2.0 Scope and Methodology

2.1 Introduction

The Department of the Environment, Heritage and Local Government commissioned this study to examine issues relating to the use of timber frame housing and its application in Irish conditions. The objectives of the report are to:

a) Provide an assessment of the characteristics of timber frame housing as they relate to Irish conditions;
b) Critically review the existing regulatory regime as it impacts on timber frame housing;
c) Assess current manufacturing, assembly and site practices with particular reference to the adequacy of supervision and control procedures, and
d) Explore in detail factors which influence the acceptability and market penetration of timber frame housing in the general housing market and, in particular, the social housing market.

2.2 Terms of Reference of the Study

The study has been undertaken in the context of the industry trend to supplement other methods of housing and the level of output envisaged in the National Development Plan 2000-2006, while ensuring quality construction and satisfying the functional requirements of dwellings.

The aims of the study were to:

1. Examine current practice and procedure in relation to timber frame construction in both public and private sectors in Ireland;
2. Assess the impact of the current Irish regulatory regime and related technical requirements on the provision of timber frame housing;
3. Assess current Irish systems and practices in relation to quality control and product certification at all stages in timber frame housing construction;
4. Examine sustainability and user expectations in relation to quality, durability, energy efficiency, initial capital cost, life cycle cost and management and maintenance characteristics;
5. Assess the system of procurement in local authority/social housing provision and its impact on the use of timber frame housing;
6. Assimilate the findings in relation to the principal areas of study listed above and prepare assessments that will
inform appropriate recommendations including amendments to regulations, procedures and practices.

In undertaking the study, the consultants had regard to:

- **Market Demand** - the level of housing demand to be met over the coming decade and, in particular, to the expected demand over the period of the National Development Plan, i.e. up to 2006;
- **Sustainability and End User Requirements** - including issues such as quality, durability, energy efficiency, initial capital and life cycle cost, and management and maintenance characteristics;
- **Regulatory Regime** - governing the provision of housing (in particular, the Building Regulations 1997-2000 and related Technical Guidance Documents);
- **Current Practice and Procedures** - construction materials and methods of timber frame construction;
- **Quality Control and Product Certification** - in materials, methods of construction on site and in the factory, inspection, guarantee and certification;
- **Market and Cost Issues** - including initial capital cost, life cycle cost, cost of recommendations and market trends in Ireland and the UK;
- **Procurement and Contractual Issues** - factors in the market and social housing sector which may affect the use of timber frame.

### 2.3 Context

The National Development Plan 2000-2010 forecast the building of 500,000 new houses over a 10-year period.

For the year 2002 the number of residential units constructed amounted to 57,700 units of which local authority and voluntary housing accounted for 5,800 units or around 10% of overall output.

Timber frame construction, according to approximate industry figures, amounted to 8,700 units of housing in 2002 and of this approximately 600 were in the social housing sector.

The degree to which timber frame construction can contribute to the housing sector will be largely dependent on the issues set out within this report and the timber frame manufacturers’ capacity and potential for development and growth.

### 2.4 Methodology

The TFH 2002 Consortium is comprised of consultants with individual and combined experience in the Irish housing sector, the
UK housing sector and timber frame construction. The approach to the study included desktop research, field visits, interviews, a request for written submissions, and a colloquium including invited relevant organisations, firms, contractors and consultants.

2.4.1 Desktop Research

This was conducted utilising published research in the form of books, technical manuals, Building Regulations and Technical Guidance Documents, manufacturers’ data, reports by other organisations relevant to timber frame construction techniques and experiences.

2.4.2 Field Visits

These were conducted to view timber frame sites, completed developments and manufacturing facilities both in Ireland and elsewhere in Europe.

2.4.3 Interviews

These were conducted with key interest groups such as NSAI, DoEHLG Housing Inspectors, Fire Officers, Local Authority Building Control Officers, Home Warranty Providers, end users and manufacturers. The aim of the interviews was to collect information on any issues that might need to be addressed by the study.

2.4.4 Written Submissions

An advertisement was placed in the Irish Times (21 March 2002) to invite written submissions from members of the public who wanted to express their views on timber frame construction. (See Appendix 9).

2.4.5 Colloquium

This was held at the offices of the Royal Institute of Architects of Ireland (22 April 2002). The aim of the colloquium was to inform key interest groups of the purpose of the study, and to provide a forum in which they could present their views on timber frame construction.

The research was then compiled, analysed and discussed by the Consortium. The findings, conclusions and recommendations arising from the study are presented in this report.