

1. GENERAL INFORMATION

PROJECT: RETROFIT FOR FUTURE HOUSE

CONTEXT: BALHAM,LONDONUK

ORIGINAL USE:EDWARDIAN HOME

USE: HOUSE

DESIGNER(S): ND

COMPLETION DATE: 2011



Keywords:Monitoring Methodology, Differences between Forecast Consumption and Actual Use, Errors on The Initial Forecast Model, Energy and Actual Use, Energy Systems use On A Month To Month Basis, Legislation To Reduce Carbon Emissions



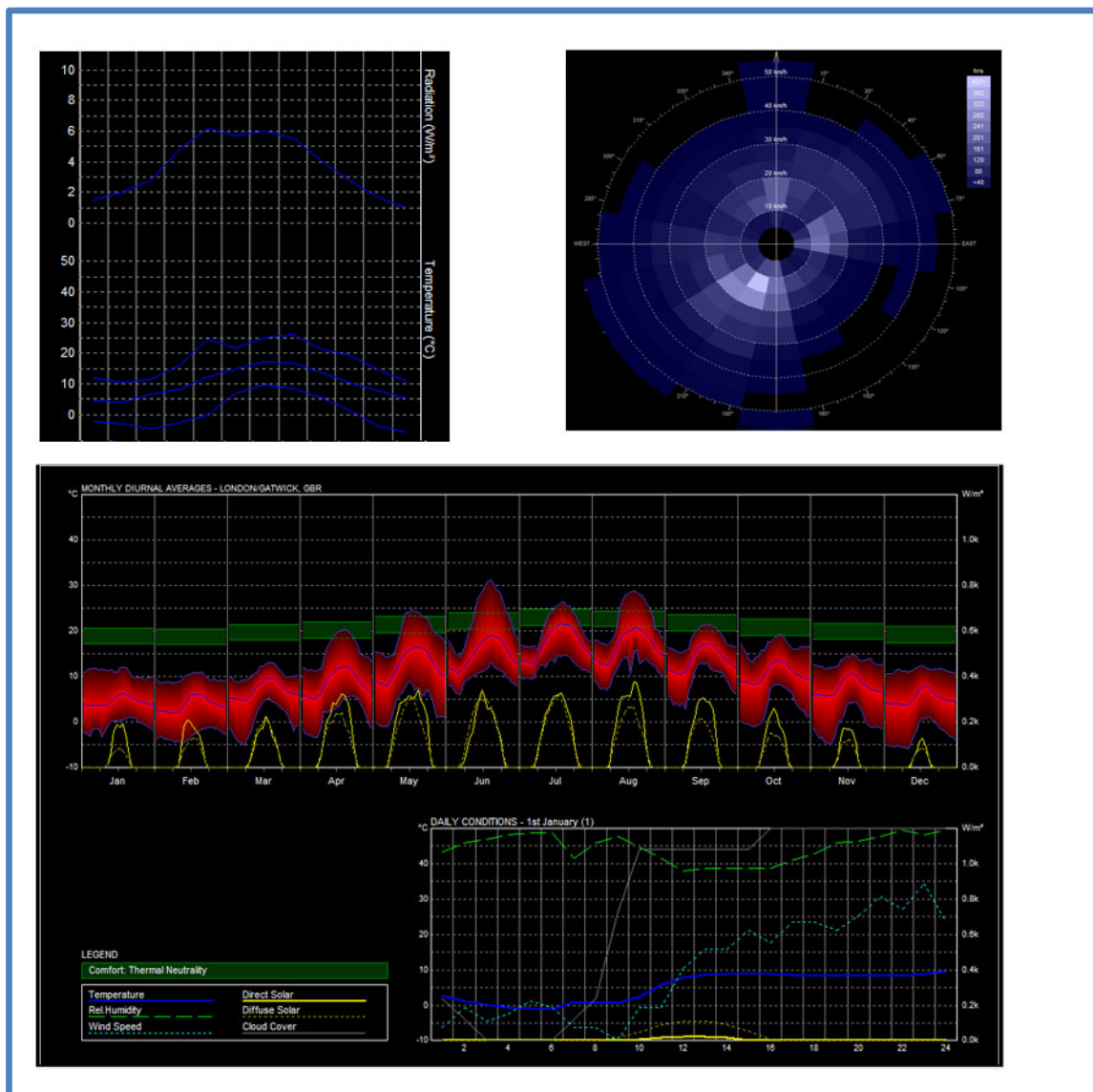
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2. CLIMATIC FEATURES

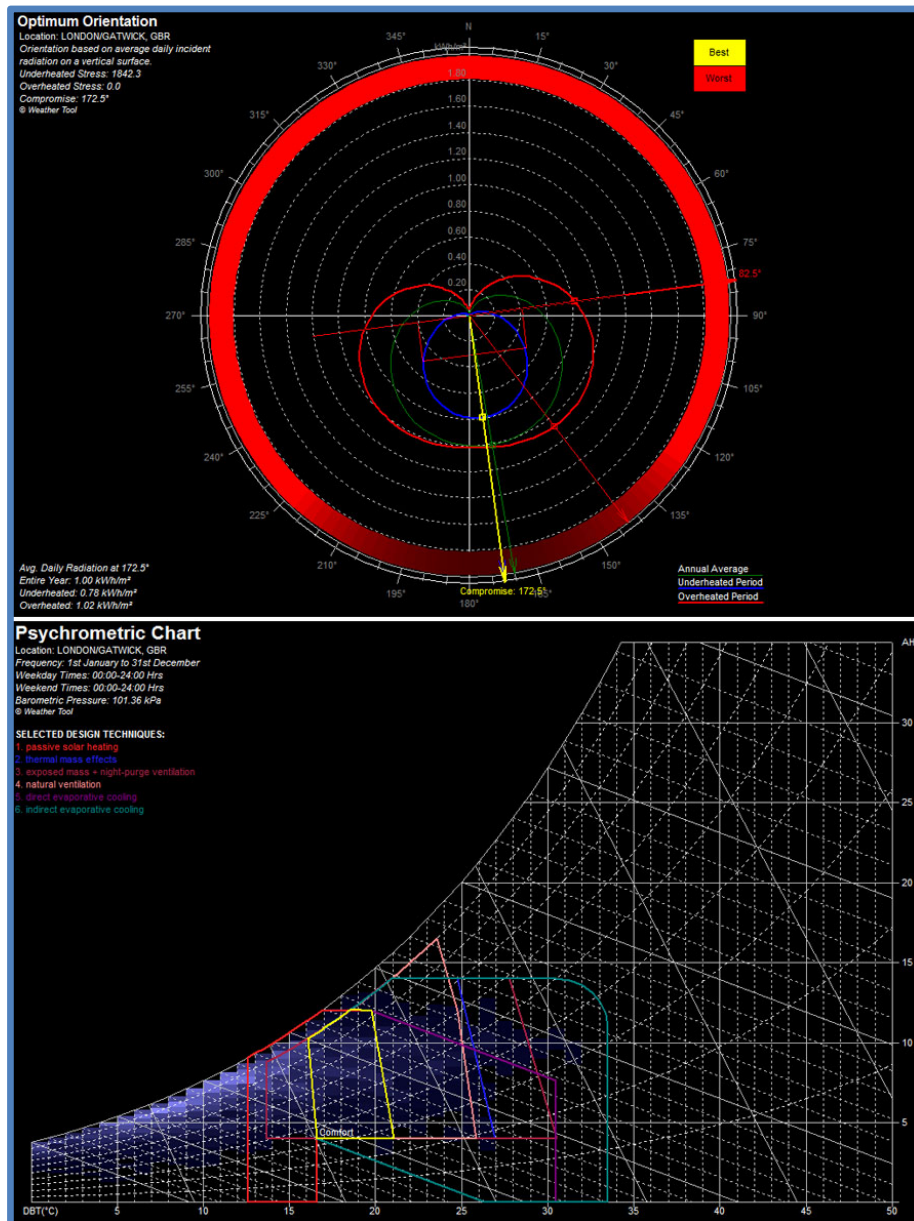
CLIMATE SUMMARY:

- MONTHLY DATA: RADIATION (W/mq); MAX, MID, MIN TEMPERATURE °C
- PREVALLING WIND (WIND FREQUENCY – Hrs)
- HOURLY DATA – MONTHLY DIURNAL AVERAGES
- DAILY CONDITION (1ST JAN)



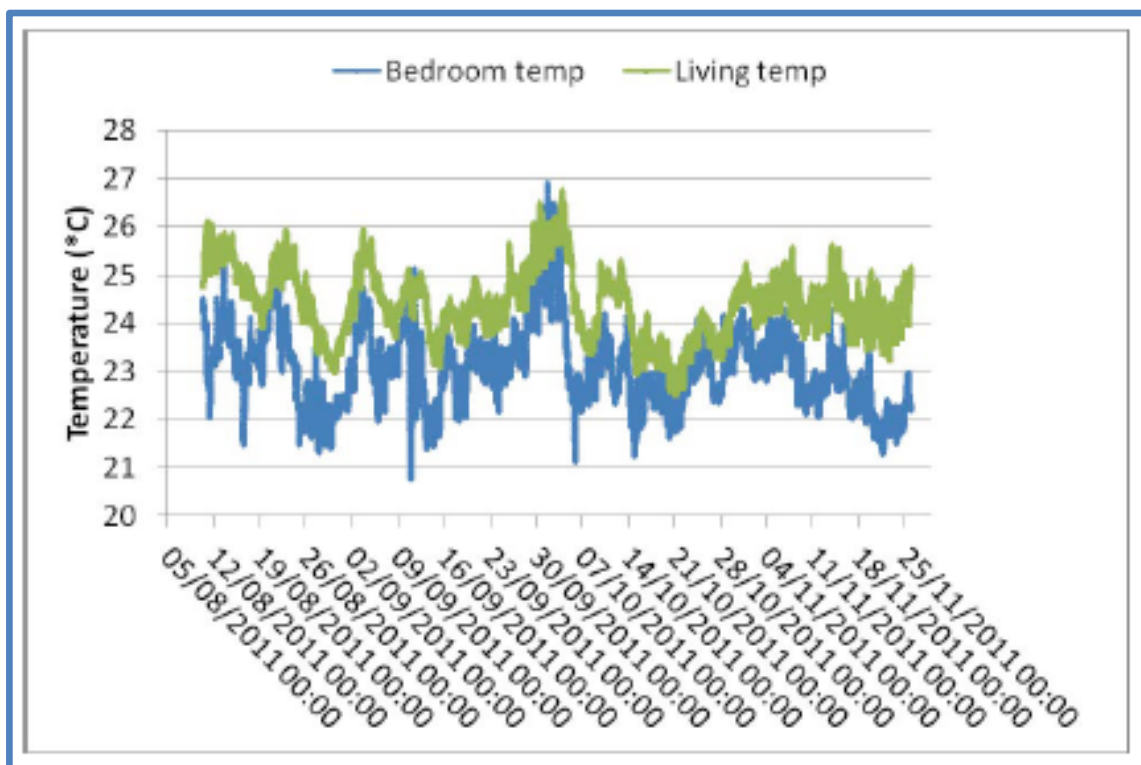
3.BIOCLIMATIC FEATURES

- OPTIMUM ORIENTATION
- COMBINATION OF PASSIVE ENERGY STRATEGIES



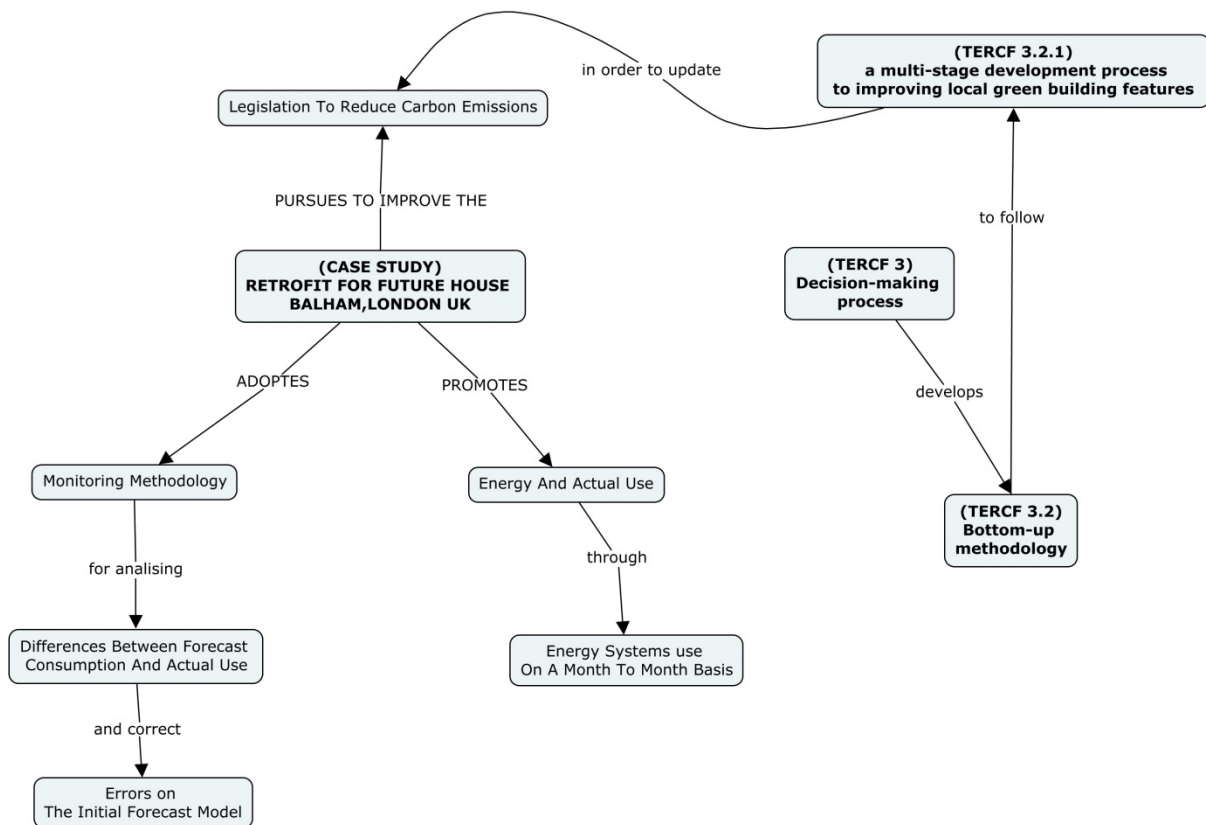
4. URBAN AND/OR BUILDING FEATURES

The UK has enacted legislation to reduce carbon emissions by 80% from 1990 levels, by 2050 [Climate Change Act 2008]. Carbon emissions from the domestic sector account for around 25% of the total UK carbon emissions and of these, about 50% are due to space heating [DECC 2011]. With new construction making a tiny impact on these figures, improving existing housing becomes more important. This case study concerns the Haringey PassivTerrace, an extensive refurbishment of an existing mid-terrace Edwardian property aiming to save 80% of energy consumption and carbon dioxide emissions. The house is a late Victorian/Edwardian terrace house typical of London, it now has 3 bedrooms with a bathroom and WC upstairs; downstairs there is a kitchen, living room and extra WC. The total floor area is 109m², with a total volume of 250m³. The Retrofit for the future competition aims to include the investigation of factors that could affect the rollout of major refurbishment programmes across the UK. During this project some issues have been discovered that affect the overall performance of the house and would be important to address in larger programmes. The Retrofit for the future competition aims to include the investigation of factors that could affect the rollout of major refurbishment programmes across the UK. During this project some issues have been discovered that affect the overall performance of the house and would be important to address in larger programmes.



5. FOCUS QUESTION AND MAP

What strategies to reduce carbon emissions?





MILESTONE 1.1

6. REFERENCES

Ben Croxford, Hawthorn Road PassivTerrace: Final Monitoring, Report for TSB, March 2013,

[www.lowenergybuildings.org.uk/download.php%3Fid%3D70%26file%3DCroxford_2013
- Hawthorn PassivTerrace Monitoring Annual Report v7](http://www.lowenergybuildings.org.uk/download.php%3Fid%3D70%26file%3DCroxford_2013_-_Hawthorn_PassivTerrace_Monitoring_Annual_Report_v7)



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