# 1: Design Goal

The design goal of the project is to use light to enhance the chosen site in order to improve the experience of people commuting through the area as well as to make the place more pleasant and enjoyable for people to be in.

# 2: Site Drawings Legend Road Retail Drop-Off Point (Plaza 8) DT35 Expo CG1 Expo **Bus Stop** Informal Bus Stop Chosen Site Figure 1: Macro Site Map/ Legend — Sliding Door Swinging Door Footpath Road Plaza 8 Indoors **Artificial Grass** Miscellaneous **Structure** Bench Informal Bus Stop Sheltered Area

Figure 2: Micro Site Map

# 3: Site Information and Analysis

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The chosen site is the **futsal pitches at Plaza 8**, and its **surrounding area**. The site is located to the east of Changi City Point and surrounded by other office buildings and a hotel (*Fig 1*).

The site was chosen to leverage on the large amount of human activity and social interactions there. Enhancing the site would benefit a larger number of people.

The area has a **high amount of human activity**, notably during peak hours and during lunch time. In the morning and evening, people often walk from Expo MRT station to Plaza 8. During lunch time, large crowds of office workers use the walkways to get to Changi City Point or to the food court at Plaza 8.

Figure 3 shows the footfall analysis of two major footpaths, labelled A and B on Figure 2.

The two futsal pitches, occupying a large area, is **highly underutilised during the daytime**. Because the pitches are outdoors, people rarely book them for use during the day due to the hot weather. The court is also fenced up and locked, preventing anyone from using the space when the court is not in use.

Figure 3 shows the usage of the futsal pitches over a one-month period. It can be seen that the futsal pitches gets a good amount of use at night, when the sun is down. During weekdays, they almost never see any use in daytime. During weekends, there is some usage in the mornings and early afternoon.

Plaza 8 is relatively accessible to people. For people taking public transport, **Expo MRT station** is only a short walk away, serving both the East-West Line and the Downtown Line. There are also several **bus stops** in the area, notably those to the southeast of DBS Asia Hub and northeast of Citibank.

An **informal bus stop** also exists just next to Plaza 8, where buses stop at the side of the road to pick up or drop off passengers. These bus services, known as **Premium Bus Services**, are operated by private bus operators to transport people to and from residential estates and commercial areas.

For people commuting by **private transport**, Plaza 8 is situated nearby major expressways Pan-Island Expressway and East Coast Parkway. A drop-off point is available for those using ride-hailing services and parking is available for those driving.

Figure 5 shows the lighting patterns and wind direction of the site at different times of day.

In the morning, soft natural sunlight brightens up the area.

From the late morning onwards, the site is exposed to a lot of intense sunlight, making the area uninviting to be in.

In the evening, the DBS Asia Hub blocks some of the sun's rays, creating some shade in the area.

At night, the area is lit up by the many spotlights at the field and small footpath lights. The sheltered walkway at Plaza 8 is also brightly lit up.

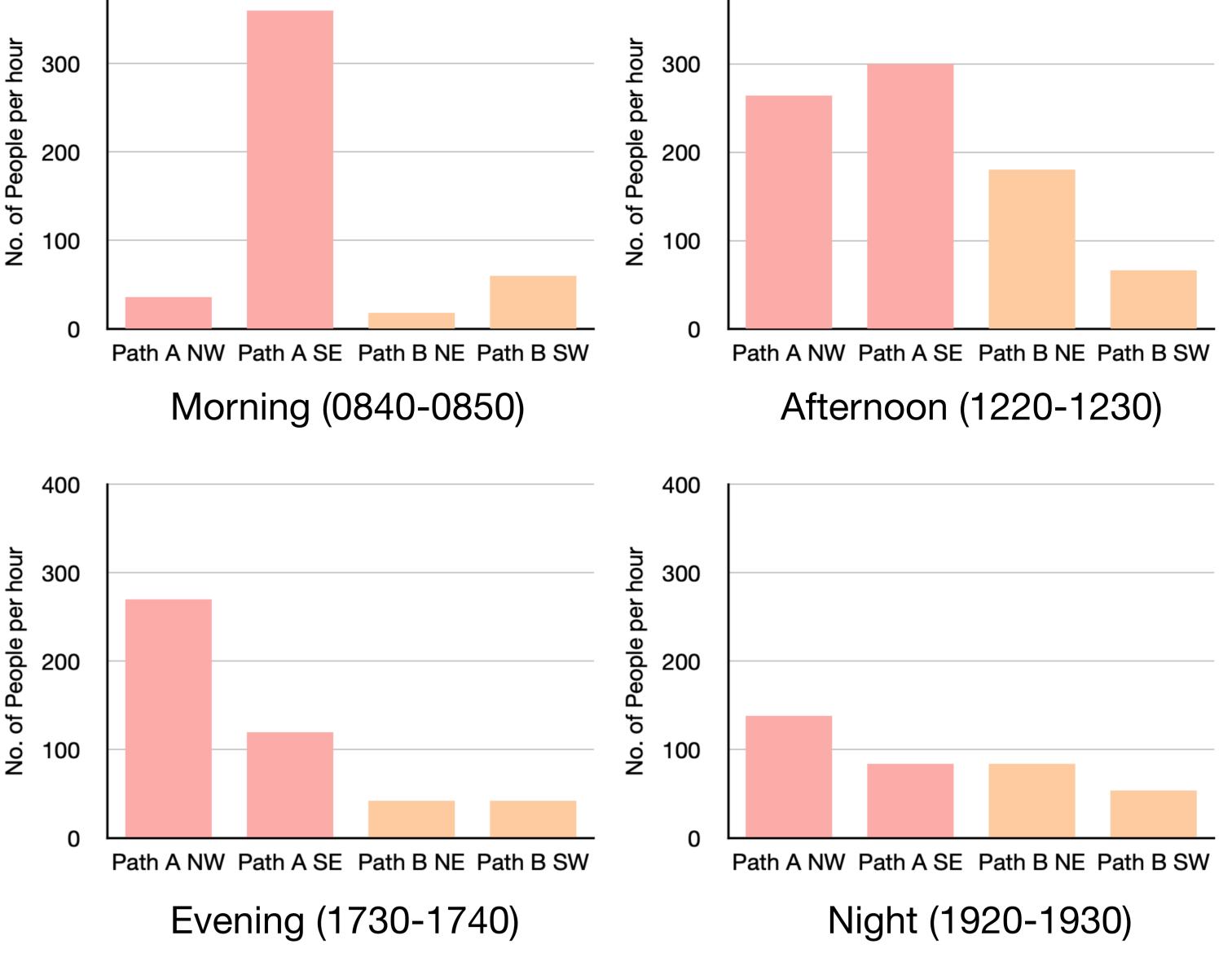


Figure 3: Foot traffic at two major footpaths at different times of day

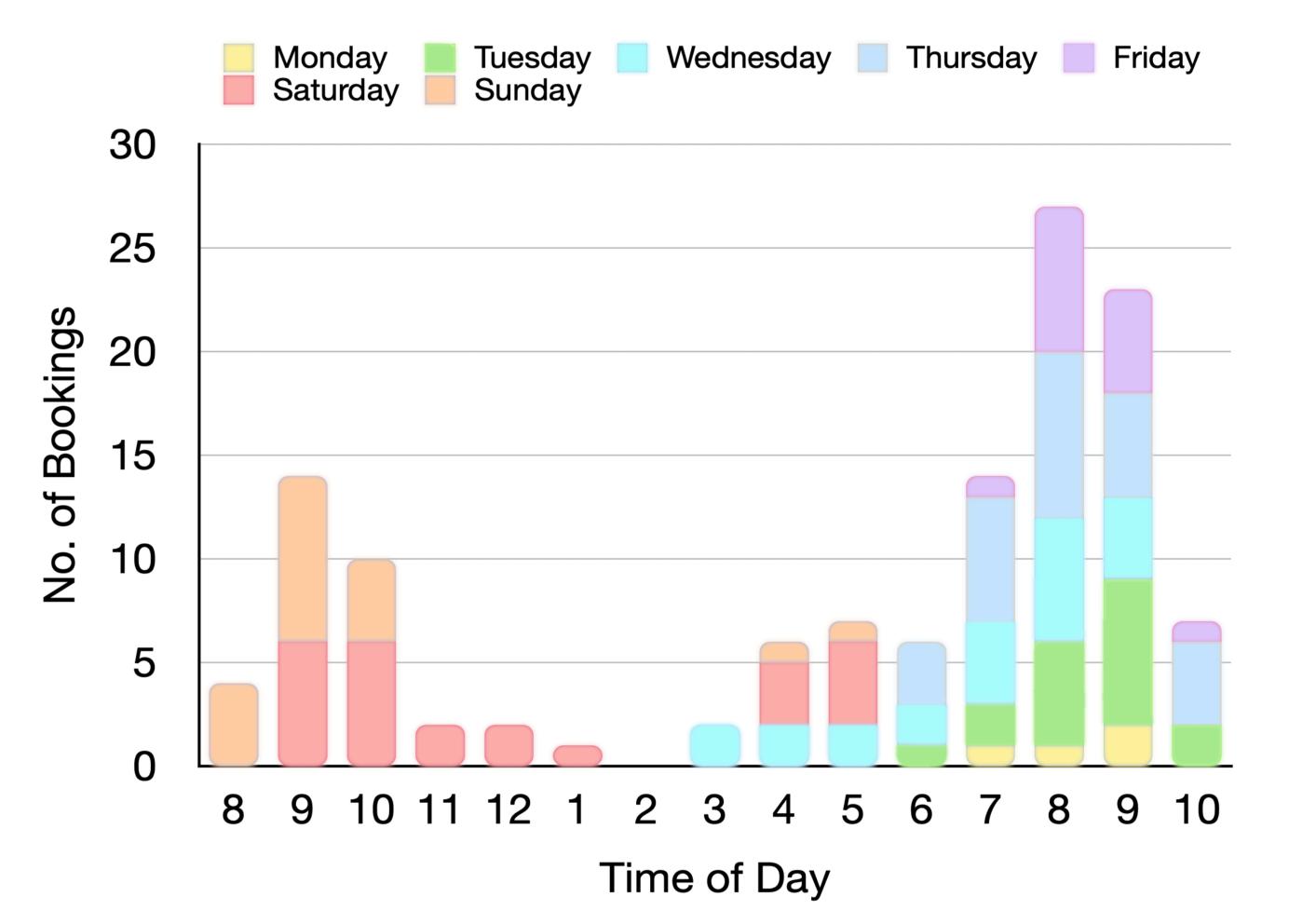


Figure 4: Usage of futsal pitches over a one-month period (4/2/23-4/3/23)

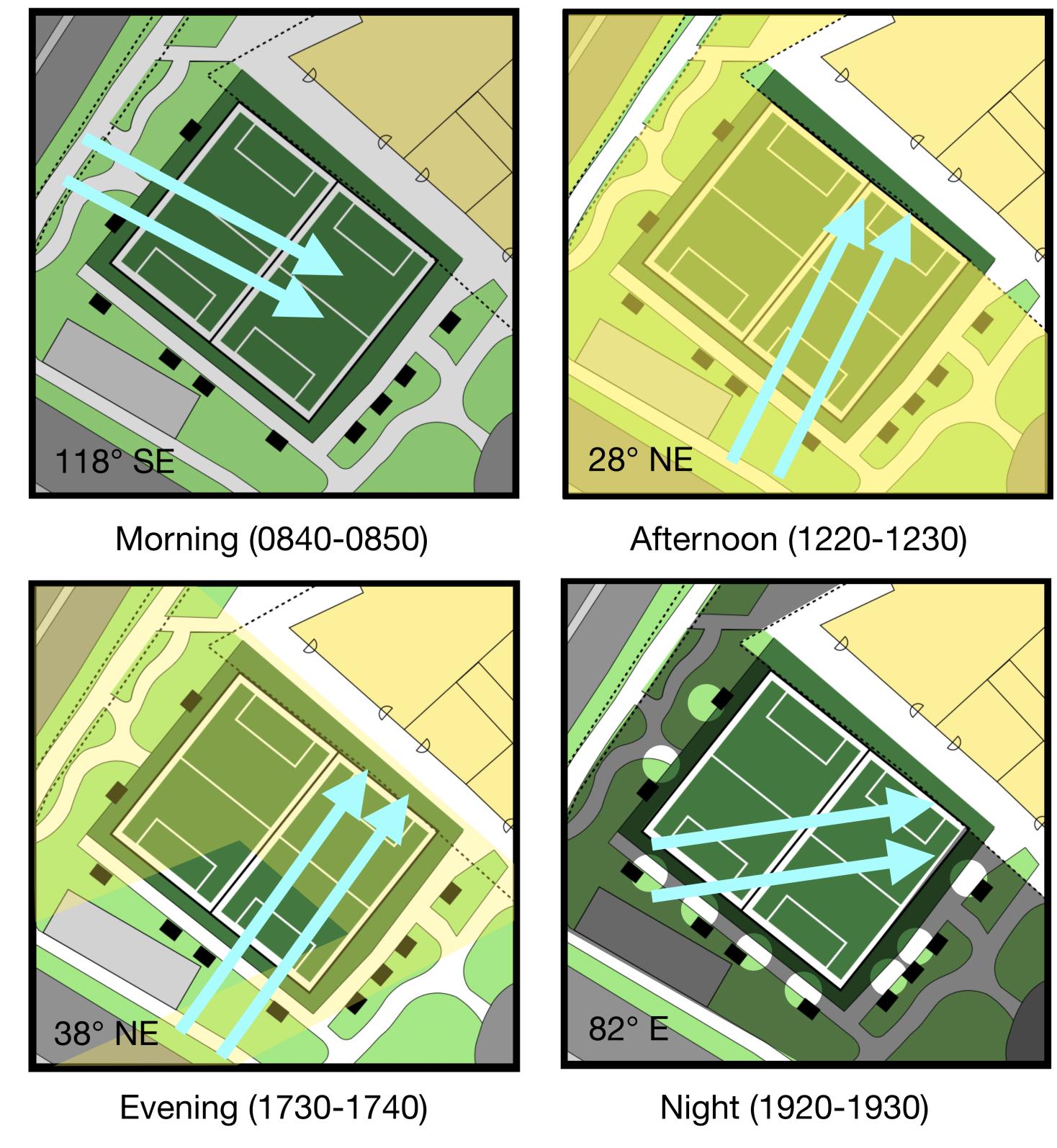


Figure 5: Light & Wind Direction at different times of day

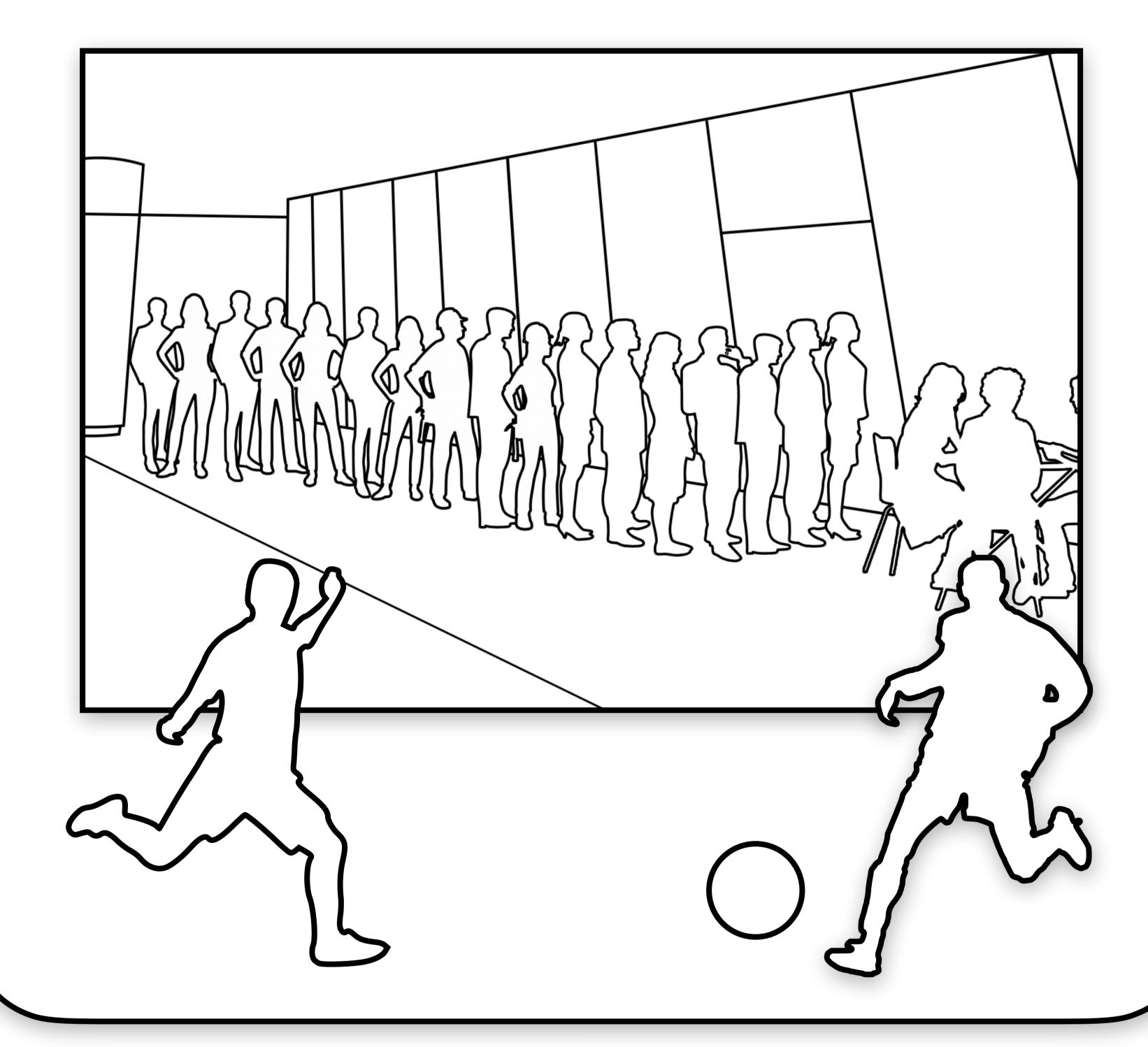
## Activities

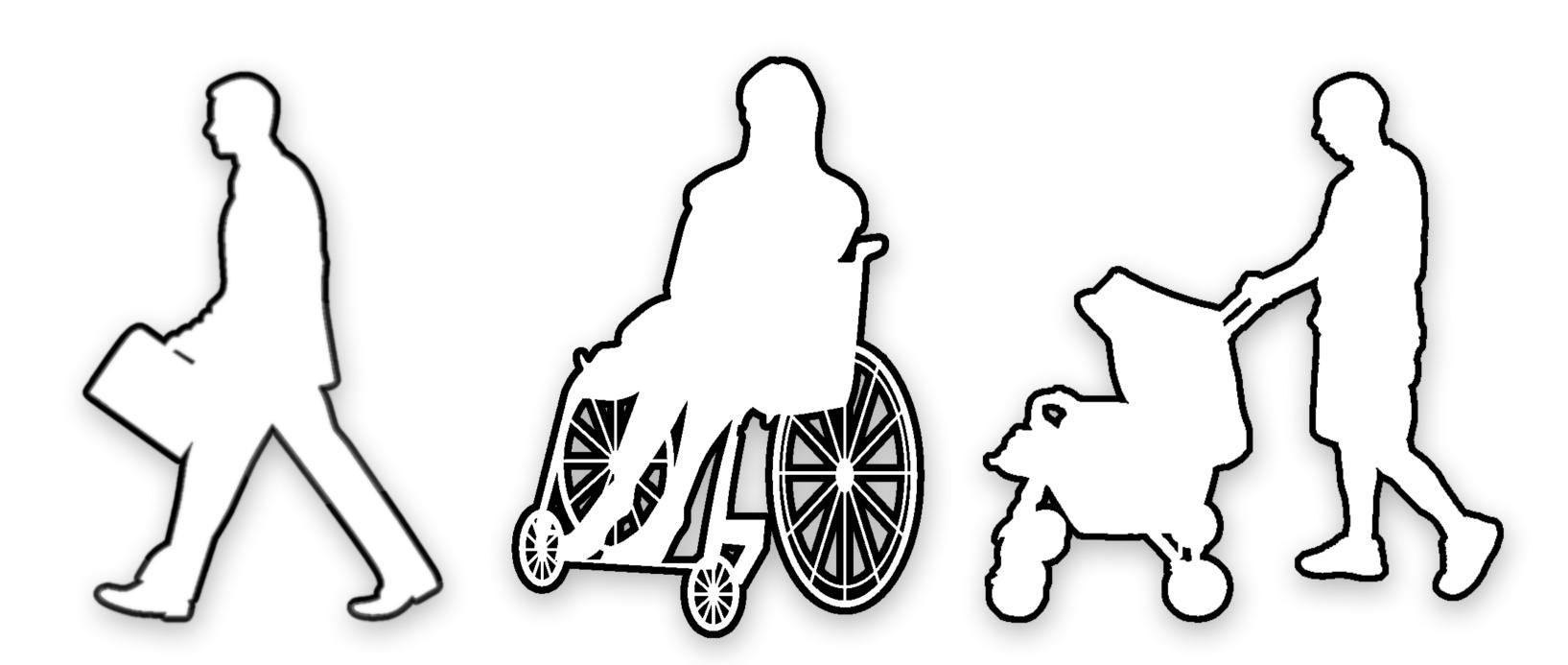
During weekday lunch hours, many office workers can be seen having their meals and queueing up for food at the food court. The lunch crowd is so huge that all tables were occupied and the queue for food stretches to outside the food court along the walkway.

People often **commute** through the area by **walking** along the footpaths between the field and the shops.

In the evening peak hours, people can be seen queueing up waiting for the bus at the sheltered pavement next to the road.

At night, futsal/football enthusiasts occupy the field to play their games.





In the day time, because the area is an office building, the main group of users at the site are **office workers**, accounting for most of the foot traffic there.

Parents or caregivers with strollers or young children can also be seen in the area, dropping off their children at the childcare centre in Plaza 8 before going to work.

Other groups at the site include wheelchair users and businessmen carrying luggage.

At night, the futsal pitch is dominated by **futsal/football enthusiasts** who travel there specifically to play the sport.

# Users

### 4: AEIOU + Pain Points

### Pain Points

The food court is packed with office workers during lunch hour, making it **difficult to find seats** and requires **a long time to queue** for food.

Wheelchair users and people carrying bulky items or strollers would find it hard to dine at the food court as well due to the crowd and its small size.

There is a **lack of good spaces** for people to rest and engage in social interaction due to the exposure of the site to harsh sunlight.

There is **no proper bus stop** built next to Plaza 8. People have stand at the narrow sheltered pavement to wait for their bus.



# 3.7 m

**Benches** are placed around the futsal pitch. However, very few people use them in the day due to the lack of shelter.

**Signs** are placed around the site, reminding people to not smoke in the area, not litter, not to cycle, and not to play football outside of the field.

The **gates** to the futsal pitches have **locks** on them to prevent people from using the space without a booking.





### Environment

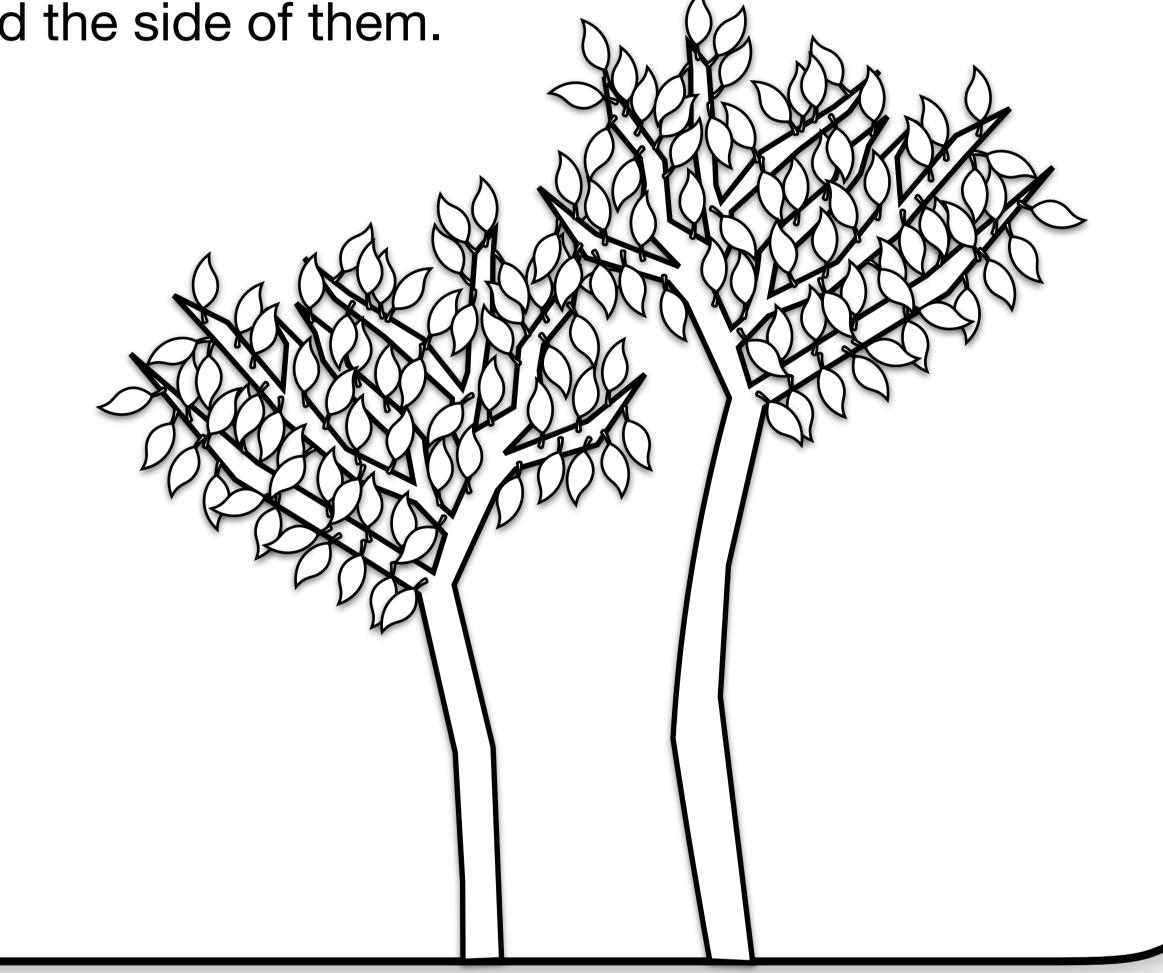
During weekday lunch hours, the area is **bustling with activity**, with many people travelling to and from the food court to buy food and consume their meals.

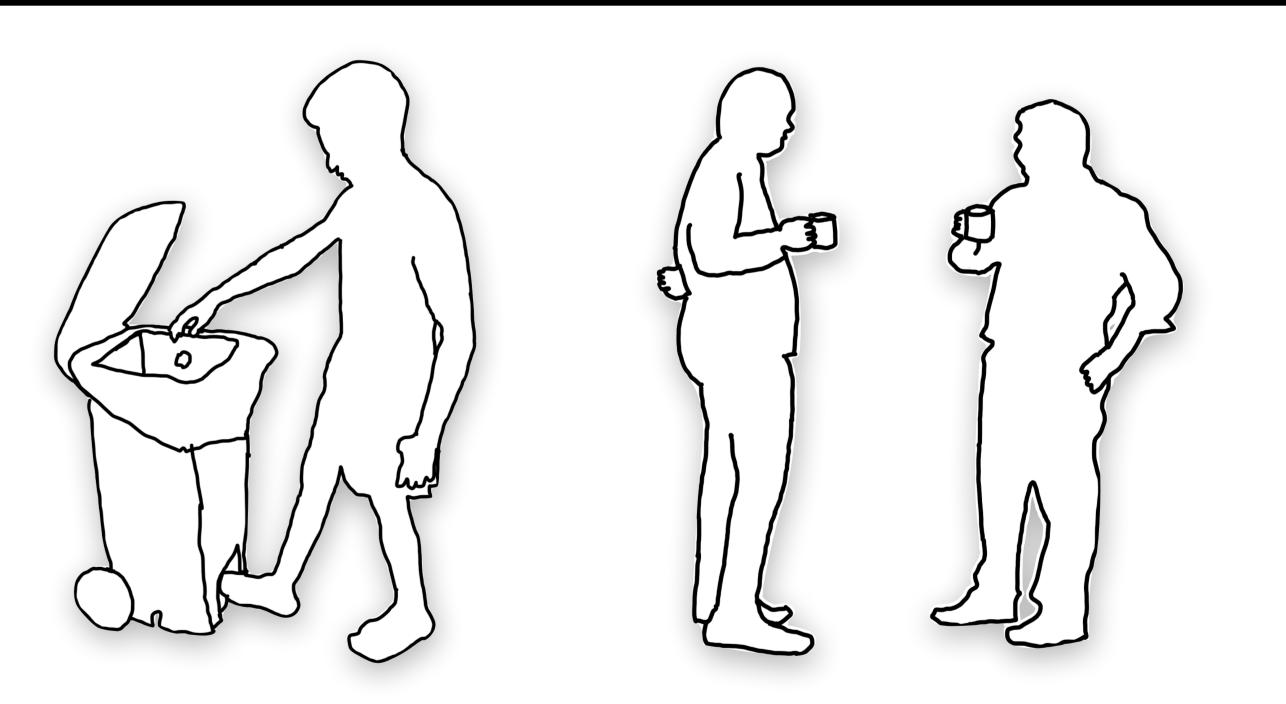
In the daytime, the area is **very hot** due to exposure to the strong rays from the sun. The **heat and harsh lighting** from the sun keeps people indoors and into the sheltered walkways. This causes a **lack of space** for people to engage in activities like social interaction.

The open field there makes the place **look spacious** and allows for **adequate airflow** into the sheltered areas. However, because the field is fenced up and not used during the day, it makes the space around the field feel more cramped instead, especially when there is a lot of people around.

A couple of trees are planted around the field. Unfortunately, they are mostly very small and do not have many leaves. There is hence a **lack of shade** around the field and benches.

At nighttime, the field **lights up brightly** from the numerous spotlights surrounding it. The **footpaths are also illuminated** by small lights around the side of them.





Many **social interactions** can be seen at the site. Office workers often stand under the shelter next to the shops, **talking to one another**, while consuming their drinks. People **interact with staff** when **paying for their meals or items** at the food stalls and 7-eleven convenience store.

People also interact with the infrastructure at the site, such as by opening the doors to the food court and stepping on the pedal of a rubbish bin located around the field to throw away their trash.

Occasionally, when the weather is not hot, a few people will take a seat on the benches surrounding the futsal pitch and take a break.

Interactions