NET ZERO DOUBLE STUD - DETAIL SET

U-values of building	g asse	mblies		Passive House w	ith PHPP V	ersion 10.6 E
/ Climate: PHPP-Standard / TFA: 0 m² / Ov	erheating: %	/ PER: 0 kWh/(m²a)				
			Show sp	ecial cases and secondary ca	lculations	on the right
Description of building assembly					Assembly n	0.
Net Zero Double Stud - Wall					0	1ud
		I				
Orientation of building assembly (or R _{si})		-			insulation?	
Adjacent to (or R _{se})				U-value supplemen		T
Area section 1	λ [W/(mK)]	Area section 2 (optional)	λ [W/(mK)]	Area section 3 (optional)	λ [W/(mK)]	Thickness [mn
1/2" Drywall	0.180			2014 are flat @ 4011 a.a.	0.420	13
1-1/2" Service cavity	0.206			2x4 on flat @ 16" o.c.	0.130	38
1/2" Plywood 3-1/2" Cellulose	0.130	Out framing @ 10" a.a.	0.420			13
	0.039	2x4 framing @ 16" o.c.	0.130			89
2" Cellulose	0.039	0.46 . 0.400	0.400			51
3-1/2" Cellulose	0.039	2x4 framing @ 16" o.c.	0.130			89
1/2" Plywood sheathing	0.130					13
	69%	Percentage of sec. 2:	9.4%	Percentage of sec. 3:	21.9%	
Percentage of sec. 1: Heat transmission resista Interior R _{se} Exterior R _{se}	I			Total thickne	ess [cm]:	30.6 0.169
Heat transmission resista	nce coefficients	m²K/W			ess [cm]:	
Heat transmission resists $ \text{Interior } R_{\text{si}} $ $ \text{Exterior } R_{\text{se}}. $ $ \text{Description of building assembly} $	0.13 0.13	m²K/W			ess [cm]:	0.169
Heat transmission resiste Interior $R_{\rm si}$. Exterior $R_{\rm se}$.	0.13 0.13	m²K/W			ess [cm]: V/(m²K)]:	0.169
Heat transmission resista Interior R _{si} Exterior R _{se} Description of building assembly Net Zero Double Stud - Foundation -	0.13 0.13	m²K/W		U-value [V	PSS [cm]: W/(m²K)]: Assembly n	0.169
Heat transmission resista Interior R _{si} Exterior R _{se} . Description of building assembly Net Zero Double Stud - Foundation - Orientation of building assembly (or R _{si})	0.13 0.13	m²K/W		U-value [V	PSS [cm]: V/(m²K)]: Assembly n 0 insulation?	0.169
Heat transmission resista Interior $R_{\rm si}$: Exterior $R_{\rm se}$: Description of building assembly Net Zero Double Stud - Foundation - Orientation of building assembly (or $R_{\rm si}$) Adjacent to (or $R_{\rm se}$)	0.13 0.13	m²K/W m²K/W		U-value [V	Assembly n or insulation? or it [W/(m²K)]:	0.169 o. 2ud
Heat transmission resista Interior R _{si} Exterior R _{se} . Description of building assembly Net Zero Double Stud - Foundation - Orientation of building assembly (or R _{si})	0.13 0.13	m²K/W	λ [W/(mK)]	U-value [V	Assembly n or insulation? or it [W/(m²K)]:	0.169 o. 2ud
Heat transmission resista Interior $R_{\rm si}$: Exterior $R_{\rm se}$: Description of building assembly Net Zero Double Stud - Foundation - Orientation of building assembly (or $R_{\rm si}$) Adjacent to (or $R_{\rm se}$)	0.13 0.13	m²K/W m²K/W	λ [W/(mK)]	U-value [V	Assembly n or insulation? or it [W/(m²K)]:	0.169 o. 2ud
Heat transmission resista Interior $R_{\rm si}$: Exterior $R_{\rm se}$: Description of building assembly Net Zero Double Stud - Foundation - Orientation of building assembly (or $R_{\rm si}$) Adjacent to (or $R_{\rm se}$)	0.13 0.13	m²K/W m²K/W	λ [W/(mK)]	U-value [V	Assembly n or insulation? or it [W/(m²K)]:	0.169 o. 2ud
Heat transmission resista Interior $R_{\rm si}$: Exterior $R_{\rm se}$: Description of building assembly Net Zero Double Stud - Foundation - Orientation of building assembly (or $R_{\rm si}$) Adjacent to (or $R_{\rm se}$)	0.13 0.13	m²K/W m²K/W	λ [W/(mK)]	U-value [V	Assembly n or insulation? or it [W/(m²K)]:	0.169 o. 2ud
Heat transmission resista Interior $R_{\rm si}$: Exterior $R_{\rm se}$: Description of building assembly Net Zero Double Stud - Foundation - Orientation of building assembly (or $R_{\rm si}$) Adjacent to (or $R_{\rm se}$)	0.13 0.13	m²K/W m²K/W	λ [W/(mK)]	U-value [V	Assembly n or insulation? or it [W/(m²K)]:	0.169 o. 2ud
Heat transmission resista Interior $R_{\rm si}$: Exterior $R_{\rm se}$: Description of building assembly Net Zero Double Stud - Foundation - Orientation of building assembly (or $R_{\rm si}$) Adjacent to (or $R_{\rm se}$)	0.13 0.13	m²K/W m²K/W	λ [W/(mK)]	U-value [V	Assembly n or insulation? or it [W/(m²K)]:	0.169 o. 2ud
Heat transmission resista Interior $R_{\rm si}$: Exterior $R_{\rm se}$: Description of building assembly Net Zero Double Stud - Foundation - Orientation of building assembly (or $R_{\rm si}$) Adjacent to (or $R_{\rm se}$)	0.13 0.13	m²K/W m²K/W	λ [W/(mK)]	U-value [V	Assembly n or insulation? or it [W/(m²K)]:	0.169 o. 2ud
Heat transmission resista Interior $R_{\rm si}$: Exterior $R_{\rm se}$: Description of building assembly Net Zero Double Stud - Foundation - Orientation of building assembly (or $R_{\rm si}$) Adjacent to (or $R_{\rm se}$)	0.13 0.13	m²K/W m²K/W	λ [W/(mK)]	U-value [V	Assembly n or insulation? or it [W/(m²K)]:	0.169 o. 2ud
Heat transmission resista Interior $R_{\rm si}$: Exterior $R_{\rm se}$: Description of building assembly Net Zero Double Stud - Foundation - Orientation of building assembly (or $R_{\rm si}$) Adjacent to (or $R_{\rm se}$)	0.13 0.13	m²K/W m²K/W	λ [W/(mK)]	U-value [V	Assembly n or insulation? or it [W/(m²K)]:	0.169 o. 2ud
Heat transmission resista Interior $R_{\rm si}$: Exterior $R_{\rm se}$: Description of building assembly Net Zero Double Stud - Foundation - Orientation of building assembly (or $R_{\rm si}$) Adjacent to (or $R_{\rm se}$)	0.13 0.13	m²K/W m²K/W	λ [W/(mK)]	U-value [V	Assembly n or insulation? or it [W/(m²K)]:	0.169 o. 2ud
Heat transmission resists Interior R _{si} Exterior R _{se} : Description of building assembly Net Zero Double Stud - Foundation - Orientation of building assembly (or R _{si}) Adjacent to (or R _{se}) Area section 1	0.13 0.13 0.13 N/A λ [W/(mK)]	m²K/W m²K/W Area section 2 (optional) Percentage of sec. 2:	λ [W/(mK)]	U-value [V Interior U-value supplement Area section 3 (optional) Percentage of sec. 3:	Assembly n O insulation? it [W/(mK)]	0.169 o. 2ud
Heat transmission resistation interior R _{si} : Exterior R _{se} : Description of building assembly Net Zero Double Stud - Foundation - Orientation of building assembly (or R _{si}) Adjacent to (or R _{se}) Area section 1 Percentage of sec. 1:	0.13 0.13 0.13 N/A λ [W/(mK)]	m²K/W m²K/W Area section 2 (optional) Percentage of sec. 2:	λ [W/(mK)]	U-value [V	Assembly n O insulation? it [W/(mK)]	0.169 o. 2ud
Heat transmission resists Interior R _{si} Exterior R _{se} : Description of building assembly Net Zero Double Stud - Foundation - Orientation of building assembly (or R _{si}) Adjacent to (or R _{se}) Area section 1	0.13 0.13 0.13 N/A λ [W/(mK)]	m²K/W m²K/W Area section 2 (optional) Percentage of sec. 2:	λ [W/(mK)]	U-value [V Interior U-value supplement Area section 3 (optional) Percentage of sec. 3:	Assembly n Assembly n insulation? at [W/(m²K)] [W/(m²K)] ac [W/(m²K)] ac [W/(mK)]	0.169

Description of building assembly					Assembly r	no.
Net Zero Double Stud - Header					C	3ud
Orientation of building assembly (or R _{si})	2-Wall			Interior	insulation?	
Adjacent to (or R _{se})	3-Ventilated	-		U-value supplemen	nt [W/(m²K)]	
Area section 1	λ [W/(mK)]	Area section 2 (optional)	λ [W/(mK)]	Area section 3 (optional)	λ [W/(mK)]	Thickness
1/2" Drywall	0.180					13
1-1/2" Service cavity	0.206	2x4 @ 16" o.c.	0.130			38
1/2" Plywood	0.130					13
3-1/2" Cellulose	0.039	2x4 @ 16" o.c.	0.130			89
2-1/2" Celllose	0.039					64
3" Wood header	0.130					76
1/2" Plywood sheathing	0.130					13
Percentage of sec. 1:	91%	Percentage of sec. 2:	9.4%	Percentage of sec. 3:		
Interior R _{se} . Exterior R _{se} .	0.13	m²K/W m²K/W		U-value [V	V/(m²K)]:	0.203
		-		U-value [V	V/(m²K)]:	
Exterior R _{se} :	0.13	-		U-value [V	Assembly r	
Exterior R _{se} : Description of building assembly Net Zero Double Stud - Slab on Grade	0.13	-			Assembly r	no.
Description of building assembly Net Zero Double Stud - Slab on Grade Orientation of building assembly (or R _{si})	0.13 3-Floor	-		Interior	Assembly r	no.)4ud
Description of building assembly Net Zero Double Stud - Slab on Grade Orientation of building assembly (or R _{si}) Adjacent to (or R _{se})	0.13 3-Floor 2-Ground	m²K/W		Interior U-value supplemen	Assembly r C insulation?	no.)4ud
Description of building assembly Net Zero Double Stud - Slab on Grade Orientation of building assembly (or R _{si}) Adjacent to (or R _{se}) Area section 1	0.13 3-Floor 2-Ground λ [W/(mK)]	-	λ [W/(mK)]	Interior	Assembly r C insulation?	no. 04ud Thickness [
Description of building assembly Net Zero Double Stud - Slab on Grade Orientation of building assembly (or R _{si}) Adjacent to (or R _{se}) Area section 1 6" Concrete	0.13 3-Floor 2-Ground λ [W/(mK)] 2.300	m²K/W	λ [W/(mK)]	Interior U-value supplemen	Assembly r C insulation?	Thickness
Description of building assembly Net Zero Double Stud - Slab on Grade Orientation of building assembly (or R _{si}) Adjacent to (or R _{se}) Area section 1 6" Concrete 4" EPS	0.13 3-Floor 2-Ground λ [W/(mK)] 2.300 0.036	m²K/W	λ [W/(mK)]	Interior U-value supplemen	Assembly r C insulation?	Thickness [152 102
Description of building assembly Net Zero Double Stud - Slab on Grade Orientation of building assembly (or R _{si}) Adjacent to (or R _{so}) Area section 1 6" Concrete 4" EPS 8" EPS	3-Floor 2-Ground λ [W/(mK)] 2.300 0.036	m²K/W	λ [W/(mK)]	Interior U-value supplemen	Assembly r C insulation?	Thickness 152
Description of building assembly Net Zero Double Stud - Slab on Grade Orientation of building assembly (or R _{si}) Adjacent to (or R _{se}) Area section 1 6" Concrete 4" EPS	0.13 3-Floor 2-Ground λ [W/(mK)] 2.300 0.036	m²K/W	λ [W/(mK)]	Interior U-value supplemen	Assembly r C insulation?	Thickness 152 102
Description of building assembly Net Zero Double Stud - Slab on Grade Orientation of building assembly (or R _{si}) Adjacent to (or R _{so}) Area section 1 6" Concrete 4" EPS 8" EPS	3-Floor 2-Ground λ [W/(mK)] 2.300 0.036	m²K/W	λ [W/(mK)]	Interior U-value supplemen	Assembly r C insulation?	Thickness 152 102 203
Description of building assembly Net Zero Double Stud - Slab on Grade Orientation of building assembly (or R _{si}) Adjacent to (or R _{so}) Area section 1 6" Concrete 4" EPS 8" EPS	3-Floor 2-Ground λ [W/(mK)] 2.300 0.036	m²K/W	λ [W/(mK)]	Interior U-value supplemen	Assembly r C insulation?	Thickness 152
Description of building assembly Net Zero Double Stud - Slab on Grade Orientation of building assembly (or R _{si}) Adjacent to (or R _{so}) Area section 1 6" Concrete 4" EPS 8" EPS	3-Floor 2-Ground λ [W/(mK)] 2.300 0.036	m²K/W	λ [W/(mK)]	Interior U-value supplemen	Assembly r C insulation?	Thickness 152
Description of building assembly Net Zero Double Stud - Slab on Grade Orientation of building assembly (or R _{si}) Adjacent to (or R _{se}) Area section 1 6" Concrete 4" EPS 8" EPS 8" EPS Percentage of sec. 1:	3-Floor 2-Ground λ [W/(mK)] 2.300 0.036 0.036 0.036	Area section 2 (optional) Percentage of sec. 2:	λ [W/(mK)]	Interior U-value supplement Area section 3 (optional) Percentage of sec. 3:	Assembly r C insulation? It [W/(m²K)]	Thickness 152
Description of building assembly Net Zero Double Stud - Slab on Grade Orientation of building assembly (or R _{si}) Adjacent to (or R _{so}) Area section 1 6" Concrete 4" EPS 8" EPS 8" EPS	3-Floor 2-Ground λ [W/(mK)] 2.300 0.036 0.036 0.036	Area section 2 (optional) Percentage of sec. 2:	λ [W/(mK)]	Interior U-value supplemen Area section 3 (optional)	Assembly r C insulation? It [W/(m²K)]	Thickness [152 102 203

ASSEMBLY VALUES

	U - Value	R - Value	RSI
Wall Assembly	0.169	33.60	5.917
Foundation	n/a	n/a	n/a
Window Header	0.203	27.97	4.926
Slab	0.070	81.11	14.29

NOTES:

Project No.



revisions ______

Notes

Project North



Scale

Net-Zero Double Stud

D1.5