A Place to Meet.
A response to the rise of the ‘Modern Warehouse Church’

Masters Thesis explanatory document


William Batts
williambatts@live.com
1349848
Today we live in an ‘Enlightened’ society, ideas of spirituality and religion have become increasingly scrutinised in the public arena. The Church is no longer the super power of western civilisation that it once was. Inevitable some would say, but the question must be asked... Is society better off? - What if the church was the center of a city or town like it once was?

This research project, *A Place to Meet*, explores the possibility of a church being the hub of a city and/or town like it once was. This project addresses the increasing usage of warehouses as Christian places of worship, (classified as light weight steel buildings, constructed with low cost materials). These buildings function as ‘islands’ isolated from their local communities, with the architecture offering little invitation for the public to engage in the church.

How can a church be more than a place to hold services and/or run programs? How can a church site be more than a collection of facilities supporting these various programs? How can the church be more immersed in its local community? How can a church be a community hub? What does todays society need in a church building? How can a church building be a message of the gospel itself - a practical tangible and clearly communicated visual message, proclaiming the necessity and importance of a church in its community.
I would like to thank my primary supervisor, Graeme McConchie, who put up with many canceled meetings, late appearances and last minute revisions. I would also like to thank my fellow students for their constant support and guidance throughout this project.

Finally I would like to acknowledge my parents for their unwavering support, especially my mother, for her tireless help in proof-reading. I would like to thank my friends for their patience, and lastly my girlfriend Lydia for her constant support, patience, and nice cuddles throughout.
Figure 1.01 Drawing of Vienna City – Guillermo Osorio
# Table of Contents

<table>
<thead>
<tr>
<th>Page</th>
<th>Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>1.0 Introduction</td>
</tr>
<tr>
<td>9</td>
<td>1.1 Research Question</td>
</tr>
<tr>
<td>10</td>
<td>1.2 Outline of Project</td>
</tr>
<tr>
<td>12</td>
<td>1.3 Research Problem</td>
</tr>
<tr>
<td>15</td>
<td>1.4 A Place to Meet</td>
</tr>
<tr>
<td>16</td>
<td>2.0 Survey of Existing Knowledge</td>
</tr>
<tr>
<td>17</td>
<td>2.1 Origins</td>
</tr>
<tr>
<td>18</td>
<td>2.2 The Birth of the Church Building</td>
</tr>
<tr>
<td>20</td>
<td>2.3 From Church to Heavenly City</td>
</tr>
<tr>
<td>23</td>
<td>2.4 Rise of the Warehouse Church</td>
</tr>
<tr>
<td>27</td>
<td>2.4.1 Chartres Cathedral</td>
</tr>
<tr>
<td>29</td>
<td>2.4.2 Garden City Utopia</td>
</tr>
<tr>
<td>32</td>
<td>2.4.3 Ningbo Historic Museum</td>
</tr>
<tr>
<td>35</td>
<td>2.4.4 Church of the Autostrada</td>
</tr>
<tr>
<td>37</td>
<td>2.4.5 Heartland Community Church</td>
</tr>
<tr>
<td>40</td>
<td>2.4.6 Magok Central Plaza Winning Proposal</td>
</tr>
<tr>
<td>42</td>
<td>2.5 Conclusions from Existing Knowledge</td>
</tr>
<tr>
<td>Page</td>
<td>Section</td>
</tr>
<tr>
<td>------</td>
<td>---------</td>
</tr>
<tr>
<td>44</td>
<td>3.0 Project Development</td>
</tr>
<tr>
<td>46</td>
<td>3.1 Site Analysis</td>
</tr>
<tr>
<td>47</td>
<td>3.1.1 The Greenlane Precinct</td>
</tr>
<tr>
<td>48</td>
<td>3.1.2 Greenlane Christian Centre</td>
</tr>
<tr>
<td>51</td>
<td>3.1.3 Site Features Analysis</td>
</tr>
<tr>
<td>52</td>
<td>3.1.4 Photographic Site Survey</td>
</tr>
<tr>
<td>60</td>
<td>3.2 Program</td>
</tr>
<tr>
<td>62</td>
<td>4.0 Design</td>
</tr>
<tr>
<td>64</td>
<td>4.1 Concept Design</td>
</tr>
<tr>
<td>66</td>
<td>4.1.2 Site Development</td>
</tr>
<tr>
<td>68</td>
<td>4.1.3 Mixed Usage</td>
</tr>
<tr>
<td>70</td>
<td>4.1.3 Materials</td>
</tr>
<tr>
<td>71</td>
<td>4.1.4 Salvageable Materials</td>
</tr>
<tr>
<td>72</td>
<td>4.1.5 A Salvaged Worship Space</td>
</tr>
<tr>
<td>75</td>
<td>4.1.6 A Salvaged Panel</td>
</tr>
<tr>
<td>76</td>
<td>4.1.7 Construction Principles</td>
</tr>
<tr>
<td>78</td>
<td>4.1.8 A Place to Meet</td>
</tr>
<tr>
<td>80</td>
<td>4.2 Developed Design</td>
</tr>
<tr>
<td>80</td>
<td>4.2.1 Courtyard Development</td>
</tr>
<tr>
<td>82</td>
<td>4.2.2. Ramp Elevation</td>
</tr>
<tr>
<td>84</td>
<td>4.2.3 Motorway Crossing</td>
</tr>
<tr>
<td>88</td>
<td>4.2.4 Sustainable Design</td>
</tr>
<tr>
<td>91</td>
<td>4.2.5 Courtyard Development</td>
</tr>
<tr>
<td>92</td>
<td>4.2.6 Church Development</td>
</tr>
<tr>
<td>94</td>
<td>4.2.7 Site Development</td>
</tr>
<tr>
<td>97</td>
<td>4.2.8 Design Analysis</td>
</tr>
<tr>
<td>98</td>
<td>4.2.9 Potential Spaces</td>
</tr>
<tr>
<td>102</td>
<td>5.0 Conclusion</td>
</tr>
<tr>
<td>104</td>
<td>6.0 Bibliography</td>
</tr>
<tr>
<td>106</td>
<td>6.1 List of Figures</td>
</tr>
<tr>
<td>112</td>
<td>7.0 Appendix</td>
</tr>
</tbody>
</table>
1.0 Introduction

“Ye are the light of the world. A city that is set on an hill cannot be hid.” - Mathew 5:14
1.1 Research Question

Research question: How can a modern church be a community hub as well as a place of worship?

Figure 1.02 Chartres Cathedral by night – Guillermo Osorio
Figure 1.03 Graphic showing community hub concept
1.2 Outline of Project

Today, the church has largely abandoned the regal stone halls of the cathedral for the stark lifeless shell of warehouse. The church is but a shadow of its former power and influence, the modern church is becoming increasingly viewed as irrelevant in society.

This project looks at how a modern church can be not just an inspiring place of worship, but a communal hub, a place to gather, a place to celebrate together, live and learn together, a safe haven, a place to reflect and a place to worship.

This project will look at practical ways a church site can encompass far more than mere church activity and programs. It will investigate how a church site can include residential occupancies, retail, community services and hospitality. This project will look at how local public transport can be utilised to make the facilities on this site accessible and thus more viable as a communal meeting point and a crossroads.

Figure 1.04 Amagertorv, Copenhagen
1.3 Research Problem

Today we live in an ‘Enlightened’ society, ideas of spirituality and religion have become increasingly scrutinised in the public arena. The church is no longer the super power of western civilisation that it once was. Inevitable, some would say, but the question must be asked; is society better off? What if the church was the center of a city or town as it once was?

Churches resembling industrial warehouses, (or functioning, architecturally, like a warehouse) are being built worldwide. This is not just a local issue. These buildings range from purpose built church auditoriums, restored warehouses, and even to the colossal amphitheater type mega-church. This increasing insular, isolated and almost detached model of church is a response to numerous social and economic pressures.

The first major problem that will be addressed in this project will be the accusations of irrelevancy - or ‘insularity’. Pope Francis himself, apparently a key critic of ‘the insularity of the church’, was quoted just last year:

“Heads of the church have often been narcissists, flattered and thrilled by their courtiers... The court is the leprosy of the papacy.”

Although his critique of the church is harsh, in an article in the New York Times, Pope Francis was later quoted offering a constructive solution. He said in another interview, that his vision of the church is instead “a community” of people, priests and bishops who “are at the service of the people of God,” especially the poor, the old and the young “crushed” by unemployment.¹

Pope Francis eloquently addresses the heart of the issue of an irrelevant or insular church. The effects of a church like this are visible in the architecture.

Warehouse churches are becoming the norm as churches become more about the running of the Sunday service than impacting the local community. This is not an issue unique to smaller churches with lower budgets. Churches with congregations of thousands are being built under similar principles - a religious production, a one hour show with music and motivational speaking. Again, this begs the question; ‘How can a church impact a community?’

This project will explore how a church can impact a local community, but more specifically how a church can be a part of a community not isolated from it - as if creating some kind of ‘clean zone’ or ‘sanctuary’. This project will look at the hierarchy of spaces in a church and between a church and its neighbouring buildings or within its community of buildings. Does a church have a place in a modern town? This project will look at the relationship between the church and its context. The Church need no longer be an island, or even a prison. How can a church be more immersed in its local community?

¹ “Pope Assails Bureaucracy of Church as Insular”, New York Times, Oct 1 2013

Figure 1.05 Lakewood Church, Houston, Texas
1.4 A Place to Meet

Part of the architectural problem is site specific. This project aims at addressing the needs of the Greenlane community. The site is situated at 17 Marewa Road, Greenlane in Auckland. The project looks at how this church can be a hub in the local community, how existing access points, such as the train station directly south of the main roundabout, the bus stop adjacent to the foodtown car-park, the motorway off-ramp and the main road directly next to the western boundary of the site can be utilised in creating a place to meet and in turn a place for a church.

These ‘access points’ are the essential ingredients in this recipe for gathering people. The Greek word *Ekklesia* translates to *church* in English, and here means *congregation* - a congregation is literally a gathering of people. That is what this project aims to achieve. Situated on a crossroads this site is already a hub of activity, with a Countdown supermarket and one of Auckland’s largest Mc Donald’s restaurants and all aforementioned access points. However even at a basic level the existing church on site offers nothing to the mix of access points or civic facilities. The site does have some existing buildings which perform commercial, civic function, such as office space and a car wash at the south eastern most end of the site, but these buildings have little or no relationship with the church.

This project looks at how to draw people into a space, how a church can be more than a place to hold a service and how a

Figure 1.06 Aerial diagram indicating site, generated from Google Earth

Figure 1.07 Sketch showing places of interest near the chosen site
2.0 Survey of Existing Knowledge

This section deals accumulating existing knowledge. The first part deals with a historical overview, addressing the question of origins - how the church began, how it developed and where it is today. It will examine how various churches from different time periods 'did church' - whether it be the running of a service, or the way in which it engages with the community or enacts charity. These 'church methods' are crucial in making judgments about what is needed in today's culture, facing different pressures, ways of communicating, and socialising.

The second part of this section deals with case studies, precedents of existing works of architecture that embody important aspects of the project. These precedents are not limited to building examples, but also to explore philosophical design theories. The aim of this section is to analyse existing methods and make informed design decisions from the information assessed. It is a broad exploration of what is, an inventory of what has been done, and an exploration of what can be done.

This knowledge base will form the foundation upon which the design process will be built. It will channel the design process, and refine the scope of necessary exploration at the design stage.
The Church has been considered the sacred building of Western civilization; from the great commission to Pentecost and the first assembly of believers with the small gatherings of believers in private dwellings to Constantine and the legalising of Christianity throughout the Roman Empire.²

The church was founded upon the teachings of Jesus Christ, a Jewish prophet from Nazareth in Israel, just over two thousand years ago. After his death, his disciples (upon his instruction) proceeded to spread his teachings through Israel, and over time, to the rest of the world.

The original congregation of believers was called “Ekklesia” which from Greek literally translates to ‘the church’, or ‘the assembly’. Peter delivered an inspired message to a large crowd shortly after this commission, “about three thousand were added to their number that day.”³

This group of early converts effectively formed the first Church assembly or ‘Ekklesia’.

However, this assembly first congregated quite some time after the Crucifixion of Jesus. In fact, for the first two centuries after the ministry of Jesus, his followers (not yet known as Christians), would come together in a vast array of meeting places and fashions, all with the purpose of coming together to worship their Lord in their own respective ways. Worship practise in the new born church had very little cohesion amongst believers, in fact the only thing that united these various gatherings at this point, was that they all held the belief that Jesus Christ crucified was actually God himself. Even if their numbers and resources had allowed it, the construction of any kind of public temple or ‘church’ building at this point was unrealistic as Christianity had not yet been recognised as an official Roman religion.⁴

---

³ Acts 2:41
2.2 The Birth of the Church Building

By the third century AD, some people were remodeling their homes specifically for holding Christian meetings. These buildings were known as the *domus ecclessiae* which essentially meant a ‘domestic church’ or house-church. These were arguably the first Churches, as they were buildings designed for Christian worship. As gatherings grew larger, bigger spaces were needed to accommodate the crowds. The communal meal became less of a focus as the crowds grew too big to easily provide for. Services became more about worship practise and in the second century AD, the communal meal was excluded from services. The ‘Eucharist ritual’ became the focus of the service. Even though the church was still meeting in private dwellings, it was not yet considered a formal institution.

It was not until the reign of Constantine, and the authorisation of Christianity as an official religion, that the first dedicated church building was constructed - separate from a private dwelling. Constantine constructed a building around the site where Jesus Christ was said to have been crucified as a *Martyrium* (circa 335). This was a large stone structure functioning essentially as a burial site. This structure later became the Church of the Holy Sepulchre (with further additions made throughout the centuries). The plan of this building was centered around the burial site, the building was designed to house many worshipers and thus became the first building dedicated to the Judeo-Christian God since the Temple of David, thousands of years before the birth of Christ.

This centrally planned building was used of something of a template for the early churches of the fourth and fifth centuries AD.\(^7\)

The construction of the Church of the Holy Sepulchre, arguably signified the beginning of formal Christian architecture - before this time the architecture (if you can call it that), was merely as a pragmatic form of containment and protection from the elements. This first official church constructed by Constantine quite decisively marks the beginning of church architecture being built to evoke a reaction of awe, reverence even worship.

---


6 A *Martyrium* was a building that honored the Christian faith or marked the grave of a Christian

2.3 From Church to Heavenly City

Through the conversion of Emperor Constantine in 312 AD Christianity became recognised as an official Roman religion throughout the Roman empire. With this ‘legitimisation of the faith’ churches were erected throughout the Roman Empire in this time and Christian architecture developed a language of its own through Constantine’s grandiose designs.

“No longer would Christian churches be inconspicuously nestled on residential streets or in tenement buildings. Under Constantine, the locations of churches themselves would play important religious and political roles, underscoring the fusion of religious and political power”

Church architecture, now well and truly present on the Roman architectural scene, developed rapidly throughout Europe, The technological development of the pointed arch within the twelfth century AD brought about the birth of the medieval great churches (inaccurately referred to as cathedrals)\textsuperscript{10}. These great churches of the Middle Ages were constructed in towns that had been increasing in prosperity, size and independence from feudal authority\textsuperscript{11}

It was enough to accommodate a congregation comprising all the inhabitants of a town... This sense of community expressed itself in many facilities offered by the cathedral. Guild business, the conferring of degrees, even buying and selling...”\textsuperscript{12}

Cathedrals were described as ‘heavenly cities’, and these great churches became widely recognised as allegories of heaven.\textsuperscript{13}

\textsuperscript{9} Ibid. p40
\textsuperscript{10} Ibid. p212
\textsuperscript{12} Ibid., p59

Figure 2.06 Milan Cathedral, Cathedral of Milan
Figure 2.06 Milan Cathedral, Cathedral of Milan
2.4 Rise of the Warehouse Church

After the Second World War there was a major shift in thinking in regards to church architecture. Some scholars call this transition the ‘fundamentalist reformation’, one critic accused traditional church architecture of being ‘extravagant... Isolationist, inappropriately ornamental, and monumental’.

True as these accusations may be, the reaction of the fundamentalists was extreme.

Kieckhefer outlines some of the key issues fundamentalists had with traditional church architecture. The key issue was the reaction against extravagance - quite concisely summed up with the poignant quote from Ludwig Feuerbach, “Temples in honour of religion are in truth in honour of architecture”. Apparently churches built on a grand scale were considered to be ‘triumphal monuments functioning as a glorification of its builders. This might seem extreme,

however it is important to understand that this was post-World War II people were in dire need of fundamental basics like food and shelter, and extravagance in Church building soon became and embarrassment.

Thus the warehouse church was born. Out of sensitivity to the rising contempt towards traditional ‘extravagant’ churches, architects were striving for more modest solutions to church meeting places. The problem with these modest solutions, is that the result was a nondescript light weight steel structure, essentially, a warehouse.

Today the church suffers from something of an ‘institutional frustration’ post the charismatic movement throughout churches worldwide.

The Charismatic Movement was responsible for a revival in spirituality across most mainstream denominations in the 60’s. This movement responded to the ‘stiff upper-lipped’ conservative community and a perceived ‘spiritual dryness’. Around this time the “mega-church” was born. These two key factors combined spurred an eventual antagonism towards organised worship and Christian culture, people started to search for more neutral places of worship. Church-goers grew tired of religious pomp and ceremony, politics and power play. People started looking for a more authentic experience, drawing away from the production of the service, the flashing lights and rock bands.

---


15 ibid.,

16 The Charismatic movement was a period in Christendom, where supernatural intervention was focused upon, and spiritual gifts.
A new theology arose in this period, one of modest reductionism. The idea that “God doesn't dwell in Buildings”\(^\text{17}\) was preached from every warehouse church pulpit and boardroom meeting. Evangelical churches dominated mainstream Christendom, propelling the warehouse church model into all areas of the globe. One writer proposed in 1973;\(^\text{18}\)

“one simple method of saving the Church’s mission might be the decision to abandon church buildings which after all are basically ‘unnatural’ places, having little in common with peoples everyday lives”\(^\text{19}\)

It is important to note that this philosophy includes both purpose built ‘church auditoriums’, and restored warehouses. The real issue with this type of church design is the contempt towards designing anything other than a basic shell of a building to serve the purposes of the church service, with little regard to its relationship to the site or the community as a physically designed space.

The evangelical church today is afraid of appearing lavish and ostentatious, whilst the church of tradition was determined to build inspiring structures, for the glory of God - and some would argue, the glory of man. The real issue with both sit at the extremes on either end of the scale of building extravagance. Both typologies seem to have been birthed out of a strong belief in the importance of extravagance - for less or for more - this project shifts the focus. Extravagance is not the most important aspect of church design, it is an important aspect worthy of appropriate consideration, but not as a design catalyst. This project is more interested in exploring ways of gathering people, all people ‘ecclesiastical or lay’ in a ‘church space’.\(^\text{20}\)

Rather than negate the value of the building entirely this project will investigate how a building can both avoid the trap of ‘inappropriate ornamentalism and isolationism’, whilst expressing itself fully without fear of appearing immodest or ostentatious.

\(^\text{17}\) Acts 7:48 NIV
\(^\text{19}\) ibid. p268

\(^\text{20}\) This project looks at the wider context of the church, the church cannot just be the place of worship..
Figure 2.08 Renaissance Church, Providence, Rhode Island
2.4 Precedent Architecture

Choice of Precedents

The nature of this project is such that there are very few examples of architecture that directly relate to the design intention. The precedents chosen in this section should not be understood as literal examples of what this project intends to achieve. Many aspects of this project will line up with literal elements of each precedent, however some precedents have been chosen to simply illustrate potential dangers, rather than inspiration or guidelines. These precedents have been chosen to counter commonly challenged aspects of a church in society, such as idealism, isolation and social segregation. Other precedents have been chosen because they demonstrate a few key important elements, such as salvaging materials, connecting a site with its context through circulation or visual sight-lines. Then finally there are two church examples which fairly closely illustrate several elements this project aims to achieve, such as the role of the medieval cathedral in its community, and the way in which a highly visible motorway side site affects a church congregation. Each of the precedents have been explored and justified in detail in their respective sections.

Figure 2.09 Le château de Montaigut le Blanc
2.4.1 Chartres Cathedral

**Location:** Cloître Notre Dame, Chartres, France  
**Architect:** Unknown  
**Date completed:** 1260

Chartres is considered one of the finest examples of French Gothic architecture and is a UNESCO World Heritage Site. The current cathedral on the Chartres site is at least one of five, that have been built on the current site. The current cathedral, like many other cathedrals of its stock, was constructed over centuries and in stages. Due to numerous fires, several rebuilds were necessary.

Chartres cathedral is a crucial precedent for this project as it demonstrates one of the main aspects of this research - how a church can be more than a place of worship. Chartres, like with any medieval cathedral, was the most important building in town. During the fourth and fifth centuries AD, bishoprics sprang up all over the map. These new clerical establishments required the services of a secular population of mostly farmers and craftsmen. These establishments gradually developed into settlements and towns. These towns were known as, ‘episcopal towns’, which is essentially a town formed under a bishopric. Chartres was one of such establishments.

“The cathedral shaped individual and social life in the town. Individuals were baptised in, made communicants of, married in and buried from the cathedral. Schooling was obtained from the cathedral school and social services (hospitals, relief of the poor, orphanages, and so on).”

---


22 A Bishropic is a district under the Bishops control.


Chartres was far more than simply a place to gather for worship, or even a monument to inspire worship. Like all cathedrals it had numerous civic usages. It was the communal, and economic center. Most cathedrals functioned as a market place, with various activities centering around different portals of the cathedral. Regular fairs were held where textiles, meat, vegetables, were sold. Fuel-sellers, money changers, wine sellers and various other craftsmen and traders would present their wares in the courtyard and in several of the subsidiary external spaces of the cathedral building.25

One of the key economic factors which made the Cathedral a center for trade was the fact that the cloître26 was a free trade area governed by the church. This area was unique because not only did it allow for free trade but the church would collect the taxes from any trade that happened in that area.

Chartres Cathedral demonstrates not only the power and influence of the church in the medieval period, but the civic responsibility that the church once had. The simple fact of its sheer size naturally led it to be used as a civic building. However the church also invested funds in building guest houses, hostels and hospital facilities - known as the Xenodochium.27

This precedent illustrates the major thrust of this project - a church that serves the community. Chartres, served the community as a hub for civic activities, and as a place to meet and gather, a place to buy and trade, as a sanctuary to reflect and worship, and as symbol of strength, security and power.

This current project looks at meeting most of these needs, but aims to function less as monumental structure apart from the local buildings, whilst connecting key features of the locations around the site. Design moves like a proposed footbridge straddling the motorway next to the site will link adjacent communities directly through foot traffic. This project explores how a church site can enhance a community, Chartres, like all medieval Cathedrals could arguably have been designed more to inspire communities than connect them.

---

26 The cloître was the area immediately surrounding the cathedral.

Figure 2.12 Chartres Medieval Town Plan
2.4.2 Garden City Utopia

Ebenezer Howard, is renowned for his book *Garden Cities of Tomorrow*\(^\text{28}\). He explores the idea of a Utopian city which is planned largely by axial constraints and concentric design. The self contained communities are what Howard calls 'Garden Cities', each city ideally houses 32000 people on a site of 6000 acres. These cities are arranged concentrically on a hexagonal axis, surrounding a core central city with a projected population of 58000 people on a site of 12000 acres. The garden cities are linked by a railway which circumnavigates the entire composition of cities.\(^\text{29}\)

Each city is planned concentrically with a central green space at the heart of each, surrounded by residential housing each with their own respective gardens, divided by a wide circular 'Grand Avenue'. Bounding these residential areas is a proportionally thin 'industrial rim', and which is enclosed finally by a circular rail way, which tracks right around the periphery of the entire circular city. This complex of rings is dissected again by a hexagonal axial arrangements of roads or 'boulevards' meeting at crossroads in the center of the circle. All of the site allotments within the city are also segregated much like cuts in a pie, of the center point.\(^\text{30}\)

This Garden City Utopia poses interesting planning principles in regards to this project which will look at ways of breaking down the relational hierarchy between the church and its surrounding buildings. It aims to utilise concentric planning in order to illustrate the churches equal relationship with civic and residential buildings. The Church has been cut off in isolation for too long in an effort to elevate itself to a moral high ground, however this project will look at how the church can be more of a signpost, directing one's attention to the divine, rather than attempting to represent the divine.

The idea of Utopia is one of idealism and in some cases fantasy. This project will aim to steer clear of idealist and Utopian ideals with the goal of creating a space for the church to immerse itself more intimately in the existing context and communal facilities. It aims to enhance the existing typography of the land and its features through a communal hub linking main transit routes and creating a place to gather - with the church as a key element. The aim of this project is not to create a religious commune but to tear down the walls of isolationism and segregation between ecclesiastical society and lay, between the church and secular society. The Utopian ideal speaks more of trying to create some kind of heaven. This project will not attempt to create a kind of heaven on earth in the sense of isolated perfection, but to encourage people of all walks to life to engage in a space characterised by a church.

---


\(^{29}\) Ibid.

\(^{30}\) Ibid.
2.4.3 Ningbo Historic Museum

Location: Ningbo, China  
Architect: Wang Shu  
Date completed: 2008

“The life of a building and its materials is not a fixed condition but rather a continually evolving enterprise. The Romans pilfered construction materials from older edifices to build new monuments, and medieval populations later pillaged Roman monuments for their building blocks.”

Ningbo Museum is built predominantly from brick, tiles and stone salvaged from other buildings in the area that have either collapsed or have been demolished as a result of the government clearing space for the new central business district. Today China is demolishing buildings at an incredible rate to make way for new government administration building developments. These salvaged materials were collected from the remains of older buildings in the area. The walls of Ningbo, constructed from essentially rubble, serve as a haunting reminder of the past.

“...Encapsulating the bones of vanished villages in a monument that pays its respects to history at the same time it has come to supersede it.”

Wang Shu’s vision was not to revitalise the site’s rural qualities, but to ‘create a single vital substance, which was directed at responding to the natural environment, local history and customs’. The building itself appears as one single colossal mass, possibly more monumental than practical. In reality this is not the case. In spite of its appearance the building’s plan is designed such that it takes people on a journey or an archaeological trail. This building is an illustrates an integral principle in this project in terms of materiality and historical reference. The project aims to re-use materials from the existing church not only as a method of sustainable practise, but to illustrate the metaphor of renewal in a Christian life.

32 Ibid.
34 Ibid.
2.4.4 Church of the Autostrada

Location: Florence, Italy
Architect: Giovanni Michelucci
Date completed: 1963

The Church of Auto Strada, also known as San Giovanni Battista, or dell’Autostrada del Sole, is situated directly adjacent to one of Europe’s most important motorways, the Autostrada del Sole. The church building itself is built from largely concrete and stone, with a copper roof. The interior fit-out consists of marble, glass and bronze.

"The Architect saw the building as a kind of refuge offered to travelers. It signposted the highway for the benefit of the passerby."³⁵

This church is not trying to be a communal node or focus point, however neither does it want to be an island. This is very much 'the peoples church'.

"I have my idea of the sacred. They say: the church is sacred. But it is not the church that is sacred, it is the city that is sacred, and the church should fundamentally represent the spiritual values of the city. But the strange thing is that the church refuses to allow a presence of the "sacred" (that is, the city) in its temples. It closes its doors; it keeps the city from coming in."³⁶

Michelucci talks about a church ‘sacredness’ that is more interested in the people and the context, than the building itself. The church in his opinion, should be more of a reflection of these things than an independent statement. He is not saying that the building is unimportant. It would seem clear from the bold statement of the architecture of the Church of the Autostrada that he is a strong proponent of good design in a worship space.

Michelucci’s philosophy is essential to this current project which deals with a similarly accessible site. This project aims to unite, impact and enhance the local community, whilst serving the needs of the traveler passing by or pilgrim journeying to the church. Michelucci’s idea of ‘sacredness’ talks about a bigger vision that what happens within the walls of a church building. His aim is to break down the barrier between the public and the church congregation.

"Why should you have "hours," why do you close your doors to the city and its citizens, why do you have all these reserves and secrets, prohibited places, et cetera"³⁷

This project will explore the notion of a church being ‘reclaimed’ by its community. The idea that there need not be a barrier between church and secular culture, that the church can and should be more immersed in its local community and local culture. The aim is to create a space that the community wants to, and is proud to use and associate with.


Figure 2.20 View from the motorway of The Church of the Autostrada
Figure 2.22 Aerial view of The Church of the Autostrada showing immediate context
Figure 2.21 Interior view of Concrete internal supports
Figure 2.23 Interior ceiling view
2.4.5 Heartland Community Church

**Location:** Olathe, Kansas, United States  
**Architect:** 360 Architecture  
**Date completed:** 2009

Heartland Community Church presents another architectural precedent for this project. It serves as a contemporary example of religious architecture in terms of local community impact. The answer is facilities and more facilities: Cafe spaces, auditoriums, class rooms, bookstores, a child care centre, and other informal gathering spaces. These are all useful and arguably necessary, but to reiterate Michelucci's comments about the issue with church architecture, it still is very much closed off the secular world, even to the public in general.

All these facilities mentioned are for church members or at least church goers. Even the child care functions predominantly as a babysitting service for parents who do not wish to be disturbed or distracted during the Sunday service, and in fact it is a model that has been proven very effective. But for what purpose?

The current project will explore the potential for community service. How can a church be more fully immersed in its local community? Can the community take ownership of this space, in similar way that medieval towns claimed their cathedrals with pride? How can a church be an inviting place for a passer by or a useful place for the average person? Plenty of modern churches offer a vast array of services, programs and facilities. Most of these larger churches will allow their various spaces to be commercially available to the public for hire. Does this fully realise the potential for community engagement architecturally?

Jeanne Halgren Kilde talks about the auditorium church, in her book *Sacred Power, Sacred Space*:

"The auditorium arrangement offered a more egalitarian spatial formation than had any previous church design... They also expanded church activities beyond the realm of worship into that of educational and social."38

Kilde illustrates the pragmatic functional answer that the typical modern evangelical church offers to the issue of community involvement. Again, that of program and facilities. But why would anyone off the street feel comfortable walking into one of these private establishments, other than for the service itself? Even with all the supposedly "communal" facilities available, it seems unrealistic to assume the local community would feel any kind of ownership or attachment to this space.

This project aims to not just tick boxes in terms of potential community services or facilities but to draw people into a vibrant public space. A place where people do not just want to gather but need to gather. For example a foot bridge is planned, straddling the motorway connecting residents of the neighbouring community with the church, adjacent shopping centres and public transport services. The typical 'evangelical community church', engages at a 'private' level, with the local community, this project attempts to make the church a public space once again.

---


Figure 2.24 Interior view of the Heartland Church Foyer  
Figure 2.25 Exterior view of the main entrance  
Figure 2.26 Floor plan  
Figure 2.27 Interior view of kids centre
2.4.6 Magok Central Plaza Winning Proposal

**Location:** Magok-dong Kangseo-gu, Seoul, Korea

**Architect:** YoonKyung Rho & Sangbeom Han

**Date completed:** 2012

Wooridongin Architects won the Magok Central Squares competition in 2012 for their Magok Central Plaza plaza proposal. The site for this proposal is located on a 'traffic node', or an intersection of various transport systems, private and public. The site is on the pedestrian axis of Festival Street within the heart of Magok city in Seoul. This site also straddles subway lines 5,9 and Incheon Airport train cross. One of the key aspects of the design is a footbridge that connects Jungang park and the ‘Green Area Connector’. The bridge also serves a viewing platform framing the space, and functioning as a monument - characterising the street scape.

This notion of celebrating an existing cross road or intersection of transport systems with a communal space is precisely the vision behind this project. This project looks to carefully analyse the site and assess main access routes and circulation paths, in order to connect people, to gather people in one place, in this case a place of worship - the church serving the community in a pragmatic way.

“...The exterior skin on the pedestrian bridge is composed of solar panels, glass, green-wall, LED lights. The electricity collected by the solar panels is used by LED lights controlled by the movement of visitors walking through pedestrian bridge... These interactive systems promote the communication among people and add more vitality to the plaza”

Like all modern design, sustainable factors must be considered.

In the case of Magok Central Plaza, solar panels were used to generate the electricity needed for the lighting systems tracking pedestrian movement. This complex system celebrates people moving, being and living. In the case of this project, the proposed footbridge could generate the electricity needed to light the church and bridge during the dark hours of the night.


40 Ibid.

Figure 2.28 Aerial view of Magok plaza showing connection to the city

Figure 2.29 Aerial view of Magok plaza showing people using the space
2.5 Conclusions from Existing Knowledge

2.5.1 Church Origins

The design process is commenced with the exploration of the conclusions drawn from the analysis of existing knowledge. The birth of the church, built upon the foundation of the life and teaching of Jesus Christ, was and is the cornerstone of the Christian Church. To understand Christ's mission is to understand the mission of the church. Jesus was and is the catalyst and the reference point of all Christian belief, however for the purposes of this project the work of the apostles is much more useful in terms of understanding the formation of the church. It was the apostles who took on the mission of Christ to establish the first recognised church gathering and structure. One can draw core principles to which all churches should adhere to in terms of both program, structure, and physical building structure. This early era established the pillars of faith and principles that would underpin church planting for millennia to come. The precedents established in this period form the blueprint of all church design, to ignore it is to design something other than a Christian church.

The birth of the first church building proper, marked the transition in Christianity from an underground religious movement to a recognised Imperial religion. This also is crucial stage of development in terms of understanding how the Christian religion would influence not just general architecture, but a formal design typology that would act as a forerunner of design and design technologies in the western world for centuries. This stage of church history is also useful in terms of understanding how the church interfaced with its local community, often the largest building in a settlement, town or even city, the church has functioned as a civic building since its formal inception. This project explores the full potential of that notion.

The rise of the 'Warehouse Church' illustrates the current state of the protestant/evangelical church around the world. The Warehouse Church is not of itself without value, in fact it has proven to be a very effective way to gather people for the purpose of "church". This project The purpose of this project however, is to explore the ability of a church to draw in people of all beliefs, and act as a community center or hub, meeting the needs of the public more than just the church goers themselves.
2.5.2 Precedents

The precedents researched all demonstrate various important aspects of this project.

- Chartres demonstrates the ability that a church building has to interface with its local community on a civic level, with public markets, social services such as schooling, financial support for the poor, emergency housing for the vagrants and when services were not running, a place to gather for town meetings etc.

- The Garden City ideal illustrates the temptation to try to create a utopic isolated space, separate from its context or in this case, local community. The research around this idea gives direction to this project, it need not be an alternate reality, escape or sanctuary. This project will be a celebration of what already is, this space will invigorate and revitalise the relationship between the church and the public community.

- Ningbo Museum demonstrates the ability of a building to honor its site and embody its story. This building is a testimony of raw materiality, sustainability and innovative re-use of materials. This project will look to re-use much of the materials salvaged from existing buildings to create the new buildings. It will not only reference and acknowledge church history but also the existing recent buildings on site. This project is a metaphor of reconciliation and restoration rather than a completely clean slate proposal, obliterating the intent and vision of the initial design.

- The Church of the Autostrada aligns closely to this proposal, in that it is located directly adjacent to a main motorway, positioned to communicate a bold gesture, drawing people in off the motorway and creating a space to gather albeit for a specific purpose of a church service. This project will look at more practical ways to gather people than by just being an imposing visual presence on a main tran-sit route, this project will adopt Michelucci’s broader concept of sacredness, ‘the city is sacred’ being the mantra.

- Heartland Community Church illustrates the role many current Protestant/ Baptist/ Evangelical churches adopt in their communities today, with a focus on programming and the Sunday service rather than the potential of a church building to be engaged with and used by the public on a daily basis. This project looks at how a church can be the pumping heart of a community, for social, educational and transport needs.

- Magok Central Plaza demonstrates how a space can act as a communal node, whilst acting as a bridge, both physically and figuratively between the surround spaces and the designed space. The plaza is both a place to meet and gather, as well as a linkage point, connecting surrounding places of commerce and interest.
3.0 Project Development

The aim of this section is to systematically examine the existing conditions of the chosen site, to analyse existing form, accessibility, circulation path and hot spots. This section is integral to understanding exactly what this community needs and how it can be connected to this site. Then from this information, a design program will be formulated.
3.1 Site Analysis

The Greenlane precinct is located in the heart of Auckland city, the largest city in New Zealand.

"In 1841 Felton Mathew, the surveyor-general, completed his plan for Auckland. However, two main features were never built: a circus (now Albert Park) and two squares (along present-day Hobson Street). Instead the city was laid out on a traditional grid plan – cheaper to implement and easier to subdivide"\(^{41}\)

This quote is in reference to the heart of the city, or what is now the CBD. Greenlane is part of the outer residential area, which was not planned in the same strict sense as the inner city. The Greenlane site is situated between two large green spaces, Alexandra Park and Cornwall Park. Greenlane is one of Auckland’s more affluent suburbs (in terms of average property price, as recorded in 2012)\(^{42}\) and it is situated in a strategic position as a communal hub. The site straddles Auckland’s southern motorway and Cornwall Park. The suburb of Greenlane is the wider context of this site, clearly defined by the motorway and the mountain.


3.1.1 The Greenlane Precinct

Understanding the immediate context of the site is essential in this project, as the key thrust of this church proposal is exactly how the church engages with its local community. For this project, the definition of local community will be the suburb that the site is located in. What then, does this area need? How can a building, a church, link and enhance an existing community whilst still creating a place to worship?

This suburb is comprised of the green-space of One Tree Hill / Cornwall Park, premium residential properties, industrial property, commercial property and public property. Greenlane offers a diverse array of property types and with different needs. The scope of this project, is not to try and solve every planning problem of a suburb, but to link the church to its local community or suburb. It examines how people can gather and what key elements exist that can be utilised to do this.

At a suburban level, this site presents numerous factors for consideration: Greenlane is situated in the centre of several schools and is within walking distance of many of central Auckland’s largest schools, (see top left image- marked with red dots). This is important as the church facilities will cater for youth - therefore links must be considered for both foot traffic and vehicular traffic between the site and the various major schools. Greenlane Road is used as a key arterial route from the Southern Motorway in accessing Auckland International and Domestic Airports and One Tree Hill Domain / Cornwall Park.

This area also faces extremely high seasonal traffic due to the fact that it is situated between Alexandra Park racecourse and Ellerslie racecourse. These two facilities both host large events, resulting in high volumes of traffic along the Greenlane Road route at these times. Consequently, the chosen site for this church project will reap the benefits of its proximity to this main road.
3.1.2 Greenlane Christian Centre

Greenlane Christian Centre began as a small gathering of 15 Christians in an Auckland home. By 1983 it had grown to a congregation of hundreds, and a permanent building was sought to house the growing congregation. The church felt called to the Greenlane motorway interchange area and began acquiring property along Marewa Road and during the following four years the church purchased most of the property in the street. Greenlane Christian Centre would consider themselves ‘evangelical’ in doctrine - a branch of protestantism which gained momentum in the 18th and 19th centuries. Greenlane Christian Centre (a.k.a. GCC) has grown to a congregation of thousands in recent years, however the building is outdated technologically and many of the buildings are either falling apart, (the small weather board clad, timber framed villas) or give that appearance.

The main auditorium is still very functional as a versatile and usable auditorium space, yet like many ‘warehouse churches’ says very little as a piece of architecture that supposedly is a place of worship (if it wasn’t for the signage in the foyer, one would have no indication that they were in fact in a church, and not simply a large conference hall).

GCC describes itself as a ‘missions focused church’, providing financial support for and sending mission teams to a number of Christian initiatives overseas.

This proposal assumes the demolition of all existing buildings on site. The materials will salvaged where possible to construct and fit-out the new buildings.

The church does not currently own the Wash-World and Car-fe sites at the southern end of the proposed development, however this project assumes the acquisition of both sites, as they are both integral to this project.

---

46 ‘Warehouse Church’ here refers to this project’s definition of a church that is constructed as a minimalist lightweight shell type building with an underpinning ideology that the building itself is not important for worship.
47 ‘Missions’ here refers to the churches interpretation of evangelism.

---

Figure 3.07 Existing condition of the Marewa road site in Greenlane
3.1.3 Site Features Analysis

Place of Public Interest: Discovery Express Childcare Centre. This site feature functions as a public service, people will travel to this location to use the services provided by the child care. The project proposes a footbridge that crosses the motorway. This foot bridge will connect the two communities making the existing motorway crossing for foot traffic (highlighted in light green), redundant. This new connection will not only provide a more direct route to the supermarket and Mc Donald's for the Remuera area, but it will draw pedestrians directly into the site.

The small scale commercial development off Great South Road serves as a place of interest, due to the obvious commercial interest with private business. However this development and the other commercial buildings (marked in blue) will be crucial in bringing this church town project to life during the middle of the week. The idea is that the businessmen and woman that occupy these buildings will engage with the cafes and courtyards created in this project. This project will be a place to meet clients, a place to reflect and relax. The church will take on a new role in this community, one where it aims to meet the practical everyday needs of its community, and the local people integrate it into their everyday lives.

The existing church, Greenlane Christian Centre is a non-denominational international church. The existing church has almost all of the facilities that this project proposes to build however it does not offer much for the community to engage with - and is thus the catalyst of this project. Greenlane Christian Centre is a service oriented church, (meaning the Sunday service) with a large proportion of its funds going to overseas missions. This project proposes a change in focus from the overseas missions to the local mission of giving back to the community.

The train-station is one of the key access point nodes. This project looks at moving this train station to underneath the proposed footbridge, again drawing people into and through the site and thus creating a vibrant public space. The other key access point to consider is the motorway on-ramp, which channels traffic directly along the southern boundary of the site.

Nosh is a gourmet food market, that will act as another public focal point. It is the type of shop that people will travel to. A direct linkage may not be necessary between the church project and this food store, but it is important to acknowledge its presence as a place of interest, when assessing the viability of a communal node in an urban space.

This section of the site currently has a commercial office building with retail on the bottom floor. Two car wash businesses currently occupy the south end of the site but as this project assumes a clear site these facilities will no longer be there. The existing church and the other existing commercial facilities will be also be dismantled, and as much of building materials that are salvageable will be used for the new facilities. This project proposes the use of predominantly recycled materials.

The main attraction of this precinct in terms of traffic traveling directly to this destination, would without a doubt be the large Countdown Supermarket and Mc Donald's with their shared large car-park well utilised throughout the day. This complex is also directly opposite the church site, and thus the relationship between this complex and the proposed church is integral to the success of this project, at the very least in consideration of how the church is actually 'visually protected' from this supermarket and fast food precinct. The aim of this project is to immerse the church in the community to its full potential, however there are moments when proper screening is necessary to maintain the integrity of the identity of a place. If the connection is to loose or too undefined or exposed then the project could itself lose definition.

Figure 3.08 Site graphic illustrating places of interest around the site.
3.1.4 Photographic Site Survey

The existing church facilities consist of a main central facility, childcare services, a youth recreational facility and counseling/church ministry facilities. The main auditorium or worship space is located within the main facility. It essentially consists of a large open space with a stage at the front and two narrow double story windows on both of the side walls. This type of facility is typical of a modern evangelical church. The worship space is intentionally plain and nondescript. This is for several reasons (already largely explored in the warehouse church section of this document). These buildings are apparently less threatening to 'non-church goers' as they are 'neutral' worship spaces. An objective of this project is to allow the buildings to architecturally proclaim the purpose of the building.

The Church site is also occupied by a Christian bookshop that trades normal hours. This book store along with all the other facilities on site will be demolished for the construction of this project. The new facilities proposed in this project consist of a book store which includes both Christian books and secular books. This book store will be built in direct relationship to a library space which will also stock both Christian and secular works.

The lower image shows the current youth facilities, which is essentially a shed. This might be an entirely functional and useful space, but it's isolated and disconnected from the other facilities - purely pragmatic - a testimony of the design philosophy prevalent throughout the site a design catalyst for this proposal.

A primary driver of this project is the idea of gathering all people, believers and non-believers - and not in a neutral space, but neither a 'strictly Christian space' This project will unapologetically be designed to illustrate, and point to the glory of the Christian God where necessary, i.e. a place of worship. The aim is not to try and hide the fact that it is in fact a church space, but to create a space that all people will be drawn to and want to, even need to, engage with.

48 Information gathered via interview with shop manager

Figure 3.09 Existing worship auditorium and church offices
Figure 3.10 Existing bookshop
Figure 3.11 Existing youth facility

Figure 3.12 Graphic showing photo locations
Figure 3.12 Graphic showing photo locations

VIEW A-A
VIEW B-B
VIEW C-C
The existing food retailers in the general vicinity of the site are important site information as this complex is currently the nucleus of this area. These three stores would be the biggest attraction in terms of people traveling to this destination. People will travel to purchase specialist gourmet foods from Nosh, stop off at McDonald’s to purchase food in a hurry, and pick up shopping at Countdown - all of these destinations functions of everyday life, yet none of them conducive to gathering people or drawing people in to meet and engage.

These facilities, (like the existing church) all perform vital roles in the community, food of all types are obviously an essential need for living, however the problem with this kind of urban design is not that it doesn’t meet needs but that it allows people to continue to engage in a privatised existence.

In a recent BBC article by Vanessa Barford, Barford explains how social media is coming under fire for encouraging people to be less engaged in face to face contact. She explains how people are less concerned with being a part of a community because of the illusion of connectedness through services such as social media. Barford goes on to say how these issues have caused major cultural shifts so that we are becoming more materialistic and less focused on belonging.49

This project will not be dealing with any of these existing structures architecturally, apart from the relationship that they have with the chosen site across Marewa road. This project will, however attempt to integrate these facilities in its planning, even if it just merely a visual connection. This church project is about gathering people, but also about enhancing the existing community rather than creating another isolated island development that competes with existing communal nodes. The connections between facilities such as these and the proposed buildings on the chosen site are integral in making this project a success.

One of the key features of this project is the proposed motorway crossing footbridge. The existing bridge connects foot traffic from Greenlane East Road with Greenlane West Road. The bridge itself extends along the southern side of the roundabout. As evident in the photos, this bridge passes underneath the motorway on and off-ramps, it’s dark and uninviting. The bridge does little bar provide access. It would not be a safe route to use at night and not likely a desirable one.

This project is essentially an experiment in mixing church culture with secular culture - or more accurately re-assessing the development of church culture. The aim is to create a hub that is not just a desirable place to visit, but a necessary place to engage with. To achieve this the project proposes a footbridge that will link the Greenlane community with the Remuera community. The footbridge will be a showpiece structure, a landmark, symbolic of this church project bridging the gap between church space and public space. This project proposes various civic facilities, such as bookshops, library’s and cafes. These facilities, along with public space to sit and relax, will draw foot traffic from the residential areas on the other side of the motorway.

To build another footbridge in such close proximity to an existing foot bridge for the sole reason of being more direct, would never be viable. One solution to bolster the viability of this new footbridge beyond aesthetic symbolism and, increasing foot-traffic, would be the re-location and integration of the train station at the south of the roundabout to the northern side, on the strip of land between the motorway on-ramp and the railway line, directly underneath the proposed new footbridge. This new train station would be bigger with more shelter and seating and more desirable to use because of its proximity to cafes on site. This proposition would support the viability of this footbridge and benefit the general public with a brand new train station.
This site, like the Church of Autostrada in Italy, sits directly adjacent to a main national motorway, and directly next to an off-ramp and on-ramp. This site, unlike its Italian counterpart, also is nestled closely to a train station. These facilities immediately increase the scope of this church’s ‘community’ or more accurately, its attendees or congregation. The idea of this project hinges around the importance of the integration of all people groups. Cathedrals were buildings of such importance and grandeur that believers would embark on long pilgrimages. Pilgrims would travel from miles around to a sacred place in search of enlightenment or cure.  

This principle of traveling long distances to a place of enlightenment was popular in a time where travel was dangerous, time consuming and expensive. Today with modern technology, motorways, railways and the like, transport is easier than ever before. Communities are therefore larger than ever before. People are living their daily lives across spans of hundreds of miles in some cases. This is important to understand and consider when designing a ‘communal node’, the local community should and will take ownership of this proposed church, however given its proximity to public transport and the motorway, this will be a place, a church catering for far more than the occupants of its residing suburb. This fact does not need to detract from this project’s ability to enhance and connect its immediate context or community. Because it is easily accessible and obvious, it need not mean the loss of its relationship with Greenlane and even southern Remuera. This church will be cater for the gathering of both pilgrims and locals, lay people and church goers.


Figure 3.21 Existing train station
Figure 3.22 Greenlane motorway off ramp, northbound
Figure 3.23 Greenlane West, east bound

Figure 3.24 Traffic flow diagram
3.2 Program

3.2.1 BRIEF

The Church is to be a multipurpose space that connects the local community through public facilities, a motorway crossing footbridge, and places to eat and sit. It will be a public hot spot with a vast array of facilities.

- A place to worship, run services that allow for a band/ choir and speaker, with back-stage facilities, and storage.
- A place to gather, with seating and landscaping
- A place to eat, cafes and convenience stores.
- A place to reflect and learn
- A place to live
- A transport hub
- A destination

This project proposes a vast array of services, the success or failure of this proposal will be in the success of the relationships between spaces. The various facilities will be arranged around a central courtyard which will also function as a markets space, with stalls and seating. The idea of this central plan is to illustrate something of an equality between spaces, breaking down any hierarchy in terms of worship spaces. This project encourages the idea that worship is more about how people both non-Christian and Christian, live and gather together regularly, than how a service facilitates singing and preaching. The project will essentially be a small village development with various public facilities encouraging public use. Residential spaces will also be available to the general public, situated above public facilities on the ground floor. This project also assumes that the council would support the idea of moving the train station from directly south of the Greenlane roundabout to the north side, directly underneath the proposed footbridge. This design move will increase the amount of foot-traffic through the site whilst offering better public facilities for travelers, with places to eat and rest, or even be entertained with the prospect of a public library. This project also deals with the charitable vision of a church with emergency housing for the desperately poor, youth services and even classrooms available for hire. This project is about the collaboration of the church and the public, how the church can invest in enhancing a public space with its presence.
3.2.2 SPATIAL REQUIREMENTS

**Main worship space**
- Foyer space
- Cafe
- Kid's Crèche
- Auditorium space
- Back stage space
- Toilets

**Church offices**
- Individual offices
- Shared space
- Conference rooms
- Kitchen
- Toilets

**Emergency housing**
- Living quarters
- Staff quarters
- Healthcare services
- Dining hall
- Outdoor space

**Classrooms**
- Open learning spaces
- Computer rooms
- Toilets
- Kitchen
- Outdoor space

**Central courtyard**
- Market stalls
- Seating/ tables
- Gardens/ landscaping

**Youth centre**
- Auditorium
- Storage
- Outdoor sports area
- Toilets
- Kitchen
- Lounge/ rec. room
- Counseling rooms
- Stage and backstage area

**Residential apartments**
- Fully furnished flats or various sizes
- Outdoor spaces/ verandas

**Library and book store**
- Fully stocked public library
- Lounge/ reading space
- Foyer
- Public toilets
- Study space/ tables

**Foot bridge / train station development**
- Foot bridge spanning motorway to connect Remuera with the site
- Train station facilities with seating and shelter
- Wheel chair access ramps

**Commercial office space**
- Open floor office space, for partitioning specific to client.
- Independent office spaces
- Conference rooms
- Kitchen
- Bathroom
- Lift/ fire escape circulation services to service multi stories.
4.0 Design

The design method documented in this section follows closely to the original process of design. Essentially each stage has been recorded in order of the actual progression of development. This is in order to ensure that the systematic development of ideas can be understood coherently and clearly. This chapter is broken up into sections, firstly concept design, which develops the concepts explored in the research, and then developed designs which illustrates the built potential of these concepts.
4.1 Concept Design

4.1.1 Site Layout

The design process begins with a further exploration of the site. The first step in this process is an attempt to gauge an understanding of how the site relates to the surrounding ’areas of interest’ graphically. The ’areas of interest’ that this project aims to link the site with are somewhat arranged in an even distribution, in terms of orientation, around the centre-point of the site. The top thumbnail sketch shows a series of single straight lines from the approximate centre of the site to the surrounding ’areas of interest’. This image was not intended to drive the physical planning of the project, however once these relationships were presented visually in a series of sketches, it became apparent that the site layout and planning should and could quite successfully represent the connections between the places of interest and the site. The next natural development was the implementation of a central courtyard at the heart of the converging lines. This idea is important to the central themes of the project, pragmatically it allows for a functional open space for outdoor seating, market stalls and even theatrical performances. This space will be a utility space and the focus of the site. The centre-focussed plan is also a powerful symbol of equality. This project proposes that the building which functions as a space for services, is not actually the worship space. This church project aims to illustrate a different focus on worship - that of people gathering - all people (not just Christians). Therefore physically, the way this notion could be expressed is in a centrally planned site, where the focus is an open space to gather, and all the buildings, be it library, cafe or church service space, have an equal relationship with little or no hierarchy placed on the space where services are held. The issue identified with a ‘church service space hierarchy’, is that it could imply that worship of God is conducive to one space more than another. On a fine day, a service could be held in the courtyard for all the public to see - this space will of course be designed in such a way that this is a possibility. Alternatively, a church play / performance might be conducted in this space at night on a weekend, open to the public. This central courtyard will function as a place to sit, maybe buy food or watch a performance, but symbolically it will function as a relationship between the general local public and the church members. The aim of this project is that the local community almost sub-consciously adopt this space as their own, in theory creating an opportunity for people to interface with a church on a daily basis as a part of normal life.
4.1.2 Site Development

The site development is constrained by the existing trees - the two larger trees shown on the site plan are two very large native Pohutukawa trees, that cannot be cut down. This restricts the ability for arranging the buildings around a central courtyard, and thus the ‘centre’ of the site has been shifted to the east because of the limitations caused by the collection of protected trees just offset from the actual centre of the site. These trees form a natural barrier of an otherwise relatively featureless site. The Marewa road site identified only has a height variation of 2 metres at its highest and lowest points. This means that in terms of basic site layout and development, the key constraints are limited to obvious essentials such as sun orientation and then the existing protected native trees identified. The next step was to arrange building masses around the proposed multi-purpose church courtyard. These masses are organised around the new centre, with reference to the earlier graphic produced by the lines drawn to local places of interest. These masses are then isolated to illustrate potential building uses and then a potential location for the motorway crossing footbridge. These locations are all indicative rather than actual representations of building shape etc. The relationship between each building will not be simply a gap or space. The connection and transition between each space needs to be carefully considered and designed for this proposal to succeed. These images are in essence an exploration of how the site might be arranged around the central focus of a multipurpose public courtyard.

The massing of the site generates a diagrammatical representation of how the site is organised. The site is split into various usages. The usages are all essential in creating a space that is desirable for the public to use and gather in. The key design issue that will need to be resolved in this project will be how the different spaces and their varying usages can relate to one another whilst still being appropriately separated.

The forms generated by the various building masses then produces the necessary information to begin to analyse how the spaces will relate to each other, how light will penetrate or be filtered into each space, and how the open spaces feel in terms of proportion and enclosure. These forms also give an early indication of how circulation could be controlled addressing the key points of entry.

The open spaces between buildings will be formed into subsidiary courtyards, serving the respective specific spaces, however all the main circulation paths will serve the central courtyard.

Figure 4.11 Sun orientation diagram

Figure 4.12 Site long section
Figure 4.13 Site massing diagram

SPORTS FACILITY
RESIDENTIAL HOUSING
RETAIL
COMMERCIAL
LIBRARY/BOOKSHOP
CHURCH SPACE
FOOTBRIDGE & TRAINSTATION ACCESS
“Therefore, if anyone is in Christ, he is a new creation. The old has passed away; behold, the new has come.”

1 2 Corinthians 5:17

This project aims to use an array of recycled materials. Most of the materials will be salvaged from the existing construction, in line with a biblical principle of reconciliation and restoration. In the example of Ningbo museum the reuse of old building materials is a nostalgic, almost archaeological process of digging up the past and presenting it in a new and original style. The Ningbo designers had the privilege of working with a rich ‘earthy’ palette of materials, with roots deep in Ningbo’s history and even China’s story. The Greenlane site does not offer the same wealth of history rich materials, but none the less the materials of the existing buildings have a story, and an important role to play in this project. This project looks to use as much of the existing building material, in the cladding, the interior fit-out, and even the structural elements of the design. This project proposes a much larger construction and thus a greater quantity of material. Therefore, to compensate for the lack of existing resource, (just like in the case of the Ningbo Museum construction), extra material required will be purchased from around Auckland and the nation if necessary. The scope of material sourcing will be limited to New-Zealand in this case, and all purchased recycled materials will match existing material style and texture. The existing buildings are very basic in construction with few materials used to clad and line each building. Most of the spaces are essentially large sheds - lightweight steel structural members, clad is corrugated steel, or stucco. The rest of the site consists of old timber framed villas, clad in mostly rotten weather boards.
The existing church building & offices consists of predominantly lightweight steel construction, with a series of steel portal frames, lateral supports and roof purlins. The interior cladding is mostly painted GIB with some timber detailing. The office space to the south of the main auditorium house the cafe and foyer space on the ground floor, with the offices above the first floor. Both spaces are very simple timber framed construction, with typical basic GIB lining. The exterior of the office section is mostly glazed with stucco framing the gaps. The roof is a basic corrugated steel profile. The foundation is a concrete slab. The portal frames will need to be moderated slightly for the new build as the form of the new church building will be drastically different and the frames will be bearing very different loadings. Exploration into the versatility of these members structurally is highly important.

Salvageable materials: Steel portal frames, timber framing, glass, concrete and masonry, corrugated steel.

The ‘Car-fe’ building is a timber framed structure with lightweight steel framing through the canopy structure. The cladding is predominantly glazing. Salvageable materials: Timber framing, steel framing, glass panels, steel roofing.

The ‘Wash-World’ structure is basically a light weight steel framed canopy with more corrugated steel roofing, and concrete block walls as partitions. The foundation is a concrete slab. Salvageable materials: Steel

The multi-story “Kimberly House” commercial building is a typical concrete floor slab structure with reinforced concrete columns, timber framed partitions and again the exterior cladding is mostly glazed, with large glass panels. Salvageable materials: Timber framing, steel roofing, glass.

The existing timber framed, weather-board clad villas to the south of the centre of the site. Minimal glazing, corrugated iron roofing material. Salvageable materials: Timber framing, iron roofing, glass, timber flooring.

The current youth centre consists of a very basic lightweight steel structure, clad in essentially steel profile corrugated sheeting, with no insulation in the roof or walls. This structure will also supply extra portal frames for the cafe and foyer space of the church facility, or potentially the library, depending on the fit. Salvageable materials: Steel portal frames, timber framing, steel roofing, and glass.

Figure 4.17 Graphic showing the ‘salvageability’ of the materials of each building
4.1.5 A Salvaged Worship Space

“The stone builders rejected has become the cornerstone.” Psalm 118:22

The first real design experiment in this project occurs with the reconfiguration of the steel portal frame members the existing main auditorium space. These members have been arranged into a progressively ascending and rotating formation to illustrate the idea of transformation from old to new, the Christian concept of new creation.

These first few iterations show deconstruction of the warehouse form. The portal frames only serve the auditorium space structurally. The railway side addition and the road facing additions are simple timber framing with some steel reinforcing. All the steel salvage will ideally be implemented in some aspect of the design.

Figure 4.18 Aerial image of existing church auditorium building

Figure 4.19 Existing auditorium steel framework

Figure 4.20 Portal frame arrangement

Figure 4.21 Existing portal frame design
The next step is the re-arrangement of the frames. This first thumbnail shows the portal frame repeated at a 4 metre gap and rotated at the base 5 degrees. This produces a slightly narrower base, a steeper roof pitch and a higher apex. As the pitch increases it changes the loading on the portal frame. Some of these frames will need to be re-engineered for the new loadings.

When the frames are continually modified by 5 degrees at the base, and joined at the apex - lining up on a central axis - these repeated frames form quite an elegant form. This form symbolically represents the notion of transcendent transformation - or the posturing of oneself heavenward.

Once the desired structural form has been achieved the next challenge is reinforcing and connecting the frames at the joins. The eccentric form of the frame pattern, restricts roofing system options. A panel system has been selected to allow for the change in angles. Each bay formed by the gaps in the portal frames will be treated as an independent roofing system.
The panels will be re-engineered from salvaged steel from the large commercial building (Kimberly House). These panels will each be independently insulated. Another potential option is reinforced 'lite-crete' panels\(^{52}\) which pose more structural issues. The goal here is to find a simple way of spanning the 20m gap whilst maintaining the visual mass shown below.

---

\(^{52}\) "Litecrete", [http://www.litecretesystems.co.nz/](http://www.litecretesystems.co.nz/) (retrieved 11/02/15)

---

One way of resolving structural issues posed by large concrete panels, is the extension of the panel into the ground. This would give far greater stability both visually and structurally. The floating panels of the below left image look awkward and unstable - even if engineering allowed for a stable resolution.

Then the largest opening - which will face east - will be treated as large glazed opening with potential vertical shading devices, doubling as window partitions/s supports. This image is by no means a resolved design of the worship space, but an indication of the design intention to direct further planning of the courtyard spaces and adjacent buildings. This form will need to be resolved in detail, the relationships with surrounding buildings will determine planning intricacies and detailing.
This exploded axonometric drawing shows how salvaged materials from the existing buildings might be used to reconstruct new building elements for the proposed design. This drawing serves the purpose of illustrating a principle more than demonstrating the next step of the first step in detailed design. These proposed panels could just as easily be constructed from concrete - however one of the main design principles of this project is to re-use existing materials collected from the demolished buildings to create something new and innovative, with original building techniques and designs. The over-arching design purpose of this project is to draw people together in a new way in relation to a church space, but the building design themselves will be a testimony of original design from what the building industry would consider scrap materials. This idea is central to orthodox Christian doctrine - the concept that what the world (society) deems as rejected and worthless, God sees a precious and valuable, and through is creative power is made new and is empowered. Christians believe that Jesus Christ himself was rejected and then glorified by the power of God, by resurrecting him from death.

As you come to him, the living Stone—rejected by humans but chosen by God and precious to him—you also, like living stones, are being built into a spiritual house to be a holy priesthood..."53

53 1 Peter 2: 4-5

Figure 4.28 Exploded diagram showing potential panel assembly
This project hinges upon the principle of recycled and salvage materials. This design catalyst informs not only the aesthetic, but the construction and engineering principles. Salvaged materials can perform differently, structurally, to brand new materials in some cases. Steel for example can be re-used and salvaged multiple times without losing any structural strength or durability. Stainless steel does not corrode and therefore has an almost infinite lifespan - especially when the material is melted down for re-processing.\textsuperscript{54} Some wood products need to be checked for toxic substances such as lead or asbestos.\textsuperscript{55}

The buildings in this project will all be built with similar principles as the process shown in the construction of the new church auditorium space. The materials will be salvaged where possible from the existing buildings, these materials and their properties will then determine the aesthetic and construction methodology of each new building.

In the example of the proposed youth centre in this project, the structural members have been re-engineered and re-designed to suit the new building.

In the example of the new proposed youth centre it should first be noted that this image is indicative of the design intention, rather than an accurate portrayal of a functioning portal frame that could span the massive 20 metre spans. The portal frame will be constructed from the salvaged steel. The long members will be directly re-used from the existing warehouse structure adjacent to the main church auditorium at Greenlane Christian Centre. The structural reinforcing latticework will be formed from the existing purlins and lateral supports in the existing structures.

The bottom right image shows a re-engineered pin joint. This is a necessity as the existing beams in most cases are performing different loading roles structurally. This structural detailing of how the portal frame members touch the ground condition, will be uniform across the site - although it should be noted that this building and the church space are the only buildings that require portal frames.

The proposed new youth centre illustrates how an original member can be re-engineered from largely salvaged materials - naturally some of the joint detailing and footings will have to be custom made and poured on site. The office spaces, library and bookshop, retail, circulation paths, and residential dwellings will all be built upon the same principle of creating strategic ways to use old materials in a new way to harness the materials structural potential.
“For they are not of the world any more than I am of the world. My prayer is not that you take them out of the world but that you protect them.”

"In the world, but not of the world" - a common Christian theme that can be confusing and even seem contradictory. This project aims to illustrate this principle by examining the role of church building in relation to the other civic buildings on the site. The tension exists between the juxtaposition of being fully immersed in something yet set apart somehow - similar to the biblical Christian doctrine of Jesus Christ being fully God and yet fully human. Christianity illustrates many such comparisons where two things are held in tension, almost like oil and water but not so simple.

One of the key principles of this project is the emphasis on worship happening in more than one space - not being limited to a building built specifically to cater for a Sunday church service. However, even though this project seeks to re-define the role of a church in its community, it does not attempt to redefine the purpose of a worship place. This church will be celebrated on the site, and the building itself is designed to inspire worship of God. This building is not the pragmatic focus of the project in terms of planning (as it sits equally on the outer rim of the main courtyard space, along with the other designed spaces for civic use) but notice the floor plan faces the opposite way the rest of the surrounding building's floor plans do. The rest of the buildings align with the various axis' created by the central point in the site - at the centre of the courtyard.

This illustration is important because the basic form of the church service space has informed the position of the courtyard, around which every other space has been planned and orientated.

---

56 John 17:14-15
4.2 Developed Design

4.2.1 Courtyard Development

The courtyard space has been addressed first in terms of developed design because of its importance in terms of site layout. The courtyard space is at the planning centre of this project, with all of the buildings oriented around this meeting space, and thus it is essential to work out the pragmatics of this space first. The relationships between each space and the courtyard will be further developed in the ongoing design of the other buildings surrounding the courtyard.

The courtyard consists of three key elements. The central amphitheatre seating at the heart of the courtyard which will serve as a place to sit and eat lunch during the day. This space will be ideal for either business people occupying the commercial developments, or students using the class room spaces, or residents, or even just the passer by.

This space will also serve as a performance space for outdoor plays, festivals or markets. This will be a public space. The second element is the seating booths which double as market stalls. These stalls surround the amphitheatre, while still allowing for a generous circulation path on either side. This element also serves as a transition between the surrounding buildings and the amphitheatre space. The third element is the church cafe and its outdoor seating which could potentially also surround the amphitheatre. The church cafe will be run by the church, but will operate normal cafe hours and fundamentally serve the public.

Figure 4.38 Potential market stall seating render

Figure 4.39 Courtyard development sketch
The central amphitheatre space will serve as a central focus of the courtyard. These images illustrate the development of the courtyard space. Niches have been constructed in the central amphitheatre space to break up the circle and create places to sit, represented by the trellised market stalls in the plan. The above right image illustrates the basic design framework of the courtyard space. This format is indicative of function, again rather than a fully resolved scheme.

The below right image shows a more developed design option for the central courtyard space. This image introduces the idea of a sloping curved boulevard that connects the motorway foot bridge from the library veranda to the main street entry adjacent to Marewa Road. It would be possible to create wheelchair access through a series of ramps, next to the library veranda space, however the idea of a continuous floating ramp allows for further framing of the courtyard space, whilst pragmatically allowing for more space to view shows or performances happening at the courtyard.

Figure 4.40 Courtyard plan sketch
Figure 4.41 Courtyard potential design render
The sloping boulevard allows for a myriad of design possibilities. The first major change evident with this development is the framing of the courtyard space. The courtyard's further development will centre around the concept of effective framing, with seating arrangements, tiered walk ways and seating. The bridge also serves to create a barrier between the public courtyard space and the private residential dwellings. This separation is further developed with the introduction of the stepped pergola sheltering the entrance to the retail spaces. At the beginning of the walk way, one first encounters a strip of retail on the left and a series of tiered stairs to the right. The tiered stairs create a connection more directly to the courtyard whilst encouraging pedestrians to engage with the courtyard traveling in the other direction. This stair set is enlarged to a 600mm tread to double as seating during a play festival or performance occurring in the courtyard space. The slight undulation of the ramp naturally results in a stepped floor plate for the retail tenancies at ramp level. This creates dead space under the floor level which could be used as storage. Reading the image from left to right, the pedestrian then encounters a foot bridge traversing the ground connection to the youth hall. This bridge is 2.4 m at its lowest
point, allowing for safe pedestrian passage underneath to the car park and youth centre.

The next set of retail tenancies is at first floor level, these tenancies will not have a step in the floor plate to accommodate for the rise of the ramp but rather stairs stepping down laterally to the ramp to access the retail spaces. The pergola will continue to step up with the rise of the ramp to strengthen the ramp language. The ramp then passes by the library space, wrapping closely to the library's large curtain wall but not touching it. A narrow void will exist between the ramp and the library as no interface with this building is necessary at this stage in the ramp journey. The next stage of the pedestrian journey is the library seating space at first floor level. This space will function as an overflow space from the library's mezzanine floor. This also functions as a transitional space to the bridge.
4.2.3 Motorway Crossing

The sloping ramp introduced on the previous page is the site’s extension of the motorway overbridge connection. This foot bridge straddles the site and the southern side of Remuera’s residential area. On the Remuera side, this bridge will connect to a car park dedicated predominantly to train passengers - to allow commuters safe parking when traveling via the train. The above right image shows the new train station that has been moved from the south side of the roundabout, as a rectangular mass directly under the footbridge.

This move obviously increases foot traffic to the site, whilst encouraging the general public to interface with the church. The current placement of the railway platform is confined to a small existing strip of land, limiting options as far as placement of the platform. The first option shows the station on the existing strip of land and the second option as illustrated below, shows a new platform construction with the existing land excavated to make room for the new structure.
This proposed bridge will replace the existing footbridge to the south of the Greenlane motorway on/off-ramps. The viability of the bridge proposal is based on the idea that this site will host an array of public services, including the aforementioned relocation of the Greenlane train station from its location to the south of the roundabout, to the new site under the proposed foot bridge. The new train station will be only accessible via the foot bridge, which will naturally increase foot traffic into the site. The train station island will also function as a structural support bay, reducing the span of the bridge and allowing for a lighter weight structure. This bridge will be built out of reinforced concrete and salvaged steel. Assuming there will not be enough salvaged steel to build the entire structure, this bridge will be built from recycled materials bought locally to fit the typology. The bridge will have a slight curve both vertically and width ways to ensure the bridge does not breach minimum height limitations according to the NZTA Bridge Manual. The bridge obviously must comply with all aspects of the manual.

The bridge will consist of a series of panels that are rotated 1 degree either way forming a bay of 3 panels which is then repeated the length of the bridge. These panels could be glass or a series of transparent solar panels to collect energy for the entire site.

Figure 4.50 Bridge panel arrangement

Figure 4.51 Bridge section sketch

The first important factor to assess, is the overall site plan, the massing and orientation of the buildings and the location of the buildings on the site. Each building has been oriented where possible (due to the concentric axis) to the north. The buildings are based on concentric circles and have a focus to the centre of the courtyard in plan and arrangement, however the independent masses that make up each building are placed where possible on the north–south axis to minimise solar heat gain.

Each floor plate has been designed as narrow as possible to ensure maximum light penetration and to reduce energy wastage. Each building will be outfitted with vertical shading devices on the east-west axis and north facing horizontal louvres to again minimise solar heat gain. The buildings will also incorporate ventilation shafts and static openings to utilise the cool north-westerly prevailing wind.

The next major design option available to this site is the incorporation of solar panels. The built structure in this proposal is extensive, and the roofs are largely unobstructed in their exposure to the sun. The church itself has massive roof area and panels that are angled at the optimum sun angle for maximum exposure. This would greatly reduce energy usage and also open up opportunities to create interactive aspects to the design, such as specific lighting that is only powered by the energy collected during the day.

The final key sustainable design element that will be addressed here is the collection of rainwater off the flat roofs of the proposed buildings. Water collected will be segregated according to water quality and then used for the on site facilities.

---


SITE CONNECTION TO PUBLIC TRANSPORT REDUCES DEPENDENCE ON PUBLIC TRANSPORT.

POTENTIAL SOLAR PANELS ON CHURCH ROOF PANELS.

POTENTIAL SHADING DEVICE THROUGH EXTENDED KAPTES.

PREVAILING WIND

BUILDINGS DESIGNED TO HAVE A SHALLOW FLOOR PLATE TO MAXIMISE LIGHT PENETRATION & REDUCE ENERGY USAGE.

STACKING/HASING OF RESIDENTIAL SITES WILL BE ORIENTED NORTH TO SOUTH WHERE POSSIBLE.

POTENTIAL INTEGRATION OF BIKE LANE TO REDUCE MOTORISED TRIPS.
The success and failure of this project will be in the quality of the relationship between the independent buildings. This project's purpose becomes confusing when the church has little relationship to the site. The purpose of this project is essentially to be immersed in and impacting the community. This site will naturally generate a community and thus the challenge becomes how is the church building integrated in the public space.

The site is oriented around the central courtyard as a focus, but also as a connecting element. The next stage of the design addresses how the church relates to the central space, and the adjacent buildings. The left image shows a potential first floor connection from the commercial space to a new outdoor space above the church cafe. In this sketch the church offices have been moved to the front of the church on the north side. This allows for a continuous first floor outdoor area and further framing of the central courtyard. This also serves to connect the church to the commercial space and the main ramp boulevard.

As evident from the floor plan, the surrounding spaces are all planned around the various concentric axis’ created by this central courtyard space. The central axis of the church is lined up with the western axis. This axis currently lines up with a secondary street entrance, therefore this entrance has been widened and new retail has been drawn along the access to emphasize the approach to the church visually. The main access point to the courtyard from the car park is via the youth centre connection to the north west of the courtyard. This is another key access that needs to be addressed, to ensure the youth centre is still connected to the central courtyard.

There is significant dead space on either side of the church auditorium, which need to be resolved, potential options include extension of the roof panels on the south side to the boundary (as drawn), and the development of outdoor spaces on the north facing the motorway.
The ‘church quarter’ consists of the sanctuary space (or the church auditorium space), the church offices, the church foyer and subsidiary spaces, and the church cafe, which is open to the public. One of the key challenges in this project is the resolution of the relationship between the church specific spaces and the public spaces. Earlier research deals with the theoretical aspects of the tension between the public integration and the holy ‘set apartness.’

The nature of the structure of this building sets it apart quite obviously from the surrounding buildings. Even though buildings such as the library for example, still depict similar design principles and even sloping form and steel structural latticework, this structure is still very much aesthetically set apart. The challenge at this point is not in creating a ‘holy aesthetic’, but in the integration of the church space with the public centre and adjacent buildings. This drawing shows a potential floor plan that has consolidated the church office space to the north side of the church building, utilising the north facing aspect for a private outdoor courtyard serving the office space. This courtyard would not be accessible to the public. In this scheme the foyer and ‘after service overflow space’, or church lounge serves as a transition from the public entrance to the worship space. The entrance has been offset to allow for a more subtle entry minimising interruptions due to people coming and going during the service. A secondary entrance is located directly in front of the reception and foyer to serve those directly accessing office spaces. The cafe space is located in the same space at the south side of the church. This space works well and successfully transitions to the public space. This drawing shows a curved timber screen that creates a sense of privacy for church goers. The potential issue with this element is whether or not it isolates the church from the public centre. The above left image shows an alternative option which extends the church lounge space out towards the rim of the central courtyard space, penetrating the public centre. This means that those sitting or passing through this space can see out into the courtyard and vice versa. Linking the two via visual connection.

60 Hebrews 10:10-12
4.2.7 Site Development

The site development shown here illustrates how the ground floor plan will be arranged. The above floor plates have been indicated by dotted lines. The buildings have been arranged to allow for each facility to have its own independent courtyards separate from the large central courtyard. The residential apartments will all be located above ground level on the first floor at least, to increase privacy. This drawing shows the location of the circulation cores in each facility. The youth centre has been connected via a trellised walkway which passes underneath the residential spaces of the northern building mass. This is one option of dealing with the lack of connection with the youth centre space and the central courtyard. However this space is unique in that it is the only space that would necessarily benefit from some distance from a public recreational space. The youth centre will house sporting events, large gatherings of youth and thus could cause potential noise issues. Therefore this building is strategically placed in its relative isolation. The challenge is keeping the space connected and related. The emergency housing could also be potentially moved to either of the marked locations further away from the public hub. The type of people that will be dwelling and using this space are those in desperate need. These people could be sick, vulnerable, or even pose some threat to the community, consequently there is a strong argument for relative isolation of this building, in comparison with the other buildings and their respective functions on the site. The question of security for this facility must also be addressed. The below image shows another alternate arrangement which allows for both space to occupy the northern most, isolated corner.

Figure 4.59 Alternate arrangement of youth site and emergency housing
Figure 4.60 Site development sketch
4.2.8 Design Analysis

The design hinges upon the coherent relationship between buildings and the successful cohabitation of sacred and secular. The site allows for a concentric focus and a common place to meet and gather. The central courtyard is the hub of this project - all other elements point to this feature. The bridge & circulation paths, the orientation of the buildings and visual sight-lines created by building geometry all serve to highlight and emphasize this communal element of the project - a place to meet. Jesus Christ himself claimed that the entire gospel pivots upon the concept of relationship.\textsuperscript{61}

\textsuperscript{61} Mathew 22:36-40

Figure 4.61 Courtyard render facing the church
4.2.9 Potential Spaces

Figure 4.62 Courtyard render facing retail and housing
Figure 4.63 Ramp render facing Marewa Road
5.0 Conclusion

The role of the church in its local community has been deeply ingrained in western society, and the formation of western society for that matter. In the last few hundred years, post church reformation and ‘The Enlightenment’ the role of the church has been confused and the importance and relevance of the church has been downplayed at best or more likely ruled out completely. The church is used specifically for worship (church services) by church goers, or in some cases the larger churches provide community services such as child care and youth services etc.

This does not address the heart of the problem. Society has moved on from ‘doing life’ the way it was done hundreds of years ago, people largely live and relate indirectly through the Internet. There are less reasons to walk out the front door of your dwelling than ever before, and as a result people are not engaging face to face, not necessarily out of a desire to be isolated, but more as a matter of convenience. The church has been always provide civic and social services, but those things are not enough to draw the people of today together.

There are still many reasons people, gather. Activities such as shopping and eating will always bring people in the way of others. However that would simply make this project another development. Things like public transport centres, bus stops and train-stations, libraries and public parks and courtyards bring people together, but those facilities would simply make this project a community centre - which by definition, it essentially is. However the church today is not considered a necessary part of a community hub.

This thesis is an experiment. This project looks at how a church can be an integral part of a community again. The planning and design of this project is all centered around linking the buildings by a central courtyard, circulation paths, ramps and walkways etc. The church faces out towards the city, overlooking the main Greenlane motorway roundabout, and exposes itself as a transparent curtain wall facade for all to see in. The facilities on this site are predominantly public. Even the church space itself is open to the public during the week.

This project has been developed to the point of design intent, existing research reviewed, existing precedents explored and a site analysis completed. The detailed design and exact floor plans have not been explored or represented in this document as they were not necessary to illustrate the way in which the research would be applied practically to the actual buildings and their design.

The final analysis of the design reveals a necessity for further development. Clear design decisions need to be made regarding the exact placement of the emergency housing and interior fitout and cladding of the interior spaces. The bridge needs to be developed and more information needs to be shown regarding the construction and form of the bridge itself. The new proposed railway station needs to be designed in detail and the connections to the bridge. In general further detail needs to be represented in the final presentation of this project to ensure its design is fully resolved and represented.

Whether it is to attend a performance or play, to visit a night market, to sit and eat in
the courtyard, to read a book in the library, to attend a class, to play sport, to catch the train, or take a short cut home across the bridge, to attend a church service or simply reflect in the worship place, this site will be a place for all people. Not an eerie religious space where talking is not allowed and heads should be bowed, but a place to ‘do life’, to meet someone you usually would not. A place to worship need not just be an isolated sanctuary, this project suggests the notion that worship happens more where people meet, than where our attention is drawn to the roof. It does not negate the importance of a ‘roof focused space’, but it re-assesses the hierarchy, prioritising the space where people meet, drawing the community out an into a common place where the church dwells.
6.0 Bibliography

Books


Websites


Margaret McClure. ' Auckland region - The founding of Auckland: 1840–1869', Te Ara - the Encyclopedia of New Zealand, Last modified 21 September-2012


Articles


6.1 List of Figures

4. Figure 1.01 Drawing of Vienna City – Original Drawing Jacob Hoefnagel (1609)  

8. Figure 1.02 Chartres Cathedrale by night – Guillermo Osorio  

9. Figure 1.03 Graphic showing community hub concept, by Author

11. Figure 1.04 Amagertorv, Copenhagen, Photo by Jan Egil Kirkebo  

13. Figure 1.05 Lakewood Church, Houston, Texas  

14. Figure 1.06 Aerial diagram indicating site, generated from Google Earth, by author.

15. Figure 1.07 Sketch showing places of interest near the chosen site, by author.

17. Figure 2.01 A painting depicting a typical house church meeting  

17. Figure 2.02 A painting depicting a typical outdoor meeting of the apostles  
   Reproduced from, https://i0.wp.com/amightywind.com/pentecostf/gathering3/jpg

19. Figure 2.03 Floor plan of 'The Church of the Holy Sepulcher', Jerusalem, Israel,  
   Reproduced from, http://www.gutenberg.org/

19. Figure 2.04 Typical floor plan of 'Domus Ecclesiae',  
   Reproduced from, http://www.studyblue.com

19. Figure 2.05 Typical room layout of 'Domus Ecclesiae'  

21. Figure 2.06 Milan Cathedral, Cathedral of Milan  

22. Figure 2.07 Warehouse construction in South Africa  

25. Figure 2.08 Renaissance Church, Providence, Rhode Island  

26. Figure 2.09 Le château de Montaigut le Blanc, © All Rights Reserved by François Madic
28. Figure 2.10 16 Chartres Cathedral, Chartres, France
   Reproduced from, http://worldcometomyhome.blogspot.com

29. Figure 2.11 16 Carbon pencil sketch of Chartres Cathedral, Helen Loggie

31. Figure 2.12 Chartres Medieval Town Plan
   Reproduced from, http://www.antiquaprintgallery.com/

33. Figure 2.13 Ebenezer Howards Green City growth diagram, Howard, Ebenezer. *To-morrow: A peaceful path to real reform*. Cambridge University Press, 2010.

33. Figure 2.14 Green Town, Howard, Ebenezer. *To-morrow: A peaceful path to real reform*. Cambridge University Press, 2010.

33. Figure 2.15 Green City, Howard, Ebenezer. *To-morrow: A peaceful path to real reform*. Cambridge University Press, 2010.

33. Figure 2.16 Green State, Howard, Ebenezer. *To-morrow: A peaceful path to real reform*. Cambridge University Press, 2010.

34. Figure 2.17 Ningbo History Museum, Ningbo, China, 2008. Photographer: Fernando Guerra

35. Figure 2.18 Ningbo interior ramp view, copyright Iwaan Baan

35. Figure 2.19 Ningbo interior courtyard view, copyright Iwaan Baan

36. Figure 2.20 View from the motorway of The Church of the Autostrada, Jacqueline Poggi

36. Figure 2.21 Interior view of Concrete internal supports, Photo by Filipo Poli

36. Figure 2.22 Aerial view of The Church of the Autostrada showing immediate context
   Reproduced from Google Earth

36. Figure 2.23 Interior ceiling view of The Church of the Autostrada, Photo by Filipo Poli

39. Figure 2.24 Interior view of the Heartland Church Foyer

39. Figure 2.25 Exterior view of the main entrance

39. Figure 2.26 Floor plan
39. Figure 2.27 Interior view of kids centre
40. Figure 2.28 Aerial view of Magok plaza showing connection to the city, Photo courtesy of Wooridongin Architects
41. Figure 2.29 Aerial view of Magok plaza showing people using the space, Photo courtesy of Wooridongin Architects
45. Figure 3.01 Development Concept Graphic
46. Figure 3.02 New Zealand with Auckland highlighted
46. Figure 3.03 Greater Auckland, by author.
46. Figure 3.04 Auckland with Greenlane highlighted, by author.
47. Figure 3.05 Marewa road site in the context of Greenlane (in grey), showing the site connections with surrounding schools, by author.
47. Figure 3.06 Marewa Road site boundary highlighted in the context of Greenlane, by author.
49. Figure 3.07 Existing condition of the Marewa road site in Greenlane, by author.
50. Figure 3.08 Site graphic illustrating places of interest around the site, by author.
52. Figure 3.09 Existing worship auditorium and church offices, by author.
52. Figure 3.10 Existing bookshop, by author.
52. Figure 3.11 Existing youth facility, by author.
53. Figure 3.12 Graphic showing photo locations, by author.
54. Figure 3.13 Graphic showing photo locations, by author.
55. Figure 3.14 Nosh Food Market, by author.
55. Figure 3.15 Greenlane Mc Donald’s, by author.
55. Figure 3.16 Greenlane Countdown, by author.
56. Figure 3.17 Existing footbridge, by author.
56. Figure 3.18 Footbridge entranceway, by author.
57. Figure 3.19 Graphic showing photo locations, by author.
58. Figure 3.20 site graphic showing photo locations, by author.
59. Figure 3.21 Existing train station, by author.
59. Figure 3.22 Greenlane motorway off ramp, northbound, by author.
59. Figure 3.23 Greenlane West, east bound, by author.
59. Figure 3.24 Traffic flow diagram, by author.
63. Figure 4.01 Concept design illustration, by author.
64. Figure 4.02 Sketch of site connection with places of interest around the site, by author.
64. Figure 4.03 Site planning graphic, by author.
64. Figure 4.04 Developed site plan graphic, by author.
65. Figure 4.05 Graphic showing concentric focus of site, by author.
66. Figure 4.06 Site Massing plan graphic, by author.
66. Figure 4.07 Site plan graphic, by author.
66. Figure 4.08 Developed site plan graphic, by author.
66. Figure 4.09 Developed site plan graphic, by author.
67. Figure 4.10 Developed site plan graphic, by author.
68. Figure 4.11 Sun orientation diagram, by author.
68. Figure 4.12 Site long section, by author.
69. Figure 4.13 Site massing diagram, by author.
70. Figure 4.14 Photo showing materials of an existing commercial building on site, by author.
70. Figure 4.15 Photo showing materials of an existing church auditorium on site, by author.
70. Figure 4.16 Photo showing materials of an existing housing on site, by author.
71. Figure 4.17 Graphic showing the ‘salvageability’ of the materials of each building, by author.
72. Figure 4.18 Aerial image of existing church auditorium building, by author.
72. Figure 4.19 Existing auditorium steel framework, by author.
72. Figure 4.20 Portal frame arrangement, by author.
72. Figure 4.21 Existing portal frame design, by author.
73. Figure 4.22 Rotation of existing Frames, by author.
73. Figure 4.23 Re-arrangement of frames, by author.
73. Figure 4.24 Reinforcement of new frame arrangement, by author.
74. Figure 4.25 Potential roof panel arrangement, by author.
74. Figure 4.26 Roof panels touching ground condition, by author.
74. Figure 4.27 Recycled glass curtain wall, by author.
75. Figure 4.28 Exploded diagram showing potential panel assembly, by author.
76. Figure 4.29 Site plan showing location of the youth centre, by author.
76. Figure 4.30 Render showing potential design of youth centre, by author.
77. Figure 4.31 Portal frame design, by author.
77. Figure 4.32 Portal frame assembly, by author.
77. Figure 4.33 Portal frame ground connection, by author.
78. Figure 4.34 Concept sketch, by author.
78. Figure 4.35 Circulation sketch, by author.
78. Figure 4.36 Site plan sketch, by author.
79. Figure 4.37 Developed site plan sketch, by author.
80. Figure 4.38 Potential market stall seating render, by author.
80. Figure 4.39 Courtyard development sketch, by author.
81. Figure 4.40 Courtyard plan sketch, by author.
81. Figure 4.41 Courtyard potential design render, by author.
82. Figure 4.42 Ramp elevation sketch, by author.
83. Figure 4.43 Diagram showing Elevation view-port, by author.
84. Figure 4.44 Railway station location option 1, by author.
84. Figure 4.45 Railway station location option 2, by author.
84. Figure 4.46 Bridge circulation plan, by author.
84. Figure 4.47 Bridge circulation sketch, by author.
84. Figure 4.48 Internal footbridge diagram, by author.
85. Figure 4.49 Developed circulation sketch, by author.
86. Figure 4.50 Bridge panel arrangement, by author.
86. Figure 4.51 Bridge section sketch, by author.
87. Figure 4.52 Bridge connection to site, by author.
88. Figure 4.53 Roof water collection indicative schematic, by author.
89. Figure 4.54 Site sustainability analysis, by author.
90. Figure 4.55 Courtyard development graphic, by author.
91. Figure 4.56 Courtyard concept graphic, by author.
92. Figure 4.57 Church foyer extension, by author.
93. Figure 4.58 Church development sketch, by author.
94. Figure 4.59 Alternate arrangement of youth site and emergency housing, by author.
94. Figure 4.60 Site development sketch, by author.
96. Figure 4.61 Courtyard render facing the church, by author.
98. Figure 4.62 Courtyard render facing retail and housing, by author.
100. Figure 4.6.3 Ramp render facing Marewa Road, by author.
7.0 Appendix

7.1 Arctic Cathedral

**Location:** Tromsdalen, Norway  
**Architect:** Jan Inge Hovig  
**Date completed:** 1965

Located in north Norway, the Arctic Cathedral is one of Norway’s most iconic and controversial churches. This building was selected as a potential precedent because of its form and aesthetic as a place of worship. The Arctic Cathedral demonstrates how a triangular apex space can be used as a worship space. This building was not included in the main text as it only demonstrated the potential aesthetic of the place of worship. This building is a poor precedent in that it is a building designed as an independent entity isolated from any other built form.

---

7.2 Jacob’s Ladder Footbridge

**Location:** Auckland, New Zealand  
**Architect:** Warren and Mahoney  
**Date completed:** 2012

Jacob’s Ladder Footbridge was designed to be a key element of the Victoria Park Tunnel project. The brief for this project was to ‘design a low form sympathetic to its residential neighbourhood context, whilst also forming a dramatic gateway into the CBD from the North.’ This brief almost suits this project perfectly. The bridge proposed in this project also seeks to connect a residential neighbourhood in a dramatic way with an ‘urban’ space. Jacobs Ladder Footbridge is also an important precedent as its built in New Zealand, within 20 kilometres of the site. The design principles here therefore, will be similarly sympathetic to newzealand culture and building requirements.

---

64 ibid.
A PLACE TO MEET MASTERS THESIS PROJECT CONSISTS OF SEVERAL BUILDINGS ARRANGED AROUND A CENTRAL COURTYARD SPACE. THIS RENDER SHOWS THE CENTRAL COURTYARD AROUND WHICH THE BUILDINGS HAVE BEEN ARRANGED IN PLAN. THIS THESIS EXPLORES HOW THE CHURCH CAN FUNCTION AS A BUILDING THAT DIRECTS OUR ATTENTION AWAY FROM ‘SELF’ - THE MOST IMPORTANT PART OF PEOPLE MEETING AND TRULY CONNECTING. THE RENDER WAS CONSTRUCTED BY BUILDING A DETAILED MODEL ON SKETCHUP, THEN INPUT INTO V-RAY RENDERING SOFTWARE TO ACHIEVE A REALISTIC MATERIAL AND LIGHTING QUALITY. FINALLY THE RENDERED IMAGE WAS EDITED ON PHOTOSHOP TO CREATE THE ATMOSPHERE AND DEVELOP THE CONTEXT.
A PLACE TO MEET MASTERS THESIS PROJECT CONSISTS OF SEVERAL BUILDINGS ARRANGED AROUND A CENTRAL COURTYARD SPACE. THE SCOPE OF THE PROJECT REQUIRED A BROADER CONTEXT PHYSICALLY MODELLED TO ENSURE THAT THE RELATIONSHIP BETWEEN BUILDINGS, AND THE ROLE OF THE CHURCH BUILDING WAS CLEARLY UNDERSTOOD AND ARTICULATED. THE MODEL WAS INITIALLY LASER CUT FROM TWO SIMPLE ELEMENTS; BROWN CARD - TO REPRESENT SOLID FORM, AND PERSPEX - TO REPRESENT GLAZED SURFACES. THE AIM OF THIS MODEL WAS TO EFFECTIVELY COMMUNICATE THE OVERALL ATMOSPHERE OF THE SITE.
A PLACE TO MEET MASTERS THESIS PROJECT CONSISTS OF SEVERAL BUILDINGS ARRANGED A CENTRAL COURTYARD. THE SITE IS ESSENTIALLY A RECTANGLE LAYOUT, SITUATED ON A NORTH-WEST, SOUTH-WEST AXIS. THE MAIN AXIS OF THE SITE PLAN HOWEVER LINES UP WITH THE CHURCH BUILDINGS CENTRAL SYMMETRICAL AXIS. THIS IMAGE WAS CREATED FROM A SECTION LINE CUT ON THIS AXIS LINE. THIS IMAGE WAS GENERATED BY CONSTRUCTING A DETAILED MODEL ON SKETCHUP, THEN GENERATING A BASE RENDER ON VRAY SOFTWARE, AND THE FINALLY EDITED ON PHOTOSHOP.
A PLACE TO MEET MASTERS THESIS PROJECT CONSISTS OF SEVERAL BUILDINGS ARRANGED AROUND A CENTRAL COURTYARD SPACE. THIS RENDER ILLUSTRATES THE EAST END OF THE SITE, FACING THE PROPOSED EDUCATION FACILITY. THIS IMAGE SHOWS HOW PEOPLE MIGHT MOVE THROUGH THE COURTYARD SPACE. THE RENDER WAS CONSTRUCTED BY BUILDING A DETAILED MODEL ON SKETCHUP, THEN INPUT INTO V-RAY RENDERING SOFTWARE TO ACHIEVE A REALISTIC MATERIAL AND LIGHTING QUALITY. FINALLY THE RENDERED IMAGE WAS EDITED ON PHOTOSHOP TO CREATE THE ATMOSPHERE AND DEVELOP THE CONTEXT.
A PLACE TO MEET MASTERS THESIS PROJECT CONSISTS OF A DIVERSE RANGE OF SPACES. THIS IMAGE DEPICTS THE INTERIOR OF THE LIBRARY FACING NORTH. THIS ASPECT DEMONSTRATES ONE OF THE MANY SUBSIDIARY COURTYARDS THROUGHOUT THE SITE. THE BUILDINGS IN THIS DEVELOPMENT ARE ALL DETAILED WITH RECYCLED MATERIALS TO EMPHASIZE THE CONCEPT OF REGENERATION AND RENEWAL EVIDENT IN CHRISTIAN DOCTRINE. THIS IMAGE ILLUSTRATES SPECIFICALLY HOW STANDARD TIMBER FRAMING HAS BEEN SALVAGED FROM THE INITIAL DEMOLITION OF THE EXISTING BUILDINGS, AND THE RE-USED TO LINE THE CEILING OF THE LIBRARY SPACE.
I would like to thank my primary supervisor, Graeme McConchie, who put up with many canceled meetings, late appearances and last minute revisions. I would also like to thank my fellow students for their constant support and guidance throughout this project.

Finally I would like to acknowledge my parents for their unwavering support, especially my mother, for her tireless help in proof-reading. I would like to thank my friends for their patience, and lastly my girlfriend Lydia for her constant support, patience, and nice cuddles throughout.