

NOTE FOR PUBLIC WORKS SUBCOMMITTEE OF FINANCE COMMITTEE

Supplementary information on 48MM – Redevelopment of staff quarters for the establishment of a rehabilitation block at Tuen Mun Hospital

INTRODUCTION

In considering PWSC(2003-04)9 on **48MM** at the Public Works Subcommittee meeting on 23 April 2003, Members requested the Administration to –

- (a) provide information on the air-conditioning system designed for the proposed rehabilitation block; and
- (b) illustrate how far the system could facilitate air circulation for containing the spread of infectious diseases such as the Severe Acute Respiratory Syndrome.

THE ADMINISTRATION'S RESPONSE

2. As advised by the Architectural Services Department, the design of the air-conditioning system in the wards of the proposed rehabilitation block has adopted the standards for other recently completed hospital general wards with the following features -

- (a) Air distribution

The air distribution system in each ward is served by a separate air-

/handling

handling unit with its own outdoor air and re-circulatory air sub-systems. The conditioned air is evenly supplied to all cubicles, nurse station, corridor, etc. within a ward at a rate of not less than 12 air changes per hour. Air is returned at the air grilles located inside the ward cubicles to the air-handling unit through air ducts. With the re-circulatory air sub-system operating, the air returned from the ward will be filtered together with the outdoor air and treated in the air-handling unit for supply back to the ward. With the re-circulatory air sub-system switched off, all the air returned from the ward cubicles will be filtered and discharged outdoor.

(b) Outdoor air supply

Outdoor air is supplied to the wards at 13 litres per second per person. The total volume of outdoor air supply to a ward is based on a population of two visitors per bed in addition to the number of patients and medical staff in the ward.

(c) Filtering of air

High efficiency cartridge pre-filter and final bag filter together with special high efficiency particulate air filter are provided to filter the returned air and the air supplied to the wards through the air distribution system.

(d) Air treatment

Air purification devices, including ultra-violet lamps or activated oxygen generators, are provided in the air distribution system for the wards to remove odour and kill bacteria and viruses.

3. The Architectural Services Department has advised that the air distribution system in the proposed rehabilitation block is so designed to minimise cross infection from a ward cubicle to adjacent ward cubicles and the remaining areas of the ward.