



Employer's Requirements

(ER v.18 Addendum J – Issue October 2023)

Specification for Affordable Rent, and Shared Ownership



Part L 2021 Specification Update – current position

The following defines Great Places baseline specifications to meet the requirements of Building Regulations Part O/ Part L and Part F which apply to schemes lodged post April 2022 and schemes which will not commence individual plot works in advance of June 2023.

Based on engagement with contractors and other housing professionals we are developing a baseline specification which includes typical standard details for thermal junctions and elemental build-ups.

Build-ups are based on readily available materials and construction methods and consider the requirements of increasing thermal performance whilst limiting increased wall thicknesses and associated land take.

Below is the current position in relation to this work to assist in assessing projects coming forward which will be required to meet the new regs.

Fabric and construction

Proposals are for timber frame construction for low rise single-family occupancy homes and LGSF for development of multi-family occupancy over three storeys, which provides the most readily achievable method to provide reg compliant performance, along with increased build speed and reduced interface complexities and cold bridging issues.

(Please note, however, that the specification sets performance requirements which can be met by any construction typology)

To limit the need to incorporate excess renewables or introduce increasing build complexity it is key to limit thermal bridging through design details which must be delivered on site. It's important to ensure that thermal bridges are specified by the design team as early as possible, rather than using assumed/ standard y-values.

Typical details are being developed to provide as an addendum to the ERs.

These details are based on performance as given below

- Walls U-value 0.16
- Floors U-value 0.11
- Roofs U-value 0.09
- Windows U-value 1.4, G-Value 0.43, Frame profile to accept future TGU.
- Air tightness 3m³/h at 50Pa
- Thermal bridging (independently assessed) Y-value 0.06 W/m²k

Houses only on projects already in planning/ contract - Systems Option 01 (lowest bills to customer, but not truly future homes or zero carbon ready))

- Gas boiler
- Unvented hot water cylinder (must be futureproofed to plug and play with ASHP and include provision to utilise Solar PV diverted electric)
- Radiators must be sized to suit lower system flow temperature of 55degrees or underfloor heating to futureproof for non-gas systems
- 2.4KW PV
- (8KW Battery -TBC - not required for Part L compliance but reduces unregulated energy costs and optimises benefit to customer of solar PV)
- Naturally ventilated or MEV or MVHR (subject to overheating, noise and crime impact assessments)

N.B. Please note where Gas services are included PV are a requirement to pass SAP calcs. There is less scope to easily overcome performance gap issues due to relatively high emissions.

(Also be aware that even with PV a gas system with similar fabric performance to that outlined above but less air tight at 5m3/h will not comply with regulatory emissions requirements but still scores an EPC rating of 96A)

Houses/ cottage flats - Systems Option 02 (lowest emissions, Future Homes and Zero Carbon ready, requires PV for bills parity but not for compliance)

- Split system ASHP (large format radiators or U/F heating)
- Unvented hot water cylinder (include provision to utilise solar PV diverted electric)
- (3.5kW PV – TBC - not required for Part L compliance but to reduce customer running costs to bring in-line with option 01 above)
- Naturally ventilated or MEV or MVHR (subject to overheating, noise and crime impact assessments)

Apartment schemes system spec (fabric as above)

- One no. exhaust air heat pump per apartment (combined MVHR / ASHP system and hot water cylinder), for heating and hot water (up to 100m2 floor area and max 3persons)
- Unvented hot water cylinder (part of combined system)
- Large format radiators/ Underfloor heating as heat emitter
- No PV due to demise/ access issues and split inverter issues and costs
- No battery due to fire safety concerns
- MVHR (due to expected noise/ crime concerns, part of combined system)
- PV array designed to meet Landlord and common spaces energy demand

Irrespective of construction method the fabric performance required is the same.

Expected construction methods for apartments given below;

Construction typology - Multi-family dwellings of 3 or more storeys;

- General Needs – expect to see increase in use of light gauge steel frame (similar principles and build-ups to timber frame with o/a wall thickness of c.330 to 370mm)
- Extra Care as above.
- Supported schemes – anticipate we will need to build masonry cavity wall construction and accept/ be aware of increase in footprint due to an o/a wall thickness of c.420 to 450mm.

Additional point to note is that where a wall/ floor separates a dwelling from an unconditioned (unheated) space then this element will need to be thermally upgraded to meet the elemental performance of the external envelope.