

# SMART BUILDING



## SECURITY MANAGEMENT



The PARQ features a centralized, integrated security system that is designed to work 24/7 both within the complex and its external areas. The closed-circuit television system is set up throughout the common areas of the project and are connected to an Integrated Command Centre and Access Control System.



### CLOSED-CIRCUIT TELEVISION (CCTV)

The closed-circuit television (CCTV) ensures a high level of security and facilitates the overall building management. This system enables staff to take timely action should they detect suspicious people or items, accidents or unauthorized people in a restricted area.



### VISITOR MANAGEMENT INTEGRATION WITH ACCESS CONTROL SYSTEM

The highly efficient visitor management system will help minimize time spent exchanging ID cards for building access. It tightens loopholes and solves pain points inherent in the traditional reception desk method. Moreover, the system comes with a database to maintain detailed records of each individual's arrival and departure times.

- There is a self-registration kiosk in The PARQ lobby to enable Visitors to self register for access to the Building. The Visitor will be able to obtain a QR code to enter the building by scanning their ID cards or passport and entering information of the Tenant they will visit. Through this automated process we provide greater convenience to Visitors and Tenants while still maintaining the security protocols for the building.
- Tenants can pre-register by inputting their Visitors' information into the system and forwarding an electronic "**Visitor Pass**" with corresponding QR code in advance through The PARQ mobile application.
- Upon arrival visitors can scan this QR code at the **Automated Turnstiles** to access the building. An administrator can set some security policies such as determining areas and hours that specific visitors can enter.
- Moreover, with the use of **Facial-recognition Technology**, The PARQ enhances the touchless experience whereby registered office tenants can pass through the turnstiles at the office lobby and allocated an elevator (all touchless) by using the facial-recognition system.



## INTEGRATED ENERGY MANAGEMENT AND BUILDING AUTOMATION SYSTEM

The PARQ's integrated energy management system delivers efficiency, effectiveness and flexibility. It will also respond to tenant demands and deliver enhanced indoor life quality for office workers and visitors. **Features and benefits include:**

- 13% energy saving compared to international energy efficiency standard, to support the policy of reducing greenhouse gas effects.
- Extremely high performance air cooling system with flexible air condition services.
- Superior sanitation with an air purification system to filter and sanitize air.
- Reverse osmosis filtered drinking water on every floor.
- Destination control Lifts and escalators with minimized waiting times.
- Integrated building security includes a fire alarm system, an earthquake-resistant structure, an emergency generator system and LEED and WELL standard criteria.



# SMART FEATURES

## SMART ICT INFRASTRUCTURE

The Smart ICT infrastructure provides industry leading ICT Services such as dark fiber, high-speed connectivity, WI-FI 6

### GPON (Gigabit Passive Optical Network):

GPON uses **Fiber Optic** cables throughout the district to provide high-speed bandwidth, low latency and high reliability for provisioning and quality management of ICT services to Tenants.

### Wi-Fi 6 technology deployment in Retail Area:

This fastest WLAN technology to date provides four times higher network bandwidth and four times more concurrent users than Wi-Fi 5. Latency is three times lower than Wi-Fi 5.

## Seamless Connectivity via Wi-Fi Access and Mobile Network

**Fully coverage mobile and high-speed Wi-Fi network** in both indoor and outdoor area, even in the elevators and basement carpark area, enable high-speed Internet and seamless connection for everyone.



### CARPARK MANAGEMENT

- The PARQ's Smart Parking System features both **License-plate Recognition (LPR)** technology and QR code entry to accommodate registered office tenants and visitors respectively.
- Visitors with **"Visitor Pass"** generated from The PARQ mobile application can also present their QR Codes at the parking gate to pass through the barrier.



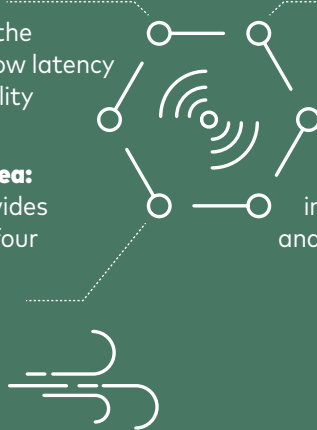
### UVC ROBOT AND THERMAL SCAN

- Incorporating the latest technology to enhance the hygiene and cleaning processes, The PARQ has deployed **UVC Disinfection Robots** with intense UVC lamps that help eliminate bacteria, fungus and reduce the spread of airborne germs.
- With the COVID-19 situation, The PARQ deployed **Thermal-scan Cameras** at all main entrances of both retail and office area. These cameras are connected to an AI-based platform to detect the body temperature of visitors to ensure that we meet the Government COVID-19 regulations and ensure the safety of all occupants of the building.



### DIGITAL SIGNAGE

All LED screens in the project both indoor and outdoor area are controlled by one single **CMS (Content Management System)**, which allows building operators to manage all images and videos of each LED screen in real time.



### AIR QUALITY MONITORING

- There are **Air Quality Sensors** to measure PM2.5, PM10, temperature and relative humidity installed throughout the public areas (both indoor and outdoor)
- The sensor will notify building management when it detects harmful particles, so that air ventilation rate will be increased in order to increase the fresh and treated air from outside to inside the building.



### PEOPLE COUNTER

**People Counting Sensors** installed in front of all entry and exit doors, escalators, elevators and rest rooms allow operating staff to monitor crowded areas (if any) and maintain such facilities in a timely manner, while providing analytical information on footfall traffic.



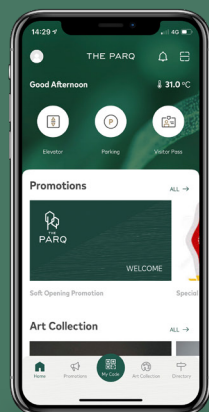
### SMART POLE

- The PARQ complex includes multi-purpose Smart Poles. They provide a connected light source as well as security features via an integrated CCTV camera and an emergency button.
- They also provide Internet connectivity from wireless access points and features a Public Announcement (PA) speaker.
- All information from the Smart Poles is relayed back to the Command Centre so that immediate and appropriate action can be taken.



### EV CHARGERS

Responding to the growing electrical vehicle uptake in Thailand, The PARQ also offers EV charging stations to support a cleaner roadway. This also reduces vehicle emissions.



### THE PARQ MOBILE APPLICATION

To enhance the user experience, The PARQ mobile application provides useful information and features for shoppers, visitors and office workers, such as

- Promotions & Events
- Store directory & Indoor navigation
- Available parking lots & Real-time traffic
- QR code for building entry & Lift calling
- Smart lighting control for office tenants
- Real-time air quality index.

And many more features to come.

