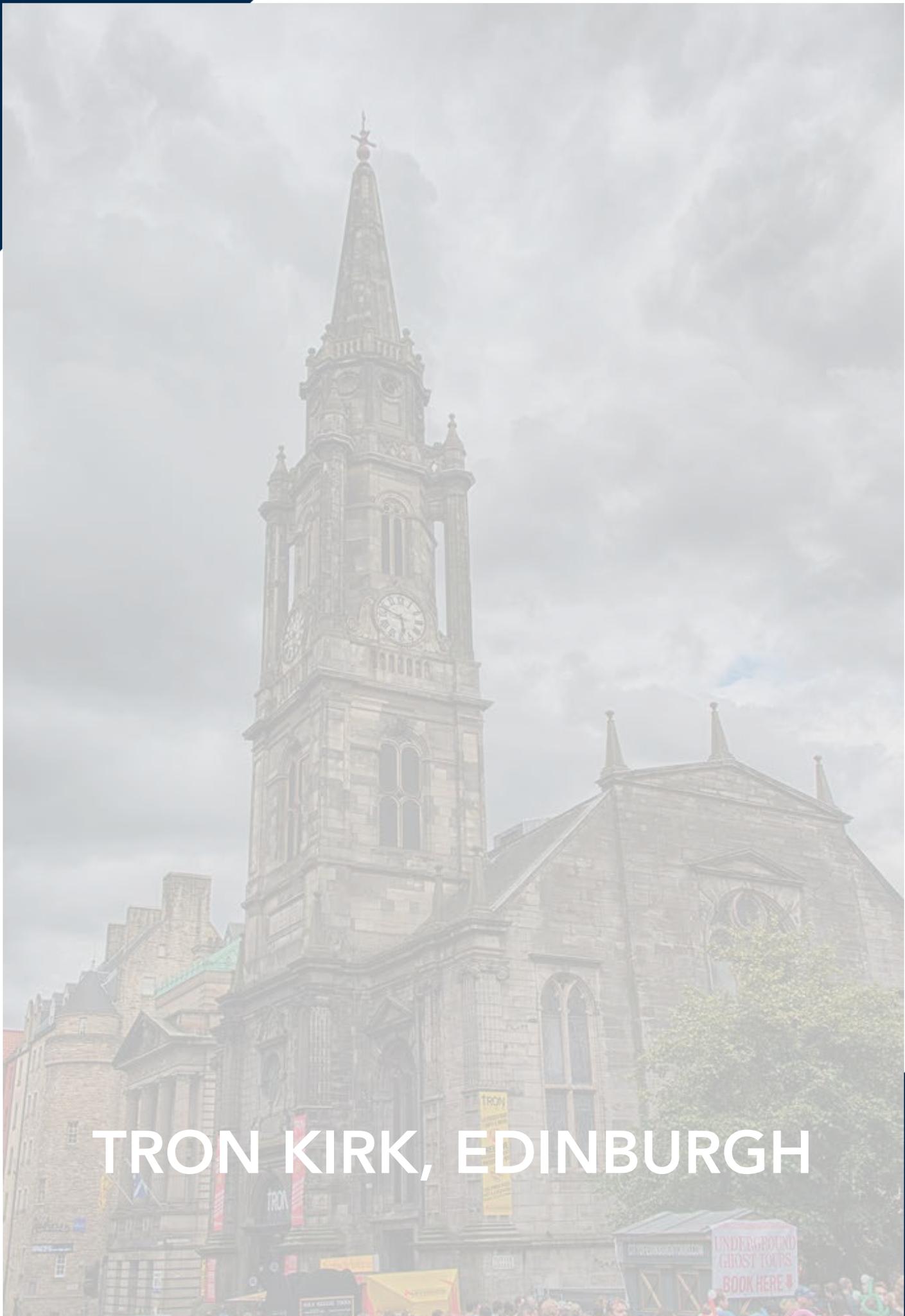


DESIGN BOOK

Scottish Literature
Center

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Interior Design
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TRON KIRK, EDINBURGH

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Introduction

Scottish Literature Center in Edinburgh

Concept

This project, "**Scottish literature center**", aims at creating a literature building that connects all the literary architecture in the Old Town. As the city eminent for its literary reputation, Edinburgh never has a authority building that stresses on the local literature and offers a interaction place to local writers and literary tourists.

Most of the literary architecture are located in the Old Town, Edinburgh. However, many tourists suffer from the rugged terrain, and most of the locations of the literary architecture is so separate that traveling between so many locations is physically demanding. In terms of geography, the choice of Tron Kirk is an convenient choice to connect so many literary architecture in Edinburgh.

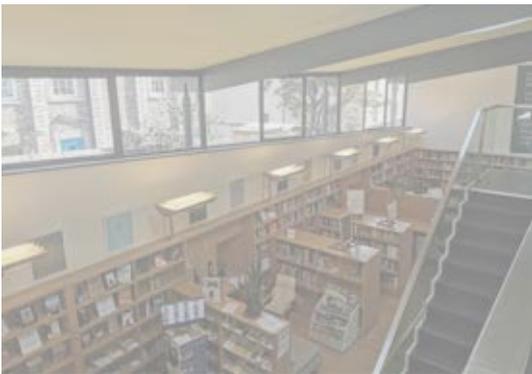
1 Survey

1.1

Case Study

To understand the demands of a literature center, precedent analysis, especially towards local literary architecture, is necessary. Enough precedent analysis towards local literary architecture helps me realize the advantages and disadvantages of existing local literary architecture, and make the conclusion of what this project needs to build a local literature center.

Scottish Poetry Library



The library was founded in 1984 by poet Tessa Ransford. The library was designed by Malcolm Fraser Architects. The 380 thousand pounds redevelopment of Edinburgh's Scottish Poetry Library Building, designed by Nicoll Russell Studios and built by fit-out contractor Mirrors&Spottiswood, has been completed.

In addition to the new extension and terrace area, it also has a new soundproof space to allow poetry to be recorded, as well as 'improved' reading and education facilities and a retail area.

Through the last time's reconstruction, the privatization of Scottish Poetry Library becomes more serious. And the original lecture staircase in front of the building was removed, so fewer interaction elements can be associated with the Scottish Poetry Library.

- **privatization of space**

The privatization of the Old Town's Urban Realm: the courtyard and reading area was reserved, under the Holyrood North Site Masterplan, as part of the public realm. The proposal privatizes this area.

- **destroy to original design**

Severe damage to the original, complete design: the building was conceived as a contemporary re-interpretation of the medieval buildings of the Old Town, which met their sloping sites with vigor and imagination. The reading area and forestair do exactly that, settling-in to the steep close elegantly. The proposal's perspective, from up to the Close, seriously misrepresents this alone, flattening it out by up to 20 bricks courses.

Notes:

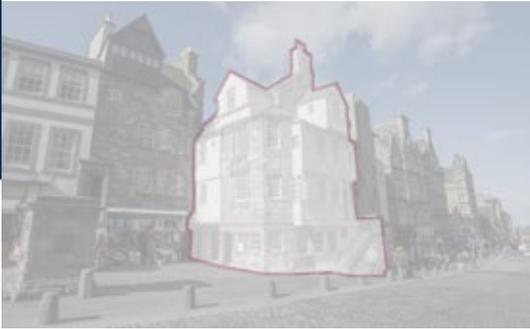
- **the necessity of interactive elements and open environments**

A literary architecture needs enough space for visitors to have interactions in some open environments. Otherwise, visitors tend to keep receiving information from the site and staff and have no response.

- **respect to original structures of the site**

The original structures of buildings not only record the historical times that buildings went through, but also make the structures of buildings stable. Any original structures would better not be changed unless designers have strong reasons.

John Knox House & Scottish Storytelling Center



The Scottish Storytelling Centre was formally opened on 1 June 2006 by Patricia Ferguson MSP, Minister for Culture in the Scottish Executive. Donald Smith is Director of the Scottish Storytelling Centre, and himself a storyteller, playwright, novelist, and performance poet. The building, designed by Malcolm Fraser Architects, replaced the former Netherbow Arts Centre, which itself replaced the Moray-Knox Church, demolished in the 1960s. It incorporates the John Knox House.



John Knox House, popularly known as 'John Knox House', is a historic house in Edinburgh, Scotland, reputed to have been owned and lived in by Protestant reformer John Knox during the 16th century. The house itself was built from 1490 onwards, featuring a fine wooden gallery and hand-painted ceiling. It had belonged to Walter Reidpath whose grandson John Arres inherited it and left it to his daughter Mariota Arres in 1556.

- **'Storytelling' Mode**

Imaginations can be fired by looking out as well as in, so the center includes a storytelling garden. It's a brilliant storytelling space because it was designed around a circle, so everyone can share and join in.

- **Introduction of External Elements**

The use of space and natural light is inspired and its garden at the back, although small, is an amazing place that removes you from the city and takes you to a storybook world. The new building (Scottish Storytelling Centre) complement old ones (John Knox House), not mimic them.



Notes:

- **the mode of interaction**

Compared with traditional speech, more interactive activities can make audience focus on the process better.

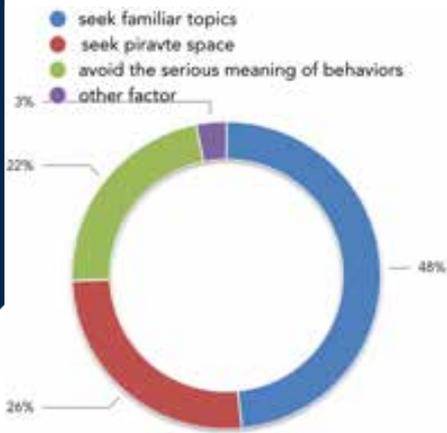
- **friendly and open atmosphere**

A open and friendly environment can induce people to have more interactions. In addition to exposing some space to nature, some materials that have the properties of transparency can be used to create some more open atmosphere.

1.2

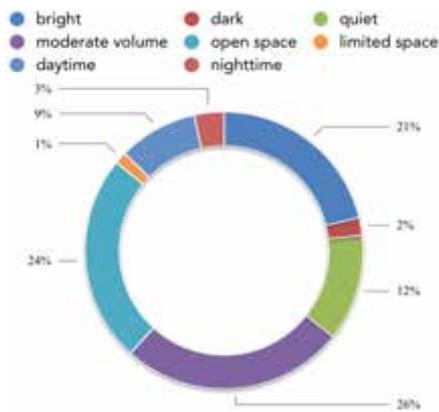
Questionnaire & Data Analysis

Questionnaires are the tool to help me see the literary needs of the public. Through the questionnaire, I can realize which of the elements are necessary if I need to create an open and interactive environment for a literature center.



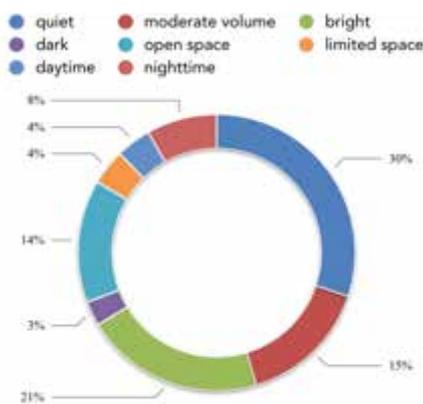
1. Which of the following way to achieve a sense of security in the social space would you like to choose?

- A. seek familiar topics
- B. seek private space
- C. avoid the serious meaning of behaviors
- D. other factors



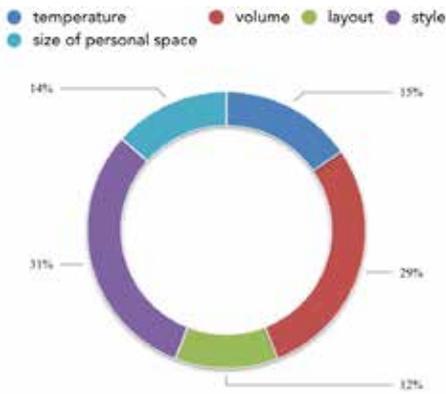
2. Choose the key elements for a social environment from the following conditions.

- A. bright
- B. dark
- C. quiet
- D. moderate volume
- E. open space
- F. limited space
- G. daytime
- H. nighttime



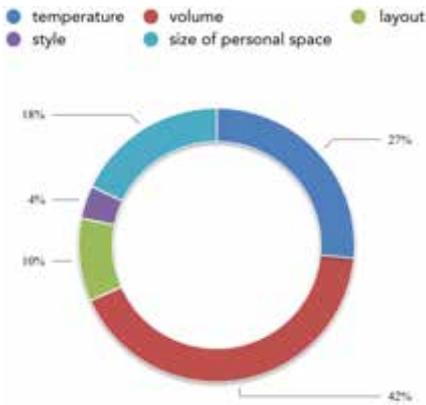
3. Choose the key elements for a writing environment from the following conditions.

- A. bright
- B. dark
- C. quiet
- D. moderate volume
- E. open space
- F. limited space
- G. daytime
- H. nighttime

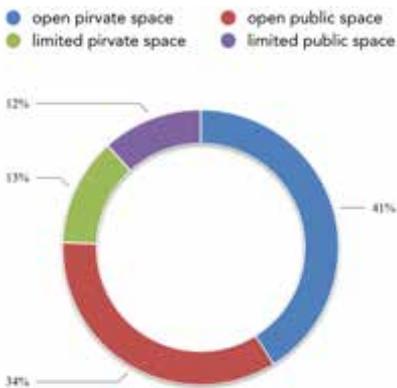


4. Choose the following pivotal elements for social space.

- A.temperature B.volume C.layout
D.style E.size of personal space



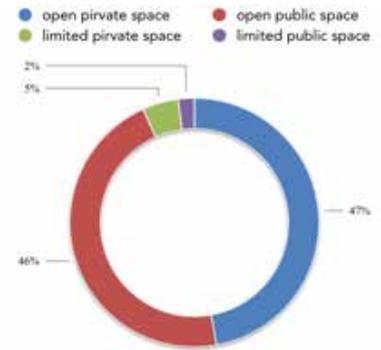
5. Choose the following pivotal elements for writing space.
A.temperature B.volume C.layout D.style E.size of personal space



6. Choose your preferred writing space from one of the following choices.
A.open private space B.open public space C.limited private space D.limited public space

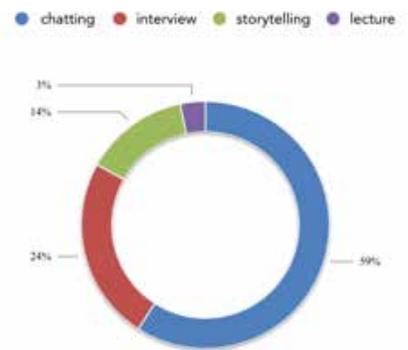
7. Choose your preferred social space from one of the following choices.

- A. open private space B. open public space C. limited private space D. limited public space



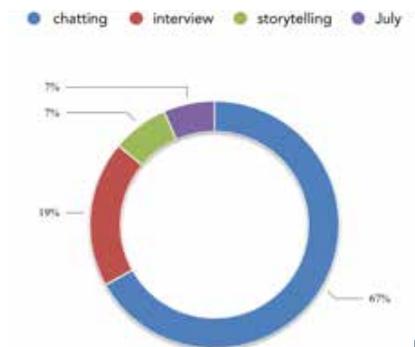
8. Choose your preferred form of discussion for writing from the following choices.

- A. chatting B. interview C. storytelling D. lecture

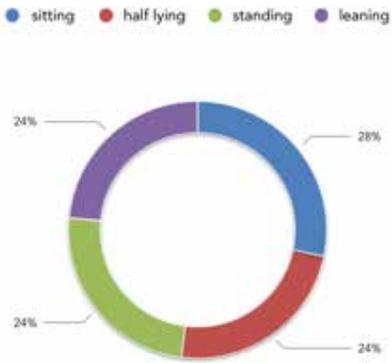


9. Choose your preferred form of discussion for social from the following choices.

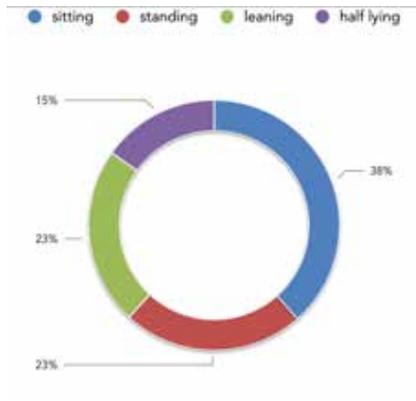
- A. chatting B. interview C. storytelling D. lecture



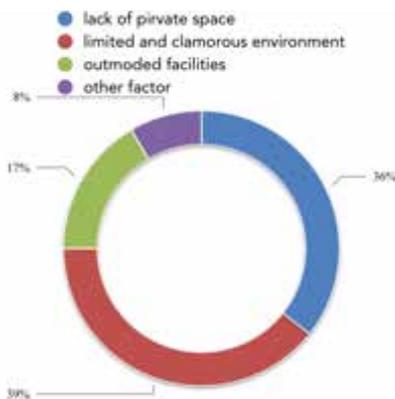
1.2 QUESTIONNAIRE& DATA ANALYSIS



10. Choose your preferred posture for social from the following choices.
A.sitting B.standing C.leaning D.half lying



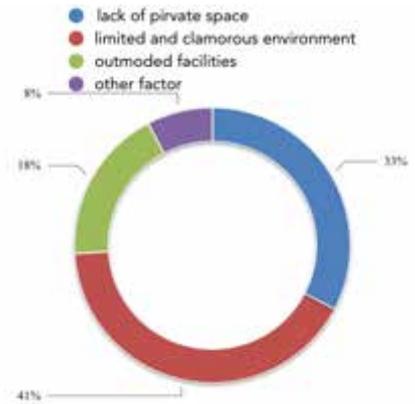
11. Choose your preferred posture for writing from the following choices.
A.sitting B.standing C.leaning D.half lying



12. Which of the following problem is the most prominent in the writing space?
A.lack of private space B.limited and clamorous environment
C.outmoded facilities D.other factor

13. Which of the following problem is the most prominent in the social space?

- A.lack of private space B.limited and clamorous environment
C.outmoded facilities D.other factor



Notes:

pivotal elements of writing environment:

- quiet
- bright
- moderate volume

mentioned supplement factors for writing space:

- moderate volume
- temperature

pivotal elements of social environment:

- moderate volume
- open space
- bright

mentioned supplement factors for social space:

- decoration style

1.3

Interview

Writers might not have similar feelings about space, like the public, so some researching towards writers is necessary. However, it is difficult to have some private meetings with true writers, so I found a college student in the literature department in Edinburgh University.

I asked several questions about writing space and its related social/ networking elements and tried to sift some keywords from his answers.



1. Describe an ideal writing environment that you expect.

For me, an ideal writing environment would be a quiet and secluded room. I prefer to have myself seated at the desk and listen to some soothing and relaxing melodies when writing. It would be even better if the weather is slightly rainy because I find the sound made by raindrops when they hit the window pane softly to be extremely agreeable to the production of that calm and peaceful mind, which is quite helpful to writing. If possible, a nice warm cup of tea or coffee is also helpful. I would also write more at night, as it is the time when I feel I can communicate with the ideas in my mind more efficiently and more thoroughly.

Key word: quiet/ touch of natural elements/ peaceful volume/ nighttime—ideal elements for writing

2. How did you create your private writing environment?

I would personally mold it close to the ideal writing environment described above. I would shut myself in my room and write more at night. The main gist is to create a peaceful and undisturbed environment that can secure me from daily apprehensions. Feelings of anxieties and uncertainties are the antonyms of efficient writing in my mind and therefore must be ostracised into an exile.

Key word: enclosed space/ anti-anxiety—ideal elements for writing

3. What added activities do you expect when you write?

I would listen to music and have a cup of tea or coffee by my side. If I am writing for an essay, I would sometimes read primary and secondary literature out aloud to help enhance my understanding of them.

Key word: music/ drinking/ reading

4. Did you draw inspiration from your writing environment(private/public)? How?

Yes, I did have done such things in the past. Followers of different literary genres tend to have different approaches. As a staunch advocate of the Romantic emphasis on the imagination of the internal mind, I regard the external nature as a stimulus that provides me inspiration that can produce that sincere and spontaneous emotion. Therefore, for me, the public environment is the environment that gives me an entrance to the thing I want to write. At the same time, the private environment, which is one of seclusion and solitude as I have mentioned above, is the place where I can collect my thoughts and rearrange them into the form of words on the paper. So, the public environment inspires me, and the private one helps transform them into concrete words.

Key word: public space for seeking inspiration/ private space for writing

Notes:

- **seek inspiration in the public space, and write in the private space**

Some measures need to be taken to separate the workspace and social space.

- **enclosed space helps writers eliminate the anxiety and calm them down**

A spatial installation that realize the idea of semi-enclosed space is necessary.

2

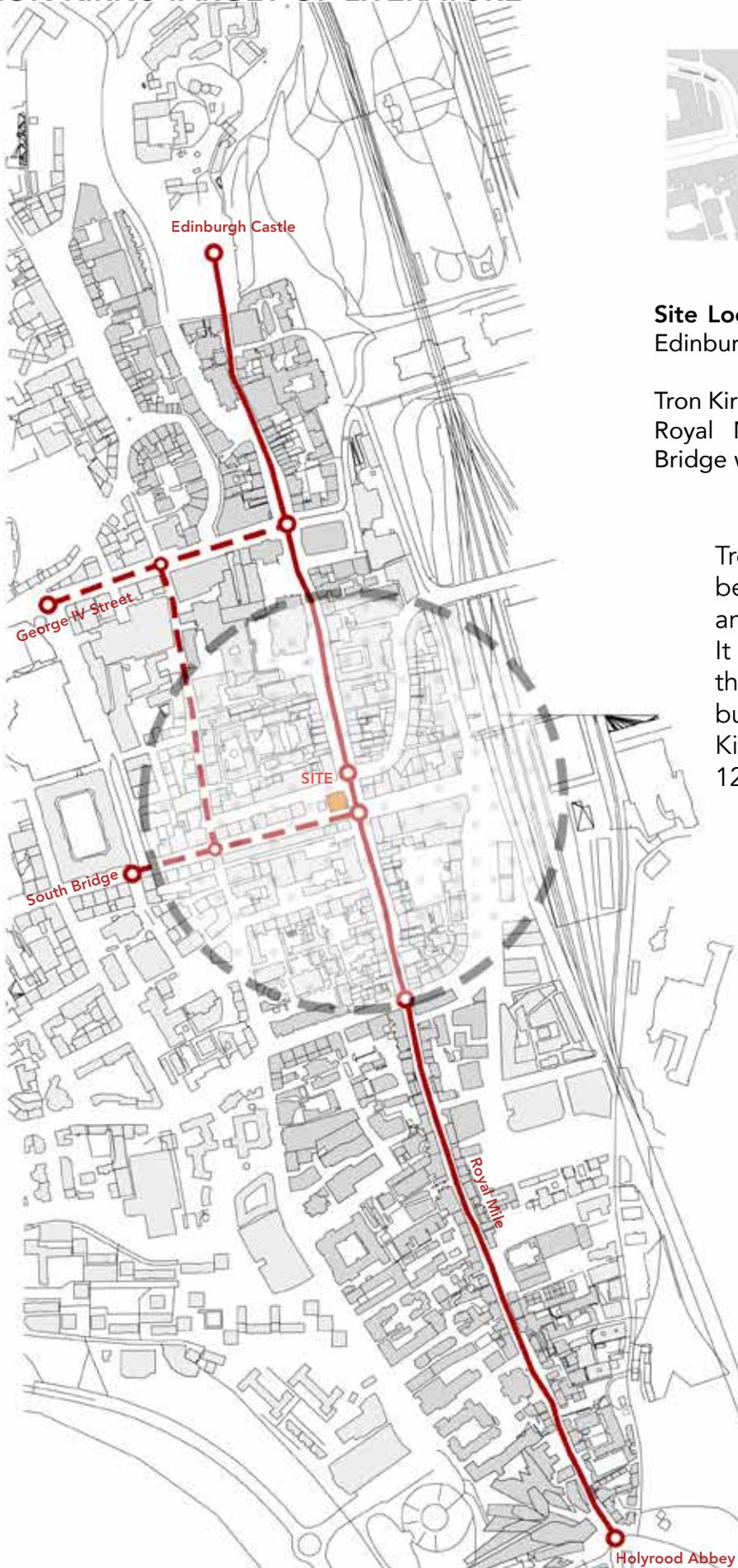
Site Information

2.1

Site Analysis

Before the stage of designing, a general analysis of environment nearby Tron Kirk was conducted to deepen the understanding into this area.

TRON KIRK'S TARGET OF LITERATURE

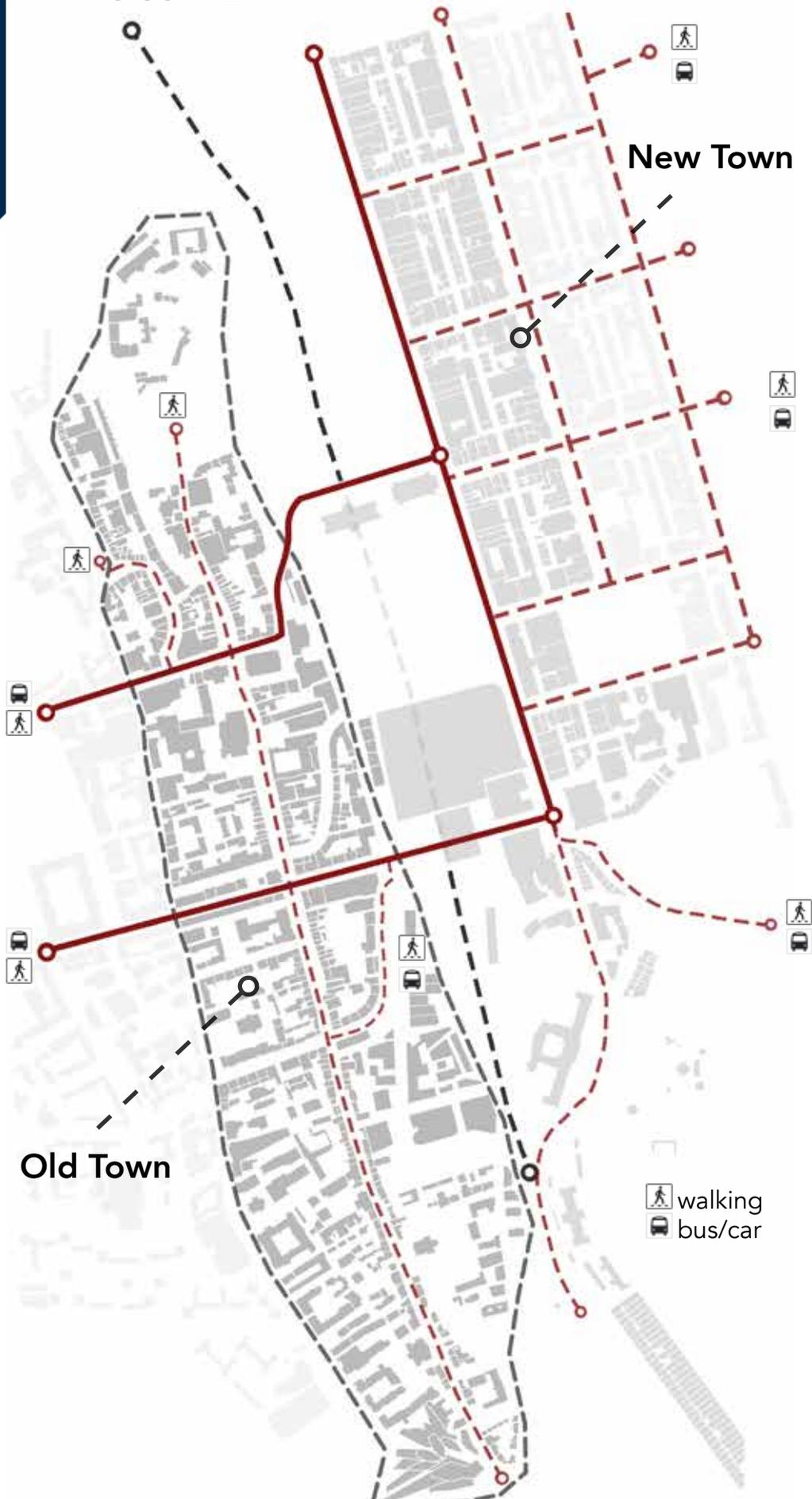


Site Location: Tron Kirk, 122, High Street, Edinburgh, United Kingdom

Tron Kirk stands in the center of the famous Royal Mile street and connects North Bridge with South Bridge.

Tron Kirk dominates in the junction between the Royal Mile street and South bridge in Edinburgh. It has no architectural structures that connects Tron Kirk with other buildings. The postcode of Tron Kirk is EH1 1HN, and its address is 122, High Street, Edinburgh.

TRAFFIC CONTEXT



The Tron Kirk locates in the junction that connects the Old Town and New Town, and stands by the central railway station. Compared with some vehicles, walking is a better choice because of the terrain shape and traffic limits.

In New Town, traveling is convenient because of reasonable traffic system and road construction.

In Old Town, traveling is physically demanding. Vehicles except bicycles cannot be allowed in many paths, and cars are only allowed in some single-direction roads.

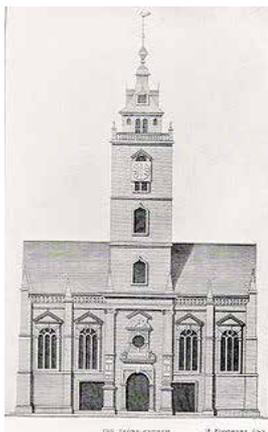
2.2

Site History

Tron Kirk was built for religious reasons. During a long period, different parts of this building's structures were destroyed, and its structures were repaired for several times. Because of severe-level damage, Tron Kirk was shut down for many years, and it was reopened now for Edinburgh heritage's advertising and some hireable purposes.

HISTORY OVERVIEW

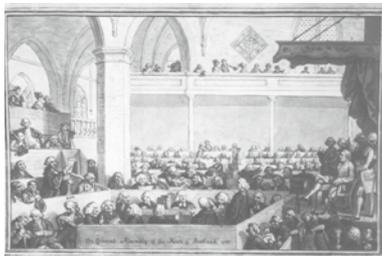
- built for housing the homeless religious people in the St. Giles Cathedral in the 17th century
- closed as a church in 1952
- be empty for over fifty years
- briefly used as a tourist information center
- re-opened as the site of the Edinburgh World Heritage Exhibition and John Kay's book and gift shop recently



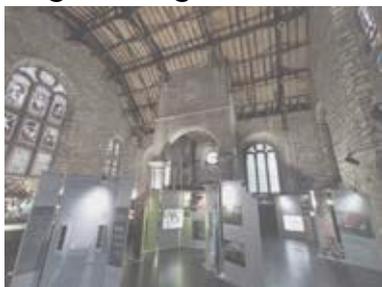
Engraving of the kirk as it looked before 1785



Tron Kirk in 2012



Original Usage: Church



Current Usage: hireable site



John Mylne, the architect of Tron Kirk

John Mylne (1611 –1667), sometimes known as “John Mylne junior”, or “the Younger”, was a Scottish master mason and architect, who served as Master Mason to the Crown of Scotland.

Architects

- John Mylne
- John Scott
 - changed the internal hammerbeam roof
- Thomas Sandilands
 - changed wooden spire
- Andrew Renton
 - restore the steeple

- ordered to be built by King Charles I
- erected between 1636 and 1637 to a design by John Mylne, Royal master mason, and the internal hammerbeam roof was designed by John Scott. Master Wright, John Scott designed the internal hammerbeam roof.
- 1785, the width of the building was reduced when both sides aisles were removed to accommodate the South Bridge and Blair Street leading to Hunter Square.
- 1824, the kirk's wooden spire burned down, and was replaced in stone in 1828
- 1828, a new spire was constructed to replace the original, destroyed in the Great Edinburgh Fire of November Council, the congregation moving to a new church in the Moredun area of the city. It was subsequently left to decay, and the interiors were eventually gutted.
- 1952, the building closed as a church and was acquired by Edinburgh Council. It was unoccupied for many years.
- 1974, excavations then took place under the church, from within, which revealed some foundations of 16th-century buildings in a long-vanished close named Marlins Wynd.
- 2003, has been in use as a visitor centre and has now been transferred to Edinburgh City Council's development body.

2.3

Structures

The structures of Tron Kirk consists of external structures and interior structures. Compared with external structures, the interior structures are more simple. Except from two existing pillars, there is no complex structures insides. The external structures of the Tron Kirk is famous for its diveristy because it is a hybird building that influenced by Gothic architecture, Classical architecture and Dutch architecture.

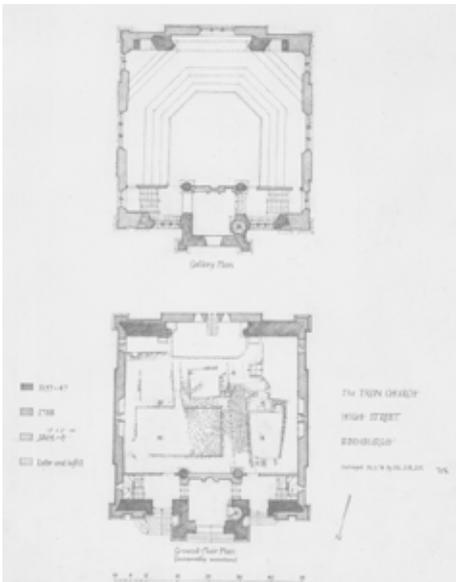
INTERNAL STRUCTURES



- **Hammerbeam Roof**

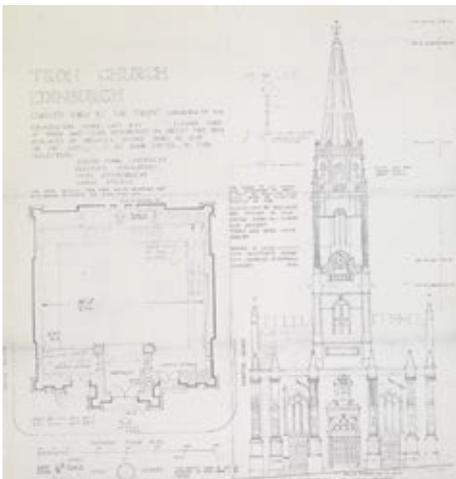
Built between 1636 and 1647, John Mylne’s design for the Tron was modeled on contemporary Dutch examples and boasts one of Scotland’s two surviving hammer-beam roofs.

Tron Kirk was one of the two existing architectures that keep the structures of the hammer-beam roof.



- **Square-shaped Plan**

The interior structures of the Tron Kirk are not complicated. There are merely two pillars insides. After the reconstructions, the original interior structures were removed. However, the dilapidated structures of old buildings were kept under the ground floor of the Tron Kirk.

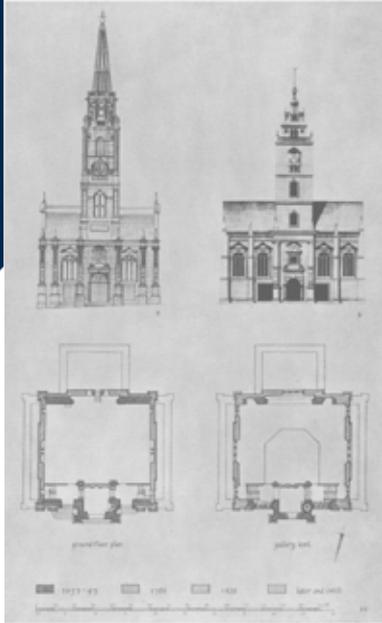


hand-drawing sketch of Tron Kirk, Google

- **Square-shaped plan**

Tron Kirk has a square-shaped plan and an octagonal steeple showing clock tower as a landmark in the Old Town of Edinburgh. This building was reconstructed several times since it was built. The Tron Kirk is a hybrid of Gothic style and Classical style and was influenced by Dutch architecture.

EXTERNAL STRUCTURES



- **Hybrid style**

Tron Kirk is a hybrid building because its style comprises of Classical architecture, Gothic architecture and Dutch architecture. The high spire is the characteristic of Gothic architecture; the symmetry of the Tron Kirk comes from Classical architecture, and the plain demand in stones is the tradition of Dutch architecture.



- **Materials**

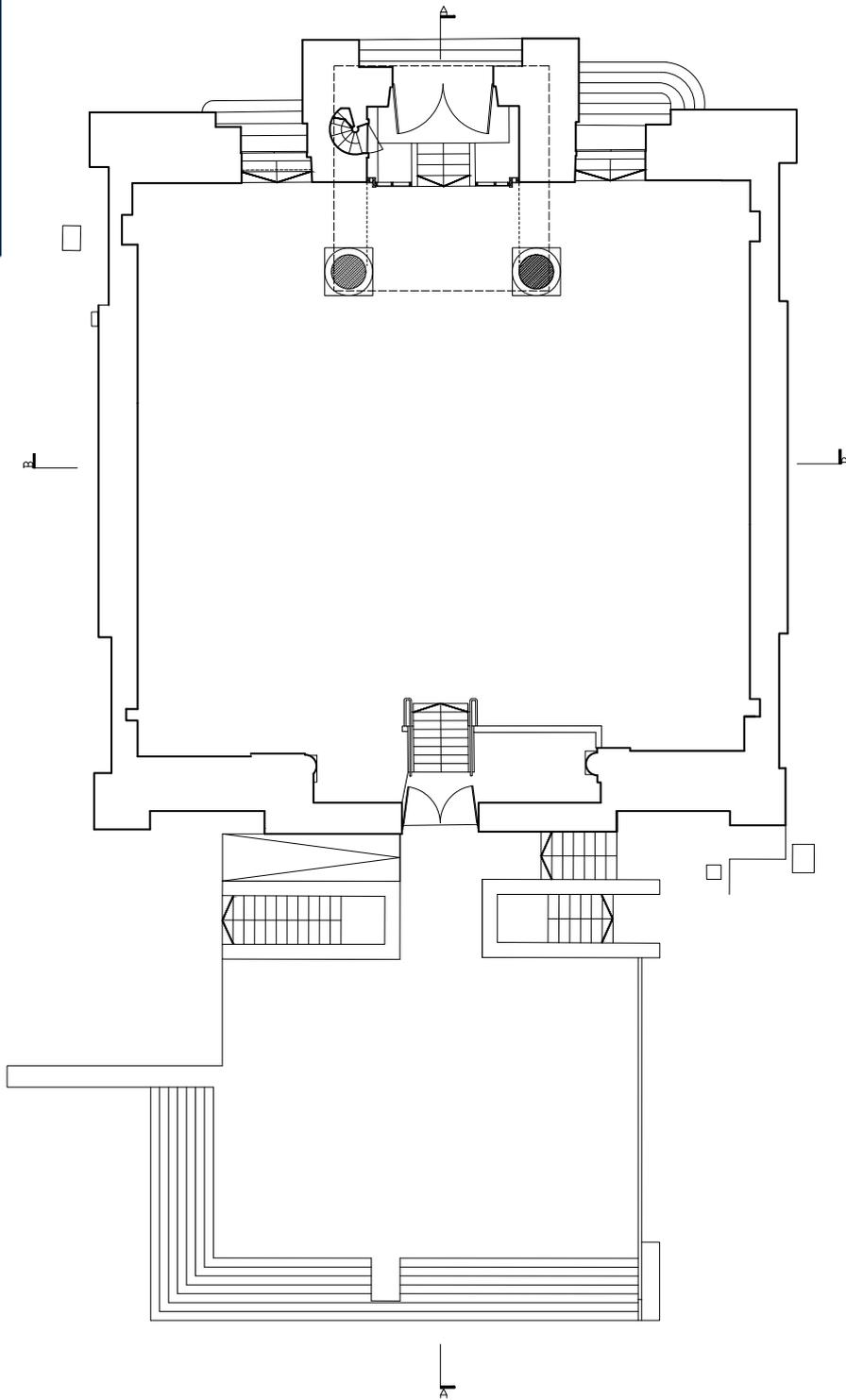
The main materials of the Tron Kirk is sandstone, and the sandstone comes from nearby areas in Scotland. Sandstones are extracted and then are processed into smoothed ashlar.



The roof material of the Tron Kirk is slate. Slate is cheap and durable, so the roof of the Tron Kirk suffered from less damage than external walls if the Tron Kirk did.



The plan of Tron Kirk is a square-shaped. There is little interior space that is affected by the structures of the building



existing plan of Tron Kirk scale: 1:200

Project
Tron Kirk

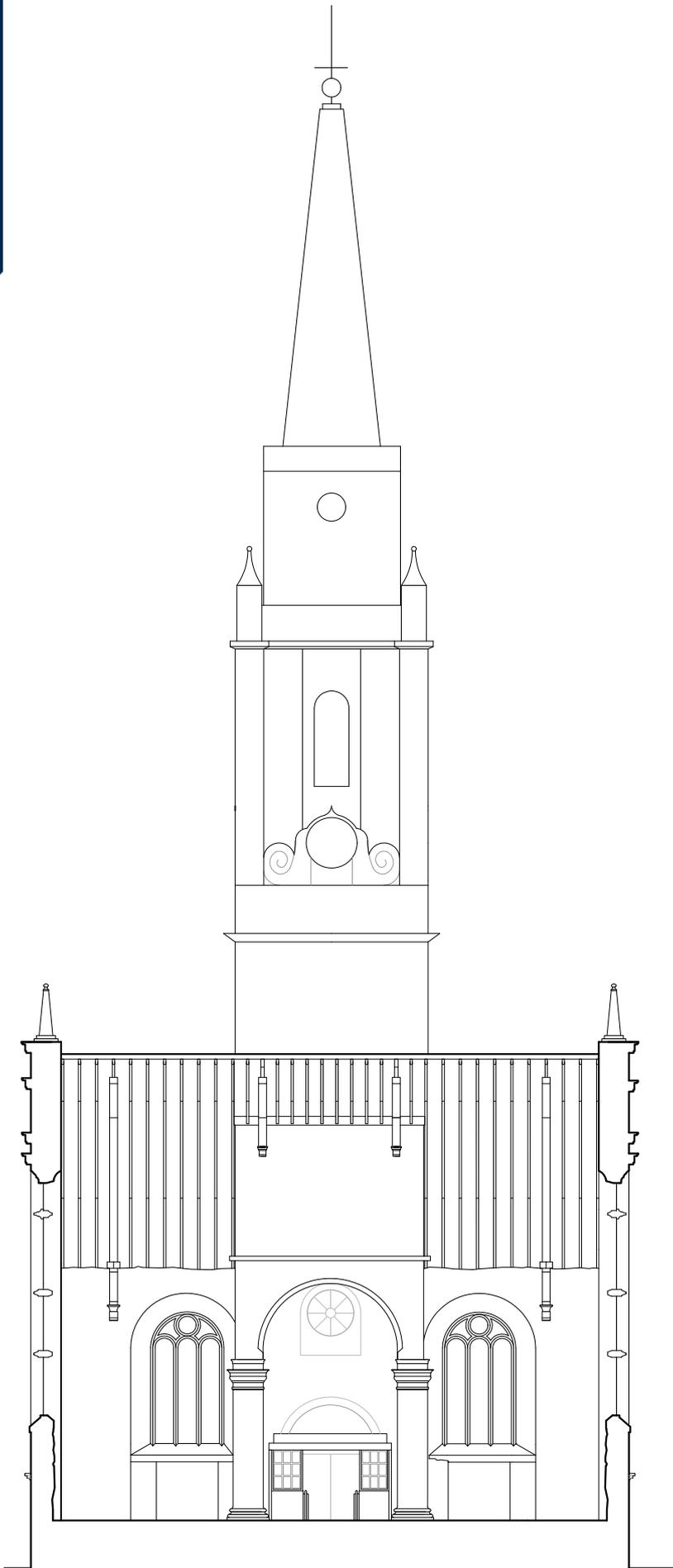
Scale
1:200@A4

Location
122, High Street, Edinburgh

Client
Edinburgh World Heritage Trust

Type
existing plan of the Tron Kirk

Project
Tron Kirk
Scale
1:200@A4
Client
Edinburgh World Heritage Trust
Location
122, High Street, Edinburgh
Type
existing section **BB** of the Tron Kirk



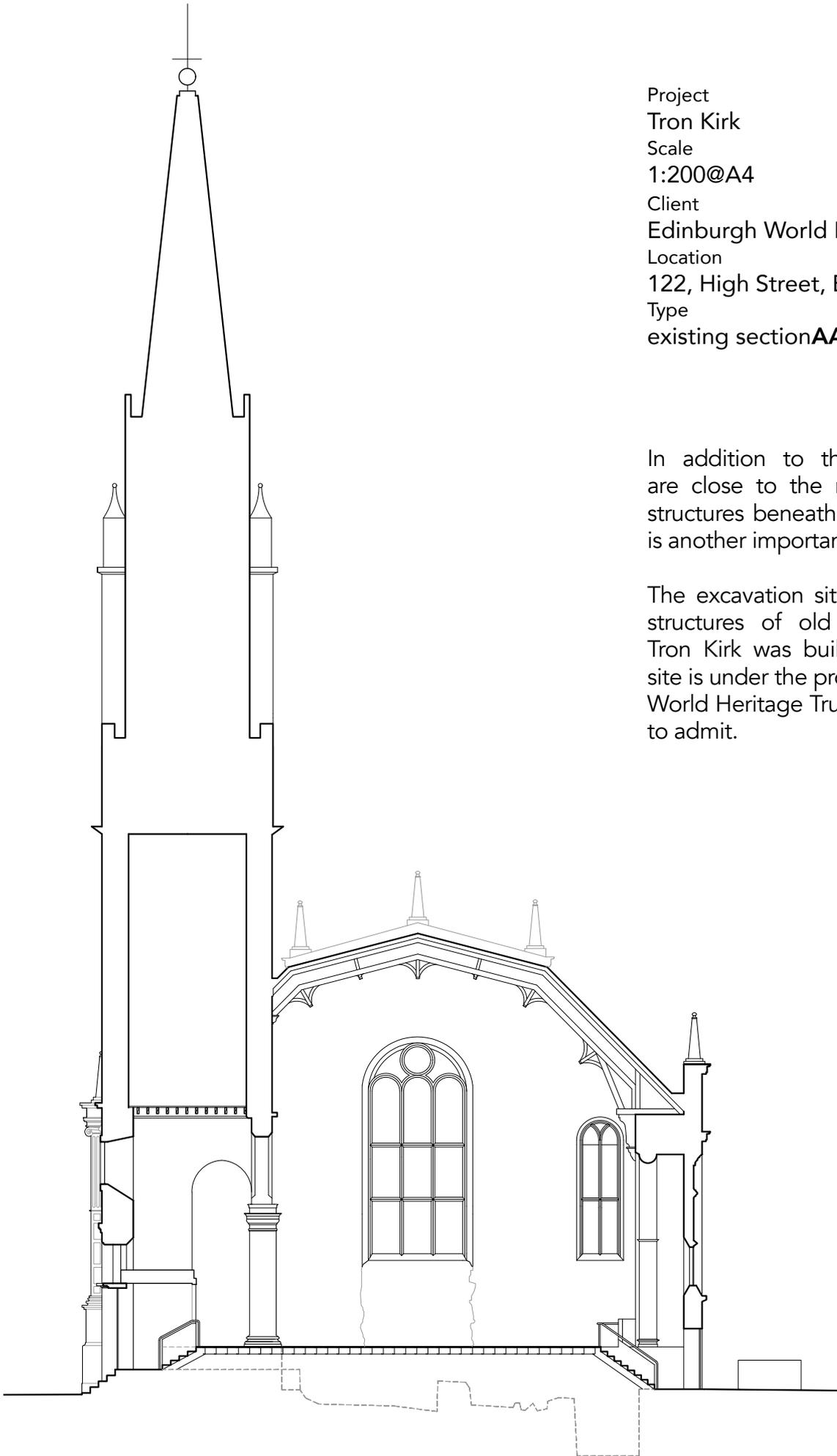
The interior structures of Tron Kirk is close to the North elevation of Tron Kirk. Two pillars with connected structures shape part of the interior space, especially the space close to the main entrance.

existing section **BB** of Tron Kirk scale: 1:200

Project
Tron Kirk
Scale
1:200@A4
Client
Edinburgh World Heritage Trust
Location
122, High Street, Edinburgh
Type
existing section **AA** of the Tron Kirk

In addition to the structures that are close to the main entrance, the structures beneath the ground floor is another important part of Tron Kirk.

The excavation site is the remained structures of old buildings before Tron Kirk was built. The excavation site is under the protect of Edinburgh World Heritage Trust and is not allow to admit.



existing section **AA** of Tron Kirk scale: 1:200

2.4

Edinburgh World Heritage Trust

Tron kirk is under the governance of Edinburgh World Heritage Trust. This institute controls many old buildings, historical remains and some other items, and advocates the spirit of preserving local historical items, showing the records to tourists.

Because of the control of Edinburgh World Heritage Trust, the condition of the Tron Kirk was better off. Nowadays, Tron Kirk is used to advertise for some Heritage activities.



EDINBURGH
WORLD
HERITAGE



New Town, Edinburgh



Old Town, Edinburgh

Edinburgh World Heritage was established on 31st March 1999. It inherited the tradition of two institutes:

- **Edinburgh New Town Conservation Committee:** established in 1970 to tackle the economic/physical problems that threatened the Georgian New Town at that time
- **Edinburgh Old Town Committee for Conservation and Renewal (Edinburgh Old Town Renewal Trust):** established in 1985 that emphasize re-development of the Old Town appropriate to its near-derelict and depopulated state.

At its inception, Edinburgh World Heritage was given the following Terms of Reference by its sponsors, Scottish Government (now via Historic Environment Scotland) and the City of Edinburgh Council:

1. **Historic Building Grants:** To stimulate and co-ordinate action for the conservation and repair of historic buildings in the World Heritage Site.
2. **Conservation Area Issues:** To promote the preservation and enhancement of the character of the Site; and to develop and maintain an Action Plan.
3. **Advice:** To advise Scottish Ministers and the Local Authority on major policy and development issues; and to comment on other planning issues as necessary.
4. **Monitoring:** To monitor the Site on behalf of Scottish Ministers; and to inform and advise organisations involved in the management of the City Center.
5. **Projects:** To initiate projects and attract funding for the preservation and enhancement of the Site.
6. **Promotion:** To promote the World Heritage Site through education, exhibitions, conferences and examples of skill and good practice.

What We Do

Champion and represent the World Heritage Site and to monitor its state of conservation as required by UNESCO

Co-ordinate action, through the Management Plan, to protect and enhance the Outstanding Universal Value of the World Heritage Site and to promote its harmonious adaptation to the needs of contemporary life

Conserve and enhance the historic fabric and historic environment of the World Heritage Site through a programme of financial assistance

Be exemplars in the field of conservation by developing and sharing specialist knowledge, setting standards for quality of workmanship, providing advice, promoting research and facilitating the conservation work of individuals and organisations

Build awareness of the World Heritage Site and to engender a sense of custodianship and secure long term support by promoting enjoyment, understanding and appreciation of its value and significance

3

Design Process

3.1

Inspiration

The inspiration of this project comes from two directions--

- traditional elements in the churches, especially arches and vaults
- the medium elements of literature

Two different directions of inspiration elements was combined to form groups of shapes and blocks that work in the space of Tron Kirk.

TRON KIRK'S TARGET OF LITERATURE



LOCATION OF LITERATURE PLACES



the mapping system of libraries in Edinburgh



the mapping system of bookshops in Edinburgh

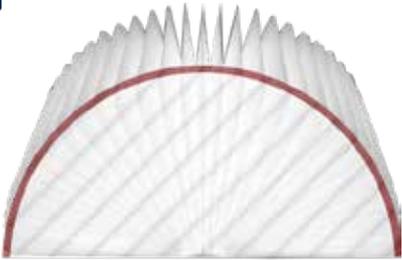


the mapping system of sub-literary places in Edinburgh sub-literary place: places that are not linked with literature completely

As a city eminent for its literary reputation, Edinburgh has a mass of literary architecture, including libraries, storytelling centers, poetry museums, and so on, while Edinburgh never has an official place for local literature.

Literature tourists often suffer from the long trip between so many literary architectures in Edinburgh, so a local literature center becomes physically necessary for literature tourists to see the essence of local literature.

The inspiration comes from two elements--the shape of turning a book and the shape of a stained glass of Tron Kirk. These two elements have strong connections with this project:



inspiration from the shape of turning a book

- **the shape of turning a book**

The shape of turning a book reveals the theme of this project--literature center, so the curve that come from turning books makes sense.



inspiration from the shape of stained glass of Tron Kirk

- **the shape of stained glass window**

The stained glass windows are the one of the key elements of the Tron Kirk. The curve of the stained glass windows is similar with the one of turning a book.



revival of traditional church elements

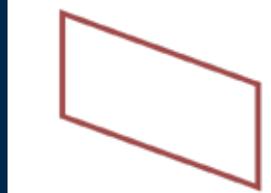
- **the revival of traditional church elements**

The stained glass windows are the one of the key elements of the Tron Kirk. The curve of the stained glass windows is similar with the one of turning a book.

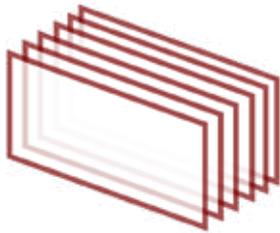
3.2

Element Formation

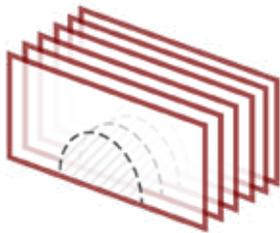
Through the researching and analysis of inspiration elements, formative 2D shapes of elements were invented. Shapes and positions of these elements were reformed and regrouped to create new combinations. These created groups of new elements will fill the main space of the Tron Kirk in this project.



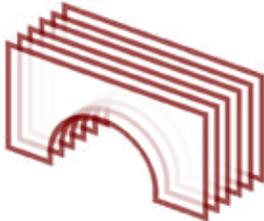
original 2D shape—rectangle



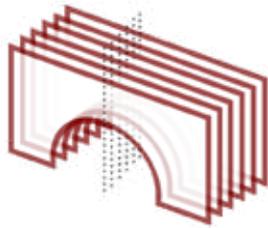
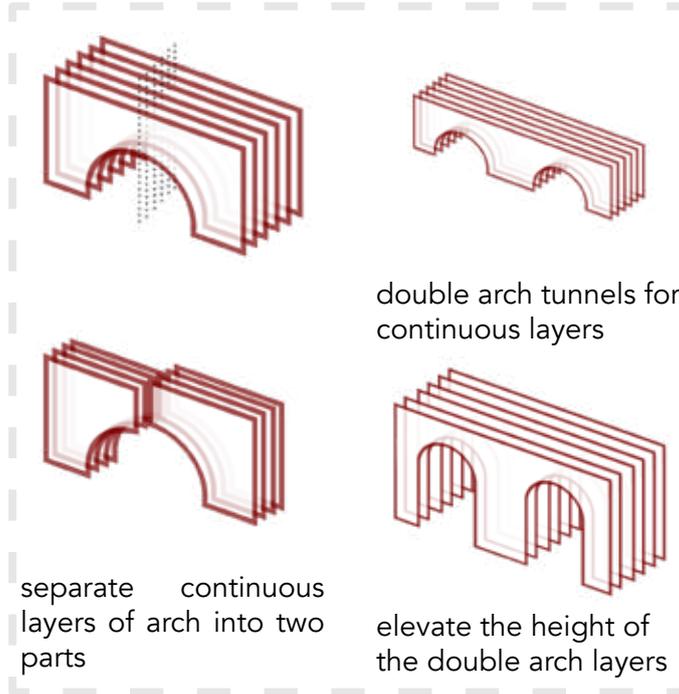
overlapping layers of original shapes



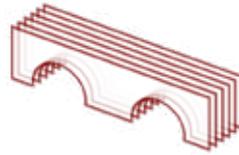
overlapping layers of original shapes



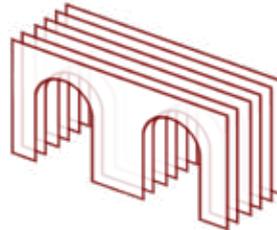
cut a tunnel to form layers of arch



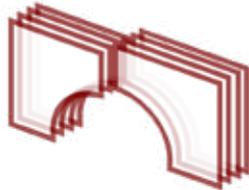
double arch tunnels for continuous layers



elevate the height of the double arch layers



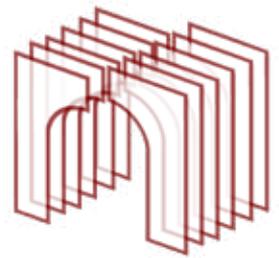
separate continuous layers of arch into two parts



one sheet of the elevated-arch layer



continuous layers of the elevated-arch



separate continuous layers of elevated arch

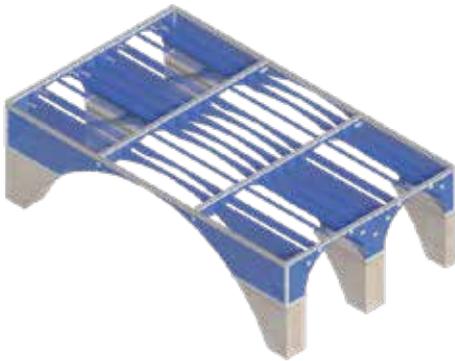


one sheet of separated arch

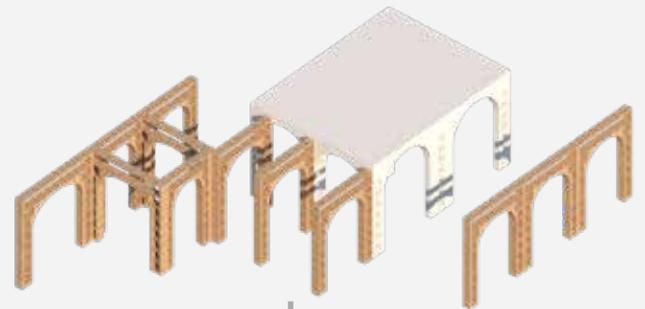
Notes:

The derivations come from the thinking of inspiration elements. They not only revive the traditional structures in the old churches--arches&vaults, but also can be echoed with the shape of the state of turning pages.

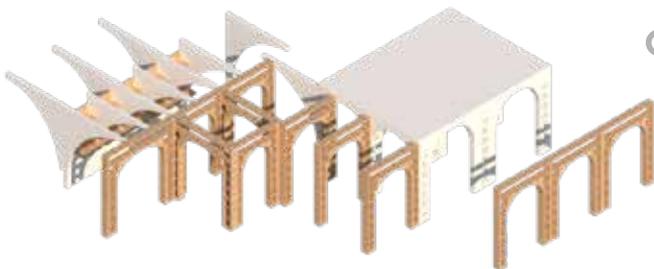
3.2 ELEMENT FORMATION



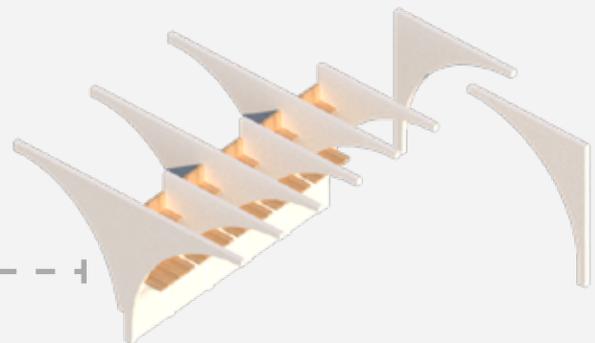
the glass-layer vault construction in the ground floor
Function: create open environments for interactive activities, such as story-telling
Material: laminated glass, cement, aluminum frame



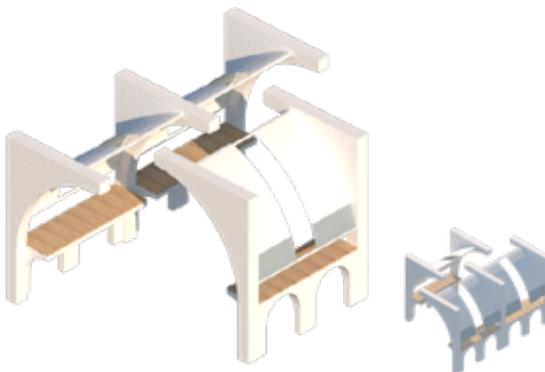
public library area on the second floor
Function: revive the elements of arches and create interactive library area for writers and literature tourists
Material: timber, concrete, plastic board



the curve structures in the library area of the second floor
Function: open space for library and writing
Material: timber, concrete, plastic board



public writing space on the second floor
Function: revive the elements of arches and allow writers to take notes in this area
Material: timber, concrete, plastic board



public writing space on the first floor
Function: interactive writing space that permits the communications between writers and literature tourists
Material: timber, concrete, plastic board

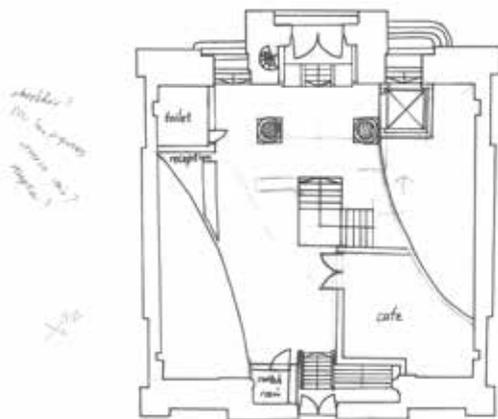
3.3

Initial Proposals

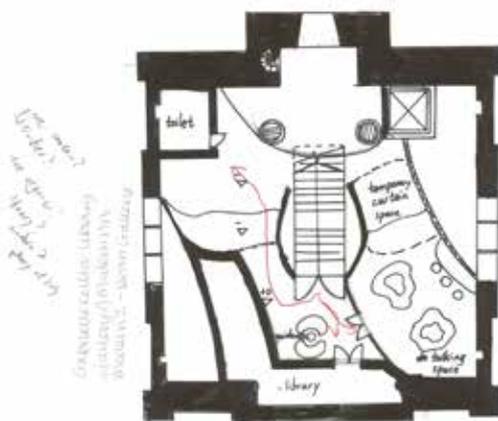
Before the beginning of CAD drawings, I finished several groups of hand-drawing proposals for the pre-thinking of spatial layout. I tried two different styles of spatial layout in three groups to see how different literary space be connected and work.

ORGANIC HAND-DRAWING PROPOSAL GROUP

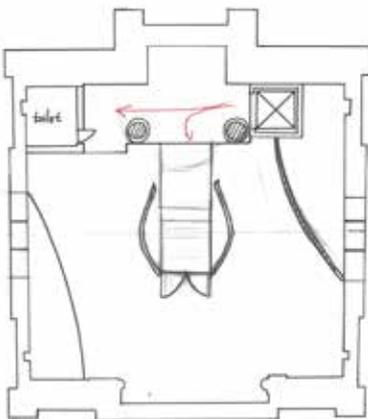
In the organic proposal group, I tried to neutralize the separation between different function space because I believed that the separation brings barriers to the interaction between people that need literary communications.



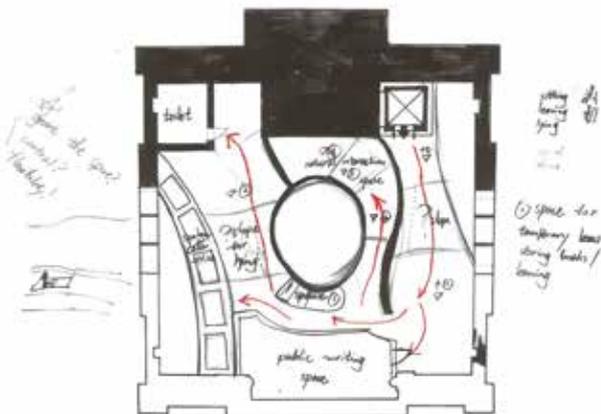
plan of the ground floor



plan of the first floor

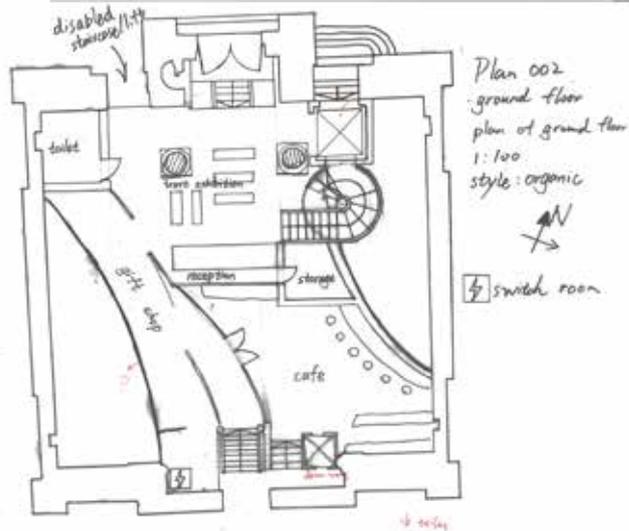


plan of the mezzanine



plan of the second floor

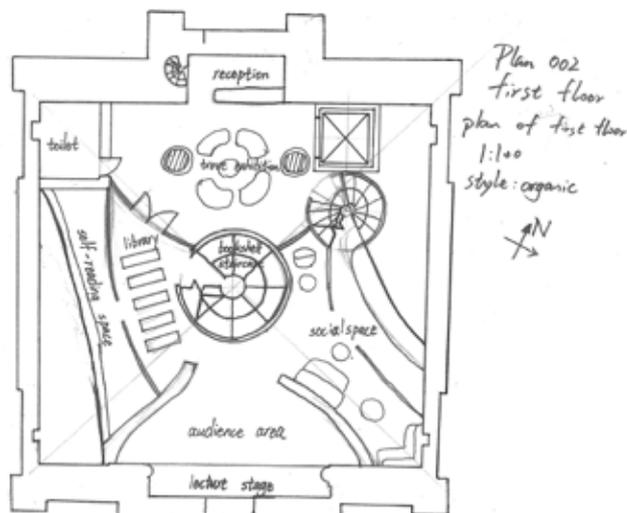
ECLECTIC HAND-DRAWING PROPOSAL GROUP



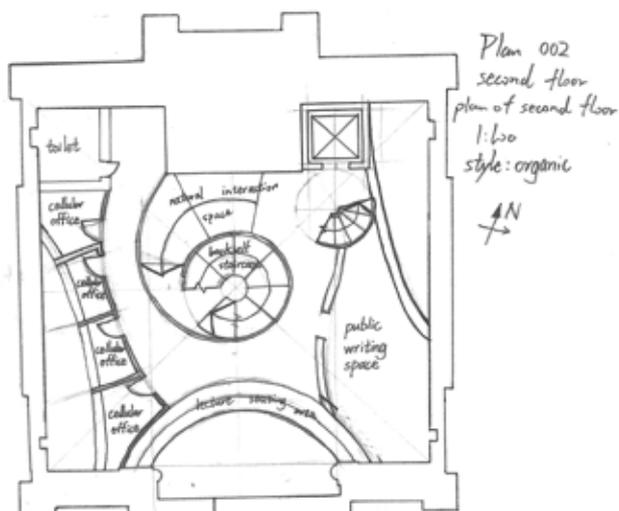
In the first eclectic proposal group, I tried to keep the neutral separation between different function space and make the relationship between spaces clear.

Excessive curve and neutral relationships might result in the circulation in mess. I tried to avoid such a mess situation so I combined the organic style with regular style.

plan of the ground floor

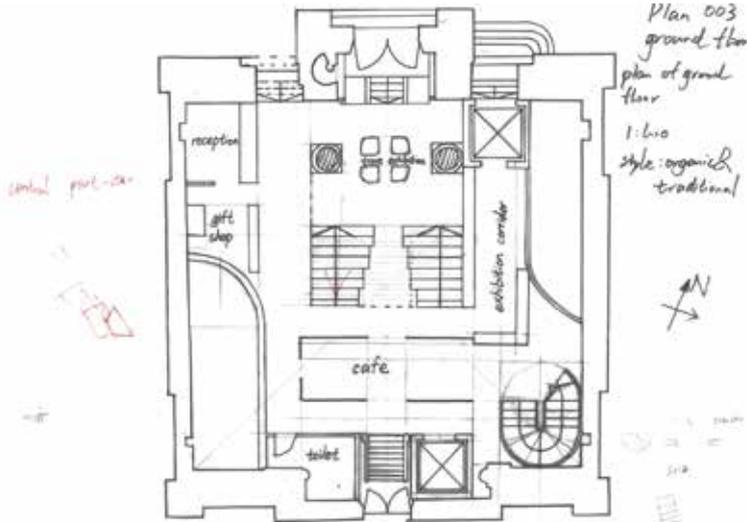


plan of the first floor

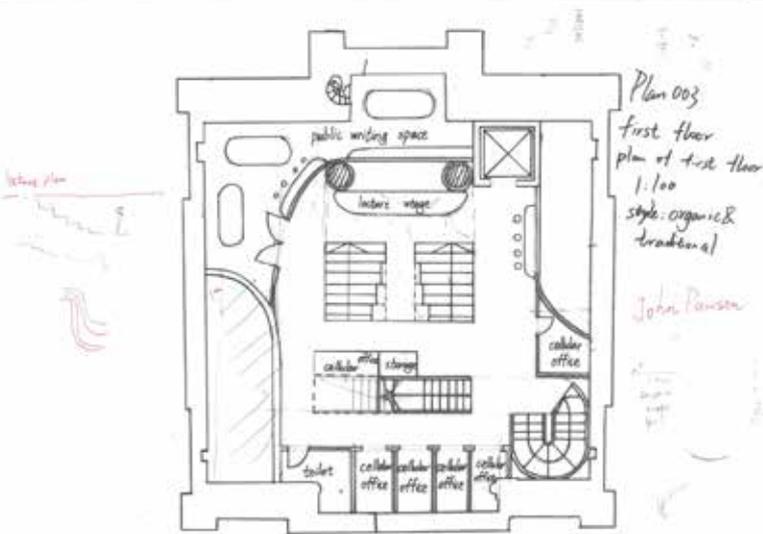


plan of the second floor

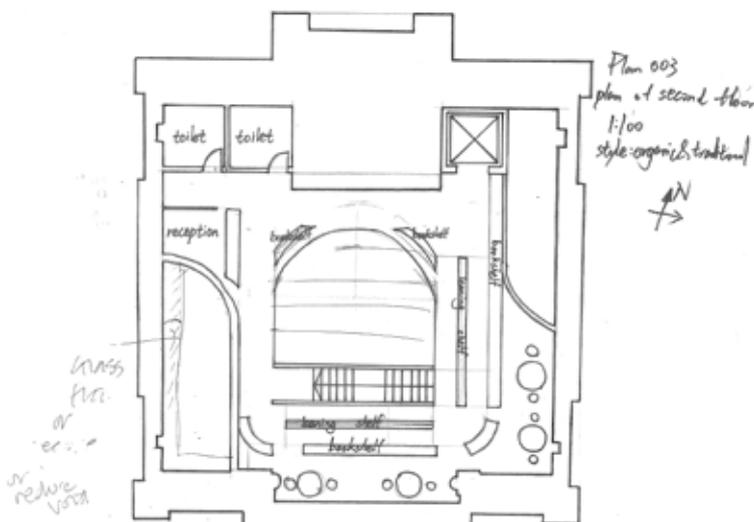
ECLECTIC HAND-DRAWING PROPOSAL GROUP



plan of the ground floor



plan of the first floor



plan of the second floor

In the second eclectic proposal group, I kept removing excessively neutralized space, so the relationship between different function space becomes more clear.

In this group, I balanced the relationship between spatial separation and clear functions. This group of hand-drawing proposals creates foundations for more developments in the next step.

Notice:

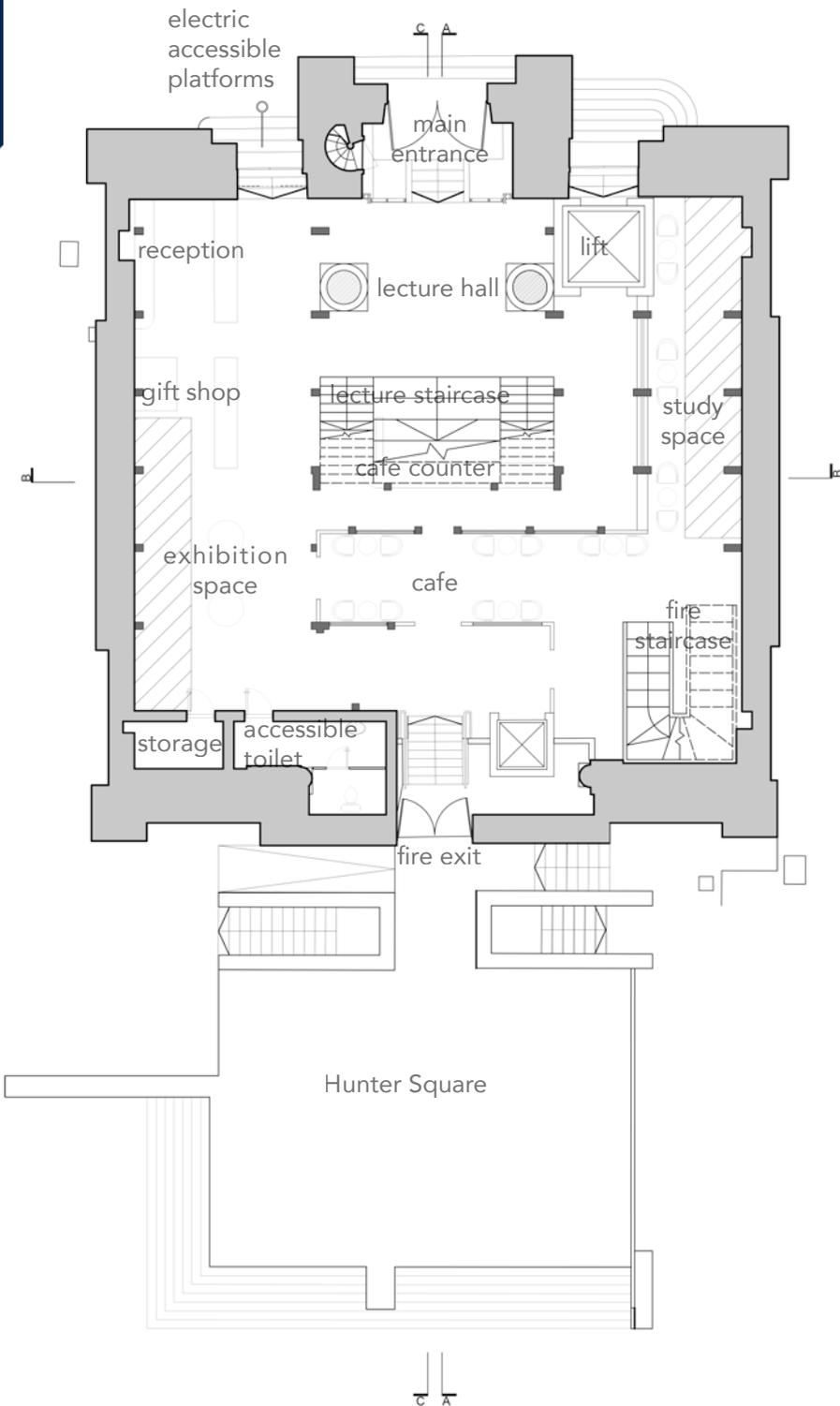
- **lay foundation for the next-step developments**

All the next-step drawings derive from this group of proposals.

3.4

Formative Proposals

The discarded proposal group is the group of CAD proposals that formed in the formative stage. They come from the second eclectic hand-drawing proposal group. The relationships between different space become clear, and initial thinking of main space start from this stage though some small dimension problems exist.



Project Scale Version
Tron Kirk 1:200@A4 Jan29, 2020

Type
Proposal plan of the ground floor

Location
122, High Street, Edinburgh

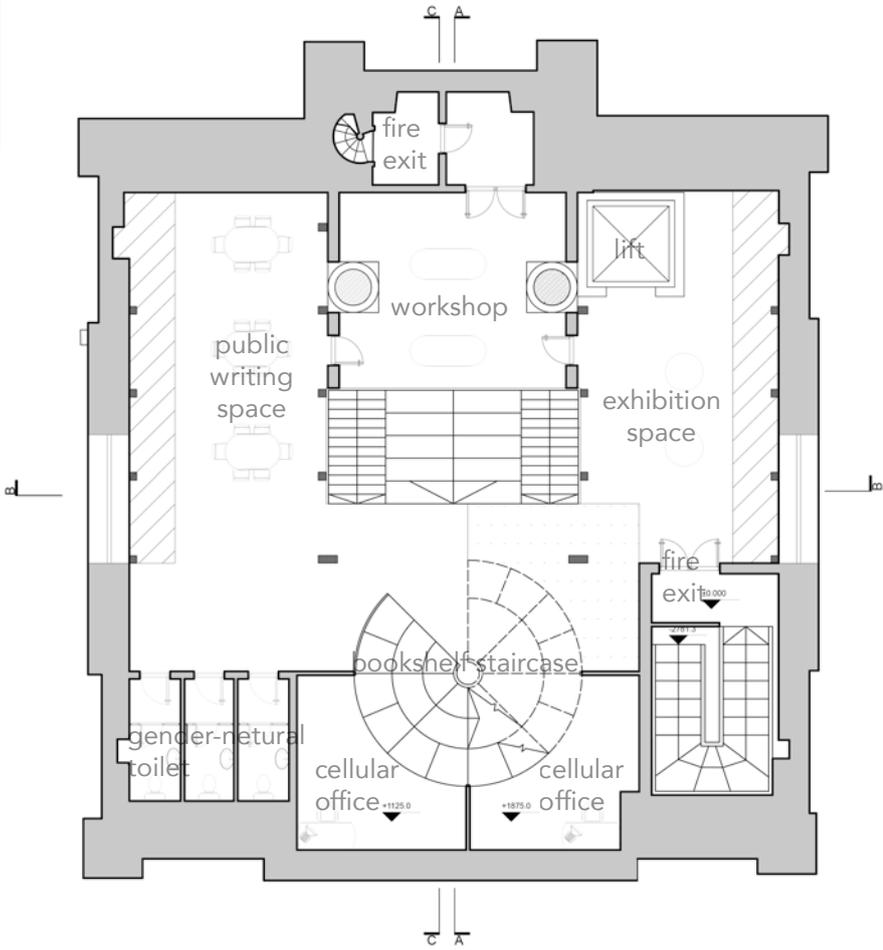
 glass-made floor 

Project Tron Kirk
Scale 1:200@A4
Version Jan29, 2020

Type
Proposal plan of the first floor

Location
122, High Street, Edinburgh

 glass-made floor

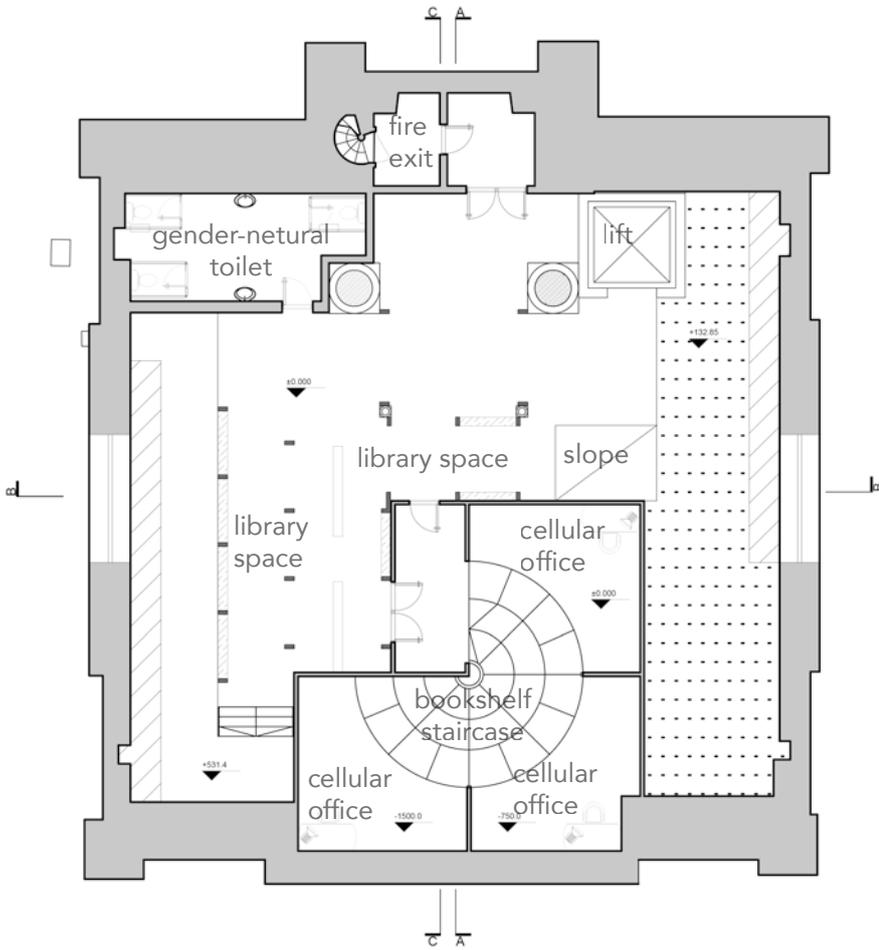


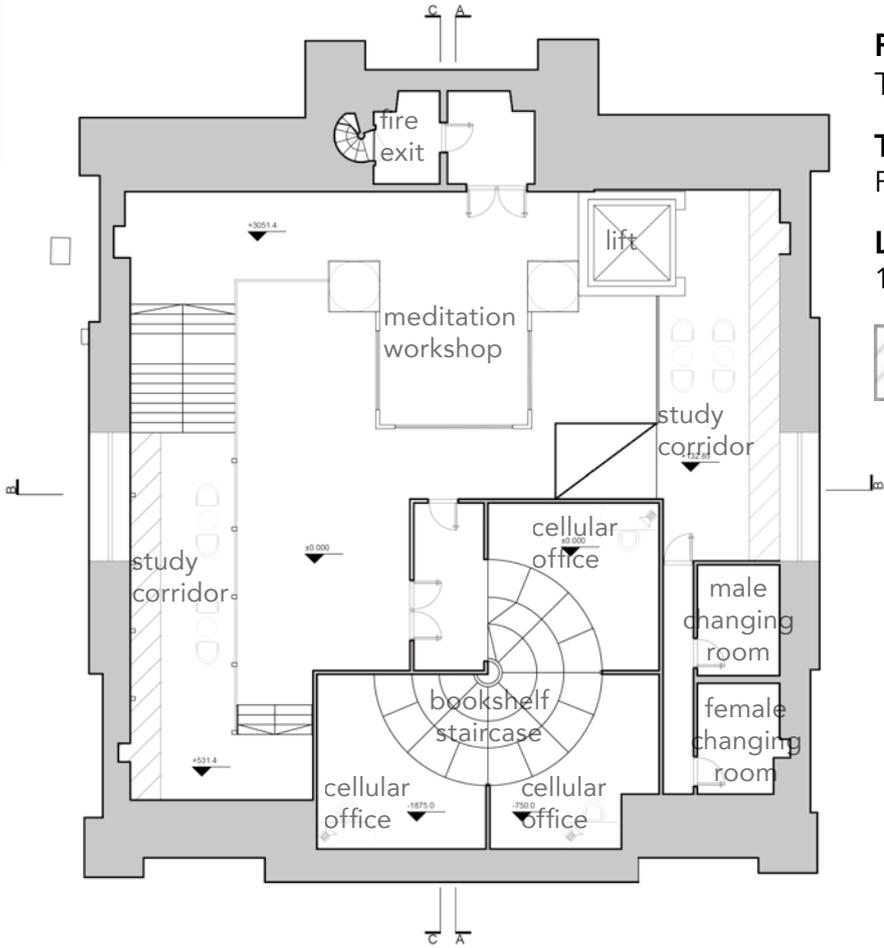
Project Tron Kirk
Scale 1:200@A4
Version Jan29, 2020

Type
Proposal plan of the second floor

Location
122, High Street, Edinburgh

 glass-made floor 





Project Tron Kirk
Scale 1:200@A4
Version Jan29, 2020

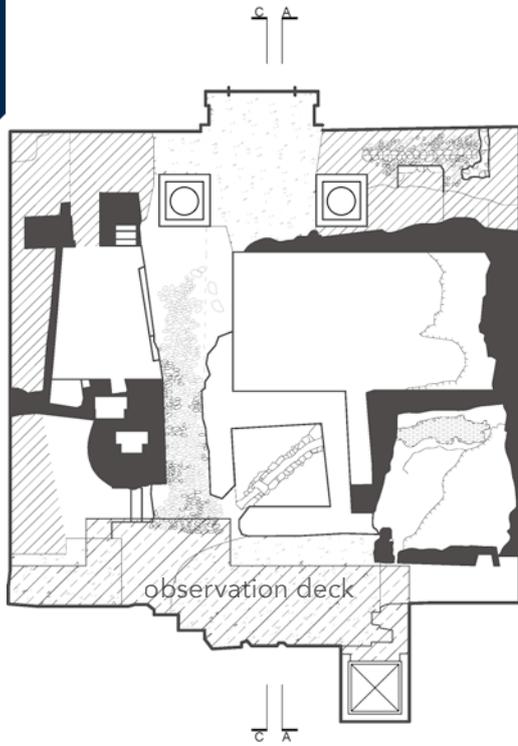
Type Proposal plan of the mezzanine

Location 122, High Street, Edinburgh

 glass-made floor



3.4 FORMATIVE PROPOSALS



- upstanding walls
- unexcavated areas
- ▨ 2005 excavations
- building rubble
- ▨ scarpin bedrock

Project Tron Kirk
Version Jan29, 2020
Scale 1:200@A4

Type
Proposal plan of the excavation site
(beneath the Tron Kirk)

Location
122, High Street, Edinburgh

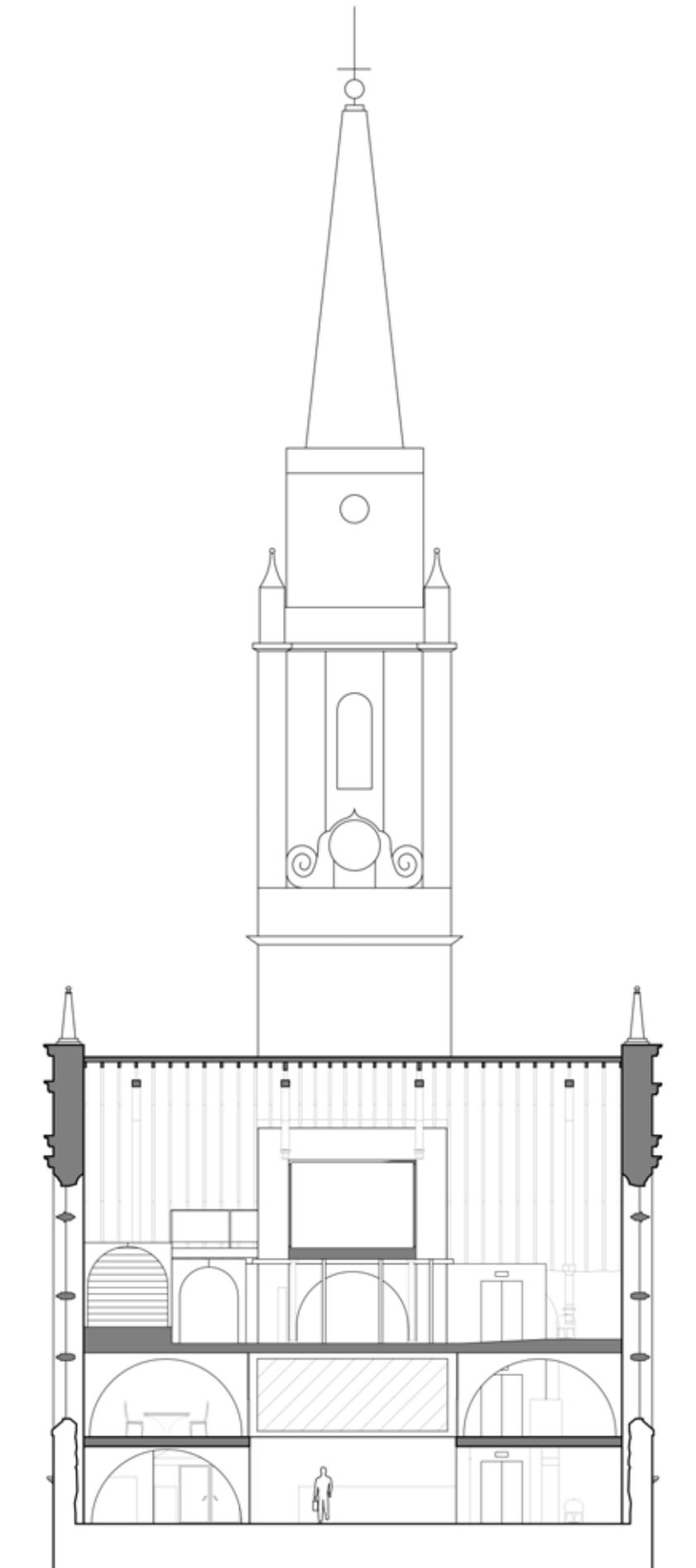


Project Version **Scale**
Tron Kirk Jan29, 2020 1:200@A4

Client
Edinburgh World Heritage Trust

Location
122, High Street, Edinburgh

Type
SectionBB of the Tron Kirk

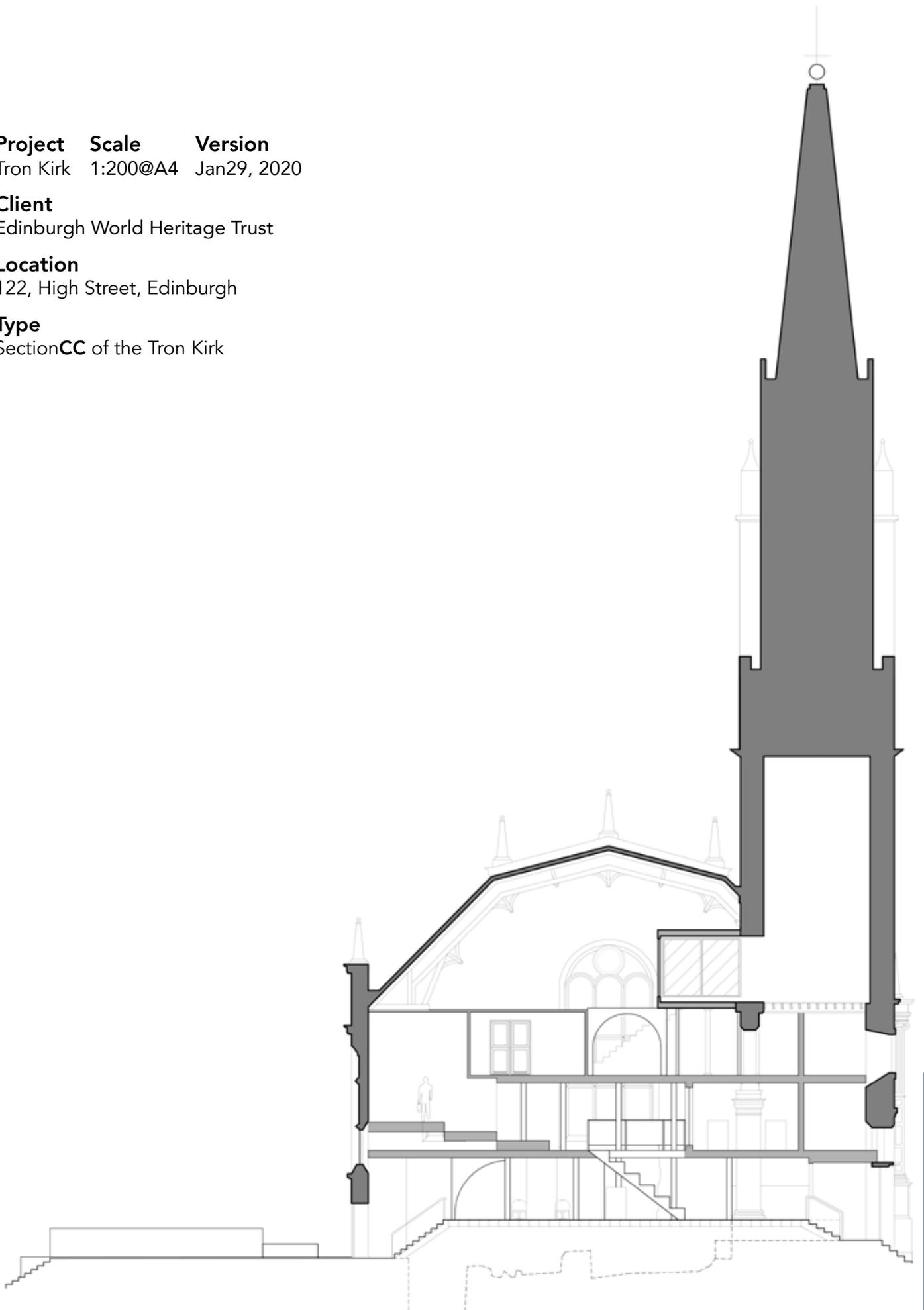


Project Tron Kirk
Scale 1:200@A4
Version Jan29, 2020

Client
Edinburgh World Heritage Trust

Location
122, High Street, Edinburgh

Type
SectionCC of the Tron Kirk

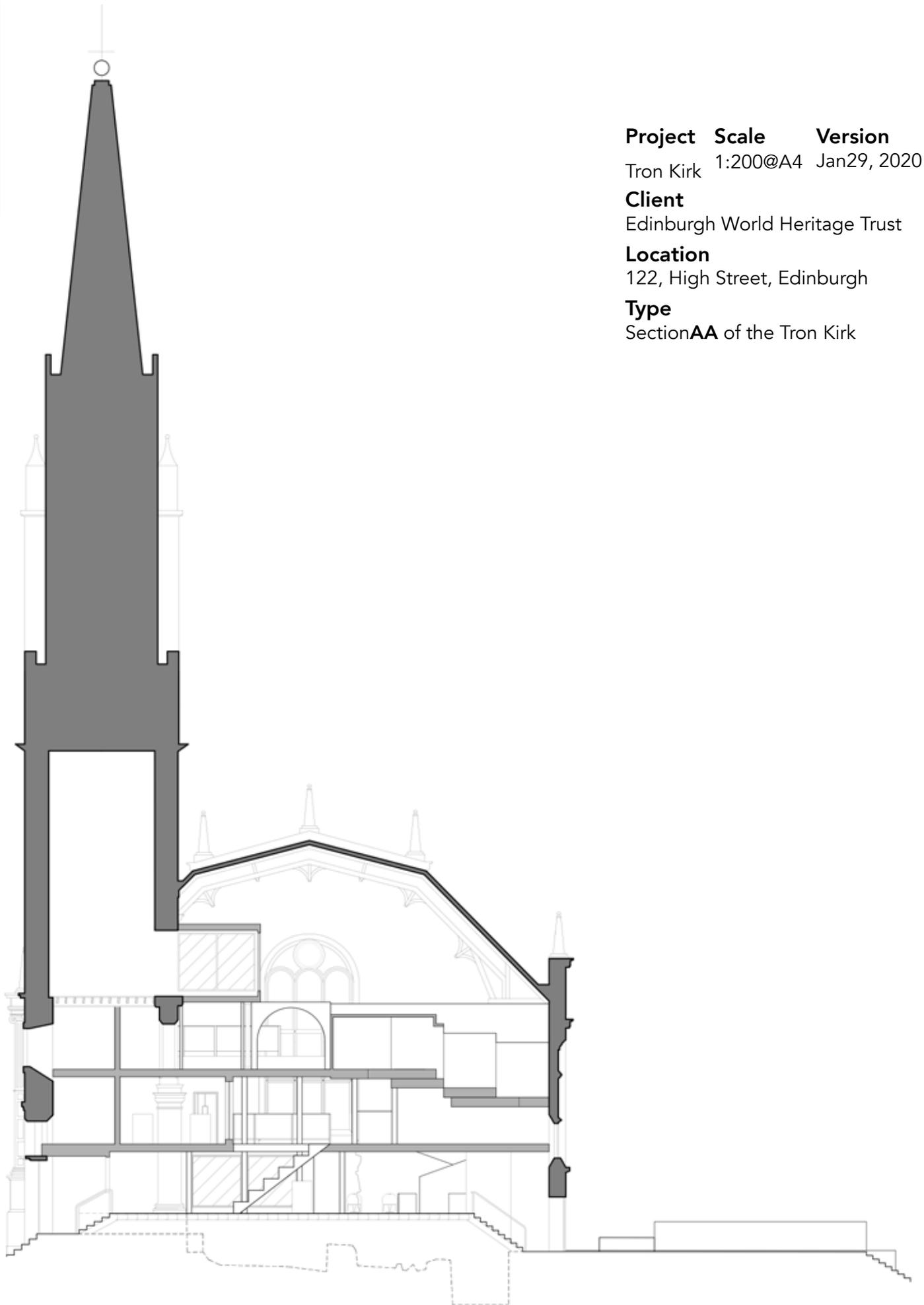


Project Tron Kirk
Scale 1:200@A4
Version Jan29, 2020

Client
Edinburgh World Heritage Trust

Location
122, High Street, Edinburgh

Type
SectionAA of the Tron Kirk



3.5

Physical Model

To see the existing structures and space of the Tron Kirk clearly, a physical model is necessary. The model can be dismantled and separated into a hammer-beam roof, connected to external walls.



physical model of the Tron Kirk



the physical model of hammer-beam roof



right isometric view of **S**-elevation of the model



left isometric view of **N**-elevation of the model

4

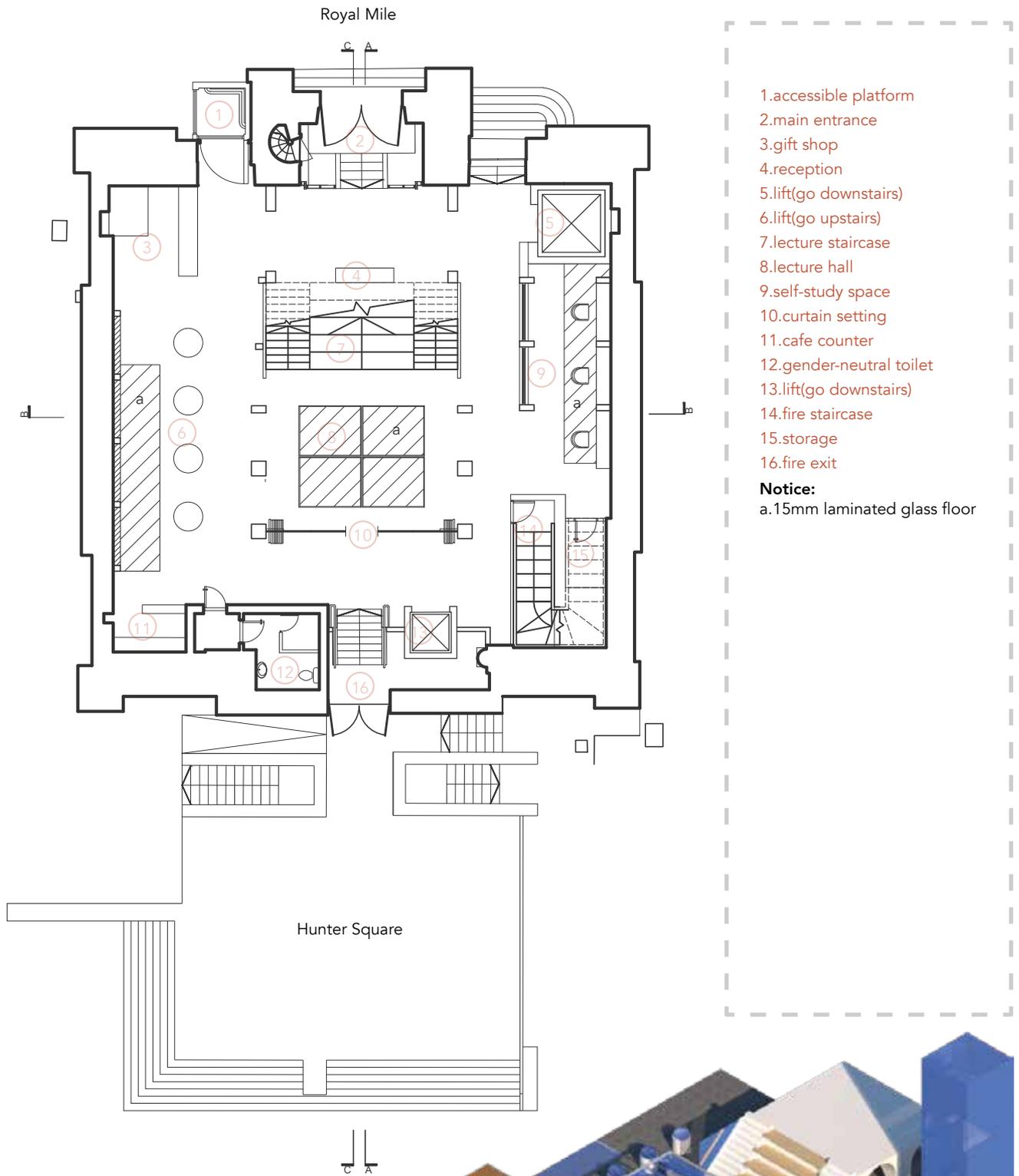
General Thinking of Final Scheme

4.1

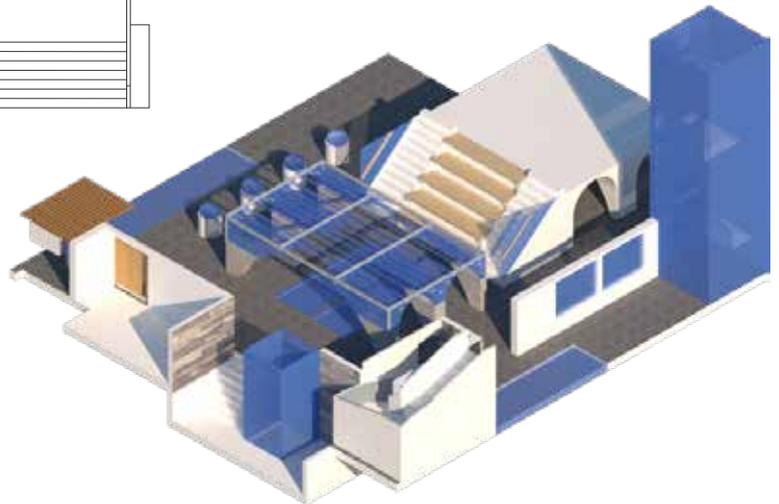
Spatial Drawings of Final Scheme

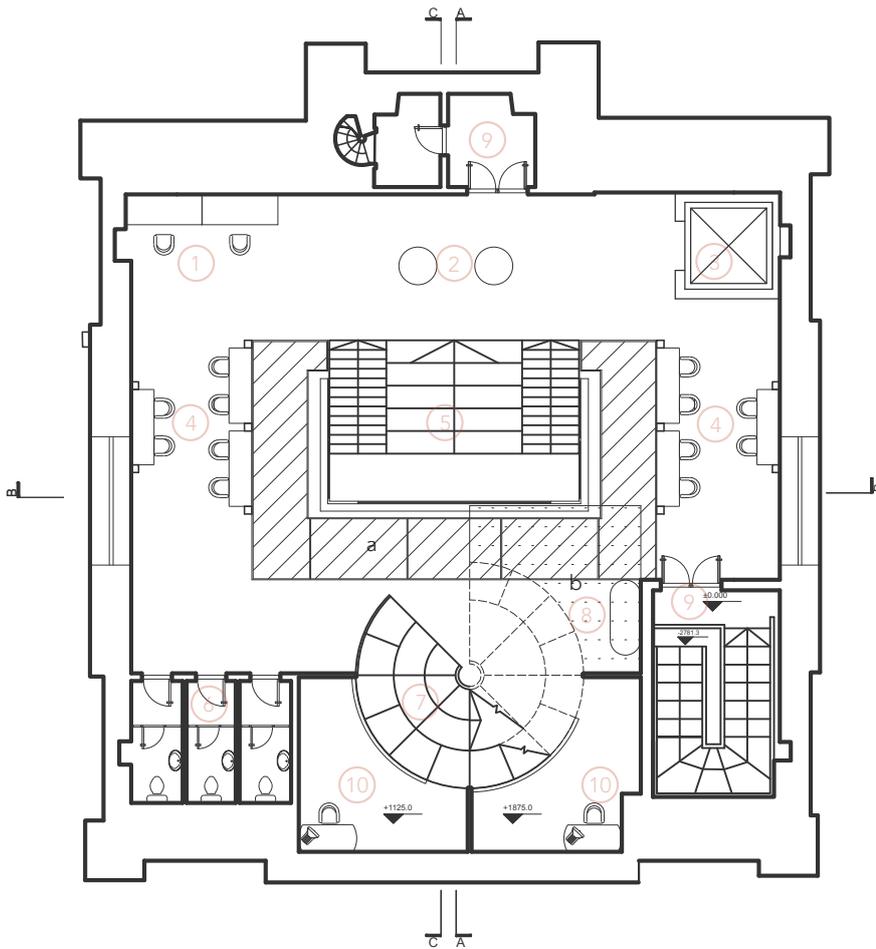
The final scheme of spatial layout derives from the formative spatial layout. It keeps my thinking of how to balance the relationship between organic spatial layout and clear function definition. Clear spatial layout, functions, and some facilities can be seen readily through these plans and sections.

4.1 Spatial Drawings of Final Scheme



Title plan of the ground floor
Scale 1:200@A4
Site 122, High Street, Edinburgh
Drawing No SLCP/L(0)01





- 1.workshop
- 2.exhibition space
- 3.lift
- 4.public writing space
- 5.lecture staircase
- 6.gender-neutral toilet
- 7.bookshelf staircase
- 8.restaurant
- 9.fire staircase
- 10.cellular writing office

Notice:
a.15mm laminated glass floor
b. There are some structures at the ceiling.

Title plan of the first floor

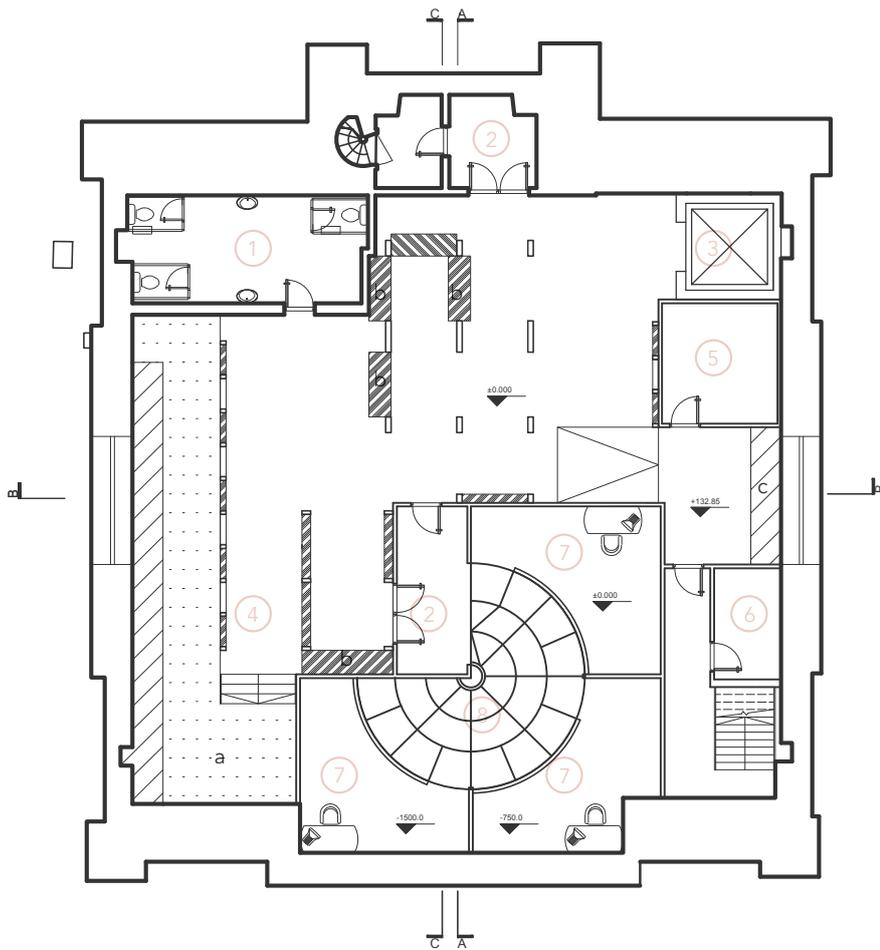
Scale 1:200@A4

Site 122, High Street, Edinburgh

Drawing No SLCP/L(0)02



4.1 Spatial Drawings of Final Scheme



1. gender-neutral toilet
2. fire exit
3. lift
4. library
5. female staff room
6. male staff room
7. cellular writing office
8. bookshelf staircase

Notice:

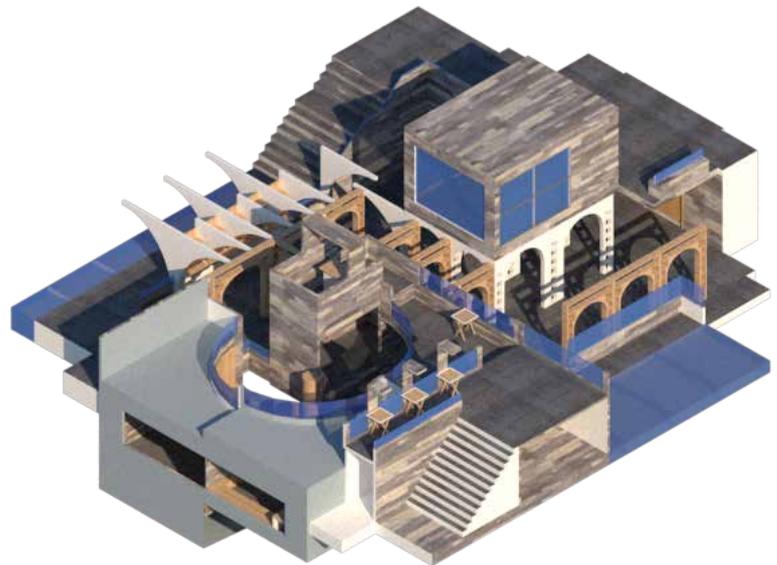
- a. solid mezzanine stage
- b. arch bookshelf
- c. 15mm laminated glass floor

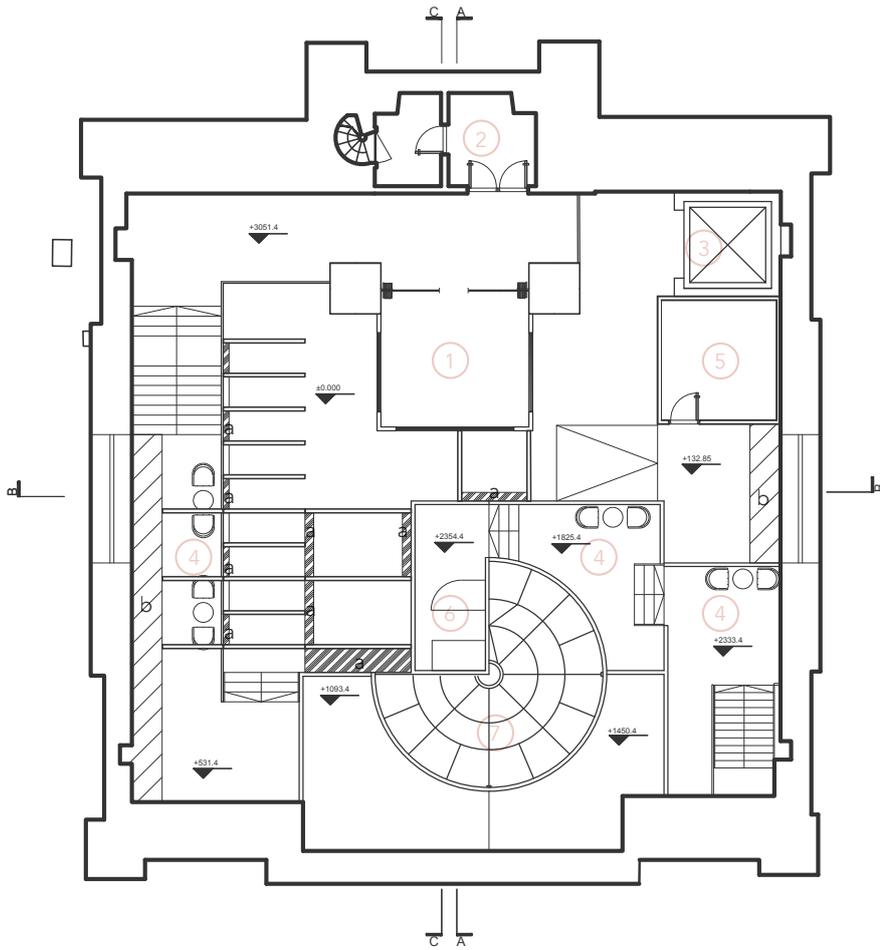
Title plan of the second floor

Scale 1:200@A4

Site 122, High Street, Edinburgh

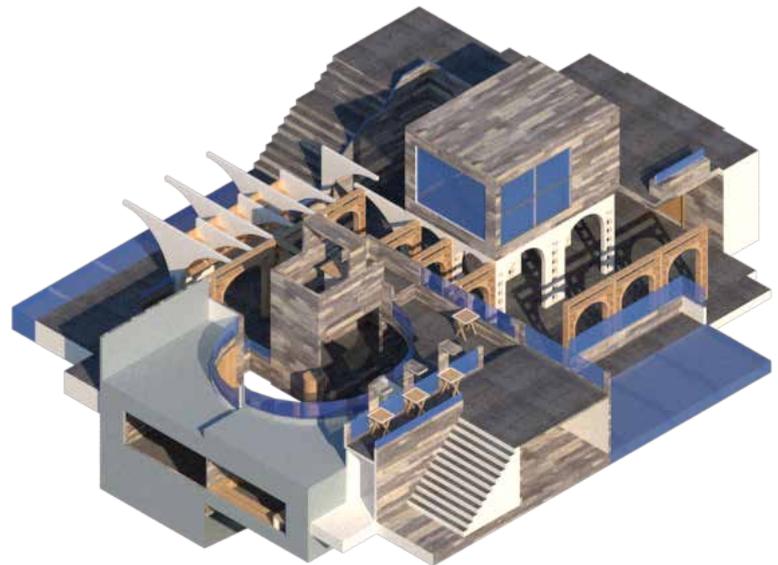
Drawing No SLCP/L(0)03



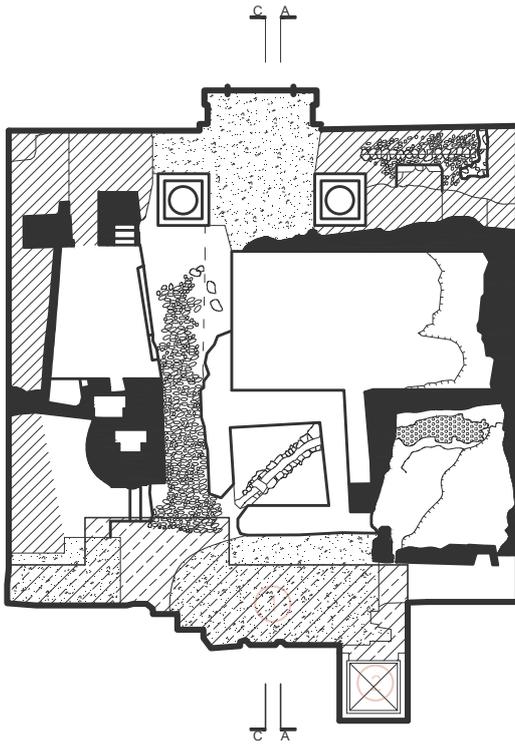


- 1.meditation workshop
 - 2.fire exit
 - 3.lift
 - 4.lounge
 - 5.female staff room
 - 6.cafe counter
 - 7.bookshelf staircase
- Notice:**
a.arch bookshelf
b.15mm laminated glass floor

Title plan of the mezzanine
Scale 1:200@A4
Site 122, High Street, Edinburgh
Drawing No SLCP/L(0)04



4.1 Spatial Drawings of Final Scheme



- upstanding walls
- ▨ unexcavated areas
- ▧ 2005 excavations
- ▩ building rubble
- ▤ scarpin bedrock



Title plan of the excavation site

Scale 1:200@A4

Site 122, High Street, Edinburgh

Drawing No SLCP/L(0)05

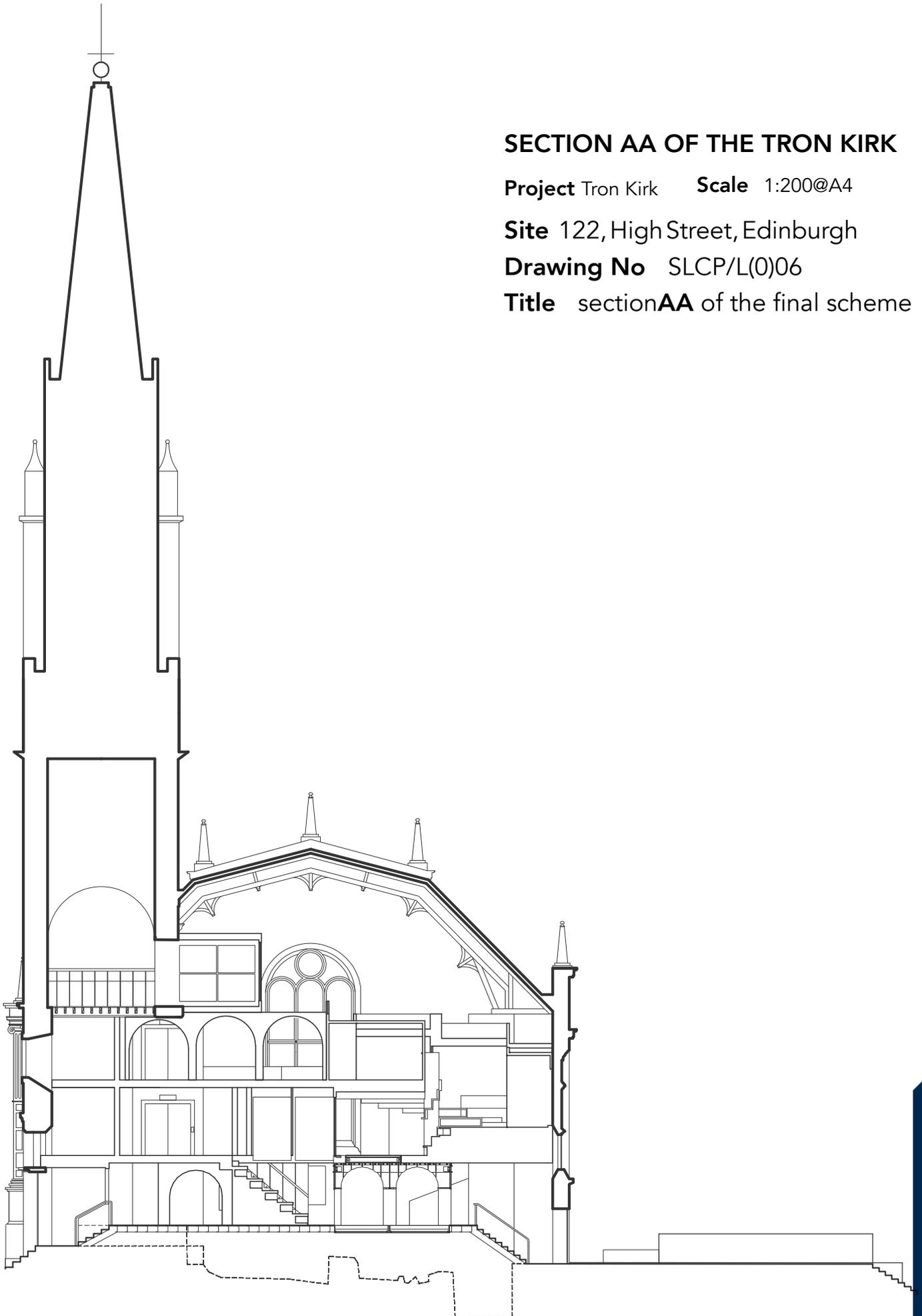
SECTION AA OF THE TRON KIRK

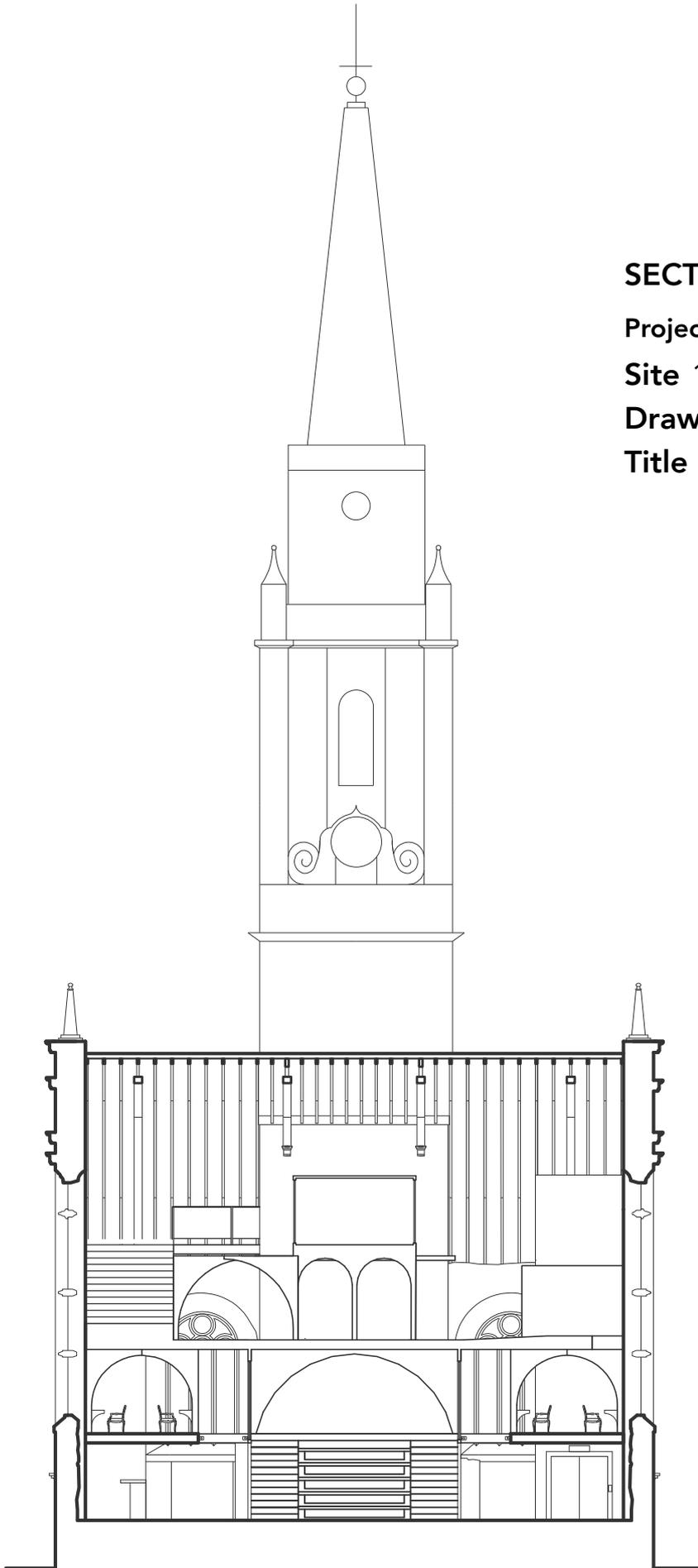
Project Tron Kirk **Scale** 1:200@A4

Site 122, High Street, Edinburgh

Drawing No SLCP/L(0)06

Title sectionAA of the final scheme





SECTION BB OF THE TRON KIRK

Project Tron Kirk **Scale** 1:200@A4

Site 122, High Street, Edinburgh

Drawing No SLCP/L(0)07

Title section **BB** of the final scheme

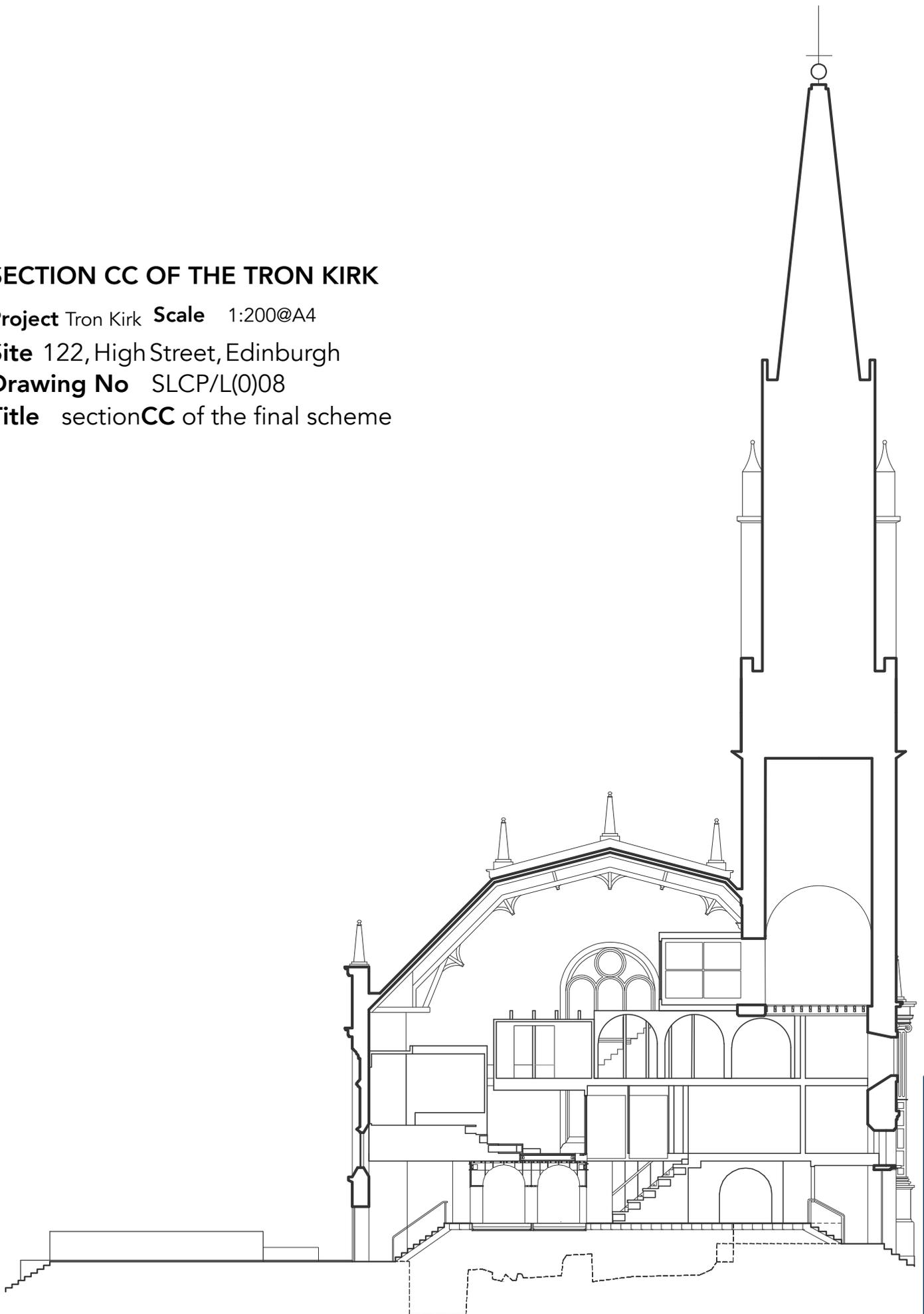
SECTION CC OF THE TRON KIRK

Project Tron Kirk **Scale** 1:200@A4

Site 122, High Street, Edinburgh

Drawing No SLCP/L(0)08

Title section CC of the final scheme

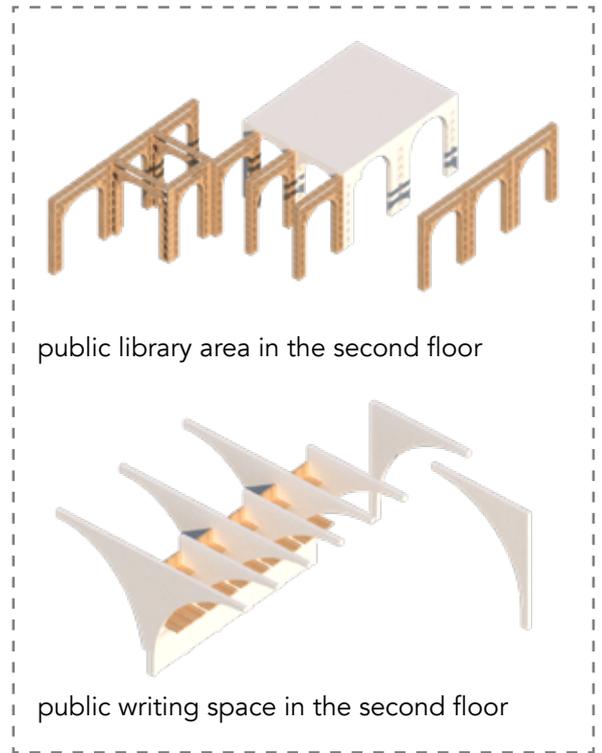
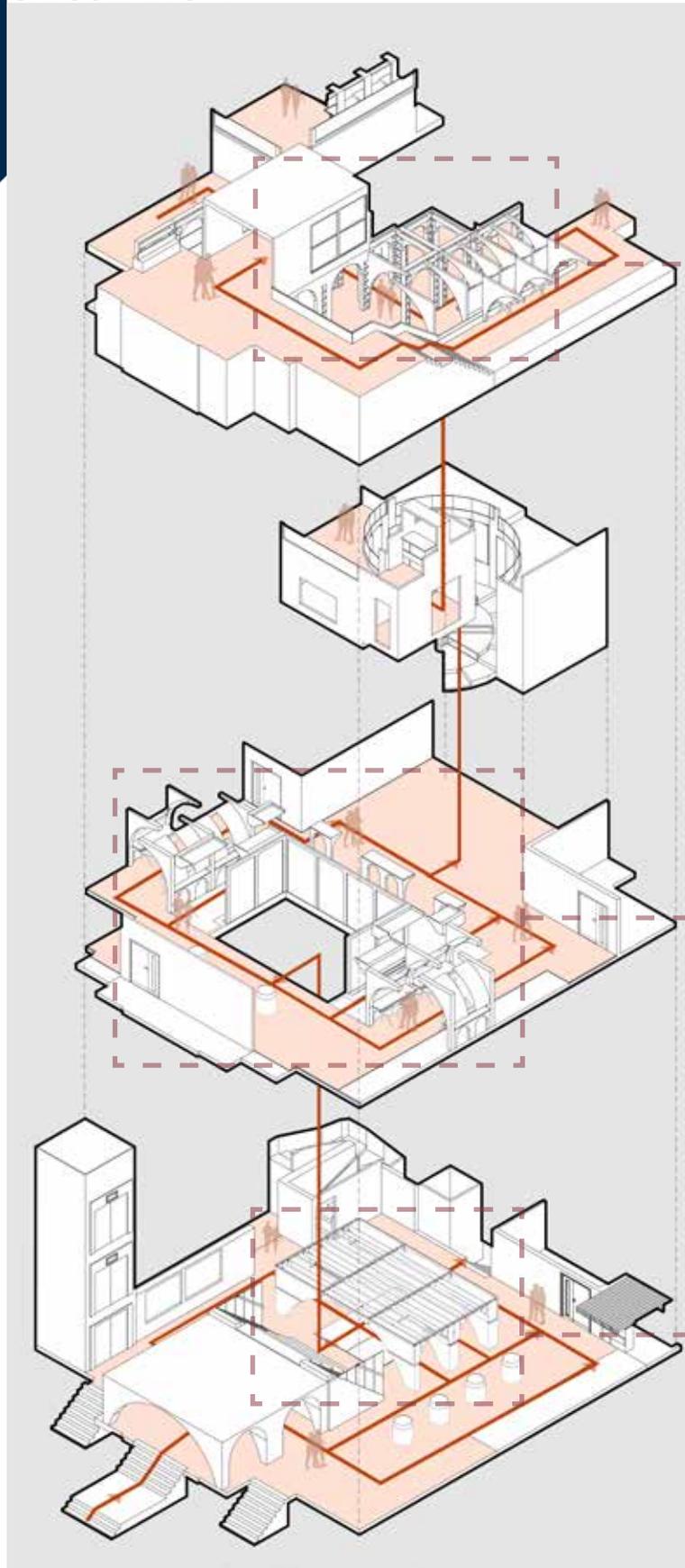


4.2

Structures&Circulation

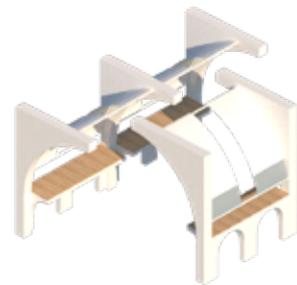
According to the general policy that advocates interactive literature, more freedom is permitted in the circulation and the spatial layout of the final scheme.

CIRCULATION

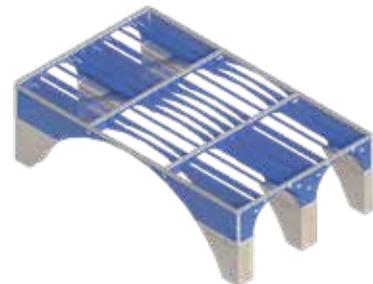


public library area in the second floor

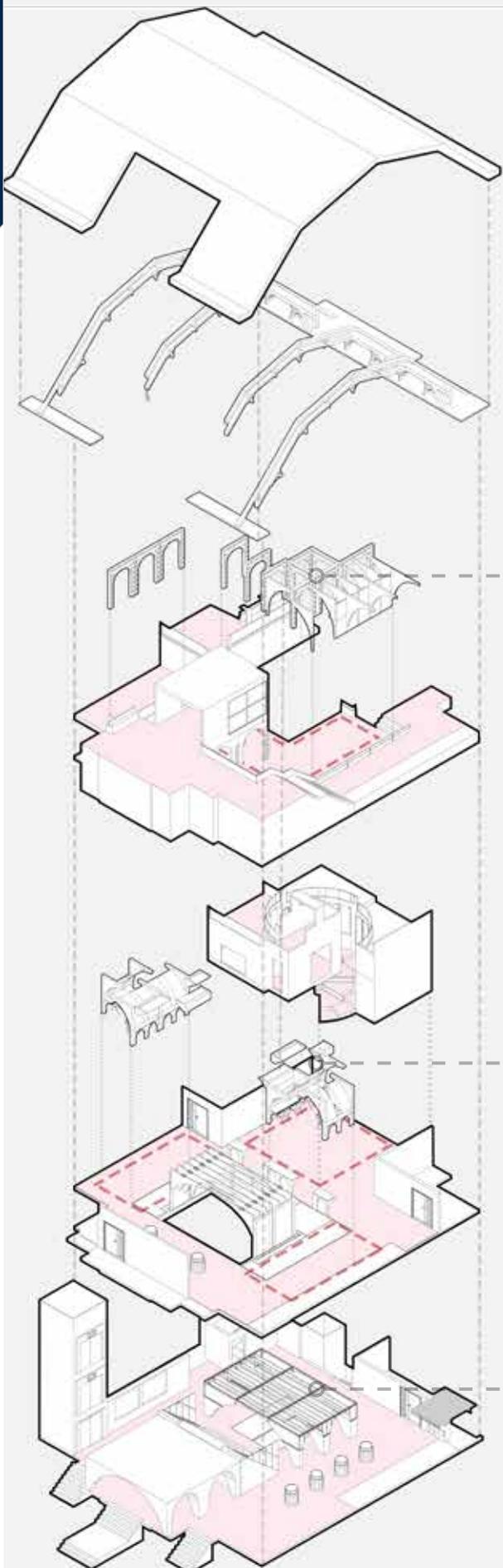
public writing space in the second floor



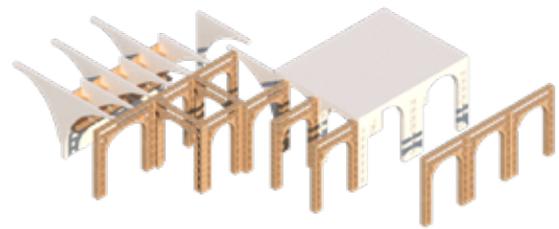
public writing space on the first floor



the glass-layer vault construction in the ground floor

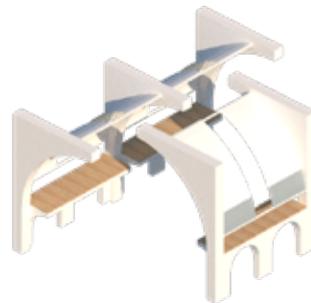


The general spatial layout of the final scheme utilizes the free circulation, encouraging visitors to have interactions.



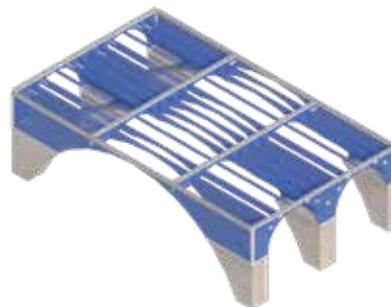
the curve structures in the library area of the second floor

Function: open space for library and writing
Material: timber, concrete, plastic board



public writing space in the first floor

Function: interactive writing space that permits the communications between writers and literature tourists
Material: timber, concrete, plastic board



the glass-layer vault construction in the ground floor

Function: create open environments for interactive activities, such as story-telling
Material: laminated glass, cement, aluminium frame

exploded axonometric of the final scheme

5

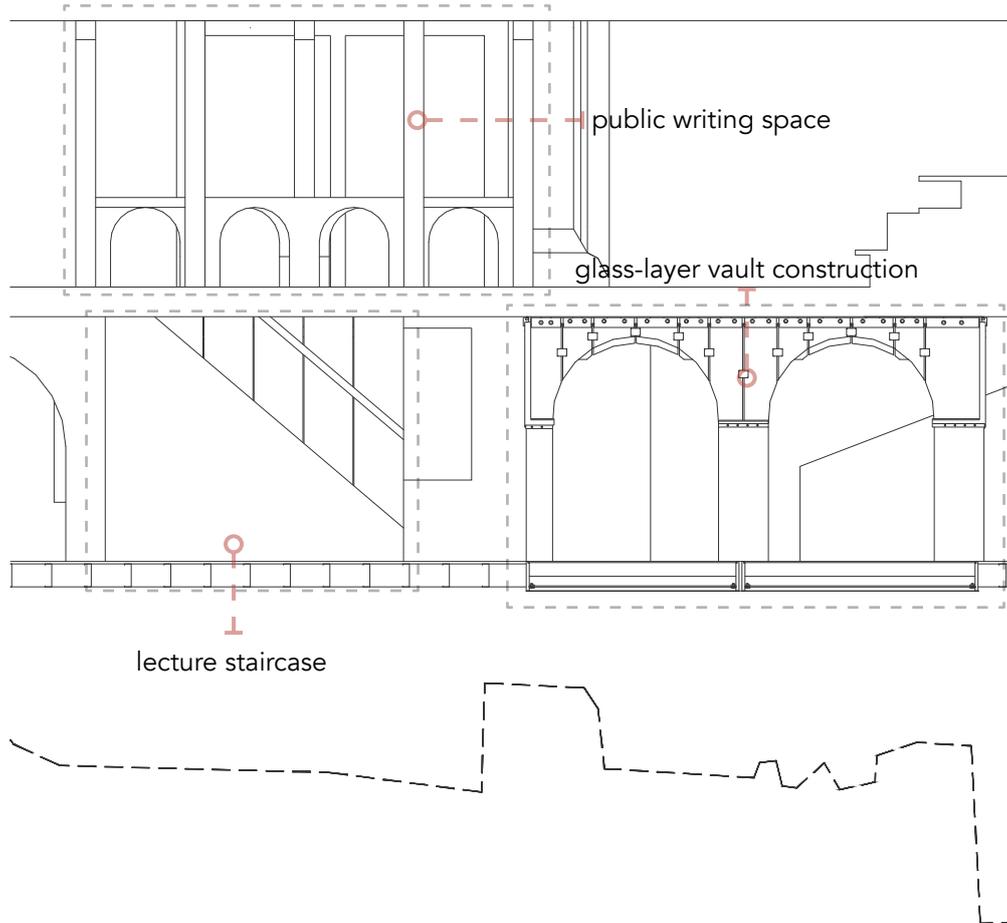
Construction Detailing

5.1

General Description of Main Space

The main space of this project involves the lecture hall (ground floor), lecture staircase (ground floor), public writing space (first floor). All the involved space advocates the theme-- interaction. The transparency of materials is cared in all these spaces.

DETAIL SECTION OF THE MAIN SPACE

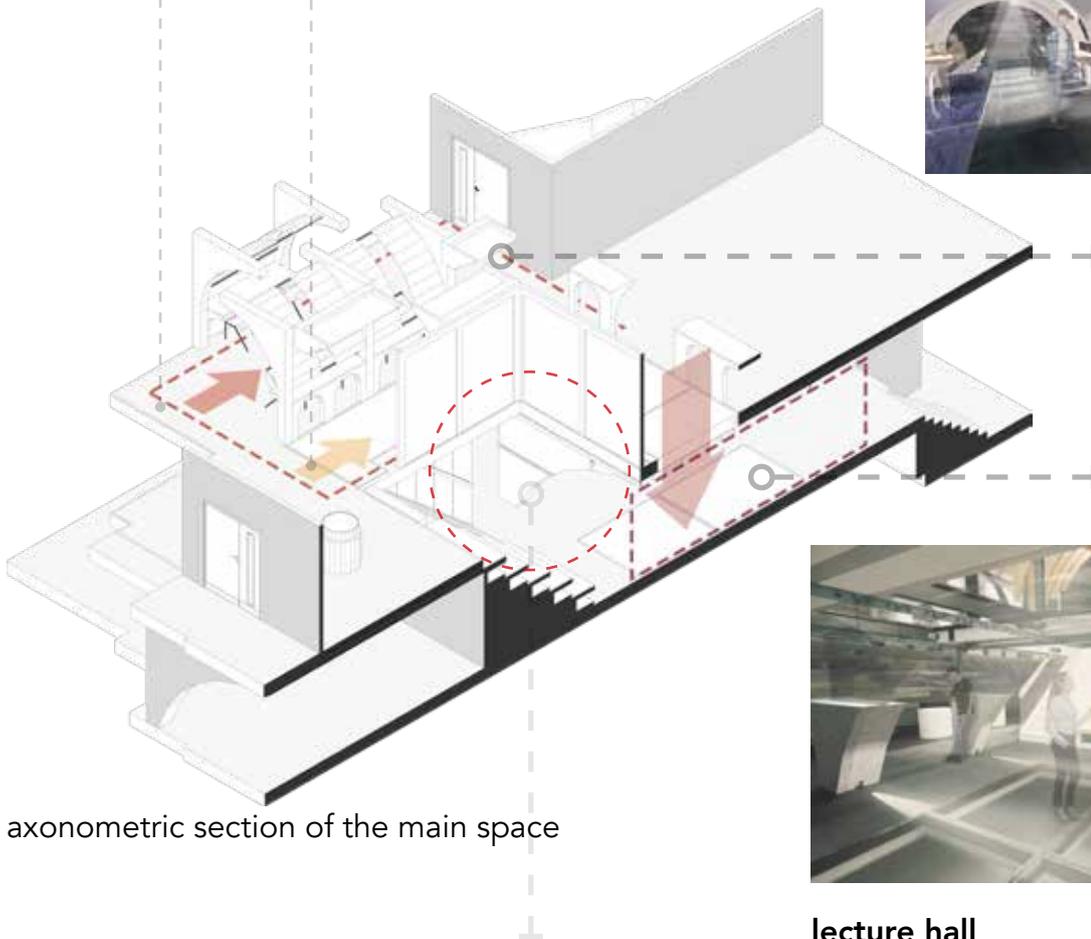


elevation of the main space of the final scheme

public writing space

The public writing space creates a more interactive writing environment. Writers can work on the desks between arches, and people can pass by the arches and have interaction with writers.

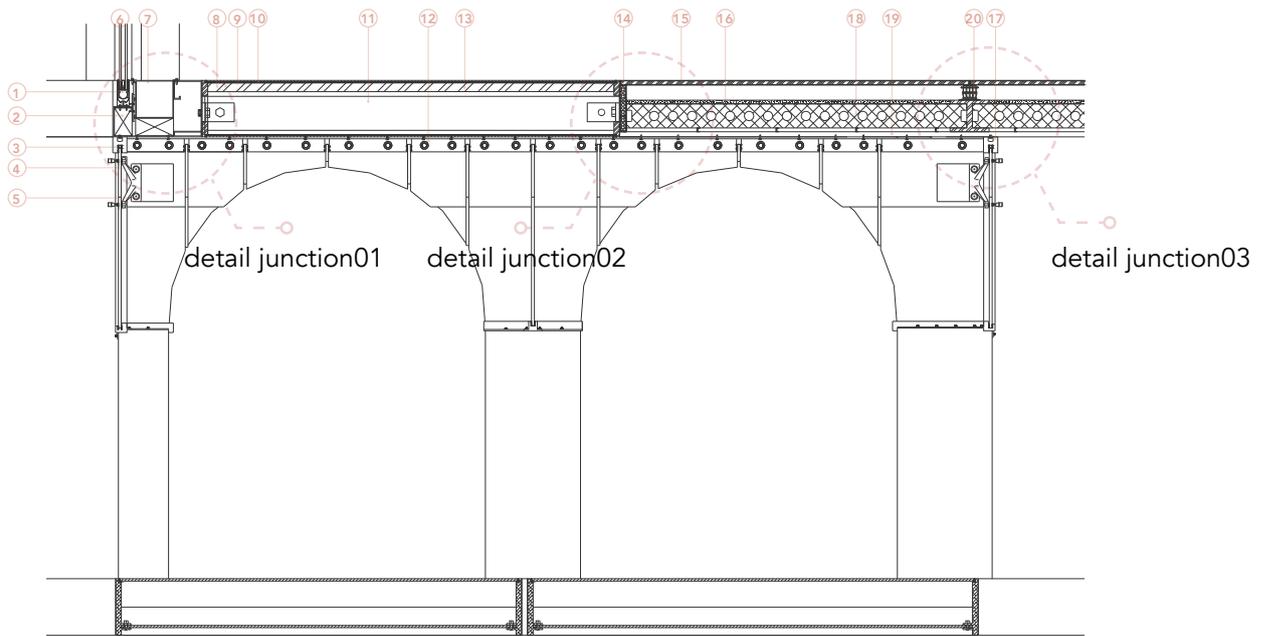
writers route public route



lecture hall

The lecture hall on the ground floor has open space, encouraging free talks and literary interactive activities between writers and literature tourists. Moreover, the audience can sit on the lecture staircase and stand on the laminated glass floor to see the literary lectures, permitting more interaction in space and between people.





detailing section of the main space scale: 1:50 unit: millimeter

- | | |
|----------------------------------|---|
| 1 glazed aluminum curtain system | 11 I-shaped stainless steel |
| 2 rough sawnwood panel | 12 ceiling beam system (type 2) |
| 3 ceiling beam system(type 1) | 13 fitting frames for the steel beam |
| 4 15mm laminated glass sheet | 14 29mm concrete panels with 3mm rubber |
| 5 spider fitting | 15 19mm concrete panels with 3mm floor finishes |
| 6 10mm laminated glass sheet | 16 20mm concrete screed |
| 7 threshold tube | 17 ceiling beam system (type 1) |
| 8 steel ceiling frame system | 18 128mm plank floor with fully grouted joints |
| 9 3mm rubber washer | 19 27mm plasterboard ceiling |
| 10 8mm laminated glass sheet | 20 RLG600 pedestal |

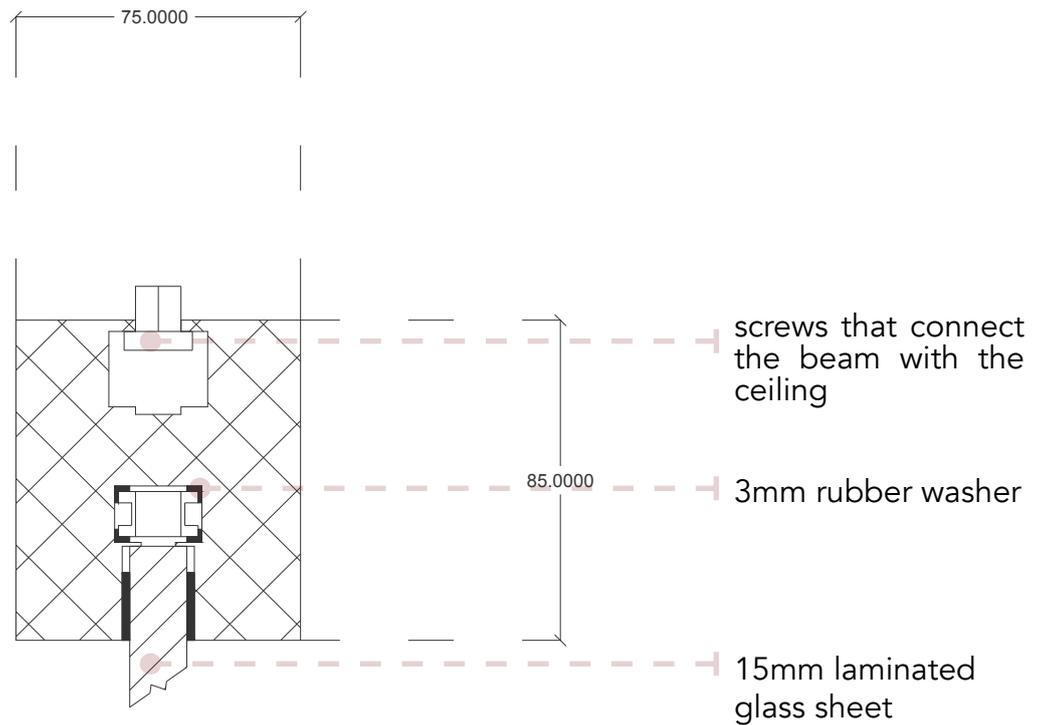
Notice:

For more information about point 5&6, you can check the system through the link below.
<https://www.kingspan.com/gb/en-gb/products/access-floor-systems/medium-grade/rmg600-system>

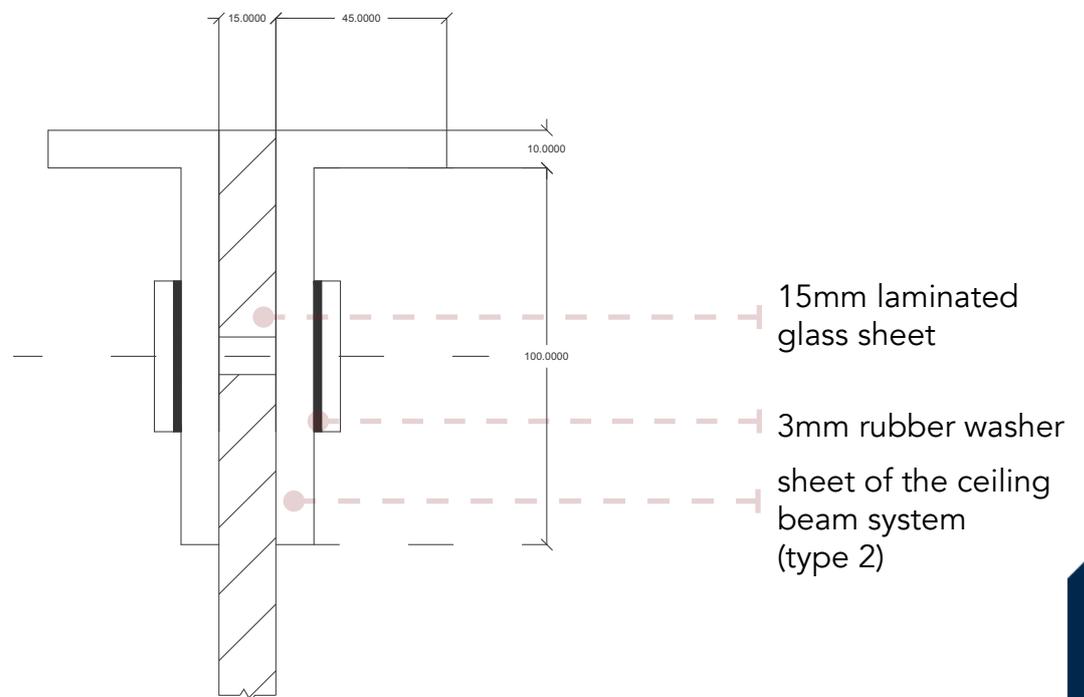
5.2

Vital Component Detailing

There are three detail junction drawings, and all these three drawings show how the glass-layer vault construction connect with the ceiling of the first floor. These drawings utilize the scale of 1:5 to clear the relationship between small components in these junctions.

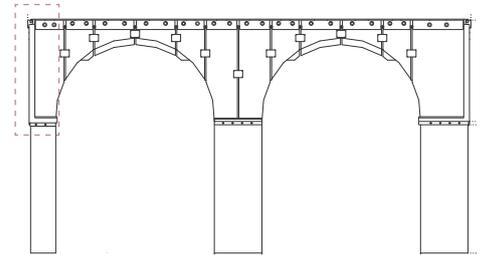
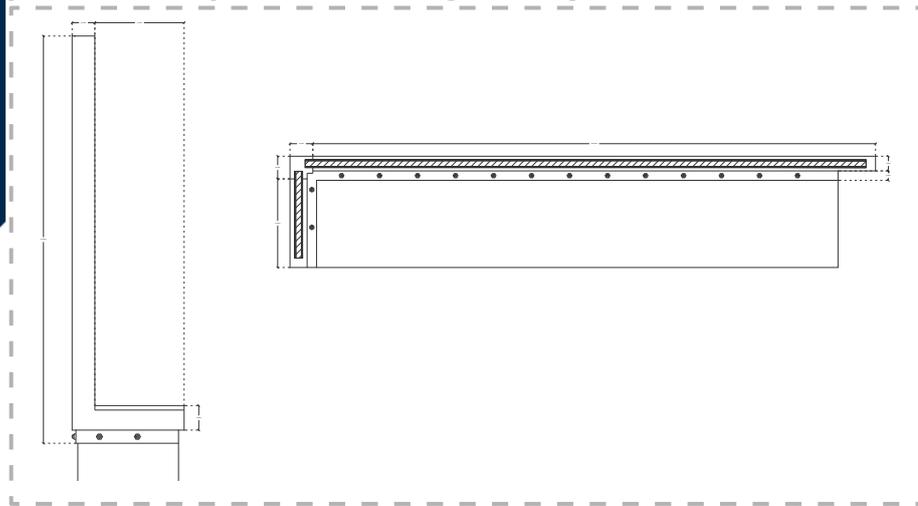


Title section of the ceiling beam system(type1) **Scale** 1:5@A3

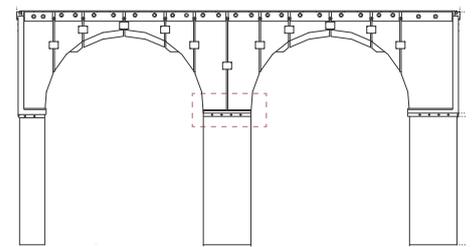
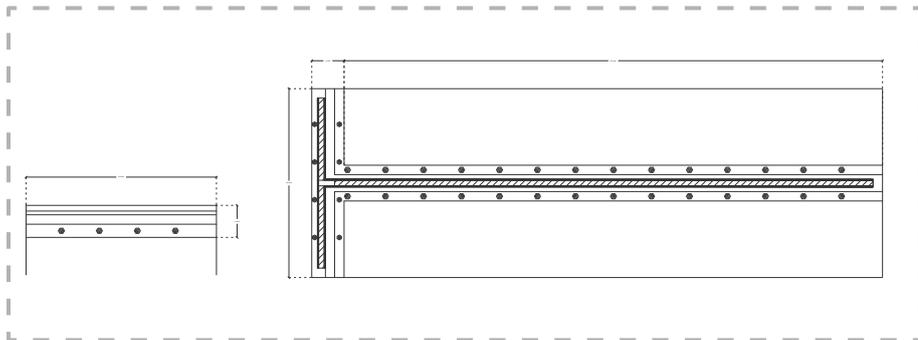


Title section of the ceiling beam system(type2) **Scale** 1:5@A3

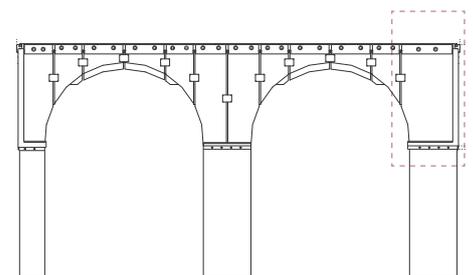
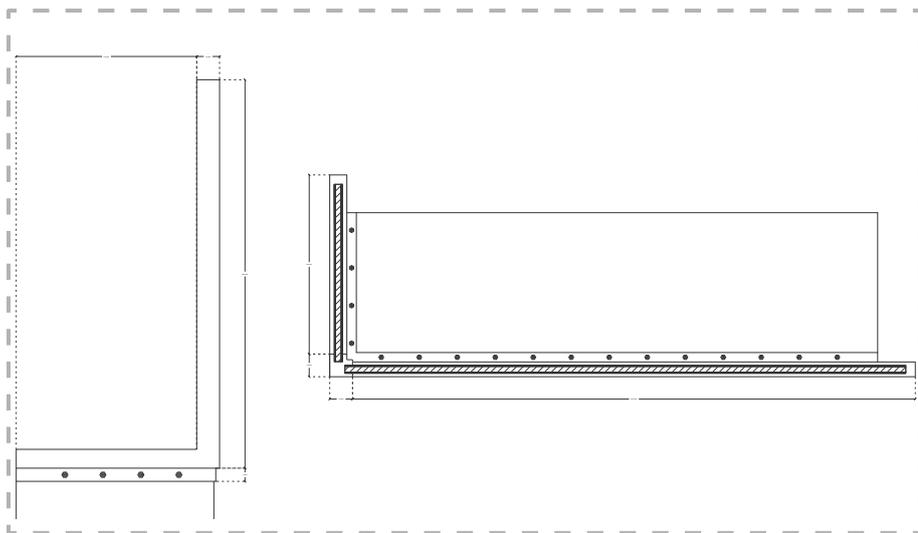
plan of the pillars of the glass-layer vault construction



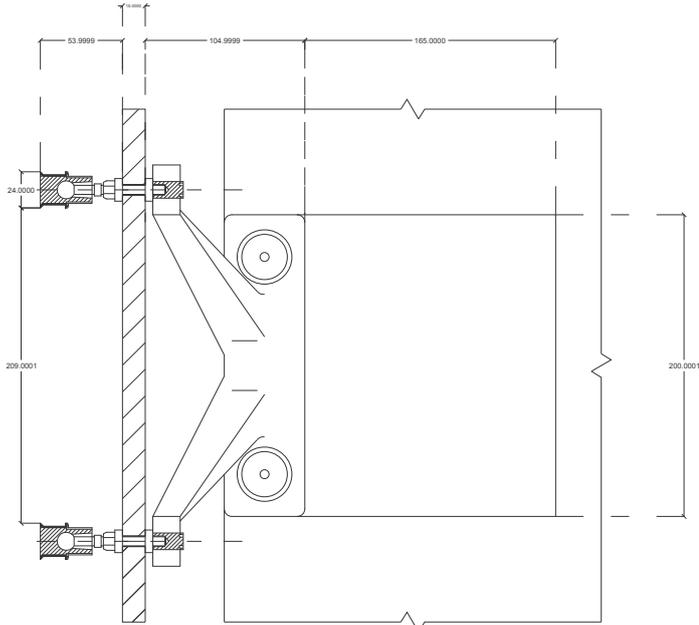
position of the component



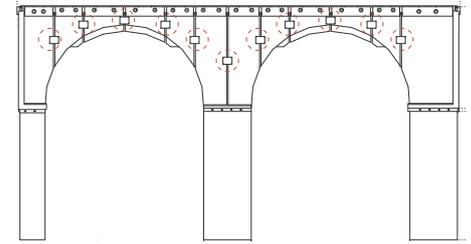
position of the component



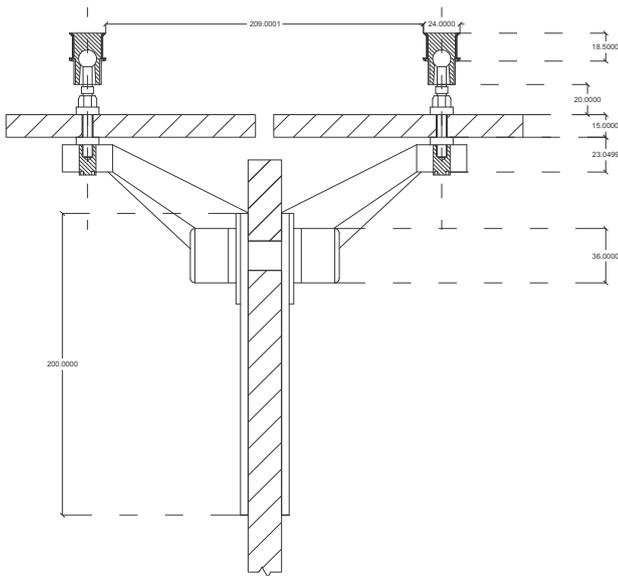
position of the component



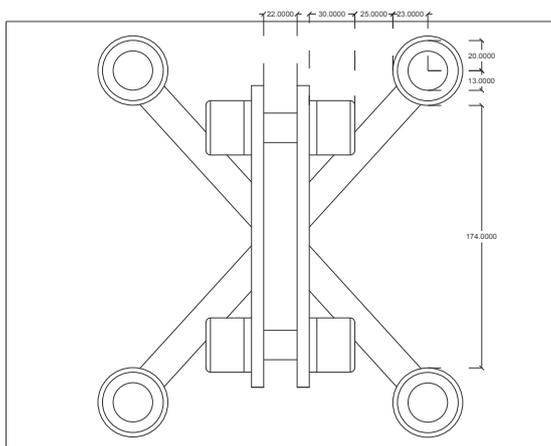
Title section of the spider fitting **Scale** 1:10@A3



position of the component



Title plan of the spider fitting **Scale** 1:10@A3



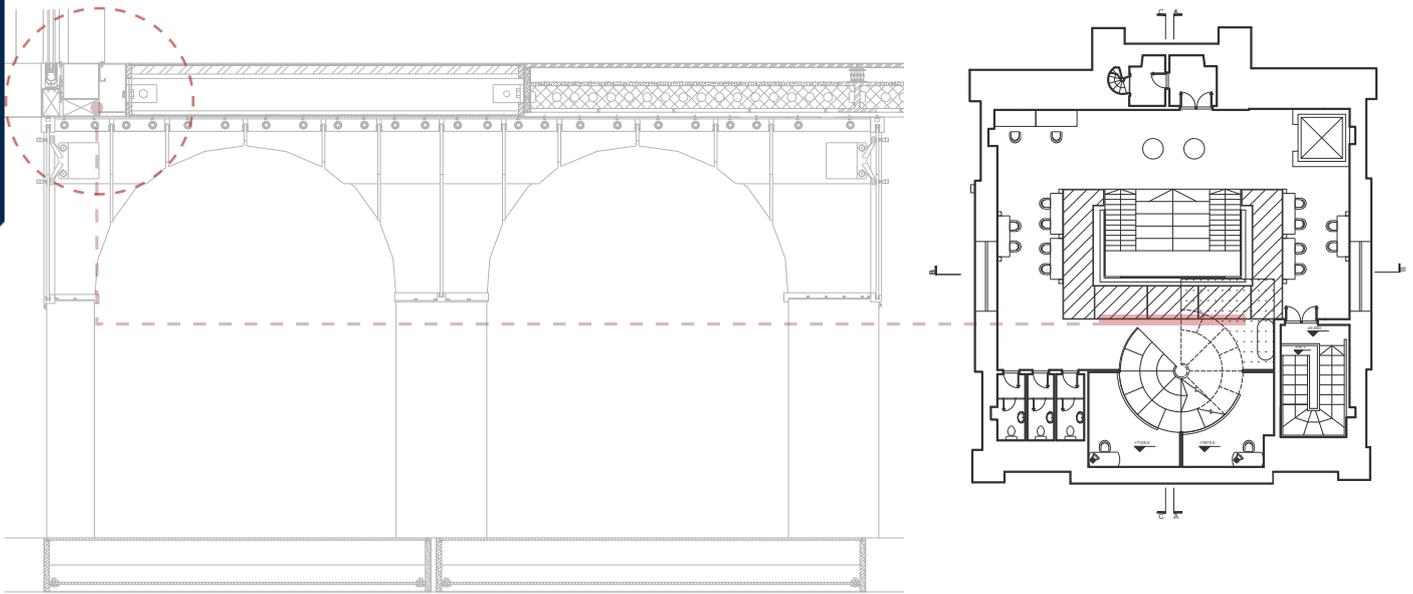
Title elevation of the spider fitting **Scale** 1:10@A3

5.3

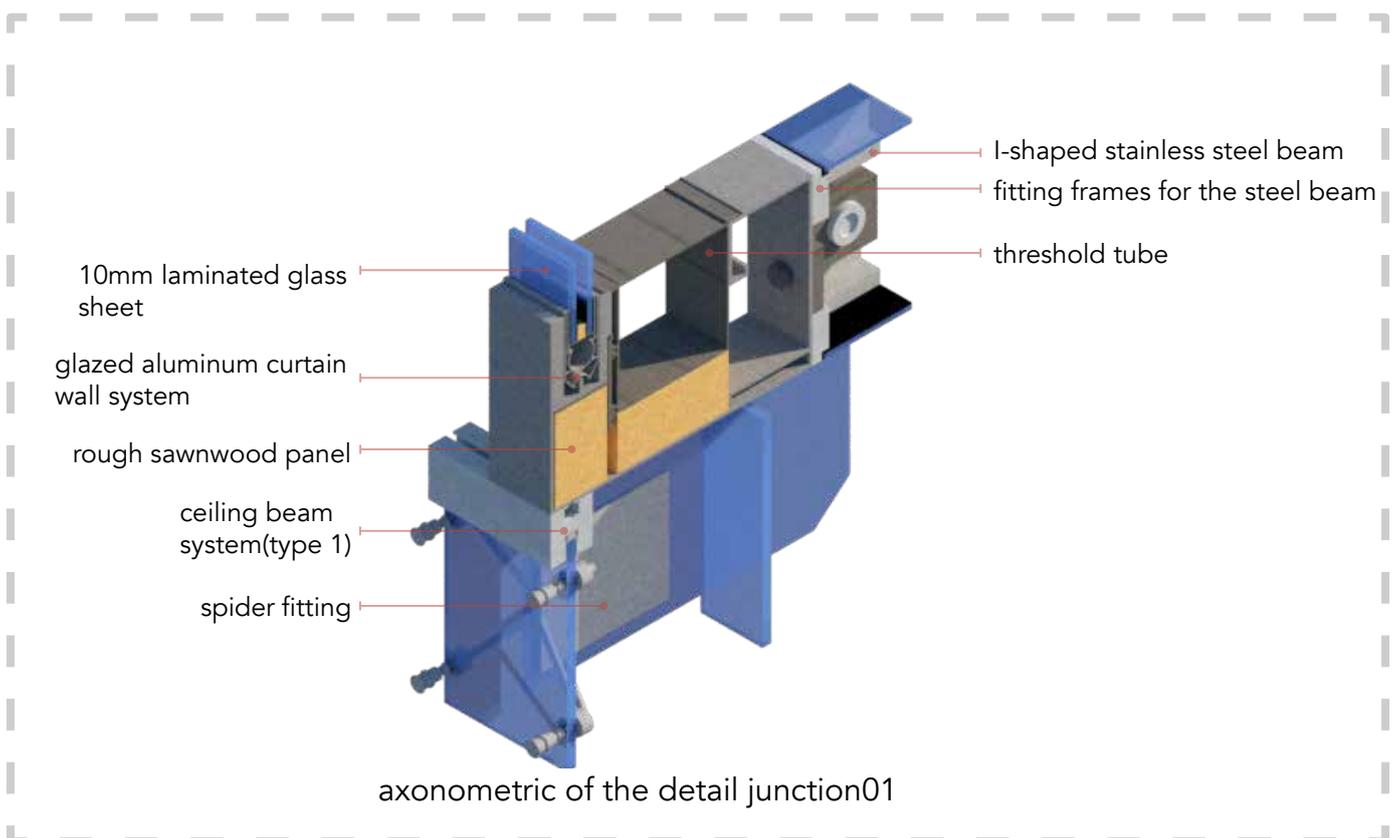
JUNCTION DETAILING

The glass-layer vault construction is the significant structure of the main space. The construction not only offers an interactive and open environment but also holds the weight of the first floor. Three main junctions make different components connected and make the scheme of interactive space feasible.

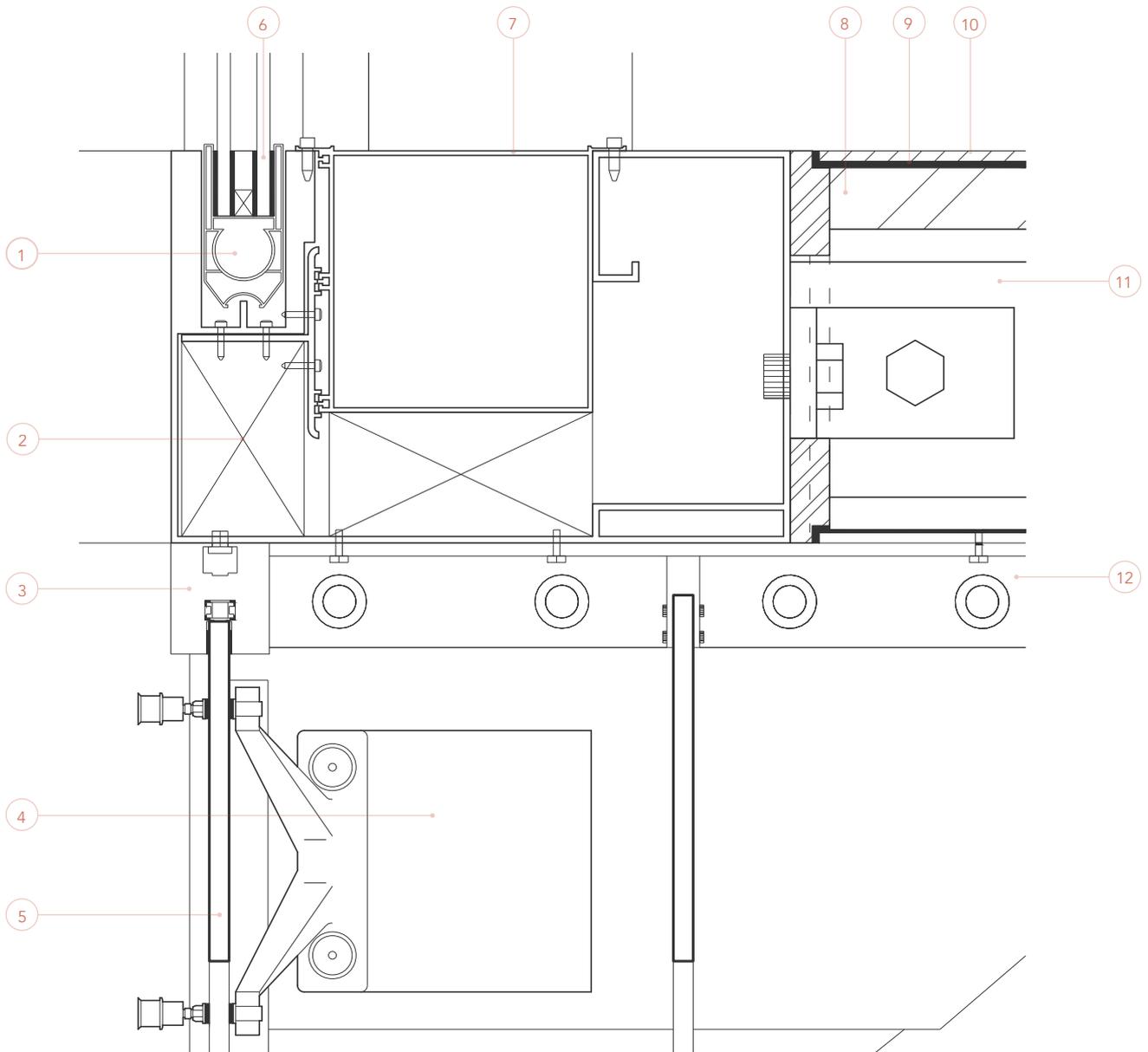
DETAIL JUNCTION01



position of the detail junction01



The junction01 connects the glazed aluminum system(first floor) with the top of the glass-layer vault construction. The techniques of glazing system and curtain wall make this junction feasible, permitting one of the the structures in the construction stable and attracting.

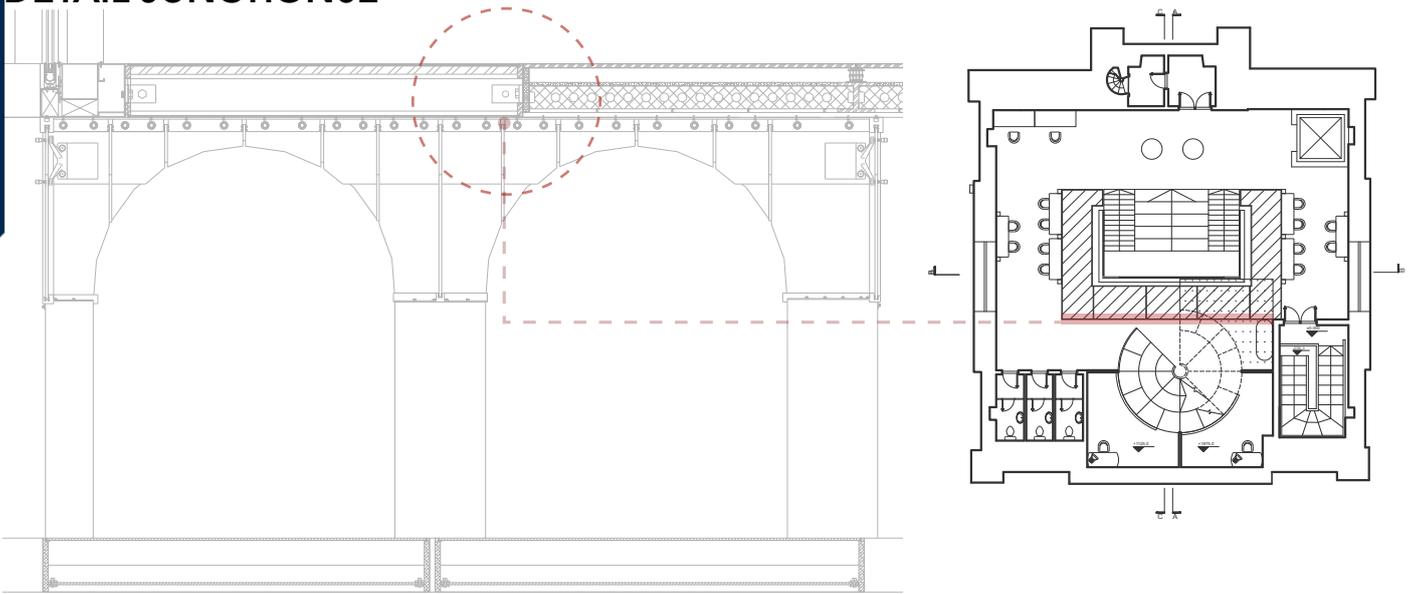


Type detail junction01 **Scale** 1:5 **Drawing No** SLCP/A(0)02

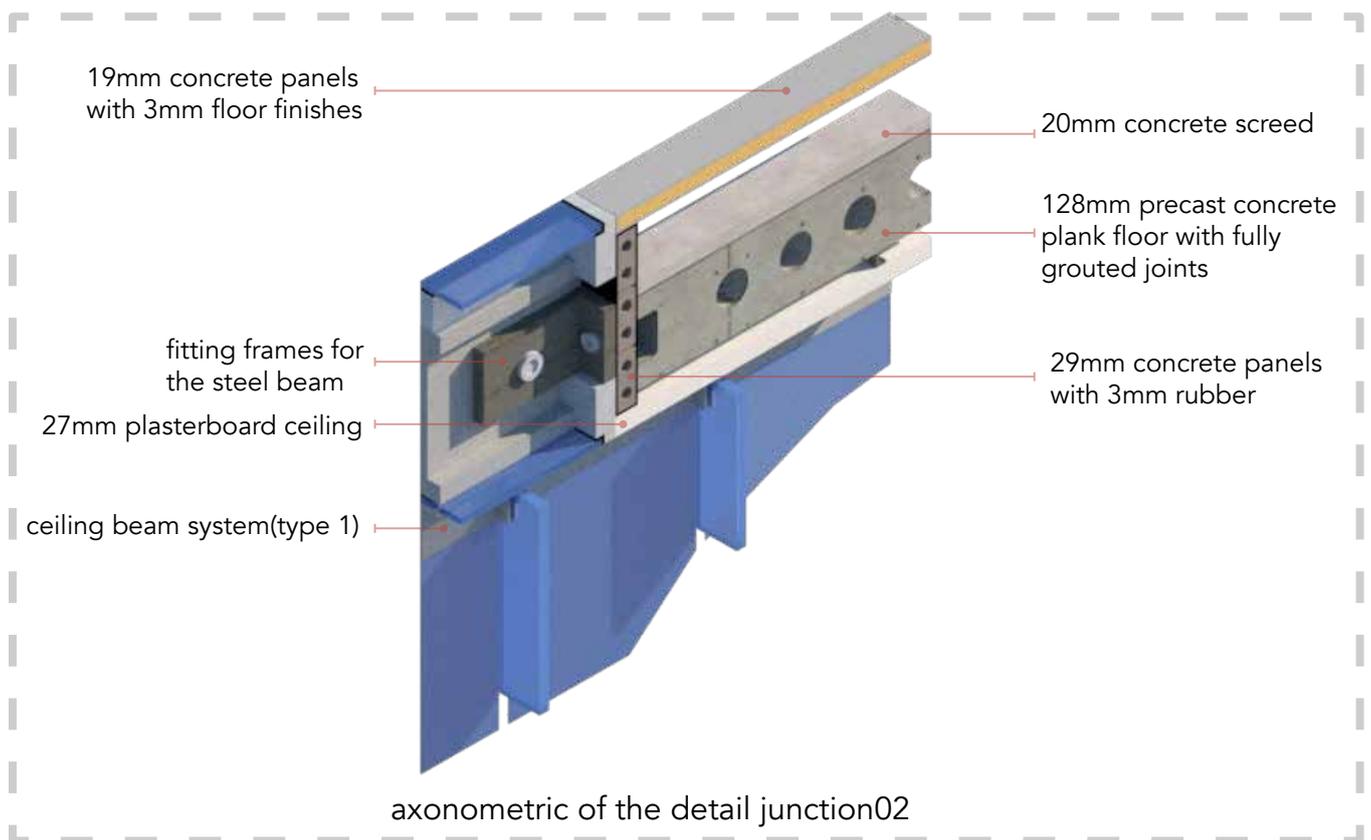
- 1. glazed aluminum curtain wall system
- 2. rough sawnwood panel
- 3. ceiling beam system (type1)
- 4. 15mm laminated glass
- 5. spider fitting
- 6. 10mm laminated glass

- 7. threshold tube
- 8. steel ceiling frame system
- 9. 3mm rubber washer
- 10. 8mm laminated glass
- 11. I-shaped stainless steel
- 12. ceiling beam system (type2)

DETAIL JUNCTION02



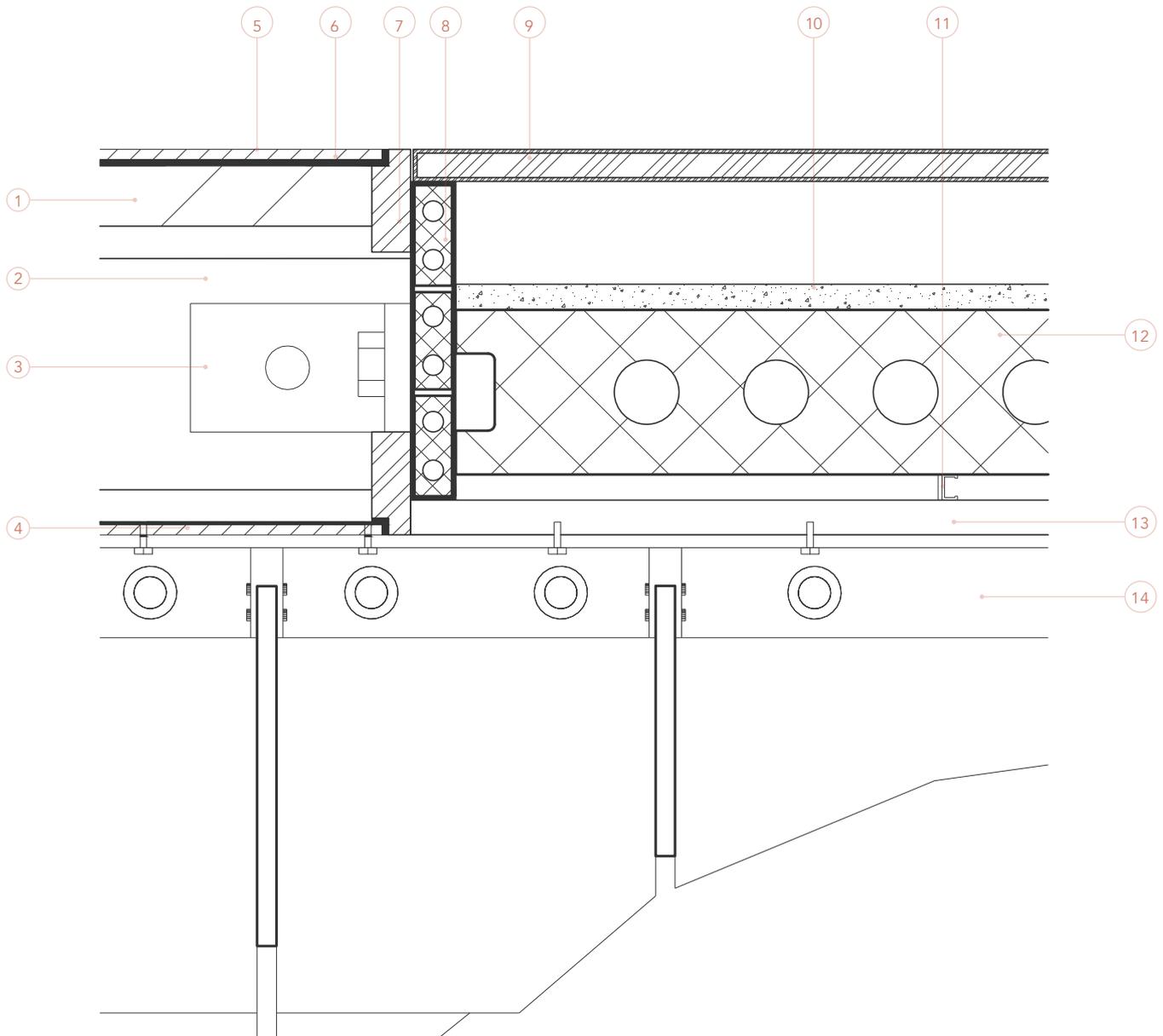
position of the detail junction02



axonometric of the detail junction02

The junction02 is the most important junction of the three junctions because it connects three different parts--laminated glass floor, solid floor, and the glass-layer vault construction. Many modern architecture techniques and knowledge are used in this junction, including curtain wall, glazing system, and modern office flooring raiser system.

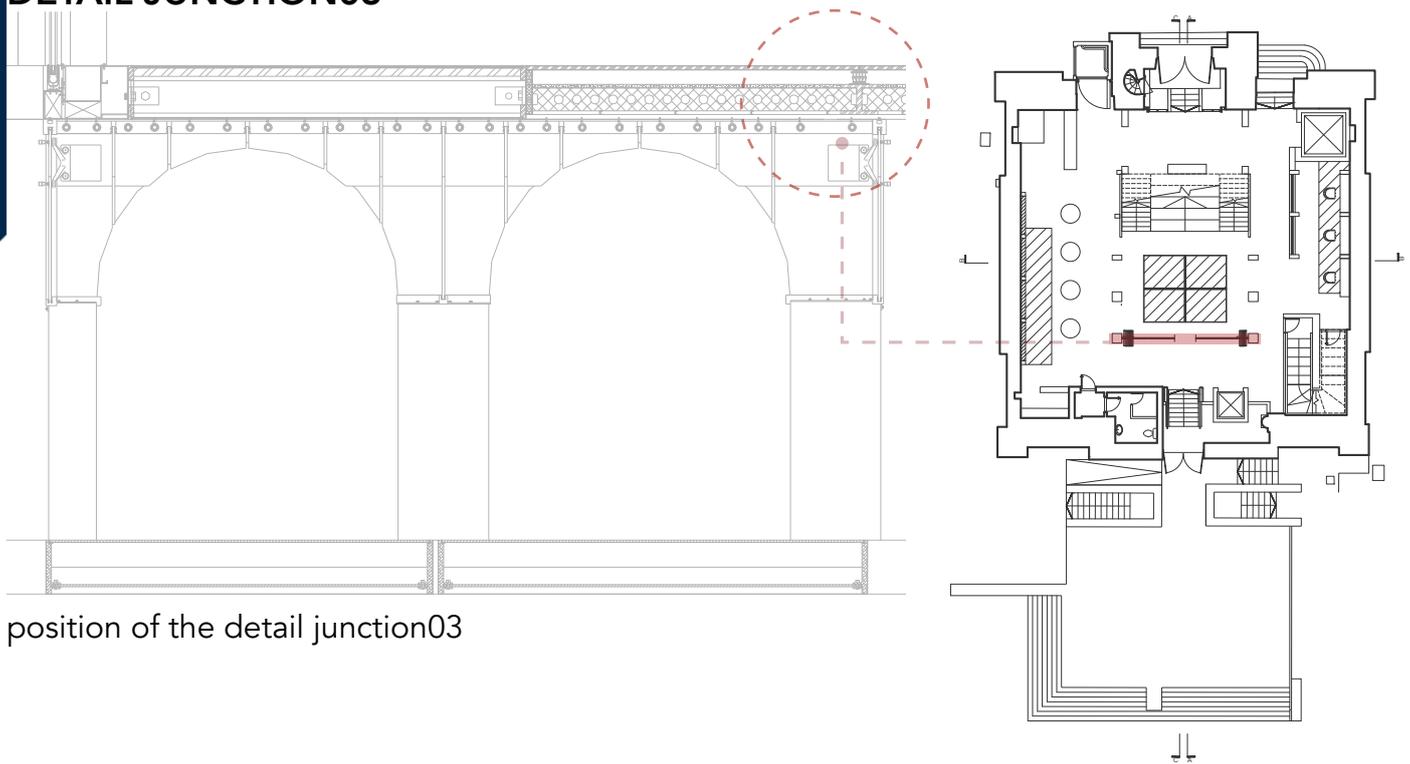
5.3 JUNCTION DETAILING



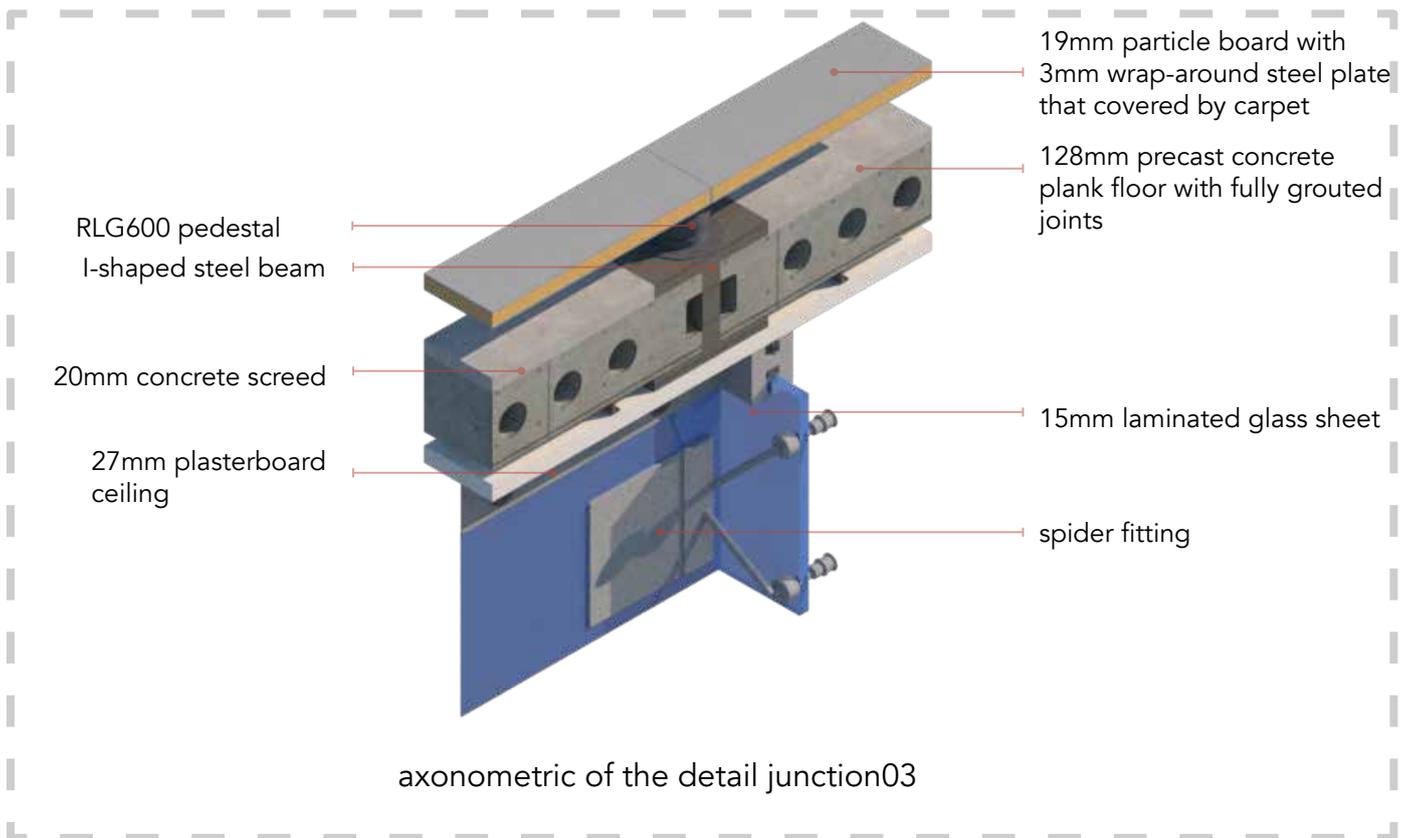
Type detail junction02 **Scale** 1:5 **Drawing No** SLCP/A(0)03

- | | |
|--------------------------------------|---|
| 1. fitting frames for the steel beam | 8. 29mm concrete panels with 3mm rubber washer |
| 2. I-shaped stainless steel | 9. 19mm concrete panels with 3mm floor finishes |
| 3. fitting frames for the steel beam | 10. 20mm concrete screed |
| 4. 15mm laminated glass | 11. suspended ceiling system |
| 5. 8mm laminated glass | 12. 128mm plank floor with fully grouted joints |
| 6. 3mm rubber washer | 13. 27mm plasterboard ceiling |
| 7. fitting frames for the steel beam | 14. ceiling beam system (type1) |

DETAIL JUNCTION03



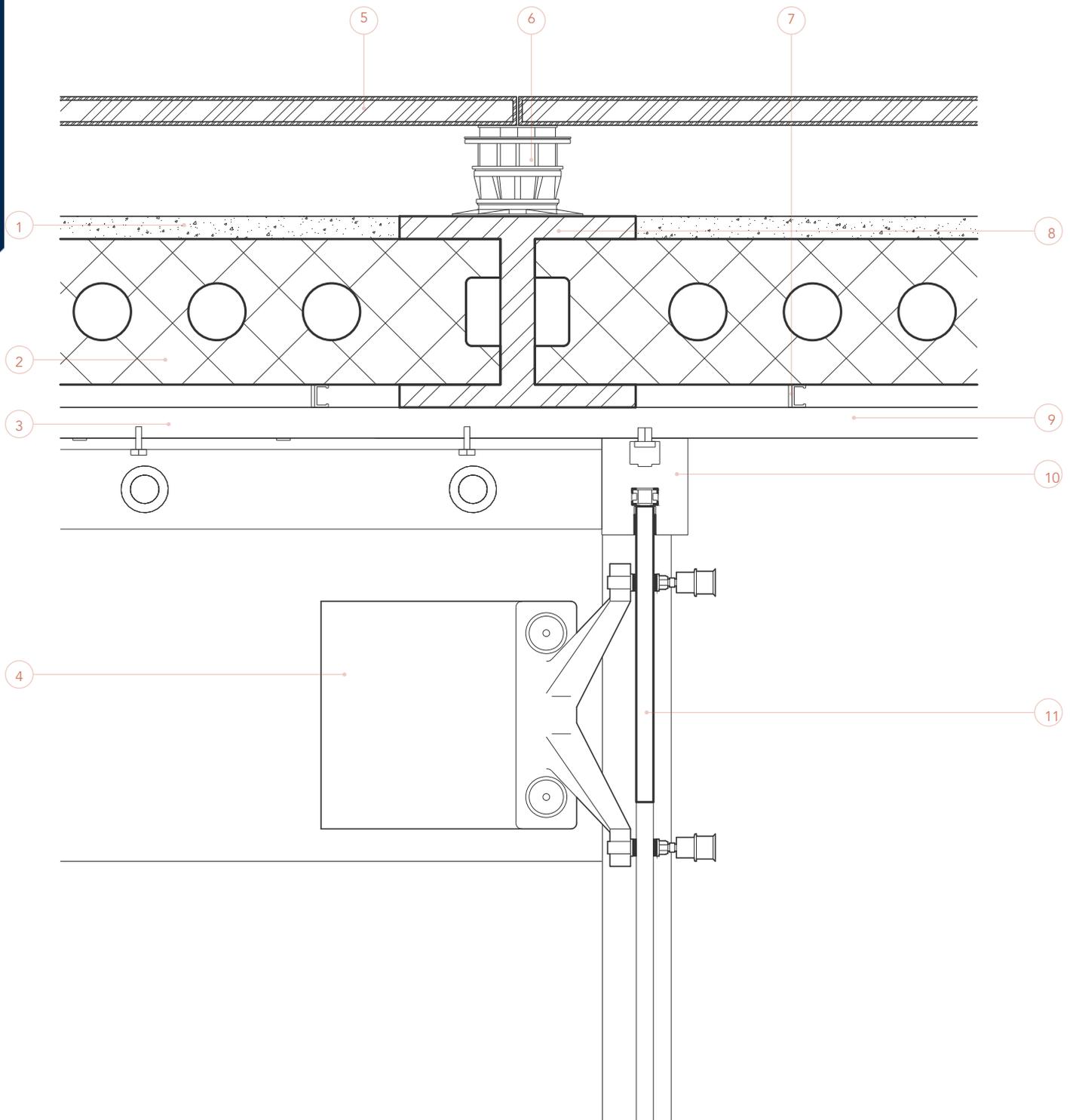
position of the detail junction03



axonometric of the detail junction03

The junction03 is a relatively simple junction among all three junctions. The techniques and knowledge, such as the glazing system, curtain wall, and modern office flooring raiser system, is used in this junction.

5.3 JUNCTION DETAILING



Type detail junction03 **Scale** 1:5 **Drawing No** SLCP/A(0)04

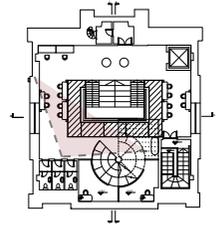
- | | |
|--|---------------------------------|
| 1. 20mm concrete screed | 7. suspended ceiling system |
| 2. 128mm precast concrete plank floor with fully grouted joints | 8. I-shaped steel beam |
| 3. ceiling beam system (type2) | 9. 27mm plasterboard ceiling |
| 4. spider fitting | 10. ceiling beam system (type1) |
| 5. 19mm particle board with 3mm wrap-around steel plate that covered by carpet | 11. 15mm laminated glass |
| 6. RLG600 pedestal | |

Notice:

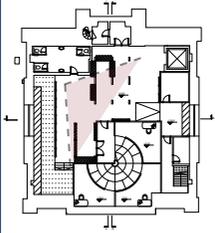
For more information about point 5&6, you can check the system through the link below.
<https://www.kingspan.com/gb/en-gb/products/access-floor-systems/medium-grade/rmg600-system>

6

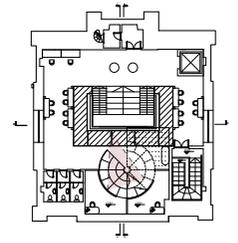
Final Impression



visual of the public writing space



visual of the library



visual of the bookshelf staircase