

Structural calculations

This plan must be read in conjunction WITH ANY SEPARATE STRUCTURAL ENGINEERS/SPECIALIST CALCULATIONS AND THE DETAILS OF WHICH SHALL BE TAKEN IN PREFERENCE TO THOSE INDICATED ON THESE PLANS.

These plans have been provided for Building Regulation approval only, and are subject to structural calculations and details for any new Structure. Specialist details being submitted to Building Control for approval prior to the commencement of any works or the ordering of any Materials.

Notches and holes or the like shall not be formed in any structural floor, wall or roof timbers without the express permission of the engineer and/or the manufacturers.

Conservation of Fuel & Power

Where ever possible and practical all new hot water and heating pipes shall be insulated with flexible foamed polyurethane pipe insulation of a suitable diameter and minimum wall thickness of 13mm secured with waterproof adhesive tape all in accordance with current Approved Document : Part L1.

100% of all new light fittings and bulbs shall be of an energy efficient type all in accordance with Approved Document : Part L1 and details of which are to be submitted to Building Control for approval prior to their installation. The Main Contractor/supervisor shall be responsible for ensuring all insulation to floors, walls and roofs is continuous with all joints taped to ensure no cold bridging occurs. All relevant areas shall be inspected during critical stages of construction and a report indicating that work has been completed satisfactorily and complies fully with Approved Document : Part E as well as DEFRA's latest edition of " Limiting Thermal Bridging and Air Leakage : Robust Construction Details for Dwellings and similar Buildings" A copy of such a report shall be made available during the Building Inspectors 'Final Inspection' and failure to provide a report could jeopardise the issuing of a 'Completion Certificate'.

Structural Limits

Structural Limits to be provided as specified by Specialist, all lintels to have a minimum end bearing of 150mm, have a cavity tray over with stop ends and weepholes (minimum 2 per opening)

Fire Safety

Provision of fire doors

Any doors marked FD30 to be in accordance with BS 476

Any ducts/pipes passing through the enclosure of a protected escape route should be adequately stopped using intumescent material and collars as required

Emergency Escape lighting should be on a separate lighting circuit and the standard for the installation of the system must comply with BS 5266-Part 1:2016

Code of Practice for the emergency escape lighting systems of premises

Fire Safety Signage must be distinctive and conspicuous and comply with Health and Safety (Safety Signs and Signals) BS 5499-Part 1:2013

Fire Extinguishers to cover the premises as detailed in BS 5306 Part 8:2012 selection and installation of portable fire extinguishers. Extinguishers must be maintained in accordance with BS 5306-Part 3:2017

All internal fire resisting partitions to be taken up full height to underside of roof structure and be suitably fire stopped

All final exit doors should be fitted with simple fastenings to enable them to be opened easily from the inside without the use of keys or code, ie thumb turn

Any Electrical service boards must be enclosed with materials affording a 30 minute standard of fire resistance. The access panel or door must conform to an FD30S standard of fire resistance and be indicated
FIRE DOOR KEEP LOCKED SHUT

Fire alarm system

The electrically operated fire alarm system should comply with BS 5839-1:2019

Fire detection and alarm systems for buildings. Code of practice for system design installation commissioning and maintenance, category L3

Call points for electrical alarm systems should comply with BS 5839-2, or Type A or BS EN 54-11:2001 and be installed in accordance with BS 5839-1.

The new system shall be installed by a suitably qualified electrician (NICEIC or ELECSA registered) who shall fully test the new installation on completion and issue the owner with a Completion/Test Certificate which if required by the Local Authority shall be submitted to Building Control for their approval. In addition the electrical engineer shall provide with sufficient information so that persons operating, maintaining or altering the installation can do so with reasonable safety.

Electrical System maintenance

Must be subject to regular maintenance by a competent electrician in accordance with the requirements of the Institution of Electrical Engineers Regulations 18th Edition. Records of all maintenance to the electrical systems should be kept

Emergency Procedures

A suitable management system must be in place to ensure all fire safety arrangements are maintained. Suitable arrangements to manage activations of the fire alarm must be in place. These must deal with false alarms being locally managed as well as actions in the event of a confirmed fire.

Training

All staff should receive regular training to ensure that they are adequately trained and know what action to take in the event of a fire. If the organisation employs five or more persons a licence is in force, or an alterations notice requiring such a record is in force in relation to the premises then you must keep a record of staff training

Fire Action Notices

Should be provided throughout the premises to advise persons of the procedure to adopt in the event of fire

The testing and maintenance of any emergency lighting system, fire alarm system, firefighting equipment, fire exit and fire resisting doors shall be undertaken in accordance with the relevant British Standards

Key to Symbols

PB Doors so indicated are fitted with Panic Bolts or similar latches and are permanently marked "PUSH BAR TO OPEN" Immediately above the push bar.
SC Doors so indicated are fitted with self closing devices.

Emergency Lighting Points (Maintained). Designed, installed, inspected, commissioned and certified in accordance with BS5266:1:2016
Emergency Lighting Point with Exit Sign and directional arrows where necessary (Maintained). Specified and provided in accordance with BS5499:4:2013

"FIRE EXIT" Sign, with directional arrows. Specified and provided in accordance with BS5499:4:2013

Fire Alarm Call Point.

Audible Warning Device.

Clear glazed Vision Panel.

Smoke Detector

Internal non-load bearing partition walls

Any new internal non-load bearing stud partition walls shall be constructed in 90 x 40mm C.L.S. softwood studs at 400mm centres with matching head and sole plates finished either side with 1 layer of 15mm gyproc plaster board screwed to studs all in accordance with the manufacturers recommendations with joints scrimmed and finished with a 3mm thick British Gypsoms Multi-finish skim coat laid all in strict accordance with the manufacturers recommendations and complying fully with BS EN 13279-2:2014. Nogginns shall be provided at 1200mm centres measured vertically up from the finished floor level to provide adequate fixing for new plasterboard wall finish.

Internal Walls as indicated on the drawings shall have 50mm thick Rockwool or equivalent mineral wool sound deadening quilt/slab with a minimum density of 20kg/m2 tightly fitted between the studs.

(Note bedroom walls which contain a door opening or have interconnecting doors between bedrooms need not be sound insulated but it is advised to do so) All plasterboard to internal partition walls shall achieve a minimum mass of 10kg/m2

Drainage and Heating

Above ground drainage within the building shall comply fully with current Approved Document : Part H and BS 5972

All new Wash Hand Basins shall be provided with 32mm diameter waste pipes laid to a minimum gradient of 1 : 40.

All new waste pipes shall be fitted with 75mm deep sealed traps and shall discharge directly into a soil/went pipe, stub stack or Gully as indicated on the plans.

Any new branch pipe should not discharge directly into the stacks in a way which could cause cross flow into the other branch pipes.

All new waste pipes/traps shall be either removable and/or be provided with suitable rodding access points at any change in direction to facilitate cleaning in case of blockages.

All pipes, fittings and joints shall be capable of withstanding an air test of positive pressure of at least 30mm water gauge for at least 3 minutes.

All to be designed and specified by others.

The hot and cold water and heating service shall be carried out by a fully qualified Gas Safe/ Otec registered Plumber/NICEIC or ELECSA Electrician. All radiators shall be designed so as to provide an adequate heat output for the new areas. The design and installation is the responsibility of the relevant sub-contractors. New Gas Boiler rating of 92% as defined in ErP. A oil fired boiler must have 91% as defined in ErP (regular boiler) 86% as defined in SEDBUK 2009 (combi-boiler)

The outlet from the boiler must not terminate within 600mm in any direction of any opening or within 75mm of the gutter or a SVP.

The outlet from the hot water storage vessel should be fitted with an in-line hot water supply tempering valve in accordance with BS EN 15092:2008 to ensure the temperature supplied to the domestic system does not exceed 60 degrees centigrade. The hot water to the Bath and Wash Basins is to be fitted with an in-line blending valve limiting the maximum temperature to 45 degrees centigrade.

The Plumbing Engineer/Electrical Engineer shall supply the owner/occupier with sufficient information so that persons operating, maintaining or altering the installation can do so with reasonable safety.

The systems shall be fully tested on completion with copies of the Completion/Test Certificate issued to the Client and Building Control for approval.

A notice must be given to the Local Authority specifying the potential consumption of wholesome water, which must not exceed 125 litres per person per day, calculated in accordance with 'The Water Efficiency Calculator for new Dwelling' in relation to the completed dwelling, within five days of the completion of the works.

Corridor and door widths

Doors to have a minimum clear width of 800mm when approached head on. Increased to 825mm when the access route is 1200mm wide and the door is at a right angle.

300mm minimum return to door on the pull/push side unless the door is power operated. Door frames contrast visually with the surrounding wall.

Where fitted with a latch, the door opening furniture can be operated with one hand using a closed fist, e.g a lever handle

All door opening furniture contrasts visually with the surface of the door.

The Door frames contrast visually with the surrounding wall.

When of glass or fully glazed they are clearly differentiated from any adjacent glazed wall or partition by the provision of high contrast strip at the top and on both sides.

Fire doors are held open with a electromagnetic device which will self close when, the power supply fails, activated by a hand operated switch, activated by SD/fire alarm system.

If doors are going to be fully glazed please doors and windows note for manifestation.

Public Toilets

RWP into roddable gully to discharge to the combined sewer

Ramped access

Maximum gradient 1:12. 2m headroom maintained above ramp.

Surface width at least 1.5m between walls, up stands or kerbs.

The ramp is slip resistant especially when wet and the ramp and landings contrast visually.

A landing at the foot and head of the ramp of at least 1.2 long clear and unobstructed.

Handrails to both sides, handrail from the pitch line of the ramp surface is between 900-1000mm and 900-1100mm at landings. Handrail extends 300mm horizontally from the bottom of the ramp. Handrail to contrast visually against its surroundings. Slip resistant and not hot or cold to touch. Handrail to terminate in a way that does not catch clothing.

Guarding to be non-climbable and so a sphere of 99mm cannot pass through it.

Consideration should be given that the 300mm extended section of the handrail is removed so that it does not project into the pavement where members of the public could walk into it.

Thermal bridges and solar gain

The building fabric should be constructed so that there are no reasonably avoidable thermal bridges in the insulation layers caused by gaps within the various elements, at the joints between all openings. The insulation should be continuous around the whole building envelope. Insulated plasterboard to window reveals, insulated up stands to the perimeter of the flooring with a minimum r-value of 0.8m2K/w insulation to continue past ground floor construction by 225mm, insulation to the eaves is all required.

Limiting solar gain can be achieved by, shutters, external blinds, overhangs, awnings, orientation, window depth, size, g-value, landscaping and placement of balconies.

When seeking to limit solar gain, consideration should be given to the provisions of adequate levels of day light. BS 8206-2 code of practice for day lighting give guidance on maintaining adequate levels of day light.

Ventilation

Mechanical ventilation is to be provided to WC

Bathroom to be 15l/sec, all to be ventilated to outside air. Ventilation to be intermittent, switched via the light switch with a 15 minute overrun

No ventilation outlet grille must be positioned within 300mm of any opening.

Background ventilation is to be provided by trickle ventilators fitted in the frame of the windows and doors, minimum 1700mm above the finished floor level.

Area equivalent 800mm2 above each window and patio door to habitable rooms and Kitchen, 400mm2 to Bathroom

Building work that involves installing a mechanical ventilation system, for a new or an existing dwelling, follows the guidance in paragraphs 4.1 to 4.12 approved document F to achieve all of the following:

a. All fixed mechanical ventilation systems for which testing and adjustment is possible are tested and commissioned.

b. Commissioning results show that systems are operating as required to achieve adequate ventilation, including achieving the flow rates specified in this approved document

c. Commissioning results show that controls are operating as required to achieve adequate ventilation.

d. The person carrying out the work gives notice to the building control body that commissioning has been carried out following the procedure given in this document. sanitary accommodation must be vented to outside air. Ventilation fans might cause combustion gases to spill from open-flued appliances. These combustion gases might fill the room instead of going up the flue or chimney even if the combustion appliance are in separate rooms.

Minimising the ingress of external pollutants- Ventilation systems should be designed to minimise the intake of external air pollutants.Ventilation intake should be as high as possible and located on the less polluted side of the building. Exhaust outlets should no discharge to courtyards, enclosures or architectural screens.

Doors and Windows

Style of doors and windows to be selected by Client to approved Planning permission.

Sizes to be measured on site prior to manufacture.

Any sizes indicated are in metric, should imperial sizes be used the Contractor must adjust the sizes accordingly

Permanent manifestation for glazing at two levels for large uninterrupted areas of transparent glazing. Located between 850-1000mm from floor level and between 1400-1600mm from floor level, in a continuous band. Can be patterns, logos, solid or broken lines at a minimum size of 50mm.Must contrast visually when looking from the inside and outside in all lighting conditions.

All windows and doors to have a 25mm rebate where the outer leaf extends 25mm beyond the inner leaf with sealant where rebate and frame meet or a finned cavity closer

Any new window glazing in critical locations (i.e. within 800mm above floor level for windows and 1500mm above floor level for doors/sideights) shall be glazed with annealed/toughened glass and be of an appropriate thickness/ weight for the purpose it is being used all in accordance with Approved Document: Part K latest edition

BS 6206 and BS EN 12601 and in accordance with part Q

Full height glazing must be able to resist the forces specified BS6180

Any opening window which is below 800mm above the floor level must be suitably guarded as specified in Approved Document Part K

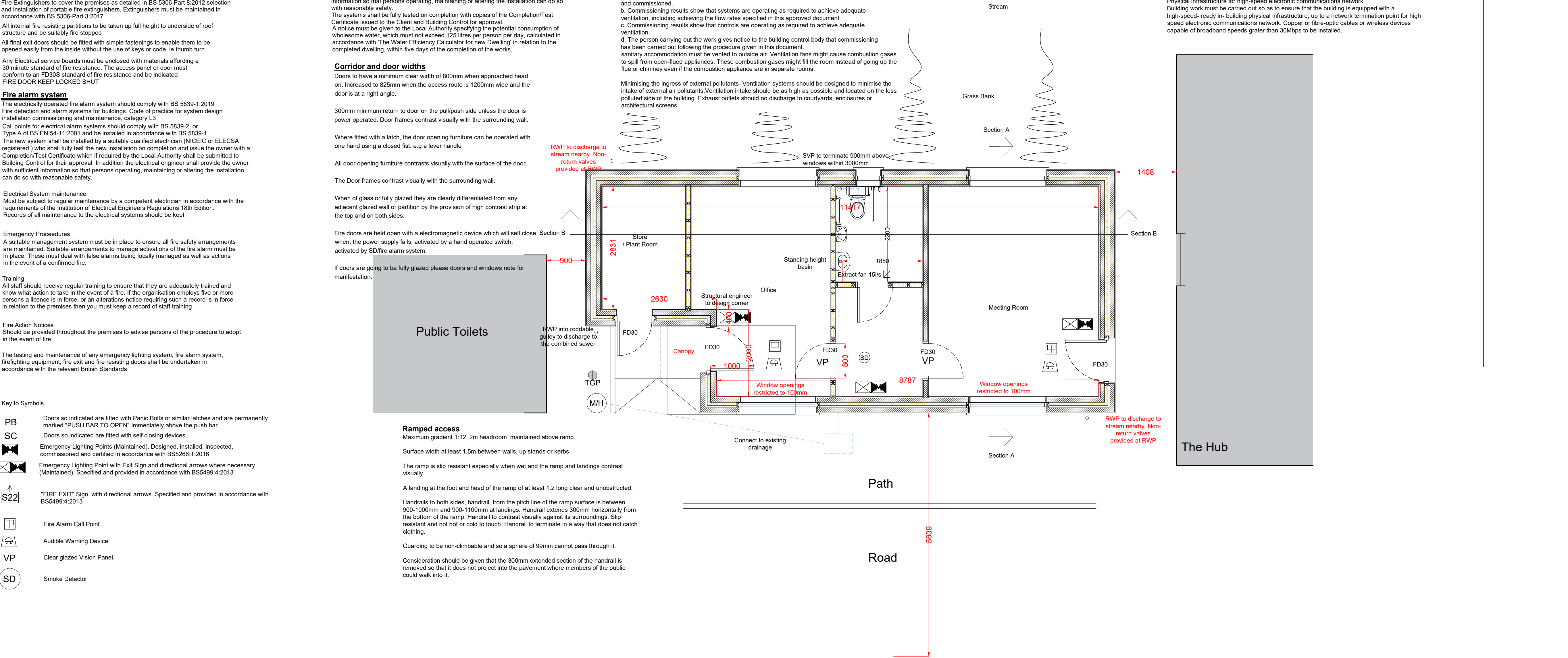
Windows to be operable with an opening angle of at least 60 degrees.

Cavity around all Door and Window openings to be closed using a proprietary cavity closer having a path through the closer of not less than 0.45m2K/W

Provide horizontal and vertical DPC to all openings

Weepholes are to be provided above all openings at minimum 900mm centres with a minimum of 2 weepholes above each opening

All internal doors to have 10mm undercuts to provide ventilation



NOTES. THIS DRAWING IS COPYRIGHT

- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH DRAWINGS, DETAILS AND SPECIFICATIONS ISSUED FOR CONSTRUCTION PURPOSES BY OTHERS.
- THIS DRAWING HAS BEEN PREPARED TO OBTAIN PLANNING AND BUILDING REGULATION PERMISSIONS. ONLY ALL CONTRACTORS MUST VISIT THE SITE FOR THEIR OWN ASSESSMENT WHEN PRICING.
- THE CONTRACTOR IS RESPONSIBLE FOR ALL DIMENSIONS AND FOR THE CORRECT SETTING OUT OF THE WORK ON SITE. ONLY FIGURED DIMENSIONS ARE TO BE USED. ANY DISCREPANCIES ARE TO BE REPORTED BEFORE PROCEEDING. DO NOT SCALE FOR CONSTRUCTION PURPOSES. IF IN DOUBT ASK.
- ALL MATERIALS AND WORKMANSHIP TO COMPLY WITH CURRENT BRITISH STANDARDS AND CODES OF PRACTICE.

rev B		
rev A	Plan check amendments	24-04-23

ISSUE BUILDING REGULATION 2 of 4 NOT CONSTRUCTION DETAIL DRAWINGS

CLIENT / SITE
Portreath Parish Council
Former Public Conveniences
Sea Front, Portreath
TR16 4NN

PROJECT
Proposed demolition of existing toilet block and to be replaced with single storey parish building

DETAILS Proposed plan

PLAN N°	11	SCALES	1:50 @ A1
4280	A	DATE	February 2023
		DRAWN	NB