

## House Type Approval Certificate

Certificate No: **STAS/16/005/DM61/02**

Date: **28/12/2017**

<b>A</b>	<b>Certificate Holder:</b>	
	Persimmon Homes, Unit 1, Wester Inch Business Park, Old Well Court, Bathgate, West Lothian, EH48 2TQ.	
	E-mail: <a href="mailto:peter.Hacking@persimmonhomes.com">peter.Hacking@persimmonhomes.com</a>	Tel: <b>0141 7662616</b>

<b>B</b>	<b>House Type Titles:</b>	
	Description:	<b>Ardbeg Semi-detached two storey house (including options to external fabric finishes)</b>

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

<b>D</b>	<b>Climatic conditions:</b> The design may be built in areas where the climatic conditions are equal to or less than those detailed below:		
	<b>Wind:</b> (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
	<b>Wind:</b> (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
	<b>Snow:</b> (as defined in BS 6399-3)	<i>Site snow load</i> , $S_o$ = Influenced by adjacent buildings?	0.60 Kn/m2 NO
	<b>Resistance to moisture/durability of exposed elements:</b>	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
	<b>Design Life:</b> (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

<b>E</b>	<b>Conditions of certification:</b>	
	<ol style="list-style-type: none"> <li>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.</li> <li>The certificate shall be valid until invalidated by formal notice by the Local Authority Building Standards Scotland</li> <li>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.</li> <li>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.</li> <li>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</li> <li>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.</li> <li>This certificate confirms compliance with mandatory standard 6.1. However, this is based on a national '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.</li> </ol>	

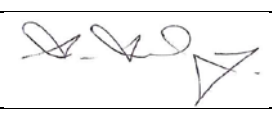
**Annexe of drawings, certificates and specification documents used in the assessment:**

F	Drawing Number:	Description:
	V6-TF-0799s(15)001 Rev D	Schedules & Electrical Legend
	V6-TF-0799s(15)101	Foundation & Drainage Layout
	V6-TF-0799s(15)102 Rev B	Drainage Isometric
	V6-TF-0799s(15)201 Rev C	Ground Floor Plan
	V6-TF-0799s(15)202 Rev B	First Floor Plan
	V6-TF-0799s(15)301	Section A-A
	V6-TF-0799s(15)302 Rev A	Section through future shower
	V6-TF-0799s(15)401 Rev B	Elevations - BF1
	V6-TF-0799s(15)402 Rev B	Elevations - BF2
	V6-TF-0799s(15)403 Rev B	Elevations - BF3
	V6-TF-0799s(15)404 Rev B	Elevations - BF4
	V6-TF-0799s(15)405 Rev B	Elevations - BF5
	V6-TF-0799s(15)412 Rev B	Elevations - SF2
	V6-TF-0799s(15)414 Rev B	Elevations - SF4
	16-098-401 Rev D	Ardbeg Structural Layouts
	16-098-422	Ardbeg Structural Details
	TF1788/001 Rev A	Ardbeg Layout
	TF1788/002	Ardbeg GF & FF Panel Elevations
	TF1788/003	Ardbeg Apex Panels
	3.31.050 U	JJI Layout
	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)09 Rev B	GB & Suspended. Slab Separating Wall Detail
	TF-D(1)10 Rev B	Stepped Party Wall Detail
	TF-D(1)11	Dwarf Wall Detail
	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)08 Rev A	Separating Wall Detail
	TF-D(2)10	Expansion Joint Detail
	TF-D(2)11 Rev D	Steel goalpost arrangement
	TF-D(2)12 Rev A	Steel Lintel/beam fire protection
	TF-D(2)16 Rev A	Steel post and beam connection
	TF-D(2)18	Steel lintol/ beam external and hallway
	TF-D(2)21 Rev A	Separating Wall Junction - no service zone
	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)04 Rev B	Parallel & Perpendicular Joist Mid Floor at Sep. Wall
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)07 Rev B	Seperating Wall Detail
TF-D(5)08 Rev B	Stepped Seperating Wall Detail
TF-D(5)09 Rev A	Condensation trap to Eaves Detail
TF-D(5)13	Door Head Canopy
TF-D(5)14 Rev A	Stepped Seperating Wall Detail (FB Finish)
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

<b>G</b>	<b>Certification:</b>	
	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
	Charlie Fleming Associates - Acoustical Consultants Report	For Steel within Separating Wall
Charlie Fleming Associates - Acoustical Consultants Report	For Fully Insulated Separating Wall Cavity	

<b>H</b>	<b>Specification:</b>	
	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	

<b>I</b>	<b>Authority:</b>		
	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)	