

**EXECUTIVE SUMMARY OF**  
**ASHRAE STD 62-2004 AS APPLIED TO**  
**THE JOHNS HOPKINS HOSPITAL M.EDICAL O.FFICE B.UILDING**

THE MOB IS AN 88,000 SQUARE FOOT BUILDING LOCATED IN BALTIMORE MARYLAND. IT CONSISTS OF FOUR FLOORS, BASEMENT, FIRST, SECOND AND THIRD. THE BUILDING IS SERVED BY SIX IDENTICAL PACKAGED ROOFTOP DX UNITS. EACH OF THE UNITS IS RATED AT 21,000CFM, WITH 10% OUTDOOR AIR.

FOUR OF THE AIR HANDLERS, AHU-1 THROUGH AHU-4 SERVE THE FLOORS, BASEMENT, FIRST, AND SECOND. THE THIRD FLOOR IS SERVED BY BOTH AHU-5 AND AHU-6.

THE TWO LOWER FLOORS, BASEMENT AND FIRST, ARE CONSTITUTED MAINLY OF MEDICAL EXAMINATION AND NON-INVASIVE PROCEDURE ROOMS SUCH AS RADIOLOGY, PHLEBOTOMY AND DIALYSIS. THE SECOND FLOOR IS MIXED USE, WITH SOME ROOMS BEING USED AS PATIENT EXAM ROOMS AND SOME ROOMS BEING OFFICE SPACES. AHU-1 AND AHU-2 ARE DUCTED TOGETHER TO FORM ONE SUPPLY AND RETURN RISER IN THE THIRD FLOOR PLENUM THAT SUPPLIES THE SOUTHERN ZONES THROUGH A MECHANICAL SHAFT ON THE SOUTHERN SIDE OF THE BUILDING. AHU-3 AND AHU-4 ARE DUCTED TOGETHER TO FORM ONE SUPPLY AND RETURN RISER IN THE THIRD FLOOR PLENUM THAT SUPPLIES THE NORTHERN ZONES THROUGH A MECHANICAL SHAFT ON THE NORTHERN SIDE OF THE BUILDING.

AFTER APPLICATION OF ASHRAE STD 62-2004, IT WAS FOUND THAT ALL AIR HANDLING UNITS COMPLY WITH VENTILATION MINIMUMS. ALL SYSTEM EV VALUES WERE FOUND TO BE .9 ACCORDING TO TABLE 6-3. THIS WAS DUE TO THE FACT THAT ALL ZONE MAXIMUM ZP VALUES WERE FOUND TO BE LESS THAN .25 AFTER APPLICATION OF A TIME BASED DIVERSITY FACTOR.