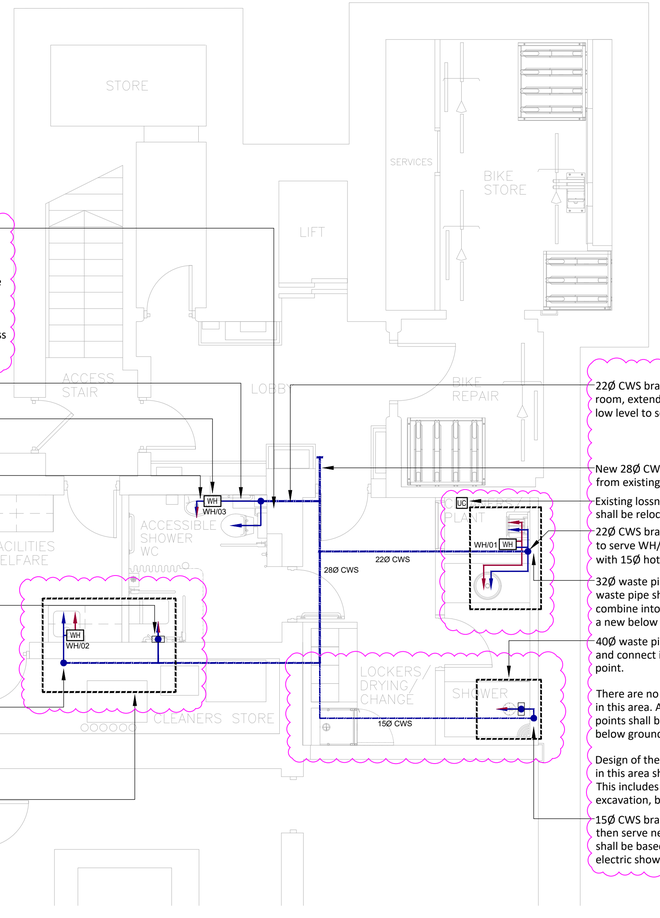
Grille Schedule

Supply Grille Reference	Location	Type (supply)	RAL/finish	Air flowrate (l/s)	Maximum pressure drop (Pa)	Face size (mm)	Duct connection size (mm)	Throw (m)	Noise	Ceiling	Selections based on Waterloo ref
SG/01	Lockers/drying	Circular	9010	87	15	305	200	1.5	<30dB(A)	Metal tile	MC/200/LD
SG/02	Lockers/drying	Circular	9010	86	15	305	200	1.5	<30dB(A)	Metal tile	MC/200/LD
SG/03	Accessible shower	Circular	9010	40	15	228	150	1	<30dB(A)	Plasterboard	MC/150/LD
SG/04	Welfare	Circular	9010	65	10	305	200	1	<30dB(A)	Ceiling grid	MC/200/LD

Extract Grille Reference	Location	Type (extract)	RAL/finish	Air flowrate (l/s)	Maximum pressure drop (Pa)	Face size (mm)	Duct connection size (mm)	Throw (m)	Noise	Ceiling	Selections based on Waterloo ref
EG/01	Shower	Circular	9010	25	10	228	150	n/a	<30dB(A)	Plasterboard	MC/150/LD
EG/02	Accessible shower	Circular	9010	40	15	228	150	n/a	<30dB(A)	Plasterboard	MC/150/LD
EG/03	Cleaners store	Circular	9010	40	15	228	150	n/a	<30dB(A)	No ceiling	MC/150/LD
EG/04	Welfare	Circular	9010	25	10	228	150	n/a	<30dB(A)	Ceiling grid	MC/150/LD
EG/05	Cleaners	Circular	9010	33	10	228	150	n/a	<30dB(A)	Ceiling grid	MC/150/LD

Electrical Hot Water Schedule

Water heater reference	Location	Type	Capacity (litres)	Dimensions (LxHxD mm)	Comments	Outlet temperature (degC)	Power Supply	kW	Unit selection
WH/01	Basin vanity unit	Unvented water heater	5	376Hx256Wx260D	Heater to be provided with unvented kit.	43	230/1/50	2	Aquapoint III AP3/05
WH/02	Cleaner's store	Unvented water heater	10	572Hx267Wx252D	Heater to be provided with unvented kit.	43	230/1/50	3	Multipoint 10
WH/03	Accessible shower	Instantaneous water heater	0	186Hx135Wx87D	Unit to be provided c/w mixer tap (MT)	43	230/1/51	4.4	ES4



Water Services and Drainage Layout

A new 32Ø waste pipe shall extend from the basin trap and connect into a new 100Ø soil stack. A new 100Ø soil pipe shall extend from the new WC. The new waste pipework shall reconnect to the existing below ground drain point if this is deemed adequate by the below ground drainage designers. Design of the below ground drainage system in this area shall be a Contractor Design element. All pipework shall be hidden within Architect's boxing detail with access hatches as required. The Contractor shall agree locations of access hatches with the Architect.

All pipework shall be hidden within boxing detail, provided by Architect

Water Heater shall be located within boxing, hidden out of view and fully accessible. Final location/detail to be confirmed by Architect.

The MSI shall provide a selection of compatible mixer taps (that are provided c/w this heater) to the Architect to review and approve.

15Ø CWS extend through wall to rear of new BEAB approved DDA electric shower. Shower shall be based on Mira Advance ATL 9.0 kW unit and shall be provided c/w check valve, strainer, flow regulator, adjustable shower head, rail and hose.

22Ø CWS drops to low level to serve WH/02, then extend to serve welfare sink. 15Ø HWS shall extend from WH/02 to serve welfare sink.

A new 40Ø waste shall extend from the welfare sink trap. A new 40Ø waste shall extend from the shower trap.

There is no existing below ground drain point currently in this area. As such a new below ground drainage point shall be provided and connected to the below ground drainage system.

Design of the above and below ground drainage in this area shall be a Contractor Design element. This includes all associated interfaces, excavation, builderswork, finishes, etc.

22Ø CWS branch with IV within locker room, extend through wall and drop to low level to serve WC, WH/03 and basin.

New 28Ø CWS extend from existing with IV.

Existing lossnay unit controller shall be relocated to this position.

22Ø CWS branch with IV then drop to low level to serve WH/01, then cleaners sink and WHB with 15Ø hot and cold water connections

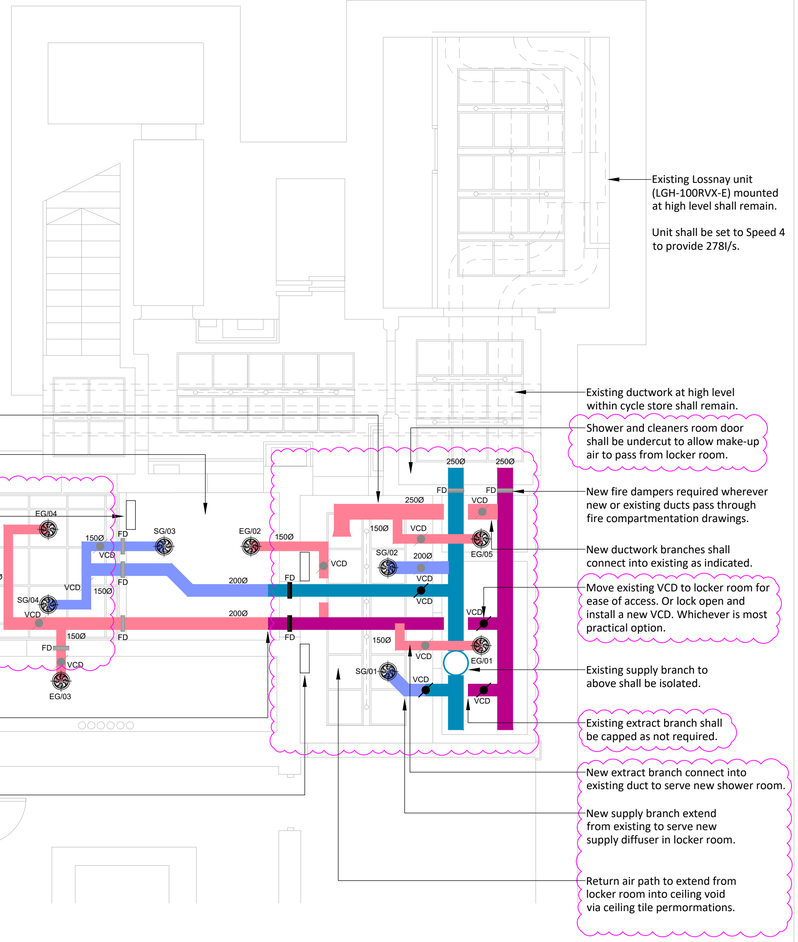
32Ø waste pipe shall extend from WHB. 40Ø waste pipe shall extend from cleaner's sink, then combine into a 50Ø header before connecting to a new below ground drainage point.

40Ø waste pipe shall extend from the shower and connect into a new below ground drainage point.

There are no existing below ground drain points in this area. As such new below ground drainage points shall be provided and connected to the below ground drainage system.

Design of the above and below ground drainage in this area shall be a Contractor Design element. This includes all associated interfaces, excavation, builderswork, finishes, etc.

15Ø CWS branch with IV, set into wall then serve new electric shower. Selection shall be based on Mira Escape 9.8kW electric shower, with chrome finish.



Ventilation and Heating Layout

New extract branch within locker room. Flowrate shall be 0.115m3/s.

New supply and extract branches arranged to ensure VCDs are accessible without requiring access hatches in the accessible shower ceiling.

0.5kW wall mounted electric panel heater (LST) shall be provided. Unit selection shall be based on Consort type LST500 c/w time controller suitable for disabled areas. Unit size 830W x 430H x 93D, RAL 9010.

The cleaner's room door shall be undercut to allow make-up air to pass from welfare room.

New supply and extract ducts extend from existing within accessible shower ceiling void.

2No existing wall mounted electric heaters, carefully removed from previous drying room, shall be re-instated at high level within new locker room.

Existing Lossnay unit (LGH-100RVX-E) mounted at high level shall remain. Unit shall be set to Speed 4 to provide 278l/s.

Existing ductwork at high level within cycle store shall remain.

Shower and cleaners room door shall be undercut to allow make-up air to pass from locker room.

New fire dampers required wherever new or existing ducts pass through fire compartmentation drawings.

New ductwork branches shall connect into existing as indicated.

Move existing VCD to locker room for ease of access. Or lock open and install a new VCD. Whichever is most practical option.

Existing supply branch to above shall be isolated.

Existing extract branch shall be capped as not required.

New extract branch connect into existing duct to serve new shower room.

New supply branch extend from existing to serve new supply diffuser in locker room.

Return air path to extend from locker room into ceiling void via ceiling tile permormations.

Legend:

- Existing Supply Duct
- Existing Extract Duct
- Proposed Supply Duct
- Proposed Extract Duct
- Existing VCD
- Proposed VCD
- SG - Supply Grille
- EG - Extract Grille
- Existing Fire Damper
- Proposed Fire Damper

Do not scale from this drawing.
Verify dimensions by site measurement.
Read this drawing in conjunction with the latest architectural and structural drawings.

This drawing is based on the following information:-

Notes:

1. This drawing shall be read in conjunction with all other drawings and specifications.
2. This drawing has been produced from a limited-access site survey by the engineer. The contractor shall therefore verify via their own intrusive site survey that the drawing reflects the installations at the commencement of works.
3. All mechanical services, equipment and installations which are to remain located in the area of works shall be protected for the duration of works.
4. Any services that are to remain, but inadvertently stripped out or damaged shall be reinstated by the MSI at no cost to the Employer, and to the satisfaction of the Engineer.
5. Refurbishment works will be undertaken within an occupied building. The MSI shall therefore ensure noisy works, including drilling, etc shall be completed out of normal working hours.
6. The MSI shall dispose of all redundant materials utilising their own skips, etc, in accordance with the building landlord's access conditions.
7. All works on site shall be undertaken in liaison with the site managers; no works shall be commenced without a permit to work and without comprehensive method statements and risk assessments.
8. Works shall be arranged such that there is no disruption to occupied staff. All works shall be undertaken in accordance with the Employers and building landlord's site rules and restrictions.
9. The MSI shall allow for full liaison and co-ordination with the other parties regarding the extent of provision and interfacing, to ensure that the delivery/site assembly are co-ordinated on site.
10. Services requiring maintenance shall be kept within accessible areas.
11. New builderswork holes shall be formed by the MSI or Principal Contractor, including pipe sleeves and fire stopping where necessary.
12. All new ductwork shall contain air flow direction arrows.
13. All new plant shall be supported independently and not utilise the ceiling grid for support.
14. All ceiling diffusers shall be as identified on the schedules and co-ordinated / symmetrical with the light fittings.
15. Flexible connections shall be no longer than 500mm.
16. All services passing through fire compartments shall contain fusible link fire dampers and have penetrations fire stopped. Refer to architect's fire compartmentation drawing.
17. Duct access panels for cleaning purposes shall be located as per HVAC TR19.
18. All pipework shall be fully bonded to earth.
19. All new hot and cold water pipework shall be pressure tested, then insulated and labelled.
20. Dead-legs shall be avoided in accordance with the Water Regulations.
21. All exposed pipework within disabled areas shall be chrome plated.
22. All final connections to appliances shall contain a ball type isolation valves.
23. For details of materials and workmanship, refer to 5th floor specification 35660-HML-SP-MS-001.

Rev	Date	Description	Checked	Approved
P02	16/08/24	Tender Issue.	DA	SR
P01	09/08/24	Tender Issue.	DA	SR

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Client
AM Alpha

Project
Royal London House
196 Deansgate, Manchester

Drawing Title
Mechanical Services
Basement
Proposed Mechanical Services Layout

Scale	Sheet Size	Designed	Checked
1:50	A1	DA	SR

Project Status	Suitability	HM Project No.
TENDER		35660

Drawing No.	Rev
35660-HML-XX-B1-GA-M-131001	P02

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