

PE2138/C: Make publicly owned buildings accessible for people with colour blindness

Scottish Government written submission, 13 June 2025

I am writing to provide the Scottish Government's response to the above petition, which calls on the Scottish Parliament to urge the Scottish Government to make the design and signage for publicly owned buildings accessible for people with colour blindness.

Colour vision deficiency (CVD or colour blindness) is a condition that affects the amount of red, green or blue light that can be interpreted by the eye causing difficulty in distinguishing between certain colour groups. There are three main types of CVD; protanopia, deuteranopia and tritanopia which affect the red, green and blue cone cells respectively. In rare cases the condition may result in a person being unable to see any colour at all.

The Equality Act 2010 describes a disabled person as "someone who has a physical or mental impairment that has a substantial and long-term adverse effect on his or her ability to carry out normal day-to-day activities. This extends across physical and sensory impairments. However, the degree to which CVD impacts the ability of an individual to carry out normal day-to-day activities will be dependent on the type and severity of the condition as well as their environment and tasks they are required to undertake on a daily basis.

As such, it is not clear whether CVD is classified as a disability for the purposes of the Equality Act. As reserved legislation, it is for the UK Government to confirm whether CVD is captured by the definitions inferred under the Act and offer guidance on that basis.

There is no treatment for CVD, with most people adapting to live with the condition. However, recognising both the range and severity of the condition can affect people differently, ensuring adequate tonal contrast between elements within our built environment can be a useful means in making our buildings more accessible for people with CVD as well as other visual impairments.

Tonal contrast is described by the difference in light reflective values (LRV) between two elements (e.g., text or a graphic and its background). Colours of a similar LRV may not be easily distinguishable for people with CVD or other visual impairments.

Guidance on the use of tonal contrast in specific scenarios is included within British Standards publications. A key reference document for building designers is BS 8300 'Design of an accessible and inclusive built environment: Code of practice'.

Recommendations are offered on navigation and wayfinding under Section 5 of the standard. The approach is underpinned by the principle of providing information for at least two senses in order to support people with different access requirements. Consideration should also be given to both the type of graphical communication

(e.g., signage) as well as visual communication (e.g., clarity in terms of colour and contrast).

Section 12 offers further guidance on signs and information systems, highlighting the importance of visual contrast and lighting. The standard recommends a LRV difference of between 30 and 70 points between letters or symbols and the signboard, and again between the signboard and its background. The guidance recommends the use of universally accepted public information symbols and colour coding. It refers to related standards BS ISO 7010 'Graphical symbols – Safety colours and safety signs – Registered safety signs' and BS 5499-4 'Safety signs – Code of practice for escape route signing'. The standard also refers to specific guidance on the provision and design of signs available in the NHS Wayfinding Guide.

The design of sanitary facilities is addressed under Section 18 with reference to BS 6465 for detailed recommendations. This section includes a provision to include a means of indicating whether or not a toilet cubicle is occupied. Referring back to BS 6465, locks should incorporate clearly visible colour coded signage identifying whether a cubicle is occupied (red = engaged, green = vacant), noting that the colour area should be large enough to be clearly visible, with preference for the wording "engaged" or "vacant" shown for people who are red/green colour blind.

As core reference material, often the themes and recommendations of British Standards will inform the development of the guidance contained within the Technical Handbooks as well as sector specific guidance. Where appropriate, direct reference to relevant British Standards is made within Scottish Government guidance.

The Building (Scotland) Act 2003 gives Scottish Ministers the power to make building regulations to secure the health, safety, welfare and convenience of people in or about buildings. Building regulations only apply to new buildings and relevant new construction work. Standards, therefore, are not retrospectively applied to existing buildings, only taking effect where relevant new building works are being undertaken to an existing building. As such, any amendment to standards or guidance would not affect existing access or provision of facilities within existing buildings.

Building standards are set out as high-level functional requirements under Schedule 5 of the Building (Scotland) Regulations 2004, with guidance provided for domestic and non-domestic buildings within the associated Technical Handbooks. It is not the intention that specific guidance is provided for all types of building and use, therefore is generally focused on safety critical matters. Importantly, designers need not strictly follow the guidance provided within the Technical Handbooks and may offer alternative means of demonstrating compliance with the functional standard(s). This can include following the recommendations of a relevant British Standard where the building standards verifier deems this to meet the intent of the standard.

In that context, sectoral specific guidance may be developed by relevant policy and estates teams in respect of meeting the intent of the functional standards in addition to any wider duties placed upon building owners and managers in the ongoing management and operation of a building.

Specifically, within building standards guidance consideration is given to visual contrast of elements within a building to assist in use by persons with a visual impairment. This includes providing visual contrast to:

- facilities, aids and fittings with their surrounding surfaces in sanitary accommodation,
- changes in the characteristics of floor surface materials on circulation routes,
- doors, handrails and controls to lifts, and
- the nosing of stair treads.

While the guidance contained within the Technical Handbooks reflects general good practice, certain issues remain outwith the scope of the building regulations. As such, the guidance notes that those involved in the design of buildings should be aware of their responsibilities under the Equality Act 2010 and also signposts users to additional guidance on accessibility and inclusive design including the British Standard BS 8300.

NHS Scotland (NHSS) has a particular legal duty to promote equality and inclusivity under the Equality Act 2010 (Specific Duties) (Scotland) Regulations 2010. On that basis, equality and inclusivity are key underlying themes across all NHSS guidance and workstreams for health facilities. NHSS note that capital investments are independently assessed as part of the National Design Assessment Process (NDAP) which is mandated for all major projects. In addition, Scottish Health Technical Note 02-01 'Sustainable design and construction guide' provides guidance on the use of inclusive design and equality assessments for estates projects.

Specific guidance is published in respect of the design for healthcare facilities. Health Building Note 00-01 'Core guidance – General design for healthcare buildings' is the key reference document containing provisions relating to the design of facilities for people with a visual impairment and use of visual contrast. Design teams are referred to the recommendations of BS 8300 but also supplementary materials such as 'Building Sight' (Royal National Institute for the Blind – RNIB) and 'A design guide for the use of colour and contrast to improve the built environment for visually impaired people' (Dulux Trade). Generally, a LRV difference of at least 30 points is recommended in key areas of concern. Health Technical Memorandum 65 'Wayfinding – effective wayfinding and signing for healthcare facilities' also provides best practice guidelines for assessing and improving wayfinding systems at healthcare sites.

In relation to Scottish Government estates, the approach to accessible and inclusive design is also directly informed by BS 8300, with appointed design teams requested to meet the recommendations of these standards where applicable. Specific recommendations are delivered through access audits via guidance from the RNIB, but generally the underlying principles of providing adequate visual contrast between elements and providing information for at least two senses is adopted as best practice. The use of Equality Impact Assessments is also used for new estates projects which assist in rolling out improvements across buildings as opportunities arise.

While building regulations are more limited in scope, specific guidance is provided across the public estate in relation to the development of accessible and inclusive built environments. Generally, these follow the recommendations of BS 8300 and use tonal contrast as a means of assisting people with a visual impairment in access and use of the relevant public buildings.

Such guidance is reviewed periodically. Where there is sufficient evidence to identify concerns, a review of guidance can be undertaken and amended where necessary to inform future improvements to the accessibility of public buildings. Should this be the case, relevant organisations, such as NHS Scotland Assure, can be contacted directly.

While it is not clear whether or not CVD is classified as a disability for the purposes of the Equality Act 2010, national and sector specific guidance is provided to assist people with a visual impairment, including CVD, in access and use of the public buildings. Informed by the recommendations of BS 8300 and other good practice guidance an approach is taken to provide adequate tonal contrast between elements and their background to assist in conveying information to building users. Where there is evidence of concerns this should be taken up directly with the relevant estates team who can review and update guidance where required.

Building Standards Division