

CASTLE

**16 BARRINGTON STREET
SOUTH SHIELDS
TYNE AND WEAR
NE33 1AN**

SPECIFIC DEFECT SURVEY

FEBRUARY 2026

BS/26/09



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SPECIFIC DEFECT REPORT

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1.0 INTRODUCTION

1.1 Instructions

- 1.1.1 A brief was received from Castle on the 4th February 2026 to provide an independent report on rising damp issues and the treatment recommended by Timberwise. South Tyneside Council Planning and Heritage Officers raised some technical queries concerning the suitability of the remedial proposals and they required a report from a Building Conservation Accredited Surveyor specifically. The Council's concerns are expressed in the statement below as per their email to Castle of the 11th November 2025:-

"I would query whether the high external ground level is in large part to blame for the damp issues. Groundworks, improved draining and better ventilation are measured more in keeping with the minimal intervention approach to managing the damp to this building. Drainage alone will not solve the problem of damp, but it will slow it down since the walls will be in permanent contact with the ground. However, once the building is brought back into use, constant heating and ventilation will facilitate the dehydration of the walls".

The drawing on page 25 of the Timberwise Report indicates areas of slurry tanking required which is cementitious product that would only exacerbate damp issues.

- 1.1.2 A fee proposal was submitted to Castle on the 5th February 2026 and subsequently an order was placed with RNJ Partnership on the 10th February 2026 to proceed with the survey. The survey was carried out by Simon Nesti, BSc, MRICS, Building Conservation Accredited Surveyor on the 18th February 2026 commencing at 10.30 am. The weather conditions were fine and dry during the survey.
- 1.1.3 The survey was specifically limited to commentary on the drawing titled 'Proposed Basement Plan Remedial Works by GSS Architecture and annotated by Timberwise with comments on damp proofing treatments. The Timberwise report dated 8th August 2025 reference NE16318/MW/LA updated was referred to during the survey of the property.
- 1.1.4 For reference purposes please refer to the Proposed Basement Plan in Appendix A which includes further annotation by RNJ Partnership concerning the level of moisture content within the walls and the causes of dampness.

- 1.1.5 Refer to Appendix A, C and D for remedial proposals to mitigate against the cause of dampness.
- 1.1.6 The building is a Grade II Listed Building, details of which are included in Appendix F

2.0 FINDINGS

- 2.01 The drawing is titled Basement Plan however the internal finished floor level and the external ground level is such that the floor would be more suitably referred to as a lower ground floor. There is only a limited area which is effectively below the adjoining ground level and this is referred to on the floor plan.
- 2.02 The building is a late 19th century Grade II Listed Public Building (refer to the Listed Building Statement in Appendix C) and as such has been built to a high specification and standard with the use of dressed sandstone and architectural features particularly to the front elevation.
- 2.03 The walls are of solid construction; there are internal concrete floors some of which have a wooden block herringbone pattern floor finish. The interior has been remodelled at a later date with the introduction of timber stud partitioning sub-dividing the larger rooms.
- 2.04 The proposed remedial works referred to by Timberwise on the basement plan indicate electro-osmosis damp proofing, slurry tanking and heavy-duty security mesh to the wall in an isolated areas; they also include for careful removal of plaster of 1 m to full height with plaster mesh membrane to be installed.
- 2.05 An examination and record of moisture content at levels within the walls was taken and these are annotated on the proposed basement plan. It was important to review the external ground conditions and also that of the external wall concurrently with the readings taken within the interior and our findings are presented with reference to the external areas adjoining the room inspected. The findings were as follows:-

2.1 Store Room

- 2.1.1 Moisture content readings varied with a high of 33% (refer to Photograph P49).
- 2.1.2 Externally it is evident that the external ground level has been lowered and was previously at a higher level (refer to Photograph P12). It is likely that this has resulted in penetrating dampness with moisture migrating through the solid wall construction. The external ground level of the path increased in height on the east elevation towards the north. As a consequence, lower moisture content readings were found in the Estates Room A and B which has reduced external ground levels.

- 2.1.3 Penetrating services in two locations were listed on this elevation and enter the building below ground. A bespoke tanking collar should be introduced around the services penetration to prevent penetrating dampness (refer to Photograph P14).

2.2 Estate Rooms A and B

- 2.2.1 Multiple moisture meter readings were taken of the external and internal walls and these two rooms consistently produced lower readings which is to be expected as the external path was at a much lower level and therefore there is no risk of penetrating dampness (refer to Photographs P15-P36).
- 2.2.2 It was noted that the brickwork mortar pointing is eroded at lower levels and would encourage penetrating dampness and this should be repointed. It is also evident that the mortar pointing consists of black ash mortar which is known to be hygroscopic in nature (more absorbent to moisture and therefore prone to higher moisture content readings).

2.3 Director of Estates and POD Room

- 2.3.1 Exceptionally high moisture content (saturation level) readings were recorded in the corner of the Director of Estates Room. The exterior yard was inspected and there was significant evidence of ponding with extensive moss and vegetation growth and blocked gullies and inadequate falls to the yard itself which would have contributed to the high readings.
- 2.3.2 It was also noted that the adjoining boundary wall build up against and butting to the corner of the building is potentially forming a bridge which could cause the high moisture levels and dampness at this corner. It is recommended that a vertical damp proof membrane is installed at the interface between the brick boundary wall and the corner of the building and a movement joint installed at this juncture (refer to Photograph P46).
- 2.3.3 Moisture Meter Readings were also recorded on the west facing external wall of the Director of Estates Office and again this faces on to the yard which has flooded and ponded due to inadequate drainage (refer to Photograph P47).

2.4 WC

- 2.4.1 The moisture readings up to 64% were recorded within this area and there is significant vegetation growth and ponding within the yard adjoining the external wall of the WC. There is also some buddleia evident which is opening up brickwork joints and further evidence of extensive ponding in the adjoining area.

2.5 Circulation Area 01

- 2.5.1 Extensive efflorescence is evident to the joints within the painted brickwork. This is caused by the evaporation of salts within the mortar following continuous moisture penetration within the external walls. There is also a flat roof with defective covering above the Circulation space and this is an inferior condition and should be replaced. In brief the high moisture content is a result of penetrating rainwater via the flat roof and also via the external walls of the building itself. Replacement of the roof covering and repointing of the external walls together with remedial work to the drainage of the yard and to the gullies should eliminate the source of the dampness to the external walls to this area.

2.6 Plant Room

- 2.6.1 The plant room is very similar to that previously described in that the efflorescence within the brickwork is as a consequence of penetrating dampness through the external walls potentially via the chimney. This area has a concrete floor and there is no risk of any timber decay. It has natural ventilation via grilles within the external wall and with the increased heat in the Plant Room and further dehydration of the walls will result and there is no remedial work necessary to the masonry walls in this space.

2.7 Circulation Area 02

- 2.7.1 This part of the wall identified on the plan has been drylined and would appear to be chimney. The brickwork recorded a very high reading (refer to Photographs P60 and P61). The wall is drylined however water staining is evident on the face of the wall finish and to the rear of the lining. This lining conceals the chimney breast. It is likely there are failures of back gutter flashings and valley gutters and roof coverings at the juncture between the chimney and the pitched roof covering. Upon completion of the remedial works to the roof coverings and abutments it is unlikely that further rainwater penetration will occur. The drylining should be removed to allow the masonry to dry out whilst the roofing works are completed.

2.8 Circulation 02 (masonry pillars denoted as B and C)

- 2.8.1 The readings taken to these two pillars revealed slightly elevated readings in isolated areas. On the balance of probabilities it is likely that the plaster is in contact with the concrete floor and bridging has resulted in vertical moisture transfer via capillary action to these areas (refer to Photographs P67, P69 and P74).
- 2.8.2 It is recommended that the skirting is removed and the plaster cut back in isolated areas from the floor and repaired in a renovating breathable lime plaster.
- 2.8.3 It is not necessary to replace the plaster generally with slurry tanking however, in isolated areas i.e. the Director of Estates and WC Room where the wall is saturated the lightweight gypsum plaster (hygroscopic) should be cut out and replaced in a breathable lime plaster.
- 2.8.4 The defective salt contaminated plaster should be removed to allow the masonry to breath immediately. It is also likely that once the building is in use and heated with natural ventilation, further drying out may result in efflorescence on the walls and this should be brushed and the walls redecorated as necessary.

Duplicate of content on pages 8-9.

- To prevent bridging and the transfer of moisture from the new path directly into the masonry walls it is recommended that a vertical damp proof course (inserted) as an isolating layer between the walls and the path; this is good practice and will minimise the risk of any penetrating dampness. A sketch detail is included in Appendix C and manufacturer's Product Details in Appendix E. It is also advised that a slight cross-fall is incorporated into the path to ensure surface water does not run towards the external wall

Install vertical damp proof membrane collar around the below ground penetrating services

If there is sufficient area i.e. to the south elevation install a 200-250 mm wide gravel margin at a reduced level; this serves as a pre-draining zone between the external wall and the built up ground levels. This detail allows the external ground level to be reduced to ensure it is a minimum of 150 mm below the internal finished floor level. This detail is included in Appendix D. This detail could also be used in conjunction with that indicated in Appendix E for the vertical damp proof membrane

Replacement of the yard wall new gullies and the installation of gravel margin adjacent to the external wall is advised.

- South West corner: rake out the vertical joint between the boundary wall and external wall of the building and insert a vertical damp proof membrane, a flaxcell fibre board and polysulphide mastic joint to isolate the boundary wall from the external wall of the building
- Allow for replacement of all defective gullies, rainwater pipes etc to the rear yard
- Allow for replacement/repair of the roof coverings
- Allow for removal of the drylining to the area marked A within Circulation Area 02 to allow the masonry to dry on the completion of the roof remedial works
- Allow for cutting back the plaster to areas B and C to Circulation 02; cutting back and reinstating in a breathable lime plaster
- Repointing at low level in a NHL5 lime sand mortar i.e. below air brick level to the perimeter of the external walls and isolated repointing in areas which have been damaged by vegetation growth and surface rainwater i.e to the yard on the west elevation

3.0 SUMMARY

- 3.1 In our opinion there is no requirement to install an electro-osmosis treatment to the walls or a slurry tanking membrane. The damp issues observed are predominantly as a result of an absence of maintenance and consequent disrepair. This has resulted in penetrating dampness through the walls as a consequence of failures of the of rainwater goods, gullies and roof covering.
- 3.2 The localised area of higher external path to the east elevation has resulted in migration of moisture into the solid masonry from the build up hardcore/fill. Areas of reinstated ground (fill/paths) etc should be isolated from direct contact with the external walls by the introduction of a vertical damp proof membrane. A free draining gravel margin should also be introduced if possible to prevent rainwater splashing out up the brickwork and bridging/migration of moisture.
- 3.3 Our recommendations include for repairs to these elements together with interventions to mitigate against penetrating dampness at junction between the external ground level and the external walls.
- 3.4 Internally areas of salt affected lightweight gypsum plaster should be carefully cut out in isolated areas (in saturated zones – refer to findings) and replaced in a lime plaster to provide breathability.

Our recommended are as follows: -

Recommendations – All Areas

- To prevent bridging and the transfer of moisture from the new path directly into the masonry walls it is recommended that a vertical damp proof course inserted as an isolating layer between the walls and the path; this is good practice and will eliminate the risk of any penetrating dampness. A sketch detail is enclosed in Appendix C and manufacturer's Product Details in Appendix E. It is also advised that a slight cross-fall is incorporated into the path to ensure surface water does not run towards the external wall
- Install vertical damp proof membrane collars around the below ground penetrating services

- If there is sufficient area i.e. to the south elevation install a 200-250 mm wide gravel margin at a reduced level; this serves as a pre-draining zone between the external wall and the built up ground levels. This detail allows the external ground level to be reduced to ensure it is a minimum of 150 mm below the internal finished floor level. This detail is included in Appendix D. This detail could also be used in conjunction with that indicated in Appendix C for the vertical damp membrane
- Replacement of the yard with new gullies and the installation of a gravel margin adjacent to the external wall is advised.
- South West corner: rake out the vertical joint between the boundary wall and external wall of the building and insert a vertical damp proof membrane, a flexcell filler board and polysulphide mastic joint to isolate the boundary wall from the external wall of the building
- Allow for replacement of all defective gullies, rainwater pipes etc to the rear yard
- Allow for replacement/repair of the roof coverings
- Allow for removal of the drylining to the area marked A within Circulation Area 02 to allow the masonry to dry on the completion of the roof remedial works
- Allow for cutting back the plaster to areas B and C to Circulation 02; cutting back and reinstating in a breathable lime plaster
- Repointing at low level in a NHL5 lime sand mortar i.e. below air brick level to the perimeter of the external walls and isolated repointing in areas which have been damaged by vegetation growth and surface rainwater i.e to the yard on the west elevation

APPENDIX A

Annotated Basement Floor Plan and Elevations



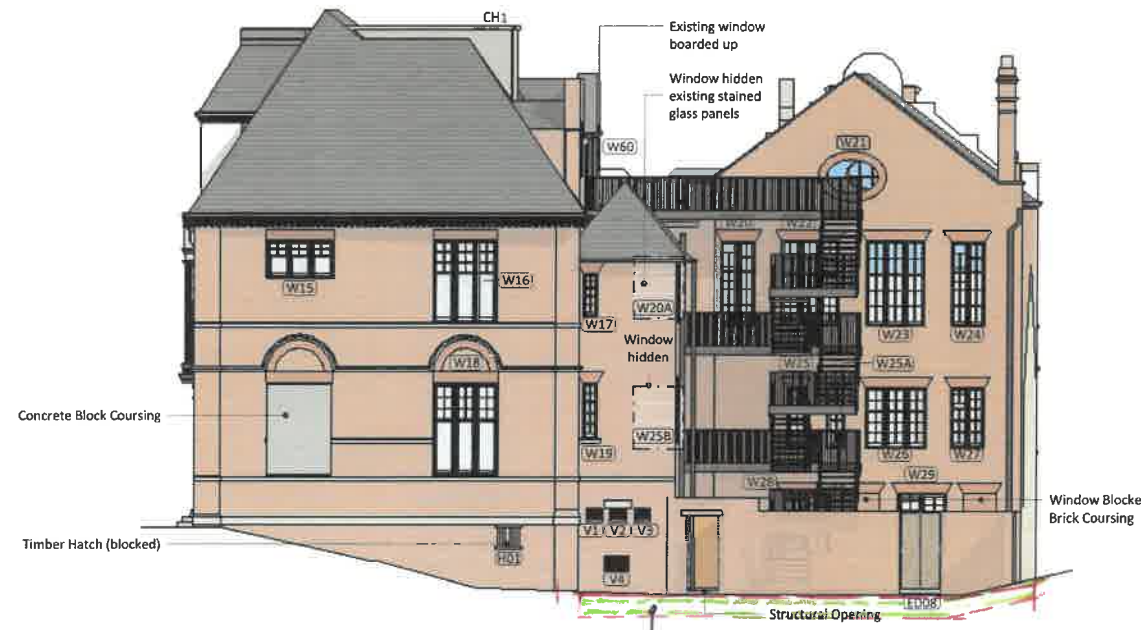
1. Existing North Elevation
SCALE - 1 : 100@A1



2. Existing East Elevation
SCALE - 1 : 100@A1



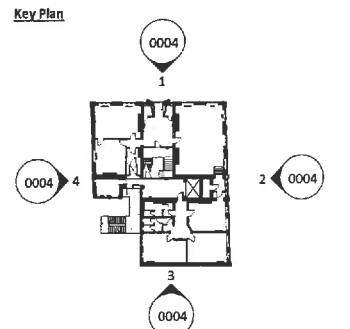
3. Existing South Elevation
SCALE - 1 : 100@A1



4. Existing West Elevation
SCALE - 1 : 100@A1

- Key**
- Denotes location of existing stained glass.
 - W## External Window Tag
 - ED.## External Door Tag
 - DO.## Internal Door Tag
 - SO.## Internal Window Tag
 - V## Louvred Vent
 - H## Hatch
 - RO.## Radiators Tag
 - RL# Denotes Roof Glazing Tag
 - R# Denotes Roof Tag
 - CH# Denotes Wall Tag on Roof

Do not scale from this drawing for construction or acquisition purposes. Responsibility is not accepted for errors made by others in scaling from this drawing. All construction information must be taken from figured dimensions only. All dimensions and levels must be checked on site and discrepancies between drawings and specification must be reported to GSSArchitecture. © Copyright GSSArchitecture. Ordnance Survey & Crown Copyright 2025. All rights reserved. Licence number GSS 100017356. Map Data Copyright 2025 Google. Registered Office: 35 Headlands, Kettering, Northants, NN15 7ES. Tel: 01536 513 165. Email: studio@gssarchitecture.com



Notes

Please note drawing is based on the information provided by Castle

Drawing to be read in conjunction with the following drawings and documents:

Proposed Site Plan: CAS015-GSSA-LB-ZZ-DR-A-0101
 Proposed Floor Plans: CAS015-GSSA-LB-ZZ-DR-A-0102
 Proposed Roof Plan: CAS015-GSSA-LB-RF-DR-A-0103
 Proposed Elevations: CAS015-GSSA-LB-XX-DR-A-0104
 Proposed Floor Plans - Remedial Works: CAS015-GSSA-LB-ZZ-DR-A-1004
 Proposed Elevations - Remedial Works: CAS015-GSSA-LB-XX-DR-A-1005
 Proposed Entrance Lobby Section: CAS015-GSSA-LB-XX-DR-A-0106
 Internal Door Schedules Inc Ironmongery: CAS015-GSSA-LB-XX-DR-A-3111

Report for the Masonry Repair of the Main Listed Elevations by Classic Masonry (ref: Masonry (2507XX) 23093 16 Barrington St Condition Report Jul 25)
 Timber Decay and Damp Survey by Timberwise (ref: Timberwise (250808) NE16318 - 16 Barrington Street - 1a - REPORT & SKETCH)
 Roof Condition Report by O'Connor Roofing (ref: Roof (250724) O'Connor Roofing Barrington Street - Roof Report)
 Visual Structural Inspection Report by RWO (ref: Structural RWO Visual Structural Inspection Report)
 Building Condition Survey Update Report by Helm (ref: 009771-F&G-XX-XX-RP-W-HCL1627)
 Window and Door Condition Report and Repair Methodology Letter by ERW (ref: Window & Door ERW Letter-CBS-Barrington and Window & Door ERW Condition Report-Castle BS-Barrington Building)

C01	05/12/25	MN	DRU	Issued for Construction
P05	17/09/25	MSB	DRU	Section 19 Application
P04	16/09/25	MSB	DRU	Section 19 Application
P03	12/09/25	MSB	DRU	Planning Issue
P02	05/09/25	MSB	DRU	Planning Issue
P01	13/08/25	LW	JAK	First Issue

Rev	Date	Drn	Chk	Description
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gssarchitecture

Project Title:
South Tyneside College - Listed Building

Client:
Castle

Drawing Title:
Existing Elevations

Drawn By: ZF
Checked By: DRU
Scale @A1:
As indicated
Date:
13.08.25

Document Status:
Construction Issue
Project Ref:
CAS015

Dwg No:
CAS015-GSSA-LB-XX-DR-A-0004
Rev:
C01

1:100 Scale 0 1m 2m 5m 10m

APPENDIX B

Photographs



P1 – Historic photograph



P2 –Existing East and South Elevations



P3 – Existing West Elevation

INTERNAL



P4 – Store Room 25.2% m.c



P5 – Store Room 26.8 % m.c



P6 – Store Room, no moisture content recorded



P7 – Store Room 8.7% m.c



P8 – Store Room 33% m.c



P9 – East Elevation services penetration below ground level
Note ground level above finished floor level



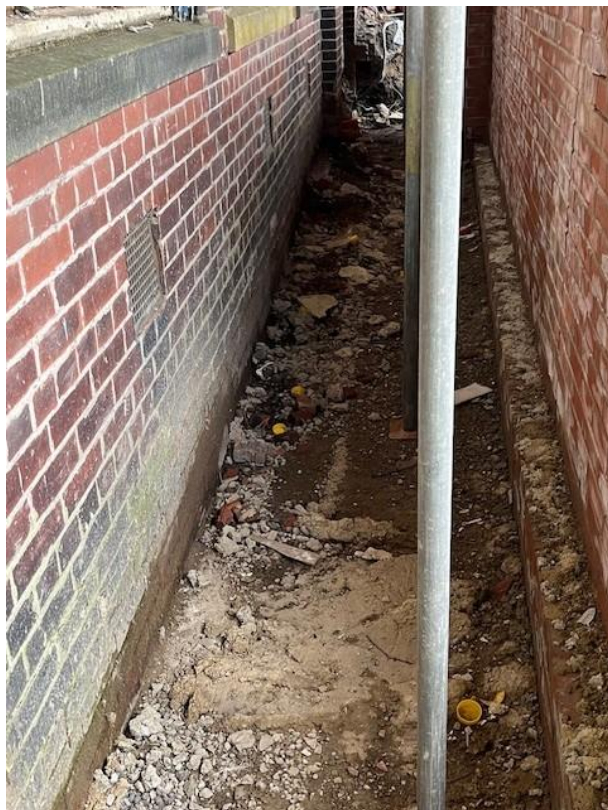
P10 – Estates A 14.6% m.c



P11 – Estates A 14.6% m. c



P12 – East Elevation approximate height of internal finished floor level indicated



P13 – East Elevation path



P14 – East Elevation services penetration



P15 – Estates A 11.9% m. c



P16 – Estates A 12.9% skirting



P17 – Estates A 11.3% internal wall



P18 – Estates A 9.6% skirting



P19 – Estates B 10.7% m.c



P20 – Estates B 8.2% m.c



P21 – Estates B 13.1% m.c



P22 – East Elevation brickwork below door threshold saturated



P23 – Estates B 8.3% skirting m.c



P24 – Estates B 14.7% m. c



P24 – Estates B 8.3% m.c skirting



P25 – Estates B 15.9% m. c



P26 – Estates B 15.4% m .c



P27 – Estates B 10.1% skirting



P28 – South Elevation

(**Note:** existing vertical damp membrane used to isolate below ground fill/earth from the external wall and prevent migration of moisture)



P29 – South Elevation

(**Note:** existing vertical damp membrane to isolate below ground fill/earth from the external wall)



P30 – Estates B 15.3% m .c



P31 – Estates B 8.9% skirting



P32 – Director of Estates 13.6% m .c



P33 – Director of Estates 15.7% Skirting



P34 – Director of Estates 12.9% m. c



P35 – Director of Estates 99.4% (refer to Photograph P36)



P36 – West Elevation yard – surface water ponding against the external wall of the building



P37 – Director of Estates 52.2% m . c



P38 – Visual evidence of penetrating dampness



P39 – 43.7 m.c



P40 – Director of Estates 25.2% m.c



P41 – Director of Estates 17.8% m.c



P42 – Director of Estates 24.2% m.c



P43 – Director of Estates 13.6% skirting



P44 – Director of Estates 15.5% m.c



P45 – Director of Estates 64.3% m.c note damaged paintwork and plaster



P46 – Visual evidence of flaking paintwork and damp plasterwork



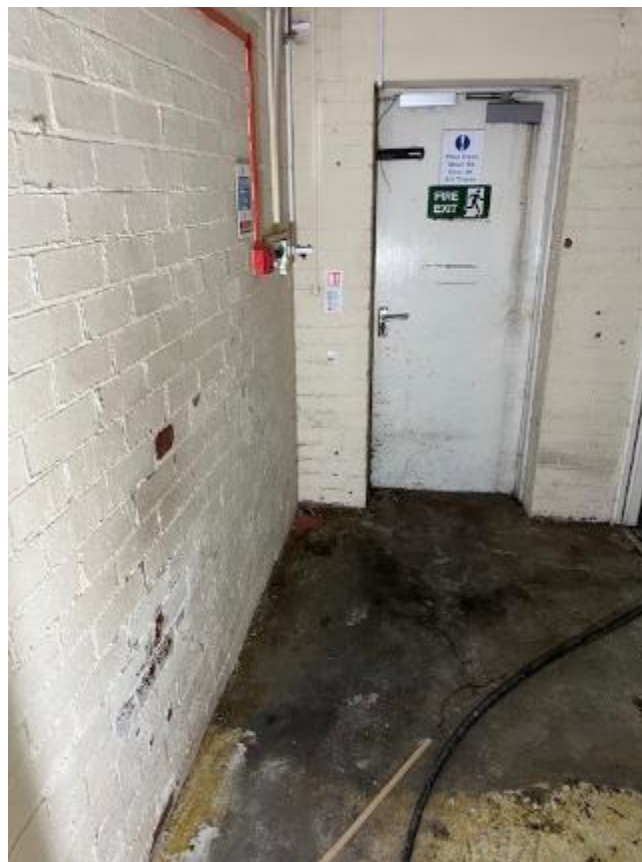
P47 – West Elevation – buddleia growth and blocked gulleys



P48 – Skirting m.c 13.1 %



P49 – Skirting 15.8 % m.c



P50 – Efflorescence on solid brickwork wall caused by penetrating dampness



5

P51 – West Elevation Plant Room



P52 – External wall and ceiling of Circulation Area 2 affected by roof leaks -penetrating dampness from failed rainwater pipes



P53 – Plant and Storage Room 25.7% moisture content due to penetrating dampness



P54 – West Elevation Plant Room



P55 – West Elevation sub-floor (no basement)



P56 – North Elevation rainwater pipes discharge onto solid concrete contained within a stone plinth course



P57 – Plant Room penetrating dampness from front roof



P58 – 12.8 % m.c



P59 – Plant Room 80% moisture content

Circulation 02



P60 – Chimney – 41% moisture content (concealed behind drylining)



P61 – Chimney – drylined
(**Note:** damp staining)



P62 – Chimney/adjacent ceiling penetrating dampness evident



P63 – Skirting 15.8% m.c



P64 – Wall 12.8% moisture content



P65 – Wall 13.5% moisture content



P66 – Circulation Area 02, Wall solid pillar



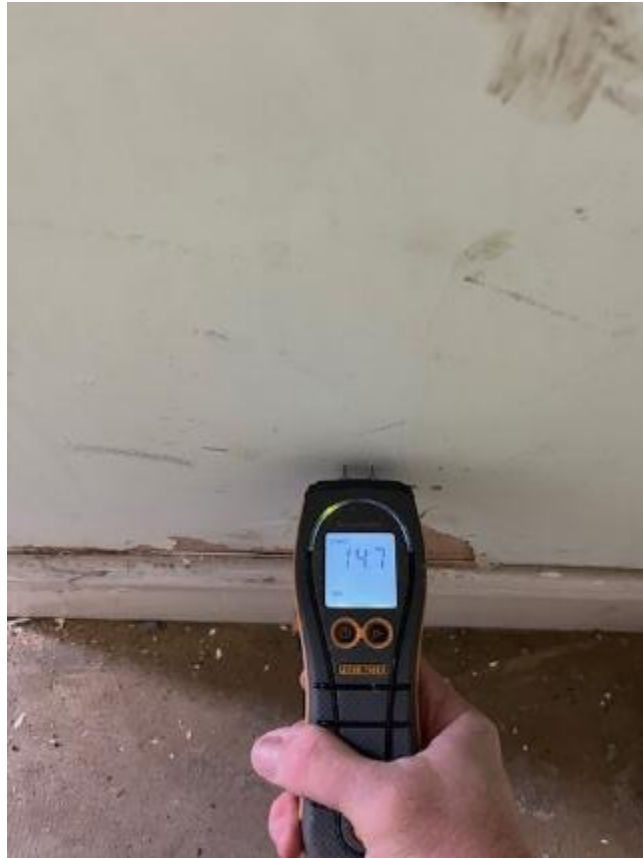
P67 – Circulation Area 02, Wall skirting 17.4%



P68 – 17.4% low level



P69 – Skirting 20%



P70 – 14.7% m.c



P71 – 12.5% m.c



P72 - 24.3% mc



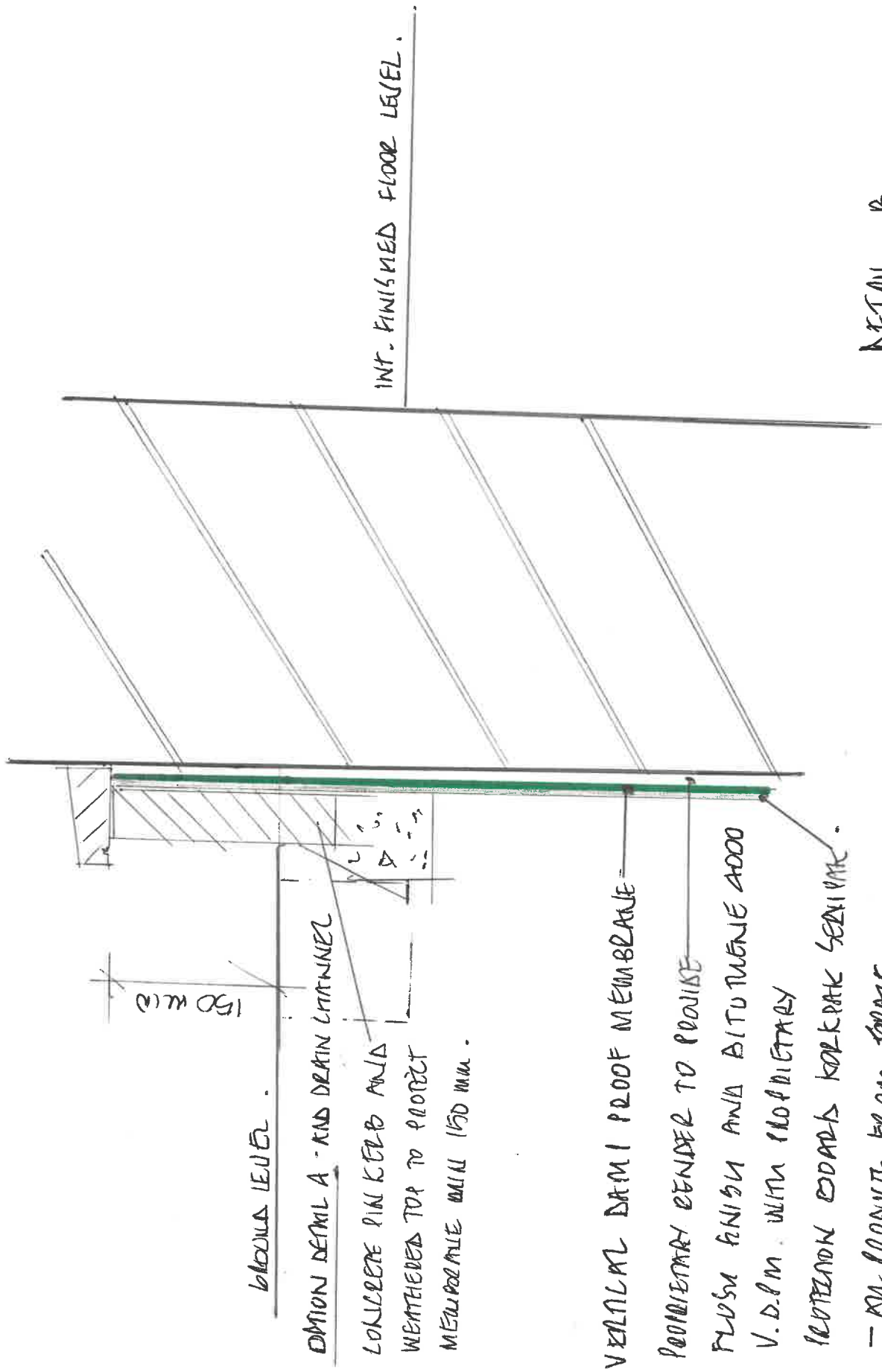
P73 – Moisture content reducing with height 11.9%



P74 – Potential bridging caused by migration of moisture via plaster in contact with the floor

APPENDIX C

Vertical Damp Proof Membrane – Sketch Detail



GROUND LEVEL.

OPTION DETAIL A - AND DRAIN CHANNEL

CONCRETE FIN KEROB AND WEATHERED TOP TO PROTECT MEMBRANE WITH 150 mm.

VERTICAL DAM PROOF MEMBRANE

PROPRIETARY BENDER TO PROVIDE FLUSH FINISH AND BITUMEN 4000 V.D.M. WITH PROPRIETARY SEVENTON EDWARDS KORKPAK SEALING.

- ALL PRODUCTS FROM SAME CONTRIBUTION PRODUCTS.

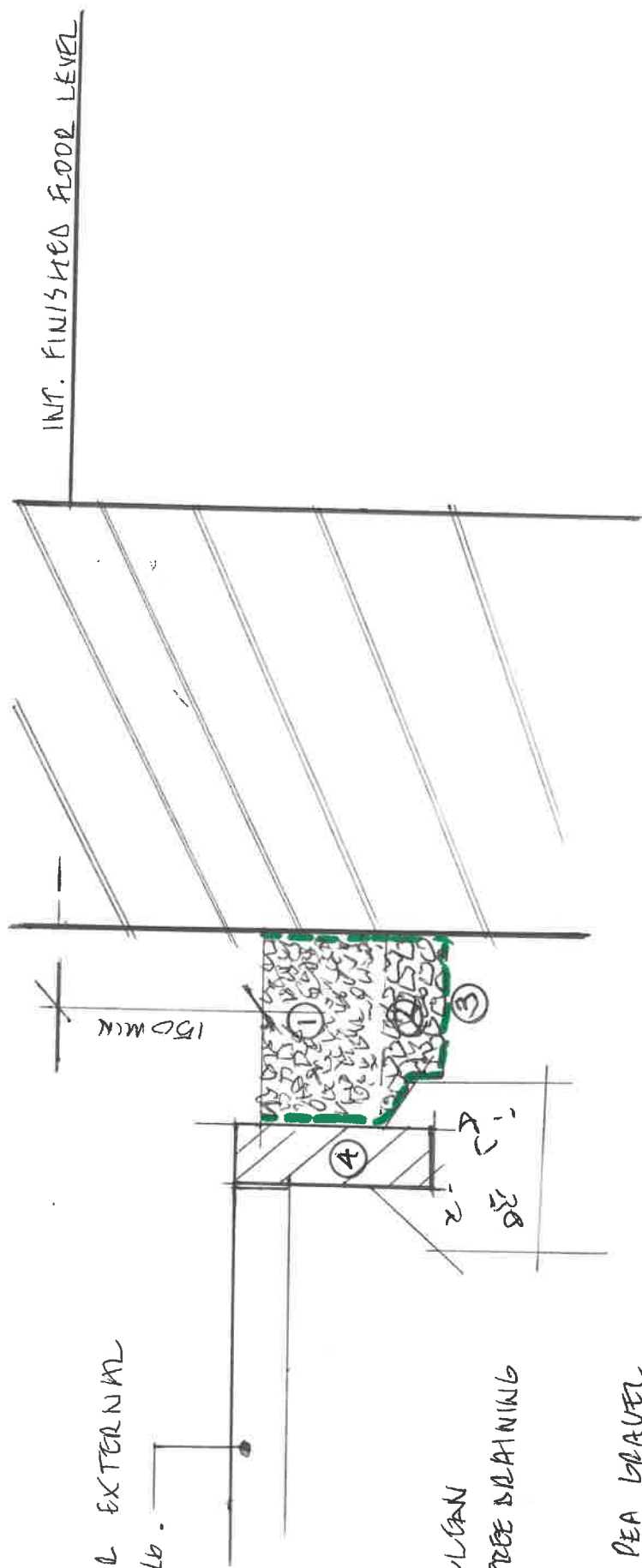
INT. FINISHED FLOOR LEVEL.

DETAIL B

EXTERNAL WALL MEMBRANE
IF INT. F.F.L. BELOW EXT. BL.

APPENDIX D

Perimeter Free Draining Margin



INT. FINISHED FLOOR LEVEL

NEW PATIO OR EXTERNAL
LANDSCAPING.

150 mm

- ① 3-6 mm LEAN
CONCRETE FREE DRAINING
CHIPPINGS.
- ② 20 mm DIA PEA GRAVEL
- ③ GEOTEXTILE MEMBRANE
- ④ CONCRETE DRAINAGE 50x150
PIN KERBS IN CONCRETE RAUNCHING.

DETAIL A

FREE DRAINING MARGIN
ABUTTING EXTERNAL WALL

APPENDIX E

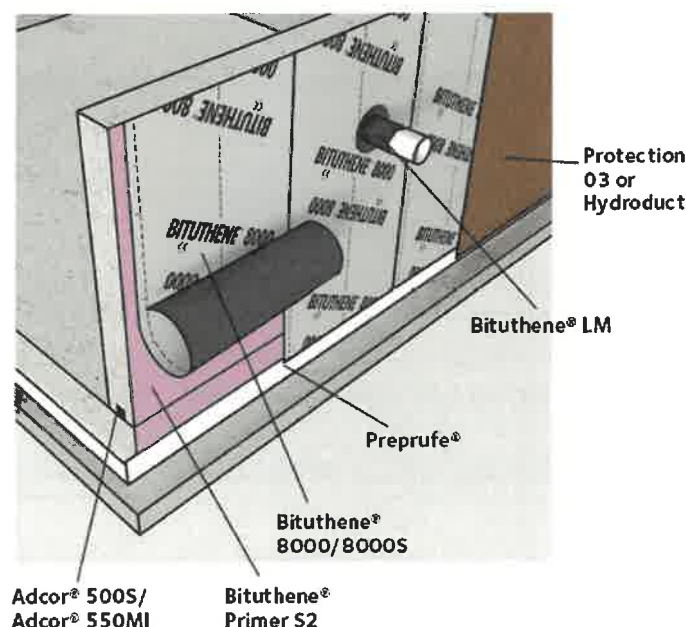
Product Details Vertical Membrane

BITUTHENE® 8000 / 8000S membranes (UK/IE Version)

Advanced, self-adhesive membrane with unique HDPE composite film that provides superior physical properties for water and vapour proof application in sub-structures.

Product Description

GCP Applied Technologies ("GCP") BITUTHENE® 8000/8000S membranes combine the proven BITUTHENE® adhesive technology with a unique, grey coloured carrier film to provide superior performance and easier installation. BITUTHENE® 8000/8000S membranes are extremely tough. Accidental damage which would otherwise be missed, is made more visible by the black compound showing through the light grey film.



Details shown are typical illustrations only and not working drawings. For assistance with working drawings and additional technical advice please contact GCP Technical Services.

Advantages

- Water and vapour proof – provides protection for basements, BS 8102:2009.
- Gas resistance – BITUTHENE® 8000 and 8000S membranes are certified by BBA to score 2 points as a gas resistant barrier (see BS 8485-2015+A1-2019, Table 7).
- Chemically resistant – provides effective external protection against most aggressive soils, contaminated ground water and hydrocarbons in suspension.
- Superior performance – 70 m hydrostatic pressure resistance with ultra low moisture transmission rate.

- Wide application “window” reduces delays – application temperature range from –5°C to +35°C and damp surface tolerant
- Unique composite film – engineered for strength, flexibility and a smooth finish.
- Facilitates quality assured installation – printed overlap line ensures minimum laps; light grey colour highlights accidental damage for simple patch repairs.
- System Compatibility – can be combined with PREPRUFE® pre-applied membranes, BITUTHENE® LM (E) Liquid Membrane, and HYDRODUCT® drainage composites and accessories for waterproofing system solutions.

This document is applicable to projects and applications in the UK only. Please refer to the local website for further information at gcpat.uk, or contact your GCP representative.

System Components

Membranes:

- BITUTHENE® 8000 Membrane for application to surfaces at ambient temperatures of –5 °C to 20°C
- BITUTHENE® 8000S Membrane for application to surfaces at ambient temperatures of 15 °C to 35°C

Ancillary Components (the most current Data Sheets for all system components are available on gcpat.uk or from your local GCP representative.)

- BITUTHENE® Primer S2 – required on all surfaces to which BITUTHENE® 8000/8000S Membranes are to be applied except below ground load bearing slabs and PREPRUFE® surfaces.
- BITUTHENE® Primer W2 – low VOC, water-based primer can be used as an alternative to BITUTHENE® Primer S2. as per specification and/or local site requirements.
- BITUTHENE® LM (E) – Two component, elastomeric, liquid applied detailing compound.
- Protection Board O3 – for application to in place BITUTHENE® Membranes before backfilling and to protect membrane from damage.
- ADCOR® 500S – Thick sectioned, conformable, hydro-expansive waterstop for preventing water entry through joints in concrete sub-structure.
- ADCOR® 550MI- Double protection system for construction joints using 2-in-1 pre-applied, post injectable hydrophilic waterstop.
- BITUSTIK™ 4000 and BITUSTIK™ BT- Double sided, self-adhesive, cold applied, waterproofing tape for membrane detailing and sealing.
- Pak Adhesive – a contact adhesive for bonding GCP boards to various substrates and membranes.
- HYDRODUCT® Drainage Sheet – High impact and creep resistant geo-composite and protection layer.

Limitations of Use

- Approved uses only include those uses specifically detailed in this product data sheet and other current product data sheets that can be found at gcpat.uk.
- BITUTHENE® Membranes are not intended for any other use. Contact GCP Technical Services where any other use is anticipated or intended.
- BITUTHENE® Membranes are designed where in-service temperatures will not exceed 130°F (54°C).
- BITUTHENE® 8000/8000S Membranes are not designed for permanent above ground exterior exposure
- Do not use BITUTHENE® Mastic to terminate BITUTHENE® Membranes to PREPRUFE® pre-applied waterproofing membrane systems. Terminations to PREPRUFE® membranes should only be done with BITUTHENE® LM (E).
- Do not apply BITUTHENE® Membranes over insulation or lightweight insulating concrete.

Note that because of local regulations, test standards and customs, product literature and offerings may be different in various locations. If you have any questions or comments, please contact your local customer service at info-gb@gcpat.com or +44 (0) 1480 478421.

Safety and Handling Information

Users must read and understand the product label and safety data sheet (SDS) for each system component. All users should acquaint themselves with this information prior to working with the products and follow the precautionary statements. SDSs can be obtained by contacting your local GCP representative or office, by calling GCP at +44 (0) 1480 478421.

Storage

- All products must be handled and stored consistent with BITUTHENE® 8000/8000S products methods statement.
- All BITUTHENE® Membranes should be stored upright.
- Observe one-year shelf life and use on a first in, first out basis.
- Store in dry conditions below 40°C.
- Store off ground, under tarps or otherwise protected from rain and ground moisture.

Installation

Technical Support, Details and Technical Letters

The most up to date detail drawings and technical letters are available at gcpat.uk. For complete application instructions, please refer to the current GCP Applied Technologies Literature on (www.gcpat.uk). Documents in hardcopy as well as information found on websites other than www.gcpat.uk may be out of date or in error. Before using this product, it is important that information be confirmed by accessing the website and reviewing the most recent product information, including without limitation product data sheets and contractor manuals, technical bulletins, detail drawings and detailing recommendations. Please review all materials prior to installation of BITUTHENE® 8000 or BITUTHENE® 8000S Membrane. For technical assistance with detailing and problem solving please contact your local GCP representative or office, by calling GCP at +44 (0) 1480 478421.

Temperature

- Apply BITUTHENE® 8000 Membrane only in dry weather and when air and surface temperatures are between -5 °C and 20°C.
- Apply BITUTHENE® 8000S Membrane only in dry weather and when air and surface temperatures are between 15 °C and 35 °C.
- At air temperatures below +5 °C measures should be taken to ensure that all surfaces are free from ice or frost.
- Apply BITUTHENE® Adhesive Primer S2 in dry weather above -5 °C. (See separate product information sheet.)

Surface Preparation

Surfaces must be structurally sound and free of voids, spalled areas, loose aggregate and sharp protrusions. Remove contaminants such as grease, oil and wax from exposed surfaces. Remove dust, dirt, loose stone and debris. Concrete must be properly cured. Repair defects such as spalled or poorly consolidated areas. Remove sharp protrusions and form match lines. On masonry surfaces, apply a parge coat to rough concrete block and brick walls or trowel cut mortar joints flush to the face of the concrete blocks.

Priming

All surfaces (except under below ground load bearing slabs and PREPRUFE® Membranes) should be primed with one coat of GCP's solvent based quick drying, damp and green concrete tolerant, BITUTHENE® Primer S2. Primer S2 can be applied by brush or roller. Primer S2 is pink in colour to ensure proper coverage, to aid identification and to avoid substitution of proper recommended primer.

BITUTHENE® 8000/ 8000S membrane Installation

Prior to beginning application of BITUTHENE® 8000/ 8000S membranes, all surfaces must be inspected to assure that they are free of frost, or condensation. Internal and external corners, penetrations and other "special" areas need to be fully detailed in accordance with GCP drawings and specifications with BITUTHENE® LM (E) in advance of placement of BITUTHENE® 8000/ 8000S membranes. After completion of the surface preparation and detailing, BITUTHENE® 8000/8000S membranes shall be laid by peeling back the protective release paper and applying the adhesive face onto the prepared surface.

Adjacent rolls are aligned using printed lines and overlapped 50 mm minimum at side and ends and well rolled with a firm pressure, using a lap roller to ensure complete adhesion and continuity between the layers. On high walls it may be necessary to batten fix the membrane to prevent slippage. Once the membrane is applied, cover with a protection board as soon as possible. On "green" concrete or damp surfaces, cover the membrane immediately.

Repairs, Protection & Drainage

- Damaged areas to be repaired with an oversize patch applied to a clean dry surface extending 100 mm beyond damage and firmly rolled.
- Protect BITUTHENE® membranes immediately after application to avoid damage from other trades, construction materials or backfill, using only Protection O3 boards.
- If the area around the substructure can be drained to a low level outlet then GCP recommends the use of HYDRODUCT® drainage sheets to help direct water away from the structure.

Performance

BITUTHENE® 8000/8000S membranes comply with the following national standards: BS 8102:2009, The Building Regulations (as amended) (England and Wales) 2000, The Building Regulations (Northern Ireland) 2000 (as amended), Building Standards (Scotland) Regulations 2004 (as amended).

Specification Clause

Refer to NBS Clause 180 and 190.

Supply

BITUTHENE® 8000/8000S	1 m x 20 m roll (20 sq m) Weight 36kg
BITUTHENE® Primer S2	5 & 25 litre can
Primer Coverage	9-11 sq m per litre application, (depending on surface porosity and ambient temperature.

Ancillary components:

Weights and measures as well as other important application and installation information can be found at gcpat.uk or by contacting your local GCP representative at info-gb@gcpat.com or +44 (0) 1480 478421.

Physical Properties

Property	8000	8000S
Colour	light grey	light grey
Application Temp	-5 °C to 20 °C	+15 °C to +35 °C
Resistance to hydrostatic head ASTM D5385	>70 m of water	>70 m of water

Declared values according to EN 13967

Property	Declared Value		Test Method
Visible defects - MDV	None	None	EN 1850-2
Straightness - MDV	Pass	Pass	EN 1848-2
Length (m) - MDV	20.15 ± 0.15	20.15 ± 0.15	EN 1848-2
Thickness (mm) - MDV	1.52 ± 0.08	1.52 ± 0.08	EN 1849-2
Width Carrier Sheet (m) - MDV	0.987 ± 0.007	0.987 ± 0.007	EN 1848-2
Width Overall (roll) (m) - MDV	1.000 ± 0.010	1.000 ± 0.010	EN 1848-2
Mass per unit area (g/m²) - MDV	1490 ± 90	1550 ± 90	EN 1849-2

Water tightness to liquid water (at 60 kPa)	Pass	Pass	EN 1928
Resistance to impact (AI-board (mm) - MLV)	≥ 150	≥ 150	EN 12691
Resistance to tearing (Nail Shank) - unreinforced sheets (N) - MLV	≥ 100	≥ 100	EN 12310-1
Joint strength (N/50mm) - MLV	≥ 190	≥ 190	EN 12317-2
Water vapour transmission ($\mu = sD/d$) - MDV	105.000 $\pm$ 30%	105.000 $\pm$ 30%	EN 1931 Method B
Durability of water tightness against ageing/degradation (at 60 kPa)	Pass	Pass	EN 1296 EN 1928 Method B
Durability of water tightness against chemicals (at 60 kPa)	Pass	Pass	EN 1847 Method B EN 1928 Method B
Durability of tensile properties against chemicals	Pass	Pass	EN 13967 Annex C
Compatibility with bitumen	Pass	Pass	EN 1548
Resistance to static loading	≥ 20 - Pass	≥ 20 - Pass	EN 12730
Tensile properties - unreinforced sheets (N/50mm) - MLV	Long ¹ ≥ 180 Trans ² ≥ 180	Long ¹ ≥ 180 Trans ² ≥ 180	EN 12311-2 Method A
Tensile properties - unreinforced sheets (Elongation at maximal tensile force %) - MLV	Long ¹ ≥ 5 Trans ² ≥ 5	Long ¹ ≥ 5 Trans ² ≥ 5	EN 12311-2 Method A
Reaction to fire (Class; test conditions)	E	E	EN 13501-1

Footnotes:

1. Longitudinal - related to the roll direction
2. Transversal - related to the roll direction
3. MDV: Manufacturer Declared Value
4. MLV: Manufactured Limiting Value
5. NPD: No Performance Declared.

All declared values shown in this data sheet are based on test results determined under laboratory conditions and with the product sample taken directly from stock in its original packing without any alteration or modification of its component parts.



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We hope the information here will be helpful. It is based on data and knowledge considered to be true and accurate, and is offered for consideration, investigation and verification by the user, but we do not warrant the results to be obtained. Please read all statements, recommendations, and suggestions in conjunction with our conditions of sale, which apply to all goods supplied by us. No statement, recommendation, or suggestion is intended for any use that would infringe any patent, copyright, or other third party right.

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Last Updated: 2025-05-13

gcpat.uk/solutions/products/bituthene-post-applied-waterproofing/bituthene-BCCC-8000s-membranes

APPENDIX F

Listed Building Statement

16, Barrington Street

Listed on the National Heritage List for England. **Search over 400,000 listed places**

(<https://historicengland.org.uk/listing/the-list/>)

Official list entry

Heritage Category: **Listed Building**

Grade: **II**

List Entry Number: **1231574**

Date first listed: **01-Feb-1983**

List Entry Name: **16, Barrington Street**

Statutory Address 1: **16, Barrington Street**

This List entry helps identify the building designated at this address for its special architectural or historic interest.

Unless the List entry states otherwise, it includes both the structure itself and any object or structure fixed to it (whether inside or outside) as well as any object or structure within the curtilage of the building.

For these purposes, to be included within the curtilage of the building, the object or structure must have formed part of the land since before 1st July 1948.

Understanding list entries

(<https://historicengland.org.uk/listing/the-list/understanding-list-entries/>)

Corrections and minor amendments

(<https://historicengland.org.uk/listing/the-list/minor-amendments/>)

Location

Statutory Address: **16, Barrington Street**

The building or site itself may lie within the boundary of more than one authority.

District: **South Tyneside (Metropolitan Authority)**

Parish: **Non Civil Parish**

National Grid Reference: **NZ 36226 67082**

Details

This list entry was subject to a Minor Amendment on 2 November 2022 to reformat the text to current standards.

NZ 3667 SW

4/2

BARRINGTON STREET (south side)

No 16

II

1882. J H Morton architect. 1904. Addition in Nelson Street J H Morton architect. Built for the South Shields Poor Law Union soon after the opening of their new workhouse also designed by Morton.

Red brick and hipped slate roof, modillion eaves cornice. Two storeys and attics. Five bays to Barrington Street, three bays to Nelson Street. A building in the revived English domestic style. The bays marked by brick pilasters, the windows with transoms and mullions. The entrance is semi-circular hooded, framed by an Ionic doorcase with straight entablature. The spandrels are decorated and have the date 1882. Above this an oriel. There are three large dormers, with hipped slate roofs and each with four casements. Continuous cill band to ground and first floor windows. The extension to Nelson Street is of three storeys and five bays. It reflects the style of the earlier building. Elevation has an overall stepped gable, set in the apex a cartouche inscribed Union Office and dated 1904.

Listing NGR: NZ3622667082

Legacy

The contents of this record have been generated from a legacy data system.

Legacy System number: **406726**

Legacy System: **LBS**

Legal

This building is listed under the Planning (Listed Buildings and Conservation Areas) Act 1990 as amended for its special architectural or historic interest.



Map

This map is for quick reference purposes only and may not be to scale. This copy shows the entry on 20-Feb-2026 at 11:57:44.

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End of official list entry

APPENDIX G

Limitations of Inspection

APPENDIX G

LIMITATIONS OF INSPECTION

LIMITATIONS

The survey was an inspection of visible, exposed and accessible parts of the fabric. We have not carried out any exposure of the structure or structural tests. The following clauses should be read in conjunction with the Survey Report.

UNEXPOSED AND INACCESSIBLE AREAS

Detailed examination of structural members and all other areas which are unexposed or inaccessible has not been made and it is therefore not possible to report that any of these are free from defect.

CONSTRUCTION

All comments regarding finishes and construction have been made on a purely visual inspection therefore no guarantee as to the accuracy of the comments made can be given.

THIRD PARTY LIABILITY

This report is for the use only of the party to whom it is addressed and no responsibility is accepted to any third party for the whole or any part of its contents.