

Fire statement form

Application information	
1. Site address line 1	Comag Works
Site address line 2	Tavistock Road
Site address line 3	
Town	West Drayton
County	
Site postcode (optional)	
2. Description of proposed development including any change of use (as stated on the application form):	Erection of building comprising 105 residential dwellings (Use Class C3) and 99sqm (NIA) Community Hub (flexible Use Class E/F.1/F.2), ranging from two to seven storeys together with associated accesses, car parking, cycle parking and hard and soft landscaping.
3. Name of person completing the fire statement (as section 15.), relevant qualifications and experience. Guide: no more than 200 words	Name: David Connaughton Role: Senior Fire Engineer Academic qualification: MEng (Hons) Mechanical and Manufacturing Engineering Membership of professional bodies: Associate Member with the Institute of Fire Engineers (AIFireE) Experience: Seven years' experience as a consultant fire engineer with experience in the design of fire safety strategies for commercial and high-rise buildings in Ireland and the UK.
4. State what, if any, consultation has been undertaken on issues relating to the fire safety of the development; and what account has been taken of this. Guide: no more than 200 words	Ashton Fire have reviewed the proposed arrangement and provided initial technical advice for the fire strategy to be adopted for the scheme to satisfy the functional requirements of the Building Regulations 2010 (as amended) via application of the guidance contained in Approved Document B vol. 1. Ashton Fire have prepared fire strategy mark-ups with comments highlighting areas of design considerations / risk / changes required of the current design proposals. Co-ordination workshops have been held to discuss these mark-ups and comments with amendments in design made to align with Ashton Fire's recommendations.

	<p>An outline fire strategy report (Ref: AF3009 - Comag Works West Drayton – Issue 02) has also been prepared by Ashton Fire. This fire strategy highlights the proposed fire safety design for the development. It highlights areas which will be subject to further design co-ordination during the technical / detailed design stages of the development.</p> <p>The scheme has not yet been reviewed by the building control body, nor received comments from the local fire and rescue service at this stage</p>
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5. Site layout plan with block numbering as per building schedule referred to in 6.

(consistent with other plans drawings and information submitted in connection with the application)

Site layout plan is:

provided as a separate plan

Drawing No.: CWD-RMA-ZZ-00-DR-A-0100-P5

The principles, concepts and approach relating to fire safety that have been applied to the development

6. Building schedule

Site information				Building information			Resident safety information		
a) block no. as per site layout plan above	b) • block height (m) • number of storeys excluding those below ground level • number of storeys including those below ground level	c) proposed use (one per line)	d) location of use within block by storey	e) standards relating to fire safety/ approach applied	f) balconies	g) external wall systems	h) approach to evacuation	i) automatic suppression	j) accessible housing provided
Block A	9.5m 4 storeys 4 storeys	residential flats, maisonettes, studios	Ground to 3rd Floor	Approved document B vol 1	class A2-s1, d0 or better	class A2-s1, d0 or better	stay put	yes- residential sprinklers, full	none

Block B	18.7m 7 storeys 7 storeys	residential flats, maisonettes, studios	Ground Floor to 6 th	Approved document B vol 1	class A2-s1, d0 or better	class A2-s1, d0 or better	stay put	yes-residential sprinklers, full	M4(2) & M4(3)
Block B	18.7m 7 storeys 7 storeys	flexible use	Ground Floor	BS9999	no balconies	class A2-s1, d0 or better	simultaneous	yes-residential sprinklers, full	N/A non resi
Block C	22.9m 8 storeys 8 storeys	residential flats, maisonettes, studios	Ground Floor to 6 th	Approved document B vol 1	class A2-s1, d0 or better	class A2-s1, d0 or better	stay put	yes-residential sprinklers, full	M4(2) & M4(3)
Block A	9.5m 4 storeys 4 storeys	car parking	Ground Floor	BS9999	no balconies	class A2-s1, d0 or better	simultaneous	yes-commercial sprinklers, full	N/A non resi
Block B	18.7m 7 storeys 7 storeys								
Block C	22.9m 8 storeys 8 storeys								

7. Specific technical complexities

Explain any specific technical complexities in terms of fire safety (for example green walls) and/or departures from information in building schedule above

Guide: no more than 500 words

Travel distances: In accordance with the prescriptive standard guidance within Approved Document B, Volume 1, the travel distances within communal corridors are limited to 7.5m based on a set of prescriptive standard fire safety provisions. In accordance with ADB, fire safety engineering may be suitable for solving a specific problem with a design that otherwise follows the recommendations of Approved Document B, Volume 1.

Therefore, a bespoke fire engineered solution has been included in the design to support travel distance over the 7.5m limit in Blocks A and B. The fire engineered solution will comprise of a mechanical smoke ventilation system to protect the residential cores from smoke ingress. This shall be further supported via the sprinkler systems which will limit the severity of a fire. The efficiency of the MSVS will be verified by CFD model, of which findings are to be outlined in a separate report at the detailed stage of design.

Refuge spaces: The London Plan Policy D5 stipulates that evacuation lifts are to be provided (in addition to any firefighting lift). Approved Document B vol 1. (or other current UK fire safety guidance) does not provide specific recommendations on means to suitable provision of evacuation lifts. As such, a robust approach to the protection of evacuation lifts has been adopted.

With the inclusion of evacuation lifts adjacent to the stairs in block B and C, a protected ventilated lobby has been provided to reduce the risk of smoke spread between floors and provide a protected refuge space within each lift lobby. The stair/lift lobby shall be naturally ventilated via a natural smoke shaft and the corridors shall be ventilated separately via mechanical smoke ventilation systems. By appropriately protecting the stair/lift lobby, the stair and lift shafts will also be appropriately protected from the ingress of smoke

Fire and rescue service access: Where access is only available to the west corner of Winnock Road, the hose laying distances exceed the recommended within the guidance from the FRS vehicle parking position. The hose length from the FRS vehicle parking position to the dry riser inlet is 28m and from the FRS vehicle to every point within the furthest duplex is estimated to be 65m. The car park also has extended hose distances of 49m and 54m. The hose extension is considered as acceptable to mitigate the additional time required to set up and connect to the fire main inlet or connect additional hose length to reach the fire affect duplex / area of the car park. .

8. Issues which might affect the fire safety of the development

Explain how any issues which might affect the fire safety of the development have been addressed.

Guide: no more than 500 words

All specific technical complexities have been outlined in Section 7. In each case, the deviations from prescriptive guidance have been carefully considered and robust solution put in place.

In terms of the some ventilation systems, including mechanical ventilation, the performance of the systems will be demonstrated by Computational Fluid Dynamics (CFD) analysis, carried out by a specialist designer at the detailed design stage.

In all cases, the above departures and solutions will be discussed and agreed with the relevant authority having jurisdiction (AHJ).

9. Local development document policies relating to fire safety

Explain how any policies relating to fire safety in relevant local development documents have been taken into account.

Guide: no more than 500 words

The development is located in the Greater London area. As such, the development is affected by London Plan policies.

In terms of fire safety, the London Plan Policy D12 and D5 requires that at least one evacuation lift per core is provided within each development.

Therefore, an evacuation lift shall be provided within each residential core and in addition to the firefighting lift which will be protected as described in Section 7.

Emergency road vehicle access and water supplies for firefighting purposes

10. Fire service site plan

Explanation of fire service site plan(s) provided in 14. including what guidance documents have informed the proposed arrangements for fire service access and facilities?

Guide: no more than 200 words

The fire service facilities shall be in accordance with Approved Document B, Volume 1 and documents referenced therein. Block A will be provided with a protected stair and a fire main located within the stair. Block B and C shall each be provided with a firefighting stair, firefighting lift and a fire main located within the stair. There is an existing hydrant within 90m of the dry riser inlets and entrance points to the building, this can be utilised by the fire and rescue service, however the operational status will need to be verified.

Fire Service Vehicle access (alongside suitable turning facilities where required) should be provided within 18m of the dry riser (fire main) inlet points. Any point on the ground floor level should be within 45m of FRS vehicle parking position or 60m from the dry riser outlet within the firefighting shaft, measured on a route suitable for laying hose. This is currently achieved for Blocks B & C, however access along Winnock road for Block A is to be confirmed but the access arrangements are considered suitable as discussed in Section 7 of this report.

11. Emergency road vehicle access

Specify emergency road vehicle access to the site entrances indicated on the site plan

Guide: no more than 200 words

It is envisaged that the Fire Tender would primarily access the site from High Street to the east of the development and travel westbound along Tavistock Road towards the development.

At this stage it is unclear whether a Fire Tender would be able to access the site via Winnock Road and would be unable to give a definitive answer on this. The transport consultant (Ardent) has confirmed that the mapping that they have on file is based on Ordnance Survey (OS) and due to the on-street parking bays this does not leave enough width for a Fire Tender to access without obstruction. Given this is an established residential area it is likely that a Fire Tender would be able to access but in order for us to give a definitive answer a topographical survey is required to be undertaken.

The worst-case scenario for access to Block A along Winnock road has therefore been considered within the fire strategy report and also Section 7 of this document, with the access arrangements considered suitable to support the fire strategy. (Ref: AF3009 - Comag Works West Drayton – Issue 02)

Is the emergency vehicle tracking route within the site to the siting points for appliances clear and unobstructed?

yes

12. Siting of fire appliances

Guide: no more than 200 words

FRS appliances could be sited along Tavistock road and partially along Winnock road, further access to Winnock road is to be confirmed (See fire service site plan - Drawing No.: CWD-RMA-ZZ-00-DR-A-0380-P1)

13. Suitability of water supply for the scale of development proposed

Guide: no more than 200 words

The building is intended to be served by a public fire hydrant system, surveys should be undertaken to establish the existing hydrants operational status.

Nature of water supply:

hydrant- public

Does the proposed development rely on existing hydrants and if so are they currently usable / operable?

don't know

14. Fire service site plan

Fire service site plan is:

provided as a separate plan

Drawing No.: CWD-RMA-ZZ-00-DR-A-0380-P1

Fire statement completed by

15. Signature

David Connaughton

16. Date

23/08/2022