

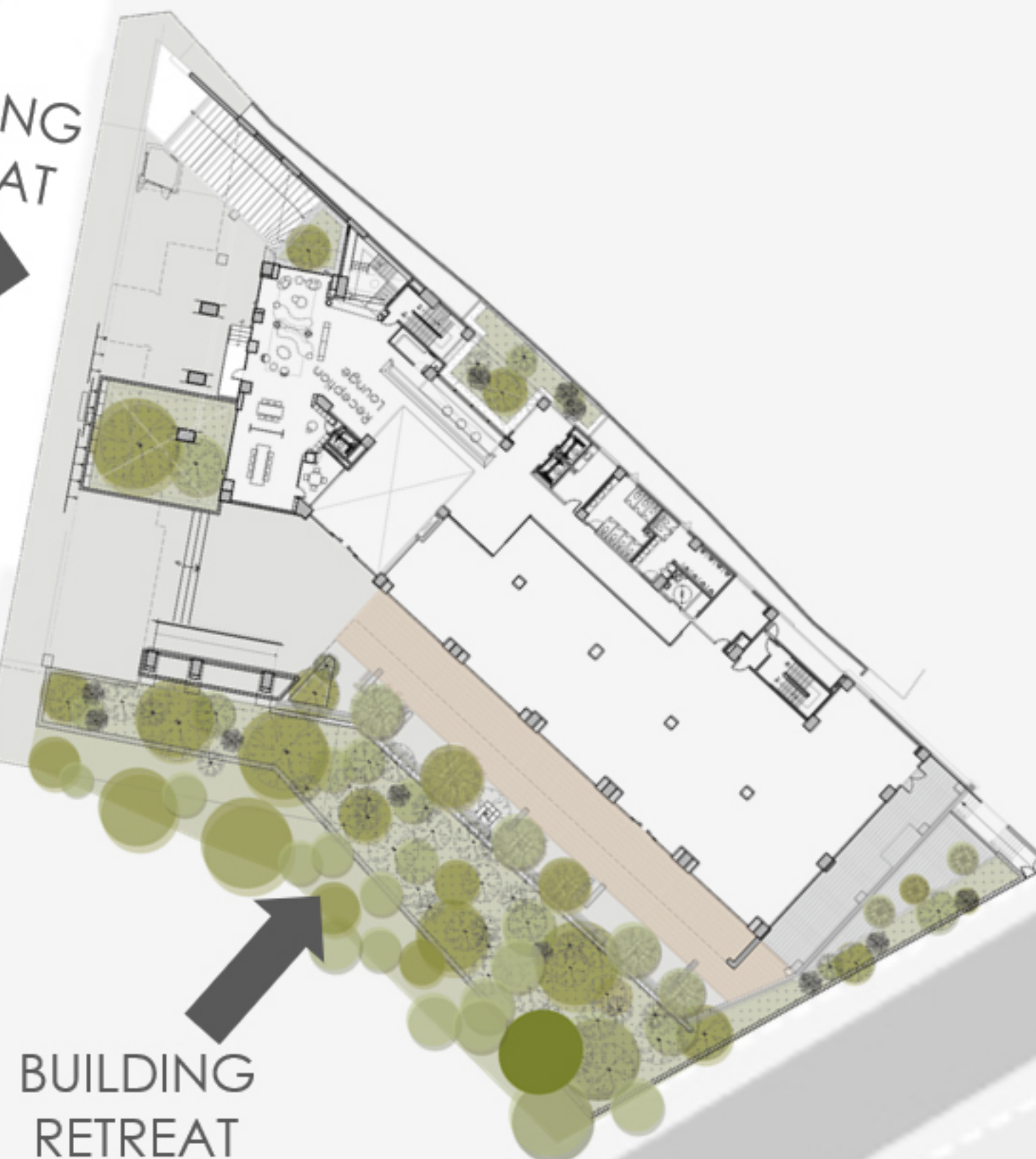


NORTH / SUBURBS

ENVIRONMENTAL FACTORS

The highway funnels a large number of heavy vehicles. The air is polluted and noisy. We receded the building and planted a large amount of greenery facing the southwest. This greenery was planted on slopes of varying heights. This creates a natural forest farm that reduces the impact of the polluted air on the human body and achieves the purpose of reducing noise. The reduced number of westerly windows combined with the green forest decrease the energy consumption in the building due to the intense sun in southern Taiwan.

BUILDING
RETREAT



BUILDING
RETREAT

PROVINCIAL
HIGHWAY



AIR POLLUTION
PM2.5



NOISE
POLLUTION



90%
HIGH LOAD

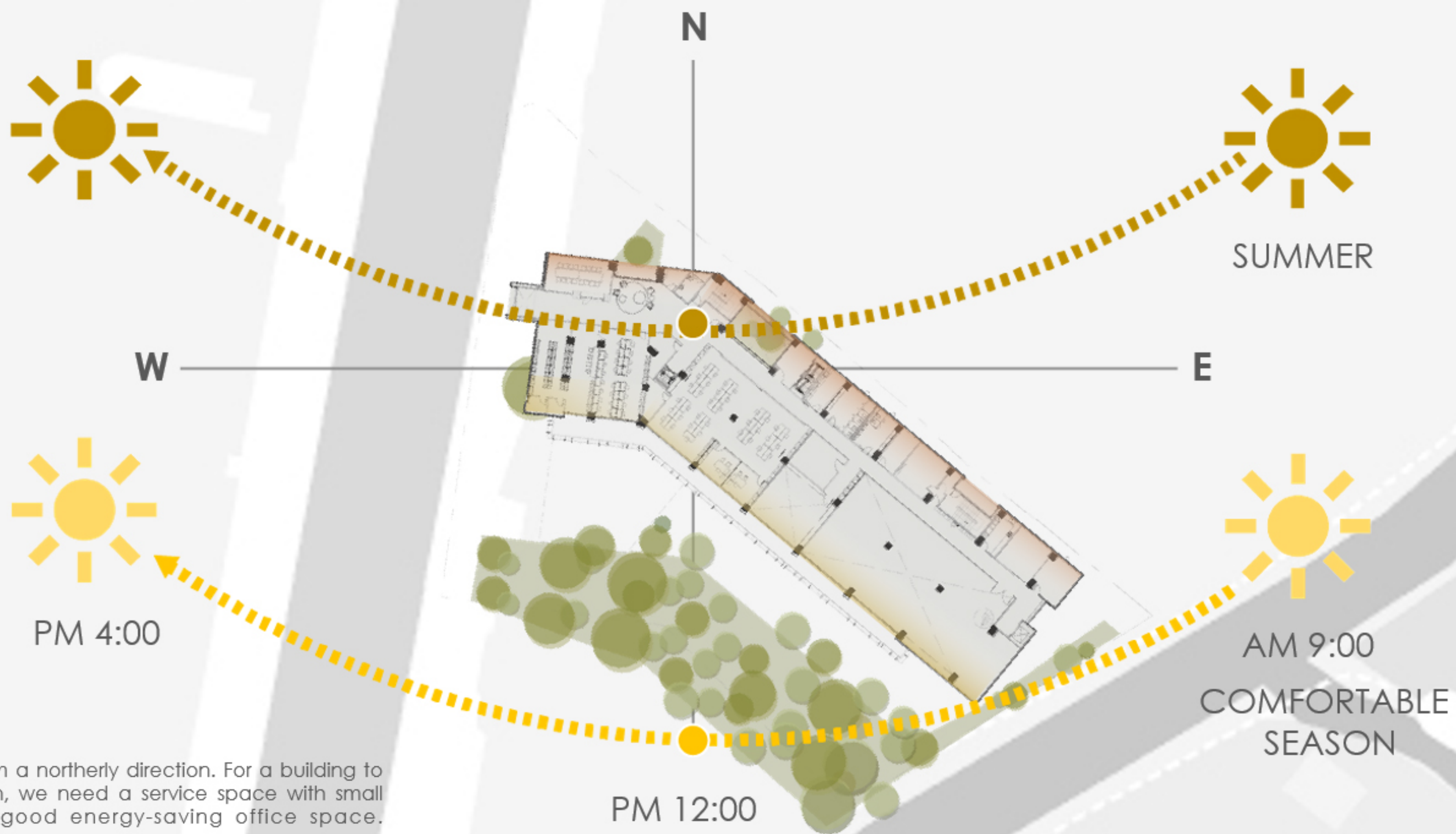


INTENSE
SUNSHINE



SOUTH / DOWNTOWN



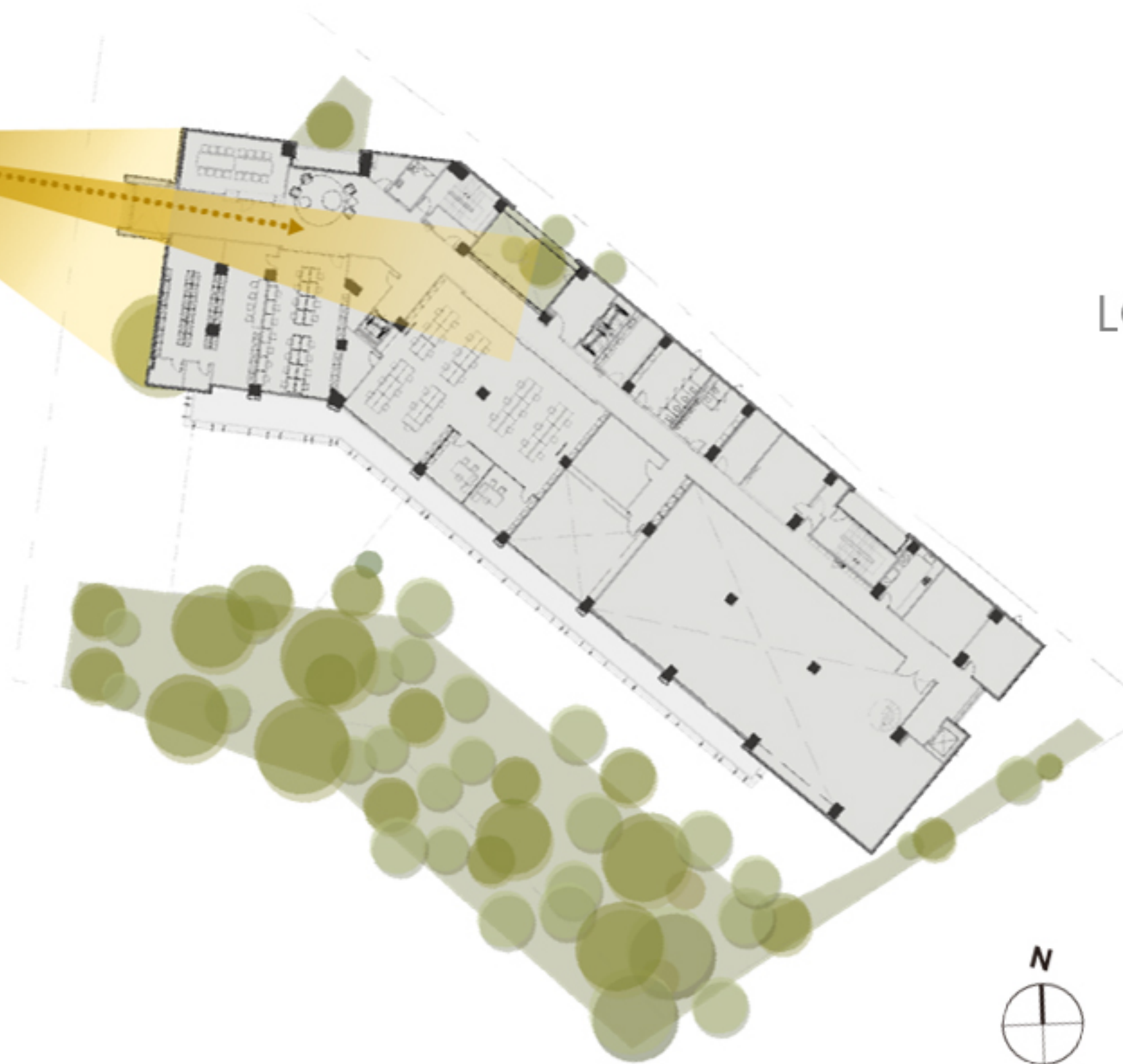


SUNLIGHT CODITIONS

In summer, Taiwan's sunshine comes from a northerly direction. For a building to reduce energy in the northerly direction, we need a service space with small area windows, that can create a good energy-saving office space.

During the comfortable seasons in Taiwan (spring, winter, and autumn), the sunshine is more south-facing. You can see large-scale windows and terraced balcony along with the densely planted forest on the south-facing green slope of the building. These additions directly reduce the impact of sunshine and its proximity to the building. The reduced hot air flow also enhances the comfortable recreation area between the south-facing corridor and the green slope.

SUMMER SUNLIGHT



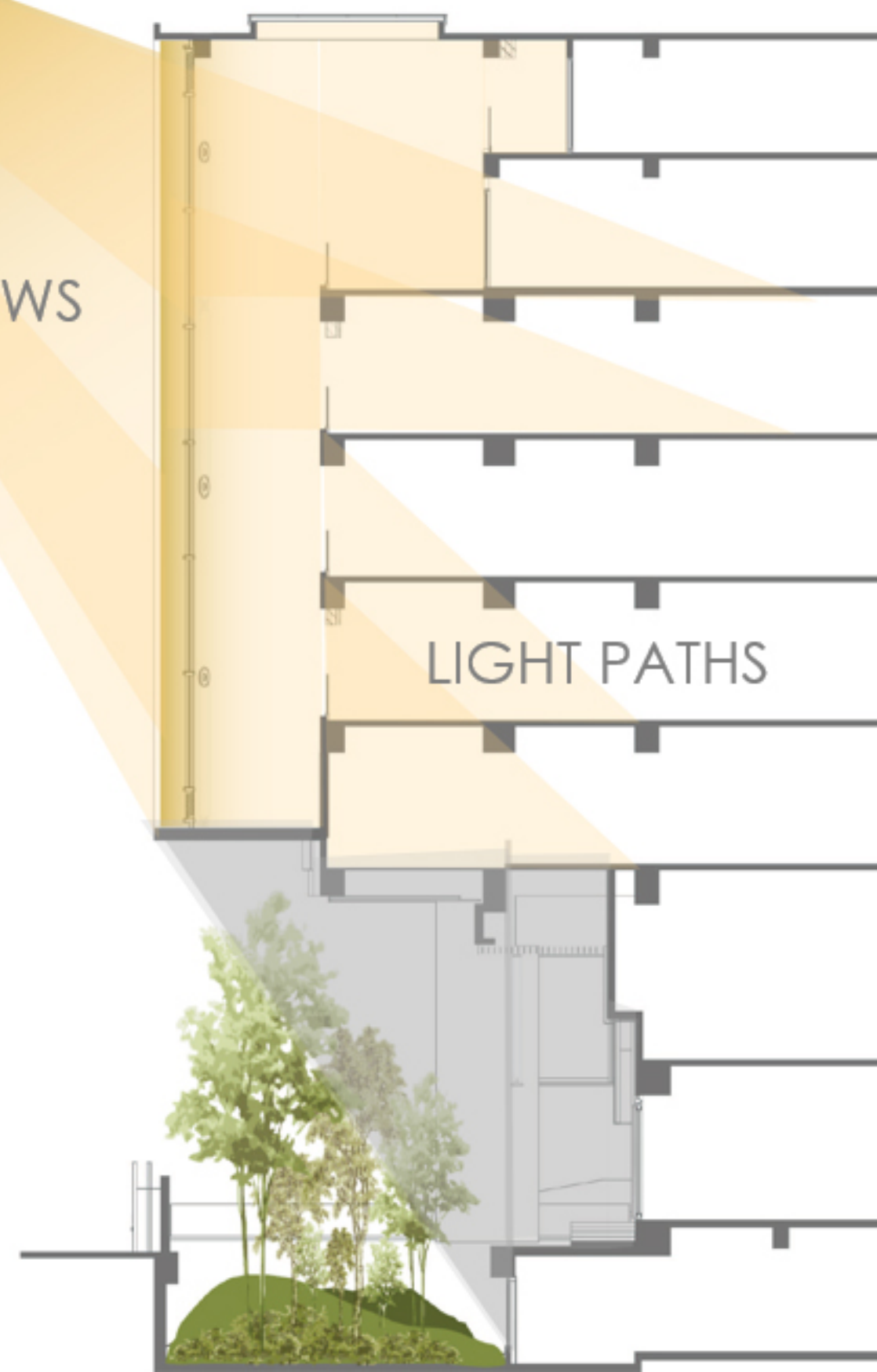
SUMMER SUNLIGHT



LONG HOLLOW WINDOWS

LIGHT PATHS

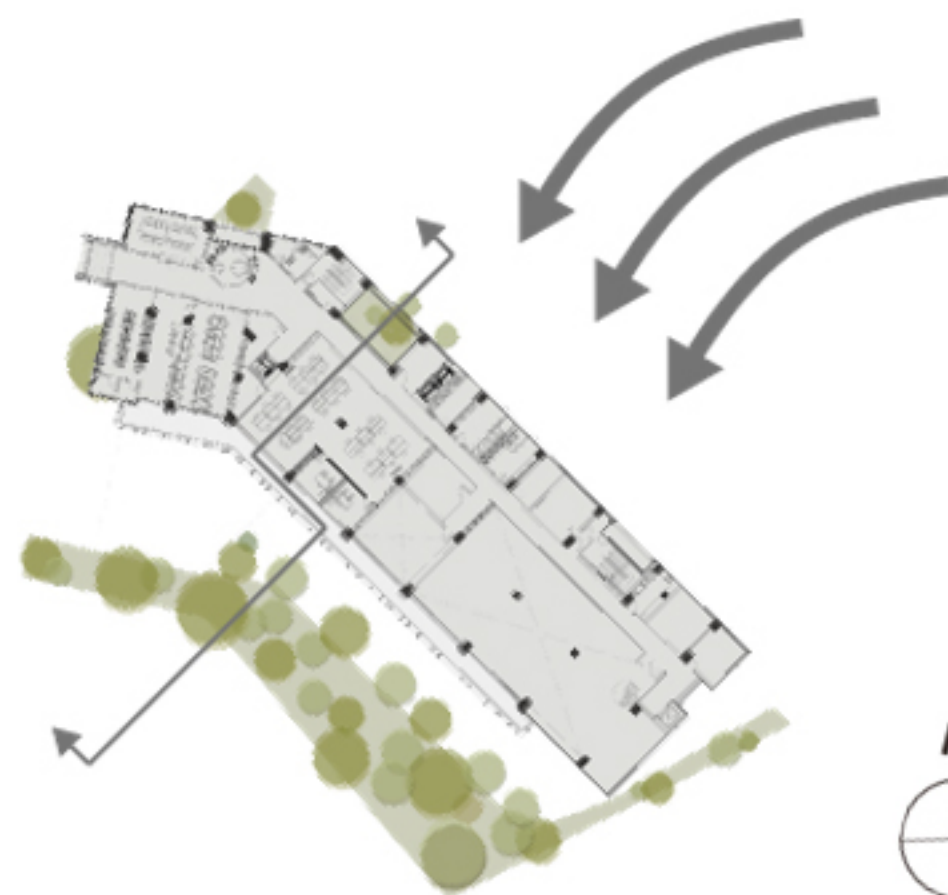
Sometimes in order to emphasize a space, you need to keep it void of all things. The long facade of the building contains long hollow windows to the west of the building, which creates an afterglow on the corridor as the sun sets. As the day progresses, the light and shadow produce an interesting reaction in the corridor, that gives a sense of time in space.



WIND CONDITIONS

Summer in southern Taiwan is driven by a south by south-east wind. After being purified and cooled by the dense foliage, it can enter the large windows opening on the south side of the building, providing fresh air with high oxygen content for the interior and improving the workplace for the office staff. In these trying times, natural ventilation is essential to limit the spread of disease.





COMFORTABLE
SEASON



Downdraft



CLEAN
WIND

north wind

WIND CONDITIONS

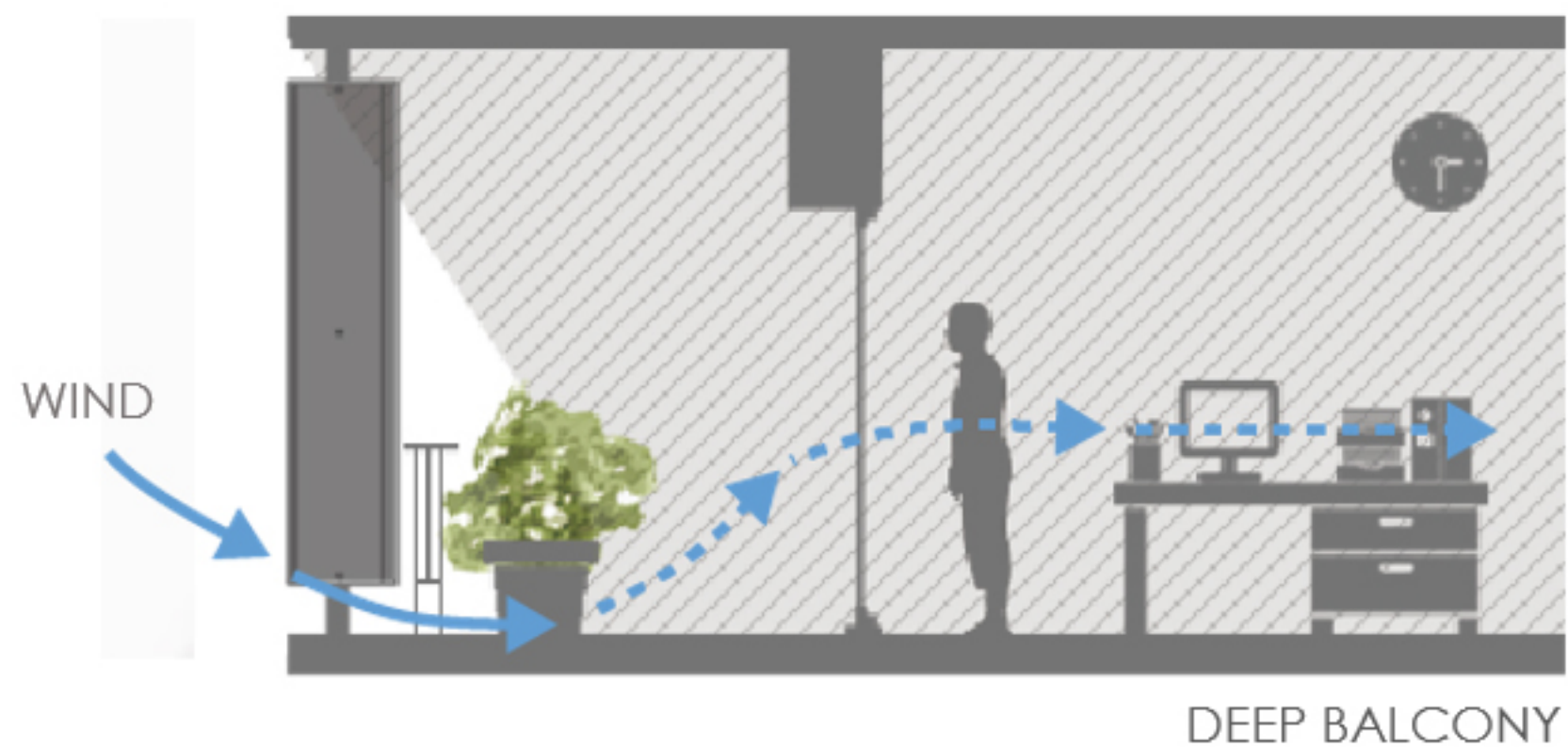
Southern Taiwan is famous for poor air quality in the winter brought by the northerly wind. The densely planted forest area in the south allows the north wind to generate a naturally sinking micro cyclone after crossing the volume of the building. After the air flow is filtered by the densely planted forest, a relatively healthy and comfortable outdoor air quality is formed.



POLLUTANT

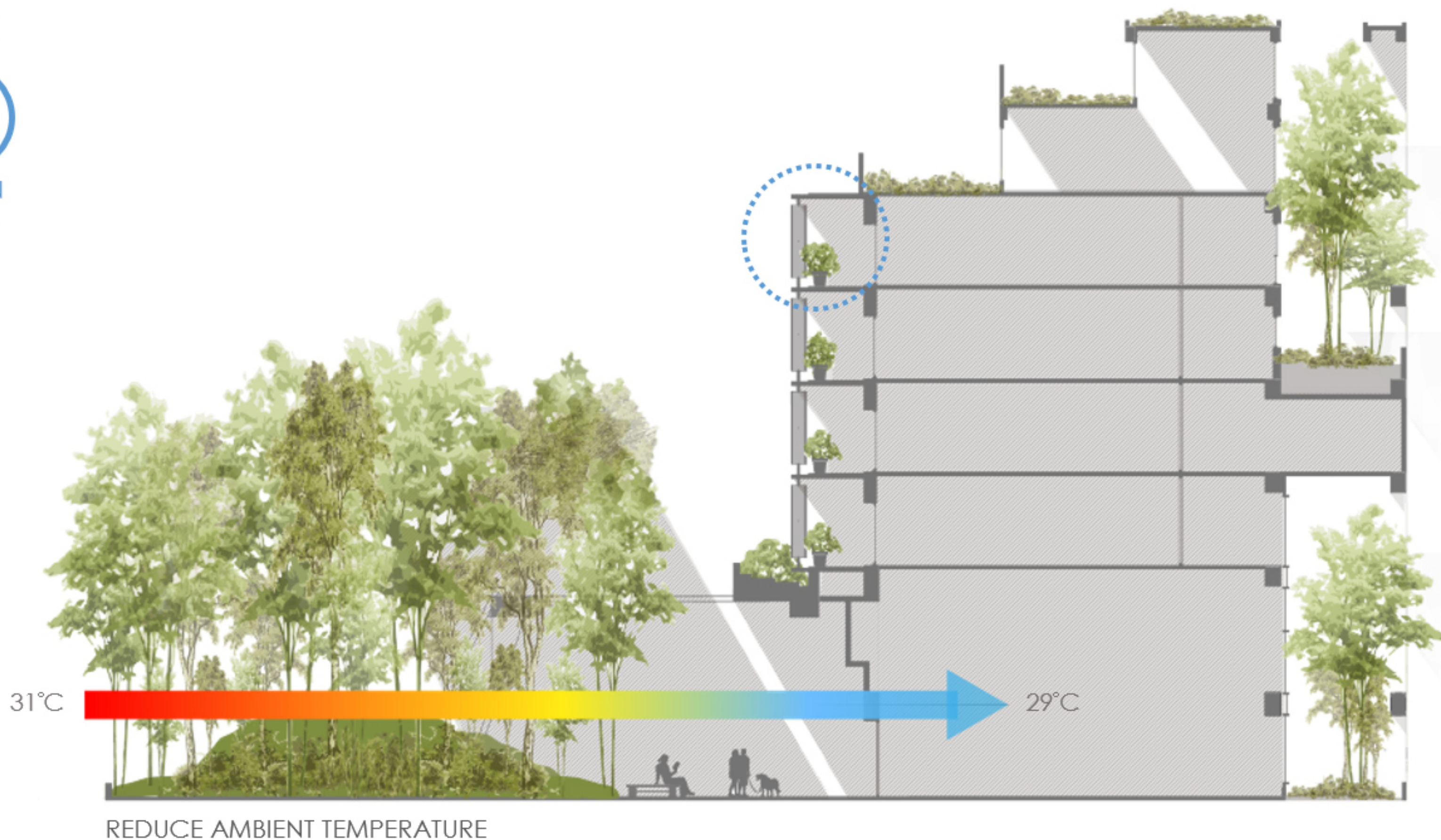
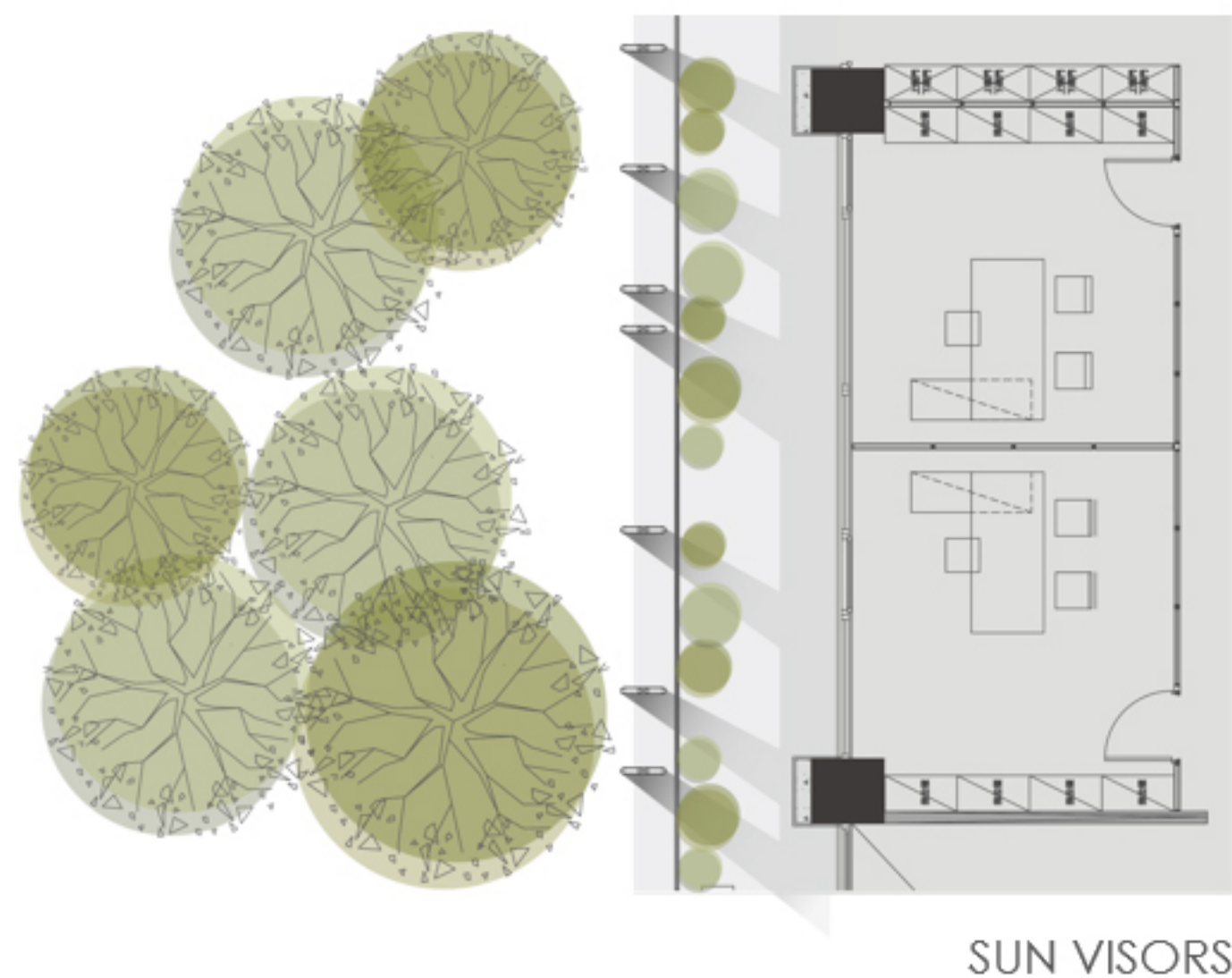


AIR
POLLUTION
PM2.5



SECTIONAL VIEW OF THE BALCONY

The building has a deep balcony and sunshade to the south. The bonsai trees on the balcony gives the building good shade. Through the vents on the underside of the glass handrails, the seasonal ventilation enters the room, which greatly reduces the effect of the ambient temperature on the interior.



AUDITORY FACTORS

Many mounds were used to block the 70dB noise from the highway. In addition to the natural bird calls and insects, a light background music is also set up in the forest to cover the noise of the road with a slightly higher 2dB sound.

