ANREV

SUSTAINABILITY CASE STUDY

February 2016

PROFESSIONAL STANDARDS

The Mark,164 Wai Yip Street, Kwun Tong, Hong Kong

SUMMARY

Taking advantage of the wholesale conversion scheme by the Hong Kong Government, Pamfleet acquired an industrial building at 164 Wai Yip Street in Kwun Tong and re- positioned it as a quality office property.

The building went through the process of BEAM plus certification, a green building certificate issued in Hong Kong.

KEY FACTS

Total GFA: 69,643 sqf (6,470 sqm)

Unit sizes: From 1,630 square feet (half floor) to 3,500 square feet (full-floor).

Building storeys: 21

Carpark: 30 lots

Original built: 1995

Building completion date: Dec 2014

TIMEFRAME

Project design commenced in January 2014 and renovation works completed in December 2014.

COST

Renovation cost approximately HK$50M (13% of the total property acquisition cost)

MAIN STAKEHOLDERS

Asset Manager & Project Manager: Pamfleet (HK) Limited

Authorized Person and Lands Consultant: Raymond Chan Surveyors Ltd.

Architect: Llewelyn-Davies Hong Kong Ltd.

Structural Engineer: CT & Associates (HK) Ltd.

Building Services Engineer: Vigor (M&E) Engineering Consultants Ltd.

Environmental Consultant: Ramboll Environ Hong Kong Ltd.

Main Contractor: ISG Asia (Hong Kong) Ltd.

INFORMATION

Details about the asset can be found at http://www.pamfleet.com/

Contact email:
flora.tong@pamfleet.com

BEFORE

AFTER

DESCRIPTION

The Mark was a refurbishment project that included the replacement of existing window glazing, upgraded to meet all technical and statutory requirements for office use from industrial, redecoration of common areas, addition of a dedicated meeting room floor and other tenant-only facilities.

According to the HKSAR Buildings Department, The Mark could be granted exemptions on artificial lighting and mechanical ventilation as it achieved 40 percent of the performance target for energy use and indoor environmental quality under the BEAM plus certification for the wholesale conversion scheme. Consequently, upon completion of the renovation targets, The Mark was recognized as Bronze rating for its quality sustainable design.

STRATEGY

Vision

Following renovation and re-branding as The Mark, the property targets SME tenants such as professional and consultancy firms related to tourism, engineering and infrastructure development. According to the Trade and Industry Department, there are about 320,000 SMEs in Hong Kong, accounting for over 98% of all businesses. Kowloon East has been a major absorber of leasing activity in recent years, as new supply has been filled by growing and expanding businesses hungry for space in more affordable decentralized districts.

Goals and Targets

Conversion of existing buildings is less damaging to the environment than complete re-development. Revitalisation of dormant, unsightly industrial buildings, replacing them with commercial blocks that let out space to small-to-medium sized enterprises, should help to create job opportunities and increase competitiveness.

[1] Source: http://www.devb.gov.hk/industrialbuildings/eng/implementation_progress/index.html

CONTEXT AND DRIVERS

Due to the long term decline in manufacturing activities and increasing demands from alternative uses such as office, hotel and residential, nearly all industrial land in urban areas was rezoned for higher value uses several years ago. Following the rezoning, over 1,000 industrial buildings became eligible for change of use, however very few such projects were under-taken.

In 2010, therefore, the government introduced a range of measures to encourage redevelopment or conversion of older industrial buildings into alternative uses, including waiver of lease modification premiums in certain cases. Since the launch of the Revitalisation Measures, a total of 175 applications had been received by the Lands Department (as of the end of October 2015). Of these, a total of 116 applications were approved, of which 74 have been executed (66 wholesale conversions and 8 redevelopments[1]). Kowloon East is a particular focus, with the government encouraging development of a new business district, called "CBD2".

The Mark achieved the rating "BRONZE" in the Hong Kong BEAM Plus for New Buildings Version 1.1 in Nov 2015.

IMPLEMENTATION

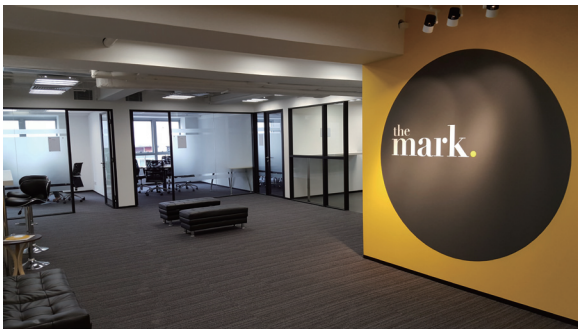
Critical Success Factors

This was a comprehensive transformation from industrial use to office use, requiring dedication, skill and investment. As Asset Manager and Project Manager, Pamfleet had to implement the changes while observing the legal requirements and bringing the building up to code. Renovating by addition and alteration works (A&A works) takes much less time than redevelopment, resulting in less disruption to the surrounding neighbourhood (noise, traffic, loss of amenities and other inconvenience), and there is less construction waste to be disposed of, as complete demolition is not necessary.

KEY FEATURES — ENVIRONMENTAL AND CHALLENGES

Environmental

Several energy conservation measures were adopted in this project in order to reduce the energy consumption (hence CO2 emission) as well as the peak electricity demand such as:



Building Envelope, Glazing, and Shading

- Replaced all window glazing with lower Shading Coefficient (SC) value glass. The Overall Thermal Transfer Value (OTTV) which is a measure of the energy consumption of a building envelope, is lower and also represents lower solar heat transmission from the building façade.
- Hence, the cooling load of the building can be decreased with less heat transmission and this in turn decreases energy consumption.

Air Conditioning Units

- Replaced with all new Variable Refrigerant Volume (VRV) A/C systems which condition each room individually, whereas conventional systems cool a building as a whole. Hence VRV is ideal for fluctuating occupancy of a building and is a far more economical and efficient system.
- VRV system has higher Coefficient of Performance (COP) indicating greater energy efficiency and lower electricity consumption, hence saving money. Also, users can operate their air conditioning on demand.

Lighting Design

- Lighting in all offices, common lobbies and carpark areas is by low power density units such as T5, LED lamps.

Challenges

Original carpark provision for industrial use had 16 car parking spaces. Under the Hong Kong Planning Standards and Guidelines (HKPSG), the requirement for office building car park spaces is approximately 4 times higher than that for industrial buildings, which was unachievable in practice. However, 30 nos. of car parking spaces have been provided after reconfiguration and by using mechanical double deck systems for the new office tenants and nearby users.

The application to the Lands Department took eight months for approval of the conversion scheme. Other relevant authorities and departments, such as Town Planning Board, Fire Services Department, Transport Department and the Buildings Department, etc. were also approached regarding all approvals or licences that were required under any Ordinances, by-laws or regulations.

OUTCOMES

Significant energy savings were achieved. The percentage of energy reduction after the conversion was 14.4% for the offices and 25.8% for the carpark compared with base case model in the BEAM Plus Assessment.