

House Type Approval Certificate

Certificate No: **STAS/16/005/DM61/18**

Date: **13 February 2018**

A	Certificate Holder:	
	Persimmon Homes, Unit 1, Wester Inch Business Park, Old Well Court, Bathgate, West Lothian, EH48 2TQ.	
	E-mail: peter.Hacking@persimmonhomes.com	Tel: 0141 7662616

B	House Type Titles:	
	Description:	Thornwood Detached two storey house with integral garage (including options to external fabric finishes and optional window)

C	The domestic type approval has been assessed on the following drawings and specifications:	
	See attached annexe to this certificate	

D	Climatic conditions: The design may be built in areas where the climatic conditions are equal to or less than those detailed below:		
	Wind: (as defined in BS 6399-2)	<i>Standard</i> effective wind speed, $V_e =$ For maximum effective height = Has funnelling been considered?	24 m/s 5m NO
	Wind: (as defined in CP3: Chapter V)	<i>Design wind speed</i> , $V_s =$ (relevant to the building frame, at a height of 3m or less)	M/S
	Snow: (as defined in BS 6399-3)	<i>Site snow load</i> , $S_o =$ Influenced by adjacent buildings?	0.60 Kn/m2 NO
	Resistance to moisture/durability of exposed elements:	Max exposure (to wind driven rain) grading, as defined in BRE Report – Thermal Insulation: Avoiding Risks, Second Edition, 1994, to be exposure zone: Exposure to sea spray (i.e. coastal region) or de-icing salts? Other air contaminants or biological factors – please specify any enhanced resistance if applicable (refer to BS7543 for guidance)	Zone 1/ Zone 2/ Zone 3 NO
	Design Life: (per BS 7543 – Durability of buildings and building elements, products and components)	Category of building design life = Design life of primary building envelope	50 years 50 years

E	Conditions of certification:	
	<ol style="list-style-type: none"> 1. The design shown and the specifications and materials referred to have been assessed and approved in accordance with the Building (Scotland) Regulations 2004 and in accordance with the supporting guidance in the Domestic Technical Handbooks which came into force with effect from 1 July 2017. 2. The certificate shall be valid until invalidated by formal notice by the Local Authority Building Standards Scotland 3. The design shown and the materials specified shall not be changed without reference to the Local Authority Building Standards Scotland responsible for certifying the system. 4. Where reference is made on a plan or specification document to any Code of Practice, British or European Standard or manufacturer's instruction it shall be construed as a reference to such publication in the form in which it is in force at the date of this certificate. 5. This certificate should not be regarded as a formal approval under the building warrant process prescribed by the Building (Scotland) Act 2003 enacted from 1 May 2005 6. The Indev Consult Ltd statement dated 1/11/2016 referenced here under Section G, confirm that a structural appraisal has been carried out. Further site-specific information MUST BE made available when a site-specific building warrant is sought. Such additional information should take cognisance of Procedural Guidance on Certification including information to be submitted with a Building Warrant Application dated April 2010 Version 2 (2017). Confirmation of a holistic approach to structural adequacy of the entire completed building shall be provided by a registered engineer to the local authority within whose area the site specific dwelling is to be built. 7. This certificate confirms compliance with mandatory standard 6.1. However, this is based on a notional 'worst case' criteria with regards to orientation, shading, sheltering and resultant PV array efficiency. Site specific information will be required to confirm the actual DER for the STAS approved house type on each plot on a particular site. 	

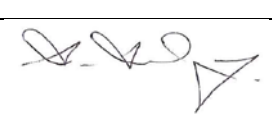
Annexe of drawings, certificates and specification documents used in the assessment:

F	Drawing Number:	Description:
	V6-TF-1247(15)001A Rev C	Schedules & Electrical Legend Option A
	V6-TF-1247(15)001B Rev C	Schedules & Electrical Legend Option B
	V6-TF-1247(15)101	Foundation & Drainage Layout
	V6-TF-1247(15)102	Drainage Isometric
	V6-TF-1247(15)201A Rev B	Ground Floor Plan – Option A
	V6-TF-1247(15)201B Rev A	Ground Floor Plan – Option B Feature Window
	V6-TF-1247(15)202A Rev A	First Floor Plan – Option A
	V6-TF-1247(15)202B	First Floor Plan – Option B Feature Window
	V6-TF-1247(15)301 Rev A	Section A-A
	V6-TF-1247(15)401A Rev A	Elevations - BF1 – Option A
	V6-TF-1247(15)401B Rev A	Elevations - BF1 – Option B Feature Window
	V6-TF-1247(15)402A Rev A	Elevations - BF2 – Option A
	V6-TF-1247(15)402B Rev A	Elevations - BF2 – Option B Feature Window
	V6-TF-1247(15)403A Rev A	Elevations - BF3 – Option A
	V6-TF-1247(15)403B Rev A	Elevations - BF3 – Option B Feature Window
	V6-TF-1247(15)404A Rev A	Elevations - BF4 – Option A
	V6-TF-1247(15)404B Rev A	Elevations - BF4 – Option B Feature Window
	V6-TF-1247(15)405A Rev A	Elevations - BF5 – Option A
	V6-TF-1247(15)405B Rev A	Elevations - BF5 – Option B Feature Window
	V6-TF-1247(15)412A Rev A	Elevations - SF2 – Option A
	V6-TF-1247(15)412B Rev A	Elevations - SF2 – Option B Feature Window
	V6-TF-1247(15)414A Rev A	Elevations - SF4 – Option A
	V6-TF-1247(15)414B Rev A	Elevations - SF4 – Option B Feature Window
	16-098-TIMBERKITBASE-416 Rev C	Thornwood Structural Layouts
	TF1888A/001 Rev D	Thornwood Layout – Option A
	TF1888A/002 Rev B	Thornwood GF & FF Panel Elevations – Option A
	TF1888A/003 Rev A	Thornwood Apex Panels – Option A
	TF1888B/001 Rev D	Thornwood Layout – Option B
	TF1888B/002 Rev B	Thornwood GF & FF Panel Elevations – Option B
	TF1888B/003 Rev A	Thornwood Apex Panels – Option B
	JJI-THOR-DET-OPT A	JJI Layout Option A
	JJI-THOR-DET-OPT B	JJI Layout Option B
	F-DETAILS-001	JJI Joist Details and Notching Parameters
	TF-D(1)01	Ground Bearing Slab Detail
	TF-D(1)02	Suspended Slab Detail
	TF-D(1)05 Rev A	Level Access Threshold Detail
	TF-D(1)06	Stepped Access Threshold Detail
	TF-D(1)07	Garage Threshold Detail
	TF-D(1)08 Rev A	Garage-House Separating Wall Detail (Ground.B Slab)
	TF-D(1)11	Dwarf Wall Detail
	TF-D(1)12 Rev A	Garage House Separating Wall Detail (Susp. Slab)
	TF-D(1)13 Rev A	Garage House Separating Wall Detail (Step > 150mm)
	TF-D(2)01	External Wall Make Up
	TF-D(2)02 Rev C	Stepped Brick Soldier Course Cill Detail
	TF-D(2)03 Rev C	Brick Jamb Detail
	TF-D(2)04 Rev C	Brick Head Detail
	TF-D(2)05 Rev C	Precast Cill Detail
	TF-D(2)06 Rev C	Precast Jamb Detail
	TF-D(2)07 Rev C	Precast Head Detail
	TF-D(2)10	Expansion Joint Detail
	TF-D(3)01	Standard Internal Wall Make Ups (Section)
	TF-D(3)02	Standard Internal Wall Make Ups (Plan)
	TF-D(3)03	Acoustic Internal Wall Make Ups (Section)
	TF-D(3)04	Accessible Sanitary Accommodation Grab Rails
	TF-D(4)01 Rev A	Standard Mid Floor Make-Up
	TF-D(4)02 Rev A	Perpendicular Joist Mid Floor Junction at External Wall
	TF-D(4)03 Rev A	Parallel Joist Mid Floor Junction at External Wall
	TF-D(4)05 Rev A	Garage Wall at Mid Floor Detail
	TF-D(4)06 Rev B	Stair Trimmer Detail

TF-D(5)01 Rev B	Standard Eaves Detail
TF-D(5)02 Rev B	Standard Eaves at Window Head Detail
TF-D(5)03 Rev B	Standard Verge Detail
TF-D(5)04 Rev A	Standard Ridge Detail
TF-D(5)05 Rev A	Standard Valley Detail
TF-D(5)09 Rev A	Condensation trap to Eaves Detail
TF-D(5)13	Door Head Canopy
TF-D(5)15	Flexible Ducting Installation
TF-D(6)01	SVP Box-In Detail
TF-D(6)03	Wet Floor Formation Detail
TF-D(6)04	Drainage Pipe Backfill Detail
TF-D(6)05	Wall Mounted Combi Boiler Detail
TF-D(6)06 Rev B	Service Zone for Low Level/Below Cills
TF-D(6)08	In Building Infrastructure Detail
TF-D(7)01	Internal Door Jamb Detail
TF-D(7)02	External & Internal Pass Door Clearances
TF-D(7)03	Canopy Post Detail
TF-D(7)06	Door at Stair Detail - Full Height Door Detail
TF-D(7)07	Shower Tray at Base detail
TF-D(7)08	Downlight at shower upgrade detail
TF-D(7)09	Pigs Ear' Handrail Detail
TF-D(7)14	Bedroom Furniture Activity Spaces

G	Certification:	
	Statement of structural adequacy	From Indev Consult LTD dated 01/11/2016
	Osma Soil and vent Systems BBA Certificate No. 86/1643	For AAV's
	Easy Trim Breather Membranes BBA Certificate No. 10/4753	For Roof Membrane

H	Specification:	
	STR-TF C SPEC V6 Rev J	V6 Technical Specification Timber Frame – All House Types
	STR-TF-DHDSPEC-V6	Heating Design Specification
	JJI-Joist Technical Bulletin 38 Acoustic Performance	For Intermediate Floors
	SRL Technical Report	Sound Testing Results for Intermediate Floor
	SAP ratings	For all house types
	U value calculations	For all elements

I	Authority:		
	This system type approval certificate consisting of 3 pages is authorised by:	Signature:	
		Lead Authority Building standards Manager on behalf of the Local Authority Building Standards Scotland (LABSS)	