



LEGEND

V1 AIR FLOW CONTROL VALVE PRESSURE INDEPENDENT TYPE

GENERAL NOTES:

1. ANTEROOM SHALL BE MAINTAINED AT A POSITIVE PRESSURE (0.01 INCH WATER COLUMN [2.5 PASCAL]) WITH RESPECT TO BOTH AII/PE ROOM AND THE CORRIDOR OR ANY ADJOINING SPACE BY MODULATING VALVE V1. COMBO ROOMS SHALL HAVE PERMANENTLY INSTALLED DEVICES AND/OR MECHANISMS TO CONSTANTLY MONITOR THE DIFFERENTIAL AIR PRESSURE BETWEEN THE PATIENT ROOM AND ANTE ROOM AND THE CORRIDOR AND ANTE ROOM. A LOCAL VISUAL MEANS SHALL BE PROVIDED TO INDICATE WHENEVER POSITIVE DIFFERENTIAL PRESSURE IS NOT MAINTAINED WITH RESPECT TO ANTE ROOM AND EITHER THE AII/PE ROOM OR THE CORRIDOR. (STOBE LITE)
2. MAINTAIN THE ATTACHED TOILET, IF ANY, AT NEGATIVE AIR PRESSURE WITH RESPECT TO THE PE ROOM. HOWEVER, THE DESIGN NEED NOT INCLUDE A PRESSURE DIFFERENTIAL SENSOR FOR VERIFICATION.
3. LOCATE THE SUPPLY AIR OUTLET OVER THE PATIENT BED ON THE CEILING WITHOUT CREATING A DRAFT CAUSING PATIENT DISCOMFORT. LOCATE EXHAUST AIR INLET NEAR THE PATIENT ROOM DOOR.

TYPICAL AIR BALANCE EXAMPLE:

1. THE PATIENT BEDROOM IS KEPT UNDER POSITIVE PRESSURE WITH RESPECT TO THE ADJOINING CORRIDOR BY MODULATING VALVE V1.
2. THE SUPPLY AIR SYSTEM SHALL CONSIST OF THE CONSTANT VOLUME AIR DELIVERY FROM A DEDICATED AIR TERMINAL UNIT WITH REHEAT COIL TO THE ISOLATION SUITE AS FOLLOWS:

A – PATIENT BEDROOM

MINIMUM 12 ACPH SUPPLY AIR (ASHRAE STANDARD 170 2008). INCREASE SUPPLY AIR VOLUME; IF REQUIRED, TO MEET THE INSIDE DESIGN CONDITIONS IN COOLING AND/OR HEATING MODES. EXAMPLE: 400 CFM [190 L/S]

B – ANTE ROOM

MINIMUM 10 ACPH (ASHRAE STANDARD 170 2008) TO BE EX-FILTRATED TO THE CORRIDOR AND INTO AII/PE ROOM AS FOLLOWS: SUPPLY ANTE ROOM AT THE RATE OF 140 CFM [66 L/S] WITH 40 CFM [19 L/S] ENTERING THE AII/PE ROOM AND 100 CFM [47 L/S] EX-FILTRATED INTO THE CORRIDOR. EXAMPLE: 140 CFM [66 L/S] TOTAL SUPPLY AIR

C – PATIENT TOILET

DO NOT SUPPLY AIR INTO THE TOILET. DRAW MAKE-UP AIR FROM THE PATIENT'S BEDROOM AND EXHAUST AT THE RATE OF 10 ACPH OR 60 CFM [28 L/S]. EXAMPLE: 60 CFM [28 L/S]

3. THE DEDICATED EXHAUST AIR SYSTEM SHALL BE BALANCED AS FOLLOWS:

A – PATIENT BEDROOM

400 CFM [190 L/S] (SUPPLY) – 60 CFM [28 L/S] (TOILET) + 40 CFM [19 L/S] INFILTRATED FROM ANTE ROOM (ANTE ROOM) 380 CFM [180 L/S] EXHAUSTED FROM AII/PE ROOM. 100 CFM [47 L/S] IS EXFILTRATED TO CORRIDOR FROM ANTE ROOM. TOTAL EXHAUST 440 CFM [210 L/S]

4. COORDINATE DOORS UNDER CUTS FOR DOOR BETWEEN ANTE ROOM AND PATIENT (1") [2.54 CM], DOOR TO CORRIDOR.

## AIR SYSTEM FOR COMBINATION AIRBORNE

### INFECTION ISOLATION (AII)/PROTECTIVE

### ENVIRONMENT (PE) ROOM WITH POSITIVE ANTEROOM

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NTS POSITIVE PRESSURE

DESIGNER'S NOTE:

1. ENSURE FINAL DESIGN REFLECTS PROJECT SPECIFIC REQUIREMENTS AND MEETS ASHRAE 170, LATEST EDITION WITH **ALL** ADDENDUMS.