



RTTV Summary Sheet

Notes:
 ER = External Reflectance
 SC = Shading Coefficient
 VLT = Visible Light Transmittance
 Window and skylight data should represent the major proportion of its use in the development.

PNAP
 APP-156
 Appendix A

Address: *Student Residences for HKU Mui Fong Street, Sai Ying Pui* BD Ref. No. *2/2001/114*

Building Type: Residential

RTTV calculated by: 1. Registered Professional Engineers
 2. Architect
 3. Others, please specify:

No. of Storeys (Residential Units): *22*

Table 1

Deemed to Satisfy RTTV _{Wall}			
Facade Orientation Facing	<i>East</i>	<i>West</i>	<i>North</i>
Average Absorptivity	<i>0.3/0.58/0.91</i>	<i>0.3/0.58/0.91</i>	<i>0.3/0.58/0.91</i>
Average Window to Wall Ratio	<i>0.31</i>	<i>0.25</i>	<i>0</i>
Shading Coefficient of Glazing	<i>0.71</i>	<i>0.71</i>	<i>NA</i>
Average Shading Coefficient of Facade	<i>0.71</i>	<i>0.71</i>	<i>NA</i>
Visible Light Transmittance	<i>57</i> %	<i>57</i> %	<i>NA</i> %
External Reflectance	<i>5.34</i> %	<i>5.34</i> %	<i>NA</i> %

Table 2

RTTV _{Wall}													
Facade Orientation Facing		<i>East</i>			<i>West</i>			<i>North</i>					
Wall Orientation Factor		<i>1.072</i>			<i>1.131</i>			<i>0.79</i>					
Total External Wall Area (Residential Units)		<i>1107.343 m²</i>			<i>894.418 m²</i>			<i>162.437 m²</i>					
Total Window Factor		<i>347.43 m²</i>			<i>226.709 m²</i>			<i>0 m²</i>					
Heat Conduction	Opaque Wall	<i>1.57 W/m²</i>			<i>2.98 W/m²</i>			<i>2.19 W/m²</i>					
	Window	<i>1.15 W/m²</i>			<i>0.98 W/m²</i>			<i>0 W/m²</i>					
Window	Glass Type	<input type="checkbox"/> Reflective	Area=	SC=	VLT= %	<input type="checkbox"/> Reflective	Area=	SC=	VLT= %	<input type="checkbox"/> Reflective	Area=	SC=	VLT= %
		<input type="checkbox"/> Tinted	Area=	SC=	VLT= %	<input type="checkbox"/> Tinted	Area=	SC=	VLT= %	<input type="checkbox"/> Tinted	Area=	SC=	VLT= %
		<input checked="" type="checkbox"/> Clear	<i>347.43 m²</i>	<i>0.71</i>	<i>57</i> %	<i>226.709 m²</i>	<i>0.71</i>	<i>57</i> %	<i>5.34</i> %	<i>0 m²</i>	<i>0</i> %	<i>0 m²</i>	<i>0</i> %
	Double Glazing	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			<input type="checkbox"/> Yes <input type="checkbox"/> No		
External Shading	Overhang	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			<input type="checkbox"/> Yes <input type="checkbox"/> No		
	Sidewall	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			<input type="checkbox"/> Yes <input type="checkbox"/> No		
Solar Radiation through Glazing		<i>8.08 W/m²</i>			<i>6.13 W/m²</i>			<i>0 W/m²</i>					
Average Absorptivity		<i>0.24</i>			<i>0.43</i>			<i>0.46</i>					
RTTV _{Wall} at each facade		<i>10.8 W/m²</i>			<i>10.09 W/m²</i>			<i>2.19 W/m²</i>					
Overall RTTV _{Wall}		<i>9.86 W/m²</i>											

Table 3

RTTV _{Roof}						
Roof Orientation Factor		<i>2.16</i>				
Total Roof Area (Residential Units)		<i>59.607 m²</i>				
Total Skylight Area		<i>NA m²</i>				
Heat Conduction	Roof	<i>1.85 W/m²</i>				
	Skylight	<i>NA W/m²</i>				
Skylight	Glass Type	<input type="checkbox"/> Reflective	Area=	SC=	VLT= %	ER= %
		<input type="checkbox"/> Tinted	Area=	SC=	VLT= %	ER= %
		<input type="checkbox"/> Clear	Area=	SC=	VLT= %	ER= %
	Double Glazing	<input type="checkbox"/> Yes <input type="checkbox"/> No				
External Shading	<input type="checkbox"/> Yes <input type="checkbox"/> No					
Solar Radiation through Glazing		<i>NA W/m²</i>				
Average Absorptivity (roof)		<i>0.30</i>				
Overall RTTV _{Roof}		<i>1.85 W/m²</i>				

NV_{TC} COMPLIANCE CHECK

- AREA OF HABITABLE SPACES WITH SINGLE-SIDED VENTILATION (NV_{ss})
- AREA OF HABITABLE SPACES THAT DO NOT SATISFY ANY REQUIREMENTS OF THE ABOVE

DEMONSTRATION OF COMPLIANCE TO NATURAL VENTILATION (THERMAL COMFORT)
(REFER TO SECTION 3.4 SINGLE SIDE VENTILATION)

3/F TO 5/F
FOR ROOM 1 - ROOM 8
DEPTH OF ROOM = 3.236 M < 4.500 M

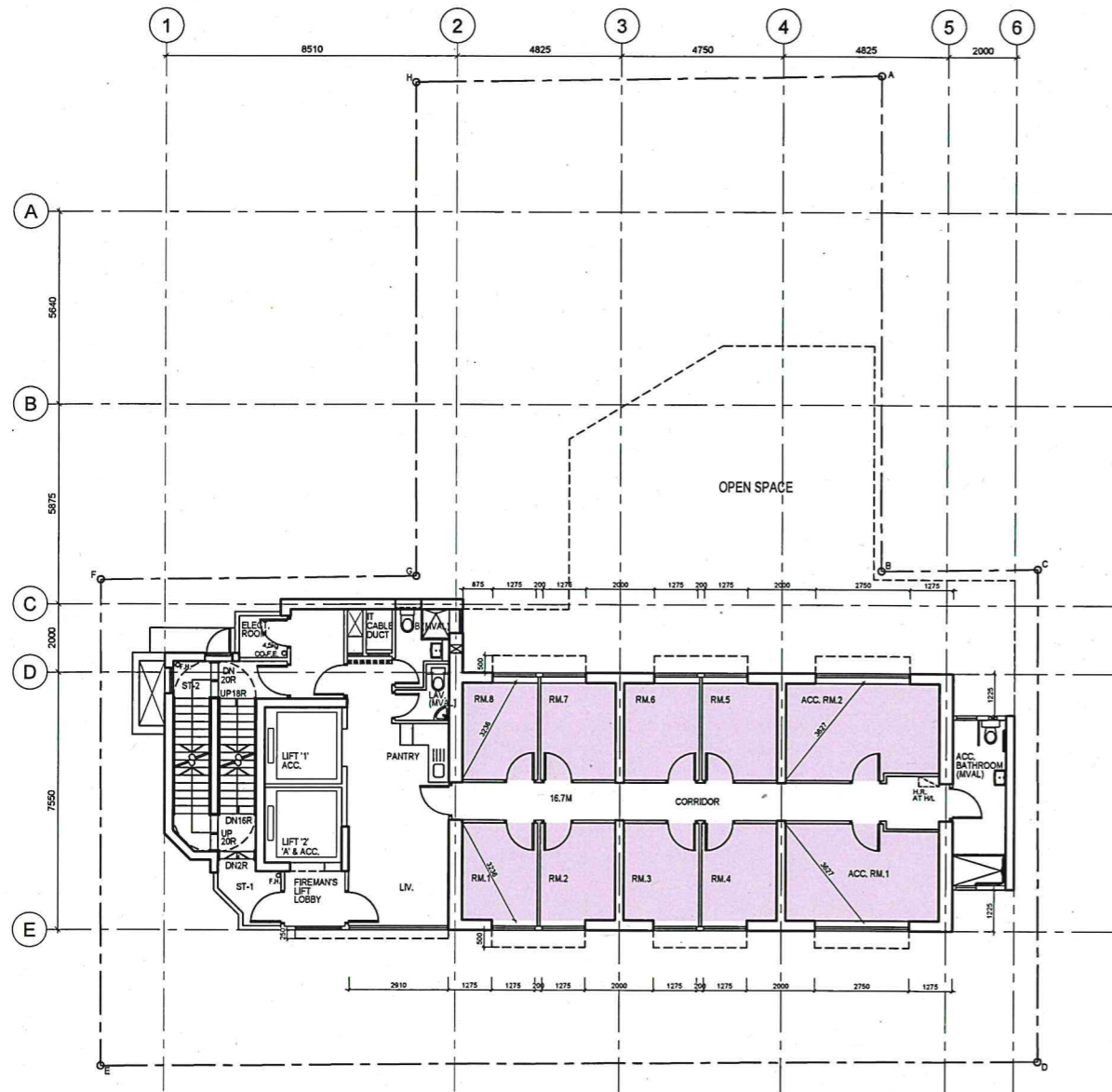
FOR ACC. ROOM 1 - ACC. ROOM 2
DEPTH OF ROOM = 3.627 M < 4.500 M

NV _{ss} (3-5/F)	100%
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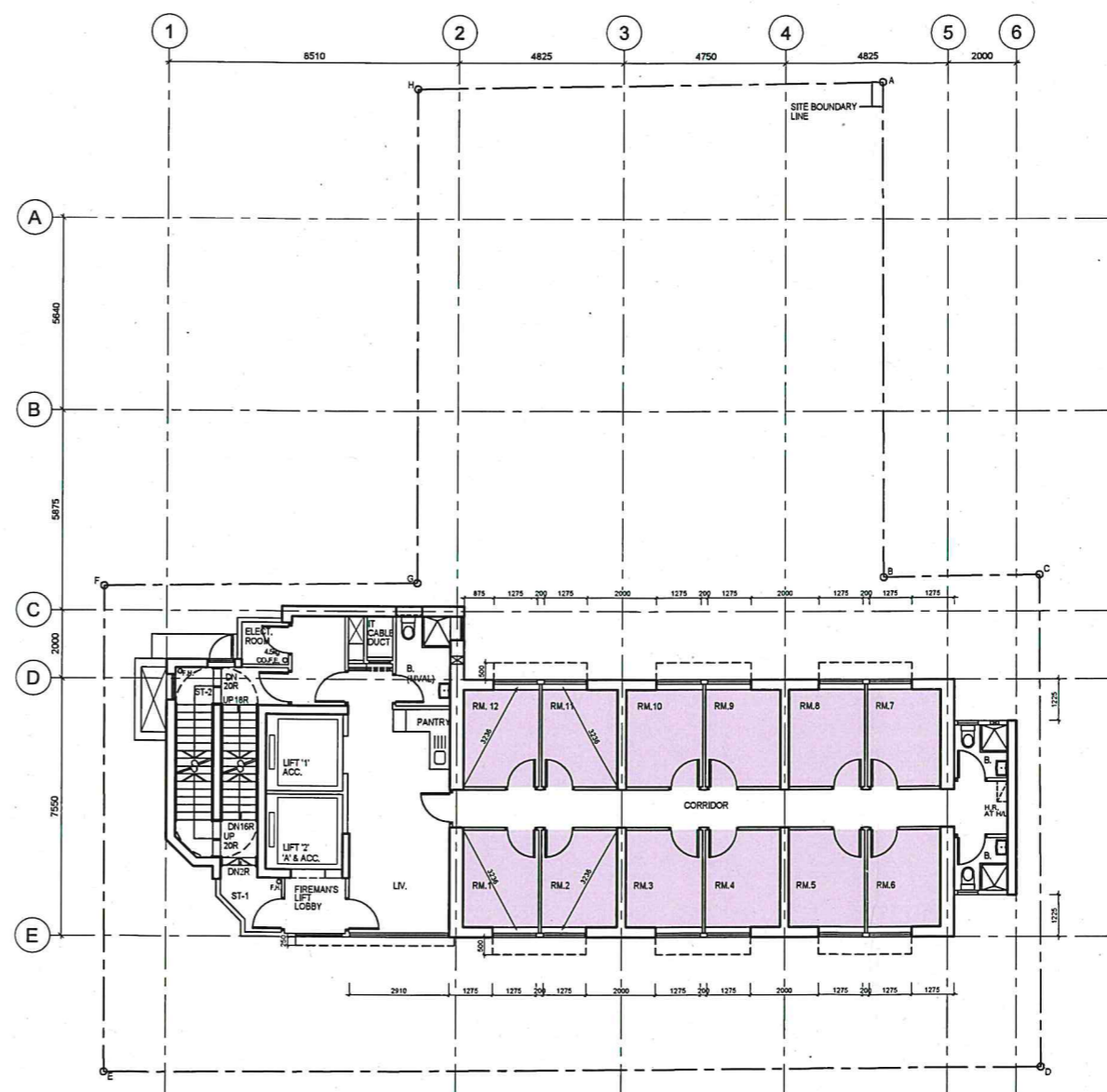
DEMONSTRATION OF COMPLIANCE TO NATURAL VENTILATION (THERMAL COMFORT)
(REFER TO SECTION 3.4 SINGLE SIDE VENTILATION)

6/F TO 23/F
FOR ROOM 1 - ROOM 12
DEPTH OF ROOM = 3.236 M < 4.500 M

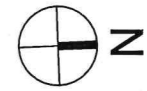
NV _{ss} (6-23/F)	100%
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3RD TO 5TH FLOOR PLAN



6TH TO 23RD FLOOR PLAN



SHEET NO.: NVTC -1
BD REF: 2/2001/14
BUILDING ADDRESS: 10 MUI FONG STREET, SAI YING PUN
I.L. NO. 9066

NV_{TC} COMPLIANCE CHECK

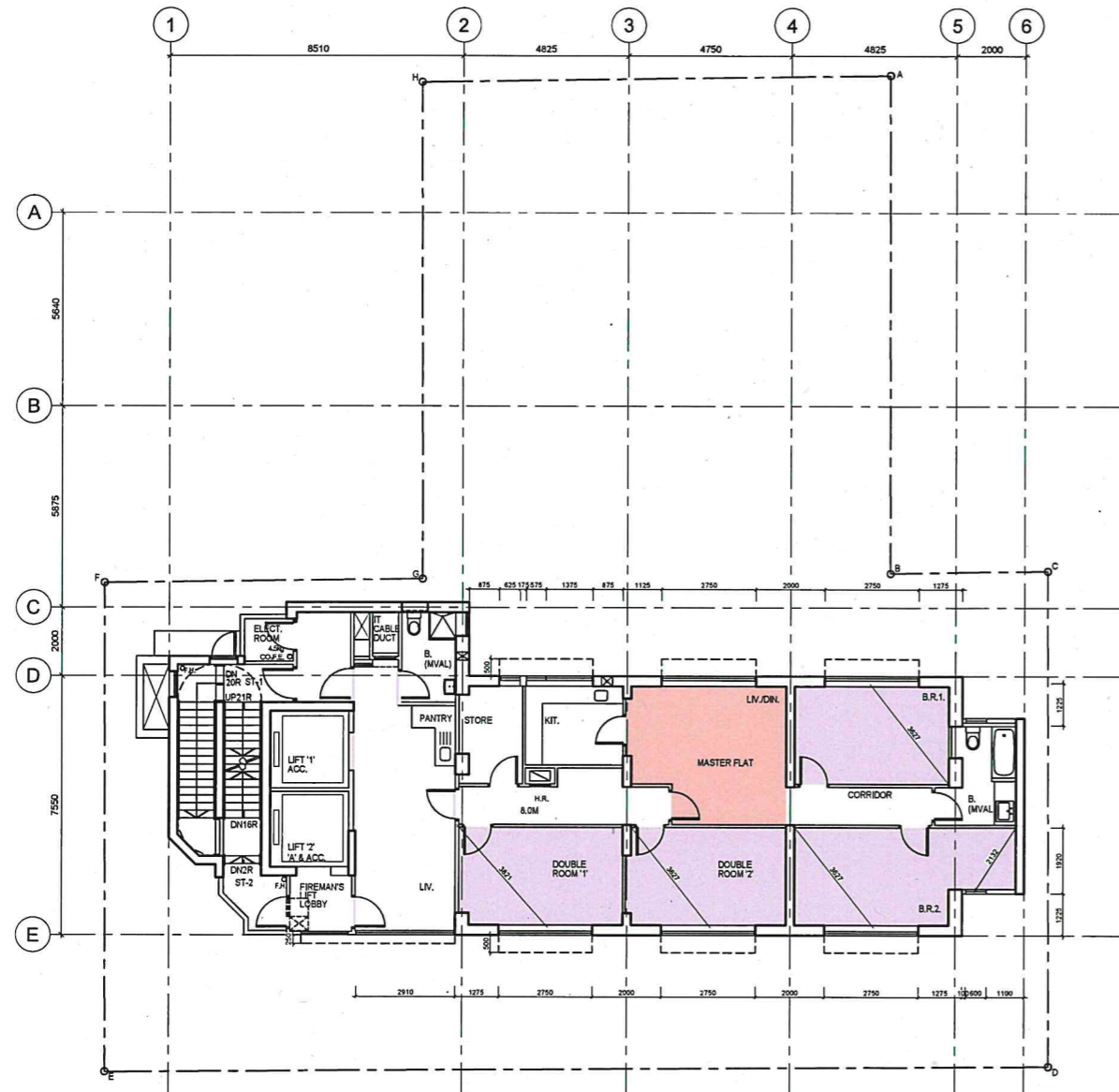
- AREA OF HABITABLE SPACES WITH SINGLE-SIDED VENTILATION (NV_{ss})
- AREA OF HABITABLE SPACES THAT DO NOT SATISFY ANY REQUIREMENTS OF THE ABOVE

DEMONSTRATION OF COMPLIANCE TO NATURAL VENTILATION (THERMAL COMFORT)
(REFER TO SECTION 3.4 SINGLE SIDE VENTILATION)

24/F
FOR DOUBLE ROOM 1
DEPTH OF ROOM = 3.821 M < 4.500 M
FOR DOUBLE ROOM 2
DEPTH OF ROOM = 3.627 M < 4.500 M

FOR MASTER FLAT
DEPTH OF ROOM (B.R. 1) = 3.627M < 4.500 M
DEPTH OF ROOM (B.R. 2) = 3.627M < 4.500 M & 2.132M < 4.500 M

NV _{ss} (24/F)	76.63%
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24TH FLOOR PLAN

OVERALL COMPLIANCE TO NATURAL VENTILATION (THERMAL COMFORT)
(REFER TO SECTION 3.4 SINGLE SIDE VENTILATION)

NV _{ss} (3-5/F)	100%
NV _{ss} (6-23/F)	100%
NV _{ss} (24/F)	76.63%
OVERALL NV _{TC}	92.39%

SHEET NO.: NVTC -2
BD REF: 2/2001/14
BUILDING ADDRESS: 10 MUI FONG STREET, SAI YING PUN
I.L. NO. 9066