

**DESIGN STAGE SPECIFICATION - 2013 BUILDING REGULATIONS
SAP Conventions Version 8.01**

30/11/2020	Luke Butler - Stroma Accreditation Number STRO033924 Plasmor, Knottingley Tel: 01977 673221 Fax: 01977 607071 Email: luke.butler@plasmor.co.uk
LSB 14-1840	New Site, Mount Vernon
Ground floor:	75mm Screed, 150mm Foam board insulation (K=0.022) 100mm Concrete slab <u>U Value = 0.11-0.12 W/m²K</u>
Exposed floor:	22mm Chipboard 200mm Mineral wool insulation (K=0.040) between floor joists 40mm Gyproc Thermaline Basic board below and skim (R=0.80) <u>U Value = 0.18 W/m²K</u>
Brick wall:	Brick outer 125mm Ecobead Platinum or equal (K=0.034) 100mm Plasmor Aglite block 12.5mm Plasterboard on dabs and skim <u>U Value = 0.22 W/m²K</u>
Render wall:	Render outer 125mm Ecobead Platinum or equal (K=0.034) 100mm Plasmor Aglite block 12.5mm Plasterboard on dabs and skim <u>U Value = 0.22 W/m²K</u>
Garage wall:	100mm Plasmor Aglite block 125mm Ecobead Platinum or equal (K=0.034) 100mm Plasmor Aglite block 12.5mm Plasterboard on dabs and skim <u>U Value = 0.22 W/m²K</u>
Party wall:	Fully filled with effective edge sealing <u>U Value = 0.00 W/m²K</u>
Dormer cheeks:	Timber dormer external finish 100mm Foam board (K=0.022) between timber studs 12.5mm Plasterboard and skim <u>U Value = 0.26 W/m²K</u>
Stud walls:	100mm Foam board (k=0.022) between timber studs 12.5mm Plasterboard and skim <u>U Value = 0.28 W/m²K</u>

Plane roof:	200mm mineral wool between joists 250mm mineral wool over joists 12.5mm Plasterboard and skim (total 450mm mineral wool K=0.040) <u>U Value = 0.09 W/m²K</u>
Slope roof:	50mm cavity bridged with the timber rafters 125mm Foam board (K=0.022) between rafters 35mm Foam board (K=0.022) bonded to 12.5mm plasterboard (47.5mm overall insulated plasterboard) below rafters <u>U Value = 0.15 W/m²K</u>
Doors:	U value = 1.0 W/m ² K
Windows:	U value = 1.2 W/m ² K <i>Double Glazed, argon or air filled. 16mm gap or more. Transmittance factor 'g' 0.63. Frame Factor 'FF' 0.7</i>
Heating system:	Ideal Logic Combi ESP1 35 boiler to Cardington House Type. Boiler ID: 017929 Ideal Logic Max Heat H18 system boiler to all remaining house types. Boiler ID: 018501 Radiators throughout.
Heating controls:	Time and temperature zone control by suitable arrangement of plumbing and electrical services. Ideal Weather/ load compensator installed to every plot
Water heating:	210L Range Tribune Hot water cylinder installed to every plot which has a system boiler. Declared loss of the cylinder to be 1.85 kWh/day or better. Fully insulated primary pipework
Renewable technology:	Showersave QB1-21C system A, Wastewater Heat Recovery System installed to each plot.
Air pressure:	Each plot to be air pressure tested to achieve 5.0m ³ hm ²
Ventilation:	Standard intermittent extract fans and trickle vents.
Low energy lighting:	100% Low energy lighting
Thermal bridging:	Calculated in SAP 2012 Appendix K based on the use of Accredited Construction Details, Plasmor and Concrete Block Association calculated Psi values.
Lintels:	Keystone/IG standard lintels used throughout (Psi=0.23)
Cavity closers:	Thermabate or equivalent insulated cavity closers

** Please inform us of any changes to the assumed boilers within our calculations and actual boilers to be installed prior to purchase order. This will allow us to mitigate the risk of a compliance fail.*

Evaluation of Carbon & Energy Reductions

Through the installation of a Waste Water Heat Recovery System and low carbon strategies on the site, a carbon reduction of 96.16kg/CO₂/m²/year will be achieved. This represents a total reduction of **12.55%** * *calculations available on request*

Using the same strategies, the overall energy requirement for the site will be 222110.55kWh/yr. Prior to the specification upgrades, the energy requirement for the site was 261738.6 kWh/yr. Therefore, the final energy reduction on this site is **15.14%** * *calculations available on request*

Thermal bridging checklist for SAP Part L 2013



To enable us to issue the EPC, please sign the construction details below and return to us with the 'As Built' form.

Detail / Reference		Provider	Location	PSI
E2	SK90	Keystone standard	Lintel	0.23
E3	PTM-042	Plasmor	Cill	0.012
E4	PTM-045	Plasmor	Jambs	0.011
E5	PTM-015	Plasmor	Suspended block and beam floor	0.075
E6	CBA 303	Plasmor	Timber suspended ground floor	0.00
E16	PTM-007	Plasmor	Corner normal	0.057
E17	PTM-008	Plasmor	Corner inverted	-0.103
E10	PTM-005	Plasmor	Pitched roof – eaves	0.036
E12	E12-AL-2018	Plasmor	Pitched roof – gable	0.084
E11	CBA-309	CBA	Eaves insulated rafter	-0.002
E13	MCI-RE-01	ACD	Gable insulated Rafters	0.4
E20	E20-AL-2018	Plasmor	Exposed Floor	0.079
E21	E21-AL-2019	Plasmor	Exposed Floor Inverted	0.063
E16	Conventions #5.08	Conventions	Corner Normal	0.09
E17	Conventions #5.08	Conventions	Corner inverted	-0.09

SAP Ref:

Site:

Name (please print)

Signed

Date

