

Technical Note

tenos

Project: Crown Street, Manchester
Client: Renaker
Ref: TS220375-N04-ISSUE03
Re: HSE Substantive response advice to LPA
Date: 8th September 2023
Author: H Parkes & D McMahon
Checked by: A. Foolkes

Introduction

Tenos has prepared Gateway 1 Fire Statements for the Crown Street Phase 3 (CS3) and Great Jackson Street Plot D developments in Manchester. These are detailed in Tenos' reports TS220375-R01-Issue01 and TS220375-R02-Issue02 for Plot D and CS3 respectively. Plot D and CS3 are 'relevant buildings' as defined by Regulation 7.

The Health and Safety Executive (HSE) has reviewed the Fire Statements and provided comments as a statutory consultee for developments that include a relevant building. The HSE reports 'pgo-3550' and 'pgo-3552' relate to CS3 and Plot D respectively.

This Technical Note responds to the concerns raised by the HSE in Table 1 and Plot D Table 2. The fire strategy for the buildings which sets out the measures to meet the functional fire safety requirements have been referred to in developing this response (ref: TS220375-R04-Issue01 and TS220375-R05-Issue01 for Plot D and CS3 respectively).

Plot CS3

Table 1 – HSE comments and Tenos' responses for pgo-3550

HSE Paragraph / Ref	HSE Comments	Tenos Comments
1.5 – 1.7	It is noted that commercial units C7-1, E1-1, 2, 3 and 4 and E2-2 link to the residential accommodation by way of the refuse holding stores and lobby to the fire-fighting stairs. Whilst it is noted that the stair to the ground floor commercial and the stair to the residential floors are separated by lobbies at ground floor, the adopted fire safety standard states: <i>“Any stair serving a dwelling within a mixed-use development should not communicate with any other occupancy, unless in accordance with a) or b)...a) In buildings having not more than three storeys above ground or access level (small buildings), common stairs that serve</i>	Thank you for your comment. The proposed amendments discussed below are shown in Figures A-1 to A-3. Unit C7-1 A fire-separated corridor and independent refuse store will be created for Unit C7-1 to remove the link between the commercial unit and residential accommodation. Unit E1-1, E1-2, E1-3 & E1-4 The commercial and residential refuse stores will be separated and accessed independently with no connection. An additional back-of-house corridor will be created to provide access from the commercial units to the refuse store.

HSE Paragraph / Ref	HSE Comments	Tenos Comments
	<i>both dwellings and other occupancies should be separated from each occupancy by protected lobbies at all levels. b) In buildings having more than three storeys above ground or access level: 1) all stairs serving dwellings, which are not ancillary to the main use of the building, should not communicate with any other occupancy in that building...</i> Accordingly, the lobbied communication of commercial and residential staircases is not appropriate as the development is not a small building. Design changes necessary to provide separated means of escape will affect land use planning considerations such as the layout and appearance of the development.	Unit E2-2 An additional compartment wall has been introduced to the refuse store arrangement with no openings to remove the connection between the commercial unit and residential accommodation. A smaller food waste refuse store will be accessible from the residential “side” with no access to the main commercial/residential store. These will be accessed from outside the building. This is independent fire safety advice, it should be confirmed by others if there is an implication on land use planning matters.

Plot D

Table 2 – HSE comments and Tenos’ responses for pgo-3552

HSE Paragraph / Ref	HSE Comments	Tenos Comments
1.5 – 1.8	It is noted that a commercial unit (restaurant) will be located on the 71st storey linking to the residential accommodation by way of lobbies to the protected stairs and fire-fighting stairs It is understood a stay put evacuation strategy will be implement in the residential apartments and simultaneous evacuation will be undertaken on storeys 1 to 3 and storeys 68 to 71, containing residents amenity areas, ancillary areas and a public restaurant on the upper most storey with an intended occupancy figure of 150 covers plus staff. Whilst it is noted that the restaurant is to be accessed via dedicated lifts from the ground floor entrance to the 71st	Thank you for your comment. The commercial unit (restaurant) will be located on Level 70 with the residential amenity spaces occupying levels 67 to 69. <u>Shared escape stairs</u> Tenos agrees that the development includes shared means of escape serving the commercial unit (restaurant) and flats, which is a deviation from the design guidance of BS 9991 quoted across. As stated in the foreword to BS 9991; as a code of practice, BS 9991 takes the form of guidance and recommendations and should not be quoted as if it were a specification. For the reasons outlined below, although the shared escape stairs are a deviation from guidance, it is our

HSE Paragraph / Ref	HSE Comments	Tenos Comments
	storey and do not serve any floors in between, for escape purposes occupants of the restaurant will be provided with access to both residential stair cores. The adopted fire safety standard states: <i>“Any stair serving a dwelling within a mixed-use development should not communicate with any other occupancy, unless in accordance with a) or b)...</i> <i>a) In buildings having not more than three storeys above ground or access level (small buildings), common stairs that serve both dwellings and other occupancies should be separated from each occupancy by protected lobbies at all levels.</i> <i>b) In buildings having more than three storeys above ground or access level:</i> <i>1) all stairs serving dwellings, which are not ancillary to the main use of the building, should not communicate with any other occupancy in that building...”</i> Accordingly, the lobbied communication of the commercial unit (restaurant) and residential staircases is not appropriate as the development is not a small building. Design changes necessary to provide separated means of escape will affect land use planning considerations such as the layout and appearance of the development.	view that appropriate means of escape provisions are available for all occupants of the building and that the functional requirements of the Building Regulations will be met. As stated in the meeting minutes appended to the Fire Statement, a consultation meeting was held with the statutory authorities under the Building Regulations, Manchester City Council Building Control (MCCBC) and the Greater Manchester Fire and Rescue Service (GMFRS) high-rise team to discuss the fire safety arrangements for the site. This included the shared escape routes between the restaurant and residential units which were discussed and agreed in principle. In respect of the guidance quoted across; our interpretation of this guidance is that it is intended to prevent a fire in a non-residential area impacting on the means of escape stairs serving a residential area, such as in a multi-level mixed-use development with non-residential uses below the residential use. However, in the case of Plot D, the commercial unit (restaurant) will be located at the top of the building. It is our view that there is very limited potential for a fire in this area to impact on the means of escape provisions from the flats below and that, with the proposed fire safety measures (e.g. fire separation and smoke control) described below, that this arrangement suitably mitigates the risk that the guidance quoted seeks to address and is considered to meet the functional fire safety requirements of the Building Regulations. The restaurant level will be located on the top storey of the development with 3 amenity floors separating it from the residents' flats. At every level in the building, the stairs and lifts are approached via ventilated protected lobbies and an automatic opening vent is provided at the head of each stair. It is

HSE Paragraph / Ref	HSE Comments	Tenos Comments
		considered highly unlikely that smoke spread from a fire on the uppermost level would reach the residential levels below so as to impact on the means of escape arrangements. On the basis of the above provisions, we believe that the fire safety design minimises the potential for a fire in the restaurant area to impact on the means of escape arrangements from the residential areas and that this arrangement suitably mitigates the risk that the guidance in BS_9991 seeks to address. This is independent fire safety advice. It should be confirmed by others if there is an implication on land use planning matters.

Conclusion

The HSE report highlights a non-compliance (with standard guidance) in both Plot D and CS3.

In CS3, the design is to be amended to remove the connection between the residential and non-residential areas, as discussed in Table 1.

In Plot D, a number of justifications have been proposed for the sharing of the escape stair between the non-residential use on the top floor of the building and the residential levels below for further consultation with the HSE.

Important information

This technical note is copyright of Tenos Ltd and applies only to Plot D and CS3 of the Crown Street development in Manchester. It must not be used in support of any other project without the written agreement of Tenos Ltd. This technical note may only be forwarded to a third party if reproduced in full and without amendment to the content or presentation.

Except when specifically agreed in writing Tenos Ltd shall not be liable for any reliance placed on this technical note by any person other than the client named on the front page.

As this Technical Note relates to a project that is subject to third party approval it must be ensured that the contents are agreed with all relevant approval bodies prior to implementation.

Annex A1 – CS3 Proposed refuse store design alterations

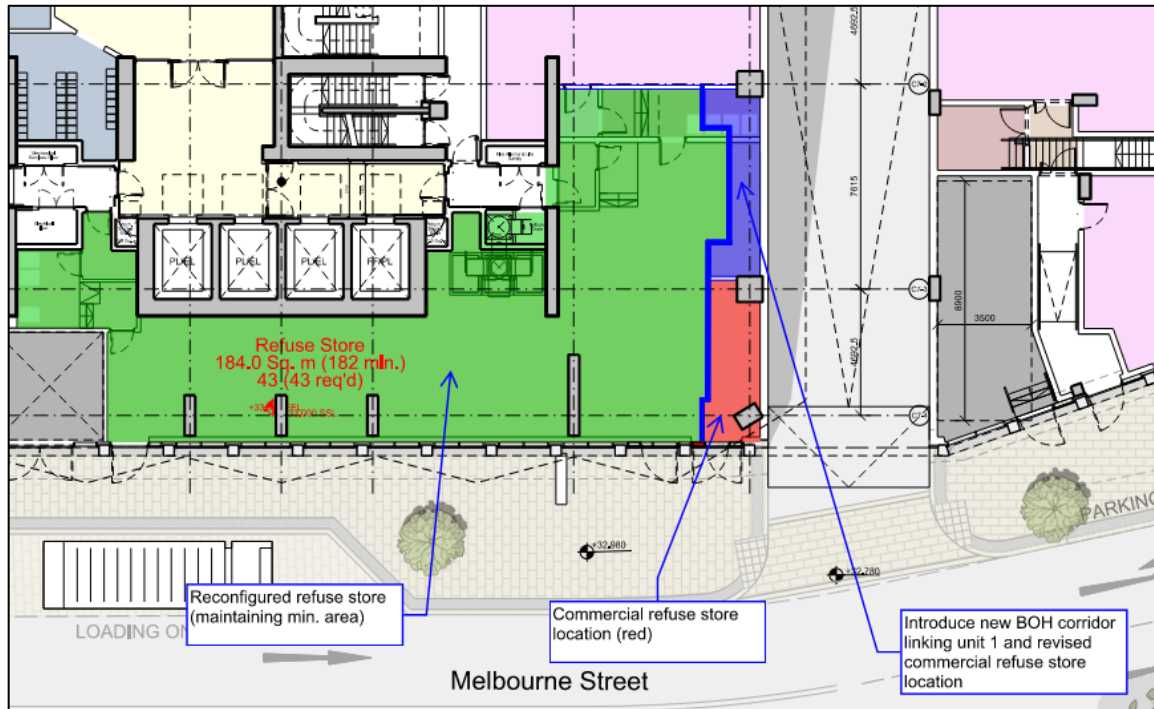


Figure A.1 - Plot C7 design alterations



Figure A.2 - Plot E2 design alterations

