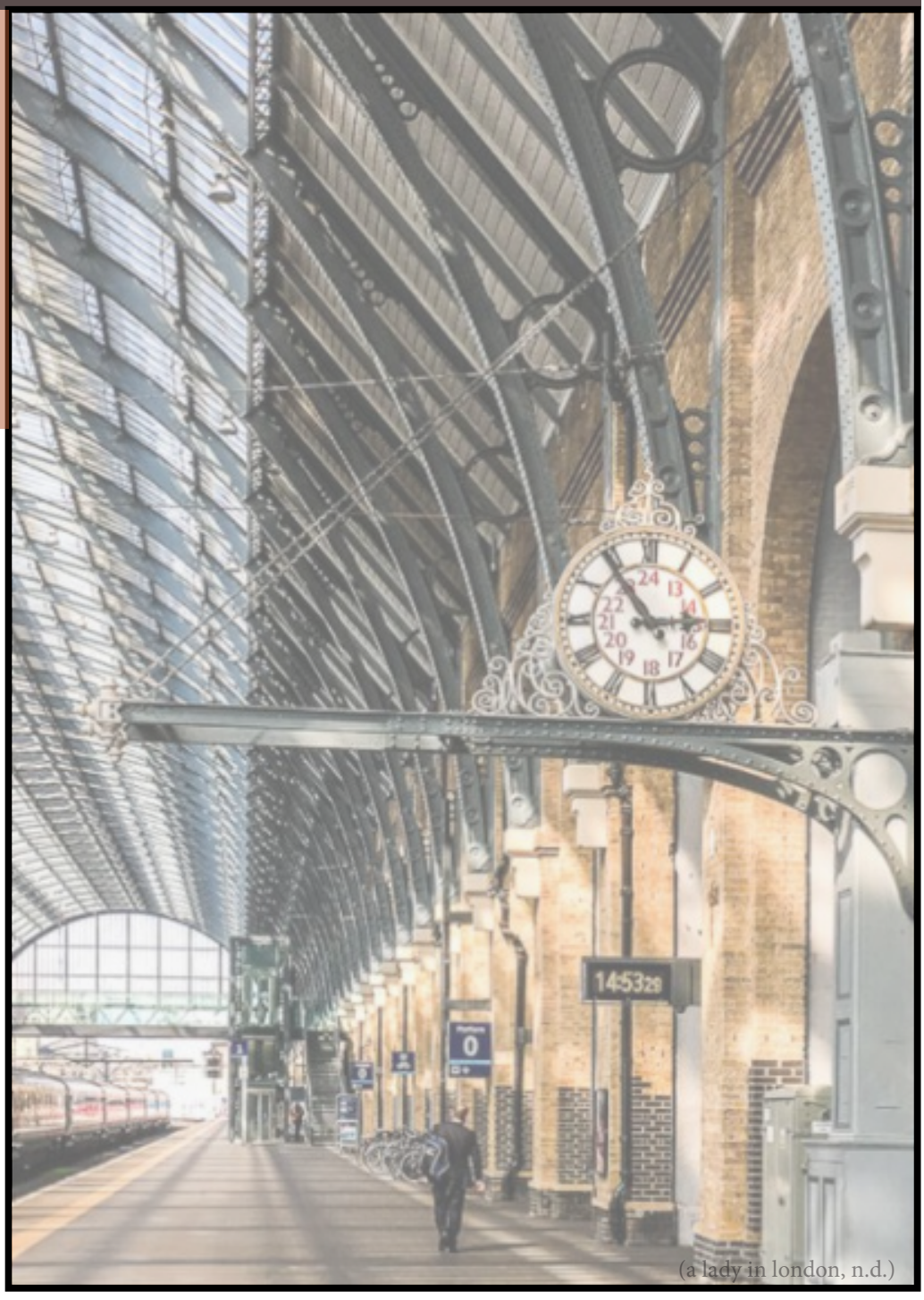
Design Brief

7023 Interior Design Specialism 2



(a lady in london, n.d.)

Project Title: Scotstounhill Railway Station
Project Brief: Reinvigorate and Repurpose An Ageing Commuter Train Station Building
Client: Albellio ScotRail
Designer: Yagmur Beril Dikmeci

CLIENT

Albellio ScotRail is the client of this project and their desire is to transform ageing commuter train stations into contemporary hubs by using the value of innovation.
This renovation will enhance the value of the Scotstounhill by introducing modern design approaches alongside creating alternate use

OBJECTIVES AND GOALS

The project is reinventing Scotstounhill Station into today's world by adjusting innovative solutions, to make the station beneficial for commuters, local users and visitors. The main objective of this project is to make this building more valuable because outside peak hours this building is not in used. In Glasgow, one in five people live in income deprivation, and Glasgow has the lowest average of life expectancies in Scotland. Therefore, we reinvent this station to support local people where they can develop their future with professional guidance and also they can enhance their mental health with qualified workshops.

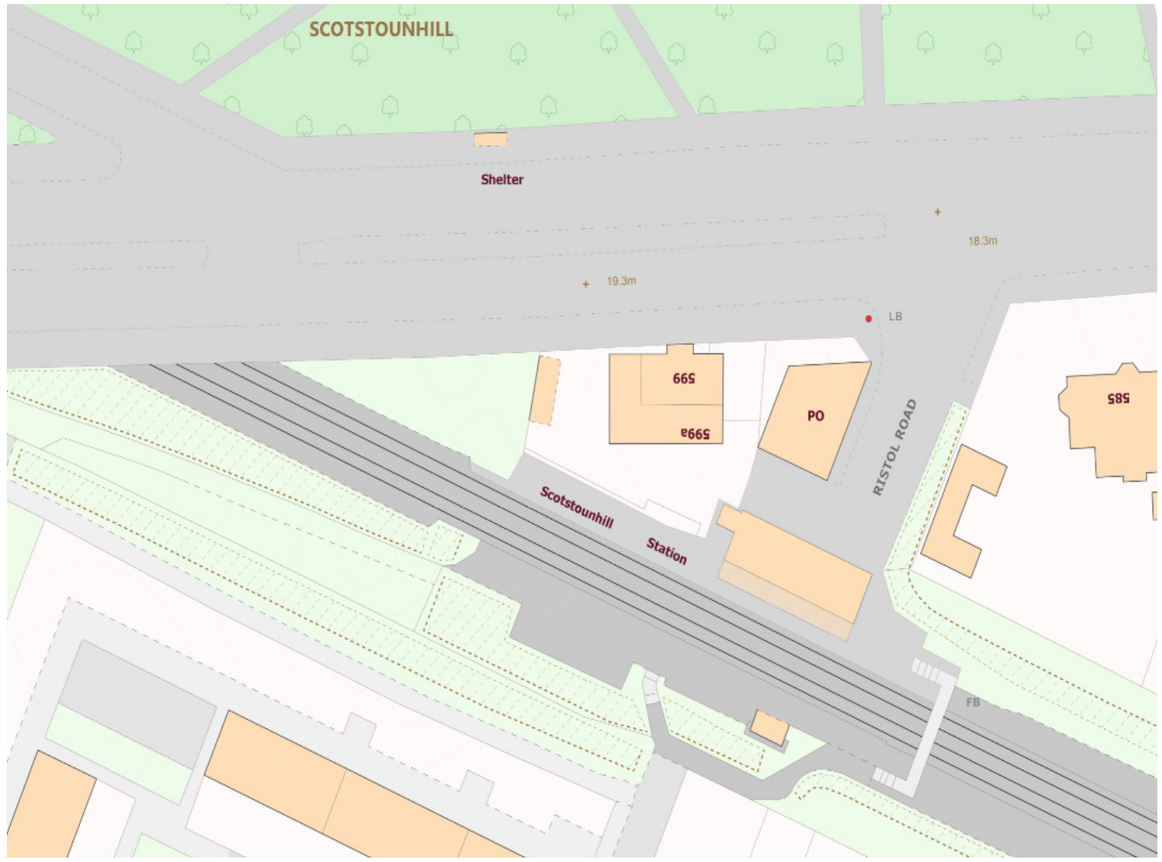
The goal of this project is not only to enhance the station's value and aesthetic but also implementing sustainable solutions to protect our environment. To support this idea, we consider renewable and low-energy materials as well as sustainable solutions such as rainwater harvesting which is suitable for Glasgow's weather and also adding pavagen tiles which creates energy from footstep which reduces the energy usage. In this design process, we evaluate people's need and benefit from technology to make visitors life more comfortable because it is common expect in UK that passengers expect an efficient mobility service with a well-connected and easy to use station. Therefore, we consider seamless mobility system, in the UK 54% of passenger believed that their smartphones are fundamental on their travel experience. For this reason, we diminish ticket office and add new ticket booth system. Besides, train stations have changed like every other venue, in today's world people want to spend quality times in stations as well and stations will be the hub of passenger's journey. Due to this, coffee area is designed rather than vending machine to enhance socialization Last but not least, in 2020 passenger number has decreased significantly due to the pandemic. Therefore, client give importance to wellbeing and health more than ever. They want to help passenger to feel more comfortable by adjusting the stations to new design needs according to the pandemic. To support people's well-being and improve safety in pandemic era, we consider social distance and minimise touching by adding sliding door with sensor and give priority to hygienic and antibacterial materials. Besides, we follow biophilic design not only support people's wellbeing but also to purify air naturally.

EXISTING SITE

Station opened at 1887. Scotstounhill station is 8.7 km away from Glasgow central station. It can be reached in 17 minutes by car and 15 minutes by train. Scotstounhill is located in Anniesland road and it has its own free parking and it has one accessible space. The parking lot is close to the building and it is only available for drop off, however, there is an app where you can find clear parking spaces via this app but this business does not have relation with the station. The drop off point is clearly signed from the main entrance and/or from the approach to the station and it has enough space to accommodate safe side and rear loading. A wheelchair user can get from the parking area to the station without assistance. Besides parking lot, outdoor has 6 sheltered cycle storage.

There is a little slope in the ticket entrance hall which makes entrance suitable for disabled person, and the door is automatic with a manual switch and the wide is 140 cm. The ticket counter sits 3 meter from the main entrance and the length is 384 meter. There is a 15 sqm space behind the ticket counter for employee which is almost take up the haft of the space.

There is a 2 seating unit the outside one is bench with 4 seats and inside has 2 benches whish approximately for 6 users. The door to the platforms has same dimension with the entrance door and it push buttons positioned within reach of all users. The doors are automatic and remain open enough time for a slow-moving person to pass through. Even though platform door has a slope for disabled person, passengers have to use the bridge to achieve platform 2 and this bridge is not suitable for accessibility. There is a shelter in the platform 2 for waiting and it has 2 individual seating, and it has its own display boards. There is a footpath under this shelter for especially suitable for disabled person. This entrance has neither door nor safe crossing and hard to reach ticket counter from this path especially for disable person.



SITE SURRONDINGS

- Residential Housing
- Lifecycle Express post office (0.011 km)
- Harmony College (0.1 km)
- Big Bed Hotel (0.15 km)
- Danes Drive Bowls Park (0.29 km)
- The Home (0.4 km)
- De'ils On Wheels (0.45 km)
- Knightswood Shopping Center (0.55 km)

NUMBER OF STAFF MEMBER

In the Scoutsthounhill employee number is kept minimum, usually a single member of worker who works in ticket office. In proposed design there are two employees will work there one of them is in the ticket office and the other will work in the coffee area.

EXISTING BUILDING FEATURES

The existing building is a small station its space approximately 50.8 sqm. Inside this property there is a waiting area, ticket office, behind the office there is a breakout room which includes CCTV storage space, lockers, kitchenette. Also there is a re-stroom and storage for personnel.

Waiting area: 28 sqm
Ticket Office: 6 sqm
Breakout Room/Kitchenette/CCTV: 10 sqm
Storage: 10 sqm
Personnel restroom: 2 sqm

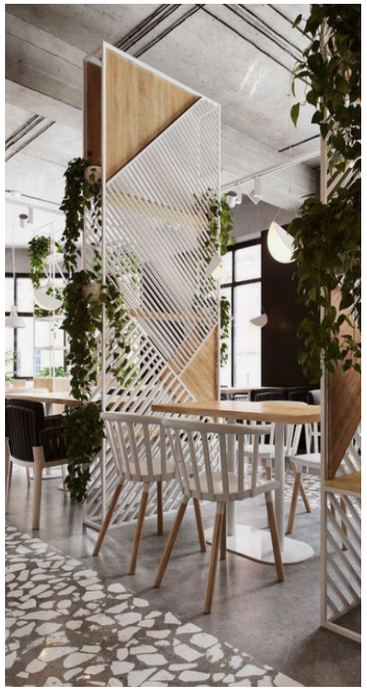
IMPORTANT BUILDING FEATURES

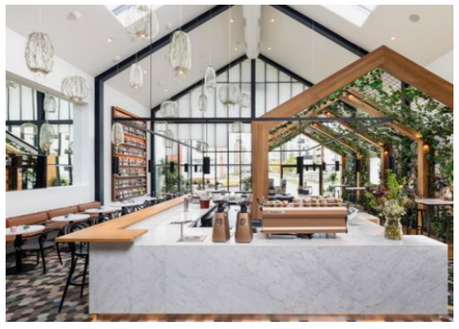
- Big Window For Natural Light
- Ceramic Tile
- LED Lighting
- Automatic Door With Button

SIGNIFICANT IMPLEMENTS

- Bridge design which is suitable for accessibility
- Waiting area with covered shelter for platform 2
- Enlarged waiting lounge and added coffee area
- Public Restroom (1 disabled, 1 unisex)
- Enlarged Canopy and windows
- Nice covered shelter for platform 2

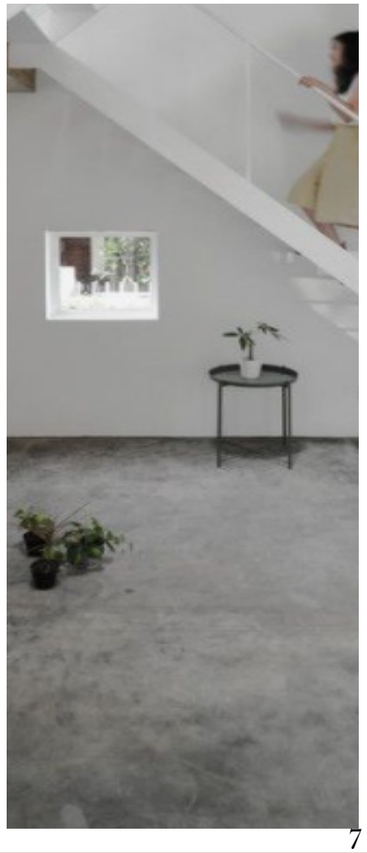
DESIRED APPEARANCE











KEY SPACE REQUIREMENT

GROUND FLOOR: 88 sqm

- Ticket Boots x2
- Ticket Counter and Information with Office 10 sqm
- Waiting Lounge: 6 sqm
- Coffee Area: 17 sqm
- Study Space: 4 sqm
- Restroom one Disabled one Unisex: 9 sqm

FIRST FLOOR: 80 sqm

- Exhibition and Social Space: 30 sqm
- Therapeutic Art Workshop: 19 sqm
- Mentor Workshop: 10 sqm
- Balcony: 6 sqm

REQUIRED SERVICES

- Ticket and Information Office
- Caffee Area
- Self-Service Ticket Machine
- 24 Hour CCVT
- Internet Connection
- Led Screens For Train Time

DESIGN OBJECTIVES


innovation


sustainability


universal design


security


accessibility


post-pandemic design

INDOOR ENVIRONMENT QUALITY

As a designer we should focus on improving quality of life by enhancing human health, comfort, and safety. To ensure that the Scotstounhill's environment is safe and heathy for visitors, indoor air quality, natural daylight, acoustic, safety and material choices should be selected carefully.

1. INDOOR AIR QUALITY

Indoor Air Quality (IAQ) is significant effect on human health, comfort and well-being of the users. Previous researches claim that air quality has been linked to people's performance and productivity. To provide comfortable environment and minimising the building –risk health problems which includes asthma, inhalation fever, and infection we should apply natural and mechanical ventilation, optimal filtration and air purifier.

- Ventilation,

Ventilation is mainly used to control indoor air quality by subtilizing and displacing indoor pollution; it can also be used to control indoor temperature, humidity, and air motion. There are two types of ventilations, natural and mechanical. Both of them are very crucial for both Scotstounhill visitors and workers. Mechanical ventilation is the intentional fan driven flow of outdoor air into a building and is often provided by equipment that is also used to heat and cool a space. However, after pandemic air conditioners working with %100 outside air are very important after the pandemic. It could be better to have panels to give control occupants temperature and ventilation control. Natural ventilation does not require mechanical systems to move outdoor air, is the intentional passive flow of outdoor air into a building through planned openings. Rather that fixed openings, adjustable openings could be much comfortable for users to control the ventilation automatically.

- Filtration,

Air filters are used in applications where air quality is important, notably in building ventilation systems and in engines. A particulate air filter is a device composed of fibrous, or porous materials which removes solid particulates such as dust, pollen, mold, and bacteria from the air. In Scotstounhill we should use HEPA filter originally called high efficiency particulate arreste, which removes %99.97 of particles from the air down to at least 0.3 microns in size.

- Air Purifier,

Air Purifier enhance air quality by removing pollutants from indoor air. It contains not only HEPA filters but also carbon and titanium dioxide (TiO2) filter. TiO2 breaks pollutants into CO2 and water molecules filter and carbon traps gaseous VOCs. Especially after pandemic, air purifier become more important for users because it helps people who suffer from asthma and allergies.

2. Natural light

Daylight has significant benefit in design. Natural light both enhance visual and psychological comfort and has positive impact on people's performance by using less artificial light and conserve the energy. In Scotstounhill client wants us to crate comfortable and healthy environment therefore, space should welcome more natural light by designing huge windows with louvres. This solution enhance benefit from nature by contributing to a building's performance and energy efficiency.

3. Acoustic

To enhance the quality of the station we should also consider acoustic solutions. Acoustic panels absorb unwanted sounds and this has numerous benefits like reducing stress level and Reducing the noise levels in the Scotstounhill station creates a more welcoming environment for workers and visitors alike. Acoustic PET felt panels bring new life to plastic bottles, which is one example for sustainable and recycled acoustic product.

4. Safety

As a designer, we must focus on safety regulations as well as its aesthetic. Scotstounhill station has been provided services to people of all ages throughout the day, and our aim is to increase the number of users with this new design approach therefore we should give more importance to safety issues more than ever. We evaluate each post-pandemic design regulations, accessibility, fire precautions and security.

- Covid,

Pandemic caused big changes in design like every other places. Post-pandemic design gained importance to consider social distance, contactless design elements and innovative material choices. In Scotstounhill station, client want us to design safe environment we investigated how long covid can live on surfaces and we took into account the antibacterial materials. As pandemic regulations, also we added sensor button next to doors to prevent touching to door handles. We also used non-touch elements in the restrooms such as we prefer to use Dyson-Airblade Tap-Wash+ Dry short hand dryer which is help for both covid and water waste. Moreover, we consider to choose material which are more sterile than others such as quartz for countertop. We also consider to use hygienic coat on wall finishes to create more safe environment.

- Accessibility,

In design equality is essential for everyone, however, in the existing building even though they designed for a disabled person, there was still huge deficiencies, for example, the bridge was not suitable for wheelchair users or mother with a baby carriage. Therefore, we redesigned the bridge to suitable for everyone. Meanwhile, we considered locating buttons that active doors in suitable height also for disabled visitors. For wheelchair user and elderly visitors, we took into account not to create a level difference and designed ticket office for suitable for wheel chair user.

- Fire Precautions,

Fire precautions are very significant for each building. As our client wants us to create a safe station we implemented fire alarms with smoke detectors and sprinklers. The extinguishers were placed on each floor at reachable distances.

- Security,

Train stations are places with heavy traffic and have visitors of all ages, therefore we evaluate each implement carefully. For instance, we prefer non-slippery floor material and we use semi-transparent tempered glass to prevent accidents. Moreover, to crate safety station, we implement security equipment such as 24/7 CCTV.

COMFORT & WELLBEING

In the pandemic era, the perception of design has been changed and the comfort of people in the space has become more important than ever. While we design the station we focused on well-being as much as aesthetic and accessibility. As a designer, we evaluated each design element according to covid by maximising touch-free elements such as non-touch door, screens and also sensor lighting system. We also considered indoor air quality and thermal comfort by minimising noise with acoustic panels on the ceiling and maximising natural airflow. We used big glass on the facade to get benefit from natural light. We covered the facade, especially workshop spaces, with a recycled semi-transparent plastic basket, brise-soleil and green wall rather than blinders. Plastic baskets create light effects which stimulate visitors' senses meanwhile, the brise-soleil system reduces energy consumption. Furthermore, we all aware that biophilic design has a significant impact on people's wellbeing, hence, we used a green wall on the facade and plants in the interior. Last but not least, we also considered employee comfort as much as visitors and created back office for them to use their break time valuable.

"wellness :
the state of being in good health, especially as an actively pursued goal.

MATERIAL PREFERENCE

Client prefer innovative environment with the combination of sustainability, accessibility and safety. As a designer we desire to choose energy-efficient and low-emission materials by considering affordable options to keep the cost plausible. Sustainability is the major subject Therefore, we considered environmentally friendly materials such as reclaimed flooring. As safety we evaluated non-slip and durable materials. Also, we investigated which material is much more safe in pandemic era and gave priority to antibacterial materials.

Material List

- Exposed Concrete "*durable, natural and green element*"

Ground floor finishing by Setin Stone Flooring

- Reclaimed Wood Flooring "*recycled and unique"*

First floor finish by WoodWorks by Ted Todd, color: neutral tone

- Terrazzo Tile "*environmentally friendly*"

Restrooms floor finish by J & M Terrazzo

- Gypsum plasterboard *"sound isolation, water resistance, easy to implement"*
- Hygienic Water Based Painting *"cleans the air"*

Wall finish by Airlite, color: white and grey

- Tempered Glass *"prevent major harms when its break"*

Facade and therapeutic art workshop wall

- Acoustic Panels *"produced from pet bottles both recycled and recyclable"*

Ceiling finish by ReFelt, color: white

- Natural Oak *"sustainable"*

Furniture finish in ticket coffee area by Pine and Oak Furniture, color: neutral tone

- Quartz "*durable, antibacterial"*

on countertop by Mayfair Granite, color: white Concrete Quartz

- Stainless Steel "*recyclable, durable"*

Stair finish material, color: black

SUSTAINABILITY

While we design the Scotstounhill station, sustainability was a major principle. First, we ensure to minimise the energy usage while maximising the potential. We considered both recycled and renewable materials and environmentally-friendly implementations.

Recycled Materials
-Reclaimed Oak Flooring
-Terazzo Tile
-Recycled Metal for Mesh
-Acoustic Pet Felt Panels

Environmentally-Friendly Impelements
-Rainwater and Grey Water Harvesting
- Pavagen Tiles,
Produce energy from footsteps.
The base of slab is constructed from over 80 % recycled materials with concrete.
-Dyson Airblade wash+dry, consume less-energy , CO2 and waste.

interiors