

External Shading

Solar Radiation through Glazing

Average Absorptivity (roof)

Overall RTTV_{Roof}

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
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Appendix A

Residential Units S6.80 m² Ratio 30.40 m² Ratio 20.82 m² Ratio -0.52 m²	Address: Pro	pposed Com	prehensive	Developr	ment at V	Vetland	Park	TSWTL n	o. 34 (Hou	use 1)							BD R	ef. No.		
	Building Type	e: F	Residential																	
State Stat				stered Pr	ofessiona	al Engir	eers													
Not Storing Storing																				
No. of Singeriant No. of Sin					snecify															
Parada Cylination Parada		ys Units)				•														
Figure 100 to relation Figure	Table 1	•																		
Average Absorptivity									Deemed	d to Sati	sfy RTTV _W	all			1		1		ı	
Average Shifting Coefficient of Casting Shading Coefficient			ng						1											
Shading Coefficient of Glazierg Shading Coefficient of Floade Shading Coefficient of Fl			5 ::						-											
Visible Light Transmittance									1						-					
Visible Light Transmittance				odo					1						-					
Second State Seco				aue		0/		0/	-	0/		0/		0/	-	0	,	0/		
Table 2			ce			_			+						-				+	%
Facade Orientation Factor Factor		lectarice				%		70		%		%		%		7	0	70		%
North-Seat North-Seat South-Seat South-Seat South-West	Table 2									RTTV	Vall									
Mail Oriente Factor Mail Area Scale Mindow Factor Mail Oriente Ma		ntation		Nort	h-East				Sout				So	outh-We	est			Nort	h-West	
Residency Section Se		entation Factor 0.924							1.0	051				1.092				0	.965	
Total Window Tota		56.80 m ²				II				to Wall 20.52							70.55 m		Window to Wall Ratio	
Mindow M	`		= 0.65				2.33 m² = 0.08					10.65	m² = 0).52			10.89 m	= 0.15	i	
Window Glass Type						3.22 V	V/m²				9.47 W/m²					3.85 W/m²				4.23 W/n
Reflective m²		Window				0.63 V	V/m²				0.09 W/m²	:				0.60 W/m²				0.16 W/n
Area SC VLT 50 % Area SC VLT 5	Window	Glass Type			SC=			Ш		SC=		Ш) =		Ш		SC=	VLT= ER=
				Area=				Ø	Area=			· 🗷	Area=	SC 0.3		VLT= 50 %	Ø	Area=		VLT= 50
Clear			Tinted					Tinted						n²			1			ER= 7
Glazing			☐ Clear		SC=			☐ Clear		SC=		\square			;=				SC=	VLT= ER=
Shading Shad				☑ Yes	□N	0			☑ Yes	□N	0		✓ Y	es [□ No)		☑ Yes		No
Sidefin Yes No Sidefin			Overhang	9	✓Yes		□No	Overhan	g	✓Yes	□No	Overh	nang	V	Yes			ng	✓Ye	s 🗆
Average Absorptivity	Calaa Dadiati		Sidefin		□Yes		□No	Sidefin		□Yes	□No	Sidefi	n		Yes	□No	Sidefin		□Ye	s 🗆
RTTV_Wall at each facade		ion through					V/m²													8.17 W/n
Overall RTTV _{Wall} 10.77 W/m² Table 3 RTTV _{Roof} Roof Orientation Factor 2.16 Total Roof Area (Residential Units) 65.92 m² Total Skylight Area 0 m² Heat Conduction Skylight Skylight Skylight 0 W/m² Skylight SC= VLT= % ER= Inited Area= m² SC= VLT= % ER= Inited Area= m² SC= VLT= % ER= Inited Area= m² SC= VLT= % ER=																				0.8
Table 3 Roof Orientation Factor 2.16 Total Roof Area (Residential Units) 65.92 m² Heat Conduction Skylight Skylight Glass Type Reflective Area m² SC VLT % ER Clear Area m² SC VLT % ER						10.97 V	V/m²				10.63 W/m²	1	M/m2			12.02 W/m²				10.31 W/n
Roof Orientation Factor Stylight Factor Factor Stylight Factor Stylight Factor Stylight Factor Factor Factor Stylight Factor Factor Factor Stylight Factor F		v Wall										10.77	VV/111-							
Roof Orientation Factor 2.16	Table 3									RTTV	loof									
Total Skylight Area	Roof Orienta	tion Factor		Т							1001	2.16	3							
Roof Skylight Sk	Total Roof Ar	rea (Resider	ntial Units)									65.92	m²							
Conduction Skylight 0 W/m² Skylight Glass Type Reflective Area= m² SC= VLT= % ER= □ Tinted Area= m² SC= VLT= % ER= □ Clear Area= m² SC= VLT= % ER=	Total Skyligh	t Area										0 m	2							
Skylight 0 W/m² Skylight Glass Type Reflective Area= m² SC= VLT= % ER=		Roof										3.86 V	V/m²							
$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$		+										0 W	m²				П			
$\ \square$ Clear Area= m^2 SC= VLT= % ER=	Skylight	Glass Ty	rpe	-							 			-						%
				-							-									
Double Glazing		Double (Clozin ~	□ CI	ear		Area	a=		m²				VLT	=		%	EK=		%

□Yes

□Yes

☑No

☑No

0 W/m²

0.8

3.86 W/m²



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.

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Appendix A

Address: Proposed Cor	BD Ref. No.	
Building Type:	Residential	
RTTV calculated by	✓ 1. Registered Professional Engineers	
	□ 2. Architect	
	☐ 3. Others, please specify:	
No. of Storeys (Residential Units)	2 (G/F to 1/F)	
Table 1		
_	Dogwood to Setiofy DTTV	

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

Table 2																			
								$RTTV_V$	Vall										
Facade Oriel Facing	ntation		North	n-East			Sout	n-East			South	n-West			North-West				
Wall Orientat	tion Factor		0.9	924			1.0		1.092					0.965					
Total Externa (Residential			56.80 m²	Window to Wall Ratio			30.40 m²	Ratio	to Wall		20.52 m²	Ratio			70.55 m²		Ratio		
Total Windov	v Factor		32.46 m²	= 0.57			2.33 m²	= 0.08			10.65 m²	= 0.52				0 m²	= 0		
Heat Conduction	Opaque Wall				3.96 W/m²				9.47 W/m²				3.85 W/	m²				9.66 W/	m²
	Window				0.55 W/m²				0.09 W/m²				0.60 W/	m²				0 W/	m²
Window	Glass Type	Reflective	Area= m²	SC=	VLT= % ER= %	☐ Reflective	Area= m²	SC=	VLT= % ER= %	Reflective	Area= m²	SC=	VLT= ER=	% % F	Reflective	Area= m²	SC=	VLT= ER=	%
		☑ Tinted	Area= 32.46m²	SC= 0.32	VLT= 50 % ER= 7 %	☑ Tinted	Area= 2.33m²	SC= 0.32	VLT= 50 % ER= 7 %		Area= 10.65m ²	SC= 0.32	VLT= 50 ER= 7			Area= 0m²	SC= 0.32	VLT= 50 ER= 7	
		Clear	Area=	SC=	VLT= % ER= %	_	Area=	SC=	VLT= % ER= %	□ Clear	Area=	SC=	VLT= ER=	% % (☐ Clear	Area=	SC=	VLT= ER=	%
	Double Glazing		☑ Yes	□N	0		☑ Yes)		☑ Yes	□N	0			✓ Yes	□N	0	
	External Shading	Overhang)	✓Yes	□No	Overhan	9	✓Yes		Overhan	g	✓Yes		No (Overhang	<u> </u>	✓Yes		No
		Sidefin		□Yes	□No	Sidefin		□Yes	□No	Sidefin		□Yes		No S	Sidefin		□Yes		No
Solar Radiati Glazing	ion through				6.32 W/m²				1.08 W/m²				7.57 W/	m²				0 W/	m²
Average Abs	orptivity				0.8				8.0				0.8					0.8	
RTTV _{Wall} at each facade				10.84 W/m²				10.63 W/m²				12.02 W/	m²			9.66 W/m²			
Overall RTT\	V _{Wall}								10.47 W/m²										

				RTTV _R	oof								
Roof Orientat	ion Factor					2.16							
Total Roof Are	ea (Residential Units)					65.92 m²							
Total Skylight	Area					0 m²							
Heat	Roof		3.86 W/m²										
Conduction	Skylight					0 W/m²							
Skylight	Glass Type	□ Reflective	Area=	m²	SC=		VLT=	%	ER=	%			
		☐ Tinted	Area=	m²	SC=		VLT=	%	ER=	%			
		□ Clear	Area=	m²	SC=		VLT=	%	ER=	%			
	Double Glazing				□Yes	✓No							
	External Shading				□Yes	✓No							
Solar Radiation	on through Glazing					0 W/m²							
Average Abso	orptivity (roof)		0.8										
Overall RTTV	Roof					3.86 W/m²							



Address: Proposed Comprehensive Development at Wetland Park TSWTL no. 34 (House 3)

Notes:

ER = External Reflectance
SC = Shading Coefficient
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Window and skylight data should represent the major proportion
of its use in the development.

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Appendix A

BD Ref. No.

Building Typ	e: F	Residential																	
RTTV calcul	ated by	🗹 1. Regi	istered Pro	ofessiona	al Engine	eers													
		☐ 2. Arch	itect																
		☐ 3. Othe	ers, please	specify:															
No. of Store (Residential	ys Units)	2 (G/F	to 1/	/F)															
Table 1																			
								Deeme	d to Sati	sfy RTTV _{Wa}	II								
Facade Orie	entation Facir	ng																	
Average Abs	sorptivity																		
Average Wir	ndow to Wall	Ratio																	
Shading Coe	efficient of GI	azing																	
Average Sha	ading Coeffic	ient of Fac	ade																
Visible Light	Transmittan	ce			%		% %		%		%		%	9		%		9	_
External Ref	ernal Reflectance %								%		%		%	9	6	%		9	6
Table 2																			
									RTTV	Wall									
Facade Orie Facing	entation		North	n-East				Sout	h-East			South	n-West			North	n-West		
Wall Orienta	tion Factor		0.	924				1.	051			1.	092			0.	965		
Total Externa (Residential			56.80 m²	Ratio	v to Wall	l		30.40 m²	Ratio	v to Wall		20.52 m²	Ratio	w to Wall		70.55 m²	Ratio	w to Wal	ı
Total Window	w Factor		32.46 m²	= 0.57				2.33 m²	= 0.08			10.65 m²	= 0.52			0 m²	= 0		
Heat Conduction	Opaque Wall			1	3.96 W	/m²			ı	9.47 W/m²				3.85 W/m²			1	9.66 W	//m²
	Window				0.55 W	/m²				0.09 W/m²				0.60 W/m²				0 W	//m²
Window	Glass Type	П	Area=	SC=	VLT=	%	П	Area=	SC=	VLT= %	П	Area=	SC=	VLT= %	Ь	Area=	SC=	VLT=	%
		Reflective	m²		ER=	%	_	m²		ER= %	I—	re m²		ER= %	Reflective	m²		ER=	%
		Ø	Area=	SC=	VLT= 5	0 %	Ø	Area=	SC=	VLT= 50 %	Ø	Area=	SC=	VLT= 50 %	И	Area=	SC=	VLT= 5	0 %
		Tinted	32.46m²	0.32	ER= 7	%	Tinted	2.33m²	0.32	ER= 7 %	Tinted	10.65m²	0.32	ER= 7 %	Tinted	0m²	0.32	ER= 7	%
			Area=	SC=	VLT=	%		Area=	SC=	VLT= %		Area=	SC=	VLT= %		Area=	SC=	VLT=	%
		Clear	m²		ER=	%	Clear	m²		ER= %	Clear	m²		ER= %	Clear	m²		ER=	%
	Double Glazing		☑ Yes	□N	0			✓ Yes	□N	0		✓ Yes		lo		✓ Yes		lo	
	External Shading	Overhanç	9	✓Yes		No	Overhan	g	✓Yes	□No	Overhar	ng	✓Yes	s □No	Overhan	9	✓Yes	; <u> </u>	□No
		Sidefin		□Yes		No	Sidefin		□Yes	□No	Sidefin		□Yes	s □No	Sidefin		□Yes	<u>; </u>	□No
Solar Radiat Glazing	tion through				6.32 W	/m²				1.08 W/m²				7.57 W/m²				0 W	//m²
Average Abs	verage Absorptivity 0.8					0.8						0.8	0.8						
RTTV _{Wall} at	each facade				10.84 W	/m²				10.63 W/m²				12.02 W/m²				9.66 W	/m²
Overall RTT	V_{Wall}										10.47 W/	/m²							

				RTTV _R	oof						
Roof Orientatio	n Factor					2.16					
Total Roof Area (Residential Units)						65.92 m²					
Total Skylight A	rea					0 m²					
Heat	Roof					3.86 W/m²					
Conduction	Skylight				0 W/m²						
Skylight	Glass Type	☐ Reflective	Area=	m²	SC=		VLT=	%	ER=	%	
		☐ Tinted	Area=	m²	SC=		VLT=	%	ER=	%	
		□ Clear	Area=	m²	SC=		VLT=	%	ER=	%	
	Double Glazing				□Yes	☑No					
	External Shading				□Yes	☑No					
Solar Radiation	through Glazing					0 W/m²					
Average Absorptivity (roof)						0.8					
Overall RTTV _{Roof}						3.86 W/m²					



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SC = Shading Coefficient
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of its use in the development.

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Appendix A

Address: Proposed Cor	nprehensive Development at Wetland Park TSWTL no. 34 (House 5)	BD Ref. No.
Building Type:	Residential	
RTTV calculated by	✓ 1. Registered Professional Engineers	
	☐ 2. Architect	
	☐ 3. Others, please specify:	
No. of Storeys (Residential Units)	2 (G/F to 1/F)	
Table 1		

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

Table 2																		
								RTTV	Wall									
Facade Orie Facing	ntation		North	n-East			Sout	h-East			South	n-West			North	n-West		
Wall Orienta	tion Factor		0.9	924			1.0	051			1.	092			0.965			
Total Externa (Residential			56.80 m²	Ratio	w to Wall		30.40 m²	Ratio	v to Wall	20.52 m² Window to Wall Ratio = 0.52			w to Wall		70.55 m²	Window to Wall Ratio		II
Total Windov	v Factor		32.46 m²	= 0.57			2.33 m²	= 0.08			10.65 m²		0 m²	= 0				
Heat Conduction	Opaque Wall			•	3.96 W/m	2		9.47 W/m²						9.66 V	√/m²			
	Window				0.55 W/m	2			0.09 W/m²				0.60 W/m²				0 V	V/m²
Window	Glass Type	Reflective	Area=	SC=		%	Area=	SC=	VLT= % ER= %	\square	Area=	SC=	VLT= %	Ш	Area=	SC=	VLT= ER=	%
		☑ Tinted	Area= 32.46m²	SC= 0.32	VLT= 50 ER= 7		Area= 2.33m²	SC= 0.32	VLT= 50 % ER= 7 %		Area= 10.65m²	SC= 0.32	VLT= 50 % ER= 7 %		Area= 0m²	SC= 0.32	VLT= 5	
		☐ Clear	Area=	SC=		% □ % Clear	Area=	SC=	VLT= % ER= %	_	Area=	SC=	VLT= % ER= %	Clear	Area= m²	SC=	VLT= ER=	%
	Double Glazing		☑ Yes	□N	0		✓ Yes	□N	0		☑ Yes	□N	lo		☑ Yes	□N	0	
	External Shading	Overhang	9	✓Yes		o Overhar	ng	✓Yes	□No	Overhan	g	✓Yes		Overhang	9	✓Yes		□No
		Sidefin		□Yes		o Sidefin		□Yes	□No	Sidefin		□Yes	s 🗆 No	Sidefin		□Yes		□No
Solar Radiat Glazing	ion through				6.32 W/m	2			1.08 W/m²				7.57 W/m²				0 V	V/m²
Average Abs	erage Absorptivity 0.8 0.8 0.8							0.8										
RTTV _{Wall} at 6	V _{Wall} at each facade 10.84 W/m² 10.63 W/m² 12.02 W/m²							9.66 V	√/m²									
Overall RTT	V _{Wall}				_		10.47 W/m²											

				RTTV _R	oof									
Roof Orientat	ion Factor	2.16												
Total Roof Are	ea (Residential Units)	65.92 m²												
Total Skylight	Area	0 m²												
Heat	Roof	3.86 W/m²												
Conduction Skylight						0 W/m²								
Skylight	Glass Type	□ Reflective	Area=	m²	SC=		VLT=	%	ER=	%				
		☐ Tinted	Area=	m²	SC=		VLT=	%	ER=	%				
		□ Clear	Area=	m²	SC=		VLT=	%	ER=	%				
	Double Glazing				□Yes	✓No								
	External Shading				□Yes	✓No								
Solar Radiation	on through Glazing					0 W/m²								
Average Abso	orptivity (roof)		0.8											
Overall RTTV	Roof		3.86 W/m²											



Double Glazing

Solar Radiation through Glazing

Average Absorptivity (roof)

Overall RTTV_{Roof}

External Shading

RTTV Summary Sheet

Notes:

ER = External Reflectance
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Window and skylight data should represent the major proportion
of its use in the development.

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Section Paris Pa		EPAKIME	NI																	
Try carbonated by	Address: Pro	pposed Comp	orehensive [Developr	ment at V	Vetland	Park	TSWTL n	o. 34 (Ho	use 6)							BD R	ef. No.		
Try carbonated by	Building Type	e· F	Residential																	
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Companies Comp		· · ·			UIESSIUIT	ai Eilgiii	eers													
0. of Servines ## Section		-																		
Decimation Facing Decimation Decimation Facing Decimation Dec	No. of Storey	/S				:														
Second Committed Committ																				
Accomplex Acco	Table I								Doomo	d to Sati	efy DTTV									
Part	Facada Orior	ntation Facin	<u> </u>			Т			Deeme	u to Sati	Siy Ki i V	Nall					1		l	
North-Rest			9																	
Part			Ratio										+							
Select Light Transmittance 96 96 96 96 96 96 96 9													+							
Seble Light Transmittance				de																
Section Sect				uc		0/		0/		0/			0/		0/	0.	/	0/		0/
Second Crientation South-East South-East South-West South-We			~												-					% %
South-Ration		.co.ariou				/0		70	1	70	<u> </u>		/0		/0	7	۰	70	<u> </u>	70
North-East South-West South-West North-West North-West	Table 2																			
Sealed Continue			ı												T	Nicoti	. \A/1			
Sea Sea	Facade Orier Facing	ntation																		
Sesion Set S	Wall Orientat	tion Factor		0.	924				1.	051				1.	092			0.	965	
Second conduction			,	56.80 m²	Ratio	w to Wal	II		30.40 m²	Ratio	v to Wall			20.52 m	Ratio		70.55 m		Ratio	v to Wall
Walf Window Walf Window U.5.5 WinF WinF	Total Window	v Factor	;	32.46 m²	= 0.57				2.33 m²	= 0.08		f		10.65 m	= 0.52			0 m ²	= 0	
Window W	Heat Conduction								9.47 W/m²							3.85 W/m²				9.66 W/r
Glass Type						0.55 W	//m²				0.09 W/n	12				0.60 W/m²				0 W/i
Reflective m² Reflective Refl	Window			Area=	SC=				Area=	SC=		0/		Area=	SC=			Area=	SC=	
Area			\Box					☐ Reflective				L	_							
Tinted 32.46m² 0.32 ER = 7 % Tinted 2.33m² 0.32 ER = 7 % Tinted 10.65m² 0.32 ER = 7 % Tinted 0m² 0.32 ER = 1 % Clear Mra SC = VLT = Mra SC =			—		SC=	VLT= 5				SC=	VLT= 50	-			SC=	VLT= 50 %	+		SC=	VLT= 50
Clear m² ER= % Clear m² m² m² m² m² m² m² m				32.46m²	0.32	ER= 7			2.33m²	0.32	ER= 7			10.65m²	0.32	ER= 7 %		0m²	0.32	ER= 7
Clear m² ER= % Clear m² m² m² m² m² m² m² m				Area=	SC=	VLT=	%	П	Area=	SC=	VLT=	% [Area=	SC=	VLT= %	П	Area=	SC=	VLT=
Glazing			Clear	m²		ER=	%	_	m²		ER=	- 15	_	m²		ER= %	Clear	m²		ER=
External Shading			,	☑ Yes	_	0			☑ Yes	N	0			☑ Yes		lo		☑ Yes	□N	0
Shading Sidefin Yes No Sidefin Yes Sidefin Yes No Sidefin Yes Sidefin Yes No Sidefin Yes Sidefin Yes No Sidefin Sidefin Yes Sidefin Yes No Sidefin Yes Sidefin Sidefin Yes Sidefin Yes Sidefin Sidef		External	Overhand		√Ves		¬No	Overhand	7	√ Yos		lo (Overhand	7	ZVos	: No	Overha	na		
1.08 W/m² 1.08		Shading							3			\dashv		9			1	119		
Acting Absorptivity 0.8	Solar Radiati	ion through	Oldelin					Oldeliii					Oldeliii				Oldcilli			
TTV	Glazing						//111~					1-								
Note						0.8					0.8					0.8				8.0
State Sta	RTTV _{Wall} at 6	each facade				10.84 W	//m²				10.63 W/n	1 ²				12.02 W/m²				9.66 W/r
RTTV ROOF Stall Roof Area (Residential Units) Stall Roof Area (Residential Units) Stall Roof Area (Residential Units) Stall Skylight Area	Overall RTT\	V _{Wall}										1	10.47 W/n	n²						
2.16 ord Orientation Factor 2.16 ord Residential Units) 65.92 m² ord Skylight Area 0 m² eat onduction Skylight 0 m² Skylight VLT= % ER= 9 kylight Glass Type Reflective Area= m² SC= VLT= % ER= 9 □ Tinted Area= m² SC= VLT= % ER= 9	Table 3									DTTV										
Stall Roof Area (Residential Units) 65.92 m²	Poof Orient	tion Factor		T						17114	Roof		2.16							
Solid Skylight Area			tial																	
Roof 3.86 W/m²			tiai Units)	-								- (
Onduction Skylight 0 W/m² kylight Glass Type Reflective Area= m² SC= VLT= % ER= % — Tinted Area= m² SC= VLT= % ER= %				-					0 m²											
Skylight 0 W/m² kylight Glass Type □ Reflective □ Tinted □ Area= m² SC= VLT= % ER= % □ Tinted Area= m² SC= VLT= % ER= %	Heat Conduction	Roof							3.86 W/m²											
☐ Tinted Area= m² SC= VLT= % ER= 9	JOHAGOROH	Skylight								0 W/				0 W/m²						
	Skylight	Glass Ty	ре	□ Re	eflective		Area	a=		m²	SC=				VLT=		%	ER=		%
				☐ Tir	nted		Area	3=		m²	SC=				+					%
				-			Area	a=		m²	SC=				-					

 \square Yes

□Yes

☑No

☑No

0 W/m²

3.86 W/m²



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.

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Appendix A

Address: Proposed Co	mprehensive Development at Wetland Park TSWTL no. 34 (House 7)	BD Ref. No.
•		
Building Type:	Residential	•
RTTV calculated by	☑ 1. Registered Professional Engineers	
	2. Architect	
	☐ 3. Others, please specify:	
No. of Storeys (Residential Units)	2 (G/F to 1/F)	
Table 1		
	Deemed to Satisfy RTTV	

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

Table 2																		
								RTTV	Wall									
Facade Orier Facing	ntation		North	n-East			Sout	h-East			South	n-West			North	n-West		
Wall Orientat	tion Factor		0.9	924			1.0	051			1.	092		0.965				
Total Externa (Residential I			56.80 m²	Ratio	w to Wall		30.40 m²	Ratio	v to Wall	20.52 m ² Windo Ratio = 0.52			Window to Wall Ratio			Ratio	Vindow to Wall Ratio	
Total Window	v Factor		32.46 m²	= 0.57			2.33 m²	= 0.08			10.65 m²	$0 \text{ m}^2 = 0$						
Heat Conduction	Opaque Wall			•	3.96 W/m²				9.47 W/m²				3.85 W/m²				9.66 V	√/m²
	Window				0.55 W/m²				0.09 W/m²				0.60 W/m²				0 V	V/m²
Window	Glass Type	Reflective	Area=	SC=	VLT= % ER= %		Area=	SC=	VLT= % ER= %	☐ Reflective	Area=	SC=	VLT= %	Ш	Area= m²	SC=	VLT= ER=	%
		☑ Tinted	Area= 32.46m²	SC= 0.32	VLT= 50 % ER= 7 %		Area= 2.33m²	SC= 0.32	VLT= 50 % ER= 7 %		Area= 10.65m ²	SC= 0.32	VLT= 50 % ER= 7 %	☑ Tinted	Area= 0m²	SC= 0.32	VLT=	
		Clear	Area=	SC=	VLT= % ER= %	☐ Clear	Area=	SC=	VLT= % ER= %		Area=	SC=	VLT= % ER= %		Area= m²	SC=	VLT= ER=	%
	Double Glazing		☑ Yes	□N	0		☑ Yes	□N	0		☑ Yes		lo		✓ Yes		lo	
	External Shading	Overhang)	✓Yes	□No	Overhanç	9	✓Yes	□No	Overhan	g	∠ Yes	s 🗆 No	Overhan	g	✓Yes	s [□No
	Ů	Sidefin		□Yes	□No	Sidefin		□Yes	□No	Sidefin		□Yes	s 🗆 No	Sidefin		□Yes	s [□No
Solar Radiati Glazing	ion through				6.32 W/m²				1.08 W/m²				7.57 W/m²				0 V	V/m²
Average Abs	orptivity				8.0				0.8				8.0				0.8	
RTTV _{Wall} at each facade 10.84 W/m² 10.63 W/m² 12.02 W/m²							9.66 V	√/m²										
Overall RTT\	V _{Wall}					10.47 W/m²												

				RTTV _R	oof									
Roof Orientat	ion Factor	2.16												
Total Roof Are	ea (Residential Units)	65.92 m²												
Total Skylight	Area	0 m²												
Heat	Roof	3.86 W/m²												
Conduction Skylight						0 W/m²								
Skylight	Glass Type	□ Reflective	Area=	m²	SC=		VLT=	%	ER=	%				
		☐ Tinted	Area=	m²	SC=		VLT=	%	ER=	%				
		□ Clear	Area=	m²	SC=		VLT=	%	ER=	%				
	Double Glazing				□Yes	✓No								
	External Shading				□Yes	ØNo								
Solar Radiation	on through Glazing					0 W/m²								
Average Abso	orptivity (roof)		0.8											
Overall RTTV	Roof		3.86 W/m²											



Table 3

Overall RTTV_{Roof}

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.

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Appendix A

Address: Pro	oposed Com	prehensive	Developr	ment at V	Vetland	Park	TSWTL n	o. 34 (Ho	use 8)							BD Re	f. No.			
Building Typ	e: F	Residential																		7
RTTV calcul	ated by	☑ 1. Regi	istered Pro	ofessiona	al Engir	eers														1
		2. Arch	itect																	
		☐ 3. Othe	ers, please	e specify:																1
No. of Store (Residential	ys Units)	2 (G/F	to 1/	/F)																
Table 1																				
								Deeme	d to Sati	sfy RTT	V _{Wal}	ı								
Facade Orie	ntation Facir	ng																		1
Average Abs	sorptivity																			
Average Wir	ndow to Wall	Ratio																		
Shading Co	efficient of G	lazing																		
Average Sha	ading Coeffic	ient of Fac	ade																	
Visible Light	Visible Light Transmittance %								%			%		%	9	6	%		9	6
External Reflectance %							%		%			%		%	9	6	%		9	%
Table 2																				
									RTTV _\	Wall										
Facade Orie	ntation		North	h-East				Sout	h-East				South	n-West			North	n-West		
Wall Orienta	tion Factor		0.	924				1.	051				1.	092			0.	965		
Total Externa (Residential			56.80 m²	Windov Ratio	v to Wa	II		30.40 m²	v to Wal	I		20.52 m²	Windo Ratio	w to Wall		70.55 m²	Windo Ratio	w to Wal	I	
Total Window	w Factor		32.46 m²	= 0.57				2.33 m²				10.65 m²	= 0.52		0 m ² = 0					
Heat Conduction	Opaque Wall				3.96 V	//m²				9.47 W	//m²				3.85 W/m²	9.66 W/s				
	Window				0.55 V	//m²				0.09 W	//m²				0.60 W/m²	2			0 W	!/m²
Window	Glass Type	Reflective	Area=	SC=	VLT= ER=	%	Ш	Area=	SC=	VLT= ER=	%	Reflective	Area=	SC=	VLT= % ER= %	Ш	Area=	SC=	VLT= ER=	%
			Area=	SC=	VLT=			Area=	SC=	VLT= 5			Area=	SC=	VLT= 50 %		Area=	SC=	VLT= 5	
		☑ Tinted	32.46m²	0.32	ER= 7		¥	2.33m²	0.32	ER= 7		☑ Tinted	10.65m²	0.32	ER= 7 %	Y	0m²	0.32	ER= 7	
			Area=	SC=	VLT=	%		Area=	SC=	VLT=	%		Area=	SC=	VLT= %		Area=	SC=	VLT=	%
		Clear	m²		ER=	%	Clear	m²		ER=	%	Clear	m²		ER= %	Clear	m²		ER=	%
	Double Glazing		☑ Yes	□ N	0			✓ Yes	□N	0			☑ Yes		lo		☑ Yes		10	
	External	Overhang	a	✓Yes		□No	Overhan	a	☑ Yes		No	Overhang	q	✓ Yes	s □No	Overhan	q	✓ Ye:	<u> </u>	□Nc
	Shading	Sidefin		□Yes			Sidefin		□Yes			Sidefin		□Yes		Sidefin		□Ye		□No
Solar Radiat Glazing	ion through				6.32 V										7.57 W/m²				0 W	
Average Abs	sorptivity				0.8				0.8				0.8	0.8						
RTTV _{Wall} at	each facade				10.84 V	//m²				10.63 W	//m²				12.02 W/m²				9.66 W	//m²
Overall RTT	V _{Wall}						•					10.47 W/n	n²			•				

2.16 Roof Orientation Factor Total Roof Area (Residential Units) 65.92 m² Total Skylight Area 0 m² Heat Roof 3.86 W/m² Conduction Skylight 0 W/m² Skylight Glass Type ☐ Reflective Area= m² SC= VLT= % ER= SC= VLT= % ☐ Tinted Area= m² Area= VLT= ☐ Clear m² SC= %

3.86 W/m²

RTTV_{Roof}



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.

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Address: Pro	oposed Com	prehensive	Develop	ment at V	Vetland	l Park	k TSWTL no. 34 (House 9) BD Ref. No.													
Building Typ	e: I	Residential																		-
RTTV calcul	lated by	☑ 1. Regi	stered Pr	rofessiona	al Engir	neers														
		2. Arch																		٦
		☐ 3. Othe		e specify																
No. of Store (Residential	ys Units)	2 (G/F																		
Table 1	•																			_
								Deeme	d to Sati	sfy RTTV _\	Wall									
Facade Orie	entation Facir	ng																		٦
Average Abs	sorptivity																			٦
Average Wii	ndow to Wall	Ratio																		1
Shading Co	efficient of G	azing																		
Average Sha	ading Coeffic	ient of Fac	ade																	
Visible Light	Visible Light Transmittance %						%		%			%		%	9	6	%		9,	%
External Reflectance %							%		%			%		%	9	6	%		9/	%
Table 2																				
									RTTV	Wall										
Facade Orie	entation		Nort	th-East			South-East						South	n-West		North-West				
Wall Orienta	ation Factor		0.	.924				1.		T		1.	092			0.	965			
Total Extern			56.80 m	Ratio	v to Wa	all	30.40 m² Window to Wall Ratio = 0.08						20.52 m²	Ratio	w to Wall		70.55 m²	Ratio	w to Wal	ı
Total Windo	w Factor		32.46 m	= 0.57					10.65 m ²					$0 \text{ m}^2 = 0$						
Heat Conduction	Opaque Wall			•	3.96 V	V/m²				9.47 W/m	ղ²				3.85 W/m²	9.66 W/m ²				//m²
	Window				0.55 V	V/m²				0.09 W/m	ղ²				0.60 W/m²				0 W	//m²
Window	Glass Type		Area=	SC=	VLT=	%		Area=	SC=	VLT=	%		Area=	SC=	VLT= %		Area=	SC=	VLT=	%
		Reflective	m²		ER=	%	Reflective	m²		ER=	%	Reflective	m²		ER= %	Reflective	m²		ER=	%
		☑ Tinted	Area= 32.46m²	SC= 0.32	VLT=		☑ Tinted	Area= 2.33m²	SC= 0.32	VLT= 50 ER= 7		☑ Tinted	Area= 10.65m ²	SC= 0.32	VLT= 50 % ER= 7 %	☑ Tinted	Area= 0m²	SC= 0.32	VLT= 5 ER= 7	
			Area=	SC=	VLT=	%		Area=	SC=		0/		Area=	SC=	VLT= %		Area=	SC=	VLT=	%
		Clear	m²		ER=	%	☐ Clear	m²			L	□ Clear	m²		ER= %	Clear	m²		ER=	%
	Double Glazing		☑ Yes	N	0			✓ Yes	_	0			☑ Yes		lo		☑ Yes		10	
External Overhand Ayes N				□No	Overhanç	9	✓Yes		10 (Overhanç	g	✓Yes	s 🗆 No	Overhan	g	☑ Ye:	s [□No		
	Shading				□No	Sidefin		□Yes		10	Sidefin		□Yes	s □No	Sidefin		□Ye	s [□No	
Solar Radia Glazing	Solar Radiation through				V/m²				1.08 W/m	1 2				7.57 W/m²						
Average Absorptivity 0.8						0.8				0.8										
RTTV _{Wall} at	TV _{Wall} at each facade 10.84 W/m									10.63 W/m	1²				12.02 W/m²				9.66 W	//m²
Overall RTTV _{Wall}							10.47 W/m²													

				RTTV _F	Roof										
Roof Orientation	on Factor					2.16									
Total Roof Area	a (Residential Units)					65.92 m²									
Total Skylight A	\rea					0 m²									
Heat	Heat Roof Conduction		3.86 W/m²												
	Skylight				0 W/m²										
Skylight	Glass Type	□ Reflective	Area=	m²	SC=		VLT=	%	ER=	%					
		☐ Tinted	Area=	m²	SC=		VLT=	%	ER=	%					
		□ Clear	Area=	m²	SC=		VLT=	%	ER=	%					
	Double Glazing				□Yes ☑No										
External Shading					□Yes	✓No									
Solar Radiation through Glazing						0 W/m²									
Average Absorptivity (roof)						0.8									
Overall RTTV _{Roof}						3.86 W/m²									



0.8

10.84 W/m²

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.

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Address: Pro	oposed Comp	orehensive	Developn	nent at W	etland Park	TSWTL n						BD Re	ef. No.					
Building Type	e: F	Residential																1
RTTV calcula	ated by	☑ 1. Regi	stered Pro	ofessiona	I Engineers													٦
		2. Arch	itect															٦
		☐ 3. Othe	ers. please	specify:														٦
No. of Storey (Residential	ys	2 (G/F																1
Table 1																		_
							Deeme	d to Sati	sfy RTTV _V	'all								
Facade Orie	ntation Facir	ng																٦
Average Abs	sorptivity																	
Average Win	ndow to Wall	Ratio																٦
Shading Coe	efficient of GI	azing																7
Average Sha	ading Coeffic	ient of Faca	ade															1
Visible Light Transmittance					%	%		%		%		%		%	%		9	6
External Reflectance					%	%		%		%		%		%	%		9	6
Table 2																		
								RTTV	Wall									
Facade Orie	ntation		North	n-East		South-East					Sout	h-West			Nort	h-West		
Wall Orientat	tion Factor		0.9	924			1.	051			1.	092		0.		0.965		
Total Externa (Residential			56.80 m²	Window Ratio	to Wall		30.40 m²	Ratio	v to Wall		20.52 m ²	Ratio	w to Wall	70.55 m		Ratio		ī
Total Windov	w Factor		32.46 m²	= 0.57		2.33 m ² = 0.0					10.65 m ²	= 0.52		0 m		= 0		
Heat Conduction	Opaque Wall			•	3.96 W/m²	(9.47 W/m	2			3.85 W/m	2	•	9.66 W	/m²	
	Window				0.55 W/m²				0.09 W/m	2			0.60 W/m	2			0 W	/m
Window	Glass Type	П	Area=	SC=	VLT= %	П	Area=	SC=	VLT=	% П	Area=	SC=	VLT=	% П	Area=	SC=	VLT=	g
		Reflective	m²		ER= %	Reflective	m²		ER=	% Reflectiv	/e m²		ER=	% Reflective	m²		ER=	9
			Area=		VLT= 50 %	Ø	Area=	SC=	VLT= 50	% Z	Area=	SC=	VLT= 50 °	% 2	Area=	SC=	VLT= 5	0 °
		Tinted	32.46m²	0.32	ER= 7 %	Tinted	2.33m²	0.32	ER= 7	% Tinted	10.65m²	0.32	ER= 7	% Tinted	0m²	0.32	ER= 7	9
			Area=	SC=	VLT= %		Area=	SC=	VLT=	% 🗆	Area=	SC=	VLT=	% 🗆	Area=	SC=	VLT=	9
		Clear	m²		ER= %	Clear	m²		ER=	% Clear	m²		ER=	[%] Clear	m²		ER=	•
	Double Glazing		☑ Yes	□ No)		✓ Yes	□N	0		☑ Yes		lo		☑ Yes		lo	
	External Shading	Overhang]	✓Yes	□No	Overhang		✓Yes	N	No Overhang			s 🗆 N	Overhan	g	☑Yes □No		
	Silauling	Sidefin		□Yes	□No	Sidefin		□Yes	. □N	Sidefin		□Yes	s 🗆 N	Sidefin		□Yes	<u> </u>	□N∈
Solar Radiati Glazing	6.32 W/m² 1.08 W/m² 7.57 W/m²									0 W	/m²							

Table 2

Average Absorptivity

RTTV_{Wall} at each facade

Overall RTTV_{Wall}

able 3															
				RTTV _R	oof										
Roof Orientatio	n Factor					2.16									
Total Roof Area	(Residential Units)					65.92 m²									
Total Skylight A	rea					0 m²									
Heat Roof Conduction		3.86 W/m²													
	Skylight					0 W/m²									
Skylight	Glass Type	☐ Reflective	Area=	m²	SC=		VLT=	%	ER=	%					
		☐ Tinted	Area=	m²	SC=		VLT=	%	ER=	%					
		□ Clear	Area=	m²	SC=		VLT=	%	ER=	%					
	Double Glazing				□Yes ☑No										
External Shading		□Yes ☑No													
Solar Radiation through Glazing						0 W/m²									
Average Absorptivity (roof)						0.8									
Overall RTTV _{Roof}						3.86 W/m²									

0.8

10.63 W/m²

10.47 W/m²

0.8

9.66 W/m²

8.0

12.02 W/m²



%

%

%

%

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.

%

%

%

%

%

%

%

%

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Address: Proposed Co	ddress: Proposed Comprehensive Development at Wetland Park TSWTL no. 34 (House 11)													
Building Type:	Residential													
RTTV calculated by	✓ 1. Registere	d Professional En	gineers											
	2. Architect													
	☐ 3. Others, please specify:													
No. of Storeys (Residential Units)	2 (G/F to	1/F)												
Table 1														
				Deemed to Satis	sfy RTTV _{Wall}									
Facade Orientation Fa	cing													
Average Absorptivity														
Average Window to W														

%

%

%

%

_ ...

Shading Coefficient of Glazing
Average Shading Coefficient of Facade

Visible Light Transmittance

External Reflectance

Table 2																		
								RTTV _\	Wall									
Facade Orie Facing	ntation		North	n-East			Sout	h-East			South	n-West			Norti	h-West		
Wall Orienta	tion Factor		0.9	924			1.	051			1.	092			0.965			
Total Externa (Residential			56.80 m²	Ratio	w to Wall		53.57 m²	Windov Ratio = 0.23	v to Wall		20.52 m²	Ratio	v to Wall		63.85 m² Window to Ratio			
Total Window	v Factor		38.09 m²	= 0.67		12.27 m² = 0.23				10.65 m²	= 0.52			10.89 m ² = 0.17				
Heat Conduction	Opaque Wall				3.05 W/m²	7.94 W/m²				2			3.85 W/r	n²	8.01 W/m²			
Window		0.84 W/m²					0.25 W/m	2			0.60 W/m²				0.17 W/m²			
Window	Glass Type	Reflective	Area=	SC=	VLT= % ER= %	Reflective	Area=	SC=		6 Reflectiv	Area=	SC=	VLT= ER=	% □ % Reflectiv	Area=	SC=	VLT= % ER= %	
		✓ Tinted	Area= 38.09m²	SC= 0.32	VLT= 50 % ER= 7 %	Ø	Area= 12.27m²	SC= 0.32	VLT= 50 °	6 2	Area= 10.65m²	SC= 0.32	VLT= 50 ER= 7		Area= 10.89m²	SC= 0.32	VLT= 50 % ER= 7 %	
		☐ Clear	Area=	SC=	VLT= % ER= %	Ш	Area= m²	SC=		6 □ 6 Clear	Area=	SC=	VLT= ER=	% □ % Clear	Area=	SC=	VLT= % ER= %	
	Double Glazing		☑ Yes	□N	0		☑ Yes	□ No			✓ Yes		□ No		☑ Yes		0	
	External Shading	Overhan	g	✓Yes		Overhan	g	✓ Yes		Overha	ng	✓ Yes		No Overha	ng	✓Yes		
Solar Radiat Glazing	ion through	Sidefin		□Yes	7.40 W/m²	Sidefin		□Yes	3.22 W/m	Sidefin		□Yes	7.57 W/r	No Sidefin		□Yes	2.20 W/m²	
Average Abs	Average Absorptivity				0.8				0.8				8.0				0.8	
RTTV _{Wall} at 6	each facade				11.28 W/m²				11.41 W/m	2			12.02 W/r	n²			10.38 W/m²	
Overall RTT	V _{Wall}									11.10 W	m²			•				

				RTTV _R	oof									
Roof Orientat	ion Factor					2.16								
Total Roof Are	ea (Residential Units)					65.92 m²								
Total Skylight	Area					0 m²								
Heat	Roof					3.86 W/m²								
Conduction	Skylight		0 W/m²											
Heat Conduction Roof Skylight Skylight Glass Type Double Glas	Glass Type	□ Reflective	Area=	m²	SC=		VLT=	%	ER=	%				
		☐ Tinted	Area=	m²	SC=		VLT=	%	ER=	%				
		□ Clear	Area=	m²	SC=		VLT=	%	ER=	%				
	Double Glazing				□Yes	✓No								
	External Shading				□Yes	✓No								
Solar Radiatio	on through Glazing		0 W/m²											
Average Abso	orptivity (roof)		0.8											
Overall RTTV	Roof		3.86 W/m²											



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.

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Address: Pro	posed Comp	orehensive	Develop	ment at V	Vetland Park	TSWTL no	o. 34 (Vill	a 1)							BD Ref	f. No.]
Building Type	e: F	Residential													-1				1
RTTV calcula	ated by	✓ 1. Regis	stered Pr	rofessiona	al Engineers														1
		2. Archi																	1
		3. Othe	rs, pleas	e specify:	:														1
No. of Storey (Residential	/S	5 (G/F																	1
Table 1																			_
							Deeme	d to Satis	sfy RTTV	Wall									
Facade Orie	ntation Facir	ıg													Τ				1
Average Abs	orptivity																		1
Average Win	dow to Wall	Ratio																	1
Shading Coe	efficient of GI	azing																	1
Average Sha	ding Coeffic	ient of Faca	ade																1
Visible Light	Transmittan	се			%	% %					%		%	%	,	%		%	5
External Ref	lectance	%				%			%		%	%	, o	%		%)		
Table 2																			
								RTTV	Wall										
Facade Orient	ntation		N	lorth		West						Sc	outh		East				
Wall Orientat	tion Factor		C).79		1.131						0.9	975			1.	072		
Total Externa (Residential		3	32.19 m	Windov Ratio	v to Wall	2	224.28 m²	Windov Ratio	v to Wall			164.02 m²	Windov Ratio	w to Wall		166.25 m²	Window Ratio	w to Wall	
Total Windov	v Factor	1	92.89 m	= 0.58			17.56 m²	= 0.08	= 0.08			85.06 m²	= 0.52			11.02 m²	= 0.07		
Heat Conduction	Opaque Wall				3.32 W/m²				10.47 W/n	1 ²				4.65 W/m²	10.11 W/m²				
	Window				0.48 W/m²				0.09 W/n	ղ²				0.53 W/m²	0.0			0.07 W/	/m²
Window	Glass Type	П	Area=	SC=	VLT= %		Area=	SC=	VLT=	% _	7	Area=	SC=	VLT= %		Area=	SC=	VLT=	%
		Reflective	m²		ER= %	Reflective	m²		ER=	% F	Reflective	m²		ER= %	Reflective	m²		ER=	%
		\square	Area=	SC=	VLT= 50 %	Ø	Area=	SC=	VLT= 50	% ✓	2	Area=	SC=	VLT= 50 %	Ø	Area=	SC=	VLT= 50	J %
		Tinted	192.89m	0.32	ER= 7 %	Tinted	2.33m²	0.32	ER= 7	% T	Tinted	85.06m²	0.32	ER= 7 %	Tinted	11.02m²	0.32	ER= 7	%
			Area=	SC=	VLT= %		Area=	SC=	VLT=	% □		Area=	SC=	VLT= %		Area=	SC=	VLT=	%
		Clear	m²		ER= %	Clear	m²		ER=	% C	Clear	m²		ER= %	Clear	m²		ER=	%
	Double Glazing		✓ Yes	. □ N	0		✓ Yes	□ N	0			✓ Yes	□N	0		✓ Yes	□N	0	
	External Shading	Overhang ✓ Yes □ No			□No	Overhang	9	✓Yes		10 C	Overhan	g	✓Yes	□No	Overhang	9	☑Yes □N		No
	Snauling				□No	Sidefin		□Yes		No S	Sidefin		□Yes	□No	Sidefin		□Yes		No
Solar Radiati Glazing	ion through	ough			6.07 W/m²				1.18 W/n	1 ²				6.76 W/m²				0.95 W/	/m²
Average Abs	orptivity	0.8				0.8						0.8							
RTTV _{Wall} at 6	each facade				9.87 W/m²				11.75 W/n	ղ²				11.94 W/m²				11.13 W/	m²
Overall RTT\	V _{Wall}					10.97 W/m²													

Table 3 $\mathsf{RTTV}_\mathsf{Roof}$ 2.16 Roof Orientation Factor Total Roof Area (Residential Units) 216.21 m² Total Skylight Area 0 m² Heat Roof 3.86 W/m² Conduction Skylight 0 W/m² Skylight Glass Type ☐ Reflective Area= m² SC= VLT= % ER= % SC= VLT= % ER= % $\ \square$ Tinted Area= m² SC= Area= VLT= ER= % ☐ Clear m² % Double Glazing □Yes ☑No External Shading □Yes ✓No 0 W/m² Solar Radiation through Glazing 0.8 Average Absorptivity (roof) Overall RTTV_{Roof} 3.86 W/m²



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.

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Address: Pro	pposed Com	orehensive I	Developn	nent at V	Wetland F	ark 7	ISWTL n	o. 34 (Vill	a 2)						BD Re	ef. No.		
Building Type	e: F	Residential																
RTTV calcula	ated by	✓ 1. Regis	stered Pro	ofession	al Engine	ers												
	Г	2. Archit																
	-	3. Other		snecify														
No. of Storey (Residential	/S	5 (G/F																
Table 1																		
								Deeme	d to Sati	sfy RTTV _W	all							
Facade Orie	ntation Facir	na	T		T			1		V	all		T				$\overline{}$	
Average Abs																	+	
	ndow to Wall	Ratio															+	-
	efficient of GI																+	
	ading Coeffic		de														+	
	Transmittan				%		%		%		%		%		%	%		%
External Ref					%		%	+	// 0	+	%		%		%	// 0	+	//
					70		70	1	70		70		70		70			
Table 2									DTTV									
		T	North	n-East		_		Sout	RTTV _\	Wall	Т	Sou	th-West		1	Nort	th-West	
Facade Orie	ntation		NOIT	ı-⊑ası				Sout	II-⊑ası			500	ırı-vvesi			NOIL	n-west	
	tion Factor		0.9	924		_		1.	051				.092			0	.965	
Wall Orientation Factor			Window to Wall			Window			v to Wall			Window to Wall				Windo	w to Wall	
Total External Wall Area (Residential Units)		3	32.19 m²	2.19 m² Ratio				166.25 m²	Ratio	v to vvali		164.02 n	Ratio			224.28 m ²	Ratio	
Total Window Factor		1	92.89 m²	2.89 m ² = 0.58			11.02 m ² = 0.07				85.06 n	= 0.52	2		17.56 m ²	= 0.08		
Heat	Opaque			l .	2 00 14//	m 2			Į	0.01 \//m	,			F 21 \M/m	.2			8.93 W/r
	Wall		3.88 W/m ²							9.91 W/m ²				5.21 W/m	1-			8.93 W/I
	Window				0.56 W/	m²				0.07 W/m ²	2			0.59 W/m	12			0.08 W/n
Window	Glass Type		Area=	SC=	VLT=	%		Area=	SC=	VLT=	6 П	Area=	SC=	VLT=	% 🗖	Area=	SC=	VLT=
		Reflective	m²		ER=	%	Reflective	m²		ER=	6 Refle	ctive m ²	:	ER=	% Reflective	e m²		ER=
		Ø	Area=	SC=	VLT= 50) %	<u> </u>	Area=	SC=	VLT= 50 9	6 2	Area=	SC=	VLT= 50	% 7	Area=	SC=	VLT= 50
			192.89m²	0.32	ER= 7		Tinted	11.02m²	0.32	ER= 7	6 Tinted	85.06m ²	0.32	ER= 7	% Tinted	17.56m²	0.32	ER= 7
			Area=	SC=	VLT=	%		Area=	SC=	VLT=	6 🗆	Area=	SC=	VLT=	% 🗖	Area=	SC=	VLT=
		Clear	m²		ER=	%	Clear	m²		ER=	6 Clear	m²		ER=	% Clear	m²		ER=
	Double Glazing		☑ Yes	□N	lo			☑ Yes ☐ No				☑ Yes □ No				☑ Yes □ No		
	External Shading	Overhang		✓Yes	; <u> </u>	No	Overhanç	g	✓Yes	□N	Over	hang	✓Ye	s 🗆 N	lo Overhar	ıg	✓Ye	s 🗆
	Shading	Sidefin		□Yes	; <u> </u>	No	Sidefin		□Yes	□N	Sidef	in	□Ye	s 🗆 N	lo Sidefin		□Ye	s 🗆
Solar Radiati Glazing	ion through				6.87 W/					0.93 W/m ²				7.57 W/m	l ²			1.01 W/r
Average Abs	orptivity				0.8					0.8				0.8				0.8
RTTV _{Wall} at 6	each facade				11.31 W/	m²				10.92 W/m ²	2			13.37 W/m	12			10.02 W/r
Overall RTT\	V.A										11.29	W/m²						-
	- vvali	l																
Table 3																		
									RTTV	Roof	0.4							
Roof Orienta											2.1	D						
Total Roof Ar	rea (Residen	tial Units)									216.2	1 m²						
Total Skylight Area					0 m²													
Heat	Roof										3.86	N/m²						
Conduction	Skylight										0 W	/m²						
Skylight	Glass Tv		+	flactive	1	Δrea-			2	SC-			\/I T_		0/2			0/2

m² SC=

m²

SC=

□Yes

□Yes

☑No

☑No

0 W/m²

3.86 W/m²

☐ Tinted

☐ Clear

Double Glazing

Solar Radiation through Glazing

Average Absorptivity (roof)

Overall RTTV_{Roof}

External Shading

Area=

Area=

% ER=

% ER=

%

%

VLT=

VLT=



Double Glazing

Solar Radiation through Glazing

Average Absorptivity (roof)

Overall RTTV_{Roof}

External Shading

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.

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Second Commission Seco	D I	EPARTME	N T							,	Ji its use iii t	ile develo	pinent.						
Try calculated by	Address: Pro	oposed Comp	orehensive [Developn	ment at \	Wetland	Park	TSWTL n	o. 34 (Vill	a 6)						BD R	ef. No.		
Try calculated by	Building Type	e· F	Residential																
1. Achience				tared Pro	nfession	al Engin	oore												
S. O. Cherny S. O					010331011	ai Engin	CCIS												
Secretarial Unity Secretarial Process		F			on a sift	,,													
Second S		ys				<i>r</i> :													
Second Commission Seco	Table 1	, ,																	
According Not proportion	Tuble 1								Deeme	d to Sati	sfv RTTV								
Verlage Absorptivity Verlage Milled Note Verlage Absorptivity Verlage Absorptive Absorptivity Verlage Absorptive Absorptivity Verlage Absorptive Absorptivity Verlage Abs	Facade Orie	ntation Facin	ıa						1		Wa	"		Т					
Verage Mindow to Wall Railo																			
North-East South-East South-West South-West North-West South-West Sou			Ratio																-
Second Companies Second																			-
Select Light Transmittance				de															
Area SC VIT SC						%		%		%		%		%	0,	6	%		%
Section Sect				+															//
South-East South-West Sou						7.5		70		70	1	,0		,,,		<u> </u>	70	<u> </u>	
South-Fleat	rable 2									DTTV									
According Section S	Farada Osia	-4-4	Τ	North	h-Fast			Т	Sout		Wall	T	Sout	h_\Mast			Nort	n_\Mest	
Season S	Facade Oriei Facing	ntation		140111	Last				Oout	ii Last			Oout	ii vvcst			14010	1 11031	
Residential Units) 332-19 m Ratio 19-0.8 19-0.8 19-0.8 19-0.8 19-0.2 19-0.2 19-0.2 19-0.2 19-0.2 19-0.2 19-0.2 19-0.2 19-0.2 19-0.2 19-0.2 19-0.2 19-0.2 19-0.2 19-0.2 19-0.2 19-0.2 19-0.2 19-0.2 19-0.2 19-0.2 19-0.2 19-0.2 19-0.2 19-0.2 19-0.2 19-0.2 19-0.2 19-0.2 19-0.2 19-0.2 19-0.2 19-0.2 19-0.2 19-0.2 19-0.2 19-0.2 19-0.2 19-0.2 19-0.2 19-0.2 19-0.2 19-0.2 19-0.2 19-0.2 19-0.2 19-0.2 19-0.2 19-0.2 19-0.2 19-0.2 19-0.2 19-0.2 19-0.2 19-0.2 1	Wall Orientat	tion Factor		0.9	924				1.	051			1.	.092			0.	965	
192.89 m 20.68 192.89 m 20.68 17.56 m 20.68 20.68 20.68 20.68 20.68 20.68 20.68 20.69			3:	32.19 m²		w to Wa	I		224.28 m²		v to Wall 164.02 r		164.02 m			166.25 m²		Window to Wall Ratio	
Seat			11	22 89 m²					17 56 m²				85 06 m	= 0.52		= (= 0.07	
Vindow V	Heat	Opaque		DZ.00 III		3.88 W	//m²		17.50 111		8.93 W/m²		03.00 111		5.21 W/m²		11.02 III		9.91 W/n
Reflective m² ER	Conduction					0.56 W	//m²				0.08 W/m²				0.59 W/m²				0.07 W/n
Area	Window	Glass Type		Area=	SC=	VLT=	%		Area=	SC=	VLT= %		Area=	SC=	VLT= %	П	Area=	SC=	VLT=
Tinted 192.89mx 0.32 ER = 7 % Tinted 17.56mx 0.32 ER = 7 % Tinted 0.3			Reflective	m²		ER=	%	Reflective	m²		ER= %	Reflective	m²		ER= %	Reflectiv	e m²		ER=
Tinted 192.89ms 0.32 ER = 7 % Tinted 17.56ms 0.32 ER = 7 % Tinted			Ø	Area=		VLT= 5	50 %	Ø	Area=		VLT= 50 %	И	Area=		VLT= 50 %	Ø	Area=		VLT= 50
Clear m² ER= % Clear m²				92.89m²	0.32	ER= 7			17.56m²	0.32	ER= 7 %	_	85.06m²	0.32	ER= 7 %	_	11.02m²	0.32	ER= 7
Double Glazing			П	Area=	SC=	VLT=	%	П	Area=	SC=	VLT= %		Area=	SC=	VLT= %	П	Area=	SC=	VLT=
Clazing			Clear	m²		ER=	%	Clear	m²		ER= %	Clear	m²		ER= %	Clear	m²		ER=
External Shading				☑ Yes		lo			☑ Yes	□ No	0		✓ Yes		lo		✓ Yes		lo
Shading Overlang Shading Sidefin Sid							7												
1.01 W/m² 1.01 W/m² 1.01 W/m² 1.01 W/m² 1.09 W								<u> </u>	g			1	g				ng		
Stazing Staz	Solar Radiati	ion through	Sidefin		L Yes			Sidefin		∟ Yes		Sidefin		L Yes		Sidefin		L Yes	
TITV_Wall at each facade	Glazing						//m²												0.93 W/n
11.29 W/m²	Average Abs	sorptivity				0.8					0.8				0.8				0.8
Section Sec	RTTV _{Wall} at e	each facade				11.31 W	//m²				10.02 W/m²				13.37 W/m²				10.92 W/n
RTTV ROOF Orientation Factor	Overall RTT\	V _{Wall}										11.29 W/r	m²						
2.16	Table 3																		
Data Roof Area Residential Units	D (6:			T						RTTV	Roof	2 16							
Note September																			
Roof 3.86 W/m²			tial Units)	1									z						
Skylight												0 m²							
Skylight 0 W/m² kylight Glass Type □ Reflective □ Tinted □ Area=	Heat Conduction	Roof										3.86 W/n	1 ²						
$\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ $	CONTRACTION	Skylight										0 W/m²							
	Skylight	Glass Ty	ре	□ Re	eflective		Area	a=		m²	SC=			VLT=		%	ER=		%
				☐ Tin	nted		Area	a=		m²	SC=			VLT=		%	ER=		%
				□ Cle	ear		Area	a=		m²	SC=			VLT=		%	ER=		%

☑No

☑No

0 W/m²

3.86 W/m²

 \square Yes

□Yes



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.

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Address: Proposed Co	mprehensive Deve	elopment at Wetlar	nd Park TSWTL no	o. 34 (Villa 8)				BD Ref. No.				
Building Type:	Residential	idential										
RTTV calculated by	✓ 1. Registere	Registered Professional Engineers										
	2. Architect	Architect										
	☐ 3. Others, pl	ease specify:										
No. of Storeys (Residential Units)	5 (G/F to	5/F)										
Table 1	ible 1											
	Deemed to Satisfy RTTV _{Wall}											
Facade Orientation Facing												

Table I												
	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 Oriel Facing	ntation		North	n-East			Sout	h-East			Sout	h-West			North-West			
Wall Orientat	tion Factor		0.9	924			1.	051			1.	092				0.	965	
Total Externa (Residential		;	332.19 m²	Ratio	v to Wall	:	224.28 m² Window to Wa Ratio		v to Wall		164.02 m²		w to Wall		166.25 m²		Window to Wall Ratio	
Total Windov	v Factor	,	192.89 m²	= 0.58			17.56 m²	= 0.08			85.06 m ²	= 0.52				11.02 m²	= 0.07	
Heat Conduction	Opaque Wall				3.88 W/m²			•	8.93 W/m	2			5.21 W	/m²				9.91 W/m²
	Window				0.56 W/m²				0.08 W/m	2			0.59 W	/m²				0.07 W/m²
Window	Glass Type	Reflective	Area=	SC=	VLT= %		Area=	SC=		[%] □ % Reflecti	Area=	SC=	VLT= ER=	%	Reflective	Area=	SC=	VLT= % ER= %
		☑ Tinted	Area= 192.89m²	SC= 0.32	VLT= 50 % ER= 7 %		Area= 17.56m²	SC= 0.32	VLT= 50 ER= 7		Area= 85.06m²	SC= 0.32	VLT= 50 ER= 7			Area= 11.02m²	SC= 0.32	VLT= 50 % ER= 7 %
		Clear	Area= m²	SC=	VLT= %	Ш	Area= m²	SC=		[%] □ % Clear	Area=	SC=	VLT= ER=	%	□ Clear	Area= m²	SC=	VLT= % ER= %
	Double Glazing		☑ Yes ☐ No				☑ Yes	□ No			✓ Yes		□ No		✓ Yes		s 🗆 No	
	External Shading	Overhang	9	✓Yes		Overhang	g	✓Yes		Overha		✓Yes			Overhang	9	✓Yes	
Solar Radiati Glazing	on through	Sidefin		□Yes	□ No 6.87 W/m²	Sidefin		□Yes	1.01 W/m	Sidefin		□Yes	7.57 W		Sidefin		□Yes	□ No 0.93 W/m²
Average Abs	orptivity				8.0				8.0				0.8					0.8
RTTV _{Wall} at 6	each facade				11.31 W/m²				10.02 W/m	2			13.37 W	/m²				10.92 W/m²
Overall RTT\	/ _{Wall}									11.29 W	//m²							

				RTTV _R	oof								
Roof Orientat	ion Factor					2.16							
Total Roof Are	ea (Residential Units)					216.21 m²							
Total Skylight	Area		0 m²										
Heat	Roof		3.86 W/m²										
Conduction	Skylight												
Skylight	Glass Type	□ Reflective	Area=	m²	SC=		VLT=	%	ER=	%			
		☐ Tinted	Area=	m²	SC=		VLT=	%	ER=	%			
		□ Clear	Area=	m²	SC=		VLT=	%	ER=	%			
	Double Glazing				□Yes	☑No							
	External Shading				□Yes	✓No							
Solar Radiation through Glazing						0 W/m²							
Average Absorptivity (roof)			0.8										
Overall RTTV	Roof					3.86 W/m²							



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.

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Address: Proposed Cor	mprehensive Development at Wetland Park TSWTL no. 34 (Villa 10)	BD Ref. No.
Building Type:	Residential	
RTTV calculated by	✓ 1. Registered Professional Engineers	
	□ 2. Architect	
	☐ 3. Others, please specify:	
No. of Storeys (Residential Units)	5 (G/F to 5/F)	
Table 1		

Table I											
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

Table 2																					
									RTTV _\	Wall											
Facade Oriel Facing	ntation		North	n-East				South	n-East			South	n-West			North	n-West				
Wall Orientat	tion Factor		0.9	924				1.0	051			1.	092			0.	965				
Total Externa (Residential		3	332.19 m²	Ratio	w to Wa	ıll	2	224.28 m²	Ratio	v to Wall		164.02 m²	Ratio	w to Wall		166.25 m²	Ratio				
Total Windov	v Factor	1	192.89 m²	= 0.58				17.56 m²	= 0.08			85.06 m²	= 0.52			11.02 m ²			= 0.07		
Heat Conduction	Opaque Wall			•	3.88 V	V/m²			•	8.93 W/m²				5.21 W/m	2				//m²		
	Window				0.56 V	V/m²				0.08 W/m²				0.59 W/m	2			0.07 W	//m²		
Window	Glass Type	Reflective	Area= m²	SC=	VLT= ER=	%	\sqcup	Area=	SC=	VLT= % ER= %	☐ Reflective	Area=	SC=	ER=	6 Reflective	Area= m²	SC=	VLT= ER=	%		
		☑ Tinted	Area= 192.89m²	SC= 0.32	VLT=			Area= 17.56m²	SC= 0.32	VLT= 50 % ER= 7 %		Area= 85.06m ²	SC= 0.32	VLT= 50 °		Area= 11.02m²	SC= 0.32	VLT= 5 ER= 7			
		□ Clear	Area= m²	SC=	VLT= ER=	%	□ Clear	Area=	SC=	VLT= % ER= %		Area=	SC=		6 □ 6 Clear	Area= m²	SC=	VLT= ER=	%		
	Double Glazing		☑ Yes	□N	0			☑ Yes	□ N	0	✓ Yes		s □ No			✓ Yes		0			
	External Shading	Overhang	9	✓Yes	[□No	Overhang	ı	✓Yes	□No	Overhan	g	✓Yes	. □N	Overhan	9	✓Yes		□No		
	J	Sidefin		□Yes	[□No	Sidefin		□Yes	□No	Sidefin		□Yes	. □N	Sidefin		□Yes		□No		
Solar Radiati Glazing	Solar Radiation through Glazing 6.87 W/m²		V/m²				1.01 W/m²				7.57 W/m	2			0.93 W	//m²					
Average Absorptivity 0.8							0.8				0.8		0.8								
RTTV _{Wall} at 6	each facade				11.31 V	V/m²	m ² 10.02 W/m ² 13.37 W/m							10.92 W/m²							
Overall RTTV _{Wall}					11.29 W/m²																

				RTTV _R	oof								
Roof Orientat	tion Factor					2.16							
Total Roof Are	ea (Residential Units)					216.21 m²							
Total Skylight	Area					0 m²							
Heat	Roof					3.86 W/m²							
Conduction	Skylight					0 W/m²							
Skylight	Glass Type	☐ Reflective	Area=	m²	SC=		VLT=	%	ER=	%			
		☐ Tinted	Area=	m²	SC=		VLT=	%	ER=	%			
		□ Clear	Area=	m²	SC=		VLT=	%	ER=	%			
	Double Glazing		□Yes ☑No										
External Shading		□Yes ☑No											
Solar Radiation through Glazing						0 W/m²							
Average Absorptivity (roof)			0.8										
Overall RTTV	Roof	3.86 W/m²											



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.

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Appendix A

Address: Pro	oposed Comp	orehensive	Developn	nent at V	etland Parl	c TSWTL n	o. 34 (Villa	a 3)						BD Re	f. No.			
Building Type	e: F	Residential																1
RTTV calcula	ated by	✓ 1. Regi	stered Pro	ofessiona	al Engineers	;												
		2. Archi	itect															
		☐ 3. Othe	rs. please	specify:													-	
No. of Storey (Residential	ys	5 (G/F																
Table 1																		_
							Deeme	d to Sati	sfy RTTV _{Wal}	I								
Facade Orie	ntation Facin	g																
Average Abs																<u> </u>		_
	ndow to Wall															<u> </u>		4
	efficient of Gla															<u> </u>		_
	ading Coeffici		ade													<u> </u>		4
	Transmittand	e			%	%	+	%	+	%		%	%		%	<u> </u>		%
External Ref	lectance				%	%		%		%		%	%	5	%		9	%
Table 2																		
								RTTV	Wall									
Facade Orie	ntation			n-East				h-East				ı-West				n-West		
Wall Orientat	tion Factor		0.9	924			1.	051			1.0	092			0.9	965		
Total External Wall Area (Residential Units) 332.19		332.19 m²	Ratio		224.28 m² Rati			v to Wall		164.02 m²	Ratio	w to Wall		166.25 m²	Ratio	w to Wal	II	
Total Windov			192.89 m²	= 0.58		17.56 m ² = 0.0		= 0.08			85.06 m²	= 0.52		11.02 m ²		= 0.07		
Heat Conduction	Opaque Wall				3.88 W/m²	8			8.93 W/m²		5.21 W/m²						9.91 W	//m²
	Window				0.56 W/m²				0.08 W/m²			0.59 W/m²					0.07 W	//m²
Window	Glass Type	Reflective	Area=	SC=	VLT= %	Ш	Area=	SC=	VLT= % ER= %	Reflectiv	Area=	SC=	VLT= % ER= %	Reflective	Area=	SC=	VLT= ER=	%
			Area=	SC=	VLT= 50 %		Area=	SC=	VLT= 50 %	Ø	Area=	SC=	VLT= 50 %	Ø	Area=	SC=	VLT= 5	50 %
		☑ Tinted	192.89m²	0.32	ER= 7 %	Y	17.56m²	0.32	ER= 7 %	⊻ Tinted	85.06m²	0.32	ER= 7 %	Tinted	11.02m²	0.32	ER= 7	7 %
		П	Area=	SC=	VLT= %	П	Area=	SC=	VLT= %	П	Area=	SC=	VLT= %		Area=	SC=	VLT=	%
		Clear	m²		ER= %	Clear	m²		ER= %	Clear	m²		ER= %	Clear	m²		ER=	%
	Double Glazing					☑ Yes	□N	0		✓ Yes		lo		☑ Yes	□N	0		
	External Shading	Overhang	J	✓Yes	□No	Overhan	9	✓Yes	□No	Overha	ng	☑ Yes	s 🗆 No	Overhanç	g	✓Yes	<u>. </u>	□No
	Shading	Sidefin		□Yes	□No	Sidefin		□Yes	□No	Sidefin		□Yes	s 🗆 No	Sidefin		□Yes	<u>. [</u>	□No
Solar Radiati Glazing	ion through				6.87 W/m²				1.01 W/m²				7.57 W/m²				0.93 W	√/m²
Average Abs	sorptivity				0.8				0.8				0.8				0.8	
RTTV _{Wall} at e	each facade				11.31 W/m²				10.02 W/m²				13.37 W/m²				10.92 W	//m²
Overall RTT\	V_{Wall}									11.29 W	//m²							
Table 3															_	_	_	
								RTTV	Roof									
Roof Orienta	ation Factor									2.16								

				RTTV _R	oof										
Roof Orientatio	n Factor					2.16									
Total Roof Area	(Residential Units)	216.21 m²													
Total Skylight A	rea					0 m²									
Heat	Roof					3.86 W/m²									
Conduction	Skylight		0 W/m²												
Skylight	Glass Type	☐ Reflective	Area=	m²	SC=		VLT=	%	ER=	%					
		☐ Tinted	Area=	m²	SC=		VLT=	%	ER=	%					
		□ Clear	Area=	m²	SC=		VLT=	%	ER=	%					
	Double Glazing				□Yes	✓No									
	External Shading				□Yes	✓No									
Solar Radiation	through Glazing					0 W/m²									
Average Absorp	ptivity (roof)					0.8									
Overall RTTV _R	oof					3.86 W/m²									



Notes: ER = External Reflectance SC = Shading Coefficient VLT = Visible Light Transmittance Window and skylight data should represent the major proportion

SC=

☐ No

✓ Yes

□Yes

ER= 7 %

VLT=

ER=

Tinted

Clear

☐No Overhang

Sidefin

□No

7.57 W/m²

13.37 W/m²

8.0

11.02m²

Area=

m²

Yes

SC=

 \square No

✓ Yes

□Yes

ER= 7

VLT=

ER=

 \square No

□<u>No</u>

0.93 W/m²

10.92 W/m²

0.8

85.06m²

Area=

m²

Yes

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	EPARTME	MENT of its use in the development.																		
Address: Pro	oposed Comp	rehensive	Developn	nent at V	Vetland I	Park ⁻	TSWTL n	o. 34 (Villa	a 5)							BD Re	f. No.			1
Building Type	e: R	esidential																		1
RTTV calcula	ated by	☑ 1. Regi	istered Pro	ofessiona	al Engine	eers														1
		2. Arch																		1
i		3. Othe		specify:																1
No. of Storey (Residential	ys	5 (G/F																		1
Table 1																				
								Deeme	d to Satis	sfy RTTV _{Wa}	all									
Facade Orie	ntation Facin	g																		٦
Average Abs	sorptivity																			1
Average Wir	ndow to Wall	Ratio																		1
Shading Coe	efficient of Gla	azing																		1
Average Sha	rage Shading Coefficient of Facade]	
Visible Light	Transmittand	ance %					%		%		%		%		%	D	%	%		D
External Ref	lectance				%		%		%		%		%		%	b	%		%	o
Table 2																				
									RTTV	Vall										
Facade Orie Facing	ntation		North	n-East				Sout	h-East		South-West						North	rth-West		
Wall Orienta	tion Factor		0.9	924				1.	051			1.	092				0.	965		
Total Externa (Residential		3	332.19 m²	Ratio	v to Wall		2	224.28 m²	Ratio	v to Wall		164.02 m ²	Ratio	w to Wall			166.25 m²	Ratio	w to Wall	
Total Window	w Factor	192.89 m ² = 0.58				17.56 m²	= 0.08			85.06 m ²	= 0.52				11.02 m²	= 0.07				
Heat Conduction	Opaque Wall	que 3.88 W/m ²			/m²				8.93 W/m²				5.21 W/m²					9.91 W	/m²	
	Window				0.56 W/m²					0.08 W/m²				0.59 W/	/m²				0.07 W	/m²
Window	Glass Type		Area=	SC=	VLT=	%		Area=	SC=	VLT= %	· 🗆	Area=	SC=	VLT=	%		Area=	SC=	VLT=	%
1		Reflective	m²		ER=	%	Reflective	m²		ER= %	Reflective	m²		ER=	%	Reflective	m²		ER=	%
		Ø	Area=	SC= 0.32	VLT= 5		Ø	Area=	SC= 0.32	VLT= 50 %	· 🗷	Area=	SC=	VLT= 50		Ø	Area=	SC=	VLT= 5	
ı	1	I	400 00	U.32	ED 7	0/	T	47.502	U.32	ED 7 %		05.002	0.32	ED 7	0/		44.002	0.32	ED 7	0.0

SC=

 \square No

✓ Yes

□Yes

ER= 7 %

1.01 W/m²

0.8

VLT=

ER=

Tinted

Clear

☐ No Overhang

☐No Sidefin

17.56m²

Area=

m²

Yes

RI	TTV _{Wall} at each facade	11.31 W/m²	10.02 W/m²	
O۱	verall RTTV _{Wall}			11.29 W/m²

SC=

 \square No

✓ Yes

□Yes

ER= 7

VLT=

ER=

Tinted

Clear

☐No Overhang

Sidefin

□No

6.87 W/m²

8.0

192.89m

Area=

Yes

Tinted

Double

Glazing External

Shading

Solar Radiation through Glazing

Average Absorptivity

Table 3

Clear

Overhang

Sidefin

				RTTV _R	loof									
Roof Orientat	tion Factor					2.16								
Total Roof Are	ea (Residential Units)					216.21 m²								
Total Skylight	Area					0 m²								
Heat	Roof					3.86 W/m²								
Conduction	Skylight					0 W/m²								
Skylight	Glass Type	□ Reflective	Area=	m²	SC=		VLT=	%	ER=	%				
		☐ Tinted	Area=	m²	SC=		VLT=	%	ER=	%				
		□ Clear	Area=	m²	SC=		VLT=	%	ER=	%				
	Double Glazing				□Yes	✓No								
External Shading			□Yes ☑No											
Solar Radiation through Glazing						0 W/m²								
Average Absorptivity (roof)			0.8											
Overall RTTV _{Roof}						3.86 W/m²								



Skylight

Glass Type

Double Glazing

Solar Radiation through Glazing

Average Absorptivity (roof)

Overall RTTV_{Roof}

External Shading

☐ Reflective

 $\ \square$ Tinted

☐ Clear

Area=

Area=

Area=

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.

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Address: Pro	posed Comp	orehensive	Developr	ment at \	Vetland F	Park T	SWTL no	o. 34 (Vill	a 7)							BD Re	f. No.		
Building Type	e: IF	Residential																	
RTTV calcula		✓ 1. Regi	stered Pr	ofession	al Engine	ers													
		2. Archi		0.000.01.	a. Ligino														
	⊢	☐ 3. Othe		o coocifu															
No. of Storey (Residential	/S	5 (G/F																	
Table 1																			
								Deeme	d to Sati	sfy RT	TV _{wa}	11							
Facade Orie	ntation Facir	ıg								I	114								
Average Abs	orptivity																		
Average Win	dow to Wall	Ratio																	
Shading Coe	efficient of GI	azing																	
Average Sha	ding Coeffic	ient of Faca	ade																
Visible Light	Transmittan	ce			%		%		%			%		%	9	6	%		%
External Ref	lectance				%		%		%			%		%	9/	6	%		%
Table 2			•																
									RTTV	Wall									
Facade Orie	ntation		Nort	h-East			South-East						South	n-West		North-West			
Wall Orientat	tion Factor		0.	924				051			1.092				0.		965		
Total Externa (Residential		3	32.19 m²	Windo Ratio	w to Wall		2	Window to Wall Ratio			164.02 m² Ratio			w to Wall		166.25 m²	Windo Ratio	w to Wall	
Total Window Factor		92.89 m²	= 0.58			17.56 m ² = 0.08					85.06 m ²	= 0.52			11.02 m²	= 0.07			
Heat Conduction	Opaque Wall	·		3.88 W/	N/m²			8.93 W/m²						5.21 W/m²				9.91 W/m	
	Window				0.56 W/	m²	0.08 W/m²							0.59 W/m²				0.07 W/m	
Window	Glass Type		Area=	SC=	VLT=	% _	_	Area=	SC=	VLT=	%		Area=	SC=	VLT= %		Area=	SC=	VLT=
		☐ Reflective	m²		ER=	% F	_ Reflective	m²		ER=	%	Reflective	m²		ER= %	Reflective	m²		ER=
			Area=	SC=	VLT= 50) % •	7	Area=	SC=	VLT=	50 %	Ø	Area=	SC=	VLT= 50 %	Ø	Area=	SC=	VLT= 50
		Tinted	192.89m²	0.32	ER= 7			17.56m²	0.32	ER=	7 %		85.06m²	0.32	ER= 7 %		11.02m²	0.32	ER= 7
		П	Area=	SC=	VLT=	%	7	Area=	SC=	VLT=	%	П	Area=	SC=	VLT= %	П	Area=	SC=	VLT=
		Clear	m²		ER=	% (Clear	m²		ER=	%	Clear	m²		ER= %	Clear	m²		ER=
	Double Glazing		☑ Yes	N	0			☑ Yes	N	0			☑ Yes	N	lo		☑ Yes	N	10
	External	Overhang		✓Yes		No C	Overhang		✓Yes	. [¬No	Overhang	7	✓ Yes	. □No	Overhan	α	✓ Yes	s \square N
	Shading		<u> </u>			-	Sidefin	<u> </u>				Sidefin	3			Sidefin	9		
Solar Radiati	ion through	Sidefin		□Yes			Sidelin		□Yes			Siderin		□Yes		Siderin		□Yes	
Glazing					6.87 W/	m²				1.01 V	V/m²				7.57 W/m²	W/m²			0.93 W/m
Average Abs	orptivity				8.0					0.8					8.0	0			
RTTV _{Wall} at 6	each facade				11.31 W/	m²				10.02 V	V/m²				13.37 W/m²				10.92 W/m
Overall RTT\	V_{Wall}											11.29 W/n	∩ ²						
Table 3		•																	
									RTTV	Poof									
Roof Orienta	tion Factor									1001		2.16							
Roof Orientation Factor Total Roof Area (Residential Units)									<u> </u>										
Total Skyligh	•			216.21 m²															
	1			0 m ²															
Heat Conduction	Roof											3.86 W/m	-						
	Skylight											0 W/m ²							

m² SC=

m² SC=

m² SC=

□Yes

□Yes

☑No

☑No

0 W/m²

3.86 W/m²

VLT=

VLT=

VLT=

% ER=

% ER=

% ER=

%

%

%



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.

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Address: Proposed Cor	mprehensive Development at Wetland Park TSWTL no. 34 (Villa 9)	BD Ref. No.							
Building Type:	Residential								
RTTV calculated by	✓ 1. Registered Professional Engineers								
	□ 2. Architect								
	☐ 3. Others, please specify:								
No. of Storeys (Residential Units)	5 (G/F to 5/F)								
Table 1									

Table I										
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 Orie Facing	ntation		North	n-East			Sout	h-East			South	n-West			North-West			
Wall Orienta	tion Factor		0.9	924		1.051					1.	092			0.965			
Total Externa (Residential		332.19 m ² Window to Wall			v to Wall	:	224.28 m²	Ratio			164.02 m² Window to Wall Ratio				,	166.25 m²	Ratio	v to Wall
Total Windov	v Factor	192.89 m		= 0.58			17.56 m²	= 0.08			85.06 m²	= 0.52				11.02 m²	= 0.07	
Heat Conduction	Opaque Wall				3.88 W/m²			•	8.93 W/m	2		•	5.21 W	/m²				9.91 W/m²
	Window				0.56 W/m²				0.08 W/m	2			0.59 W	/m²				0.07 W/m²
Window	Glass Type	Reflective	Area=	SC=	VLT= %	Ш	Area=	SC=		% □ Reflectiv	Area=	SC=	VLT= ER=	%	Reflective	Area=	SC=	VLT= % ER= %
		☑ Tinted	Area= 192.89m²	SC= 0.32	VLT= 50 % ER= 7 %		Area= 17.56m²	SC= 0.32	VLT= 50 ER= 7		Area= 85.06m ²	SC= 0.32	VLT= 5 ER= 7			Area= 11.02m²	SC= 0.32	VLT= 50 % ER= 7 %
		Clear	Area=	SC=	VLT= %	Ш	Area= m²	SC=		⁶ □ 6 Clear	Area=	SC=	VLT= ER=	%	□ Clear	Area= m²	SC=	VLT= % ER= %
	Double Glazing		✓ Yes	□N	0		✓ Yes	□N	0		☑ Yes	□ No				☑ Yes	□ No	
	External Shading	Overhanç	9	✓Yes		Overhan	g	✓Yes		Overhar	ng	✓Yes			Overhang	J	✓Yes	
Solar Radiat Glazing	ion through	Sidefin		□Yes	□ No 6.87 W/m²	Sidefin				Sidefin	Sidefin ☐ Yes ☐ No. 7.57 W/m²							□ No 0.93 W/m²
Average Abs	orptivity				8.0				0.8				0.8					0.8
RTTV _{Wall} at 6	each facade				11.31 W/m²				10.02 W/m	2			13.37 W	/m²				10.92 W/m²
Overall RTT	V _{Wall}		11.29 W/m²															

				RTTV _R	oof								
Roof Orientat	ion Factor					2.16							
Total Roof Are	ea (Residential Units)					216.21 m²							
Total Skylight	Area					0 m²							
Heat	Roof					3.86 W/m²							
Conduction	Skylight	0 W/m²											
Skylight	Glass Type	□ Reflective	Area=	m²	SC=		VLT=	%	ER=	%			
		☐ Tinted	Area=	m²	SC=		VLT=	%	ER=	%			
		□ Clear	Area=	m²	SC=		VLT=	%	ER=	%			
	Double Glazing	□Yes ☑No											
	External Shading				□Yes	✓No							
Solar Radiation	on through Glazing					0 W/m²							
Average Abso	orptivity (roof)	0.8											
Overall RTTV	Roof	3.86 W/m²											



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.

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Address: Proposed Co	BD Ref. No.								
Building Type: Residential									
RTTV calculated by 1. Registered Professional Engineers									
	☐ 2. Architect								
	☐ 3. Others, please specify:								
No. of Storeys (Residential Units)	5 (G/F to 5/F)								
Table 1									

Table I										
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 Oriel Facing	ntation		North	n-East			Sout	h-East			South-West					North-West			
Wall Orientat	tion Factor		0.9	924		1.051					1.	092			0.965				
Total Externa (Residential		332.19 m ² Window to Wall Ratio			:	224.28 m²	Ratio	v to Wall		164.02 m ²	Ratio	w to Wall		,	166.25 m²	Ratio			
Total Windov	v Factor	192.89 m²		= 0.58			17.56 m²	= 0.08			85.06 m ²	= 0.52				11.02 m²	= 0.07		
Heat Conduction	Opaque Wall				3.88 W/m²			•	8.93 W/m	2			5.21 W	/m²				9.91 W/m²	
	Window				0.56 W/m²				0.08 W/m	2			0.59 W	/m²	0.07 V				
Window	Glass Type	Reflective	Area=	SC=	VLT= %		Area=	SC=		[%] □ % Reflecti	Area=	SC=	VLT= ER=	%	Reflective	Area=	SC=	VLT= % ER= %	
		☑ Tinted	Area= 192.89m²	SC= 0.32	VLT= 50 % ER= 7 %		Area= 17.56m²	SC= 0.32	VLT= 50 ER= 7		Area= 85.06m²	SC= 0.32	VLT= 50 ER= 7			Area= 11.02m²	SC= 0.32	VLT= 50 % ER= 7 %	
		Clear	Area= m²	SC=	VLT= %	Ш	Area= m²	SC=		[%] □ % Clear	Area=	SC=	VLT= ER=	%	□ Clear	Area= m²	SC=	VLT= % ER= %	
	Double Glazing		☑ Yes	□N	0		☑ Yes	_ N	□ No		✓ Yes		. □ No		☑ Yes		□N	0	
	External Shading	Overhang	9	✓Yes		Overhang	g	✓Yes		Overha		✓Yes			Overhang	9	✓Yes		
Solar Radiati Glazing	on through	Sidefin		□Yes	□ No 6.87 W/m²						Sidefin					o Sidefin			
Average Abs	orptivity				8.0				8.0				0.8					0.8	
RTTV _{Wall} at 6	each facade				11.31 W/m²				10.02 W/m	2			13.37 W	/m²				10.92 W/m²	
Overall RTT\	/ _{Wall}	11.29 W/m²																	

				RTTV _R	. ,								
		1		IXII V R	loof	0.40							
Roof Orientat	ion Factor					2.16							
Total Roof Are	ea (Residential Units)					216.21 m²							
Total Skylight	Area					0 m²							
Heat	Roof					3.86 W/m²							
Conduction	Skylight	0 W/m²											
Skylight	cylight Glass Type	□ Reflective	Area=	m²	SC=		VLT=	%	ER=	%			
		☐ Tinted	Area=	m²	SC=		VLT=	%	ER=	%			
		□ Clear	Area=	m²	SC=		VLT=	%	ER=	%			
	Double Glazing	□Yes ☑No											
	External Shading				□Yes	☑No							
Solar Radiation	on through Glazing					0 W/m²							
Average Abso	orptivity (roof)	0.8											
Overall RTTV	Roof	3.86 W/m²											



☐ Tinted

☐ Clear

Double Glazing

Solar Radiation through Glazing

Average Absorptivity (roof)

Overall RTTV_{Roof}

External Shading

Area=

Area=

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: Pro	oposed Com	orehensive Development at Wetland Park TSWTL no. 34 (Tower 1) BD Ref. No.																			
Building Type	e: F	Residential																			
RTTV calcula	ated by	☑ 1. Regis	stered Pro	ofession	al Engine	ers															
		2. Archi	tect																		
		☐ 3. Othe	rs, please	specify	:																
No. of Storey (Residential		10 (G/	F to	10/F)																
Table 1																					
								Deemed	d to Sati	sfy RT1	V _{Wa}	II									
Facade Orie	ntation Facir	ng	Т													\Box					
Average Abs	sorptivity																				
Average Win	ndow to Wall	to Wall Ratio																			
Shading Coe	efficient of GI	azing																			
Average Sha	ading Coeffic	ient of Faca	ade																<u> </u>		
Visible Light	ole Light Transmittance				%		%		%	+		%		%		%	<u> </u>	%	<u> </u>	%	
External Ref	lectance	% %					%			%		%		%		%		%			
Table 2																					
									RTTV _\	Wall		T									
Facade Orie Facing	entation		North East South													W	est/				
Wall Orienta	tion Factor		0.	.79			1.072						0.975					1.131			
Total Externa (Residential		1176.71 m ² Window to Wall Ratio					708.87 m² Window to Wall Ratio				1240.46 m² Window to Wall Ratio					928.73 m² Window to Window to Window to Window					
Total Windov	w Factor	3	65.71 m²	= 0.31				109.52 m²	= 0.15	- 0.10			489.36 m	= 0.39				163.70 m²	= 0.18	i	
Heat Conduction	Opaque Wall		5.57 W/m²				9.25 W/m²						•	5.74 W/ı	m²				9.53 W/m²		
	Window				0.26 W	/m²		0.17 W/m²				0.40 W/m²								0.21 W/m ²	
Window	Glass Type	Reflective	Area=	SC=	VLT= ER=	%	Reflective	Area=	SC=	VLT= ER=	%	Reflective	Area=	SC=	VLT= ER=	% [Reflective	Area=	SC=	VLT= %	
		H 1	Area=	SC=	VLT= 5	_	✓	Area=	SC=	VLT= 5			Area=	SC=	VLT= 50		7	Area=	SC=	VLT= 50 %	
		☑ Tinted	365.71m²	0.32	ER= 7	ľ	⊻ Tinted	109.52m²	0.32	ER= 7			489.36m ²	0.32	ER= 7	~	Z Tinted	163.70m²	0.32	ER= 7 %	
			Area=	SC=	VLT=	%	П	Area=	SC=	VLT=	%	П	Area=	SC=	VLT=	%		Area=	SC=	VLT= %	
		Clear	m²		ER=	%	Clear	m²		ER=	%	Clear	m²		ER=	% C	Clear	m²		ER= %	
	Double Glazing		✓ Yes	□N	lo			✓ Yes	□N	0			✓ Yes		lo			☑ Yes		No	
	External	Overhang		✓Yes	, [No	Overhang	<u> </u>	✓Yes		□No	Overhan	a	✓ Yes	s □I	No C	Overhang		✓ Ye:	s 🗆 No	
	Shading	Sidefin		□Yes	; <u> </u>	No	Sidefin		□Yes		□No	Sidefin		□Yes	s 🗆	No S	Sidefin		□Ye		
Solar Radiat Glazing	ion through				3.25 W	/m²				2.00 W	//m²				4.58 W/ı	m²				2.40 W/m²	
Average Abs	sorptivity		0.8 0.8											-	0.8						
RTTV _{Wall} at 6	each facade				9.08 W	/m²				11.42 W	//m²				10.72 W/r	m²				12.14 W/m²	
Overall RTT	V _{Wall}											10.69 W/n	n²								
Table 3																					
									RTTV	Roof											
Roof Orienta	ation Factor											2.16									
Total Roof A	rea (Residen	tial Units)										551.06 m	2								
Total Skyligh	nt Area											0 m²									
Heat Conduction	Roof											3.86 W/m	12								
	Skylight									1		0 W/m²									
Skylight	Glass Ty	ре	□ Re	flective		Area	1 =		m²	SC=				VLT=			% E	R=		%	

SC=

SC=

□Yes

□Yes

☑No

☑No

0 W/m²

3.71 W/m²

m²

m²

VLT=

VLT=

% ER=

% ER=

%

%



Skylight

Glass Type

Double Glazing

Solar Radiation through Glazing

Average Absorptivity (roof)

Overall RTTV_{Roof}

External Shading

☐ Reflective

 $\ \square$ Tinted

☐ Clear

Area=

Area=

Area=

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.

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Appendix A

Address: Pro	oposed Com	prehensive	Develop	ment at \	Wetland Pa	rk TSWTL n	ıo. 34 (Tov	wer 2)							BD Re	f. No.		
Building Type	e: F	Residential																
RTTV calcula	ete dile.	☑ 1. Regi	istered Pr	ofession	al Enginee	rs												
		☐ 2. Arch																
	-	☐ 3. Othe		e specify	r·													
No. of Storey (Residential	ys	10 (G																
Table 1																		
							Deeme	d to Sati	isfy RTT	V _{Wal}								
Facade Orie	ntation Facir	ng			T		T		T	VVal								
Average Abs	sorptivity																	
Average Win		Ratio																
Shading Coe																		
Average Sha			ade															
Visible Light			\dashv		%	%	<u> </u>	%	,		%		%	9	, 0	%		%
External Ref					%	%		%	_		%		%	9		%		%
Table 2					,,,		1		1		7.5				-	- ,-		
Table 2								RTTV	M/- II									
Facade Orien	ntation		N	orth		T	E	ast	waii			So	outh			W	/est	
Wall Orientat	tion Factor		0	.79			1.	072				0.	975			1.	131	
Total Externa	al Wall Area	11	16.33 m²	Windo Ratio	w to Wall		686.28 m²	Window	w to Wall		1:	240.46 m²	Windo	w to Wall		928.73 m²	Window	w to Wall
Total Windov			351.81 m ²	= 0.32			109.52 m²	= 0.16				489.36 m²	= 0.39			163.70 m ²	= 0.18	
Heat Conduction	Opaque Wall				5.54 W/m	2			9.19 W	/m²				5.74 W/m²				9.53 W/m²
	Window				0.26 W/m	2			0.18 W	/m²				0.40 W/m²				0.21 W/m²
Window	Glass Type		Area=	SC=		% 🗖	Area=	SC=	VLT=	%		Area=	SC=	VLT= %		Area=	SC=	VLT= %
	.,,,,,	Reflective	m²			% Reflective			ER=	%	☐ Reflective				☐ Reflective			ER= %
			Area=	SC=	VLT= 50	_	Area=	SC=	VLT= 5		Ø	Area=	SC=	VLT= 50 %	Ø	Area=	SC=	VLT= 50 %
		∠ Tinted	351.81m	0.32		% Tinted	109.52m ²	0.32	ER= 7		_	489.36m²	0.32	ER= 7 %	<u> </u>	163.70m ²	0.32	ER= 7 %
		П	Area=	SC=	ļ	% 🗖	Area=	SC=	VLT=	%		Area=	SC=	VLT= %		Area=	SC=	VLT= %
		Clear	m²		ER=	% Clear	m²		ER=	%	Clear	m²		ER= %	Clear	m²		ER= %
	Double Glazing		☑ Yes		lo		✓ Yes	□N	О			✓ Yes	□N	lo		✓ Yes	□N	.0
	External	Overhang	<u> </u>	✓Yes	s □N	o Overhan	a	✓ Yes		No	Overhang	<u> </u>	✓Yes	. □No	Overhan	a	✓Yes	. □No
	Shading	Sidefin		□Yes		o Sidefin	<u> </u>	□Yes			Sidefin		□Yes		Sidefin	<u> </u>	□Yes	
Solar Radiati	ion through				3.29 W/m	2			2.07 W	/m²				4.58 W/m²				2.40 W/m²
Average Abs	sorptivity				0.8				0.8					0.8				0.8
RTTV _{Wall} at 6	each facade				9.10 W/m	2			11.44 W	/m²				10.72 W/m²				12.14 W/m²
Overall RTT\	V _{Wall}					•					10.72 W/m	1 2			•			
Table 3																		
								RTTV	Roof									
Roof Orienta	ation Factor										2.16							
Total Roof Ar	rea (Residen	itial Units)									551.06 m²	2						
Total Skyligh	nt Area										0 m²							
Heat	Roof										3.86 W/m	l ²						
Conduction	Skylight										0 W/m²							

m² SC=

m² SC=

m² SC=

□Yes

□Yes

☑No

☑No

0 W/m²

3.71 W/m²

VLT=

VLT=

VLT=

% ER=

% ER=

% ER=

%

%

%



External Shading

Solar Radiation through Glazing

Average Absorptivity (roof) Overall RTTV_{Roof}

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.

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Appendix A

Address: Pro	pposea Com	orehensive	Developr	nent at v	Vetland I	Park	ISWILn	0. 34 (10)	wer 3)							BD F	lef. No.			
Building Type	e: F	Residential																		1
RTTV calcula	ated by	✓ 1. Regis	stered Pro	ofession	al Engine	eers										1330.16 m² Ratio = 0.38 510.14 m² Ratio = 0.38 6.89				
		2. Archi													West					1
		☐ 3. Othe		snecify																1
No. of Storey	/S	10 (G/																		1
(Residential	Units)	•																		J
Table 1								Doomo	d to Sati	sfy RTTV _\										
Facade Orie	ntation Facin	ng.	<u> </u>					Deeme	u to Sati	SIY KIIV _\	Nall					Т				-
Average Abs		19																		1
Average Win		Ratio																-		┨
Shading Coe															West					1
Average Sha			ade																┨	
Visible Light			100		%		%		%			%		%	0,	4	0/_	 	%	-
External Refl					%		//	+		+		%		%					%	_
Table 2					70		70		70			70		70		<u> </u>	70			
Table 2									RTTV	A/- II										
Facade Orie	ntation		No	orth				E	ast	waii	Т		Sc	outh			W	'est		
Facing																				
Wall Orientat	tion Factor		0	.79				1.	072				0.	975			1.	131		
Total Externa		71	15.18 m²		w to Wall		1:	231.93 m²		v to Wall			717.83 m²		w to Wall		1330.16 m²		w to Wall	
(Residential	-		82.74 m²	Ratio = 0.12				449.76 m²	Ratio = 0.37		-		136.01 m²	Ratio = 0.19				Ratio		
Heat	Opaque				7.16 W	/m²				6.80 W/m	12				7.88 W/m²			<u> </u>	6.89 W	/m²
Conduction	Wall				0.10 W					0.41 W/m	4									
Window	Glass Type		Area=	SC=	VLT=	%		Area=	SC=		% _		Area=	SC=			Area-	SC-		9
Williaow	Оваза Турс	☐ Reflective	m²	00=	ER=	%	☐ Reflective		00=	ER=	L	 Reflective		00=		Reflectiv		00=		9
			Area=	SC=	VLT= 5	0 %	Ø	Area=	SC=	VLT= 50		Z	Area=	SC=	VLT= 50 %			SC=	VLT= 5	0 %
			82.74m²	0.32	ER= 7		⊻ ⊥ Tinted	449.76m²	0.32	ER= 7		∠ ⊥ Tinted	136.01m²	0.32	ER= 7 %	I—	510.14m²	0.32	ER= 7	9
			Area=	SC=	VLT=	%	П	Area=	SC=	VLT=	% _	7	Area=	SC=	VLT= %		Area=	SC=	VLT=	9
		Clear	m²		ER=	%	Clear	m²		ER=	% (Clear	m²		ER= %	Clear	m²		ER=	9
	Double Glazing		☑ Yes	N	0			☑ Yes	N	0			☑ Yes		0		✓ Yes		0	
	External	Overhang		✓Yes]No	Overhand		✓ Yes		lo (Overhang		✓Yes		Overha				No
	Shading	Sidefin		□Yes			Sidefin	3	□Yes			Sidefin	1	□Yes			9			No
Solar Radiati	ion through	Cidoiiii			0.32 W		Cidollii			4.75 W/m²		Oldollii				Cidoliii			5.30 W	
Glazing Average Abs	orptivity				0.8					0.8	\dashv									
RTTV _{Wall} at 6					7.58 W	/m²				11.96 W/m	n2									/m²
Overall RTT\					7.50 11	,,,,,				11.50 11/11		1.12 W/m) ²		10.50 **/111				12.04 11	
Table 3	vvaii																			_
Tubio 0									RTTV	Poof										
Roof Orienta	tion Factor									(001		2.16								1
Total Roof Ar	rea (Residen	tial Units)									5	551.06 m ²	!							1
Total Skyligh	•											0 m²								1
Heat	Roof											3.86 W/m	2							1
Conduction	Skylight		+									0 W/m²								\forall
Skylight	Glass Ty	pe	□ Re	eflective		Area	3=		m²	SC=				VLT=		%	ER=		%	\dashv
		•	□ Tir			Area			m²	SC=				VLT=		%	ER=		%	-
			□ CI		-	Area			m²	SC=				VLT=		%	ER=		%	-
	Double C	Blazing	+ -							□Yes		⊿ No								1

 $\square {\rm Yes}$

□Yes

☑No

☑No

0 W/m² 0.9

3.71 W/m²



External Shading

Solar Radiation through Glazing

Average Absorptivity (roof)

Overall RTTV_{Roof}

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.

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Appendix A								

Variable	Address: Pro	oposed Com	orehensive	Developn	nent at V	Vetland I	Park	TSWTL n	o. 34 (Tov	ver 5)						BD F	Ref. No.		
A colorated by 2 1.0 colorated 2 2. Architects 3 3. Ohmers please specify; 10 (G/F to 10/F)	Building Type	e: F	Residential																
Description				stered Pro	ofession	al Engine	eers												
No of Servings No o		Г			0.000.01.	ug	30.0											-	
No. of Storeys Residential Uniform Face Fac		-			s specify														
Second Controlation Facing		ys																	
Second Controlation Facing		,																	
Facility of internation fracting Average Absorptivity									Deemed	d to Sati	sfy RTTV _w	all							
Average Absorptivity	Facade Orie	ntation Facir	ng						I		, , , , , , , , , , , , , , , , , , ,	all				I			
Average Window to Well Ratio																			
Seading Certificate of Glassing			Ratio																
Average Shading Coefficient of Fiscate																			
Visible Light Transmittance % % % % % % % % %				ade															
Table 2 Table 2 Table 2 Table 2 Table 2 Table 2 Table 3 Table 3 Table 3 Table 3 Table 3 Table 3 Table 4 Table 5 Table 4 Table 5 Tab						0/2		%		0/2		%		0/2	0,	<u>′</u>	0/2		%
Table 2 Facing Orientation Factor North East South West South S									+		1			-		_			
Second										70									
Flancing	Table 2									DTTV									
Figure F	Free de Orio			N/	orth				E		Wall	T	9	outh		l e	١٨/	oct	
Tring Trin		ntation		INC	Jilli					ası			3	Julii			vv	531	
Residential Units 149U-15 m Ratio 103.75 m	Wall Orientat	tion Factor		0.	.79				1.0	072			0.	975			1.	131	
Residential Units Second Factor	Total Externa	al Wall Area			Windov	w to Wall				Windov	v to Wall			Windo	w to Wall			Windo	w to Wall
Total Window Factor Fact	(Residential	Units)	146	50.45 m²				•	486.63 m²				1463.57 m				575.08 m²		
Validow Vali	Total Windov	w Factor	ε	312.27 m²	= 0.42				43.21 m²	= 0.09			643.50 m	= 0.44			109.76 m²	= 0.19	
Window Glass Type					ı	4.51 W	/m²				10.18 W/m²				4.92 W/m²				8.89 W/m²
Reflective m² Reflective m² Reflective R		Window				0.35 W	/m²				0.10 W/m²				0.45 W/m²				0.23 W/m²
Reflective m²	Window	Glass Type	П	Area=	SC=	VLT=	%		Area=	SC=	VLT= 9	П	Area=	SC=	VLT= %	П	Area=	SC=	VLT= %
Tinted 612.27m 0.32 ER = 7 % Tinted 43.21m 0.32 ER = 7 % Tinted 43.21m 0.32 ER = 7 % Tinted 643.50m 0.32 ER = 7 % Tinted 109.76m 0.32 ER = 7 % Tinted 109.76m 0.32 ER = 7 % Tinted 643.50m 0.32 ER = 7 % Tinted 109.76m 0.32 Tinted 109.76m 0.32 Tinted 109.76m 0.32 Tinted 109.76m 0.32 Tinted 109.76m				m²		ER=	%	Reflective	m²		ER= %	Reflectiv	re m²		ER= %	Reflecti	ve m²	ł	ER= %
Tinted 612.27ms 0.32 ER = 7			Ø	Area=		VLT= 5	0 %		Area=		VLT= 50 %	· 🗷	Area=		VLT= 50 %		Area=		VLT= 50 %
Clear m² ER= % Clear m²				612.27m²	0.32	ER= 7			43.21m²	0.32	ER= 7 %		643.50m	0.32	ER= 7 %	1	109.76m²	0.32	ER= 7 %
Clear m³ ER= " Clear m²			П	Area=	SC=	VLT=	%	П	Area=	SC=	VLT= 9	· П	Area=	SC=	VLT= %	П	Area=	SC=	VLT= %
Glazing				m²		ER=	%	Clear	m²		ER= %	Clear	m²		ER= %	Clear	m²		ER= %
External Shading				✓ Voc		·			√ Vos	Пи	0		✓ Vas		0		✓ Vas		lo.
Shading Shading Shading Sidefin Yes Invo Overlang Shading Sidefin Yes No Sidefin Yes						_	,												
Solar Radiation through Glazing 4.35 W/m² 1.27 W/m² 5.25 W/m² 2.86 W/m²				ı					9			1	ng			1	ing		
Aue and Aue	Solar Padiati	ion through	Sidefin		∐Yes			Sidefin		∐ Yes				∐Yes	□No	Sidefin		_ ∐Yes	; □No
RTTV_Wall at each facade 9.21 W/m² 11.55 W/m² 10.61 W/m² 11.97 W/m²		ion unougn				4.35 W	/m²				1.27 W/m²				5.25 W/m ²				2.86 W/m²
Table 3 Table 3 Table 3 Table 4 Table 4 Table 5 Total Roof Orientation Factor Total Roof Area (Residential Units) S28.68 m² Total Skylight Area Roof	Average Abs	sorptivity				0.8					0.8				0.8				0.8
Roof Orientation Factor	RTTV _{Wall} at 6	each facade				9.21 W	/m²				11.55 W/m²				10.61 W/m²				11.97 W/m²
Roof Orientation Factor	Overall RTT\	V _{Wall}										10.41 W/	m²			•			
RTTV Roof Orientation Factor	<u>l</u>																	-	
Roof Orientation Factor 2.16	Table 3									DTTV									
Total Roof Area Residential Units	Roof Oriento	tion Footor								KIIV	Roof	2.16							
Total Skylight Area			tial Unital										-2						
Roof Skylight Sk			tiai Units)	+									n²						
Conduction Skylight 0 W/m² Skylight Glass Type Reflective Area= m² SC= VLT= % ER= % — Tinted Area= m² SC= VLT= % ER= % — Clear Area= m² SC= VLT= % ER= %																			
Skylight 0 W/m² Skylight Glass Type Reflective Area= m² SC= VLT= % ER= % Image: Including the color of th		Roof										3.86 W/	m²						
☐ Tinted Area= m² SC= VLT= % ER= % ☐ Clear Area= m² SC= VLT= % ER= %	32230011	Skylight										0 W/m	2						
☐ Clear Area= m² SC= VLT= % ER= %	Skylight	Glass Ty	pe	□ Re	eflective		Area	=		m²	SC=			VLT=		%	ER=		%
				□ Tin	nted		Area	=		m²	SC=			VLT=		%	ER=		%
				□ Cle	ear		Area	=		m²	SC=			VLT=		%	ER=		%
		Double 0	Blazing			L					□Yes		I						

□Yes

☑No

0 W/m²

3.71 W/m²



Skylight

Solar Radiation through Glazing

Average Absorptivity (roof)

Overall RTTV_{Roof}

Glass Type

Double Glazing

External Shading

☐ Reflective

 $\ \square$ Tinted

☐ Clear

Area=

Area=

Area=

Skylight

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.

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Appendix A

Address: Pro	oposed Com	orehensive	Developr	nent at v	/Vetland I	ark	ISWILn	0. 34 (10)	wer 6)							BD Re	f. No.		
Building Typ	e: F	Residential																	
RTTV calcul	ated by	☑ 1. Regi	stered Pro	ofession	al Engine	ers													
		2. Arch	itect																
		☐ 3. Othe	ers, please	e specify	r:														
No. of Store (Residential	ys Units)	10 (G	F to	10/F)														
Table 1																			
								Deeme	d to Sati	sfy RTTV _W	all								
Facade Orie	ntation Facir	ıg																	
Average Abs	sorptivity																		
Average Wir	ndow to Wall	Ratio																	
Shading Coe	efficient of GI	azing																	
Average Sha	ading Coeffic	ient of Fac	ade																
Visible Light	Transmittan	ce			%		%		%		%		%		%	6	%		%
External Ref	lectance				%		%		%		%		%		%	ó	%		%
Table 2																			
									RTTV	Wall									
Facade Orie Facing	ntation		No	orth				E	ast			S	outh				W	/est	
Wall Orienta	tion Factor		0	.79				1.	072			0	.975				1.	131	
Total Externa (Residential		140	63.36 m²	Ratio	w to Wall			486.63 m²	Ratio	v to Wall		1463.57 m	Ratio	w to Wa	all		575.08 m²	Ratio	w to Wall
Total Window	w Factor	(612.27 m²	= 0.42		İ		43.21 m²	= 0.09			643.50 m	= 0.44				108.76 m²	= 0.19	
Heat Conduction	Opaque Wall				4.52 W	/m²				10.18 W/m²	!		1	5.51	W/m²				8.89 W/m
	Window				0.35 W	/m²				0.10 W/m²	!			0.51	W/m²				0.23 W/m
Window	Glass Type		Area=	SC=	VLT=	%		Area=	SC=	VLT= %	6 🗆	Area=	SC=	VLT=	%		Area=	SC=	VLT=
		Reflective	m²		ER=	%	Reflective				6 Reflect	_		ER=	%		1		ER=
		\square	Area=	SC= 0.32	VLT= 5			Area=	SC= 0.32	VLT= 50 %	~	Area=	SC= 0.32		50 %	⊻ ⊔	Area=	SC= 0.32	VLT= 50
		Tinted	612.27m²		ER= 7	_	Tinted	43.21m²		ER= 7 %		643.50m	1	_	7 %		108.76m²	2	ER= 7
		Clear	Area=	SC=	VLT= ER=	%	☐ Clear	Area=	SC=	VLT= %	° □ 6 Clear	Area=	SC=	VLT= ER=	%	Ш	Area=	SC=	VLT=
	Double Glazing		☑ Yes	□N	lo			☑ Yes	□N	0		☑ Yes		No			☑ Yes		10
	External	Overhang]	✓Yes	s [No	Overhang		✓ Yes		Overh		✓ Ye:	s	□No	Overhan		✓ Ye:	s \square N
	Shading	Sidefin		□Yes	; <u> </u>	No	Sidefin		□Yes	. □No	Sidefir	1	□Ye	s	□No	Sidefin	-	□Ye	s 🗆 N
Solar Radiat Glazing	ion through				4.34 W	/m²				1.27 W/m²	1			5.88	W/m²				2.86 W/m
Average Abs	sorptivity				8.0					0.8				0.8					0.8
RTTV _{Wall} at	each facade				9.21 W	/m²				11.55 W/m²	:			11.89	W/m²				11.97 W/m
Overall RTT											10.87 V	//m²							
Table 3																			
									RTTV	Roof									
Roof Orienta	ation Factor										2.16								
Total Roof A	rea (Residen	tial Units)									528.68	m²							
Total Skyligh	nt Area	· · · · · ·									0 m²	:							
Heat	Roof										3.86 W								
Conduction			1																

0 W/m²

☑No

☑No

0 W/m²

3.71 W/m²

VLT=

VLT=

VLT=

m² SC=

m² SC=

m² SC=

□Yes

□Yes

% ER=

% ER=

% ER=

%

%

%



☐ Clear

Double Glazing

Solar Radiation through Glazing

Average Absorptivity (roof)

Overall RTTV_{Roof}

External Shading

Area=

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.

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Appendix A

Address: Pro	posed Comp	orehensive D	evelopn	nent at V	Vetland	Park	t TSWTL r	no. 34 (Tov	wer 7)						BD F	Ref. No.		
Building Type	e: F	tesidential																
RTTV calcula	ated by	✓ 1. Regist	tered Pro	ofessiona	al Engin	eers												
		2. Archite	ect															
		3. Others	s, please	specify	:													
No. of Storey (Residential I	rs Units)	10 (G/I	= to	10/F))													
Γable 1	•																	
								Deeme	d to Satis	sfy RTTV _{Wa}	all							
Facade Orier	ntation Facin	g						T										
Average Abs	orptivity																	
Average Win	dow to Wall	Ratio																
Shading Coe	fficient of Gla	azing																
Average Sha	ding Coeffici	ent of Facad	de															
Visible Light	Transmittand	е			%		%	,	%		%		%		%	%		%
External Refl	ectance				%		%	,	%		%		%		%	%		%
Гable 2																		
									RTTV	Vall								
Facade Orier Facing	ntation		North	h-East				Sout	h-East			Sout	h-West			North	n-West	
Wall Orientat	ion Factor		0.9	924				1.	051			1	.092			0.	965	
Total Externa (Residential I		655	5.17 m²	Ratio	w to Wal	II		925.37 m²	Ratio	v to Wall		581.46 m	Ratio	w to Wall		915.24 m²	Ratio	w to Wall
Total Window	/ Factor	21	0.21 m²	= 0.32				250.28 m²	= 0.27			181.37 m	= 0.31			292.60 m²	= 0.32	
Heat Conduction	Opaque Wall				6.17 W	//m²			ı	7.57 W/m²			ı	7.14 W/m	2			6.63 W/m²
	Window				0.31 W	//m²				0.30 W/m²				0.36 W/m	2			0.32 W/m²
Window	Glass Type	Reflective	Area=	SC=	VLT= ER=	%	\square	Area=	SC=	VLT= %	\square	Area=	SC=		% □ Reflecti	Area=	SC=	VLT=
			Area=	SC=	VLT= 5		11011001110	Area=	SC=	VLT= 50 %		Area=	SC=	VLT= 50 °	0/	Area=	SC=	VLT= 50 9
		⊻	01.21m²	0.32	ER= 7		Y	250.28m²	0.32	ER= 7 %	Tinted	181.37m	0.32	ER= 7	¥	292.60m²	0.32	ER= 7 %
			Area=	SC=	VLT=	%		Area=	SC=	VLT= %		Area=	SC=		% 🗖	Area=	SC=	VLT= 9
		Clear	m²		ER=	%	Clear	m²		ER= %	Clear	m²		ER=	% Clear	m²		ER= %
	Double Glazing	'	☑ Yes	□N	0			☑ Yes	□ No	0		✓ Yes	_ N	lo		☑ Yes		٧o
	External	Overhang		✓Yes		□No	Overhan	g	✓Yes	□No	Overhan	ng	✓Yes	s 🗆 N	o Overha	ang	✓Yes	s 🗆 No
	Shading	Sidefin		□Yes		□No	Sidefin		□Yes	□No	Sidefin		□Yes				□Yes	
Solar Radiati Glazing	on through				3.61 W					3.39 W/m²				4.18 W/m				3.74 W/m²
Average Abs	orptivity				0.8					8.0				0.8				0.8
RTTV _{Wall} at e	each facade				10.09 W	//m²				11.26 W/m²				11.68 W/m	2			10.70 W/m²
Overall RTT\	/ _{Wall}										10.92 W/r	m²						
Table 3																		
									RTTV _R	loof								
Roof Oriental	tion Factor										2.16							
Total Roof Ar	ea (Residen	tial Units)									394.87 m	12						
Total Skylight	t Area										0 m²							
Heat Conduction	Roof										3.86 W/n							
Olaski	Skylight		 		1	^	_			100	0 W/m²	· 	\			l e n		
Skylight	Glass Ty	be		eflective		Area			m²	SC=			VLT=		%	ER=		%
	1		I □ Tin	ntad	ı	Δro	2-		m²	SC-		l l	\/I T-		0/2	FR-		0/2

m² SC=

 $\square {\rm Yes}$

□Yes

☑No

☑No

0 W/m²

3.71 W/m²

ER=

%

%

VLT=



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.

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Appendix A

Address: Proposed Cor	mprehensive Development at Wetland Park TSWTL no. 34 (Tower 8)	BD Ref. No.
Building Type:	Residential	
RTTV calculated by	✓ 1. Registered Professional Engineers	
	☐ 2. Architect	
	☐ 3. Others, please specify:	
No. of Storeys (Residential Units)	10 (G/F to 10/F)	
Table 1		

Table I								
			Deemed to Satis	sfy 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

Table 2																		
								$RTTV_V$	Vall									
Facade Oriei Facing	ntation		North	n-East			Sout	n-East			South	n-West				North	n-West	
Wall Orientat	tion Factor		0.0	924			1.0	051			1.0	092				0.	965	
Total Externa (Residential		65	51.06 m²	Ratio			790.27 m²	Ratio	v to Wall		466.58 m ² Ratio				7	75.94 m²	Ratio	v to Wall
Total Windov	v Factor	2	201.32 m²	= 0.31	= 0.31		224.39 m²	= 0.28			116.27 m²	= 0.25			3	301.23 m²	= 0.39	
Heat Opaque Wall Window					6.22 W/m²				7.61 W/m²				8.15 W/	m²				5.93 W/m²
		0.30 W/m²			0.31 W/m²			0.29 W/m²				m²				0.39 W/m ²		
Window	Glass Type	Reflective	Area=	SC=	VLT= % ER= %	☐ Reflective	Area=	SC=	VLT= % ER= %	Reflective	Area=	SC=	VLT= ER=		Reflective	Area= m²	SC=	VLT= %
		☑ Tinted	Area= 201.32m²		VLT= 50 % ER= 7 %		Area= 224.39m²	1032	VLT= 50 % ER= 7 %		Area= 116.27m ²	SC= 0.32	VLT= 50 ER= 7			Area= 301.23m²	SC= 0.32	VLT= 50 % ER= 7 %
		□ Clear	Area=	SC=	VLT= % ER= %		Area=	SC=	VLT= % ER= %	☐ Clear	Area=	SC=	VLT= ER=	% C	Clear	Area=	SC=	VLT= %
	Double Glazing		☑ Yes	□N	0		☑ Yes		0		☑ Yes	□N	0			☑ Yes	□N	0
	External Shading	Overhang)	✓Yes	□No	Overhanç	9	✓Yes	□No	Overhan	g	✓Yes		No C	Overhang		✓Yes	□No
		Sidefin		□Yes	□No	Sidefin		□Yes	□No	Sidefin		□Yes		No S	Sidefin		□Yes	□No
Solar Radiati Glazing	ion through				3.55 W/m²				3.46 W/m²				3.17 W/	m²				4.56 W/m²
Average Abs	orptivity				0.8				0.8				0.8					0.8
RTTV _{Wall} at 6	each facade				10.07 W/m²				11.38 W/m²	11.61 W/m²				m²	10.88 W/m²			
Overall RTT\	V _{Wall}									10.96 W/m	η ²				_			

				RTTV _R	oof									
Roof Orientat	ion Factor					2.16								
Total Roof Are	ea (Residential Units)	167.18 m²												
Total Skylight	Area	0 m²												
Heat Roof			3.86 W/m²											
Conduction	Skylight		0 W/m²											
Skylight	Glass Type	□ Reflective	Area=	m²	SC=		VLT=	%	ER=	%				
		☐ Tinted	Area=	m²	SC=		VLT=	%	ER=	%				
		□ Clear	Area=	m²	SC=		VLT=	%	ER=	%				
	Double Glazing				□Yes	✓No								
	External Shading		□Yes ☑No											
Solar Radiation through Glazing			0 W/m²											
Average Absorptivity (roof)			0.9											
Overall RTTV _{Roof}						3.71 W/m²								



☐ Clear

Double Glazing

Solar Radiation through Glazing

Average Absorptivity (roof)

Overall RTTV_{Roof}

External Shading

Area=

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.

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Appendix A

Address: Pro	posed Comp	rehensive [Developn	nent at V	Vetland	Park	TSWTL n	ıo. 34 (Tov	ver 9)						BD F	Ref. No.		
Building Type	e: F	tesidential																$\overline{}$
RTTV calcula	ated by	✓ 1. Regis	tered Pro	ofession	al Engin	eers												
	Г	2. Archit																-
	F	3. Other		s enecify														
No. of Storey (Residential	/S	10 (G/																
Table 1	•																	
								Deeme	d to Satis	sfy RTTV _W	all							
Facade Orie	ntation Facin	g	Т		Т								Т		Т		Т	
Average Abs	orptivity																†	
Average Win	dow to Wall	Ratio															†	
Shading Coe																		
Average Sha			de														+	
Visible Light					%		%		%		%		%	c	%	%	<u> </u>	%
External Refl					%		%	+	%		%		%		%	%	+	%
	- Cottai 100				70		70		70		70		70		70	70		70
Table 2									D==1/									
	:	I	North	n-East		-		Sout	RTTV _V	Vall	T	Sout	h-West		T	Nort	h-West	
Facade Orien Facing	ntation		NOIT	ı-⊑ası				Sout	n-⊑ası			30ui	n-west			NOIL	i-west	
Wall Orientat	tion Factor		0.9	924				1.	051			1	.092			0	.965	
Total Externa	al Wall Area	64:	2.87 m²	Window	w to Wal	I		921.21 m²	Window	v to Wall		670.93 m	Windo Ratio	w to Wall		700.05 m	Windo Ratio	w to Wall
`		2,	23.70 m²	= 0.35				203.08 m²	= 0.22			160.51 m	= 0.24			177.60 m	= 0.25	
Total Window		24	23.70 111-					203.06 111-				100.51 111				177.00 111	<u></u>	
Heat Conduction	Opaque Wall				5.91 W					8.35 W/m²				8.43 W/m²	-			7.35 W/m
	Window				0.34 W					0.24 W/m ²		-		0.27 W/m²				0.26 W/m
Window	Glass Type	Reflective	Area= m²	SC=	VLT= ER=	%	Reflective	Area=	SC=	VLT= %		Area=	SC=	VLT= %		Area=	SC=	VLT=
l		∠	Area= 223.70m²	SC= 0.32	VLT= 5 ER= 7	ľ	☑ Tinted	Area= 203.08m ²	SC= 0.32	VLT= 50 % ER= 7 %	₩	Area= 160.51m	SC= 0.32	VLT= 50 % ER= 7 %	∠	Area= 177.60m	SC= 0.32	VLT= 50 °
			Area=	SC=	VLT=	%	Tilled	Area=	SC=	VLT= 9	-	Area=	SC=	VLT= %	-	Area=	SC=	VLT=
ı		∟ Clear	m²	00-	ER=		∐ Clear	m²	00=	ER= 9	Ш	m²	00-	ER= %	Ш	m²		ER=
	Double Glazing		✓ Yes	□N	0			☑ Yes		0		☑ Yes		lo		✓ Yes		10
	External	Overhang		✓Yes		□No	Overhang	g	✓Yes	□No	Overha	ng	☑ Yes	s 🗆 No	Overha	ang	✓ Yes	s 🗆 N
	Shading	Sidefin		□Yes		□No	Sidefin		□Yes	□No	Sidefin		□Yes	. □No	Sidefin	1	□Yes	
Solar Radiati Glazing	ion through				4.08 W					2.69 W/m²				2.95 W/m²				3.03 W/m
Average Abs	orptivity				0.8					0.8				0.8				0.8
RTTV _{Wall} at e	each facade				10.33 W	//m²				11.28 W/m²				11.61 W/m²				10.63 W/m
Overall RTT\	/ _{Wall}										11.00 W	/m²						
Table 3																		
									RTTV _R	Roof								
Roof Orienta	tion Factor										2.16							
Total Roof Ar	ea (Residen	tial Units)									338.39 r	n²						
Total Skyligh	•	,	+								0 m²							
Heat	Roof		+								3.86 W/	m²						
Conduction	Skylight										0 W/m							
Skylight	Glass Ty	oe	□ Re	eflective		Area	1=		m²	SC=			VLT=		%	ER=		%
			□ Tir			Δτρο			m²	SC-			\/I.T-		%			0/2

SC=

 $\square {\rm Yes}$

□Yes

☑No

☑No

0 W/m²

3.71 W/m²

m²

ER=

%

%

VLT=



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.

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Appendix A

		ı
Address: Proposed Co	mprehensive Development at Wetland Park TSWTL no. 34 (Tower 10)	BD Ref. No.
Building Type:	Residential	
RTTV calculated by	☑ 1. Registered Professional Engineers	
	2. Architect	
	☐ 3. Others, please specify:	
No. of Storeys (Residential Units)	10 (G/F to 10/F)	
Table 1		

Table I												
	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 Orie Facing	ntation		North	n-East			Sout	h-East			South	n-West				North	n-West	
Wall Orienta	tion Factor		0.0	924			1.	051			1.	092				0.	965	
Total Externa (Residential		10:	31.47 m²	Window to Wall Ratio			794.79 m²	Ratio			902.33 m² Window to Wall Ratio		812.79 m² Ratio		Ratio	v to Wall		
Total Windov	v Factor	;	319.64 m²	= 0.31	= 0.31		196.89 m²	= 0.25	= 0.25		251.98 m²	= 0.28			208.45 m²		= 0.26	
Heat Conduction	Opaque Wall 7.57 W/m² 7.57 W/m²				•	7.20 W/m²												
	Window		0.30 W/m²			0.27 W/m²			2	0.32 W/m²				0.26			0.26 W/m²	
Window	Glass Type	Reflective	Area=	SC=	VLT= %	Ш	Area=	SC=		% □ Reflective	Area=	SC=	VLT= ER=	% %	Reflective	Area=	SC=	VLT= % ER= %
		☑ Tinted	Area= 319.64m²	SC= 0.32	VLT= 50 % ER= 7 %		Area= 196.89m²	SC= 0.32	VLT= 50 °	∞ ∠	Area= 251.98m ²	SC= 0.32	VLT= 5 ER= 7			Area= 208.45m²	SC= 0.32	VLT= 50 % ER= 7 %
		Clear	Area=	SC=	VLT= %	Ш	Area= m²	SC=		⁶ □ 6 Clear	Area=	SC=	VLT= ER=	%	☐ Clear	Area=	SC=	VLT= % ER= %
	Double Glazing		☑ Yes				✓ Yes		□ No		✓ Yes		□ No		✓ Yes		s □ No	
	External Shading	Overhang	9	✓Yes		Overhan	9	✓Yes		Overhan	g	✓Yes			Overhang	l	✓Yes	
Solar Radiat Glazing	ion through	Sidefin		□Yes	□ No 3.53 W/m²	Sidefin		□Yes	3.21 W/m	Sidefin		□Yes	3.70 W		Sidefin		□Yes	□ No 3.05 W/m²
Average Abs	orptivity				0.8				0.8				0.8					0.8
RTTV _{Wall} at 6	each facade				10.17 W/m²				11.17 W/m	2			11.59 W	/m²				10.50 W/m²
Overall RTT	V _{Wall}									10.83 W/r	n²							

				RTTV _R	oof								
Roof Orientat	ion Factor					2.16							
Total Roof Are	ea (Residential Units)	426.95 m²											
Total Skylight	Area	0 m²											
Heat Roof			3.86 W/m²										
Conduction	Skylight		0 W/m²										
Skylight	Glass Type	□ Reflective	Area=	m²	SC=		VLT=	%	ER=	%			
		☐ Tinted	Area=	m²	SC=		VLT=	%	ER=	%			
		□ Clear	Area=	m²	SC=		VLT=	%	ER=	%			
	Double Glazing												
	External Shading		□Yes ☑No										
Solar Radiation through Glazing			0 W/m²										
Average Absorptivity (roof)			0.9										
Overall RTTV _{Roof}						3.71 W/m²							



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.

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Appendix A

Address: Proposed Cor	prehensive Development at Wetland Park TSWTL no. 34 (Tower 11)	BD Ref. No.
Building Type:	Residential	
RTTV calculated by	☑ 1. Registered Professional Engineers	
	☐ 2. Architect	
	☐ 3. Others, please specify:	
No. of Storeys (Residential Units)	10 (G/F to 10/F)	
Table 1		

Table I												
	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 Oriel Facing	ntation		North	n-East			Sout	h-East			South	n-West				North	n-West	
Wall Orientat	tion Factor		0.9	924			1.	051			1.	092				0.	965	
Total Externa (Residential		84	45.33 m²	Ratio	w to Wall		608.82 m²	Ratio	v to Wall		867.84 m²	Ratio	w to Wall		(644.74 m²	Ratio	v to Wall
Total Windov	v Factor	;	334.93 m²	= 0.40			169.55 m²	= 0.28			251.98 m²	= 0.32			,	193.83 m²	= 0.30	
Heat Conduction	Opaque Wall				5.62 W/m²			•	7.26 W/m	2		•	7.23 W	/m²			•	6.70 W/m²
	Window				0.38 W/m²				0.31 W/m	2			0.37 W	/m²				0.30 W/m²
Window	Glass Type	Reflective	Area=	SC=	VLT= %	Ш	Area=	SC=		% ☐ Reflective	Area=	SC=	VLT= ER=	%	Reflective	Area=	SC=	VLT= % ER= %
		☑ Tinted	Area= 334.93m²	SC= 0.32	VLT= 50 % ER= 7 %		Area= 169.55m²	SC= 0.32	VLT= 50 ER= 7		Area= 251.98m ²	SC= 0.32	VLT= 5 ER= 7			Area= 193.83m²	SC= 0.32	VLT= 50 % ER= 7 %
		Clear	Area= m²	SC=	VLT= % ER= %	Ш	Area= m²	SC=		⁶ □ 6 Clear	Area= m²	SC=	VLT= ER=	%	□ Clear	Area= m²	SC=	VLT= % ER= %
	Double Glazing		☑ Yes	□N	0		☑ Yes	□N	0		☑ Yes	□N	0			☑ Yes	□N	0
	External Shading	Overhang	9	✓Yes		Overhan	9	✓Yes		Overhar	ng	✓Yes			Overhang)	✓Yes	
Solar Radiati Glazing	ion through	Sidefin		□Yes	□No 3.65 W/m²	Sidefin		□Yes	3.65 W/m	Sidefin		□Yes	4.21 W		Sidefin		□Yes	□ No 3.50 W/m²
Average Abs	orptivity				0.8				8.0				0.8					0.8
RTTV _{Wall} at 6	each facade				10.51 W/m²				11.21 W/m	2			11.81 W	/m²				10.51 W/m²
Overall RTT\	V _{Wall}									11.04 W/	m²							

				RTTV _R	oof								
Roof Orientat	ion Factor					2.16							
Total Roof Are	ea (Residential Units)					445.08 m²							
Total Skylight	Area					0 m²							
Heat	Roof					3.86 W/m²							
Conduction	Skylight					0 W/m²							
Skylight	Glass Type	□ Reflective	Area=	m²	SC=		VLT=	%	ER=	%			
		☐ Tinted	Area=	m²	SC=		VLT=	%	ER=	%			
		□ Clear	Area=	m²	SC=		VLT=	%	ER=	%			
	Double Glazing		□Yes ☑No										
	External Shading	□Yes ☑No											
Solar Radiation	on through Glazing	0 W/m²											
Average Abso	orptivity (roof)		0.9										
Overall RTTV	Roof					3.71 W/m²							



Double Glazing

Solar Radiation through Glazing

Average Absorptivity (roof)

Overall RTTV_{Roof}

External Shading

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.

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Appendix A

Address: Pro	posed Com	prehensive [Developr	ment at V	Vetland	Park	TSWTL n	o. 34 (Tov	wer 12)							BD R	tef. No.		
Building Type	e: F	Residential																	
RTTV calcula		✓ 1. Regis	tered Pr	rofession	al Engin	eers													
		2. Archit																	
		☐ 3. Other	s, please	e specify	:														
No. of Storey (Residential	/s Units)	10 (G/	F to	10/F)														
Table 1																			
								Deeme	d to Satis	sfy RTTV	Wall	ı							
Facade Orie	ntation Facir	ng																	
Average Abs	orptivity																		
Average Win	dow to Wall	Ratio																<u> </u>	
Shading Coe	efficient of GI	lazing																	
Average Sha			de																
Visible Light		ce			%		%		%			%		%		% %		<u> </u>	%
External Ref	lectance				%		%		%			%		%	(% %		<u> </u>	%
Table 2																			
									RTTV	Vall									
Facade Oriel Facing	ntation		Nort	th-East				Sout	h-East				Sout	h-West			Norti	h-West	
Wall Orientat	tion Factor		0.	.924				1.	051				1.	092			0.	.965	
Total Externa (Residential		797.44 m ² Window to Wall Ratio = 0.29						633.48 m²	Ratio	to Wall			743.29 m ²	Ratio	w to Wall		773.10 m ²	Ratio	w to Wall
Total Windov	v Factor	227.52 m²						154.43 m²	= 0.24				234.37m	= 0.32	1		254.52 m ²	= 0.33	
Heat Conduction	Opaque Wall				6.69 W	V/m²				7.87W/r	1²				7.47W/m²				6.13W/m
	Window				0.28 V	V/m²				0.27 W/r	ղ²				0.36W/m ²				0.33W/m
Window	Glass Type		Area=	SC=	VLT=	%		Area=	SC=	VLT=	%		Area=	SC=	VLT= %	, 🗆	Area=	SC=	VLT=
		Reflective	m²		ER=	%	Reflective	m²		ER=	%	Reflective	m²		ER= %	Reflectiv	/e m²		ER=
			Area=	SC= 0.32	VLT=		\square	Area=	SC= 0.32	VLT= 50		otan	Area=	SC= 0.32	VLT= 50 %	∠	Area=	SC= 0.32	VLT= 50
		\vdash	227.52m	12	ER= 7		Tinted	154.43m²		ER= 7	_	Tinted	234.37m		ER= 7 %	-	254.52m ²	1	ER= 7
			Area=	SC=	VLT=	%		Area=	SC=	VLT=	%		Area=	SC=	VLT= %		Area=	SC=	VLT=
	Davible	Clear	m²		ER=	%	Clear	m²		ER=	%	Clear	m²		ER= %	Clear	m²	Ь	ER=
	Double Glazing		Yes	. □ N	lo			Yes		0			Yes		No		Yes		10
	External	Overhang		✓Yes	; [□No	Overhan	g	✓Yes		VО	Overhan	g	✓Ye	s 🗆 No	Overha	ng	✓ Yes	s 🗆 N
	Shading	Sidefin		□Yes	; [□No	Sidefin	-	□Yes		VО	Sidefin	_	□Ye	s 🗆 No	Sidefin		□Yes	s 🗆
Solar Radiati	ion through				3.17 W	V/m²				3.09 W/r	ղ²				4.01W/m²				4.01 W/m
Glazing Average Abs	orptivity				0.8					0.8	\dashv				0.8				0.8
_						1/ 2					- 2								
RTTV _{Wall} at e		9 10.14 W/m²								11.23 W/r		10.89 W/n	n²		11.84 W/m²				10.47 W/m
Table 3																			
Table 3									RTTV _R	loof									
Roof Orienta	tion Factor											2.16							
Total Roof Ar	rea (Residen	ntial Units)	1								4	445.08 m²	2						
Total Skyligh	t Area											0 m²							
Heat	Roof		1									3.86 W/m	l ²						
Conduction	Skylight		+									0 W/m²							
Skylight	Glass Ty	rne.	□ P4	eflective		Area	a=		m²	SC=				VLT=		%	ER=		%
,9'''	Ciass Ty	F-2	☐ Tir			Area			m²	SC=				VLT=		% ER= %			
							u-		- 1112	00-				· · · ·		70	-11-		

Yes

□Yes

☑No

☑No

0 W/m²

3.71 W/m²



0.8

10.11 W/m²

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.

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Appendix A

Address: Pro	posed Comp	orehensive	Developn	nent at W	etland Pa	rk TSWTL n	o. 34 (To	wer 15)								BD Ref	f. No.				
Building Type	e: F	Residential																			
RTTV calcula	ated by	☑ 1. Regi	stered Pro	ofessiona	al Enginee	'S															
		2. Archi																			
	F	☐ 3. Othe		specify.																	
No. of Storey (Residential	/s	10 (G/																			
Table 1																					
							Deeme	d to Sati	sfy RTTV _\	Wall											
Facade Orie	ntation Facin	ng																			
Average Abs	orptivity																				
Average Win	ndow to Wall	Ratio																			
Shading Coe	efficient of GI	azing																			
Average Sha	ading Coeffic	ient of Face	ade																		
Visible Light	Transmittand	се			%	%	%				%		%		%	,	%		%		
External Refl	lectance				%	%		%			%		%		%)	%		%		
Table 2																					
								RTTV	Wall												
Facade Orier Facing	ntation		North	n-East			Sout	h-East				South	n-West				North	n-West			
Wall Orientat	tion Factor		0.9	924			1.	051			1.092						0.	965			
Total Externa (Residential		84	12.92 m²	Ratio	to Wall		452.83 m²	Ratio	v to Wall		7	763.47 m²	Ratio	w to Wall			552.55 m²	Ratio	w to Wall		
Total Window	v Factor	3	324.30 m²	= 0.38			129.30 m²	= 0.29			2	224.37 m²	= 0.29		Ì	2	219.55 m²	= 0.40			
Heat Conduction	Opaque Wall			5.34 W/m²				7.36W/m²						7.77W/m²					5.55 W/r		
	Window				0.37 W/m	2			0.32 W/m	1 ²				0.34W/	m²				0.40 W/r		
Window	Glass Type	Reflective	Area=	SC=		%	Area=	SC=	VLT= ER=	% % R	Reflective	Area=	SC=	VLT= ER=	%	Reflective	Area=	SC=	VLT= ER=		
			Area=	SC=	VLT= 50		Area=	SC=	VLT= 50	_		Area=	SC=	VLT= 50		<u> </u>	Area=	SC=	VLT= 50		
			324.30m²	0.32	ER= 7	% Tinted	129.30m ²	0.32	ER= 7			224.37m²	0.32	ER= 7			219.55m²	0.32	ER= 7		
			Area=	SC=	VLT=	% 🗖	Area=	SC=	VLT=	% _	7	Area=	SC=	VLT=	%		Area=	SC=	VLT=		
		Clear	m²		ER=	% Clear	m²		ER=	% C	Clear	m²		ER=	%	Clear	m²		ER=		
Double Glazing ☑ Yes ☐ No)		✓ Yes	N	0			☑ Yes	□N	0			☑ Yes	N	0		
External Overhand Ves						o Overhan	a	✓ Yes		10 C	Overhang		✓ Yes		No	Overhang	1	✓Yes			
	Shading	Sidefin	*	□Yes				□Yes			Sidefin	,	□Yes			Sidefin	,	□Yes			
Solar Radiati			4.40 W/m				3.60 W/m					3.78 W/					4.71 W/r				

Table 3

Average Absorptivity

RTTV_{Wall} at each facade

Overall RTTV_{Wall}

Table 5												
				RTTV _R	loof							
Roof Orientation	on Factor					2.16						
Total Roof Area	a (Residential Units)					156.19 m²						
Total Skylight A	Area					0 m²						
Heat	Roof					3.86 W/m²						
Conduction	Skylight					0 W/m²						
Skylight	Glass Type	☐ Reflective	Area=	m²	SC=		VLT=	%	ER=	%		
		☐ Tinted	Area=	m²	SC=		VLT=	%	ER=	%		
		□ Clear	Area=	m²	SC=		VLT=	%	ER=	%		
	Double Glazing				□Yes	✓No						
	External Shading				□Yes	✓No						
Solar Radiation	n through Glazing	0 W/m²										
Average Absor	rptivity (roof)					0.9						
Overall RTTV _R	Roof					3.71 W/m²						

0.8

11.27 W/m²

10.95 W/m²

0.8

10.65 W/m²

0.8

11.89 W/m²



Solar Radiation through Glazing

Average Absorptivity (roof) Overall RTTV_{Roof}

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.

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Appendix A

Address: Pro	oposed Com	prehensive	Developr	ment at V	Vetland F	Park	TSWTL n	o. 34 (Tov	wer 16)						BD R	tef. No.		
Building Type	e: F	Residential																
RTTV calcula	ated by	☑ 1. Regi	stered Pro	ofession	al Engine	ers												
		2. Archi																
		☐ 3. Othe	rs, please	e specify	:													
No. of Storey (Residential	ys Units)	10 (G/																
Table 1																		
								Deeme	d to Sati	sfy RTTV _{Wa}	ıll							
Facade Orie	ntation Facir	ng																
Average Abs	sorptivity																	
Average Wir	ndow to Wall	Ratio																
Shading Coe	efficient of G	azing																
Average Sha	ading Coeffic	ient of Faca	ade															
Visible Light	Transmittan	ce			%		%		%		%		%	9	6	%		%
External Ref	lectance				%		%		%		%		%	9	6	%		%
Table 2																		
									RTTV	Wall								
Facade Orie Facing	ntation		No	orth				E	ast			S	outh			W	/est	
Wall Orienta	tion Factor		0	.79				1.	072			0	.975			1.		
Total Externa (Residential		178	37.86 m²	Ratio	w to Wall			523.79m²	Windov Ratio	v to Wall		1517.54m	Ratio	w to Wall		667.12m²	Ratio	w to Wall
Total Window	w Factor		655.41m²	= 0.37				0 m²	= 0			617.88m	= 0.41			122.99m²	= 0.18	
Heat Conduction	Opaque Wall				5.04W/	/m²				11.02W/m²				5.28W/m²				8.88W/m ²
	Window				0.30W/	/m²				0 W/m²				0.42W/m²				0.22W/m
Window	Glass Type	Reflective	Area=	SC=	VLT= ER=	%	Reflective	Area=	SC=	VLT= %	Reflecti	Area=	SC=	VLT= % ER= %	Ш	Area=	SC=	VLT=
			Area=	SC=	VLT= 50		Ø	Area=	SC=	VLT= 50 %	_	Area=	SC=	VLT= 50 %	7	Area=	SC=	VLT= 50 °
			655.41m²	0.32	ER= 7	%	Tinted	0m²	0.32	ER= 7 %		617.88m	0.32	ER= 7 %	_	122.99m²	0.32	ER= 7
		П	Area=	SC=	VLT=	%	П	Area=	SC=	VLT= %	·	Area=	SC=	VLT= %	П	Area=	SC=	VLT=
	Davible	Clear	m²		ER=	%	Clear	m²		ER= %	Clear	m²		ER= %	Clear	m²		ER=
	Double Glazing		☑ Yes	□N				☑ Yes				☑ Yes				☑ Yes		
	External Shading	Overhang	1	✓Yes		No	Overhano	9	✓ Yes	□No	Overha	ang	✓ Yes	s 🗆 No	Overha	ng	✓Yes	s \square N
0-1 0 1	in a thorough	Sidefin		□Yes		No	Sidefin		□Yes	□No	Sidefin		□Yes	s 🗆 No	Sidefin		□Yes	s \square N
Solar Radiat Glazing	ion through				3.80W/	/m²				0 W/m²				4.79W/m²				2.79W/m ²
Average Abs	sorptivity				8.0					0.8				0.8				0.8
RTTV _{Wall} at	each facade				9.15 W/	/m²				11.02 W/m²				10.49 W/m²				11.89 W/m
Overall RTT	V_{Wall}						•				10.22 W	//m²						
Table 3		1																
Table 3									RTTV	Roof								
Roof Orienta	ation Factor									1001	2.16							
Total Roof A	rea (Resider	itial Units)									543.13	m²						
Total Skyligh	nt Area										0 m²							
Heat	Roof										3.86 W							
Conduction	-										0 W/r							
Claylight	Skylight			dla att		۸				80	U VV/I	1	VLT=		o, I			
Skylight	Glass Ty	pe	-	eflective		Area			m²	SC=						ER=		%
			☐ Tir			Area			m²	SC=			VLT=			ER=		%
	D	Dia-i	□ Cl	ear		Area	!=		m²	SC=			VLT=		%	ER=		%
	Double (□Yes	Ø١	lo						
1	External	Shading								□Ves		lo						

□Yes

☑No

3.71 W/m²

0 W/m² 0.9



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.

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Appendix A

Address: Proposed Comprehensive Development at Wetland Park TSWTL no. 34 (Tower 17) Building Type: Residential																				
Building Typ	e: I	Residential														1				┪
RTTV calcula	ated by	✓ 1. Regi	istered Pr	ofessiona	al Engineers	3														
		2. Arch	itect																	1
		☐ 3. Othe	ers, please	e specify:	:															1
No. of Storey (Residential		10 (G																		1
Table 1																				_
							Deeme	d to Sati	sfy RTTV	Wall										
Facade Orie	ntation Faci	ng																		٦
Average Abs	sorptivity																			
Average Wir	ndow to Wall	Ratio																		1
Shading Coe	efficient of G	lazing]
Average Sha	ading Coeffic	ient of Fac	ade																	
Visible Light	Transmittan	ce			%	%		%			%		%		%	·	%		9	6
External Ref	lectance				%	%		%			%		%		%	D	%		9	6
Table 2																				
								RTTV	Wall											
Facade Orie Facing	ntation		N	orth			E	ast				Sc	outh				W	est/		
Wall Orienta	tion Factor		0	.79			1.	072		0.975 1.131										
Total Externa (Residential		15	572.61m²	Ratio	v to Wall		599.12m²	Ratio	v to Wall		1	447.70m²	Ratio	v to Wall		612.37m² Window to Ratio				ı
Total Windov	w Factor		524.40m²	= 0.33			143.69 m²	= 0.24				643.10m²	= 0.44				55.93m²	= 0.09		
Heat Conduction	Opaque Wall				5.46W/m²				8.00W/r	n²				4.67W/	/m²				9.88W	/m²
	Window				0.28W/m²				0.27 W/r	n²				0.46W/	/m²				0.11W	/m²
Window	Glass Type		Area=	SC=	VLT= %	·П	Area=	SC=	VLT=	%	7	Area=	SC=	VLT=	%	П	Area=	SC=	VLT=	%
		Reflective	m²		ER= %		m²		ER=	% F	_ Reflective	m²		ER=	%	Reflective	m²		ER=	%
		☑ Tinted	Area= 655.41m ²	SC= 0.32	VLT= 50 % ER= 7 %	₩	Area= 143.69m ²	SC= 0.32	VLT= 50 ER= 7	_ ⊻	inted	Area= 643.10m²	SC= 0.32	VLT= 50 ER= 7		☑ Tinted	Area= 55.93m ²	SC= 0.32	VLT= 5 ER= 7	
		Tinted	Area=	SC=	VLT= %		Area=	SC=	VLT=	% _	-	Area=	SC=	VLT=	%	Timed		SC=	VLT=	%
		Clear	m²	00=	ER= %	\square	m²	00=	ER=	⊢	_l Clear	m²	00=	ER=	%					%
	Double	1				1			l	Ť		l		1						_
	Glazing External	✓ Yes □ No ✓ Yes □ Overhang ✓ Yes □ No Overhang ✓ Yes □ No Overhang									☑ Yes ☐ No				✓ Yes	_ N				
	Shading	Overhang	9	✓Yes		<u> </u>	9	✓ Yes			Overhanç	9	✓Yes							No
Outer Desire	in a thorough	Sidefin		□Yes	□No	Sidefin		□Yes		No S	Sidefin		□Yes		No	Sidefin		□Yes	; <u> </u>	No
Solar Radiation through Glazing 3.46W/m²					/m² 3.26 W/m²					5.37W/m²					1.38W/m²					
Average Absorptivity 0.8						8 0.8 0.8						0.8								
RTTV _{Wall} at	and the state of t						11.36 W	/m²												

Table 3

Overall RTTV_{Wall}

				RTTV _R	loof							
Roof Orientatio	on Factor					2.16						
Total Roof Area	a (Residential Units)					518.79m²						
Total Skylight A	Area					0 m²						
Heat	Roof					3.86 W/m²						
Conduction	Skylight		0 W/m²									
Skylight	Glass Type	□ Reflective	Area=	m²	SC=		VLT=	%	ER=	%		
		☐ Tinted	Area=	m²	SC=		VLT=	%	ER=	%		
		□ Clear	Area=	m²	SC=		VLT=	%	ER=	%		
	Double Glazing				□Yes	☑No						
	External Shading	□Yes ☑No										
Solar Radiation	through Glazing					0 W/m²						
Average Absor	ptivity (roof)					0.9						
Overall RTTV _R	oof					3.71 W/m²						

10.22 W/m²



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.

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Appendix A

Address: Proposed Cor	ddress: Proposed Comprehensive Development at Wetland Park TSWTL no. 34 (Tower 18)						
Building Type:	Residential						
RTTV calculated by	☑ 1. Registered Professional Engineers						
	2. Architect						
	☐ 3. Others, please specify:						
No. of Storeys (Residential Units)	10 (G/F to 10/F)						
Table 1							
	Dogmod to Satisfy PTTV						

Tubio I												
	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

Table 2																		
								RTTV	Vall									
Facade Oriei Facing	ntation		North	n-East		South-East				South-West					North-West			
Wall Orientat	tion Factor		0.9	924			1.0	051			1.0	092				0.	965	
Total Externa (Residential		92	27.93 m²	Window to Wall Ratio		;	354.71 m ² Window to W		to Wall	827.21 m²		Ratio	v to Wall				Window to Wall Ratio	
Total Windov	v Factor	3	342.02 m²	= 0.37			0 m²	= 0			377.31m²	= 0.46				26.13 m²	= 0.07	
Heat Conduction	Opaque Wall				6.09 W/m²				10.69W/m²				5.56W/	m²				8.93W/r
	Window				0.36 W/m²				0 W/m²				0.52W/	m²				0.07W/r
Window	Glass Type	Reflective	Area=	SC=	VLT= % ER= %	☐ Reflective	Area= m²	SC=	VLT= %	Reflective	Area=	SC=	VLT= ER=		Reflective	Area= m²	SC=	VLT= ER=
		☑ Tinted	Area= 342.02m²		VLT= 50 % ER= 7 %	☑ Tinted	Area= 0m²		VLT= 50 % ER= 7 %		Area= 377.31m²	SC= 0.32	VLT= 50 ER= 7			Area= 26.13m²	SC= 0.32	VLT= 50 ER= 7
		Clear	Area=	SC=	VLT= % ER= %	_	Area=	SC=	VLT= %	Clear	Area=	SC=	VLT= ER=	% % (Clear	Area=	SC=	VLT= ER=
	Double Glazing		☑ Yes	□N	0		☑ Yes)		☑ Yes	□N	0			☑ Yes	□N	0
	External Shading	Overhang)	✓Yes	□No	Overhanç	9	✓Yes	□No	Overhan	g	✓Yes		No (Overhang	ı	✓Yes	1
		Sidefin		□Yes	□No	Sidefin		□Yes	□No	Sidefin		□Yes		No S	Sidefin		□Yes	<u> </u>
Solar Radiati Glazing	ion through				4.06 W/m²				0 W/m²				5.92W/	m²				0.87 W/r
Average Abs	orptivity				0.8				0.8				0.8					0.8
RTTV _{Wall} at 6	each facade				10.50 W/m²				10.69 W/m²			1	12.00 W/	m²				9.87 W/r
Overall RTT\	V _{Wall}									10.93 W/n	1 ²							

				RTTV _R	oof							
Roof Orientat	ion Factor					2.16						
Total Roof Are	ea (Residential Units)					394.87 m²						
Total Skylight	Area					0 m²						
Heat	Roof		3.86 W/m²									
Conduction	Skylight		0 W/m²									
Skylight	Glass Type	□ Reflective	Area=	m²	SC=		VLT=	%	ER=	%		
		☐ Tinted	Area=	m²	SC=		VLT=	%	ER=	%		
		□ Clear	Area=	m²	SC=		VLT=	%	ER=	%		
	Double Glazing				□Yes	✓No						
	External Shading				□Yes	☑No						
Solar Radiation through Glazing			0 W/m²									
Average Abso	orptivity (roof)		0.9									
Overall RTTV	Roof					3.71 W/m²						



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.

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DEPART	MENT			of its use in the development.									
Address: Proposed Co	omprehensive Deve	elopment at Wetlar	nd Park TSWTL no	o. 34 (Tower 19)				BD Ref. No.					
Building Type:	Residential	esidential											
RTTV calculated by	☑ 1. Registered Professional Engineers												
	2. Architect												
	☐ 3. Others, please specify:												
No. of Storeys (Residential Units)	10 (G/F t	0 (G/F to 10/F)											
Table 1													
				Deemed to Satis	fy RTTV _{Wall}								
Facade Orientation Fa	acing												
Average Absorptivity													
Average Window to W	all Ratio												
Shading Coefficient of	Glazing												
Average Shading Coe	fficient of Facade												
Visible Light Transmitt	ance	%	%	%	%	%	%	%	%				
External Reflectance	·	%	%	%	%	%	%	%	%				
Table 2													
				RTTV _W	/all								

Table 2																		
								RTTV	Wall									
Facade Orie Facing	ntation		North	n-East			North	n-West			South	n-West				Sout	h-East	
Wall Orienta	ntation Factor 0.924 0.965 1.092					1.051												
Total Externa (Residential		9:	27.93 m²	Ratio		;	354.71 m² Window to Wall Ratio			827.21 m²	Ratio	v to Wall		3	386.24 m²	Ratio	v to Wall	
Total Window	Total Window Factor 342.02 r		342.02 m²	= 0.37			0 m²	= 0			377.31m²	= 0.46				26.13 m²	= 0.07	
Heat Conduction	Opaque Wall				6.09 W/m²				9.82W/m	2			5.56W	/m²				9.72W/m²
	Window				0.36 W/m²				0 W/m	2			0.52W	/m²				0.08W/m ²
Window	Glass Type	Reflective	Area=	SC=	VLT= % ER= %	Ш	Area=	SC=		% □ Reflective	Area=	SC=	VLT= ER=	% %	Reflective	Area=	SC=	VLT= %
		☑ Tinted	Area= 342.02m²	SC= 0.32	VLT= 50 % ER= 7 %	∠	Area= 0m²	SC= 0.32	VLT= 50 ER= 7		Area= 377.31m ²	SC= 0.32	VLT= 50 ER= 7			Area= 26.13m²	SC= 0.32	VLT= 50 % ER= 7 %
		Clear	Area= m²	SC=	VLT= % ER= %	Ш	Area= m²	SC=		% □ % Clear	Area= m²	SC=	VLT= ER=	% %	☐ Clear	Area= m²	SC=	VLT= %
	Double Glazing		☑ Yes	□N	0		✓ Yes	□ Ne	0		✓ Yes	□N	0			☑ Yes	□ N	0
	External Shading	Overhanç	9	✓Yes		Overhanç	9	✓Yes		Overhan	g	✓Yes			Overhang	9	✓Yes	
Solar Radiat Glazing	ion through	Sidefin		□Yes	4.06 W/m²	Sidefin		□Yes	0 W/m	Sidefin		□Yes	5.92W		Sidefin		□Yes	0.95 W/m²
Average Abs	sorptivity				0.8				0.8				0.8	_				0.8
RTTV _{Wall} at	each facade				10.50 W/m²				9.82 W/m	2			12.00 W	/m²				10.75 W/m²
Overall RTT	V _{Wall}									10.94 W/r	n²							

Table 3													
				RTTV _R	oof								
Roof Orientati	ion Factor		2.16										
Total Roof Are	ea (Residential Units)					394.87 m²							
Total Skylight	Area					0 m²							
Heat	Roof		3.86 W/m²										
Conduction	Skylight		0 W/m²										
Skylight	Glass Type	□ Reflective	Area=	m²	SC=		VLT=	%	ER=	%			
		☐ Tinted	Area=	m²	SC=		VLT=	%	ER=	%			
		□ Clear	Area=	m²	SC=		VLT=	%	ER=	%			
	Double Glazing				□Yes	✓No							
	External Shading				□Yes	✓No							
Solar Radiatio	on through Glazing		0 W/m²										
Average Abso	orptivity (roof)		0.9										
Overall RTTV	Roof					3.71 W/m²							



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.

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Address: Proposed Cor	nprehensive Development at Wetland Park TSWTL no. 34 (Tower 20)	BD Ref. No.
Building Type:	Residential	
RTTV calculated by	✓ 1. Registered Professional Engineers	
	☐ 2. Architect	
	☐ 3. Others, please specify:	
No. of Storeys (Residential Units)	10 (G/F to 10/F)	
Table 1		<u> </u>

Table I												
	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	Vall									
Facade Orient	ntation		North	n-East			Sout	h-East			South-West				North-West			
Wall Orientat	tion Factor		0.0	924		1.051					1.092				0.965			
Total Externa (Residential		102	25.01 m²	Ratio	v to Wall		292.07 m ² Window to Wall Ratio				1089.40 m² Window to Wall Ratio				251.53 m²		Ratio	v to Wall
Total Windov	v Factor	;	398.94 m²	= 0.39			10.72 m²	= 0.04			414.44m²	= 0.38				1.86 m²	= 0.01	
Heat Conduction	Opaque Wall			•	5.81 W/m²				10.27W/m	2		•	6.63W	/m²				9.83W/m²
	Window	0.38 W/m²			0.04 W/m²				2	0.44W/m²					0.01W/m			
Window	Glass Type	Reflective	Area=	SC=	VLT= %	Ш	Area=	SC=		% ☐ % Reflectiv	Area=	SC=	VLT= ER=	% %	Reflective	Area=	SC=	VLT= % ER= %
		☑ Tinted	Area= 398.94m²	SC= 0.32	VLT= 50 % ER= 7 %		Area= 10.72m²	SC= 0.32	VLT= 50 ER= 7		Area= 414.44m ²	SC= 0.32	VLT= 5 ER= 7		☑ Tinted	Area= 1.86m²	SC= 0.32	VLT= 50 % ER= 7 %
		Clear	Area=	SC=	VLT= %	Ш	Area= m²	SC=		% □ % Clear	Area=	SC=	VLT= ER=	%	☐ Clear	Area= m²	SC=	VLT= % ER= %
	Double Glazing		☑ Yes	□N	0		☑ Yes	□ Ne	0		☑ Yes	□N	0			☑ Yes	_ N	0
	External Shading	Overhang)	✓Yes		Overhang	g	✓Yes		Overha	ng	✓Yes			Overhang]	✓Yes	
Solar Radiati Glazing	ion through	Sidefin		□Yes	□ No 4.47 W/m²	Sidefin		□Yes	0.52 W/m	Sidefin		□Yes	5.07W		Sidefin		□Yes	□ No 0.10 W/m²
Average Abs	orptivity				0.8				0.8				0.8					0.8
RTTV _{Wall} at 6	each facade			1	0.65 W/m²			1	0.82 W/m	2		1	2.14 W	/m²				9.93 W/m²
Overall RTT\	V _{Wall}									11.21 W/	m²							

				RTTV _R	oof							
Roof Orientat	ion Factor					2.16						
Total Roof Are	ea (Residential Units)		395.24 m²									
Total Skylight	Area	0 m²										
Heat	Roof	3.86 W/m²										
Conduction	Skylight		0 W/m²									
Skylight	Glass Type	□ Reflective	Area=	m²	SC=		VLT=	%	ER=	%		
		☐ Tinted	Area=	m²	SC=		VLT=	%	ER=	%		
		□ Clear	Area=	m²	SC=		VLT=	%	ER=	%		
	Double Glazing		□Yes ☑No									
	External Shading	□Yes ☑No										
Solar Radiation	on through Glazing	0 W/m²										
Average Abso	orptivity (roof)	0.9										
Overall RTTV	Roof		3.71 W/m²									



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.

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Address: Proposed Co	mprehensive Development at Wetland Park TSWTL no. 34 (Tower 21)	BD Ref. No.
·		
Building Type:	Residential	l
RTTV calculated by	☑ 1. Registered Professional Engineers	
	2. Architect	
	☐ 3. Others, please specify:	
No. of Storeys (Residential Units)	10 (G/F to 10/F)	
Table 1		
	Deemed to Satisfy PTTV	

TUDIC I													
	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																			
								$RTTV_V$	Vall										
Facade Oriei Facing	ntation		North	n-East			North	n-West			South	n-West			South-East				
Wall Orientat	tion Factor		0.9	924			0.9	965			1.	092				1.	051		
	cal External Wall Area esidential Units) 1025.01		25.01 m²	Window to Wall Ratio		292.07 m		Ratio		1089.40 m²		Ratio			251.53 m²		Ratio		
Total Windov	v Factor	3	398.94 m²	= 0.39			10.72 m ² = 0.04				414.44m²	= 0.38				1.86 m²	= 0.01		
Heat Conduction	Opaque Wall				5.81 W/m²				9.43 W/m²				6.63W/	m²				10.70 W/m	
	Window				0.38 W/m²				0.04 W/m²				0.44W/	m²				0.01W/m	
Window	Glass Type	Reflective	Area=	SC=	VLT= % ER= %	☐ Reflective	Area=	SC=	VLT= % ER= %	Reflective	Area=	SC=	VLT= ER=	% % F	Reflective	Area= m²	SC=	VLT=	
		☑ Tinted	Area= 398.94m²		VLT= 50 % ER= 7 %		Area= 10.72m²	SC= 0.32	VLT= 50 % ER= 7 %		Area= 414.44m²	SC= 0.32	VLT= 50 ER= 7		Z Tinted	Area= 1.86m²	SC= 0.32	VLT= 50 °	
		Clear	Area=	SC=	VLT= % ER= %	1—	Area=	SC=	VLT= % ER= %	☐ Clear	Area=	SC=	VLT= ER=	% % (☐ Clear	Area=	SC=	VLT= '	
	Double Glazing		☑ Yes	□N	0		☑ Yes		0		☑ Yes	□N	0			☑ Yes	□N	0	
	External Shading	Overhang)	✓Yes	□No	Overhan	9	✓Yes	□No	Overhan	g	✓Yes		No (Overhang		✓Yes	□N	
		Sidefin		□Yes	□No	Sidefin		□Yes	□No	Sidefin		□Yes		No S	Sidefin		□Yes	\square N	
Solar Radiati Glazing	ion through				4.47 W/m²				0.47 W/m²				5.07W/	m²				0.10 W/m	
Average Abs	orptivity				0.8				0.8				0.8					0.8	
RTTV _{Wall} at 6	each facade			1	0.65 W/m²				9.94 W/m²			1	2.14 W/	m²				10.81 W/m	
Overall RTT\	V _{Wall}						_			11.20 W/m	n²		•		_	•	•	_	

				RTTV _R								
		T		KIIVR	loof							
Roof Orientat	ion Factor	2.16										
Total Roof Are	ea (Residential Units)	395.24 m²										
Total Skylight	Area	0 m²										
Heat	Roof	3.86 W/m²										
Conduction	Skylight		0 W/m²									
Skylight	Glass Type	□ Reflective	Area=	m²	SC=		VLT=	%	ER=	%		
		☐ Tinted	Area=	m²	SC=		VLT=	%	ER=	%		
		□ Clear	Area=	m²	SC=		VLT=	%	ER=	%		
	Double Glazing		□Yes ☑No									
	External Shading				□Yes	✓No						
Solar Radiation	on through Glazing	0 W/m²										
Average Abso	orptivity (roof)	0.9										
Overall RTTV	Roof	3.71 W/m²										



Skylight

Glass Type

Double Glazing

Solar Radiation through Glazing

Average Absorptivity (roof)

Overall RTTV_{Roof}

External Shading

☐ Reflective

 $\ \square$ Tinted

☐ Clear

Area=

Area=

Area=

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.

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Address: Pro	posed Com	prehensive	Developi	ment at \	Wetlan	d Park	TSWTL no	o. 34 (To	wer 22)							BD Re	ef. No.]
Building Type	e: F	Residential																		l
RTTV calcula		☑ 1. Regi	stered Pr	ofession	al Eng	ineers														
		☐ 2. Arch																		
		☐ 3. Othe		e specify	/:															İ
No. of Storey (Residential	/S	10 (G																		
Table 1																				•
								Deeme	d to Sati	sfy RT1	TV _{Wa}	II								
Facade Orie	ntation Facir	ng																		١
Average Abs	orptivity																			
Average Win	dow to Wall	Ratio																		
Shading Coe	efficient of GI	azing																		
Average Sha	ding Coeffic	ient of Fac	ade																	
Visible Light	Transmittan	ce			%		%		%			%		%	C	%	%		%	-
External Ref	lectance				%		%		%			%		%	C	%	%		%	
Table 2																				
									RTTV _\	Wall										
Facade Orient	ntation			h-East					th-East					n-West				n-West		
Wall Orientat	tion Factor		0.	.924				1.	.051				1.	092			0.	965		
Total Externa (Residential		105	52.28 m²	Windo Ratio		/all	2	279.47 m²	Windov Ratio	v to Wal	II	1	003.71 m²	Ratio	w to Wall		285.17 m²	Ratio	w to Wall	
Total Windov	v Factor	3	361.71 m ²	= 0.34				14.81 m²	= 0.05				412.90m²	= 0.41			24.55 m ²	= 0.09		
Heat Conduction	Opaque Wall				6.24	W/m²			•	10.27V	V/m²			•	6.14W/m²			•	8.98W/r	n²
	Window				0.33	W/m²				0.06 V	V/m²				0.47W/m²				0.09W/r	n²
Window	Glass Type	Reflective	Area=	SC=	VLT=		Reflective	Area=	SC=	VLT= ER=	%	\square	Area=	SC=	VLT= %	\square	Area=	SC=	VLT= ER=	%
			Area=	SC=	VLT=	= 50 %	Ø	Area=	SC=	VLT=	50 %	Ø	Area=	SC=	VLT= 50 %		Area=	SC=	VLT= 50	%
		☑ Tinted	361.71m	0.32	ER=	7 %	Tinted	14.81m²	0.32	ER= 7	7 %		412.90m²	0.32	ER= 7 %		24.55m²	0.32	ER= 7	%
			Area=	SC=	VLT=	= %	П	Area=	SC=	VLT=	%		Area=	SC=	VLT= %	,	Area=	SC=	VLT=	%
		Clear	m²		ER=	%	Clear	m²		ER=	%	Clear	m²		ER= %	Clear	m²		ER=	%
	Double Glazing		✓ Yes		lo			☑ Yes	_ N	0			☑ Yes		lo		☑ Yes	□N	lo	
	External	Overhang		✓Yes	6	□No	Overhang]	✓Yes		No	Overhanç	g	✓ Yes	s 🗆 No	Overhan	g	✓Yes	s 🗆	No
	Shading	Sidefin		□Yes		□No	Sidefin		□Yes		□No	Sidefin		□Yes		Sidefin		□Yes		No
Solar Radiati	ion through					W/m²				0.74 V					5.53W/m²				1.11 W/r	
Average Abs	orptivity				8.0	3				0.8					0.8				0.8	_
RTTV _{Wall} at 6	each facade				10.50	W/m²			1	10.97 V	V/m²				12.15 W/m²				10.18 W/r	n²
Overall RTT\	V _{Wall}						•					11.14 W/m	l ²			•				_
Table 3		•																		
									RTTV	Roof										l
Roof Orienta	tion Factor											2.16								
Total Roof Ar		itial Units)										395.24 m²	2							1
Total Skyligh	•											0 m²								l
Heat	Roof											3.86 W/m	l ²							l
Conduction	Skylight											0 W/m²								
1	Orkyngrit		1									0 44/111								1

m² SC=

m² SC=

m² SC=

□Yes

□Yes

☑No

☑No

0 W/m²

3.71 W/m²

VLT=

VLT=

VLT=

% ER=

% ER=

% ER=

%

%

%



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.

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Address: Proposed Cor	mprehensive Development at Wetland Park TSWTL no. 34 (Tower 23)	BD Ref. No.
Building Type:	Residential	
RTTV calculated by	✓ 1. Registered Professional Engineers	
	☐ 2. Architect	
	☐ 3. Others, please specify:	
No. of Storeys (Residential Units)	10 (G/F to 10/F)	
Table 1		

Table I													
	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

Table 2																		
								$RTTV_V$	Vall									
Facade Orientation Facing		North-East				North-West				South-West					South-East			
Wall Orientation Factor		0.924				0.965				1.092					1.051			
Total External Wall Area (Residential Units)		1052.28 m² Rati		Ratio							1003.71 m²		Window to Wall Ratio		285.17 m²		Window to Wall Ratio	
Total Window Factor		361.71 m ² = 0.34								412.90m²	= 0.41			24.55 m ² = 0.0		= 0.09		
Heat Conduction	Opaque Wall	6.24 W/m²			9.34 W/m			9.34 W/m²	6.14W/m²				m²	9.78 W/m²				
	Window			0.33 W/m²				0.05 W/m²	0.47W/m			m²				0.09W/n		
Window	Glass Type	Reflective	Area=	SC=	VLT= % ER= %	☐ Reflective	Area=	SC=	VLT= % ER= %	Reflective	Area=	SC=	VLT= ER=	% % [Reflective	Area= m²	SC=	VLT= ER=
		☑ Tinted	Area= 361.71m²		VLT= 50 % ER= 7 %	☑ Tinted	Area= 14.81m²	SC= 0.32	VLT= 50 % ER= 7 %		Area= 412.90m²	SC= 0.32	VLT= 50 ER= 7			Area= 24.55m²	SC= 0.32	VLT= 50 ER= 7
		Clear	Area=	SC=	VLT= % ER= %		Area=	SC=	VLT= % ER= %	☐ Clear	Area=	SC=	VLT= ER=	% % (Clear	Area=	SC=	VLT= ER=
	Double Glazing		☑ Yes	□ No			☑ Yes □ N		0	☑ Yes □ No			☑ Yes □ No		0			
	External Shading	Overhang)	✓Yes	□No	Overhanç)	✓Yes		Overhan	g	✓Yes		No (Overhang	ı	✓Yes	
		Sidefin		□Yes	□No	Sidefin		□Yes	□No	Sidefin		□Yes		No 3	Sidefin		□Yes	
Solar Radiation through Glazing		3.92 W/m²				0.68 W/m²				5.53W/m²				m²	1.21 W/m²			
Average Absorptivity		0.8				0.8				0.8					0.8			
RTTV _{Wall} at each facade		10.50 W/m²				10.07 W/m²				12.15 W/m²					11.09 W/m²			
Overall RTTV _{Wall}										11.15 W/m	n²							

				RTTV _R	oof							
Roof Orientat	ion Factor	2.16										
Total Roof Are	ea (Residential Units)	395.24 m²										
Total Skylight	Area	0 m ²										
Heat Conduction	Roof					3.86 W/m²	//m²					
	Skylight	0 W/m²										
Skylight	Glass Type	□ Reflective	Area=	m²	SC=		VLT=	%	ER=	%		
		☐ Tinted	Area=	m²	SC=		VLT=	%	ER=	%		
		□ Clear	Area=	m²	SC=		VLT=	%	ER=	%		
	Double Glazing											
	External Shading				✓No							
Solar Radiation through Glazing		0 W/m²										
Average Absorptivity (roof)		0.9										
Overall RTTV _{Roof}		3.71 W/m²										