SCOTTISH EXECUTIVE

Development Department

Building Regulation Note 2/2002

BUILDING STANDARDS (SCOTLAND) REGULATIONS 1990 (AS AMENDED)

Application of Part J of the Technical Standards to conservatories

Distribution List enclosed

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12 July 2002

Dear Sir or Madam

Enclosed for your information is a copy of Building Regulation Note 2/2002.

This Note provides guidance about conservatories and their relationship with Part J of the Technical Standards for compliance with Regulation 22 of the Building Standards (Scotland) Regulations 1990, as amended.

Any enquiries regarding this Note should, in the first instance, be directed to:

Gavin Peart
Scottish Executive
Building Standards Division
Area 2-H
Victoria Quay
EDINBURGH
EH6 6QQ

Tel: 0131 244 7452
Fax: 0131 244 7454
Email: gavin.peart@scotland.gsi.gov.uk

Yours faithfully

DR J P CORNISH
Head of Building Standards

BUILDING REGULATION NOTE **Note No 2/2002**

APPLICATION OF PART J OF THE TECHNICAL STANDARDS TO CONSERVATORIES

1. The Sixth Amendment to the Technical Standards for compliance with the Building Standards (Scotland) Regulations 1990 came into force on 4 March 2002. Since then, there have been a number of enquiries by local authorities and the building industry about the application of Part J of these standards to conservatories. This note is intended to supplement the Technical Standards and be read in conjunction with Class Relaxation Direction 140 (which expires on 1 March 2003). The guidance given in this note demonstrates the flexible approach that can be taken in terms of Part J when dealing with such structures. The flow chart provided at the back of this document will also assist in indicating some of the different routes to compliance.

2. "**Conservatory** means a building attached to a dwelling and having a door separating it from that dwelling and having not less than three-quarters of the area of its roof and not less than one-half of the area of its external walls made of translucent material."

   From the definition it can be established:
   - A conservatory can be considered as a "building" in its own right; but also
   - For it to be a conservatory it must be "attached" to a dwelling; and
   - A conservatory must be divided from the same dwelling by a door; and
   - The external fabric of a conservatory must have the minimum area of glazing specified. Put another way, a substantial proportion of windows/glazed doors and rooflights are required. Without this, the concession given in Technical Standard Q3.5 allowing borrowed daylight to apartments (a conservatory may be built over windows and glazed doors) would not be effective.

3. Any glazed structure attached to a dwelling, but which is "open" to the dwelling, i.e. there is no dividing door, should not be considered as a conservatory. Such structures should be treated as part of the dwelling (new-build) or as an extension (existing dwelling).

Exempt Conservatories (Heated or Unheated)

4. A single storey conservatory not exceeding $8m^2$ in area and ancillary to a house may be exempt from building warrant and the Technical Standards (including Part J). This is subject to the Part A conditions in Class 21 of Schedule 1 to Regulation 3. However, any dividing elements (in a new-build situation) or alterations to dividing elements (in the case of an existing dwelling) will need to meet the fabric insulation requirements of Part J, taking into consideration Class Relaxation Direction 140, as appropriate. Although the conservatory is exempt, warrant will be required for such work to the dividing elements. A conservatory which is ancillary to either a flat or maisonette will not be exempt from building control, irrespective of its size.

Conservatories attracting a Building Warrant (Unheated)

5. An unheated conservatory is exempt from Part J requirements. It should be noted, however, that a conservatory erected without thermal insulation because it is intended to be unheated, which is then subsequently heated represents a significant reduction in the

conservation of fuel and power. This is contrary to the requirements of the Building (Scotland) Act 1959, as amended, unless a warrant for change of use is applied for. This will not be granted unless the standards for a heated conservatory are met. The important considerations to be taken into account are:

- An unheated conservatory acts as a solar benefit in an otherwise heated dwelling; but
- A poorly insulated and heated conservatory produces a significant increase in the proportionate heat loss because of the nature of the building elements.

6. For new-build, when using the elemental method which is dependent on the SEDBUK rating of any central heating boiler installed:
   - The U-value of a wall and any part of a floor dividing it from the dwelling must be established from Table 1 to J3.2 and calculated in accordance with J2.3 and;
   - The U-value of the door and any window dividing it from the dwelling must be established from Table 1 to J3.2.

7. Similar provisions apply when the Target U-value or Carbon Index methods are being used for dwellings but the U-value for the dividing elements can have more flexibility (subject to the Table to J3.12).

8. Where an unheated conservatory is attached to an existing dwelling, no thermal upgrading of the existing (formerly external) dividing wall, door, window or on the rare occasion floor, is necessary, unless warrant and/or Technical Standard attracting alterations to such elements are made. Class Relaxation Direction 140 should then be taken into consideration, as appropriate. There should certainly be no attempt made to downgrade the U-value of existing dividing elements, changing double-glazed patio doors to single-glazed 15-pane glass doors, for example.

Conservatories attracting a Building Warrant (Heated)

9. One of the key considerations for a heated conservatory is that the dividing elements (wall, door, window or on the rare occasion floor) between the dwelling and conservatory do not require any level of thermal performance. This is due to the fabric insulation being located at the externally exposed elements of the conservatory (see J2.4).

10. A heated conservatory that has a floor area exceeding $30m^2$ is not given any concessions and the glazed exposed elements should meet the U-values for windows, doors and rooflights in Table 1 to J3.2 when compliance using the Elemental Method is proposed.

11. A heated conservatory that has a floor area not exceeding $30m^2$ is allowed certain concessions for the U-value of the glazing and frames; i.e. they can be 3.3 W/m^2K. Also where calculating the average U-value for the dwelling, the conservatory may be ignored (see J7.1).

12. Considering that a conservatory, as defined, is both a “building” and “attached” to a dwelling allows three different approaches to achieve compliance with Technical Standard J7.1 in a new-build situation, depending on which characteristic from the definition is chosen and these are outlined below:

    (a) Using either the Carbon Index Method or the Target U-value Method for the whole dwelling (including conservatory), the conservatory heat-loss can be absorbed within

these calculations and the fabric insulation for the conservatory can have the less demanding U-values in accordance with the table to J3.12. In this case, the conservatory adopts the "attached" characteristic in order to achieve compliance. It is most likely that other exposed elements of the dwelling will have to be "super-insulated" and that favourable solar heat gains and energy-efficient central heating boilers will probably also be a prerequisite for overall compliance. For the purposes of the Building (Procedure) (Scotland) Regulations 1981, as amended, a SAP rating will be necessary which must include both the dwelling and the conservatory. This will be required by the local authority when the application for warrant is submitted. If the Carbon Index Method has been used to demonstrate compliance, the SAP rating established in the calculation will be suitable for this purpose.

(b) Using either the Carbon Index Method or the Target U-value Method, the conservatory can be excluded from these calculations and zero heat-loss is then assumed at the dividing elements (wall, floor, door or window) between the dwelling and the conservatory. This is permitted by the zero heat-loss assumed by virtue of J2.4. In this case, the conservatory adopts the "building" characteristic in order to achieve compliance. The fabric insulation for it can then be established using the Elemental Method, taking the SEDBUK rating of any central heating boiler in the dwelling into account. Although the designer will have carried out a SAP calculation in order to determine the Carbon Index of the dwelling (if this is the chosen compliance method), this will not be suitable for notification of the SAP rating of the property to the local authority. For the purposes of the Building (Procedure) (Scotland) Regulations 1981, as amended, a recalculation will be necessary which must include both the dwelling and the conservatory.

(c) Using the Elemental Method for both the dwelling and conservatory. In this method of achieving compliance, the conservatory should be considered using the "building" characteristic and the maximum glazing percentage applied only to the dwelling and the dividing element. The SEDBUK rating of any central heating boiler should be taken into account when establishing the U-values of elements. In view of the minimum glazing area presented by the conservatory definition (see paragraph 2), any attempt to use the maximum glazing percentage for the dwelling should not be applied to the conservatory (see J3.3) as this will probably result in an unworkable solution. For the purposes of the Building (Procedure) (Scotland) Regulations 1981, as amended, a SAP rating will be necessary which must include both the dwelling and the conservatory. This will be required by the local authority when the application for warrant is submitted.

13. For a conservatory attached to an existing dwelling, the following approaches to achieving compliance with Part J are available, as shown below:

(a) Using either the Carbon Index Method or the Target U-value Method for the whole dwelling (including conservatory), the conservatory heat-loss can be absorbed within these calculations and the fabric insulation for the conservatory can have the less demanding U-values in accordance with the table to J3.12. In this case, the conservatory adopts the "attached" characteristic in order to achieve compliance. It is most likely that other exposed elements of the dwelling will have to be "super-insulated" and that favourable solar heat gains and energy-efficient central heating boilers will probably also be a prerequisite for overall compliance. In application, this

approach will be suitable for a very small proportion of dwellings most likely only those built with this considered at the design stage of the original dwelling.

(b) Using the Elemental Method for the conservatory (the dwelling is existing and there is no requirement to upgrade the thermal performance of any of the original fabric that remains unaltered). In this method of achieving compliance, the conservatory should be considered using the "building" characteristic. The SEDBUK rating of any central heating boiler should be taken into account when establishing the U-values of elements. In view of the minimum glazing area presented by the conservatory definition (see paragraph 2), any attempt to use the maximum glazing percentage for the dwelling should not be applied to the conservatory (see J3.3) as this will probably result in an unworkable solution.

(c) Using a novel solution involving "trade-off" which should be the subject of a relaxation direction, each one being considered on its own merits. For example, upgrading the thermal performance of exposed elements of the existing house (e.g. the roof insulation being increased in thickness) and being offset by the poorer performance of the exposed elements of the conservatory. To be acceptable this should result in no greater heat-loss than if the house remained as existing and the conservatory complied with the elemental method.

Further Information

14. Current Building Regulation Notes, Technical Standards and Class Relaxation Directions may be found on the Scottish Executive Building Standards Division website at – *www.scotland.gov.uk/development/bc*

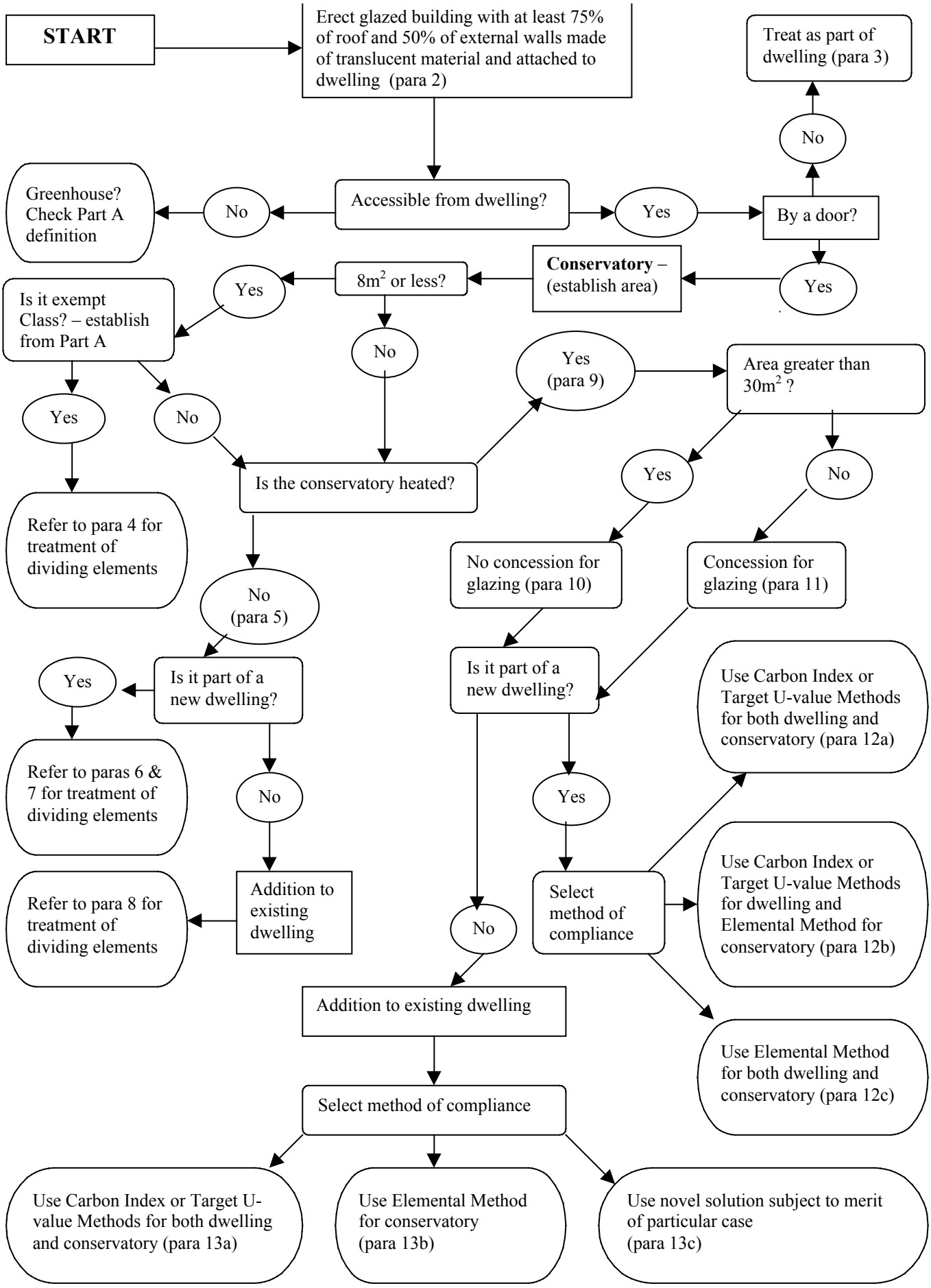
15. SAP 2001 and the conventions for calculating the Carbon Index can be found on the internet at – *www.projects.bre.co.uk/sap2001*

16. SEDBUK ratings for boilers are available at – *www.sedbuk.com*

17. Further information is available from:

Scottish Executive
Building Standards Division
Victoria Quay
Edinburgh
EH6 6QQ

First enquiries to: Gavin Peart
Telephone: 0131 244 7452
Fax: 0131 244 7454



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