

ELECTRICAL SCOPE AND RESPONSIBILITIES:

The Electrical Contractor shall supply, install, test and commission all electrical installations included within the agreed electrical estimate, including power, lighting, emergency lighting, small power, containment, distribution, earthing, bonding and all associated wiring provisions. The Electrical Contractor shall provide wiring infrastructure and containment only for systems supplied and commissioned by others, including CCTV, data access points and vope detectors, which are to be supplied, installed and commissioned by the Client.

The Electrical Contractor shall install all fire alarm cabling from the Estates fire alarm panel to the pavilion and internally to detection locations. The fire detection system devices configuration, testing and commissioning shall be by the Estates-appointed fire alarm contractor (PPF).

The Electrical Contractor shall supply and install fibre optic cabling from the Estates data hub to the new pavilion data cabinet and install the data cabinet and associated containment as included within the estimate. All other data equipment and systems not expressly included in the estimate shall be supplied and commissioned by the Client.

Any equipment, systems or goods not specifically included within the Electrical Contractor's estimate shall be supplied, installed and commissioned by others, unless otherwise agreed in writing.

GENERAL ELECTRICAL INSTALLATION AND COMMISSIONING

Electrical Installation: All electrical works to be carried out by a competent NICEIC- or NAPII-registered contractor and installed in accordance with BS 7671 (IET Wiring Regulations), Building Regulations Part P, relevant British Standards, and the project NBS specification. Installation to include distribution, containment, wiring systems, accessories, testing and labelling, coordinated with other trades and building fabric.

Electrical installation to comply with BS 7671 and be installed and certified by a competent person.

Testing and Certification: Upon completion, the Electrical Contractor shall fully inspect, test and certify the installation and provide Electrical Installation Certificates, schedules of inspections and test results, and as-installed circuit charts for inclusion within the Health and Safety File.

Commissioning: All electrical systems to be commissioned prior to handover, including lighting controls, emergency lighting, mechanical supplies, and any control interfaces. Emergency lighting to be tested in accordance with BS 5266-1, and test results recorded and handed over to the Client. Final commissioning to confirm correct operation, zoning, controls and isolation.

Handover: The Electrical Contractor shall provide operating and maintenance information, test records, warranties and manufacturer literature, and demonstrate system operation to the Client or Estates representative at handover.

Key:

	Electrical distribution board
	1 Gang pull cord light emergency sounder and indicator switch
	Double switched wall socket 1200mm above floor level
	Single switched fuse spur at high level for extract fan (lockable)
	Single switched fuse spur below worktop level
	Future provision for electric heating full room plus or minus radiator above each external door. All control by central timer. (H) High level, (L) low level
	External double switched wall socket
	Security camera provision. Cable form data hub to be terminated in box. Client to supply and install camera
	Data Hub - fibre cable back to Estates Hub
	CAT 5 cable wired back to data hub and terminated - Outer

KITCHEN
Kitchen Fit-Out: Provide kitchen installation comprising wall and base units, sink, dishwasher and fridge, suitable for light commercial staff use. Units to be factory-manufactured carcasses with durable, wipe-clean finishes, soft-close hinges and drawers, and adjustable shelving. Layout, door finishes, worktop material, appliance models and colours to be subject to final client approval.

Worktops: Provide laminate or solid surface worktops (subject to client selection), with sealed joints, drips and upstands as required for hygiene and durability.

Sink and Taps: Provide stainless steel sink with monobloc mixer tap, installed in accordance with Part G and manufacturer's instructions.

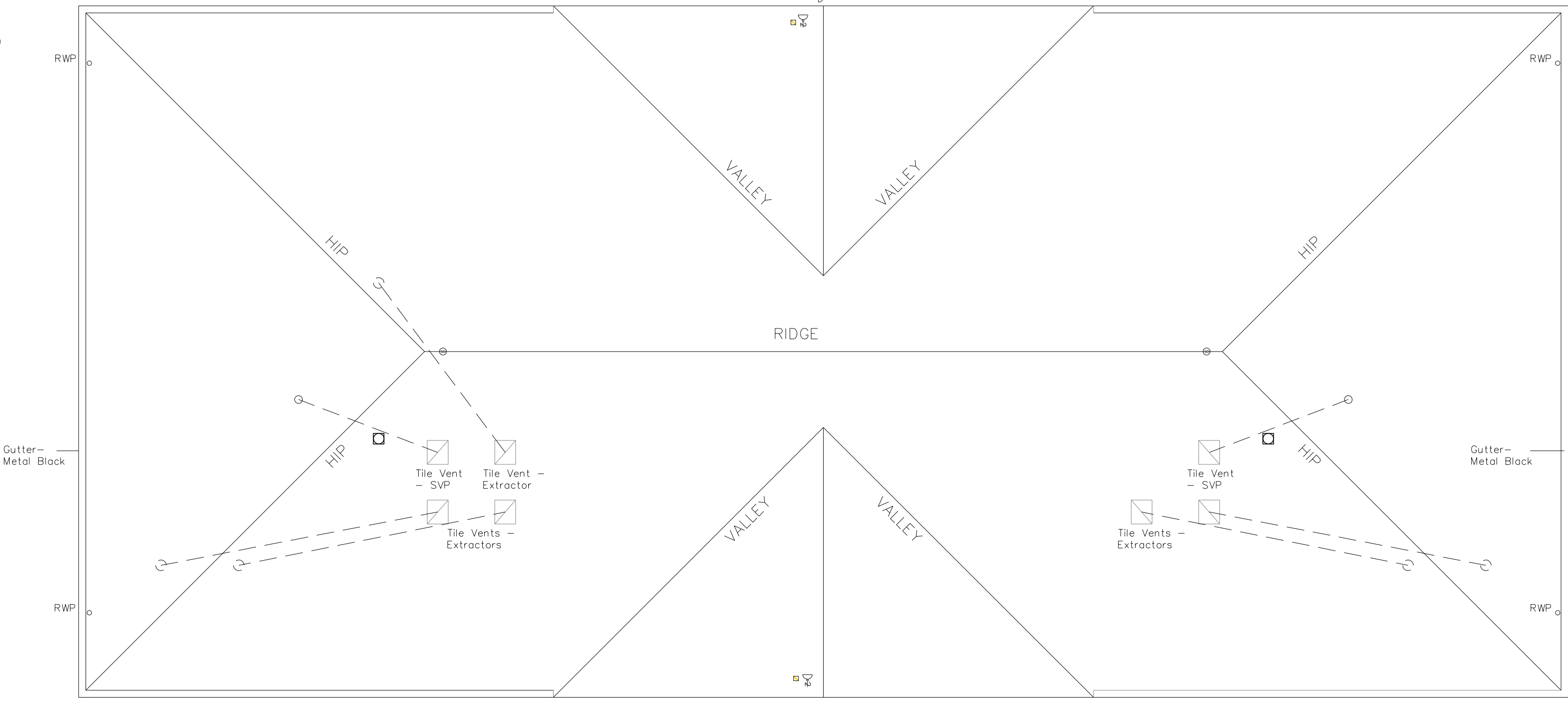
Appliances: Allow for integrated or freestanding dishwasher and refrigerator, energy-efficient rated, connected to services in accordance with manufacturer guidance. Final appliance specification to be confirmed following client approval.

Installation and Coordination: Kitchen installation to be coordinated with services, wall finishes and flooring. All fixings, sealants and service connections to be included. Final design, layout and specification to be developed and approved prior to manufacture and installation.

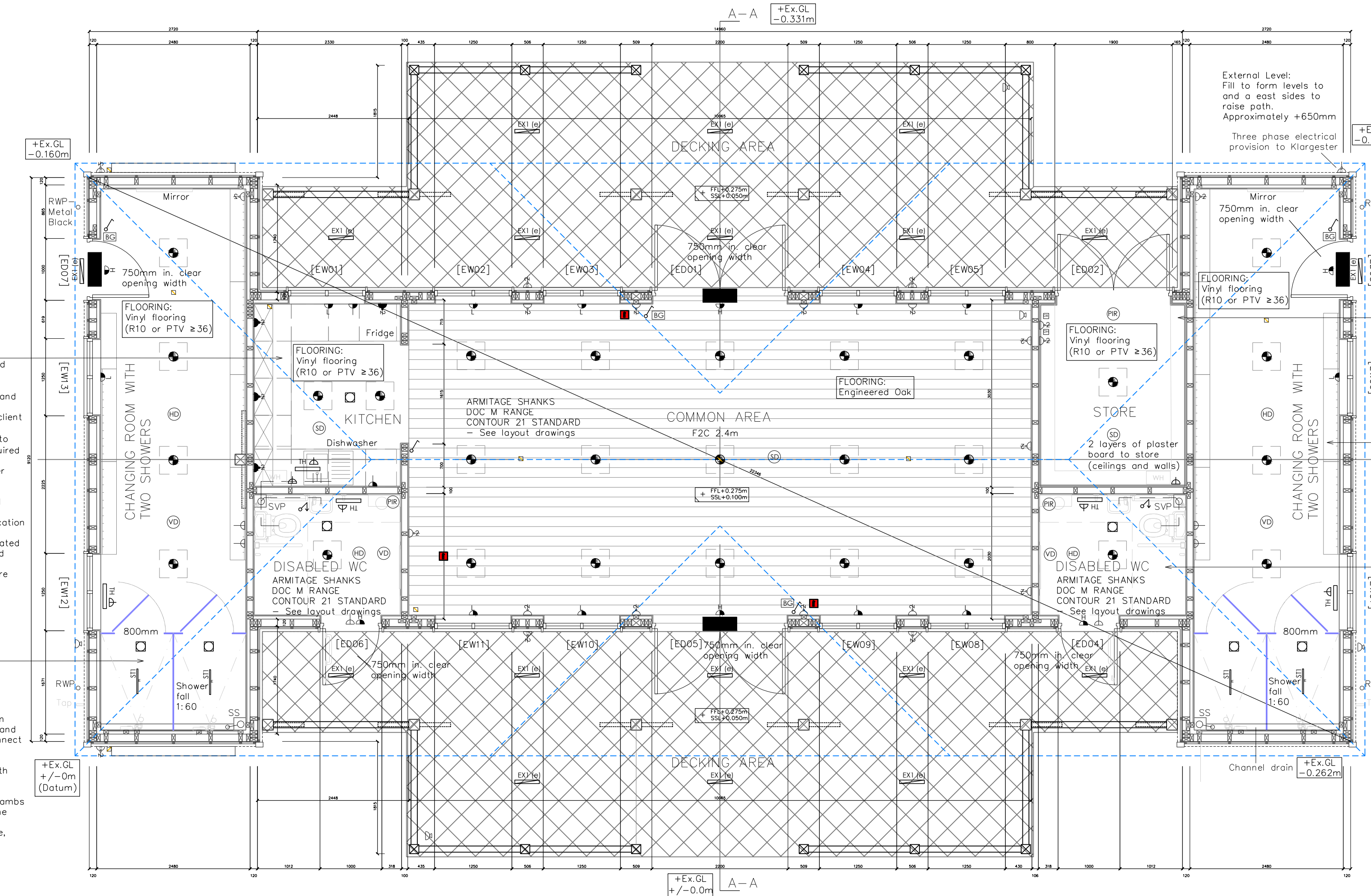
SHOWERS

Level Access Shower and Cubicle System: Provide level-access shower with falls formed in screed or slab at 1:60-1:80 to a proprietary linear channel drain with integral trapped outlet (minimum 50 mm water seal) suitable for heat-welded vinyl flooring, with removable grate and hair trap for cleaning and maintenance from above. Provide full waterproof tanking system beneath vinyl, vinyl flooring to be dressed into channel flange and heat-welded throughout, including coved upstands. Trap to connect to gravity waste discharging to below-ground drainage in accordance with Part H, with no secondary traps. Provide Venesta-type shower cubicle system suitable for wet areas, with moisture-resistant panels and corrosion-resistant ironmongery. Provide privacy gaps to cubicle doors and partitions to manufacturer's standard, with maximum 20 mm at head and jambs and maximum 25 mm at floor, unless otherwise required by the cubicle manufacturer or to maintain ventilation and drying. All joints, fixings and interfaces to be detailed to maintain hygiene, durability and water tightness, and to coordinate with Doc M access requirements where applicable.

REV#	DATE	NAME	NOTES



ROOF PLAN- PROPOSED



GROUND FLOOR PLAN- PROPOSED

LIGHTING -INTERNAL GENERAL AREAS

Provide 600 x600 mm recessed or surface-mounted LED panel luminaires (to suit ceiling construction), complete with drivers, diffusers, suspension or fixing systems, and all accessories necessary for a complete installation. Luminaires to align with the electrical contractor's estimate, including 600 x600 surface-mounted LED panels with integrated self-test emergency function where required, and standard non-emergency fittings elsewhere as indicated.

Performance; Lighting design to comply with BS EN 12464-1 and OIBSE guidance. Maintained illuminance levels to be achieved as follows unless noted otherwise on drawings:
-Circulation areas and lobbies: 100 lux
-Changing rooms and WCs: 100-150 lux
-Shower and wash areas: 150 lux
-Social / pavilion spaces: 200 lux
-Kitchen areas: 300 lux minimum, increased locally where required for task lighting

Layout and Spacing: Ceiling height is 2.4 m AFFL. LED panels to be arranged on a regular grid at approximately 2.0-2.2 m centres, adjusted locally to suit room geometry, partitions, cubicles and obstructions. First row of luminaires to be set out to avoid perimeter shadowing. Final spacing and quantities to be confirmed by the electrical contractor's lighting calculations using the selected luminaire photometric data.

Luminaire Quality: Luminaires to provide UGR ≤ 19, CRI ≥80, neutral white colour temperature 4000 K unless noted otherwise, and flicker-free operation suitable for educational and sports environments. Luminaires installed within changing rooms and shower areas to be suitable for humid environments, with appropriate IP rating in accordance with manufacturer guidance.

Controls and Emergency Lighting: Lighting to be locally switched in all areas as indicated on drawings. Provide PIR presence detection control to WCs and storage areas. Emergency lighting to be provided where required to comply with BS 5266; not all luminaires are required to be emergency fittings. Emergency provision to be coordinated with the Estates standard, with self-test or central test facilities where specified.

Installation and Compliance: All lighting to be installed in accordance with the project NBS specification, relevant British Standards, and manufacturer's instructions. Final lighting design, calculations and settings-out to be submitted for review prior to installation.

EXTRACT FOR SHOWER ROOM

Provide mechanical extract ventilation to shower room ducted to external air capable of extracting at a rate of not less than 15 l/s. Vent to be connected to light switch.

Key	
	Vent-Axia Svara extract fans serving showers, WCs and kitchenette
	LED panel lighting with emergency backup. Frame required where no suspended ceiling are denoted. 'E' Denotes emergency back-up. green service light not to be located with boarding rooms
	1 Gang light switch
	PIR
	LED strip light (sealed) with emergency back-up and green service light

VAPE DETECTION:
Vape detection sensors to be provided where indicated. Electrical contractor to allow for permanent power supply via local fused spur and CAT6 data outlet adjacent to each sensor location, or PoE where required by the selected manufacturer. Sensors to connect to the school network for monitoring and alerting. Final power, data and interface requirements to be confirmed with the selected vape detector manufacturer prior to installation. Client to supply and install devices. Electrical contractor to make provision for installation and terminate in ceiling mount electrical box.

Key: Vape detector provision

FROST PROTECTION HEATING
Provide electric tubular heaters to shower rooms, WCs and kitchen areas for frost protection only. Heaters to be sized and controlled to maintain a minimum ambient temperature of 2°C, preventing freezing of pipework and fittings. Heaters to be wall-mounted at low level, clear of obstruction, and controlled by integral or remote frost thermostats. Electrical connection to be via a 3 A fused connection unit with neon indicator, providing local means of isolation in accordance with BS 7671. Heaters are not intended for comfort heating.

Key: Electric tubular heaters with neon fused spur

STORE SHELVING
Provide adjustable storage shelving system suitable for commercial use, complete with uprights, shelves and brackets. Shelving to be formed in powder-coated steel or durable laminated board to NBS K20 requirements, with shelves adjustable in 25-32 mm increments. Typical shelf depth 300-450 mm and minimum load capacity 50 kg per shelf, unless noted otherwise. Install shelving between 450 mm and 1,800 mm above finished floor level to maintain safe manual handling and accessibility. Shelving to be securely fixed to walls or floor as appropriate, with all fixings suitable for the supporting construction.

CHANGING ROOM BENCHES AND HOOKS
Provide Veste Premium single-sided changing and cloakroom bench seats with coat hooks. Senior size, as supplied by Office Boffins (premium model) or approved equal. Quantity: 6 no. benches total, comprising 6 no. 1.5 m benches and 1 no. 900 mm bench per changing room, as indicated on drawings. Benches and hook rails to be securely fixed to walls with proprietary fixings suitable for the wall construction, including nogging/backing and load-spreading where required. Install to manufacturer's recommendations, with all edges, finishes and interfaces suitable for wet/changing room environments.

W/C AND CHNAGING AREAS

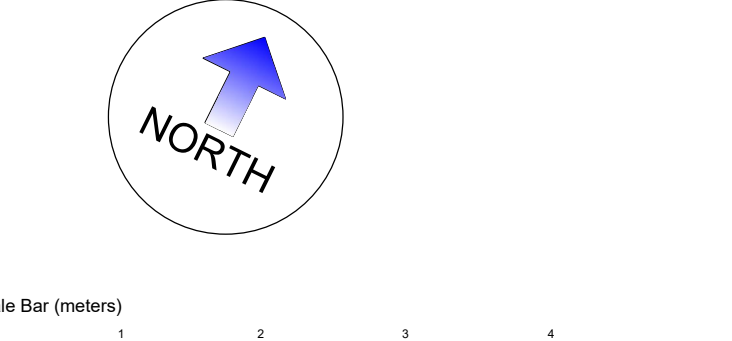
Sanitaryware: Provide Armitage Shanks Doc M range, Contour 21 Standard, including WC, basin and associated fittings, installed fully in accordance with the manufacturer's guidance and Approved Document M. Layout to achieve all required Part M compliant clearances, heights and reach zones.

Grab Rails and Accessories: Provide colour-contrasting grab rails, seal, backrest and accessories to Doc M WC and shower areas, with visual contrast to adjacent wall finishes in accordance with Approved Document M guidance. All rails and fittings to be securely fixed through wall linings to suitable structural backing.

Emergency Assistance Alarm: Provide a Doc M compliant emergency pull-cord alarm system, including low-level pull cord, reset button, and external audible/visual indicator, installed in accordance with Approved Document M and manufacturer's instructions.

Wall Finishes: Walls to sanitary areas to be Whitetack hygienic wallboard (or approved equal), taken full height where required, with sealed joints, corners and perimeter trims to provide a durable, waterproof and cleanable finish.

Flooring: Provide wet-area grade vinyl flooring with minimum slip resistance R10 or PTV ≥36 when wet. Flooring to be heat-welded at all joints and formed with coved upstand skirtings to walls, including sealed terminations around all penetrations.



EXTERNAL LIGHTING -BIODIVERSITY AND PLANNING COMPLIANCE

Purpose: External lighting to be designed, specified and installed to satisfy Planning Condition relating to biodiversity, in accordance with Institute of Lighting Professionals Guidance Note GN08/23 (Bats and Artificial Lighting at Night). The objective is to provide necessary safety and operational lighting while avoiding disturbance to bats, foraging routes and dark corridors.

General Principles: External lighting shall be kept to the absolute minimum required for safety and operational use. Lighting shall be designed to avoid light spill, glare and sky glow, and to maintain dark areas and ecological connectivity around the site. No external lighting shall be installed other than that expressly approved by the Local Planning Authority.

Luminaire Type and Light Source: All external luminaires to be full cut-off / zero upward light output (ULOR = 0%). Light sources to be warm white with a maximum correlated colour temperature of 2700 K, and preferably 2200 K where available, to reduce blue light content harmful to bats. Luminaires to have asymmetric optics where required to direct light only onto the intended area.

Illuminance Levels: External lighting levels to be designed in accordance with GN08/23 and ecological best practice. Light levels along site boundaries, vegetated edges, foraging routes and potential bat flight paths to be maintained at or below 1 lux, and ideally below 0.5 lux, measured horizontally and vertically. External verandah areas and changing room access doors form part of the means of escape and may be lit to meet life safety requirements, with illuminance along escape routes designed to achieve minimum 1 lux on the centre line in accordance with BS 5266-1, with rapid fall-off away from the route to protect surrounding habitats.

Lighting Locations: External lighting to be limited to building-mounted fittings where possible, positioned at low mounting heights and aimed downwards. Luminaires to be installed ceiling-mounted to the external verandahs on the north and south elevations, and above the external access doors to the east and west changing rooms, as indicated on the drawings. No column-mounted lighting to be provided unless specifically justified and approved. Lighting to be excluded from elevations facing sensitive habitats, trees, hedgerows and open landscape where bats may forage or commute.

Controls and Operation: All external lighting to be controlled to minimise operating hours. Provide time-clock control in combination with PIR or presence detection so that lights operate only when required. Lighting to default to off during hours of darkness when the building is not in use. No permanent dusk-to-down lighting permitted unless expressly agreed by the Local Planning Authority.

Luminaire Performance Requirements: External luminaires to be suitable for external use and coastal / semi-rural exposure, with minimum IP65 ingress protection and IK08 impact resistance. Luminaires to provide controlled, downward light distribution with full cut-off optics (ULOR = 0%). Individual luminaire output to be limited to that necessary to achieve the specified illuminance levels, typically ≤ 500 lumens per fitting for verandah and door locations unless otherwise justified by lighting calculations. Luminaires to have a minimum service life of L80B10 at 50,000 hours, corrosion-resistant housings, and be suitable for ceiling mounting to verandah soffits. Emergency luminaires, where provided, to meet the same optical and environmental performance requirements.

Emergency Lighting (External Means of Escape): Where required to satisfy Building Regulations Approved Document B and BS 5266-1, provide external emergency lighting to designated escape routes immediately outside final exits and along defined escape paths to a place of safety. Emergency lighting to be limited strictly to those routes necessary for life safety, with luminaires selected and positioned to minimise ecological impact. Emergency luminaires to be full cut-off, warm colour temperature (maximum 2700 K, preferably 2200 K), and arranged to achieve the minimum illuminance levels required by BS 5266-1, without unnecessary overspill into surrounding habitats. Emergency luminaires to operate only upon mains failure or during testing, and to be included within the approved external lighting scheme.

Contour Plans and Submissions: The lighting scheme submission to the Local Planning Authority shall include: luminaire specifications, colour temperature, mounting heights, aiming angles, control strategy, and lighting contour plots demonstrating predicted light spill levels across the site and at ecological receptors. Contour plans to clearly show compliance with GN08/23 thresholds.

Installation and Maintenance: External lighting to be installed strictly in accordance with the approved scheme, including luminaire type, location, orientation and controls. Lighting to be maintained thereafter to ensure continued compliance, with replacement lamps or fittings to match the approved specification. No additional or altered external lighting shall be installed without prior written consent of the Local Planning Authority.

Compliance: External lighting design and installation to comply with the Conservation of Habitats and Species Regulations 2017 (as amended), the Wildlife and Countryside Act 1981 (as amended), Section 40 of the NERC Act 2006, Local Plan Policy DP36, and ILP Guidance Note GN08/23.

Key	
	External grade LED Bulkhead light (sealed) with emergency light back-up and green service light

FIRE ALARM -General Areas (L1 System);

Provide automatic fire detection and alarm coverage to all remaining areas of the building as part of an L1 fire detection system, designed and installed in accordance with BS 5839-1 and the approved fire strategy.

The electrical contractor shall be responsible for the installation of all fire alarm cabling infrastructure, including containment, first-fix cabling, loop wiring and terminations, and for terminating all cabling back to the Estates fire alarm interface panel as directed.

The fire detection system contractor (PPF) shall be responsible for the supply, installation, programming, testing and commissioning of all fire alarm devices and associated components, including detectors, sounders, visual alarm devices, interfaces and control equipment, together with certification and handover documentation.

Detector types and locations to be selected to suit the use and environmental conditions of each space, with smoke detectors provided to dry areas and heat detectors to areas subject to steam, dust or fumes, in accordance with BS 5839-1 and manufacturer guidance.

Roof / Loft Space: Provide two fire detection devices within the loft space, connected to the L1 system, with detector type and positioning to be confirmed by the fire alarm designer to suit the roof construction, fire risk and access arrangements.

All works to be fully coordinated between trades to ensure continuity of detection coverage, avoidance of false alarms, and compliance with statutory requirements.

Changing Rooms: Provide audible alarm sounder and a visual alarm device (flashing beacon) in changing rooms (with showers) and W/C's as part of the L1 fire alarm system, in accordance with BS 5839-1 and inclusive evacuation principles. Devices to be suitably IP-rated for wet environments where required and located to ensure visibility to occupants.

Key	
	Heat detector (assume fire wet areas)
	Smoke detector
	Red break glass call point (1.4m above fit)

Drawings to be read in conjunction with drawings AL100 to 104, NBS Specifications and Project Particulars, together with the Structural Engineers drawing and calculations.

BUILDING SOLUTIONS CONSULTANTS LTD.

23 Tiltan Road, Hove, BN3 5QR			
PROJECT	Manyweathers Pavilion, Hurstpierpoint College		
DRAWING	Plans (Sheet 1 of 2)		
STAGE	Construction	JOB NO. :	693
DWG NO.	AL101	DATE :	30/01/2026
SCALE	1:50 @A1	REVISION:	-
		DRAWN :	DB