

# ENVELOPE COMPLIANCE SUMMARY

2018 WSEC Compliance Forms for Commercial Buildings including Group R2, R3 & R4 over 3 stories and all R1

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<b>Project &amp; Applicant Information</b>	<b>Project Title</b>	Kendall Subaru - 2018 WSEC	For Building Department Use:	<b>Date: Aug 09, 2022</b>
	<b>Project Address</b>	xxx Smokey Point BLVD Marysville, WA 98223		
	<b>Applicant Name</b>	PAUL DOUGLAS		
	<b>Applicant Phone</b>	425-252-2153		
	<b>Applicant Email</b>	paul@2812architecture.com		

For questions about this report, contact WSEC Commercial Technical Support at 360-539-5300 or via email at com.techsupport@waenergycodes.com

<b>General Occupancy</b>	All Commercial	<b>General Building Use Type</b>	Retail, Automobile Dealership	<b>Building Cond. Floor Area</b>	71,896
<b>Project Scope</b>	New Building	<b>Space Conditioning Categories</b>	Fully Conditioned	<b>Project Cond. Floor Area</b>	0
				<b>Floors Above Grade</b>	2
				<b>Compliance Method</b>	Compliance Method 2 - Total Building Performance
<b>Envelope Project Description</b>	Metal building walls with R 19 rigid insulation, Metal roof with rigid insulation, Sales and business areas to be storefront with single ply roof and rigid insulation.				

Envelope Compliance Scope and Method	Scope	Space Conditioning Category	Compliance Method	WWR/SRR per Category	UA Calculation Adjustment	Fenestration Alternates	Compliance Verification
	New Building	Fully Conditioned	Prescriptive	14.48% / 0%	None selected	No alternates selected	<b>COMPLIES</b>

<b>Air Barrier Testing</b>	Air barrier testing included in project scope	<b>Air Barrier Comments</b>	
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<b>Project Title</b>	Kendall Subaru - 2018 WSEC				<b>Date</b>	Aug 09, 2022
<b>Scope &amp; Space Conditioning</b>	NEW BUILDING - FULLY CONDITIONED			<b>Compliance Verification</b>	COMPLIES	
<b>Window-to-wall Ratio</b>	14.48%	<b>Skylight-to-roof-ratio</b>	0%	<b>Vertical Fenestration Alternate</b>	No alternates selected	

Opaque Envelope Assemblies								
Roof/Ceiling	Location in Documents	Assembly ID	Assembly Location	Insulation R-Values			U-Factor	Net Area (SF)
				Cavity	Continuous (% penetration)	2nd Layer (MB Roof)		
Metal building (purlins)	A2.6	metal roof	Exterior	R-25	(< 0.04%)	R-11	U-0.031	65,875
	Thermal Spacer Block R-Value: R-3.5			Is liner system included?: Yes				
	U-Factor Source: WSEC Appendix A			U-Factor Source Description:				
	Is this assembly exterior or interior?: Exterior							
Joist or single rafter	A2.6	single ply membrane roof over rigid insulation ( open to deck above)	Exterior		(< 0.04%)		U-0.027	3,234
	U-Factor Source: WSEC Appendix A			U-Factor Source Description: WSEC				
	Roof Framing Type (Standard, Advanced): Standard			Roof Framing Material: Steel-framed				
	Ceiling/Attic Venting: Unvented			Is this assembly exterior or interior?: Exterior				
Walls	Location in Documents	Assembly ID	Assembly Location	Cavity	Continuous (% penetration)	Insulated Wall Furring	U-Factor	Net Area (SF)
Metal building (girts)	A4.8-A4.9, A2.2, A2.1, A3.1	metal	Exterior	R-19	R-19 (< 0.04%)		U-0.052	24,186
	Which insulation code target does wall comply with?: R-19 CI			U-Factor Source: WSEC Appendix A				
	U-Factor Source Description: WSEC			Framing Depth: Other Framing Depth				
	Framing Spacing: metal finish with rigid insulation							
	Is this assembly exterior or interior?: Exterior							
Mass (concrete masonry) - Commercial	Elevation A3.1	CMU wall with rigid insulation	Yes		(< 0.04%)		U-0.104	1,682
	Is CMU wall eligible for wall insulation exception?: Yes			Percentage of CMU cores filled with insulation: 50% or more				

	Space type enclosed by CMU walls: Warehouse (storage and retail)			Framing Spacing:				
	U-Factor Source Description:							
<b>Slab-on-grade Floors</b>	<b>Location in Documents</b>	<b>Assembly ID</b>	<b>Assembly Location</b>	<b>Slab Edge</b>	<b>Under Slab</b>		<b>F-Factor</b>	<b>Perimeter Length (SF)</b>
Unheated slab	A2.1, A4.1-A4.10	Concrete	At grade level	R-10			F-0.54	69,156
	Slab Insulation Method: Uninsulated slab			F-Factor Source: WSEC Appendix A				
	F-Factor Source Description: WSEC							
<b>Fenestration &amp; Opaque Door Assemblies</b>								
				<b>Insulation R-Values</b>				
<b>Opaque Doors</b>	<b>Location in Documents</b>	<b>Assembly ID</b>	<b>Assembly Location</b>	<b>Door Insulation</b>			<b>U-Factor</b>	<b>Rough Opening (SF)</b>
Swinging	Elevation A3.1 , A3.1, A4.1 - A4.10	INSULATED HOLLOW METAL DOOR	Exterior				U-0.29	358
	What percentage of this opaque door is glazing?: 50% or less			U-Factor Source: WSEC Appendix A				
	U-Factor Source Description:			Is this assembly exterior or interior?: Exterior				
	Is this a public entrance door?: No							
Garage, Sectional	Elevation A3.1 A5.4, A2.1	SECTIONAL OVERHEAD / ROLL UP DOOR	Exterior				U-0.071	2,387
	What percentage of this opaque door is glazing?: 50% or less			U-Factor Source: WSEC Appendix A				
	U-Factor Source Description: WSEC			Is this assembly exterior or interior?: Exterior				
<b>Vertical Fenestration</b>	<b>Location in Documents</b>	<b>Assembly ID</b>	<b>Assembly Location</b>	<b>Orientation</b>	<b>Shading (PF)</b>	<b>Fenestration SHGC</b>	<b>Fenestration U-Factor</b>	<b>Rough Opening (SF)</b>
Fixed - Class AW or site built	Elevation A3.1	fixed window	Exterior	South/East/West Facing	PF < 0.2	SHGC-0.38	U-0.38	135
	U-Factor & SHGC Source: WSEC Appendix A			U-Factor Source Description: WSEC				
	Is this assembly exterior or interior?: Exterior							
Fixed - Class AW or site built	Elevation A3.1	fixed window	Exterior	North Facing	PF < 0.2	SHGC-0.51	U-0.38	10
	U-Factor & SHGC Source: WSEC Appendix A			U-Factor Source Description: WSEC				
	Is this assembly exterior or interior?: Exterior							
Curtain wall (external non-load bearing wall)	A2.1, A4.1-A4.10	Storefront	Exterior	South/East/West Facing	PF < 0.2	SHGC-0.38	U-0.38	4,585
	U-Factor & SHGC Source: WSEC Appendix A			U-Factor Source Description: WSEC				
	Is this assembly exterior or interior?: Exterior							
<b>Glazed Doors</b>	<b>Location in Documents</b>	<b>Assembly ID</b>	<b>Assembly Location</b>	<b>Orientation</b>	<b>Shading (PF)</b>	<b>Fenestration SHGC</b>	<b>Fenestration U-Factor</b>	<b>Rough Opening (SF)</b>
Sliding entrance door	A5.4, A2.1	Storefront	Exterior	North Facing	PF < 0.2	SHGC-0.51	U-0.41	39
	U-Factor & SHGC Source: WSEC Appendix A			U-Factor Source Description: WSEC				
	Is this assembly exterior or interior?: Exterior			Is this a public entrance door?: Yes				
	Door enclosed within a vestibule?: No vestibule							
Sliding entrance door	Elevation A3.1, A2.1	Storefront	Exterior	South/East/West Facing	PF < 0.2	SHGC-0.38	U-0.41	42
	U-Factor & SHGC Source: WSEC Appendix A			U-Factor Source Description: WSEC				
	Is this assembly exterior or interior?: Exterior			Is this a public entrance door?: No				
Sliding entrance door	Elevation A3.1, A2.1	SLIDING	Exterior	South/East/West Facing	PF < 0.2	SHGC-0.38	U-0.41	35
	U-Factor & SHGC Source: WSEC Appendix A			U-Factor Source Description: WSEC				
	Is this assembly exterior or interior?: Exterior			Is this a public entrance door?: Yes				
	Door enclosed within a vestibule?: Yes							