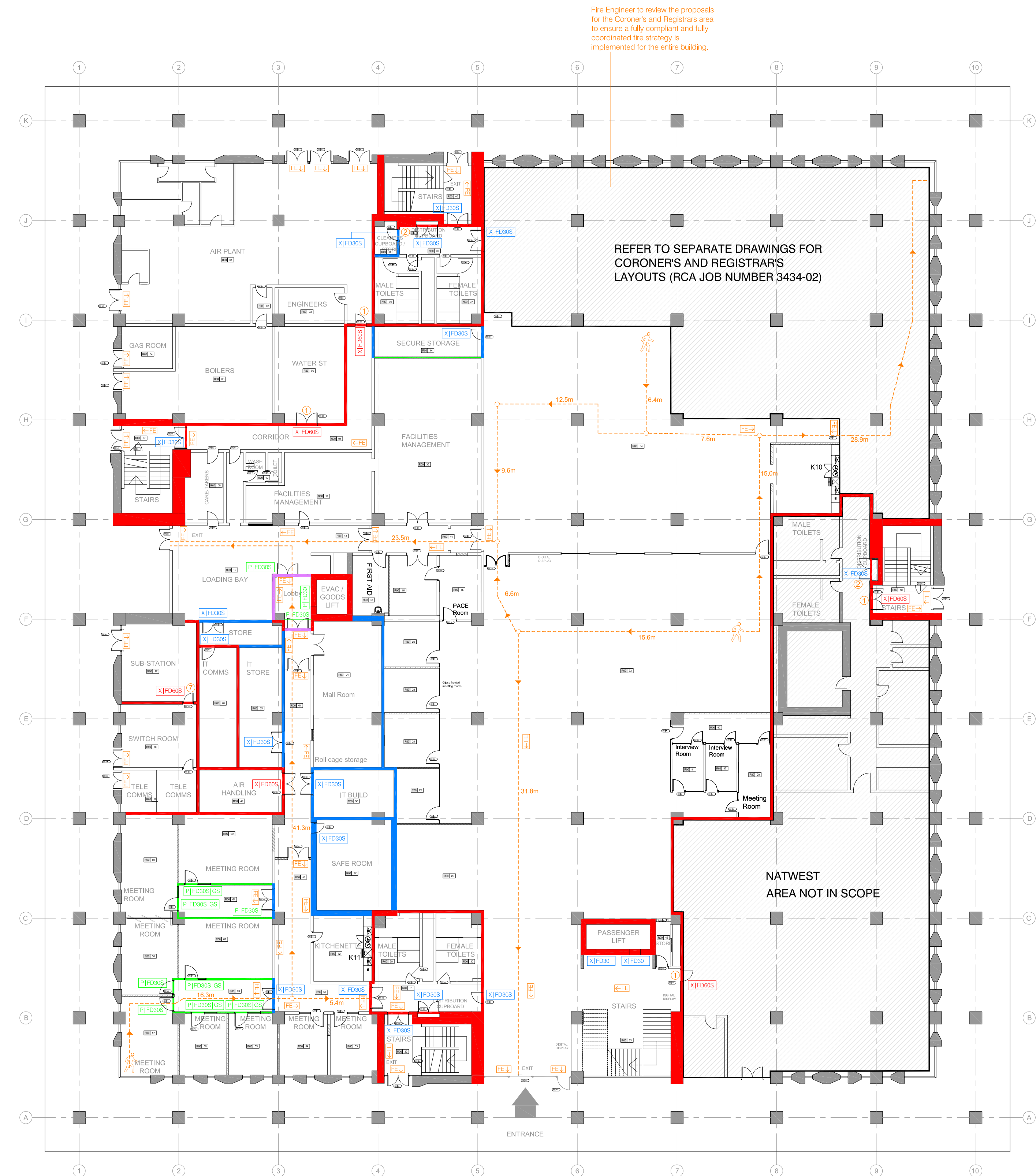


APPENDIX B1



Proposed Ground Floor Fire Strategy Plan

FIRE STRATEGY KEY:

WALLS:

- 60/60 minute fire rated wall (both sides), integrity/insulation - (existing wall)
- 60/60 minute fire rated wall (both sides), integrity/insulation - (proposed wall)
- 30/30 minute fire rated wall (both sides), integrity/insulation - (existing wall)
- 30/30 minute fire rated wall (both sides), integrity/insulation - (proposed wall)

DOORS:

- X|FD60(S) 60 minute fire rated door with intumescent fire and smoke seals - (existing)
- X|FD30(S) 30 minute fire rated door with intumescent fire and smoke seals - (existing)
- P|FD30(S) 30 minute fire rated door with intumescent fire and smoke seals - (proposed)
- P|FD30(S) GS 30 minute fire rated door with intumescent fire and smoke seals - (proposed)
- X|FD30 30 minute fire rated door - (existing door)
- P|FD30 30 minute fire rated door - (proposed door)

All fire doors are to be either held open on electromagnetic hold open devices (to fail safe release on activation of the fire alarm or power failure), fitted with self-closing devices or locked shut depending on their use. For details of proposed doors refer to the door schedule produced by Willmott Dixon and their specialist subcontractor. For details of existing/retained doors, refer to the schedule of repairs to existing doors prepared by Gleds.

The above schedules should also be referred to for details of door mounted fire safety signage (note: door mounted signage is not indicated on this drawing). Door mounted signage is to be provided in accordance with section 3.7 of the BWC Fire Strategy Report.

For details of doors requiring vision panels for either fire strategy compliance or for operational H&S needs, the separate schedules noted above for existing and proposed doors should be referred to. Vision panels in fire rated doors are to be clear fire rated safety glazing. Vision panels in non-fire rated doors are to be clear safety glazing.

For confirmation and details of access control doors reference should be made to the Electrical subcontractors drawings, details and specifications.

WALL AND CEILING MOUNTED EMERGENCY SIGNAGE:

Fire Escape Signage

Symbols on this drawing are diagrammatic only. Signage is to be entirely in accordance with section 3.7 of the BWC Fire Strategy Report.

Where fire signage is approached from two directions, signs are to be double sided.

Signage fitted to walls above doors are to be mounted centrally over the door. Fixing heights to be agreed on site and to fully coordinate with the Electrical subcontractors lighting drawings, details and specifications.

FIRE ESCAPE ROUTES / TRAVEL DISTANCES:

Identification of 'worst case' fire escape routes based on current furniture arrangements (refer to loaded plans for full furniture layouts).

FIRE STRATEGY NOTES:

GENERAL:

This drawing should be read in conjunction with the BWC Fire Strategy Report as well as RCA (2) series drawings and all relevant drawings, schedules and specifications of the Mechanical and Electrical sub-contractors, Partition and Door subcontractors. Any discrepancies between this information and the fire strategy layouts are to be brought to the attention of the Architect immediately and clarification sought before proceeding any further.

The M&E design is to comply with all necessary requirements for lighting/emergency lighting, ventilation, fire alarm and detection and access control etc.

EXISTING ELEMENTS / LEGACY ISSUES:

General:

This fire strategy layout is based on the BWC Fire Strategy Report, which has been developed in accordance with the fire resistance recommendations in BS 9999. However, the majority of the proposed layout utilises existing walls and doors - BWC have confirmed that any existing non fire rated walls and doors, which would typically need to be of fire rated construction in a new build scenario, can be retained unaltered. Where applicable (e.g. some stores), rooms are therefore shown to be non fire rated. Non fire rated stores are to be managed by Milton Keynes Council through appropriate risk assessments.

Doors:

The fire ratings of existing doors shown on this drawing are based on surveys undertaken by both Gleds and Milton Keynes Council. These have not been verified on site by either Willmott Dixon or Race Cottam Associates and the accuracy of the original surveys is relied upon. It is assumed the doors achieve the fire ratings indicated, certified as appropriate, and include the necessary compliant vision panels, ironmongery, seals and door mounted fire safety signage.

Note: The surveys of existing doors also identified existing fire doors, which do not need to be fire rated on the basis of the fire strategy proposed by BWC. As these are therefore not relevant to the fire strategy layouts they are not indicated on the drawings. Similarly, if the surveys have identified existing doors that provide a greater period of fire resistant than required by this fire strategy, these are not specifically highlighted (just the requirements of the Fire Engineer are shown).

Walls and Fire Stopping:

Site surveys by Willmott Dixon have identified a number of legacy issues with fire stopping of existing services. Works will be undertaken to the existing fire walls indicated on the plans to rectify these legacy issues - fire stopping/fire sealing will be made good to defective areas to ensure the fire integrity of the construction.

It is assumed all other existing walls inherently achieve the fire ratings required and are constructed full height from floor to soffit and suitably fire stopped to ensure the integrity of the construction.

FIRE STRATEGY NOTES (cont):

MEANS OF ESCAPE / EVACUATION STRATEGY:

For details refer to the BWC Fire Strategy Report.

Wheelchair refuges are to be provided in accordance with the requirements contained within section 3.4 of the BWC Fire Strategy Report. Refer to the Electrical subcontractors drawings for full details.

MAXIMUM OCCUPANCY:

The maximum occupancy of the building is determined by the limiting factor of either the existing escape provisions (exits/stairs) or the existing toilet provision. Refer to section section 3.3 of the BWC Fire Strategy Report and separate calculations by Willmott Dixon for the toilet numbers. Milton Keynes Council are to operate a strict management policy to ensure the maximum occupancy is not exceeded.

FIRE ALARM AND DETECTION SYSTEM:

For details (including manual call points and equipment interfaces) refer to the Electrical subcontractors drawings, details and specifications. Proposals are to be installed entirely in accordance with section 3.5 of the BWC Fire Strategy Report.

EMERGENCY LIGHTING:

For details refer to the Electrical subcontractors drawings, details and specifications. Proposals are to be installed entirely in accordance with section 3.6 of the BWC Fire Strategy Report.

EMERGENCY SIGNAGE:

Signage is to be installed entirely in accordance with section 3.7 of the BWC Fire Strategy Report. This is to suitably illuminated and fully coordinated with the Electrical subcontractors lighting installation. For details of the proposed lighting refer to the Electrical subcontractors drawings, details and specifications.

FIRE SPREAD:

Linings:

All linings are to achieve the classifications highlighted in section 4.1 of the BWC Fire Strategy Report.

External Wall and Roof Construction and Unprotected Areas:

All unchanged by the works.

CONSTRUCTION:

Structure:

All elements of structure including columns, beams, loadbearing walls and floors are to provide 60 minutes fire resistance. Note: all elements are existing and are understood to achieve 60 minute fire rating.

Each floor is a compartment floor and it is understood the existing construction achieves the 60 minute fire rating required.

Compartmentation:

To maintain the integrity of the compartmentation, all compartment and fire rated walls are to be taken full height to the underside of the floor/roof slabs and fire stopped to the same fire-resistant rating as the wall.

All glazing forming part of a fire resisting enclosure is to provide the necessary fire resistance in terms of integrity and insulation unless the size of glazing is limited to the extent identified in Approved Document B / BS 9999. In this case glazing can be uninsulated integrity only glazing. Glazing should have a permanent, legible mark giving the manufacturer, product name, fire-resistance rating and any requirement for impact safety performance according to BS 6206 or BS EN 12600.

Doors / Access Control:

Access control measures are required to selected doors for security purposes - for locations refer to the door schedule produced and Willmott Dixon and their specialist subcontractor and the Electrical subcontractors drawings. The access control system is to be linked to the fire alarm/detection system, to fail-safe unlocked upon activation of the fire alarm or manual call point or in the event of power failure or system error.

For full details of the proposed system and interfaces, refer to the Electrical subcontractors drawings, details and specifications.

Fire Stopping:

All joints between fire separating elements and openings in fire rated construction (including those for service penetrations) are to be fire stopped/fire sealed to the same fire rating as the walls/floors in order to maintain the integrity of the construction. For full details of the M&E services design and associated fire protection measures (e.g. fire dampers, pipe sleeving etc), refer to the Mechanical and Electrical subcontractors drawings, details and specifications.

Cavity Barriers:

Cavity barriers are to be installed in accordance with the requirements set out in section 5.6 of the BWC Fire Strategy Report.

FIRE SERVICE ACCESS:

All unchanged by the works.

FIRE SAFETY MANAGEMENT:

Milton Keynes Council are to undertake a suitable fire risk assessment on occupation of the building as required by the Regulatory Reform (Fire Safety) Order 2005. For requirements of the risk assessment and fire safety management plan refer to section 7 of the BWC Fire Strategy Report.

FIRE STRATEGY NOTES (cont):

EXISTING CONSTRUCTION THAT REQUIRES VERIFICATION

Where highlighted on the drawing, the existing construction is to be verified on site before the final Fire Strategy layouts can be confirmed and agreed with both the Fire Engineer BWC and Building Control.

(Refer to the drawings for locations)

- Existing door believed to be 30 minute fire rated, not 60 minute fire rated.
- Existing door believed to be non fire rated.
- Existing walls only extend to ceiling level and rooms are not fully enclosed with fire rated construction.
- Existing construction to be confirmed on site.
- Existing wall construction and vertical extent (i.e. full height) unknown.
- Existing walls believed to extend to ceiling level only, i.e. rooms not fully enclosed with fire rated construction.
- Existing door believed to be non fire rated - if feasible, this could potentially be swapped with the door to the Switchroom, which is understood to be 60 minute fire rated.

TO BE CONFIRMED / AGREED

GENERAL KEY:

- Room Floor Level
- Room Number
- Door Floor Level
- Door Number

RACE COTTAM ASSOCIATES

NOTE: THIS GA LAYOUT IS BASED ON WILLMOTT DIXON DRAWING 15PT002-0911 REV D. ACCURACY OF THE DRAWINGS RECEIVED RESTS WITH THE ORIGINAL AUTHORS AND LAYOUTS SHOULD BE VERIFIED ON SITE BY SUITABLE SURVEY.

Client :
WILLMOTT_DIXON

Project :
MILTON_KEYNES_CIVIC_OFFICES

Drawing No. :
6901

Project No. :
3361-03

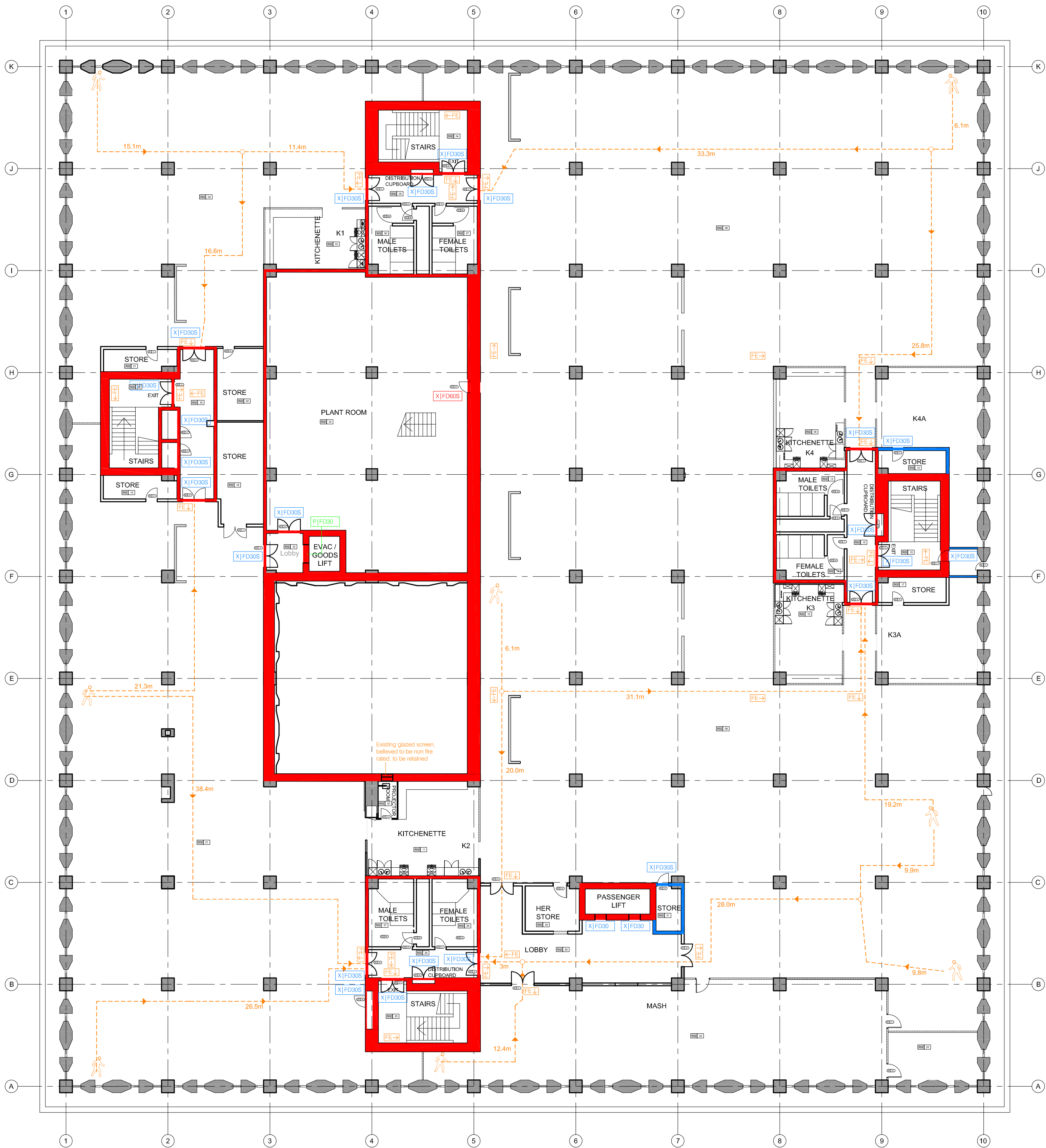
Drawing Title :
MKO-RCA-01-GF-DR-6901-GF_FIRE_STRATEGY_PLAN

54 C05

Sheffield Studio | 3 Vincent House | Salford Street | Sheffield | S1 4BB | 0114 2737050
London Studio | 133 Houndsditch | London | EC3A 7BX
www.racecottam.com

RACE
COTTAM
ASSOCIATES

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Proposed Second Floor Fire Strategy Plan

FIRE STRATEGY KEY:

WALLS:

- 60/60 minute fire rated wall (both sides), integrity/insulation - (existing wall)
- 60/60 minute fire rated wall (both sides), integrity/insulation - (proposed wall)
- 30/30 minute fire rated wall (both sides), integrity/insulation - (existing wall)
- 30/30 minute fire rated wall (both sides), integrity/insulation - (proposed wall)

DOORS:

- X / FD60(S)** 60 minute fire rated door with intumescent fire and smoke seals - (existing)
- X / FD30(S)** 30 minute fire rated door with intumescent fire and smoke seals - (existing)
- P / FD30(S)** 30 minute fire rated door with intumescent fire and smoke seals - (proposed)
- P / FD30(S) GS** 30 minute fire rated door with intumescent fire and smoke seals - (proposed)
- X / FD30** 30 minute fire rated door - (existing door)
- P / FD30** 30 minute fire rated door - (proposed door)

All fire doors are to be either held open on electromagnetic hold open devices (to fail safe release on activation of the fire alarm or power failure), fitted with self-closing devices or locked shut depending on their use. For details of proposed doors refer to the door schedule produced by Willmott Dixon and their specialist subcontractor. For details of existing/retained doors, refer to the schedule of repairs to existing doors prepared by Gleeds.

The above schedules should also be referred to for details of door mounted fire safety signage (note: door mounted signage is not indicated on this drawing). Door mounted signage is to be provided in accordance with section 3.7 of the BWC Fire Strategy Report.

For details of doors requiring vision panels for either fire strategy compliance or for operational H&S needs, the separate schedules noted above for existing and proposed doors should be referred to. Vision panels in fire rated doors are to be clear fire rated safety glazing. Vision panels in non-fire rated doors are to be clear safety glazing.

For confirmation and details of access control doors reference should be made to the Electrical subcontractors drawings, details and specifications.

WALL AND CEILING MOUNTED EMERGENCY SIGNAGE:

Fire Escape Signage

Symbols on this drawing are diagrammatic only. Signage is to be entirely in accordance with section 3.7 of the BWC Fire Strategy Report.

Where fire signage is approached from two directions, signs are to be double sided.

Signage fitted to walls above doors are to be mounted centrally over the door. Fixing heights to be agreed on site and to fully coordinate with the Electrical subcontractors lighting drawings, details and specifications.

FIRE ESCAPE ROUTES / TRAVEL DISTANCES:

Identification of 'worst case' fire escape routes based on current furniture arrangements (refer to loaded plans for full furniture layouts).

FIRE STRATEGY NOTES:

GENERAL:

This drawing should be read in conjunction with the BWC Fire Strategy Report as well as RCA (2) series drawings and all relevant drawings, schedules and specifications of the Mechanical and Electrical sub-contractors, Partition and Door subcontractors. Any discrepancies between this information and the fire strategy layouts are to be brought to the attention of the Architect immediately and clarification sought before proceeding any further.

The M&E design is to comply with all necessary requirements for lighting/emergency lighting, ventilation, fire alarm and detection and access control etc.

EXISTING ELEMENTS / LEGACY ISSUES:

General:

This fire strategy layout is based on the BWC Fire Strategy Report, which has been developed in accordance with the fire resistance recommendations in BS 9999. However, the majority of the proposed layout utilises existing walls and doors - BWC have confirmed that any existing non fire rated walls and doors, which would typically need to be of fire rated construction in a new build scenario, can be retained unaltered. Where applicable (e.g. some stores), rooms are therefore shown to be non fire rated. Non fire rated stores are to be managed by Milton Keynes Council through appropriate risk assessments.

Doors:

The fire ratings of existing doors shown on this drawing are based on surveys undertaken by both Gleeds and Milton Keynes Council. These have not been verified on site by either Willmott Dixon or Race Cottam Associates and the accuracy of the original surveys is relied upon. It is assumed the doors achieve the fire ratings indicated, certified as appropriate, and include the necessary compliant vision panels, ironmongery, seals and door mounted fire safety signage.

Note: The surveys of existing doors also identified existing fire doors, which do not need to be fire rated on the basis of the fire strategy proposed by BWC. As these are therefore not relevant to the fire strategy layouts they are not indicated on the drawings. Similarly, if the surveys have identified existing doors that provide a greater period of fire resistance than required by this fire strategy, these are not specifically highlighted (just the requirements of the Fire Engineer are shown).

Walls and Fire Stopping:

Site surveys by Willmott Dixon have identified a number of legacy issues with fire stopping of existing services. Works will be undertaken to the existing fire walls indicated on the plans to rectify these legacy issues - fire stopping/fire sealing will be made good to defective areas to ensure the fire integrity of the construction.

It is assumed all other existing walls inherently achieve the fire ratings required and are constructed full height from floor to soffit and suitably fire stopped to ensure the integrity of the construction.

FIRE STRATEGY NOTES (cont):

MEANS OF ESCAPE / EVACUATION STRATEGY:

For details refer to the BWC Fire Strategy Report.

Wheelchair refuges are to be provided in accordance with the requirements contained within section 3.4 of the BWC Fire Strategy Report. Refer to the Electrical subcontractors drawings for full details.

MAXIMUM OCCUPANCY:

The maximum occupancy of the building is determined by the limiting factor of either the existing escape provisions (stairs/stairs) or the existing toilet provision. Refer to section 3.3 of the BWC Fire Strategy Report and separate calculations by Willmott Dixon for the toilet numbers. Milton Keynes Council are to operate a strict management policy to ensure the maximum occupancy is not exceeded.

FIRE ALARM AND DETECTION SYSTEM:

For details (including manual call points and equipment interfaces) refer to the Electrical subcontractors drawings, details and specifications. Proposals are to be installed entirely in accordance with section 3.5 of the BWC Fire Strategy Report.

EMERGENCY LIGHTING:

For details refer to the Electrical subcontractors drawings, details and specifications. Proposals are to be installed entirely in accordance with section 3.6 of the BWC Fire Strategy Report.

EMERGENCY SIGNAGE:

Signage is to be installed entirely in accordance with section 3.7 of the BWC Fire Strategy Report. This is to be suitably illuminated and fully coordinated with the Electrical subcontractors lighting installation. For details of the proposed lighting refer to the Electrical subcontractors drawings, details and specifications.

FIRE SPREAD:

Linings:

All linings are to achieve the classifications highlighted in section 4.1 of the BWC Fire Strategy Report.

External Wall and Roof Construction and Unprotected Areas:

All unchanged by the works.

CONSTRUCTION:

Structure:

All elements of structure including columns, beams, loadbearing walls and floors are to provide 60 minutes fire resistance. Note: all elements are existing are understood to achieve 60 minute fire rating.

Each floor is a compartment floor and it is understood the existing construction achieves the 60 minute fire rating required.

Compartmentation:

To maintain the integrity of the compartmentation, all compartment and fire rated walls are to be taken full height to the underside of the floor/roof slabs and fire stopped to the same fire-resistant rating as the wall.

All glazing forming part of a fire resisting enclosure is to provide the necessary fire resistance in terms of integrity and insulation unless the size of glazing is limited to the extent identified in Approved Document B / BS 9999. In this case glazing can be unglazed integrity only glazing. Glazing should have a permanent, legible mark giving the manufacturer, product name, fire-resistance rating and any requirement for impact safety performance according to BS 6206 or BS EN 12600.

Doors / Access Control:

Access control measures are required to selected doors for security purposes - for locations refer to the door schedule produced and Willmott Dixon and their specialist subcontractor and the Electrical subcontractors drawings. The access control system is to be linked to the fire alarm/detection system, to fail-safe unlocked upon activation of the fire alarm or manual call point or in the event of power failure or system error.

For full details of the proposed system and interfaces, refer to the Electrical subcontractors drawings, details and specifications.

Fire Stopping:

All joints between fire separating elements and openings in fire rated construction (including those for service penetrations) are to be fire stopped/fire sealed to the same fire rating as the walls/floors in order to maintain the integrity of the construction. For full details of the M&E services design and associated fire protection measures (e.g. fire dampers, pipe sleeving etc), refer to the Mechanical and Electrical subcontractors drawings, details and specifications.

Cavity Barriers:

Cavity barriers are to be installed in accordance with the requirements set out in section 5.6 of the BWC Fire Strategy Report.

FIRE SERVICE ACCESS:

All unchanged by the works.

FIRE SAFETY MANAGEMENT:

Milton Keynes Council are to undertake a suitable fire risk assessment on occupation of the building as required by the Regulatory Reform (Fire Safety) Order 2005. For requirements of the risk assessment and fire safety management plan refer to section 7 of the BWC Fire Strategy Report.

Graphical Scale 1:200

Drawn by:	PF	Date:	02/08/17	Scale:	1:200	Client:	A1
Status:	Preliminary	Presentation	Tender	Construction	Last Issue	Special Status	
Date:	04/08/17			25/08/17			
Approved by:	PF			PF			
Revision	Date	Drawn	Approved				
P01	Preliminary issue (draft) for review and comment.	04/08/17	PF				
C01	Drawing and notes updated to suit WD comments, rework	08/08/17	PF				
	- stores adjacent to the west stair core shown non fire rated (as existing)						
	- door to the west goods lift lobby shown as 30 mins FR (as existing)						
	- fire wall arrangement to the council chamber / projector room updated plus noted added re glazed screen						
	- door hanging to the distribution cupboard to the west of the south stair core corrected						
	- HEH store shown non fire rated (as existing)						
	- store to the south of east stair core shown non fire rated (as existing)						
	- fire strategy notes updated to suit.						

GENERAL KEY:

- Room Floor Level
- Room Number
- Door Floor Level
- Door Number

RACE COTTAM ASSOCIATES
NOTE: THIS GA LAYOUT IS BASED ON WILLMOTT DIXON DRAWING 15PT002-0913/D.
ACCURACY OF THE DRAWINGS RECEIVED RESTS WITH THE ORIGINAL AUTHORS AND LAYOUTS SHOULD BE VERIFIED ON SITE BY SUITABLE SURVEY.

Client:
WILLMOTT_DIXON

Project:
MILTON_KEYNES_CIVIC_OFFICES

Drawing No.:
6903

Project No.:
3361-03

Drawing Title:
MKO-RCA-01-02-DR-6903-SF_FIRE_STRATEGY_PLAN

84 C01

(Project Code) (Originator) (Volume Desc) (Level Desc) (File Type) (Rev) (File Number) (File Description) (Subsidiary) (Rev)

Sheffield Studio | 3 Vicent House | Solly Street | Sheffield | S1 4BB | 0114 2737050
London Studio | 133 Houndsditch | London | EC3A 7DX
www.racecottam.com

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