

# Energy Statement – 24 Hampton Road, Twickenham: Development of 3 Houses.

## INTRODUCTION

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To promote sustainable building design, London Borough of Richmond upon Thames requires all new developments to demonstrate the incorporation of energy and water efficient measures, in accordance with Policy LP 22 and London Plan Policy 9.2.5.

## BACKGROUND

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The development at 24 Hampton Road will provide 3No. new dwellings, consisting of 2No. two storey, three bedroom, semi-detached houses, and 1No. single storey, two bedroom, detached bungalow. The site is situated North East of Hampton Road between First Cross Road and Second Cross Road, Twickenham.

## PROPOSALS

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- i) The houses will be constructed from an open panel timber frame system from a supplier who holds gold or silver membership of the Structural Timber Association (STA)
- ii) Each dwelling will adopt a high specification of insulation, space/hot water heating, low energy lighting and renewable energy to achieve an overall improvement of 35.00% in respect of the Dwelling CO<sub>2</sub> Emission Rate (DER/TER) and a 10.00% improvement of the Fabric Energy Efficiency (DFEE/TFEE) against Building Regulations Approved Document L1A (2013) as shown by SAP2012 calculations.
- iii) Each semi-detached house will have 1.50 kW<sub>peak</sub> photovoltaic panels installed and the detached bungalow will have 1.25 kW<sub>peak</sub> photovoltaic panels installed.
- iv) External thermal elements will be of high specification to achieve the following U Values – Ground Floor 0.11 W/m<sup>2</sup>K, External Walls 0.23 W/m<sup>2</sup>K, Roof 0.10 W/m<sup>2</sup>K
- v) External doors, windows and rooflights will be of high specification - 1.70 W/m<sup>2</sup>K, 1.40 W/m<sup>2</sup>K and 1.50 W/m<sup>2</sup>K respectively.
- vi) Each dwelling will incorporate Approved Construction Details (ACD's) and an Enhanced Construction Detail Lintel for thermal bridging, to limit heat loss.



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- vii) The detached bungalow will be airtightness tested to a maximum of 6.00 m<sup>3</sup> / m<sup>2</sup>.h and each semi-detached house will be airtightness tested to a maximum of 5.00 m<sup>3</sup> / m<sup>2</sup>.h - which is below current guidelines to help conserve energy.
- viii) Each dwelling will be fitted with a high efficiency gas combi boiler with a flue gas heat recovery system.
- ix) Lighting will be 100% low energy throughout.
- x) Water efficiency calculations will be produced for each unit to ensure that daily use of internal potable water is no greater than 105 litres per person per day.
  - a. Toilets – dual flush 6/4 litres
  - b. Kitchen taps – 7 l/m (@ 0.3kPa)
  - c. Utility taps – 6 l/m
  - d. Basin taps – 5 l/m
  - e. Bath – 140 litres to overflow
  - f. Showers – 7.6 l/m
  - g. Washing Machine – 9 litres per Kg of dry load
  - h. Dishwasher – 1.2 litres per place setting
- xi) All building materials will be sourced locally.
- xii) The workforce will be South West London based and local, journey times and methods of transportation will be recorded daily.
- xiii) The proposed development is within a low-risk flood zone as defined in *PPS25 Development and Flood Risk*.
- xiv) The peak rate surface water run-off over the development lifetime, allowing for climate change, will be no greater than it was for the pre-development site. This will comply at the 1 year and 100-year return period events.
- xv) Each new property will be provided with internal waste and recycling storage appropriate to the Local Authority waste and recycling collection schemes.
- xvi) The developer will use, where possible, recycled products. These will be recorded and details provided.

## CONCLUSION

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The development will be designed and constructed above current guidelines to create a sustainable living environment with measures taken to control energy and water consumption during the construction phase and in the future.

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This statement has been produced on behalf of The Park Property Group LTD

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