

MENARA MAJLIS BANDARAYA JOHOR BHARU

NON RESIDENTIAL NEW CONSTRUCTION [NRNC]

OWNER/APPLICANT

MAJLIS BANDARAYA JOHOR BAHRU

PROJECT ADDRESS

NO.1, JALAN LINGKARAN DALAM, BUKIT SENYUM, 80300 JOHOR BAHRU, JOHOR



PROJECT DESCRIPTION

Menara MBBJ @One Bukit Senyum is tipped to play a key role in Johor's transformation into a burgeoning new Green metropolis development. This iconic building is a bold statement by Majlis Bandaraya Johor Bahru (MBJB) leading the state green transformation as a municipality adopting green as an exemplary of corporate social responsibility within the society. With this in mind, MBJB headquarter was designed and the green building received its GBI Certified certification rating in November 2021.

Traditional islamic architectural motifs are employed as part of the facade lattice to increase shading and contribute to the energy efficiency performance of the building. The Building Energy Intensity(BEI) is less than 120kWh/year/m², a 54% reduction from normal office buildings. Among the additional strategies employed to achieve this reduced BEI is the installation of high-performance glass to its façade to further reduce the heat gain. The façade works well in combination with high efficiency chiller cooling system. An efficient energy management system(EMS) is installed to control, manage and conserve the energy of the building.

Submeters are installed and readings are monitored to maximise its energy performance. The lighting systems in the building are designed with multiple zones according to daylight availability and optimised with motion sensors modulating use of artificial lighting. MBJB's Cube form building is made so much more interesting with cut outs of open courtyard gardens bringing sky gardens, daylight and views above ground. Various spaces benefitted with availability of natural ventilation.



The MBJB office layout maximizes the use of natural daylight. Translucent blinds are installed along the façade to reduce glare prevention while allowing for panoramic views and not jeopardizing the abundance of diffused daylight. MBJB wanted a comfortable environment that improves staff productivity and enhances visitors' experience. More than 50% of building occupants are allowed to control the air conditioning temperature. Several other key measures are keeping noise levels below 45dBAeq for acoustic comfort, use of Low Volatile Organic Compound (VOC) paint and low formaldehyde products throughout the tower to improve the indoor environmental air quality thus ensuring occupants health.

Recycled content materials were used to reduce demand for virgin materials. These materials were extracted, recycled and manufactured within the region, thereby supporting the use of indigenous resources and reducing the environmental impacts resulting from transportation.

Other innovative features include collection and channelling of condensate water from the Air Handling Unit to the cooling tower and installations of regenerative lifts to improve electricity savings. The building is also designed with disability friendly in mind, and has been audited by the local authorities according to MS1184:2002.

