Legislation, Standards, Materials, Workmanship and Health & Safety
All construction work to be in accordance with current Building Regulations, relevant British Standards and all other relevant legislation. Materials should comply with the appropriate British Standard or British Board Agreement Certificate. Materials should be marked, stamped, independently certified or otherwise justified by test or calculation to show their suitability. Workmanship should generally be in accordance with the BS 8000 series of documents and other accepted good practice (e.g. quality assured to ISO 9000). The work must include the co-ordination and management of all health and safety issues during the construction work and the fulfillment of all duties required of a Contractor under the CDM Regulations. Figured dimensions to take preference over scaled dimensions. The Contractor is responsible for checking all figured dimensions on drawings against actual dimensions on site. This drawing is the copyright of the Architects and must not be used or reproduced without permission.

Commercial clients CDM Regulations 2015
For all project,commercial client must make suitable arrangements for managing their project, enabling those carrying it out to manage health and safety risks in a proportionate way. These arrangements include:
appointing the contractors and designers to the project (including the principal designer and principal contractor on projects involving more than one contractor) while making sure they have the skills, knowledge, experience and organisational capability,allowing sufficient time and resources for each stage of the project, making sure that any principal designer and principal contractor appointed carry out their duties in managing the project, making sure suitable welfare facilities are provided for the duration of the construction work, maintain and review the management arrangements for the duration of the project, provide pre-construction information to every designer and contractor either bidding for the work or already appointed to the project ensure that the principal contractor or contractor (for single contractor projects) prepares a construction phase plan before that phase begins and ensure that the principal designer prepares a health and safety file for the project and that it is revised as necessary and made available to anyone who needs it for subsequent work at the site.
For notifiable projects (where planned construction work will last longer than 30 working days and involves more than 20 workers at any one time; or where the work exceeds 500 individual worker days), commercial clients must: notify HSE in writing with details of the project and ensure a copy of the notification is displayed in the construction site office

Foundations
Foundation to be constructed in accordance with 2010 building Regulation A1/2 and BS8004:2015 Code of Practice for foundations. Ensure foundations are constructed below invert level of any adjacent drains unless stated otherwise on the drawings
Excavate as necessary to achieve reduced levels required and remove surplus excavated materials from site. Form new strip foundations as stated on the drawings using Gen 3 concrete designated mix to BS 5328 (nonaggressive soils) to a depth specified by the Local Authority Building Inspectors and to suit the specific ground conditions present.

Block & Beam Floor Construction
75mm screed laid over 500g vapour control layer on 80mm thick Mannok therm MF insulation on 1000g gauge polythene damp proof membrane barrier on concrete block and beam floor. Block and beam floor to be designed by specialist manufacturer. DPCs to lap over DPM at junctions with external walls and sealed with double sided tape.

The two opposing external walls should have ventilation openings
the openings to be sited so that there is a free path for air movement. The openings should be not less than either 1500mm2/m run of external wall or 500mm2/m2 of floor area, which ever gives the greater opening area.
Ventilation openings should have grilles to prevent vermin entry

Note : a polythene vapour control layer should be laid over the insulation as recommended by the BRE to minimise the risk of condensation forming at the insulation / slab interface

Floor insulation to ground floor:-
From table 2 of Part L1 A 2013 the 'U' should be min 0.18 W/m2K.
the P/A = 0.42, using Mannok MF with a thermal conductivity of 0.022 W/m.K the insulation required is 80mm thickness of Mannok MF.

External Cavity Wall
Cavity wall construction to consist of - outer leaf of 102.5mm suitable facing brick with 50mm ventilated and drained cavity provided between the stud and brick cladding. Inner stud to have breathable membrane (a vapour resistence of not more than 0.6MNs/g) on wbp external quality 9mm plywood sheathing (or other appoved), Plywood to be fixed to treated timber frame studs constructed using 38x140mm C16 at 600mm crs with double sole and head plates and noggins at 400 - 600mm crs to Engineers details, filled with 100mm Mannok Therm QW.
Internally 3mm skimcoat on 12.5 plasterboard fixed on 25x38mm vertical battens to form service zone on vcl.
Insulated cavity closers or DPCs to be installed at all reveals and openings vertically and horizontally.
Overall wall construction to achieve a U value of 0.25 w/m2K or better.

Non Load-bearing Internal Partition Walls
(171mm stud wall width): Single layer of 12.5mm thick Gyproc acoustic soundBloc plasterboard or similar on both sides, 12mm Plywood on both sides and 16mm resilient bar on one side where indicated on the drawing. Studs to be 38x100mm at 400mm crs. with sole and head plates and solid intermediate horizontal noggins at 1/3 height or 400mm crs with 50mm Isover APR1200 insulation within the cavity to give fire integrity of 60minutes. BS 476:Part 22:1987.
In all cases apply 3mm skim coat of plaster on both sides to achieve a seamless finish ready for decorations.
Note all other width stud walls to have similar treatment and studs sizes to match that particular wall as shown on the drawing.

Lintels
Install lintels above all new openings formed in new load bearing walls. Lintels to be either galvanized steel lintels, timber or metal as indicated on the drawings. Lintel specification and installation is to be in accordance with lintel manufacturer's recommendations and to BE EN 845-2.

Ceilings
Ceiling to be Ultima+ dB suspended ceiling system (Armstrong ceiling Ltd) or similar (see drawings), Ceiling should meet the fire resistance requirements given in ADB1, Table B3. All electrical cables to be laid above the ceiling. ceiling to be accordance BS EN 13964 Suspended ceiling and requirements and test methods.

Pitched Roof
To be Redland Regent interlocking tile on 25 x 38mm on 25 x 38mm treated battens on Tyvek 'supro' roofing underlay on timber trusses to specialist or Engineers details. Calculations to be based on BS EN 1995-1-1:2004 Euro code 5: Design of Timber structures. Ridge tiles bedded in cement / sand mortar with tile slips and mechanically fixed to ridge board. Tyvek 'supro' to be used as an underlay and breather membrane fixed in accordance with manufacturer's instructions, BBA certificate no. 04/4101 and recommendations of BS 5534 : 2003 and BS 8000-6 : 1990.
Insulation at ceiling level to be 350mm Rockwool mineral between ceiling joist. Include all lead flashings, fixings and all other items and accessories as necessary and as shown on the drawings.

Overall U-value of Roof to be 0.13 W/m2K or better.

Rainwater goods:
Marley Alutec Aligator Deepflow half round 130mm profile fixed to facia with 80mm dia round down pipes. website: www.marleyalutec.co.uk

Windows
All Windows to be pcc aluminium windows unless otherwise stated on the drawings. Glazing to be sealed double glazed units with a min.16mm air space filled with Argon with Low E glass as the inner pane. Windows to achieve a U value of 1.4 W/m?K or better. All opening windows to be draught stripped and all windows to be sealed at the perimeter in accordance with Section 4 of approved documents L. All glazing in critical locations to be safety glazing with any low levels acting as guarding being suitably robust in accordance with BS 6206 or BS EN12600 and AD K diag. 5.1.

External Doors/Screen
External door and screen to be Polyester powder-coated aluminium framed double glazed panels to comply with part K4 of the A.D, glazing to be sealed double glazed unit with a min. 16mm air space filled with argon gas to give a 'U' value of 1.4W/sqmK. Door/screen to have rapid ventilation minimum 1/20th of the floor area background ventilation to be 5000sq. mm.
Note : glazing in critical areas to have safe breakage in accordance with BS. 6206 : 1981
Note : Door/screen to mobility water closet to be polyester powder-coated aluminiun framed with spndrel panels from specialist

Natural Light and Ventilation
Windows to provide 1/10th floor area for natural light and min. 1/20th for natural ventilation. Windows to be inward opening bottom-hinged so as not to open over footpaths

Ventilation
Rooms to be naturally ventilated. Additional MHVR extract ventilation system to be fitted to mobility toilet in accordance with AD F2 table 1.1/BB 101 Ventilation of School Buildings.

Refer to M&E Engineers detailed specification and performance requirements.

Commissioning of the ventilation systems will be required on complete and certificates issued to Building Control. (F1)

Electrical Installation
All new electrical works will be designed, installed, inspected and tested in accordance with BS 7671:2018 + A2:2022. Sufficient information should be provided to ensure that people can operate, maintain or alter an electrical installation with reasonable safety. The information should comprise of the items listed in BS 7671 and other appropriate information.

All notifiable electrical installation work must be certified, either by an installer registered under a suitable self-certification scheme a registered third-party certifier or by a building control body. To verify that the design and installation of electrical work is adequate, and the installations will be safe to use, maintain and alter, the electrical work should be inspected and tested in accordance with the procedures in BS 7671.
(Refer Part P of the building regulations document for further information)

Lighting
To be in accordance with BB 90 Lighting Design for Schools. Provide 100% low energy light fittings (fixed lights or lighting units). Low energy light fittings should have lamps with a luminous efficacy greater than 45 lamp lumens per circuit-watt and a total output greater than 400 lamp lumens. Light fittings whose supplied power is less than 5 circuit-watts are excluded from the overall count of the total number of light fittings.

Fire Warning system:
To be in accordance with BB 100 Designing and Managing against the Risk of Fire in schools.
Wireless automatic Fire Alarm and detection System to BS 5839-1 2017 Code of practice for the design, installation and maintenance of the fire detection and fire alarm systems.
Certificates to be provided and issued to LABC upon completion.
The installation incorporates smoke and heat detectors and cables should conform to the relevant British Standard. The fire warning system should be tested and maintained on a regular basis. Escape signage should be compliant with BS 5499-10: 2014 + A1:2023.
Certification for new emergency escape lighting systems will be required upon completion and should be designed and installed to BS 5266-1-2016.

Emergency lighting to be designed in accordance with BS 5266-1:2016

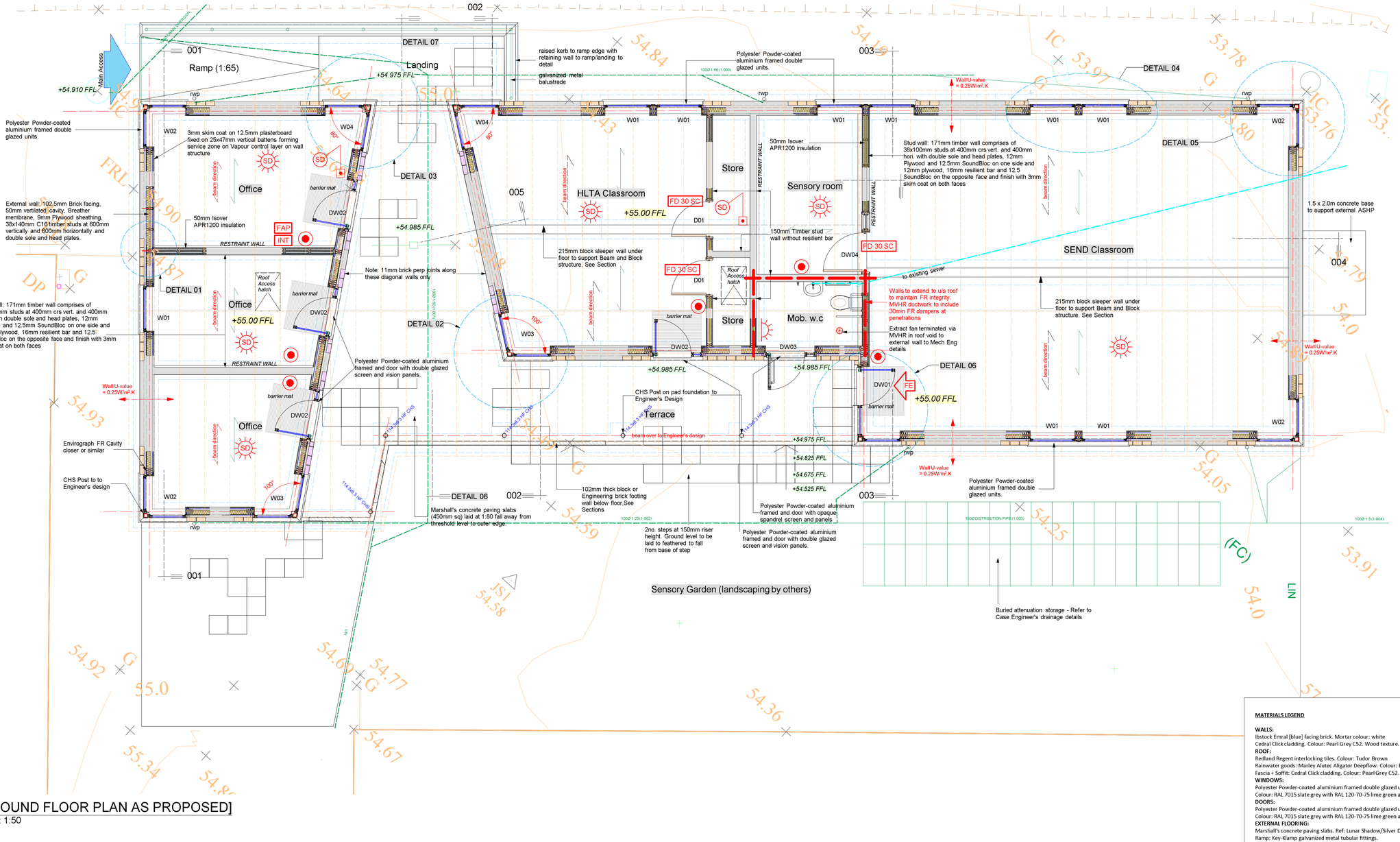
Fire Precautions Health and Safety:
Signage to highlight emergency escape route is required to comply to the health and Safety(Safety Signs & Signals) Regulation 1996. (Signs to BS5499 Part 1 1990 are equally acceptable). Signs should have pictogram, running man. arrow and words 'FIRE EXIT' background to be green and text white. Signs provided to indicate exit doors shall be sited above the door.
All external doors shall have signs indicating 'Fire Door Keep Clear' Situated at about eye level on the outside of the door.

Existing Drains:
Before starting work, check invert levels and positions of any existing drains, sewers, inspection chambers and manholes against the information shown on the drawing and report any discrepancies to the S.O.
Adequately protect existing live drains and maintain flow during construction.

Underground Drainage:
To be designed in accordance with BS 8301 Building drainage BS 8005 and in accordance with Building Regulation, Approved Document H. 2002 edition.
Plastic pipelines for drainage generally to be pvcu to BS EN 1401-1 Class SN4 Kitemark certified.
Strength: to suit particular location of drainage and Traffic loads to Engineers detail.
Bedding class: Type 'P' under roads and Type 'Y' under building.
to be in accordance with BS 8301. Bedding for flexible pipes to be in accordance with diagram 10 of part 'H', 100mm of granular material below pipe back filled to crown with similar material with further same material to 100mm above crown (Granular material to conform to BS EN 12620 size 4/10
Annex B Table B and should be single size material or graded material from 5mm up to max size of 10mm for 100m pipe, 14mm for 150mm pipes, 20mm for pipes from 150mm to 600mm diameter).
Excavated material may be used as a backfill in max 300mm consolidated layers but to be free of stones larger than 40mm. lumps of clay over 100mm, timber frozen material and vegetation matter.
Compacted factor 0.3 for class N, 0.2 for Class F & B. Lintels to be provided over drain runs through walls. Shallow drains to have concrete cover in accordance with diagram 11 of part H nad joints in accordance with diagrame 12. After laying all drains to be tested for water tightness

Manholes:
To be in accordance with Table 12 of part 'H'. Manholes up to 1500mm deep with a pipe size of 150mm to be 1000mm dia. or rectangle 750x675mm, with a pipe size of 225mm dia. to be 1200mm dia. or rectangular 1200x675mm
Manhole deeper than 1500mm deep with a pipe size of upto 225mm to be 1200mm dia. or rectangular 1200x1000mm.
Cear openings to be 600mm dia or 600mm for rectangular manholes

Manhole material:
Brickwork to BS 3921
Plastic to BS 7158
Manhole covers to be double sealed non-venting covers in cast iron, cast or pressed steel, precast concrete or plastic. Small lightweight covers to be secured with screws.



NOTE: Refer to Brick/Blockwork setting out plan for plinth wall details, beam + block floor and foundation positions.

Refer to dimensioned plans for GA setting out

FIRE STRATEGY LEGEND

30 minute FR Partition
Note: all partitions will achieve 30mins FR by default. Those identified on this drawing are affected by service penetrations and therefore will require fire dampers between rooms.

- FE — Fire Escape Final Exit
- FD 30 SC — 30 minute FR Door (self-closing)
- SD — Fire Alarm Smoke Detector/sounder /strobe
- SD — Fire Alarm/Smoke Detector
- SD — Smoke Detector in void with remote indicator
- Fire Alarm manual call point
- FAP — Fire Alarm Panel
- INT — Fire Alarm Interface Unit
- Beacon/Sounder

MATERIALS LEGEND

WALLS:
Ibstock Ennal [blue] facing brick. Mortar colour: white
Cedral Click cladding. Colour: Pearl Grey C52. Wood texture.
ROOF:
Redland Regent interlocking tiles. Colour: Tudor Brown
Rainwater goods: Marley Alutec Aligator Deepflow. Colour: Black
Fascia + Soffit: Cedral Click cladding. Colour: Pearl Grey C52. Smooth finish.
WINDOWS:
Polyester Powder-coated aluminium framed double glazed units
Colour: RAL 7015 slate grey with RAL 120-70-75 lime green accent
DOORS:
Polyester Powder-coated aluminium framed double glazed units.
Colour: RAL 7015 slate grey with RAL 120-70-75 lime green accent/infill panels
EXTERNAL FLOORING:
Marshall's concrete paving slabs. Ref: Lunar Shadow/Silver Dust
Ramp: Key-Klamp galvanized metal tubular fittings.

[GROUND FLOOR PLAN AS PROPOSED]
Scale: 1:50

revision no.	date	details	initials
B	27/02/2024	updates as per Structural Engineer's details	sae
A	21/02/2024	M+E notes updated as per Chris Hitchcock's email on 21/02/2024 and updates as per Structural Engineer's details	sae

tda group

project: PAIGNTON ACADEMY NEW STEPs ENHANCED PROVISION - **BLOCKS G/F**

drawing title: **PROPOSED PLAN**

project stage: **BUILDING REG.**

drawing number	revision	sheet
3994.BR.AL.02	B	A1

scale	date	drawn	checked
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