

THE BRIEF

The unit aimed to introduce the skills and knowledge necessary for the production of a freestanding building and the **IMPERATIVES WHICH DRIVE THEIR CREATION** and use.

It looks at the **RELATIONSHIP BETWEEN INTERIORITY AND ARCHITECTURE** (between the qualities of an interior space and the externalised form of the building).

This introduces students to the city (and its scale) as a site for enquiry and allows them to develop an understanding of the interrelationship of buildings, use, users, site, **URBAN INFRASTRUCTURE** and context.

Consideration is given to factors such as **TIME AND CHANGE** (e.g. the uses to which buildings may be put in their non opening hours).

RESEARCH STAGE

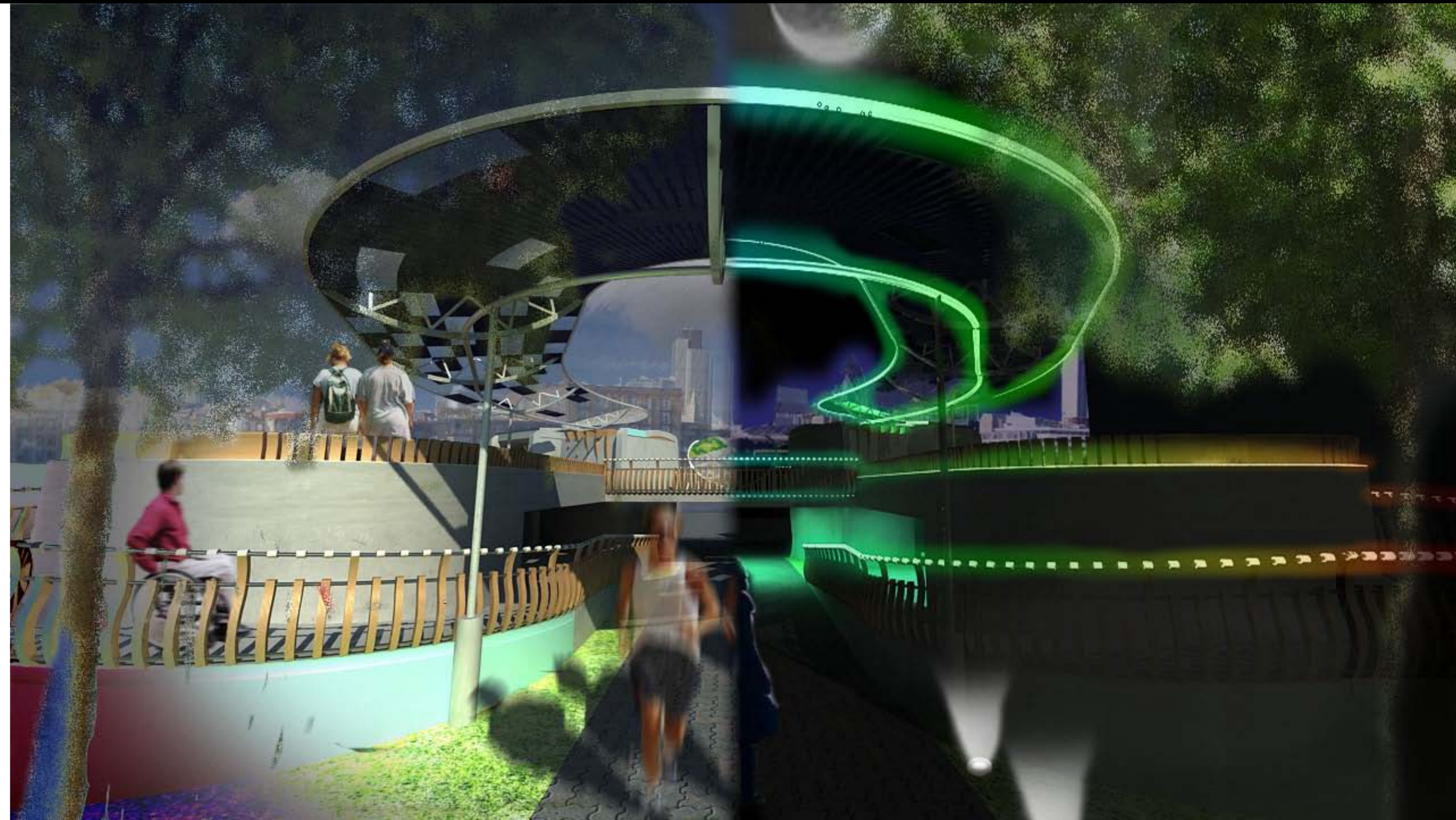
Firstly, I produced a site analysis of the existing empty green by the **ART DECO BUILDING, THE OXO TOWER** on the South Bank of the Thames in London. I initiated my analysis of the building and site by considering:

- > The geographical, functional and social context of the building.
- > The surrounding environment as well as the interior and exterior of the building.
- > The construction of the building and the service provisions around the site.
- > The forms and spaces of the building site.
- > The human factors: The needs of the worker, passer-by, tourist, restaurant diner etc.

RATIONALE OVERVIEW

The general intention of this project is as follows;

- > To design toilet facilities that caters from **MEN, WOMEN AND DISABLED**, incorporating new technologies and a unique array of materials to **MAXIMISE HYGIENE AND SECURITY**.
- > To design it to not only fit in with the neighbouring Brutalist buildings present on the South Bank riverside, but also to design it to **BLEND IN WITH THE GREEN** on the site
- > To set out the plan in relation to the style of design precedent Kenzo Tange
- > To **NOT DISTURB CURRENT PATHWAYS** on the existing site.
- > **MINIMISE OBSTRUCTION** of views of the River Thames whenever possible, whilst **MAINTAINING EASY ACCESS** to all facilities
- > Allow for **A SENSE OF EXPLORATION** and jogging/walking route for passers by
- > Consider **OTHER POSSIBLE USES TO COMPLEMENT** the users of neighbouring buildings i.e. users who attend performances at the Royal Festival Hall
- > Create **JOB OPPORTUNITIES** whenever possible
- > Due to the erection of the new facility, green space is being eliminated, so therefore the design should **COMPENSATE FOR THE LOSS** of green space



BY DAY

By **NOT UNNECESSARILY HEWING TREES** on the site (which do not have TPO's on them) it means that the facility can be situated within them and gives it **A SENSE OF BELONGING** on site. The materiality **REFLECTS THE**

SURROUNDINGS and also creates references to the design inspirations of Japanese Buddhist architectural designer, Kenzo Tange. Furthermore, the **MATERIALITY IS ENVIRONMENTALLY SOUND**. With the trees and the positioning of the photovoltaic cells on the glass roof above,

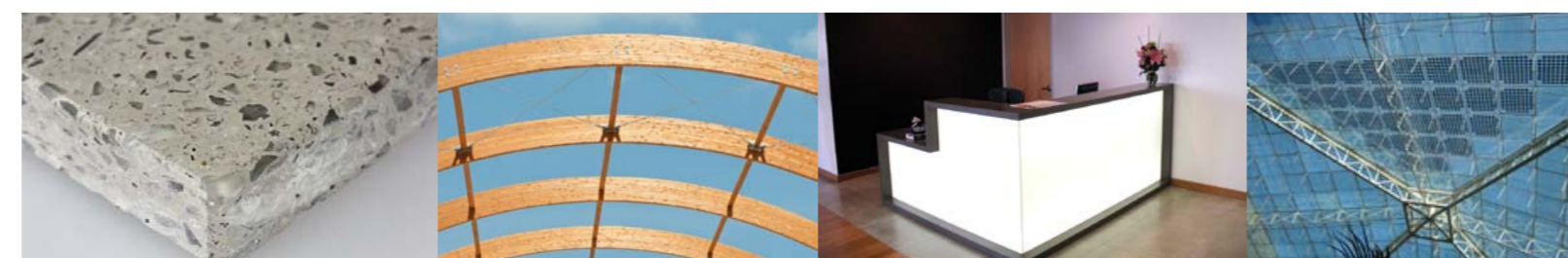
these allow the creations of **VARIOUS ABSTRACT SHAPED LIGHTS THAT CREATES AN ARTISTIC MOOD** to this place, which allows those that use this facility to feel calmer and less intimidated by the dominant presence of the concrete.

A) Recycled Shotcrete

B) Steam Bent Timber

C) Recycled Corian

D) Photovoltaic Glass



BY NIGHT

When night falls, to **REFLECT THE VIVID COLOURS** that are on show along the entire riverside Brutalist buildings, the **CORIAN ELEMENTS** of the design light up in a rainbow of colour. The trees currently surrounding the site do a reasonable job of illuminating the empty park area, but with this new facility in place, it **FILLS THE DARK**

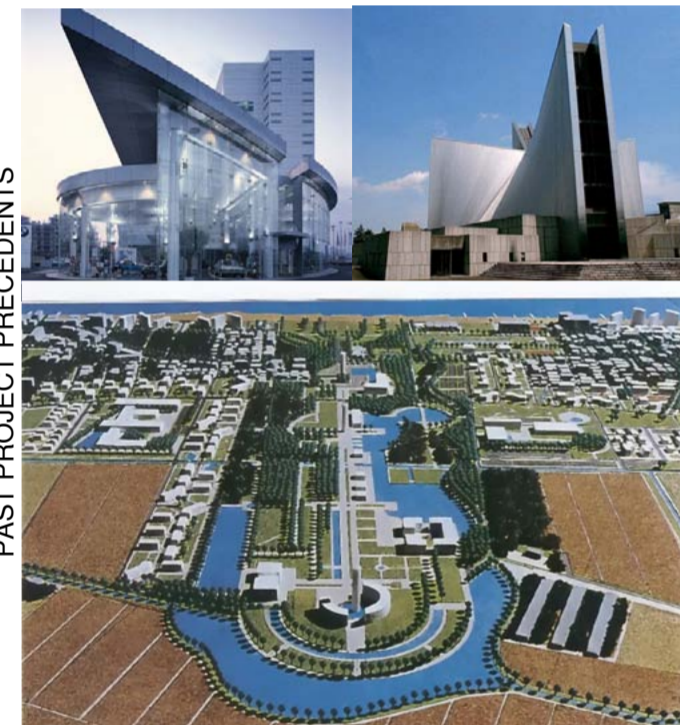
VOID between the OXO Tower and the riverside amenities. Not only does this add colour, but most importantly, light. As explained, this site is known for antisocial activities such as violence and rape, which primarily take place in dark areas owing to being invisible to unsuspecting public. These lights also allow those in the dark to find their way around the site, particularly the disabled users.

The light intensity created centrally **TRANSFORMS THE DYNAMIC OF THE FACILITY TO REFLECT THE MORE MAJESTIC TRADITIONS** by creating a sense of sanctuary. The illuminated ramps create aisles to strengthen this relationship to those traditions.

KENZO TANGE



KENZO TANGE PORTRAIT

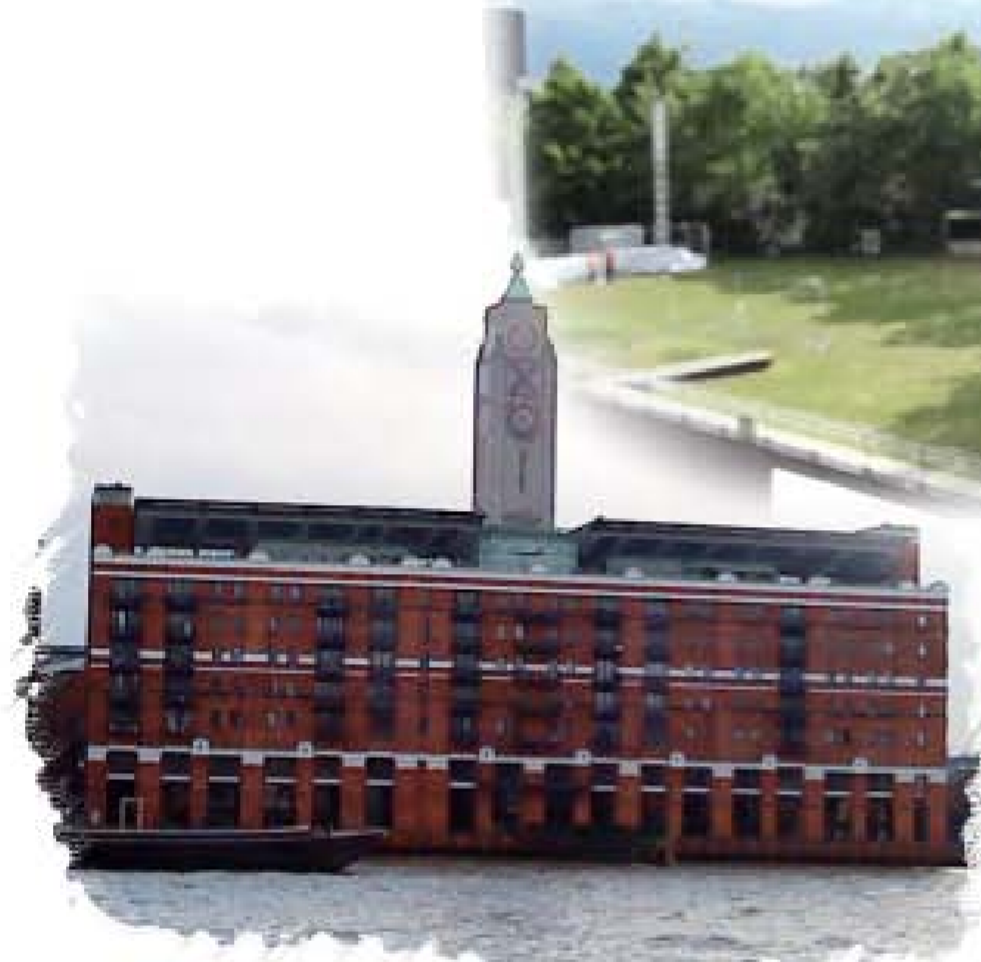


PAST PROJECT PRECEDENTS

Tange (1913 - 2005) was a Japanese architect who was the winner of the 1987 Pritzker Prize for architecture. His work **COMBINED THE TRADITIONAL** Buddhist temple style with the Brutalist and Structural styles, which allowed his designs to be **MODERN, TECHNOLOGICAL** as well as invoke his **BUDDHIST DRIVE** and passion to add **A SENSE OF SPIRITUAL BELONGING** within the buildings and settings he designed. His work mainly comprised of **URBAN MASTERPLANNING** as well as **LANDSCAPING** projects. Whenever he could, he would try to combine them together. It was this unique design philosophy that got him known in Japan as a **KEY ARCHITECT OF THOSE TIMES.**

WHY KENZO?

I chose Kenzo Tange as my precedent since not only is he Japanese (and I'm into the whole Japanese culture), but his architectural inspiration, in terms of **SHAPE AND MATERIALITY FIT** in well with the architecture of the South Bank in which the proposed site resides.



OXO TOWER

The Oxo Tower, rebuilt in the 1930s to an **ART DECO DESIGN** with mixed amenities such as a restaurant, an exhibition space as well as residential apartments and shops. The design **ORIGINALLY WANTED**

TO INCLUDE A TOWER FEATURING ILLUMINATED SIGNS advertising the name of their product. When permission for the advertisements was refused, the tower was built with four sets of three vertically-aligned windows.



THE SITE

Address:
OXO TOWER WHARF
Barge House St, South Bank,
London, SE1 9PH

The site itself is a green that nestles in between the renown Oxo Tower and the brutalist buildings on the Entertainment District of South Bank. The green also has a jetty on the Thames as well as a circular pathed area, surrounded with **TREES UNPROTECTED FROM TPOS.**

SOUTHBANK BRUTALIST BUILDINGS



VIEW WEST FROM SITE ACROSS TO GABRIEL'S WHARF

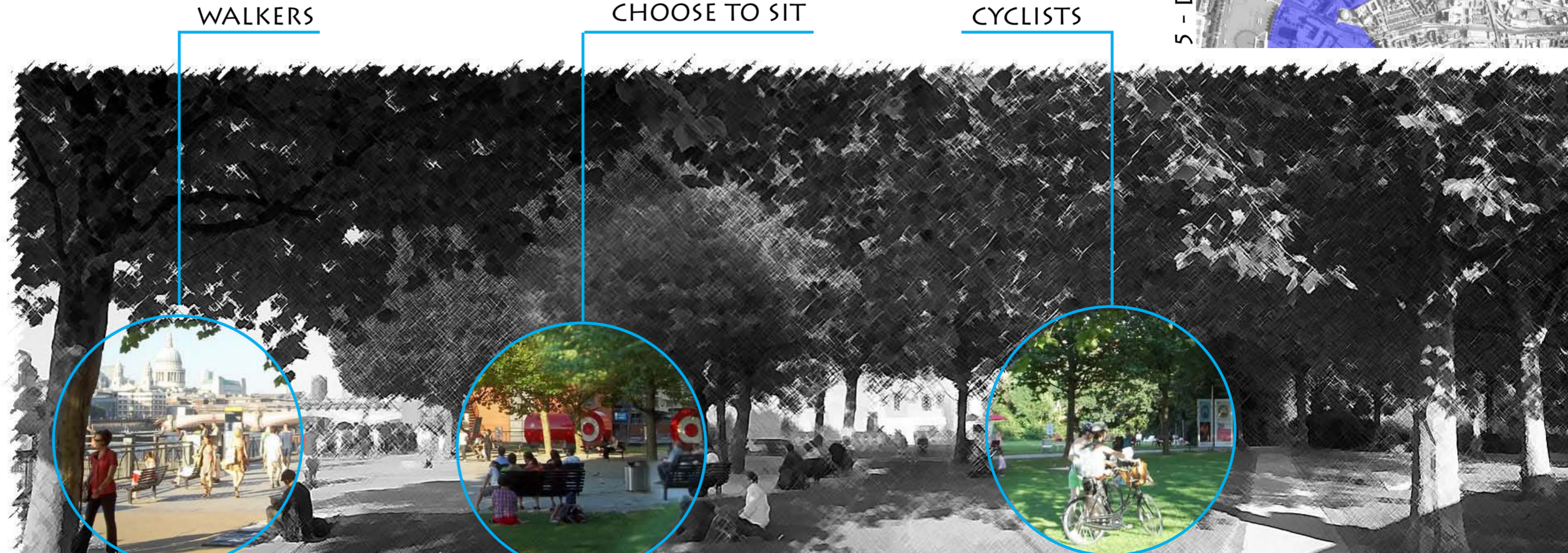


SITE PLAN @ 1:1000

VIEW EAST FROM SITE TO OXO TOWER

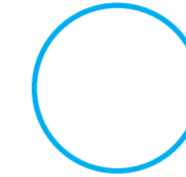


EAST VIEW ACROSS GREEN SITE



MULTICULTURAL PRESENCE AROUND SITE

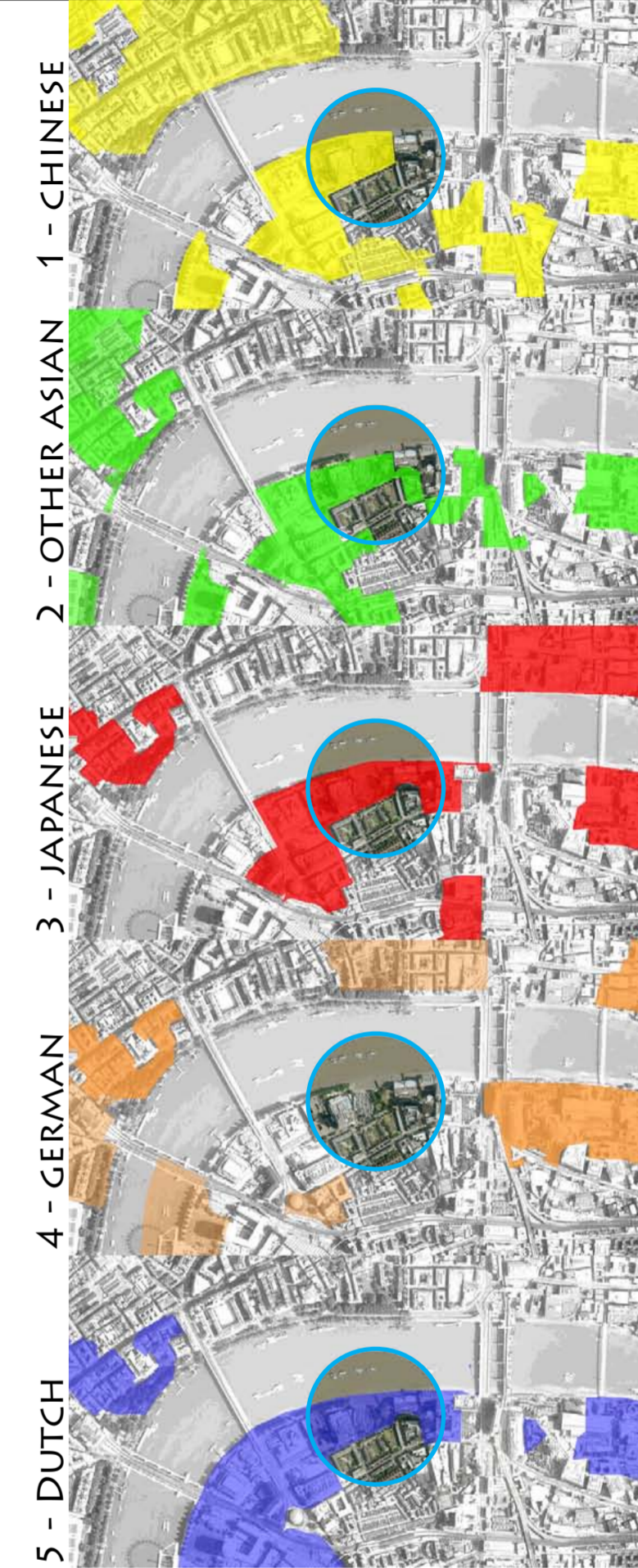
London is known for having **SEVERAL WORLDWIDE CULTURES RESIDING IN THE CITY**. In relation to the demographics that are nearest to the site in question, the 5 diagrams to the right indicate the presence of the Top 5 cultures residing in the area...



The blue ring represents the **200M RADIUS** that surrounds the site. Denser colours on each diagram represents a greater density of population of that ethnicity in that block.

Analysis of the study has indicated that there is **A STRONG EAST ASIAN PRESENCE** in this part of the borough of Lambeth. This supports the reason for an Asian style design proposal...

(Information obtained from London Profiler)



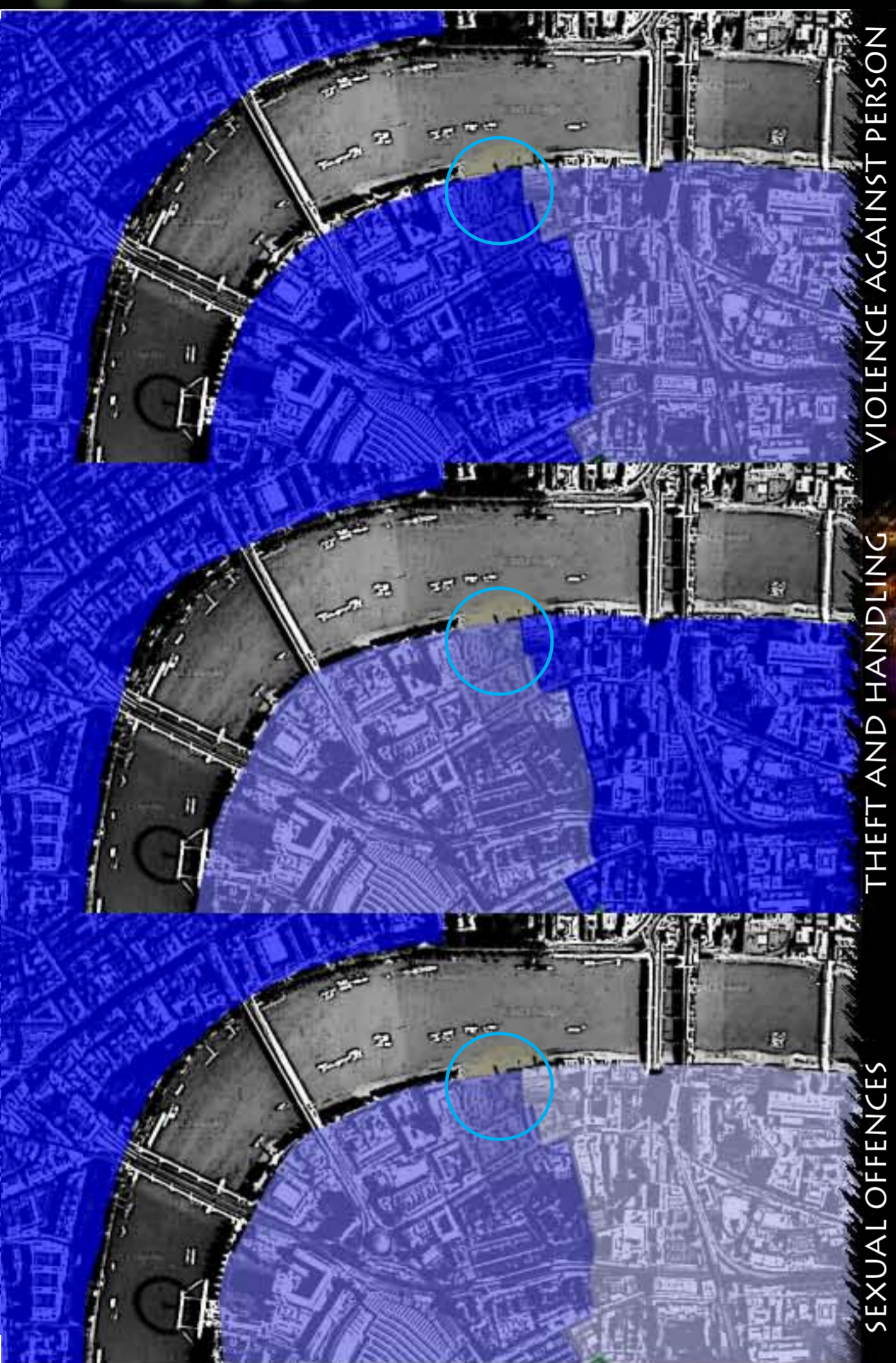
KEY USER GROUPS

The Thames Riverside attracts a lot of tourism, but as well as them, the other user groups are specified as below, which represent the kinds of people that come by this site on a regular daily basis.

WALKERS

THOSE WHO CHOOSE TO SIT

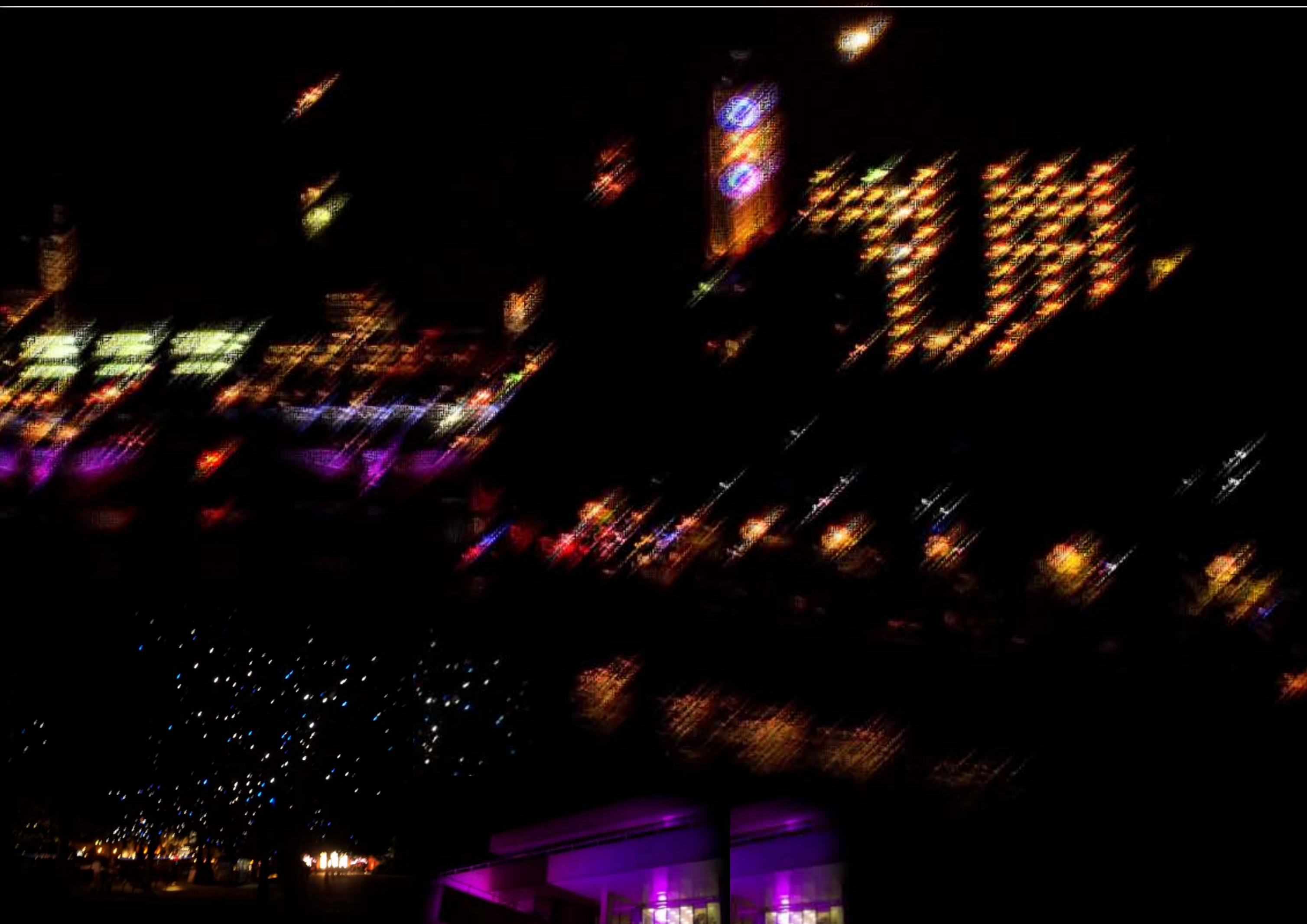
CYCLISTS



VIOLENCE AGAINST PERSON

THEFT AND HANDLING

SEXUAL OFFENCES



CRIME PRESENCE AROUND SITE

Crime in London is notorious, but a study of the types of crimes specifically in the South Bank is as seen above. These are the key three that are most occurrent in this area.

The blue ring represents the **100M RADIUS** that surrounds the site. Denser colours on each diagram represents a greater density of that particular crime in that block.

Analysis of the study has indicated that **VIOLENCE AGAINST OTHERS** is the key crime in this area, but there is a danger of theft too close by.
(Information obtained from London Profiler)

LET THERE BE LIGHT, SAVED BY THE LIGHT

Upon surveying this area in the nighttime hours, whilst there is **STRONG VIVID COLOURFUL LIGHT** to create new life to the **DULL GREY BRUTALIST BUILDINGS**, the intensity of the light is **STILL INSUFFICIENT ENOUGH TO PREVENT CRIME**. In other words, there is enough dark spaces for crimes to be committed such as those detailed to the left.

The proposal would incorporate these **SECURITY DESIGN STEPS TO INTRODUCE SECURITY** into the area that it definitely needs.

- **COMPONENTS OF DESIGN**, including interiors, should be resistant to vandalism and easily replaced, or cleaned.
- Allow for a continual uninterrupted level of surveillance i.e. windows overlooking public areas
- Consider **ACCESS** to proposal
- Good surveillance
- No dead ends



NIGHT SCENES

- 1 - SITE PLAN WITH PROPOSAL POSITIONED (Scale: 1:5000)
- 2 - VIEW FROM THE NORTHWEST OF RIVERSIDE WALK



Given that there is a significant amount of **ENTERTAINMENT FOR ALL AGE RANGES** along the whole Southwark Riverside, it is only fitting that the new proposed facility does so too.

You can see as an overview that the proposal's shape **FOLLOWS**

THE EXISTING CIRCULAR GEOMETRY of the existing site, whilst **MAINTAINING A SENSE OF SYMMETRY** with the top level passing over the south passing path that heads down into the city.



THE GROUND FLOOR

1 - DISABLED WC

Whilst it is already **LARGER THAN THE STANDARDS** as set in Building Regulations Part M - Access to and use of buildings, it allows for that **EXTRA MANOUVREABILITY** and also more sense of security and safety. Psychologically, larger rooms allow the users of the room to feel more at ease. People who use public facilities already have that sense of uncertainty.

This is more true for those who are disabled hence the need for **CREATING A PSYCHOLOGICALLY LARGER SPACE**. Adding to the effect is applying a **GLOSS TO THE WALLS**.

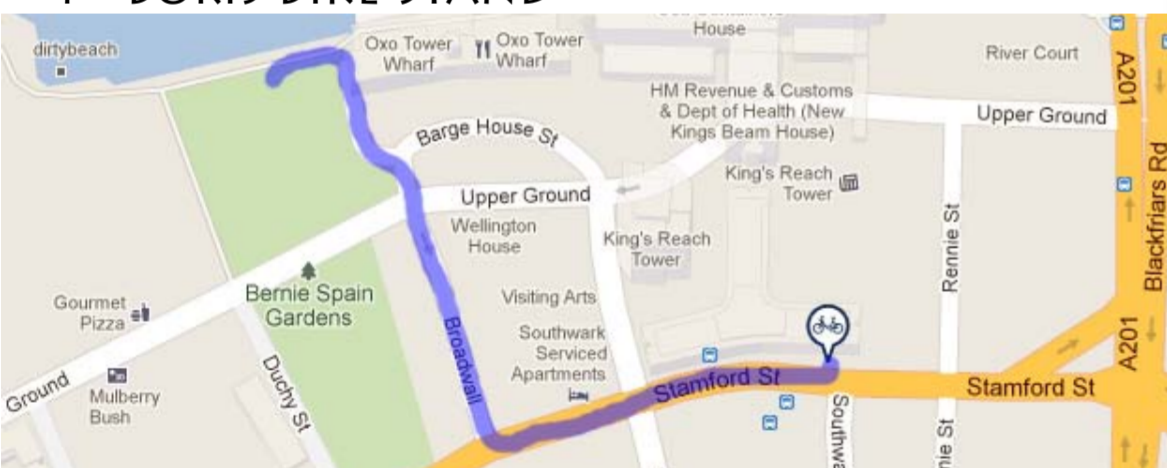
2 - LOCKERS AND SHOWERS

These are being implemented to allow users that are attending a prestigious event that takes place along the riverside, such as a musical performance inside the Royal Festival Hall. The showers may also be used by those who cycle or jog and just need to cool down their bodies in preparation for the journey ahead.

3 - PLANTING BEDS

Flower bed decorating creates **A SENSE OF BEAUTY** to a scene. Because this part of London has several Brutalist Buildings, and this facility is potentially taking away a fairly significant amount of green area, the flower beds that border the facility create a **BEAUTIFUL VEIL** for those entering the park. They would see colour instead of the depressing grey. These also create jobs for the unemployed. The upkeep of gardens does require commitment and several days a week upkeep. It is also a **NEW SKILL** that is learnt.

4 - BORIS BIKE STAND



The nearest stand to the site is a 6 minute walk away, whereas in most places in London, each stand is traditionally a couple of minutes apart. Having one on site allows for **MORE CONVENIENCE FOR THE USERS** of the site.

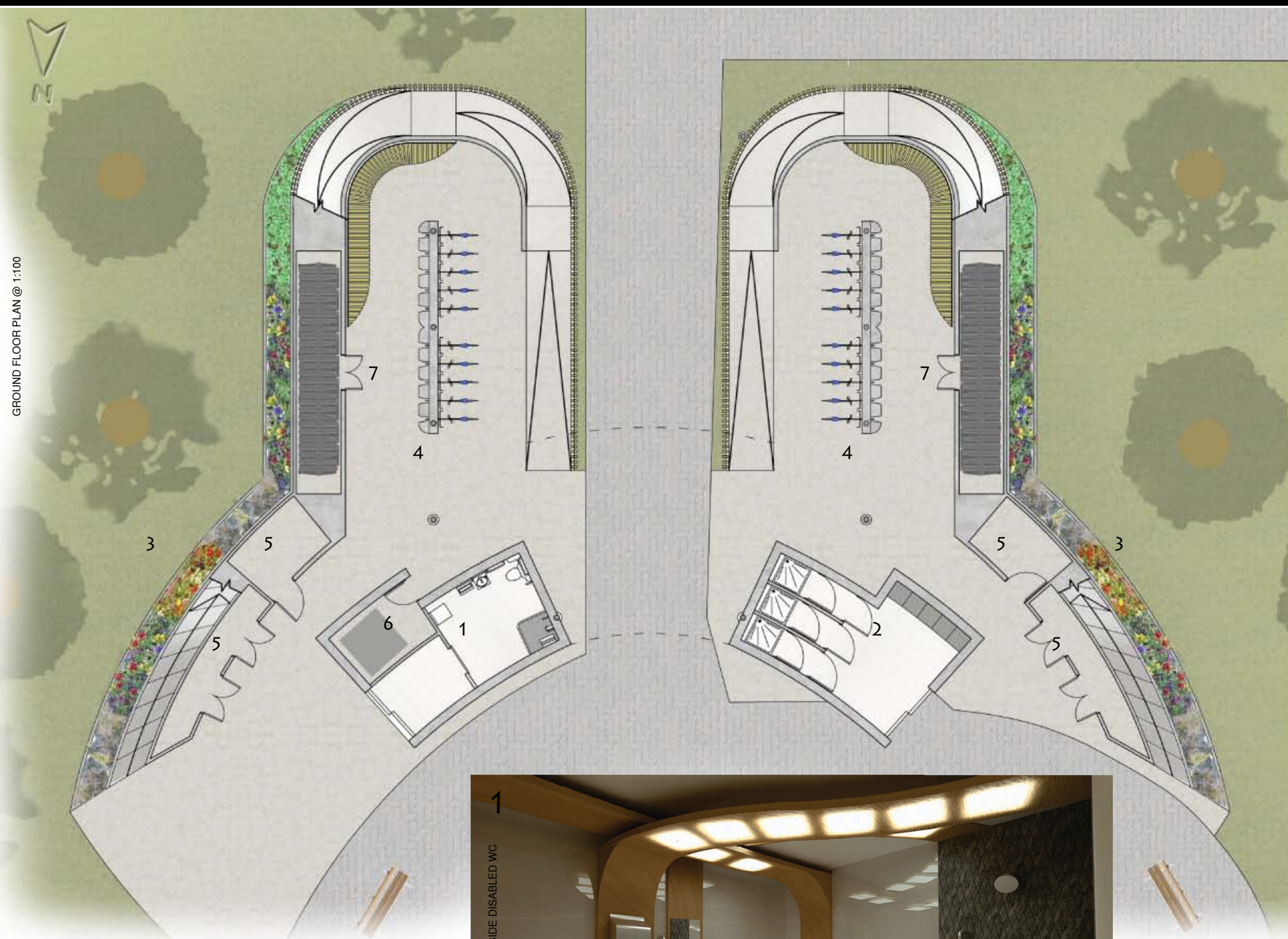
5 - EQUIPMENT STORAGE

The equipment for the plant bed upkeep as well as other necessary equipment used to maintain the facility would be stored here.

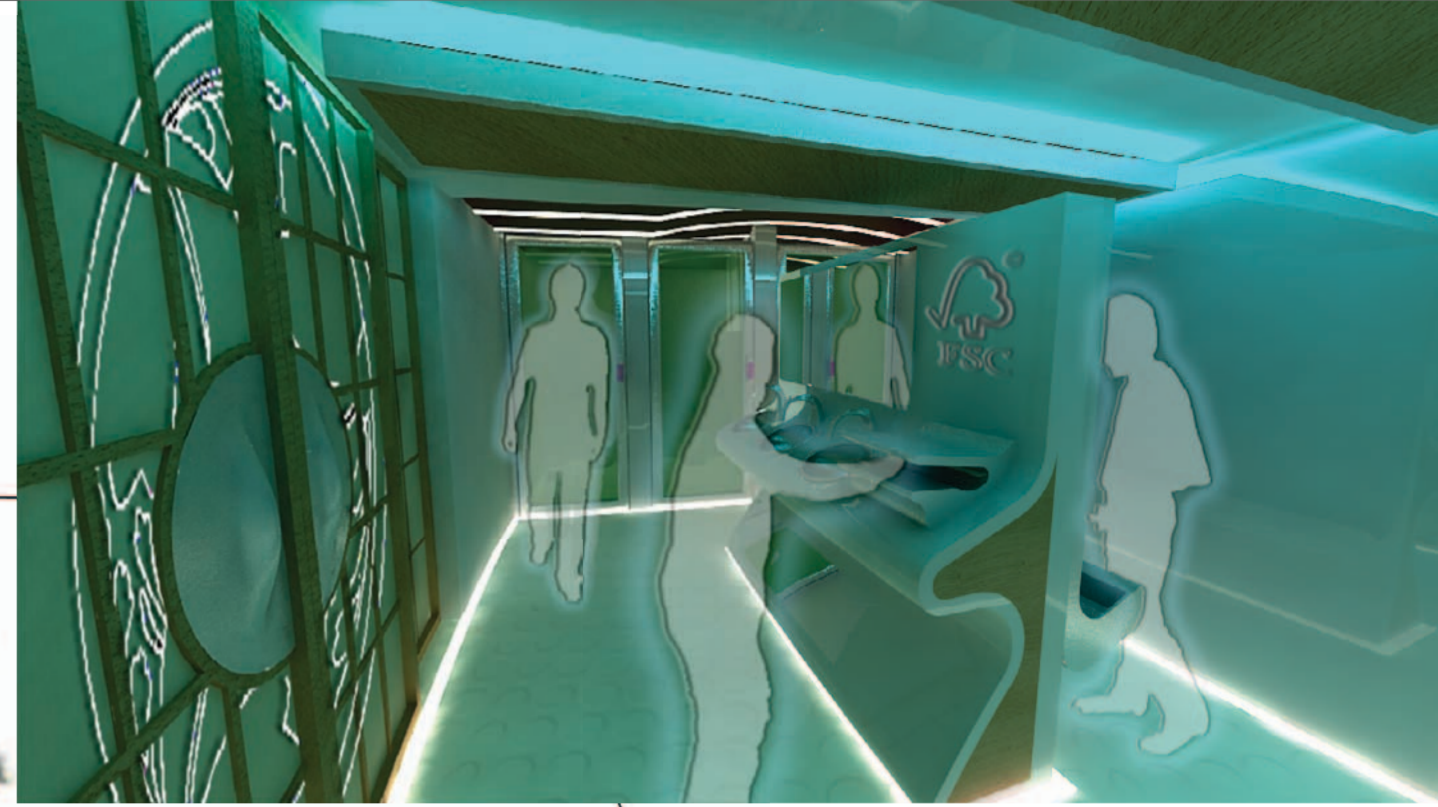
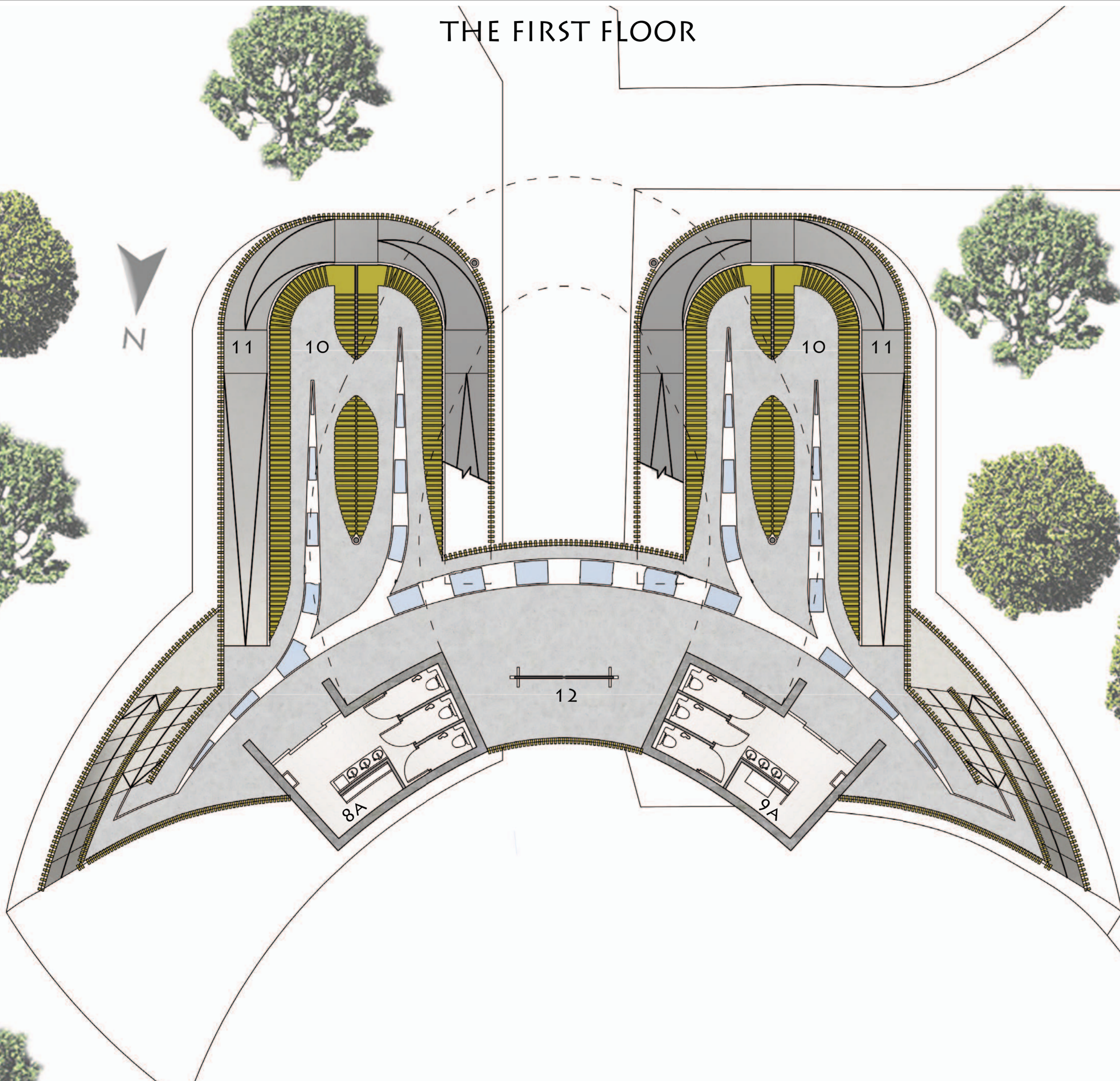
6 - ENGINE ROOM

7 - RAINWATER COLLECTING TANKS

Rainwater that is collected by the roof's gutters would be brought to these tanks to be used by the water dispensers for the beds and for flushing the toilets as part of being an environmentally friendly scheme design.



THE FIRST FLOOR



8 - MALE WC

Both Male and Female WCs have the same layout, with the one difference of the Male WC has a urinal bay (8a) and the Female WC has a baby changing bay (9a). The lighting scheme used is a combination of green and blue for the following reasons;

BLUE - invokes a sense of trust and security

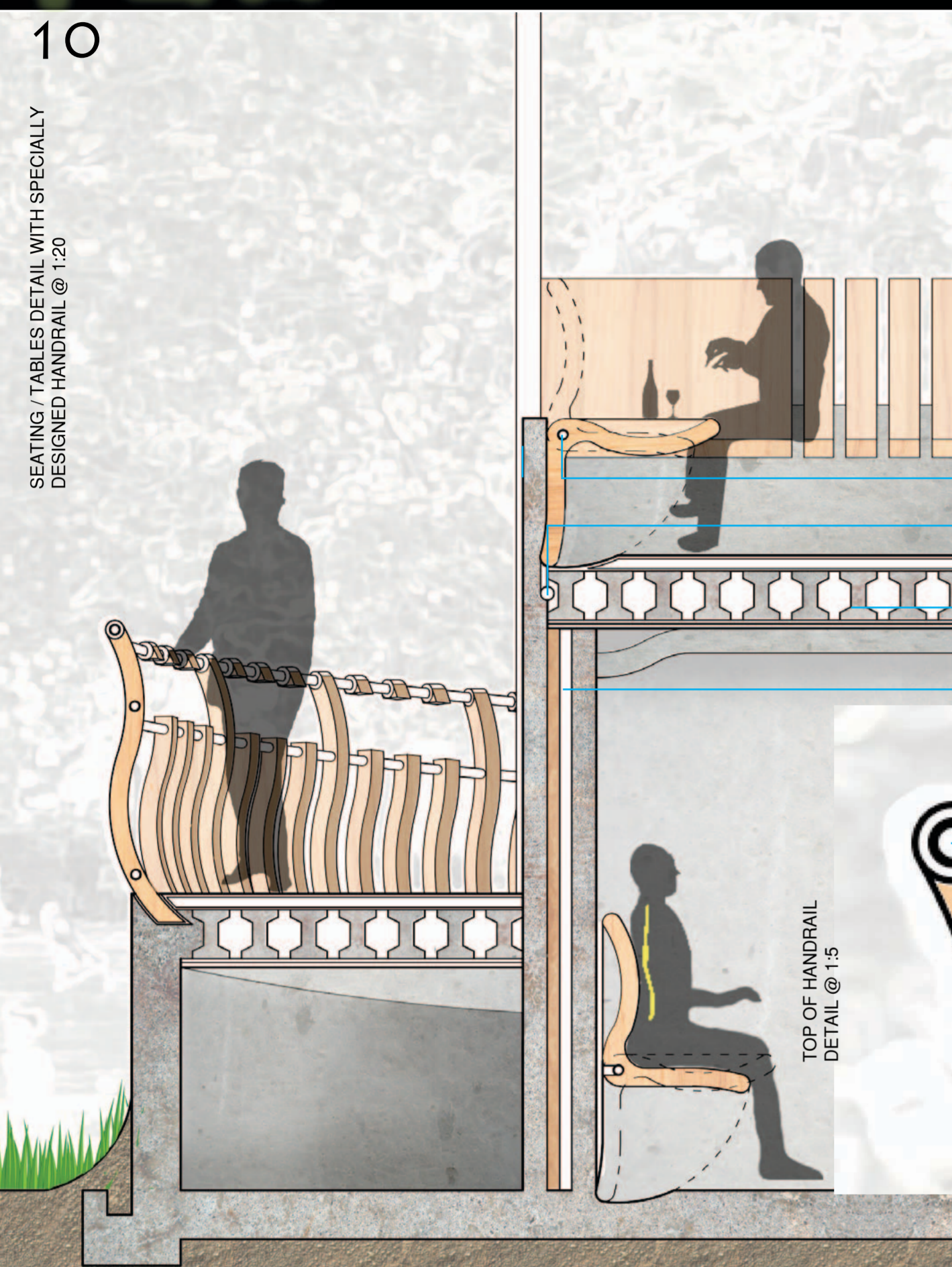
GREEN - associated with spiritual calm. This encourages the users to relax when they are relieving themselves!

9 - FEMALE WC



10

SEATING / TABLES DETAIL WITH SPECIALLY DESIGNED HANDRAIL @ 1:20



10 - SEATING / TABLES

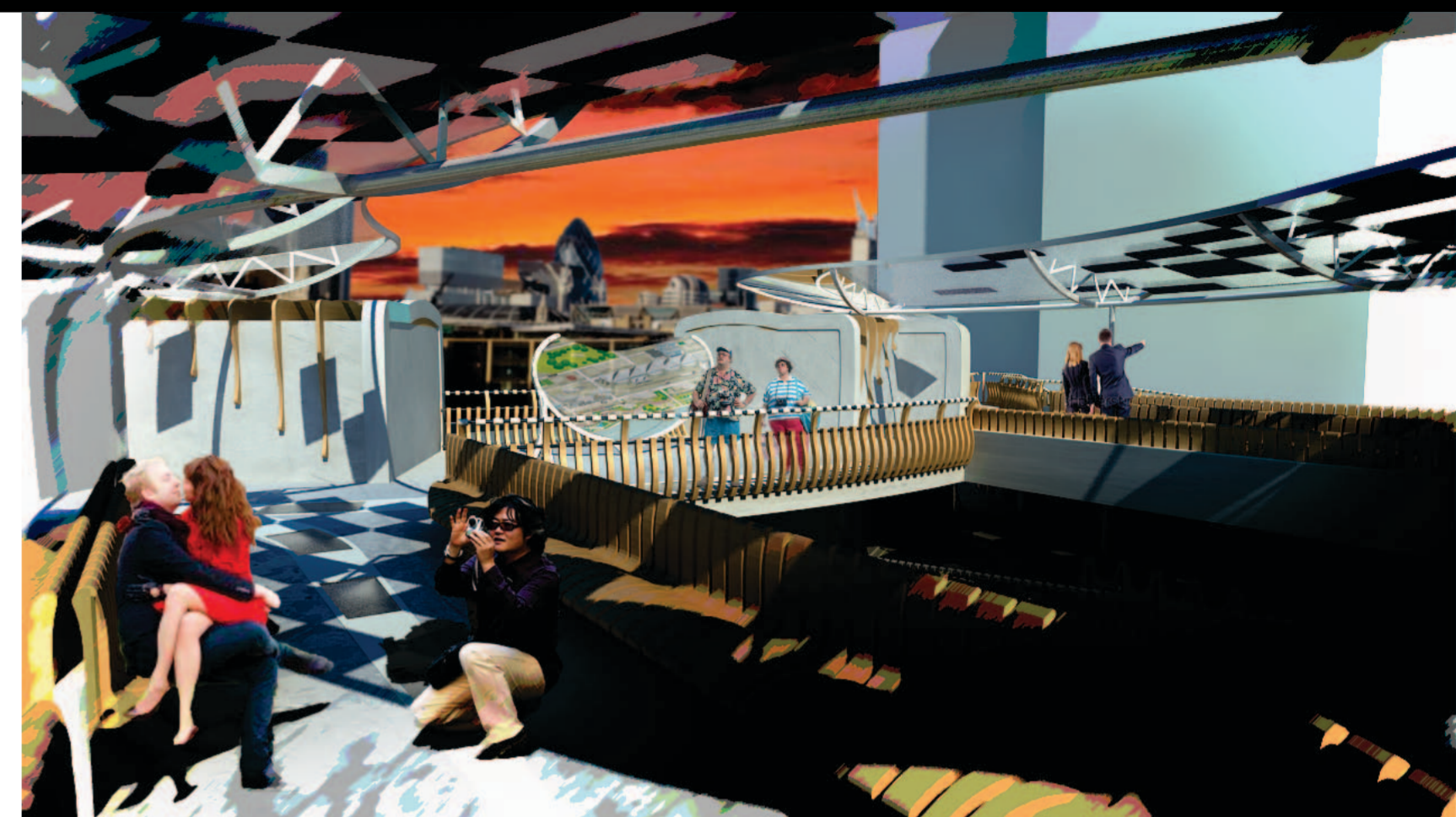
The precedent for this design is as shown to the bottom left. However, for my scheme, I have **EVOLVED THE DESIGN** further to incorporate the curves that are seen around the rest of the site.

Also, the shape has also been **ERGONOMICALLY ADAPTED TO ENCOURAGE GOOD POSTURE**, to maintain the natural S-shape curvature of the spine and to eliminate potential back pain and fatigue.

- Steel rod axle
- Rainwater drainage
- Shotcrete floor construction with precast concrete beams
- Partial fill wall construction; 50mm cavity / 50mm insulation
- 15mm Corian layer
- 20mm radius steel connecting bar
- Steam bent recycled timber post

FURTHER VISUALS

The terraces outside of the WCs allow for **PRIMARILY A SENSE OF RELAXATION**, but they can be used for other purposes, such as for **A FORMAL RENDEZ-VOUS, OR PERHAPS NOT SO FORMAL**. Whatever time of day, the visitors and dwellers will be treated to **SHAPES OF CONTRASTING LIGHT AND SHADOW** during the day, and by night, it will be lit up like a discoteque to create a happy, vibrant and more importantly **SOCIAL ATMOSPHERE**, whilst at the same time, maintaining a **SENSE OF SAFETY AND SECURITY** within this sanctuary.



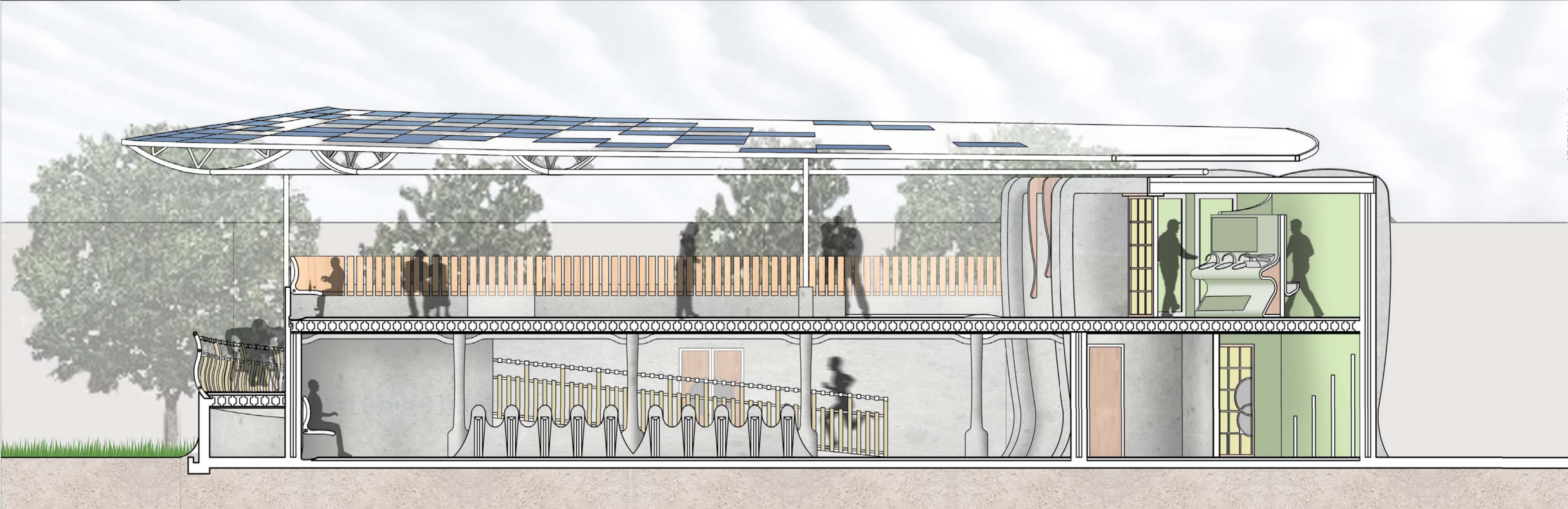
11 - DISABLED RAMP

In accordance with Building Regulations Approved Document K - Protection from Falling, Collision and Impact and BS 8300:2001, the slope runs at 1:12 to **ALLOW FOR ACCESS BY WHEELCHAIR USERS** with landings at appropriate intervals. What this also means that it **CAN BE USED BY JOGGERS AND WALKERS** to add a little more length to the journey.

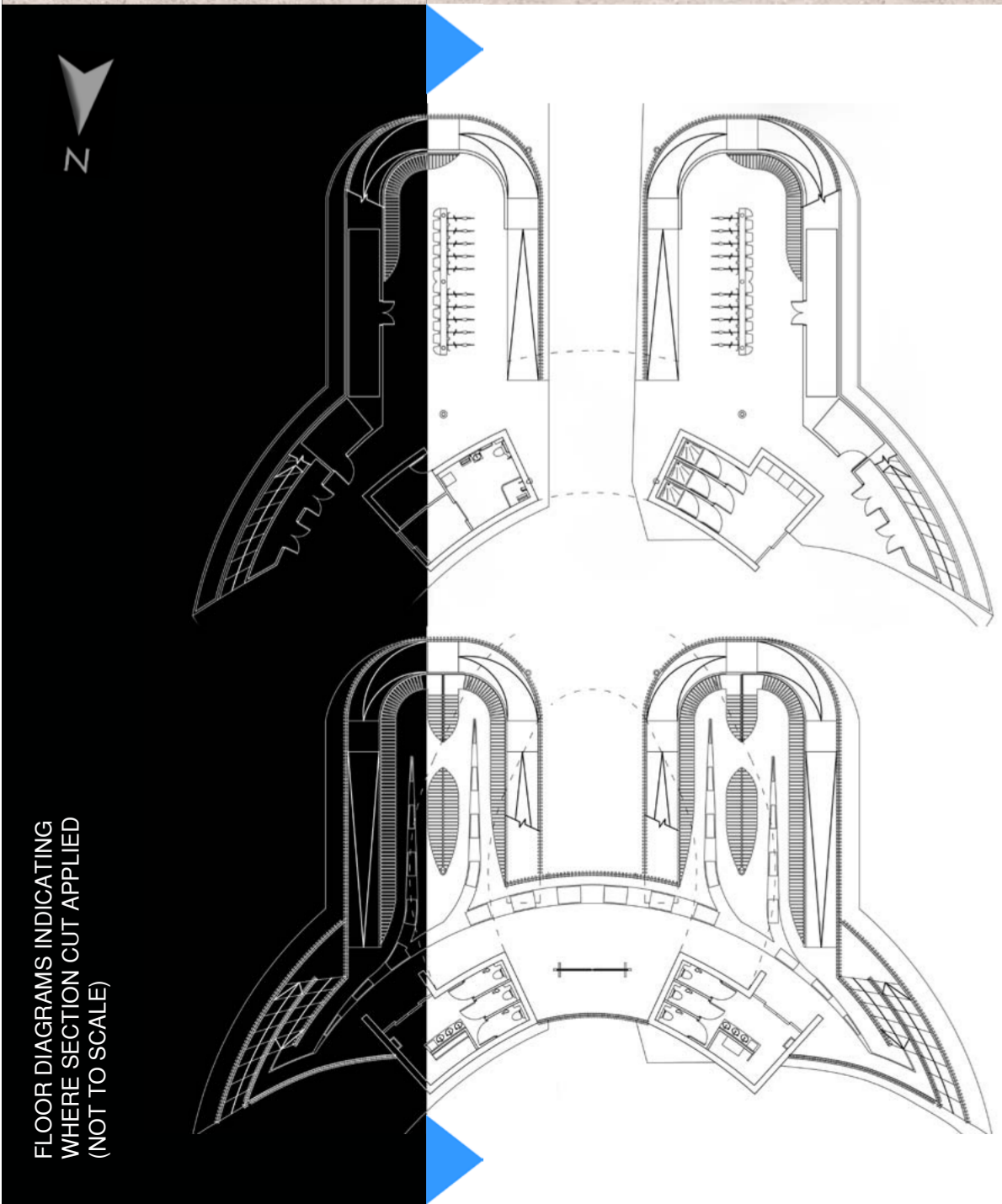
12 - DIGITAL NOTICE BOARD

This is a digital screen that can display all sorts of information on it, such as a map, advertisements for nearby events. This is also illuminated at night to add to the colourful scenery.



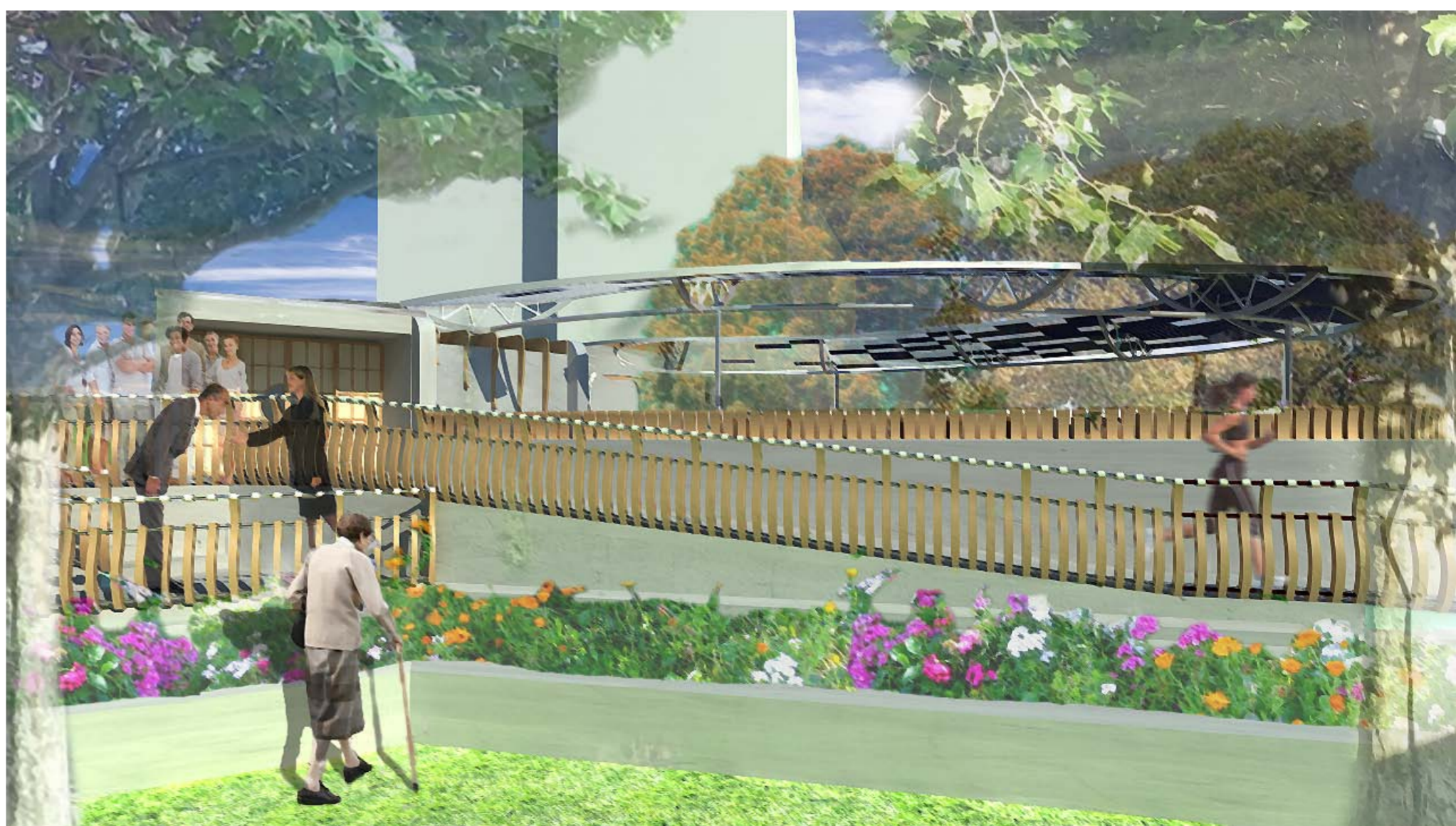


SECTION A - A @ 1:100

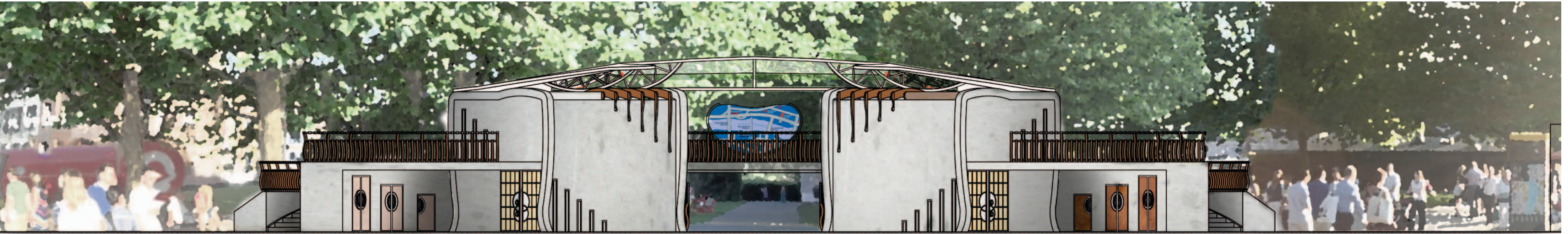


GF

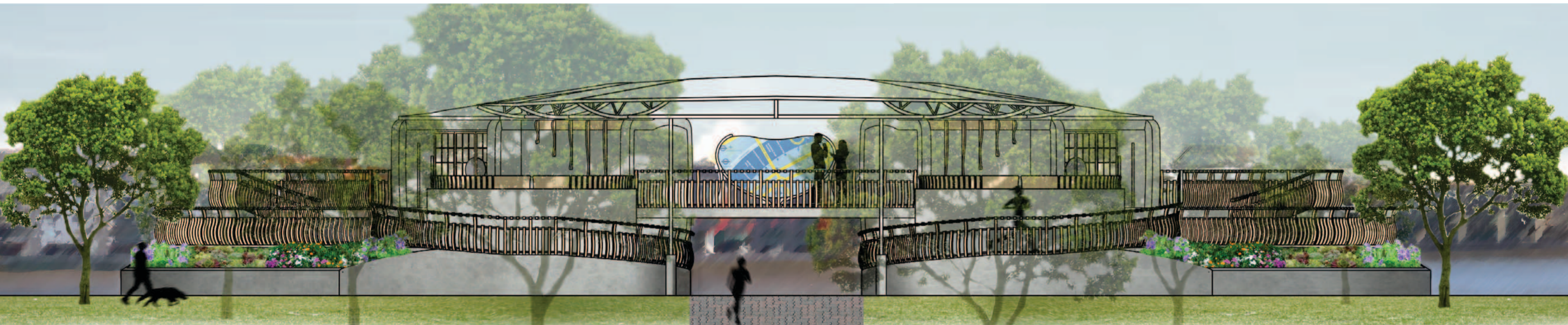
1F



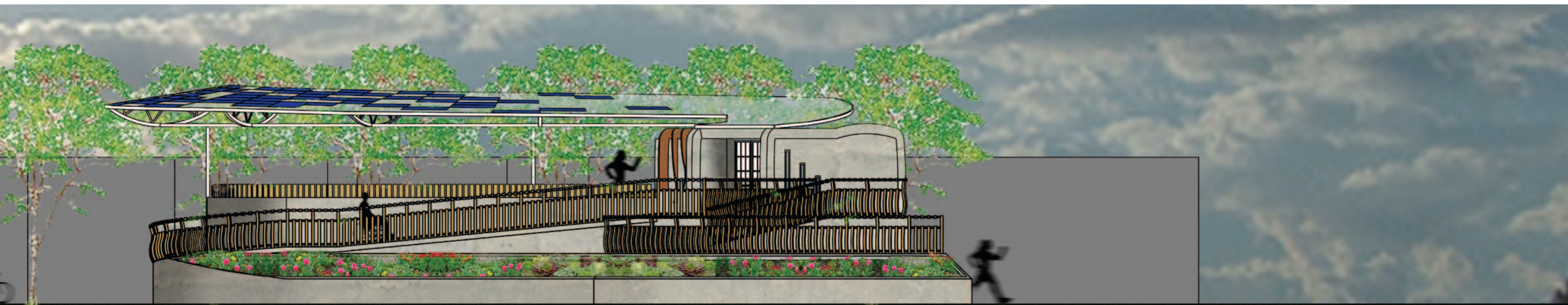
FLOOR DIAGRAMS INDICATING WHERE SECTION CUT APPLIED (NOT TO SCALE)



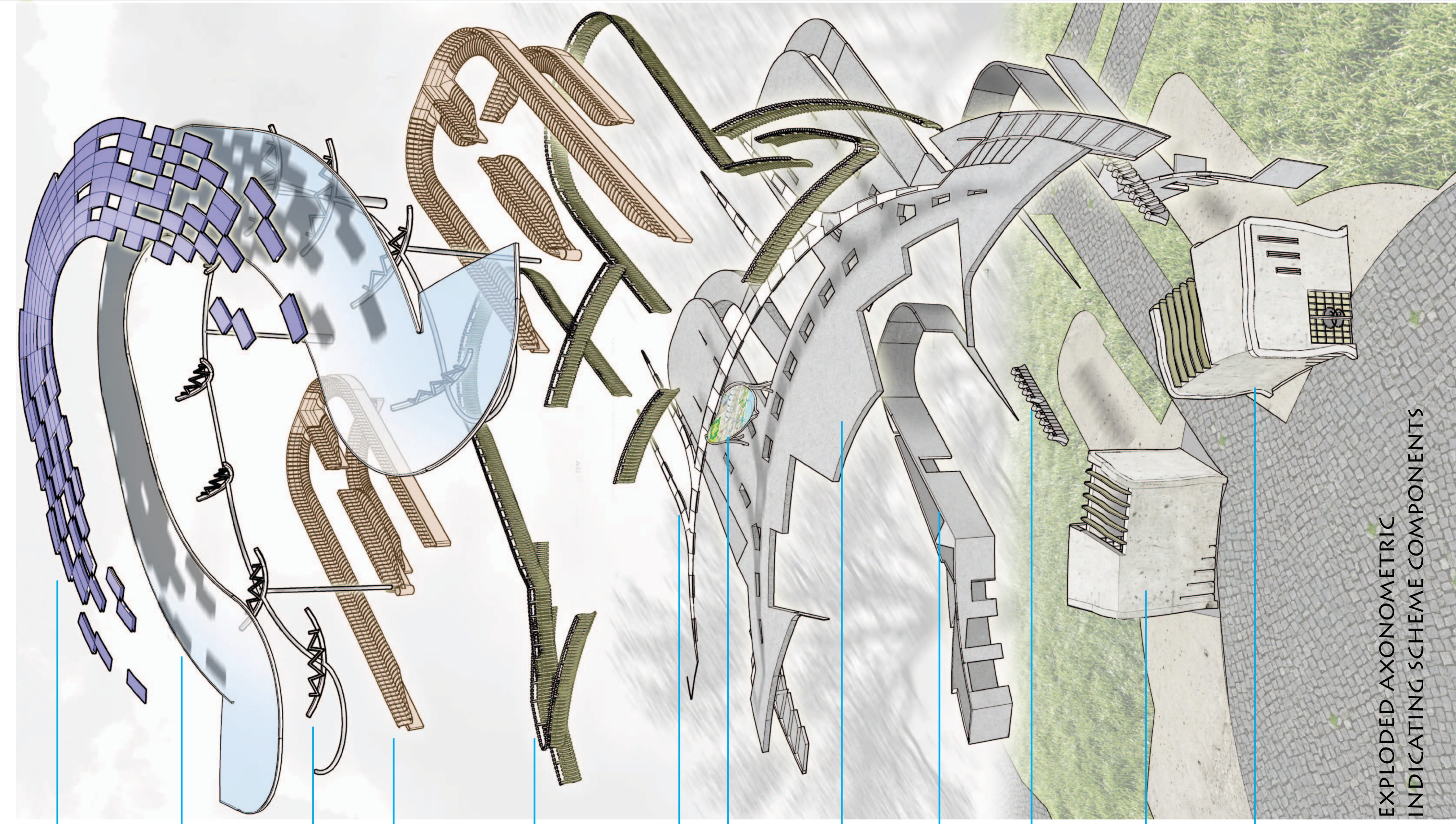
NORTH ELEVATION @ 1:100



SOUTH ELEVATION @ 1:100



EAST ELEVATION @ 1:100



Photovoltaic Cells to be

Sweeping Glass Roof

White Painted Aluminum Roof Bracing and Lattice Supports

Steam Bent timber Benches/ Tables

Steam Bent Timber, Perspex and Stainless Steel Balustrades

Perspex Floor Lighting and Glass Panels

LCD Notice Board

Precast Shotcrete First Floor Slab

Precast Shotcrete Ground Floor Walls

Boris Bike Racks

Precast Shotcrete Disabled WC (GF) / Male WC Block (1F)

Precast Shotcrete Showers and Lockers (GF)

EXPLODED AXONOMETRIC INDICATING SCHEME COMPONENTS



THE PHOTOVOLTAIC GLASS ROOF

The uniquely designed roof has been **ORIENTATED TOWARDS THE PATH OF THE SUN** which passes from East to West with the light emanating from the south. Since I believe that a roof designed completely of photovoltaic panels, though as practical as it may be, would not look so aesthetically pleasing. It wouldn't **ALLOW THE FULL POTENTIAL AMOUNT OF LIGHT** into the vicinity, which has several trees growing around it. Therefore, the design incorporates a fading away effect. This allows for this **PATTERN TO BE CAST AS A SHADOW** on the concrete below. The photovoltaics are concentrated mainly at the southern most part of the roof, since this is where most of the sun's radiation will mainly be captured.

Also, as you can see from the cross section of the roof detail, the roof is deliberately sloped to **ALLOW RAINWATER TO BE COLLECTED.**

Rainwater collection goes to WCs via sloped roof

SIDE ELEVATION WITH EMPHASIS ON ROOF

MODEL RENDERING WITH EMPHASIS ON ROOF

Raingutter encased by 15mm Corian layer

Channel for the passing of electrical current to be used elsewhere on site

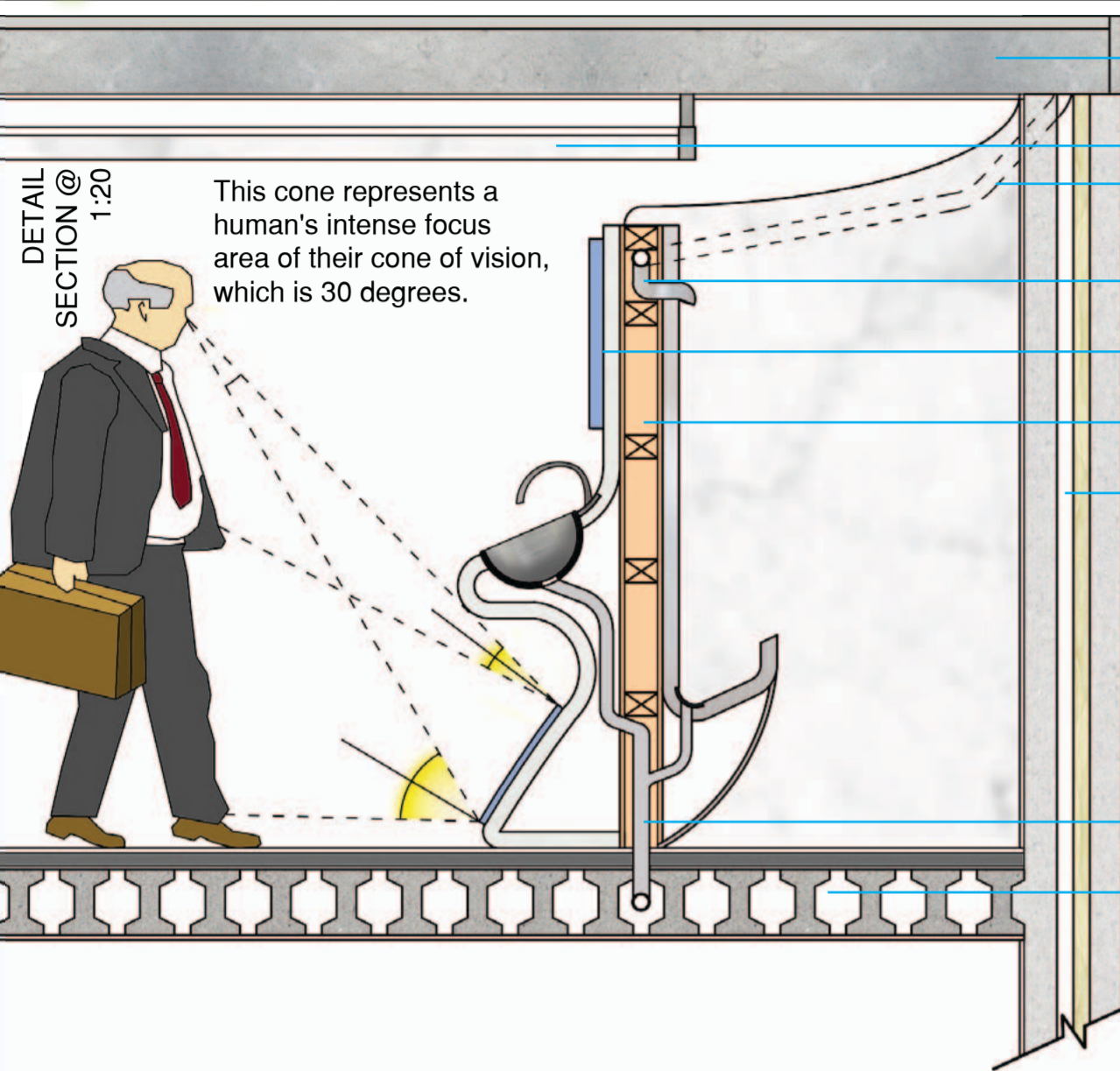
Photovoltaic panel

50mm Clear Glass panel

Horizontal bracing encased by 15mm Corian layer

White painted aluminium lattice truss support

DETAIL @ 1:20



- 200mm concrete ceiling slab
- Ceiling fixed lighting system
- Dotted line indicates rainwater pipe feed into WC chamber
- Urinal wash
- Mirrors
- Timber studwork wall
- Partial fill wall construction;
50mm cavity / 50mm insulation
102.5mm recycled concrete inner and outer leaves
- Drainage piping
Pipe sizing BS5572
Wash Basin - 2 discharge units, so - 40mm diameter pipe
Urinal - 1 discharge unit - 32mm diameter pipe
- Floor construction;
15mm rubber floor finish
40mm screed
6mm resilient layer
200mm Precast I Beams
15mm ceiling finish

After rainwater is collected via the roof above, it is **CHANNELLED INTO THE WCS** for usage. In this section, you can see that rainwater is used to clean the urinal for instance. However, it is also used to flush the toilets. The rainwater is brought inside via the cavity void in the exterior wall construction.

In plan, you can see how rainwater is filtered down into both floors of the facility via **THE TRADITIONAL SINGLE STACK SYSTEM**. Discharged water is **TRANSFERRED OUT VIA VOIDS** between the precast concrete I-beams. Pipework is deliberately

concealed to **PREVENT POTENTIAL VANDALISM**.

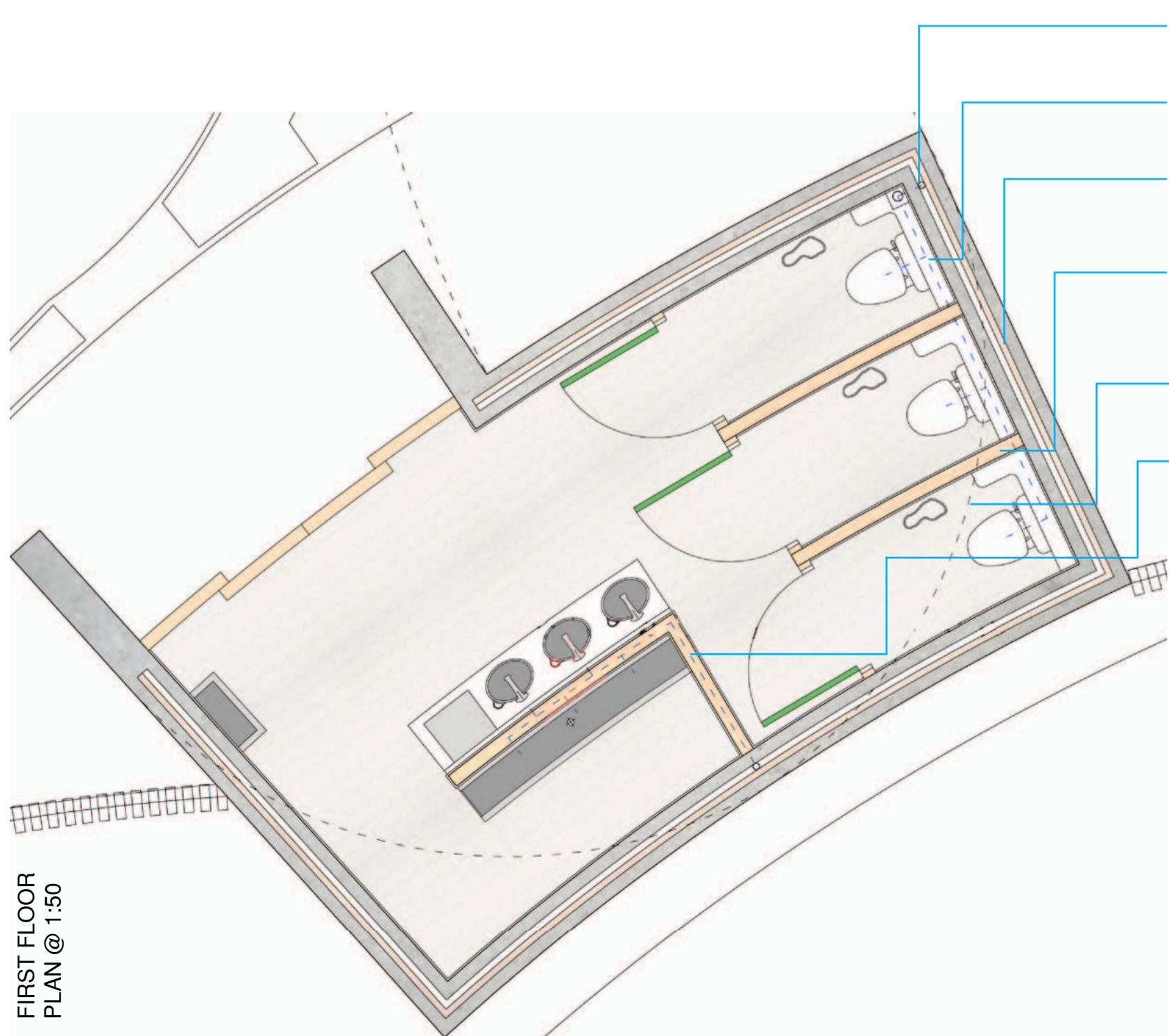
On the side of the wash basins, there are two mirrors. One standard one for users to check what their face and torso look like and also another one incorporated lower, which will **ALLOW THE USER TO SEE WHAT THEIR LOWER BODY LOOKS LIKE. THIS SYSTEM IS DESIGNED FOR THOSE ATTENDING EVENTS AND ARE WANTING TO LOOK THEIR BEST.** Nothing is worse than discovering wet patches on your clothing before heading

out to an important event! The diagram indicates how their vision reflects into the mirror which is slightly convex to allow a larger view of below.

Recycled Rubber flooring is used as the floor material since it is **TOUGH, AESTHETICALLY PLEASING AND GREAT FOR THE ENVIRONMENT** as well. Also, it is **CHEAP** and its **SUPPLY IS ABUNDANT**. An ABS foot pedal is used as the flush instead of the traditional flush with the hand, because it is **MORE SANITARY**. It **PREVENTS THE SPREAD OF GERMS** thus illnesses since bacteria

does not come into contact with the skin.

The doors of the WC chambers swing outwards as **ANOTHER MEANS OF BEING SANITARY**. The door can be pushed with the clothed arm. However, this does create a danger with the next user standing so close to the door. Therefore, the doors are made from **SMART GLASS TECHNOLOGY**. Glass turns opaque when occupied and the door locks. So when the door unlocks, the glass comes clear which give the next user warning to stay back and allow the current user to leave.



- Rainwater intake
- Blue dotted line represents encased pipework that feeds toilet cisterns
- Partial fill wall construction;
50mm cavity / 50mm insulation
102.5mm recycled concrete inner and outer leaves
- Studwork timber walls
15mm plasterboard surrounded by 100mm timber studwork
- Black dotted line represents positions of photovoltaic glass roof above - Rainwater intake connects to roof above
- Blue dotted line represents encased pipework that feeds urinal wash
- Full fill wall construction;
100mm cavity
102.5mm recycled concrete inner and outer leaves

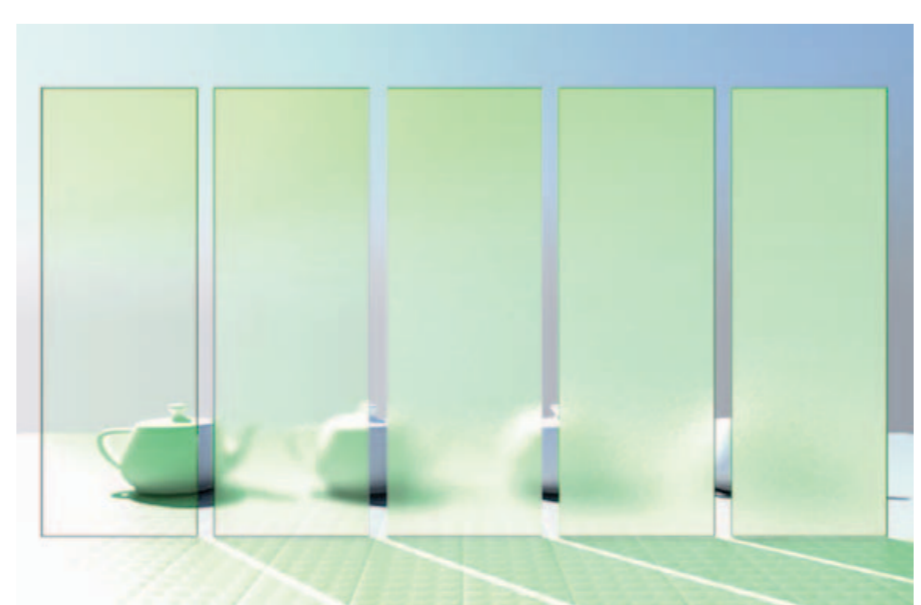
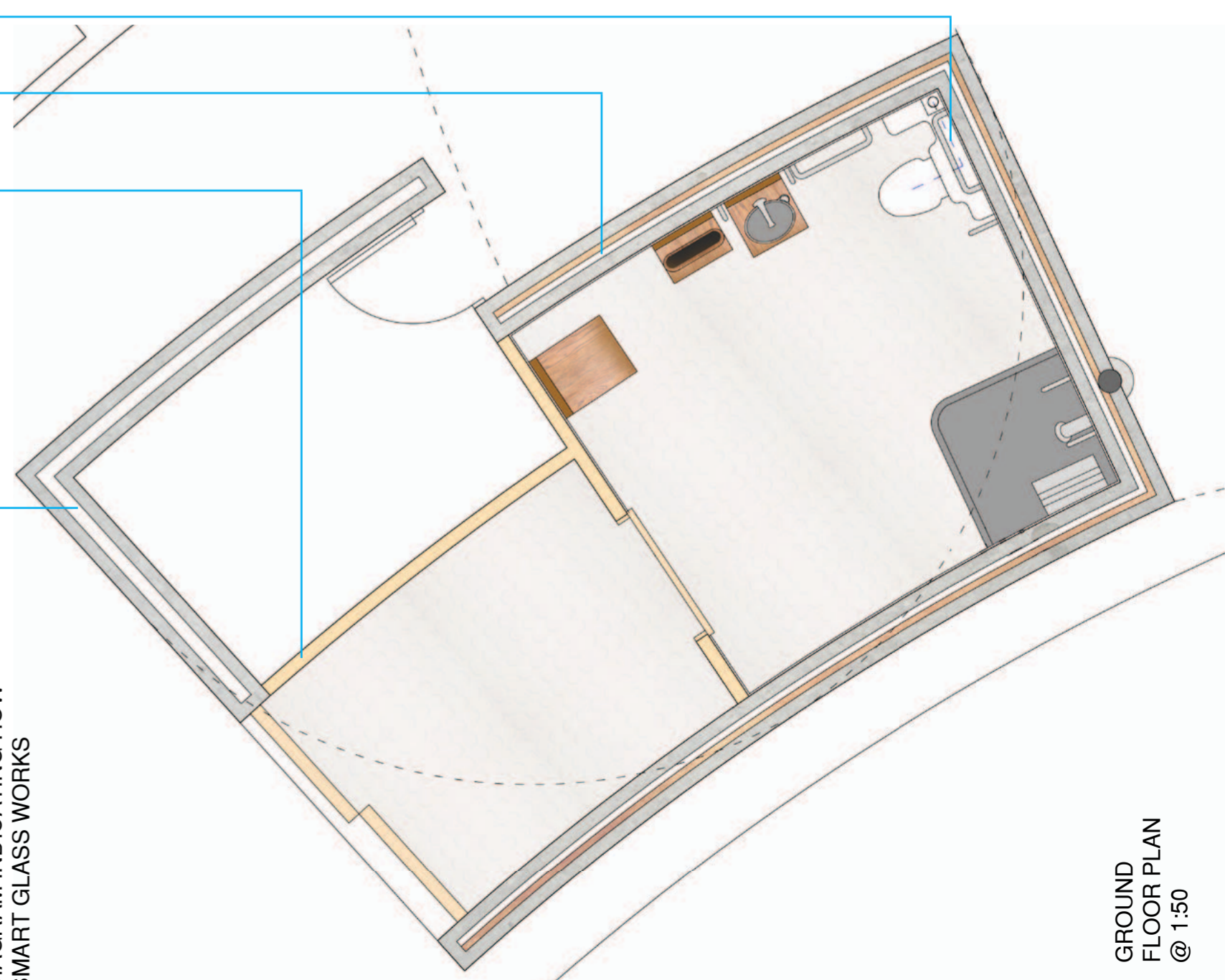
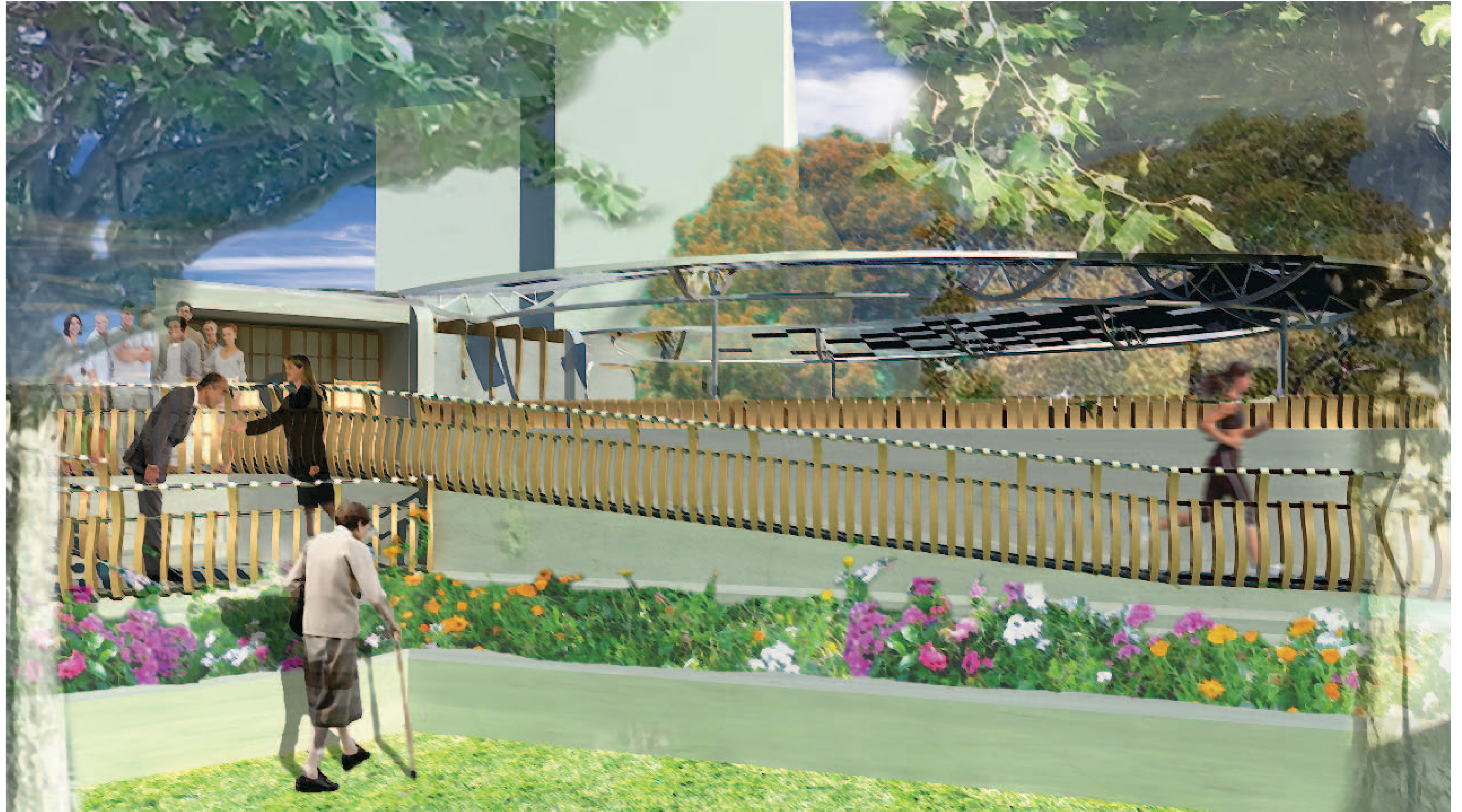


DIAGRAM INDICATING HOW SMART GLASS WORKS



GROUND FLOOR PLAN @ 1:50

FIRST FLOOR PLAN @ 1:50



VIEW OF PLANTING BAY FROM
SOUTHWEST CORNER