to come.

High Altar

A large church may have several altars. The term high altar refers to the main altar in the chancel. Other altars may be located on the sides of the nave or in separate chapels in the same building.

Kneeler

In churches where it is customary to kneel for prayer, there is often a long, narrow padded bar at the base of pew in front of you, which can be tilted down for kneeling and tilted up to make it easier to get in and out of the pew. Most often the kneelers are the length of the pew and are used by several people. If you are visiting a church that has kneelers, and you are not accustomed to using them, keep the kneeler in the down position during the service except while someone is passing through. Otherwise someone might attempt to kneel when the kneeler isn’t in place.

See also prayer desk.

Laity

The body of the faithful, outside of the ranks of the clergy.

Lectern

In churches with a historic floor plan, there are two speaker’s stands in the front of the church. The one on the right (as viewed by the congregation) is called the lectern. The word lectern comes from the Latin word meaning ‘to read,’ because the lectern primarily functions as a reading stand. It is used by lay people to read

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the scripture lessons, except for the gospel lesson, to lead the congregation in prayer, and to make announcements. Because the epistle lesson is usually read from the lectern, the lectern side of the church is called the epistle side. See also ambo and pulpit.

In some churches, the positions of the pulpit and the lectern are reversed (that is, pulpit is on the right and the lectern is on the left) for architectural or aesthetic reasons.

Narthex

The historic term for what might otherwise be called the foyer or entry way of the church.

Nave

The architectural term for the place where the congregation gathers for worship, as opposed to the front part of the church from which the service is led. In churches with a lecture-hall floor plan, the term 'sanctuary' is often used to mean both chancel and nave because the two are not architecturally distinct.

An oratory is a room or a portion of a room that is set aside for an individual to conduct personal devotions. The word oratory comes from a Latin word that means a place to pray.

Pew

Originally, Christians stood for worship, and that is still the case in many eastern churches. The pew, a long, backed bench upon which congregants sit, was an innovation of western medieval Christianity. Pews were inherited by Protestants from the Roman Catholic Church, and because of their practicality, have spread to some Orthodox churches located in the west.

Prayer Desk

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Also called a prie-dieu, a prayer desk is a kneeler with a small shelf for books, as in the illustration on the right. In churches where it is customary to kneel for prayer, there might be two prayer desks in the chancel, one for the clergy and the other for the lay leader. Prayer desks are also found in private homes and small chapels.

Pulpit

In churches with a historic floor plan, there are two speaker's stands in the front of the church. The one on the left (as viewed by the congregation) is called the pulpit. It is used by clergy to read the gospel and preach the sermon. Since the gospel lesson is usually read from the pulpit, the pulpit side of the church is called the gospel side. See also ambo and lectern.

In some churches, the positions of the pulpit and the lectern are reversed (that is, pulpit is on the right and the lectern is on the left) for architectural or aesthetic reasons.

Sacristy

In historic church architecture, the sacristy is the room or closet in which communion equipment, linen, and supplies are kept. It is usually equipped with a sink.

Sanctuary

In historic church architecture, the front part of the church from which the service is conducted, as distinct from the nave, where the congregation sits. The sanctuary is usually an elevated platform, usually three steps up from the nave. In churches with a lecture-hall floor plan, the term 'sanctuary' is often used to mean both chancel and nave because the two are not architecturally distinct. In historic usage, chancel; and sanctuary are synonyms.

Shrine

A shrine is a building or a place that is dedicated to one particular type of devotion that is limited to commemorating an event or a person. What makes it a shrine is

Secondary Title

Body of Text

its limited purpose and use. It could be anything from a large building to a plaque mounted on a pole next to the side of the road. A shrine is located on the site where the event occurred that gave rise to the commemoration and the devotion. For example, suppose someone erects a commemorative plaque on the spot where some important person was murdered and people often come there to think about the significance of the event and pray. That is essentially a shrine.