



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: HKSTP Innocell Residential Institution Junction of Chong San Road and Science Park Road, Pak Shek Kok, Tai Po, New Territories, TPTL 245		BD Ref. No. 2/9256/17
Building Type:	Residential	
RTTV calculated by	<input checked="" type="checkbox"/> 1. Registered Professional Engineers <input type="checkbox"/> 2. Architect <input type="checkbox"/> 3. Others, please specify:	
No. of Storeys (Residential Units)	15 Storeys (Sheet 1 of 2)	

Table 1

Deemed to Satisfy RTTV _{Wall}									
Facade Orientation Facing									
Average Absorptivity									
Average Window to Wall Ratio									
Shading Coefficient of Glazing									
Average Shading Coefficient of Facade									
Visible Light Transmittance	%	%	%	%	%	%	%	%	%
External Reflectance	%	%	%	%	%	%	%	%	%

Table 2

RTTV _{Wall}																	
Facade Orientation Facing		North (N)				East (E)				South (S)				West (W)			
Wall Orientation Factor		0.790				1.072				0.975				1.131			
Total External Wall Area (Residential Units)		204.66 m ²		Window to Wall Ratio		832.04 m ²		Window to Wall Ratio		1008.64 m ²		Window to Wall Ratio		0.00 m ²		Window to Wall Ratio	
Total Window Factor		41.58 m ²		0.20		302.72 m ²		0.36		309.60 m ²		0.31		0.00 m ²		0.00	
Heat Conduction	Opaque Wall	0.51 W/m ²				0.56 W/m ²				0.55 W/m ²				0.00 W/m ²			
	Window	0.18 W/m ²				0.45 W/m ²				0.34 W/m ²				0.00 W/m ²			
Window	Glass Type	<input checked="" type="checkbox"/> Reflective	Area=	SC=	VLT= 50 %	<input checked="" type="checkbox"/> Reflective	Area=	SC=	VLT= 50 %	<input checked="" type="checkbox"/> Reflective	Area=	SC=	VLT= 50 %	<input type="checkbox"/> Reflective	Area=	SC=	VLT= %
			m ²	0.39	ER= 18 %		m ²	0.39	ER= 18 %		m ²	0.39	ER= 18 %		m ²		ER= %
		<input type="checkbox"/> Tinted	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 type="checkbox"/> Clear	Area=	SC=	VLT= %	<input type="checkbox"/> Clear	Area=	SC=	VLT= %	<input type="checkbox"/> Clear	Area=	SC=	VLT= %	<input type="checkbox"/> Clear	Area=	SC=	VLT= %	
	Double Glazing	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				<input checked="" type="checkbox"/> Yes <input 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 checked="" type="checkbox"/> Yes <input type="checkbox"/> No				<input type="checkbox"/> Yes <input type="checkbox"/> No			
	Sidefin	<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		2.61 W/m ²				5.61 W/m ²				4.13 W/m ²				0.00 W/m ²			
Average Absorptivity		0.50				0.50				0.50				0.00			
RTTV _{Wall} at each facade		3.31 W/m ²				6.61 W/m ²				5.02 W/m ²				0.00 W/m ²			
Overall RTTV _{Wall}		5.54 W/m ²															

Table 3

RTTV _{Roof}									
Roof Orientation Factor		2.16							
Total Roof Area (Residential Units)		653.00 m ²							
Total Skylight Area		0 m ²							
Heat Conduction	Roof	2.77 W/m ²							
	Skylight	0 W/m ²							
Skylight	Glass Type	<input type="checkbox"/> Reflective	Area=	m ²	SC=	VLT=	%	ER=	%
		<input type="checkbox"/> Tinted	Area=	m ²	SC=	VLT=	%	ER=	%
		<input type="checkbox"/> Clear	Area=	m ²	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		0 W/m ²							
Average Absorptivity (roof)		0.7							
Overall RTTV _{Roof}		2.77 W/m ²							



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: HKSTP Innocell Residential Institution Junction of Chong San Road and Science Park Road, Pak Shek Kok, Tai Po, New Territories, TPTL 245		BD Ref. No. 2/9256/17
Building Type:	Residential	
RTTV calculated by	<input checked="" type="checkbox"/> 1. Registered Professional Engineers <input type="checkbox"/> 2. Architect <input type="checkbox"/> 3. Others, please specify:	
No. of Storeys (Residential Units)	15 Storeys (Sheet 2 of 2)	

Table 1

Deemed to Satisfy RTTV _{Wall}									
Facade Orientation Facing									
Average Absorptivity									
Average Window to Wall Ratio									
Shading Coefficient of Glazing									
Average Shading Coefficient of Facade									
Visible Light Transmittance	%	%	%	%	%	%	%	%	%
External Reflectance	%	%	%	%	%	%	%	%	%

Not applicable

Table 2

RTTV _{Wall}																	
Facade Orientation Facing		North-east (NE)				South-east (SE)				South-west (SW)				North-west (NW)			
Wall Orientation Factor		0.924				1.051				1.092				0.965			
Total External Wall Area (Residential Units)		0.00 m ²		Window to Wall Ratio		567.30 m ²		Window to Wall Ratio		274.50 m ²		Window to Wall Ratio		1701.90 m ²		Window to Wall Ratio	
Total Window Factor		0.00 m ²		0.00		206.40 m ²		0.36		0.00 m ²		0.00		619.20 m ²		0.36	
Heat Conduction	Opaque Wall	0.00 W/m ²				0.55 W/m ²				0.89 W/m ²				0.50 W/m ²			
	Window	0.00 W/m ²				0.44 W/m ²				0.00 W/m ²				0.40 W/m ²			
Window	Glass Type	<input type="checkbox"/> Reflective	Area=	SC=	VLT= %	<input checked="" type="checkbox"/> Reflective	Area=	SC=	VLT= 50 %	<input checked="" type="checkbox"/> Reflective	Area=	SC=	VLT= 50 %	<input checked="" type="checkbox"/> Reflective	Area=	SC=	VLT= 50 %
			m ²		ER= %		m ²	0.39	ER= 18 %		m ²	0.39	ER= 18 %		m ²	0.39	ER= 18 %
		<input type="checkbox"/> Tinted	Area=	SC=	VLT= %	<input type="checkbox"/> Tinted	Area=	SC=	VLT= %	<input type="checkbox"/> Tinted	Area=	SC=	VLT= %	<input type="checkbox"/> Tinted	Area=	SC=	VLT= %
		m ²		ER= %		m ²		ER= %		m ²		ER= %		m ²		ER= %	
		<input type="checkbox"/> Clear	Area=	SC=	VLT= %	<input type="checkbox"/> Clear	Area=	SC=	VLT= %	<input type="checkbox"/> Clear	Area=	SC=	VLT= %	<input type="checkbox"/> Clear	Area=	SC=	VLT= %
			m ²		ER= %		m ²		ER= %		m ²		ER= %		m ²		ER= %
Double Glazing		<input type="checkbox"/> Yes <input type="checkbox"/> No				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
External Shading		Overhang		<input type="checkbox"/> Yes <input type="checkbox"/> No		Overhang		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Overhang		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Overhang		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
		Sidefin		<input type="checkbox"/> Yes <input type="checkbox"/> No		Sidefin		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Sidefin		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Sidefin		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Solar Radiation through Glazing		0.00 W/m ²				5.39 W/m ²				0.00 W/m ²				5.17 W/m ²			
Average Absorptivity		0.00				0.50				0.50				0.50			
RTTV _{Wall} at each facade		0.00 W/m ²				6.38 W/m ²				0.89 W/m ²				6.07 W/m ²			
Overall RTTV _{Wall}		5.54 W/m ²															

Table 3

RTTV _{Roof}										
Roof Orientation Factor										
Total Roof Area (Residential Units)		m ²								
Total Skylight Area		m ²								
Heat Conduction	Roof	W/m ²								
	Skylight	W/m ²								
Skylight	Glass Type	<input type="checkbox"/> Reflective	Area=	m ²	SC=	VLT= %	ER= %			
		<input type="checkbox"/> Tinted	Area=	m ²	SC=	VLT= %	ER= %			
		<input type="checkbox"/> Clear	Area=	m ²	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		W/m ²								
Average Absorptivity (roof)										
Overall RTTV _{Roof}		W/m ²								

Refer to Sheet 1 of 2