

St Edward's Church, Roath

**Community Facilities & Accessibility
Project at St Edward's, Roath
Volume 2: Surveys & Reports**

Compiled by St Edward's Committee, Roath Parish

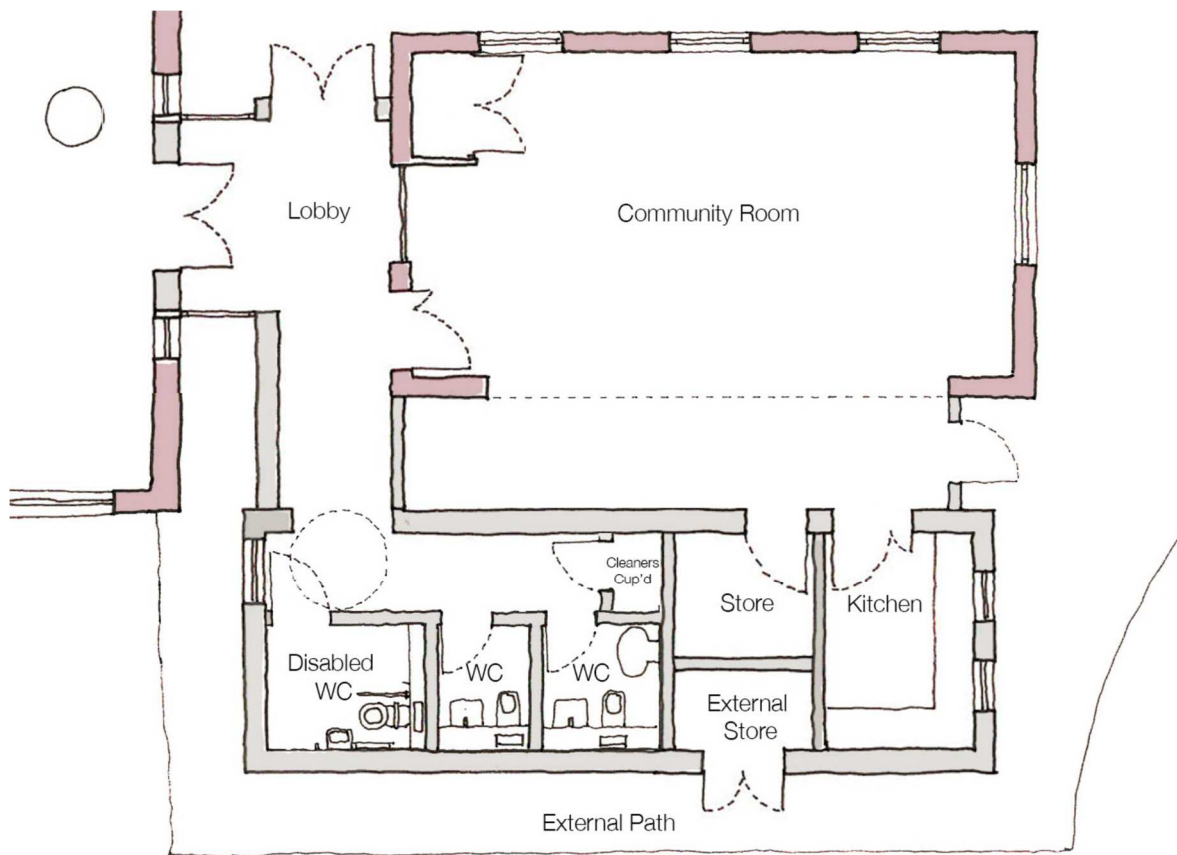
**Church of St Edward the Confessor,
Roath, Cardiff
CF23 5DE**

August 2018

Front Cover: Birds-eye artistic perspective of the proposed extension, as viewed from the north-west. Produced by Amanda Needham of Volute Architects and included in the Feasibility Study.

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Proposed floor plan of the new extension.

Introduction

This is a report of the surveys carried out at St Edward's Church, Roath, Cardiff, in preparation for modifications and extensions to the facilities at the west end of the church which are required to accommodate the rapidly increasing community use of the site, and to ensure that all facilities are in compliance with accessibility legislation.

INTRODUCTION

Finance



We are grateful to National Churches Trust who provided a grant of £1500 towards the cost of the architect's fees for the Feasibility Study, up to RIBA Stage 1. Also to members of the church and the wider community who have raised money and made donations towards the cost of the surveys reported here.

Appointment of Architect

On 11th October 2017, St Edward's Committee appointed Amanda Needham, RIBA MSc Cons AABC EASA, Director of Volute Architects Ltd, as Architect for the project.

Consultancies

The following companies have been commissioned to provide surveys and reports for the project:

Anthony Brookes Surveys Ltd

Mann Williams Consulting Civil & Structural Engineers

Ispy Surveys (CCTV Drains Survey)

Soltys Brewster Ecology

Synergy Construction & Property Consultants (QS)

Holloway Partnership (Electrical & Mechanical Services)

Aims and Objectives

- (1) To redevelop the existing school room to create more space and provide access to all users.
- (2) To replace the existing single toilet with three accessible toilets.
- (3) To provide a kitchen facility accessible to all from the school room.
- (4) To alter the principal entrance so that all visitors can easily access all areas of the building.
- (5) To provide off-street disabled parking and gardening opportunities to support our new "Gardening as Therapy" project in the church grounds (supported by a grant of £1000 from the Age Cymru Loneliness Programme, which has allowed us to start the project immediately, rather than waiting for the completion of the building project).

PLANS



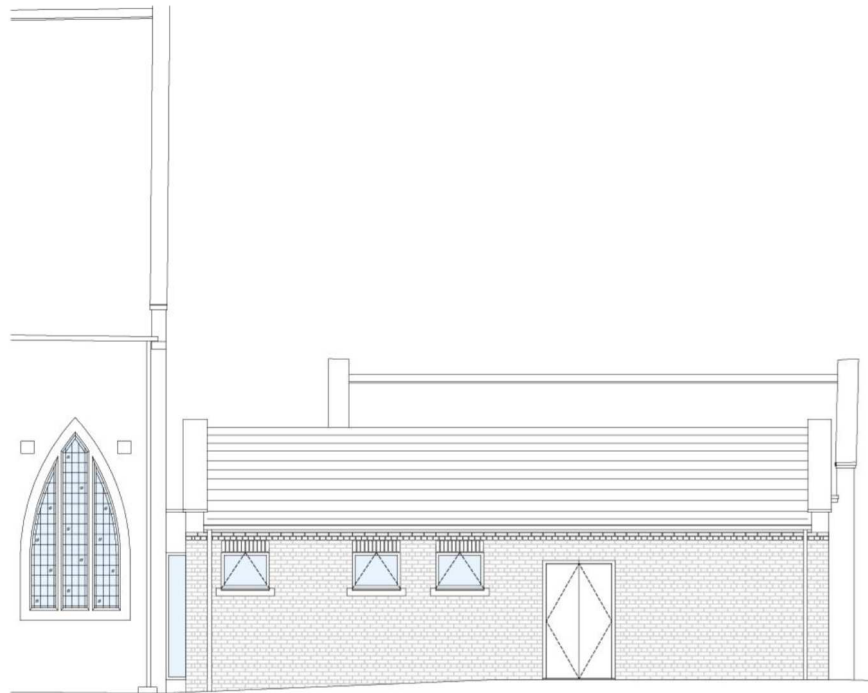
Elevations



North-west Elevation



South-west Elevation



North-east Elevation

The Elevations were produced by Amanda Needham of Volute Architects.

The full plans for the project and an extract from the original Feasibility Study are in Appendix A.

Overview

The surveys and reports summarised here are required for RIBA Stages 2 and 3, leading to the applications for consent to the DAC and the Local Planning Authority.

Preliminary consent has already been obtained from the DAC for:

“Redevelopment of the existing school room and entrance to create an accessible community space that meets the needs of our current visitors and makes provision for future growth. The redevelopment will include updating of the current provisions whilst also providing new facilities such as new accessible toilets, a new kitchen, a larger community room that provides for flexibility in use, and provision for external and internal storage. The scheme will also include alterations to the principal entrance ensuring that all of our visitors can access our building readily and easily. We will be looking to include off-street disabled parking and incorporation of gardening opportunities to promote engagement with our community visitors.”

The Surveys and Reports

Some investigations had already been undertaken before the start of the project, either in conjunction with previous work, or as a result of recommendations in the Quinquennial Inspection. Where appropriate these have been utilised in the present project.

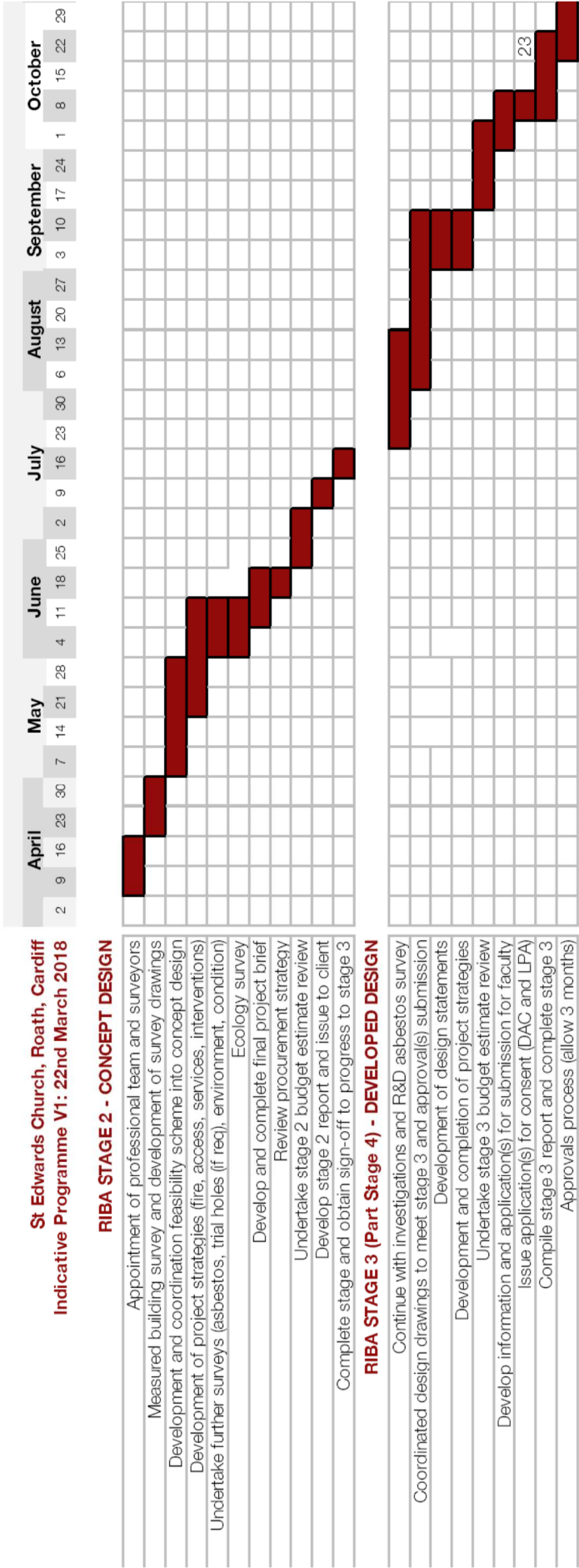
The whole project has been undertaken in consultation with church members and the wider community who contribute to the life of the church. In several instances, individuals with professional expertise have offered support and advice, and in some cases their contributions have also been included.

Appendix A: Feasibility Study

The Feasibility Study was produced by Amanda Needham of Volute Architects in March 2018. It was part funded by the National Churches Trust.

The Programme of Work for RIBA Stages 2-3 is shown below.

The Feasibility Study and the Plans are in appendix A.



Appendix B: Drainage Reports

The quinquennial inspection required investigations into the drainage so some survey work was ongoing.

Tom Martin of Mann Williams made a preliminary visit to the site on 6th December 2017 and recommended that the drainage should be cleared, jetted and CCTV surveyed.

The CCTV survey was carried out by Ispy Surveys on 6th February 2018. Their summary of conclusions is in Appendix B.1. For reference, MH1 (Manhole 1) is SE of the chancel; MH2 is NE of the chancel; MH3 is N of the schoolroom, towards the boundary; MH4 is N of the schoolroom, close to the building. For the building project, the area around MH3 and MH4 is of most interest.

The Site Inspection Report by Tom Martin is in Appendix B.2. This includes a sketch of the drainage system. He concludes that all of the drainage on site discharges to the Welsh Water sewer in the lane via MH3 and that the condition of the drainage in this area is reasonable, unlike most of the site, where pipes and manholes are damaged, and there is significant root ingress. There is also some remedial work to be done immediately adjacent to MH3.

The drainage runs could be built over, but loadbearing walls running parallel and close to pipes should be avoided. A topographic survey is recommended, to position the manholes, and the plan should be adjusted so the manholes sit within the external path.

It is recommended that the safest course of action is to remove the trees that have caused damage to the drains. They are identified by Non MacLellan of Mann Williams in a mark up of the architect's drawing in Appendix B.3.

Appendix C: Topographic & Measured Buildings Survey

The architect and Mann Williams recommended that a Topographic & Measured Buildings Survey should be carried out. This was undertaken by Anthony Brookes Surveys Ltd. It was required to inform the design team about the existing conditions of the building and the land within the boundaries of the church, and to ascertain the positions of the drainage manholes. The Survey is in Appendix C.

Appendix D: Building Inspection Survey (Protected Species)

This was carried out by Soltys Brewster Landscape Architects and Ecologists between April and June 2018 (Report dated 25th June 2018).

Appendix D contains the Summary, Conclusions and References, and an Appendix of Target Notes and Photographs.

Bats

Two locations were identified as possible bat roosts, one in the Hornbeam tree and the other under the fascia board of the schoolroom. Both were watched but there was no evidence that roosting bats were present. No specific

mitigation or licensing will be required for the proposed refurbishment works.

In case a bat is present, hand tools (e.g. crowbar) should be used if practicable to remove any boarding, raised tiles or flashing. Before felling the Hornbeam, the rot hole should be checked for bats. Contractors should be briefed on the low risk that bats could be encountered, and if a bat were discovered, all work in the area should cease immediately and the project ecologist or Natural Resources Wales be contacted for advice.

Timing of the start of work, and in particular any tree felling or roof works to the Schoolroom should coincide with the period when bats are least susceptible to disturbance, commencing September/October or March/April if possible.

Birds

There was no evidence of current use by nesting birds but there is an old nest on the schoolroom by the WC. A check for nesting birds by a suitably experienced ecologist would be advised if refurbishment works are proposed between 1st March and 31st August (i.e. in the nesting season).

Bluebells

The non-native Spanish Bluebell *Hyacinthoides hispanica* is present, and appropriate precautions should be taken if disposing of soil off-site.

Appendix E: Structural Plans and Services

The Structural Plans by Tom Martin of Mann Williams and the Electrical and Mechanical Services by Holloway Partnership are in Appendix E. These include some items, such as the heat recovery unit, that are under discussion and may not be included in the final plans.

Appendix F: Documents contributed by church members

Contributions by church members with professional expertise are in Appendix F.

Richard Hosgood investigated the land around the church to determine which parts are Council Maintainable. The map is in Appendix F.1.

Stephen Mayer provided details of how to obtain VAT relief on building works for disabled access. The guidance sheet is in Appendix F.2 and there is a form to fill out and give to the supplier.

David Old provided maps of Utilities in the vicinity of the church. These are in Appendix F.3.

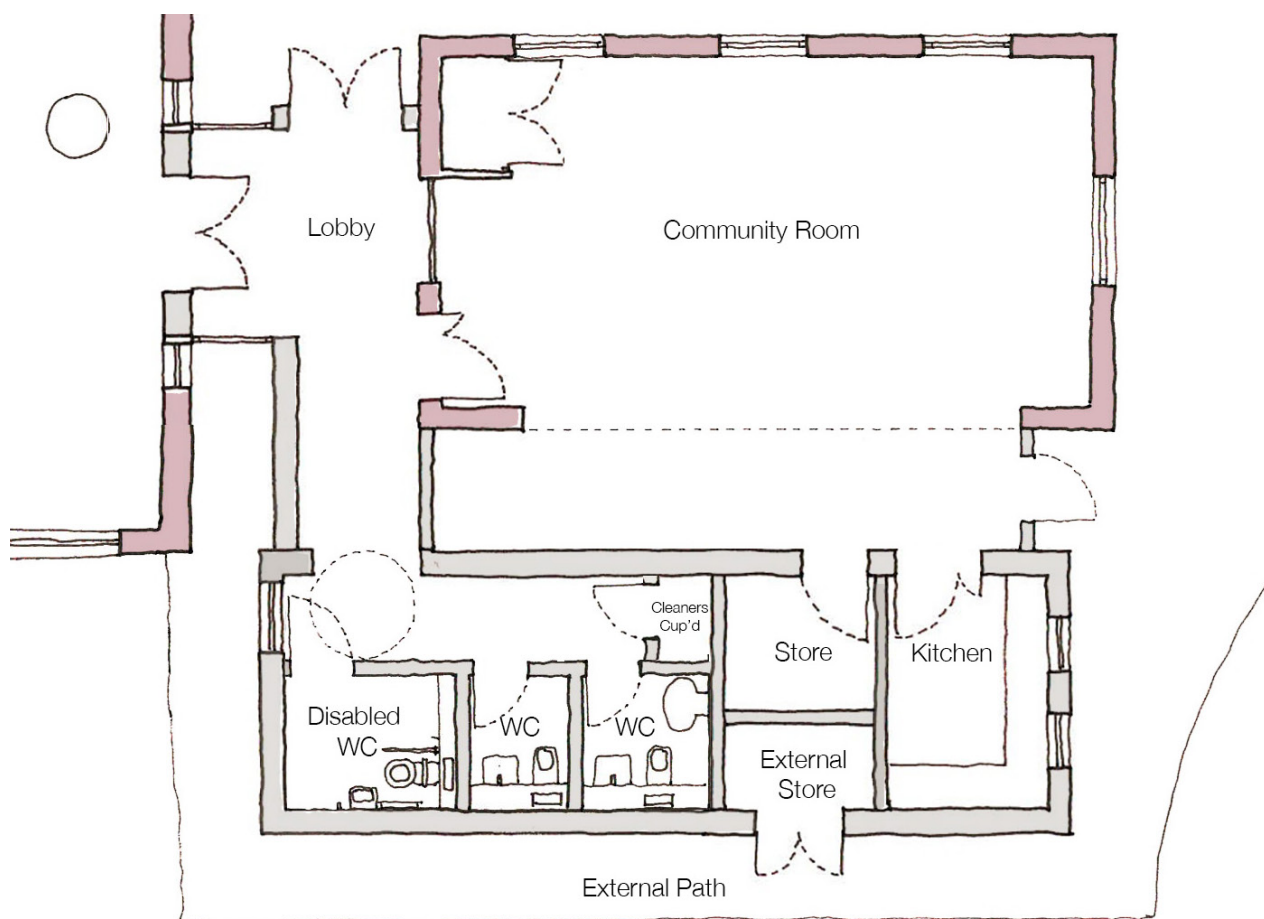
Appendix G: Alternative Ventilation Scheme

At a meeting with the architect on 17th July 2018 it was agreed that a natural ventilation system should be considered to replace the Mechanical Ventilation and Heat Recovery (MVHR) unit. The ventilation required by building regulations may be achieved by replacing the windows along Westville

Road with ones that open; a new door at the west end; and rooflights over the new extension. The Design Note covering that scheme is in Appendix G.

Appendix A: Feasibility Study & Plans

The Feasibility



PRINCIPAL ENTRANCE

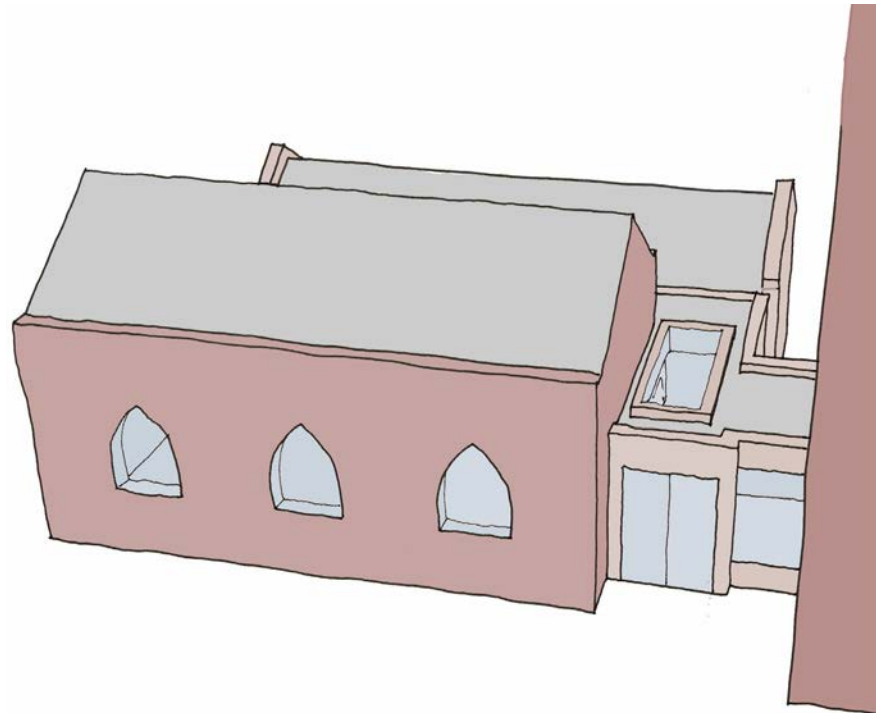
The location of the entrance has been retained in the proposals. However, the proposals show this as a remodelled space with the intent to create a more user friendly accessible entrance.

Currently, the entrance lobby has several doorways that have double door-sets. The current configuration provides little margin for movement either side of the entrances of the doorways to allow entry for those who require carers to aid their movement. The proposals outline the proposed reconfiguration of the doorways.

The proposal aims to reduce the solid and heavy connection between the west window of the nave, replacing the masonry structure with a glass link, reducing the visual impact of the connection. The west window will need to be carefully reconfigured, allowing the stone transom to extend to the neighbouring stone

Above:
Proposed floor plan of the new extension, north of the school room. Please refer to drawing 17-1020-001-A for a drawing at an approximate scale of 1:100

Below:
Birds-eye artistic perspective, as viewed from
the principal south elevation



mullions to create a larger opening to aid those with mobility challenges. Modifications to the heating pipes located on the face of the west wall (church-side) will be required.

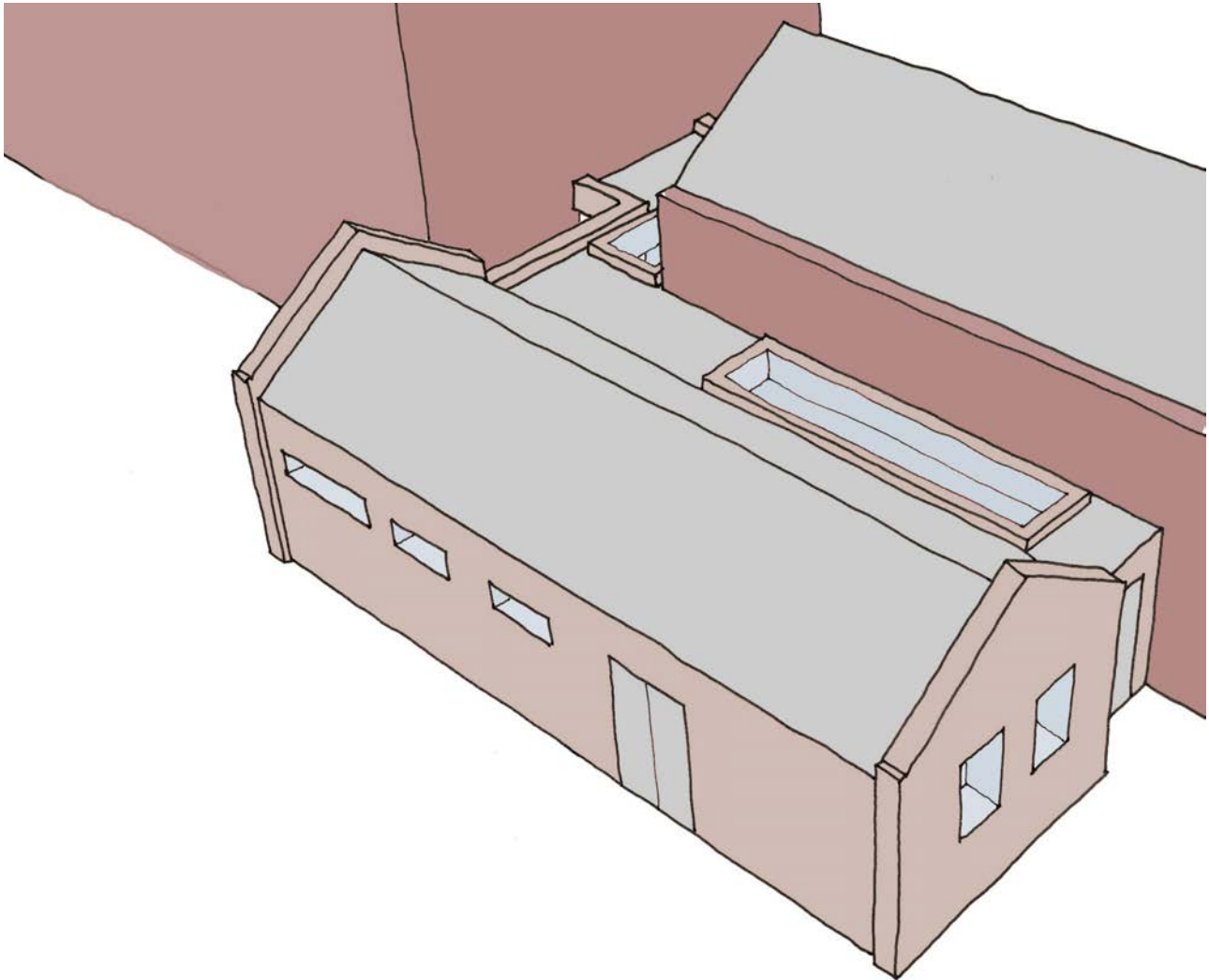
PROPOSED COMMUNITY ROOM

Given the potential of the existing school room, the proposal sets out to retain the existing school room, as this is a valued asset and provides a good level of accommodation and floor space. The proposal aims to extend the school room to the North, making use of the piece of land to the rear of the existing hall.

The connection between the proposed new building to the existing school room has been guided by the location of the existing north windows, with the proposal to remove the windows and sections of wall in-between, creating a large open span within the north wall which would be supported by a section of steel. The opening would project into a new space that would be sheltered by a glazed roof, the new roof would wrap around the north and east elevations of the existing school room and connect with the new entrance to the south elevation. The space created to the north of the existing school room is



Above:
The materials to the proposed extension are to harmonise with the existing buildings on the site. It is proposed that the building will be constructed using traditional cavity wall constructions, with a decorative brick outer face. It is an aspiration to design contemporary details between the connections of the brick and the other architectural elements as can be seen from the above images.



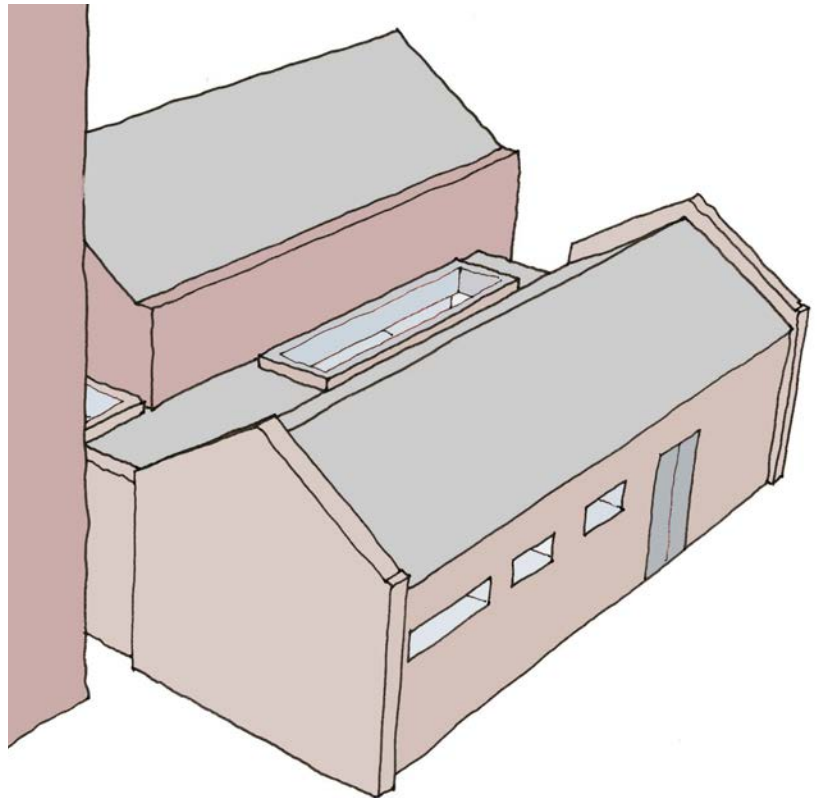
seen as an extension to the current facility, maximising the floor space of the community room. The space will provide access to the ancillary facilities and also a link to the outside space. The glazed roof will allow for natural light be flooded into this area and into the community room.

Above:
Birds-eye artistic perspective of
the proposed extension, as viewed
from the north-west

PROPOSED TOILETS

The proposal outlines three toilets, one disabled, one unisex, and one which provides a baby-change facility within the toilet enclosure. The toilets are accessible from a corridor link that connects with the lobby between the church and the proposed community room. The toilets have been located in this location for several reasons, the first being that the drainage is in this location resulting in less changes to the drainage system. Secondly, the toilets need to serve the church and the community room, possibly when both spaces are in use. In addition, should the community room not be in use, the visitors to the church will need to gain access to the facilities.

Below:
Birds-eye artistic perspective of the proposed extension, as viewed from the north-east



PROPOSED KITCHEN

The kitchen is located within the new pitched roof building, and accessible from the community room. The kitchen is a domestic style kitchen, providing basic refreshments for the users of the building. Windows have been designed into the west gable to allow views from the kitchen into the new community garden.

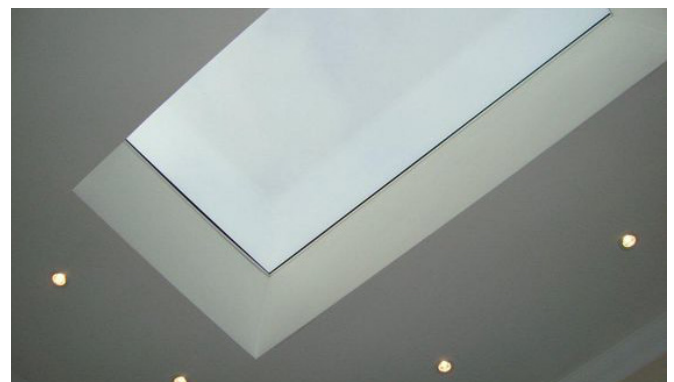
STORAGE

The proposal aims to provide a new store room for the community room, with a link directly accessed from the space. An external store has also been included within the proposal. The external store is located to the rear of the building, with direct access to the adjacent garden areas.

To the principal south entrance, the proposal would be to re-grade the landscaping to accommodate level access to the principal entrance, removing the need for a ramp. This area would link to the adjacent path and potentially to a new disabled car parking area.

LANDSCAPING

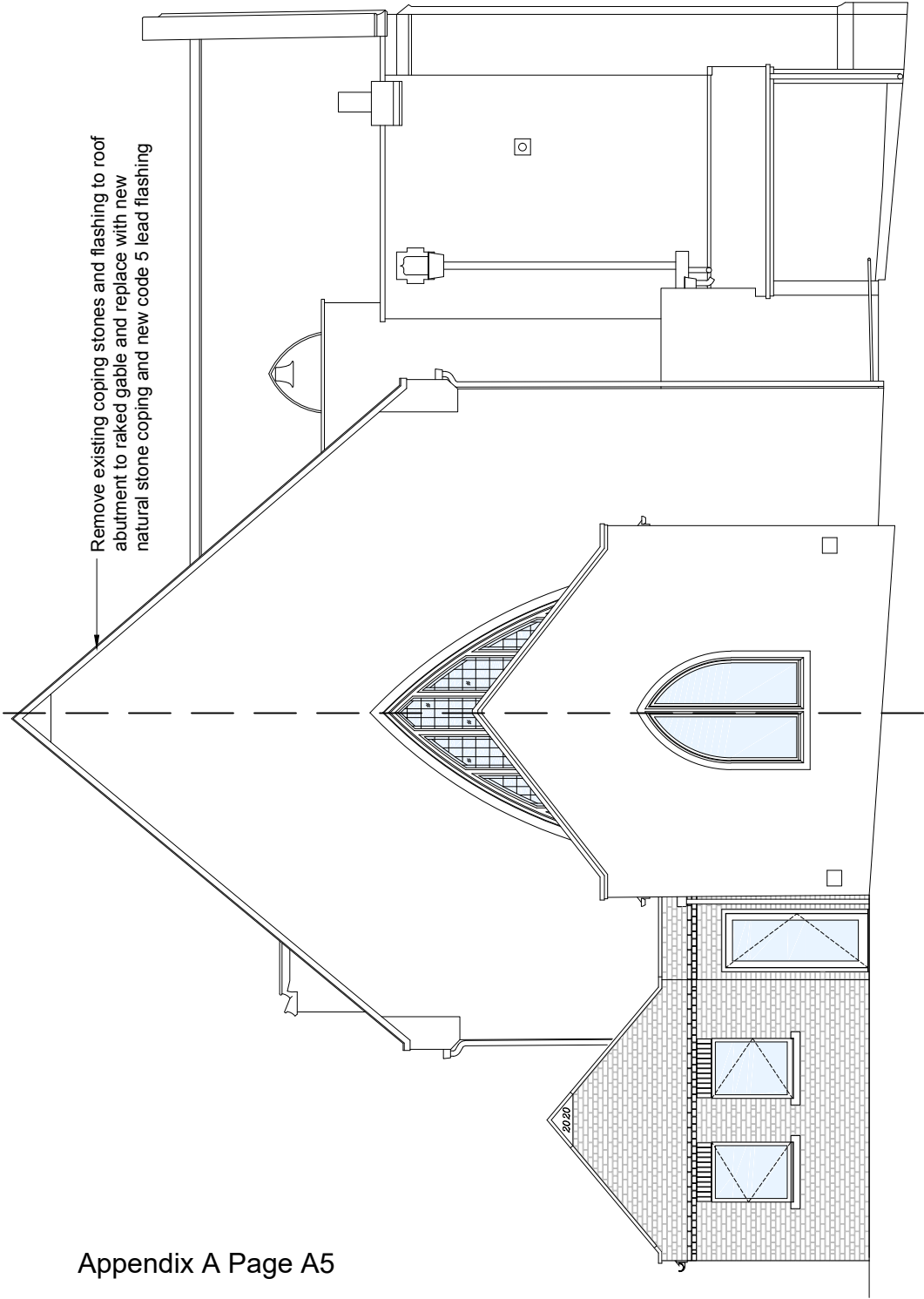
The location of the proposed building will require changes to the gradients to the north-west garden area and will require some retaining walls to be developed. The section of garden to the west is proposed to be re-purposed for community well-being, with those users finding benefits being involved in community gardening.



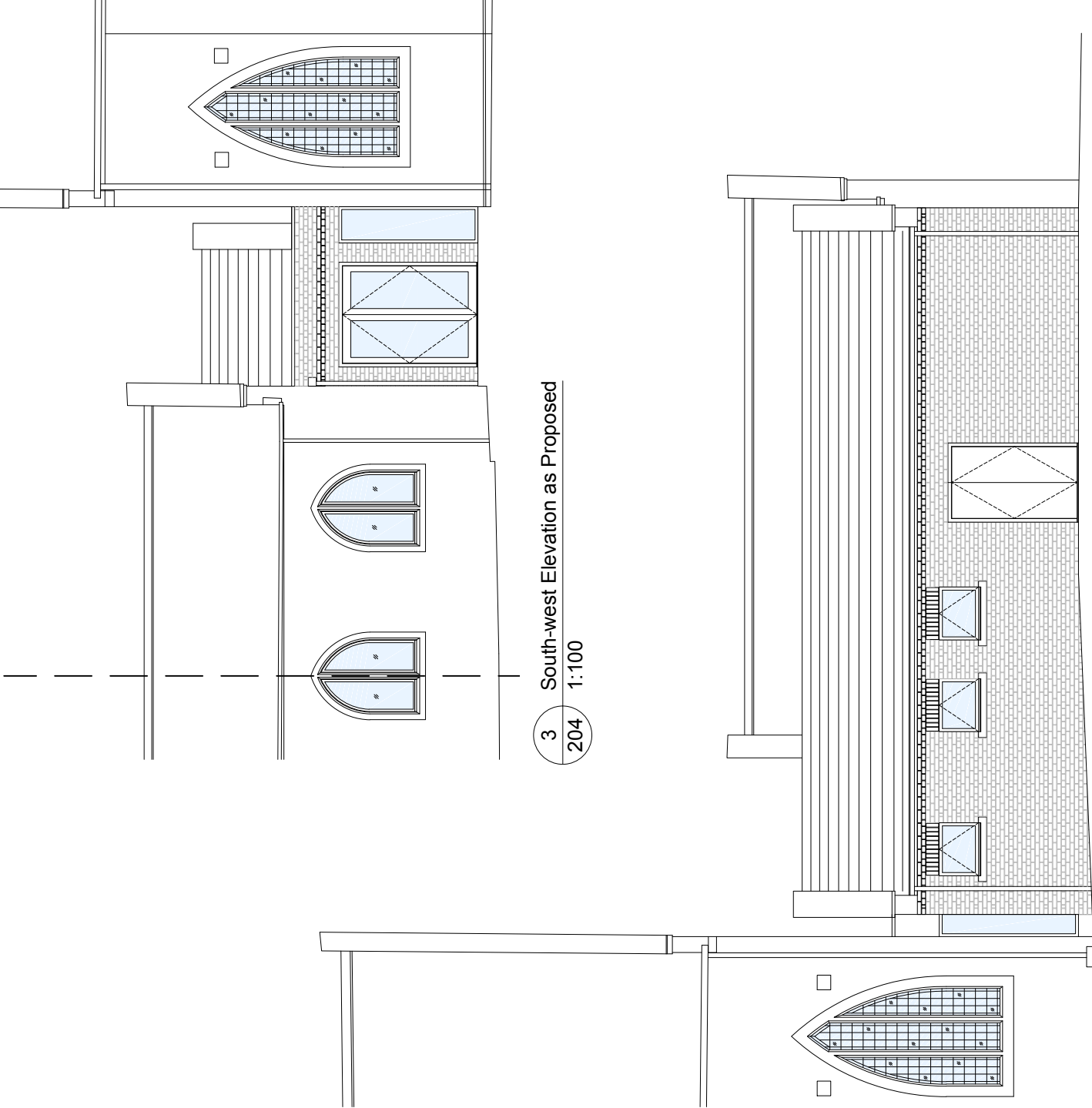
Above
Roof-lights are proposed to be included within the design to incorporate natural light into the building

Notes:

1. Walls: Facing brickwork in English garden wall bond (to match the church), with dog-tooth course to eaves level
2. Pitched Roof finish: New natural welsh slate roof finish with decorated timber fascia board at closed eaves
3. Flat Roof finish: Icopal single ply membrane
4. Rainwater goods: Aluminium gutters and square downpipes
5. Window: Aluminium framed double glazed opening lights with natural stone cills and brick stretcher lintels
6. Doors:
Principal and Side Elevation: Aluminium frame with glazed leafs
Rear Elevation: Aluminium frame with solid panels



1 North-west Elevation as Proposed
204 1:100

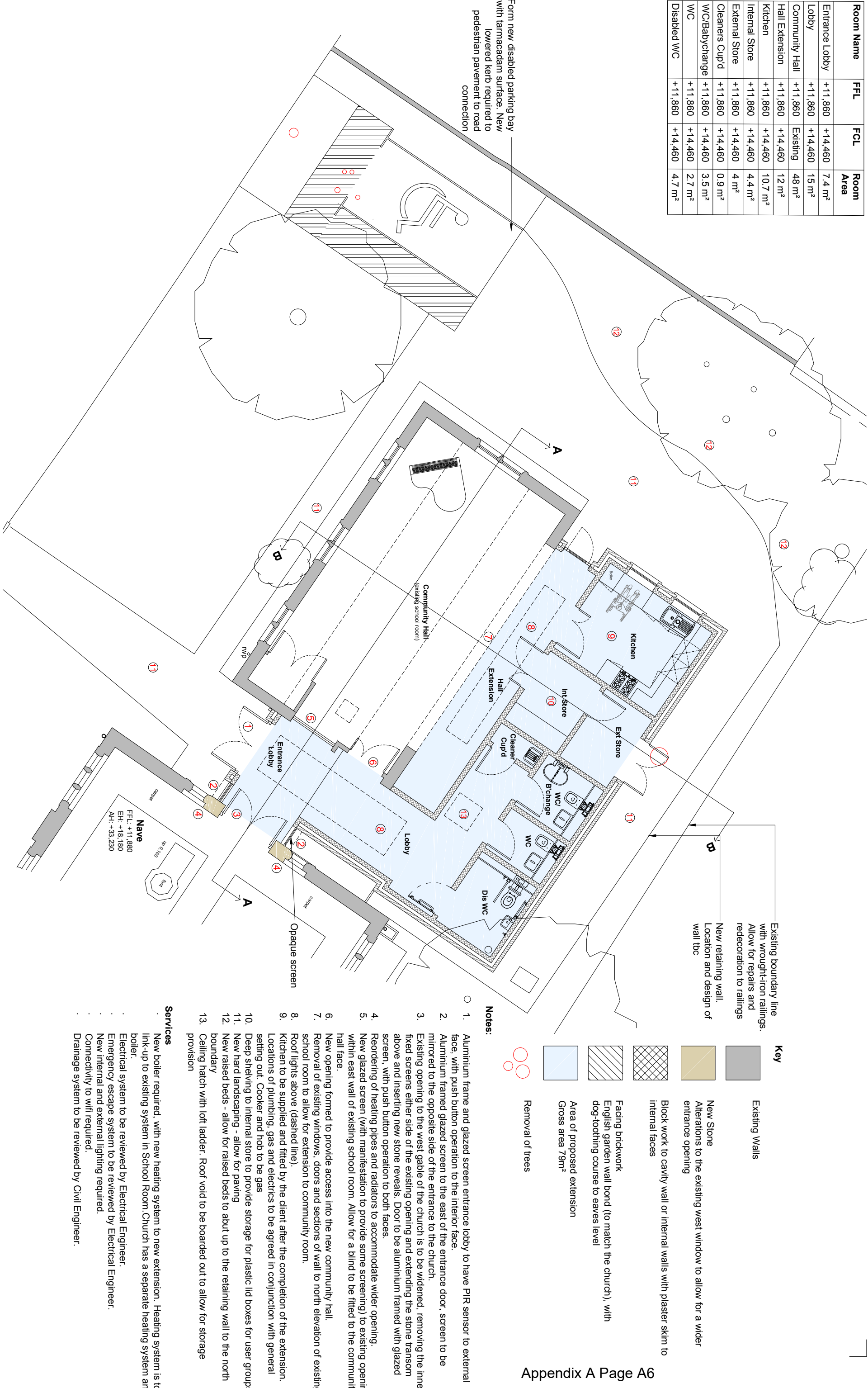


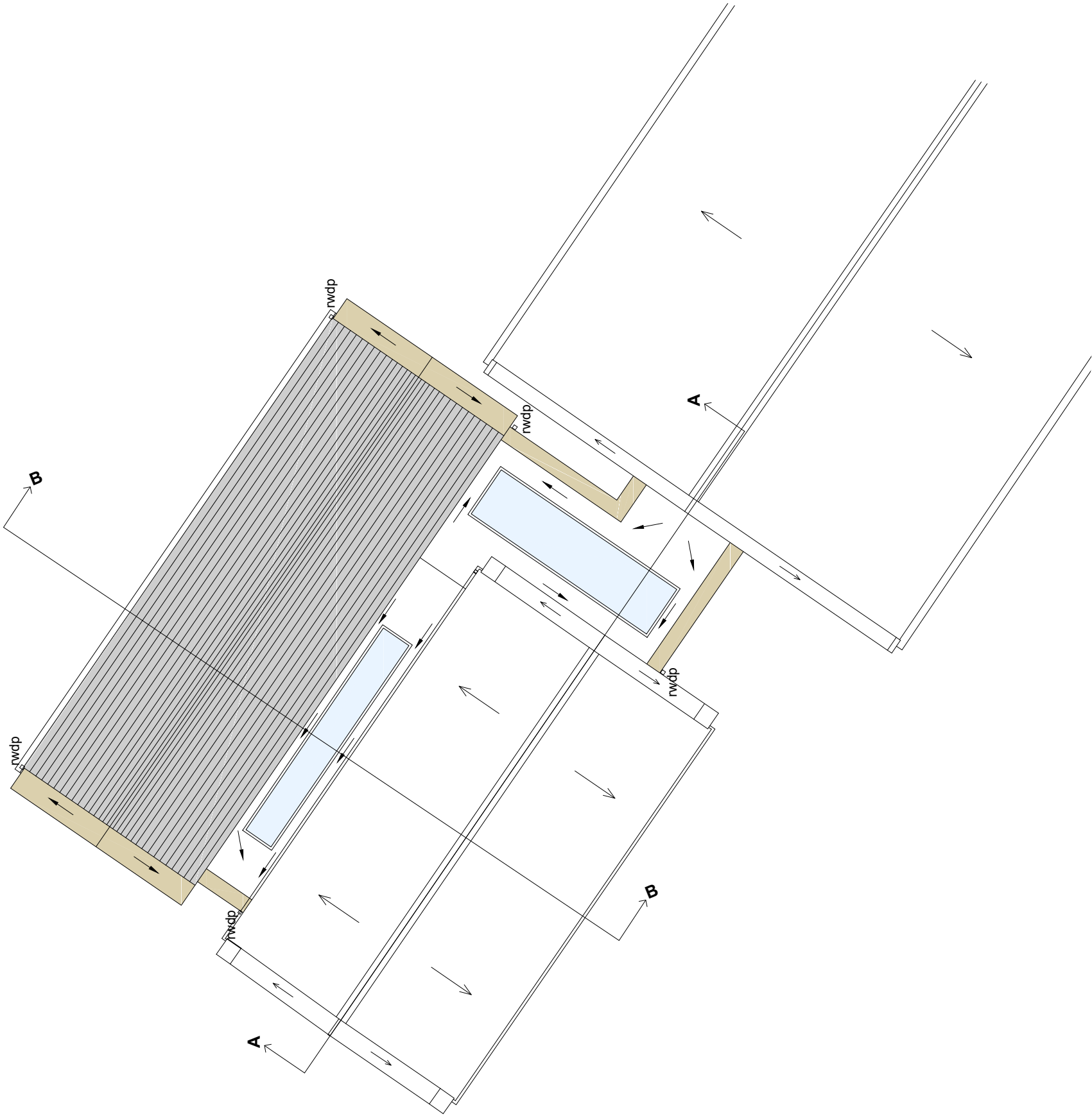
2 North-east Elevation as Proposed
204 1:100

3 South-west Elevation as Proposed
204 1:100

<div>Notes: Drawings are based on survey data and may not accurately represent what is physically present. Do not scale from this drawing. All dimensions are to be verified on site before proceeding with the work. All dimensions are in millimeters unless noted otherwise. Volute Architects shall be notified in writing of any discrepancies.</div>					<div>CLIENT THE PCC OF ST EDWARDS CHURCH</div> <div>PROJECT ST. EDWARDS CHURCH COMMUNITY ROOM REDEVELOPMENT</div> <div>DRAWING STATUS CONCEPT STUDY</div>	<div>DRAWING TITLE ELEVATIONS AS PROPOSED</div> <div>SIZE & SCALE A3 @ 1:100</div>	<div>JOB NUMBER 17-1020</div> <div>DRAWING NO. 204</div> <div>REVISION -</div>
VOLUTEARCHITECTS							
22 MERTON GREEN, CAERWENT, MONMOUTHSHIRE NP23 5AT © VOLUME 2017							

Room Name	FFL	FCL	Room Area
Entrance Lobby	+11,860	+14,460	7.4 m²
Lobby	+11,860	+14,460	15 m²
Community Hall	+11,860	Existing	48 m²
Hall Extension	+11,860	+14,460	12 m²
Kitchen	+11,860	+14,460	10.7 m²
Internal Store	+11,860	+14,460	4.4 m²
External Store	+11,860	+14,460	4 m²
Cleaners Cup'd	+11,860	+14,460	0.9 m²
WC/Babychange	+11,860	+14,460	3.5 m²
WC	+11,860	+14,460	2.7 m²
Disabled WC	+11,860	+14,460	4.7 m²





Key



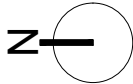
New natural welsh slate roof finish with decorated timber fascia board at closed eaves

New natural coping stone

Fixed glazed rooflight

Notes:

1. Flat roof finish is made up of Icopal single ply membrane.

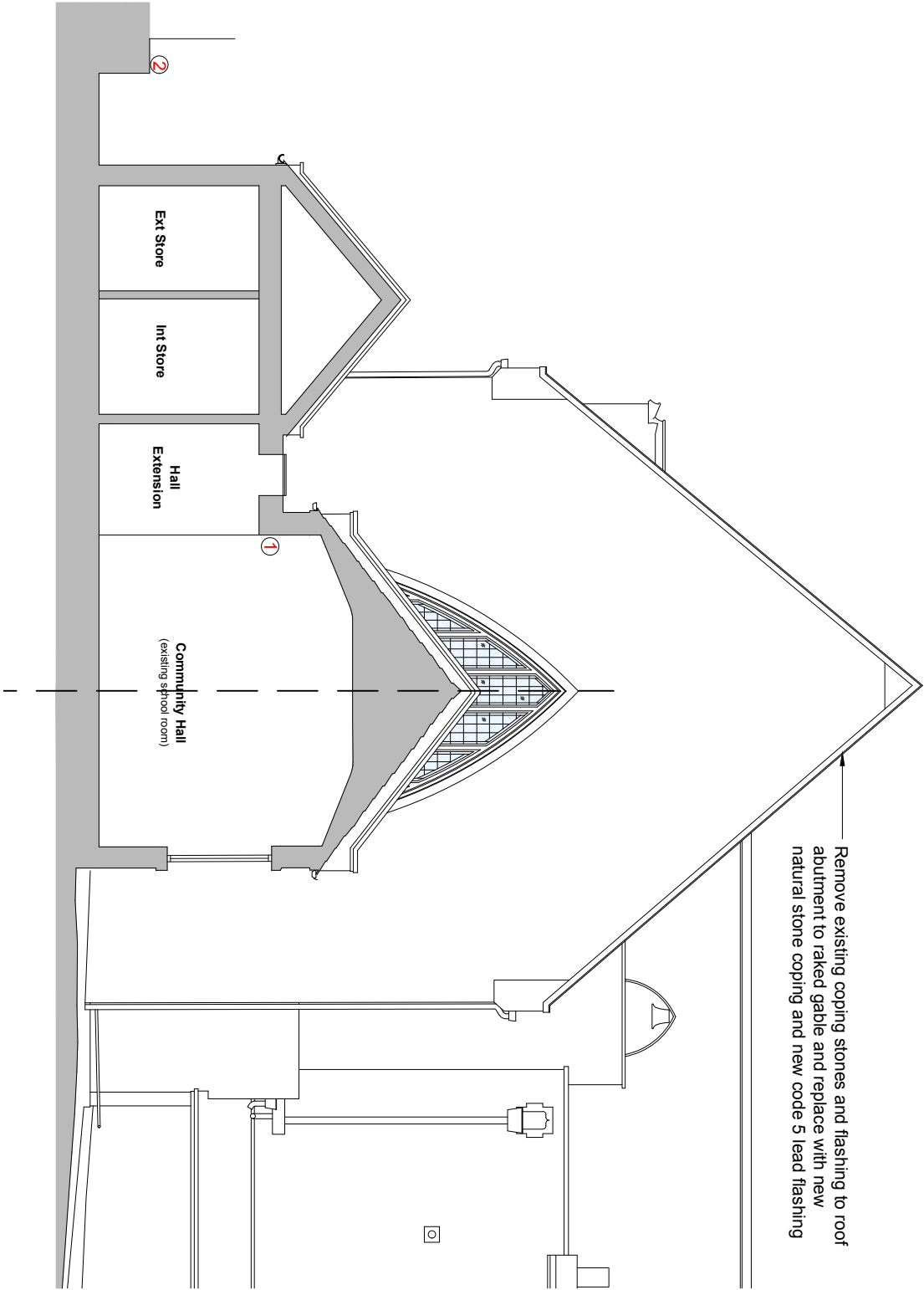


Notes:
Drawings are based on survey data and may not accurately represent what is physically present.
Do not scale from this drawing. All dimensions are to be verified on site before proceeding with the work.
All dimensions are in millimetres unless noted otherwise.
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<div>Notes:</div> <div>Drawings are based on survey data and may not accurately represent what is physically present.</div> <div>Do not scale from this drawing. All dimensions are to be verified on site before proceeding with the work.</div> <div>All dimensions are in millimeters unless noted otherwise.</div> <div>Volue Architects shall be notified in writing of any discrepancies.</div>	<div><div><div>N</div><div>I</div></div><div></div></div>	First Issue				xx.xx.xxxx	AN	AN	Add	PROJECT	ST. EDWARDS CHURCH COMMUNITY ROOM REDEVELOPMENT	DRAWING TITLE	ROOF PLAN AS PROPOSED	JOB NUMBER	17-1020	
		ISSUE		DATE	DRAWN	CHECKED	DESCRIPTION									
		DRAWING STATUS						CONCEPT STUDY (WORK IN PROGRESS)								
VOLUTEARCHITECTS																

Notes:

1. Removal of existing wall and windows to create large clear opening to access hall extension. Structural Engineer to provide comment on extent of opening.
2. Retaining wall to rear boundary, with land cleared to create space for extension and perimeter access and hard landscaping.



1 Section BB as Proposed
205 1:100

<p>Notes:</p> <p>Drawings are based on survey data and may not accurately represent what is physically present.</p> <p>Do not scale from this drawing. All dimensions are to be verified on site before proceeding with the work.</p> <p>All dimensions are in millimeters unless noted otherwise.</p> <p>Valute Architects shall be notified in writing of any discrepancies.</p>							CLIENT	THE PCC OF ST EDWARDS CHURCH	DRAWING TITLE	SECTIONS AS PROPOSED	JOB NUMBER	17-1020		
							PROJECT	ST EDWARDS CHURCH COMMUNITY ROOM REDEVELOPMENT	SIZE & SCALE	A3 @ 1:100	DRAWING NO.	205	REVISION	-
							DRAWING STATUS		CONCEPT STUDY					
VOLUTEARCHITECTS														
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		<p><u>CLIENT: ST EDWARDS CHURCH c/o MANN WILLIAMS.</u></p> <p><u>SITE ADDRESS: ST EDWARDS CHURCH, WESTVILLE ROAD, ROATH, CARDIFF, WALES. CF23 5DE.</u></p> <p><u>DATE: 6TH FEBRUARY 2018.</u></p>
		<p><u>CCTV DRAIN SURVEY SUMMARY, FINAL REMARKS & RECOMMENDATIONS</u></p> <p><u>TO BE READ IN CONJUNCTION WITH THE DVD RECORDING, DETAILED WRITTEN REPORT & DRAINAGE LAYOUT PLAN.</u></p>
		<p><u>RECOMMENDATIONS COLOUR CODE:</u></p> <ul style="list-style-type: none"> - MINOR DEFECTS - REMEDIAL REPAIRS TO BE CONSIDERED/ NOT ESSENTIAL. - MEDIUM DEFECTS - REMEDIAL REPAIRS ARE ADVISED. - MAJOR DEFECTS - REMEDIAL REPAIRS ARE STRONGLY ADVISED/ REQUIRED. <p><small>NB: - ALL DEFECTS NOTED & REPORTED IN THE CCTV SURVEY REPORT ARE RELEVANT AT THE TIME OF THE CCTV SURVEY ONLY. -ALTHOUGH OUR SURVEYS ENDEAVOUR TO PROVIDE A COMPREHENSIVE ASSESSMENT OF PIPE CONDITIONS, CCTV SURVEYING CANNOT ALWAYS GUARANTEE TO DISCOVER 100% OF ALL PIPE DEFECTS.</small></p>
<u>ITEM NO.</u>	<u>CCTV SURVEY RUN NO.</u>	<u>DEFECT DESCRIPTION & RECOMMENDATIONS</u>
1.	<u>RUN 1</u>	<p><u>MH 4 – DIRECTION UPSTREAM PIPE – TO INTERNAL STACK PIPE.</u></p> <p>- THERE ARE NO MAJOR DEFECTS NOTED IN THIS PIPE.</p>
2.	<u>RUN 2</u>	<p><u>MH 4 – DIRECTION UPSTREAM RIGHT PIPE 1 – TO INTERNAL SVP.</u></p> <p>- THERE ARE NO MAJOR DEFECTS NOTED IN THIS PIPE.</p> <p>- THERE IS A SHARP DOUBLE S-BEND NOTED IN THIS PIPE, WHICH RESTRICTS THE CCTV ACCESS.</p>

3.	<u>RUN 3</u>	<p><u>MH 4 – DIRECTION DOWNSTREAM PIPE – TO VERTICAL BACKDROP PIPE ENTRY TO MH 3.</u></p> <ul style="list-style-type: none"> - THERE IS AN OPEN JOINT WITH SOME ROOT GROWTH NOTED IN THIS PIPE, AT THE JOINT AT 0.43M. - REMEDIAL WORKS IS ADVISED TO REMOVE THE ROOT GROWTH AND TO ENSURE THE NOTED DEFECT IS WATERTIGHT AND DOES NOT DETERIORATE ANY FURTHER.
4.	<u>RUN 4 & RUN 7</u>	<p><u>MH 2 – DIRECTION DOWNSTREAM PIPE – TO MH 3.</u></p> <ul style="list-style-type: none"> - THERE ARE SEVERAL OPEN JOINTS AND MASS ROOT GROWTH NOTED IN THIS PIPE. - WE WOULD THEREFORE ADVISE CONSIDERING REMEDIAL REPAIR, TO REMOVE THE ROOTS AND TO ENSURE THAT THE NOTED DEFECTS ARE WATERTIGHT AND DO NOT DETERIORATE ANY FURTHER. - IT WAS ALSO NOTED THAT THE BASE CHANNEL OF MH 2 HAS BEEN REMOVED AT SOME POINT AND CEMENTED OVER. - THIS HAS CREATED A DISPLACED JOINT ON THE EXIT FROM THIS MANHOLE CHAMBER, WHICH WILL CAUSE A RESTRICTION IN THE FLOW. - WE WOULD ADVISE REMEDIAL WORK TO REPAIR THE BASE OF THE MANHOLE CHAMBER, TO ENSURE THAT IT IS FREE FLOWING.
5.	<u>RUN 5</u>	<p><u>MH 1 – DIRECTION DOWNSTREAM PIPE – TO MH 2.</u></p> <ul style="list-style-type: none"> - THERE ARE SEVERAL DISPLACED & OPEN JOINTS, CRACKS AND SOME FINE ROOT GROWTH NOTED IN THIS PIPE. - WE WOULD THEREFORE ADVISE CONSIDERING REMEDIAL REPAIR, TO REMOVE THE ROOTS AND TO ENSURE THAT THE NOTED DEFECTS ARE WATERTIGHT AND DO NOT DETERIORATE ANY FURTHER.
6.	<u>RUN 6</u>	<p><u>MH 1 – DIRECTION UPSTREAM LEFT PIPE 1 – TO SVP.</u></p> <ul style="list-style-type: none"> - THERE ARE SOME DISPLACED JOINTS AND CRACKS NOTED IN THIS PIPE. - THERE IS ALSO A BREAK NOTED IN THIS PIPE, AT THE JOINT AT THE BASE OF THE SOIL VENT PIPE, AT 6.25M - WE WOULD THEREFORE ADVISE REMEDIAL REPAIR, TO ENSURE THAT THE NOTED DEFECTS ARE WATERTIGHT AND DO NOT DETERIORATE ANY FURTHER. - IT WAS ALSO NOTED THAT THE BASE CHANNEL OF MH 1 HAS BEEN REMOVED AT SOME POINT AND CEMENTED OVER. - THIS HAS CREATED A DISPLACED JOINT ON THE EXIT FROM THIS MANHOLE CHAMBER, WHICH WILL CAUSE A RESTRICTION IN THE FLOW. - THIS HAS ALSO CAUSED A RESTRICTION TO THE DIAMETER AND FLOW AT THE ENTRY POINT TO LEFT PIPE 2. THIS PREVENTS THE CCTV CAMERA FROM ACCESSING INTO THIS PIPE. - WE WOULD ADVISE REMEDIAL WORK TO REPAIR THE BASE OF THE MANHOLE CHAMBER, TO ENSURE THAT IT IS FREE FLOWING.

7.	<u>RUN 8</u>	<p><u>MH 3 – DIRECTION UPSTREAM RIGHT PIPE – TO MH 2 – VIA VERTICAL BACKDROP PIPE RODDING ACCESS.</u> <u>IL = 1620MM.</u></p> <ul style="list-style-type: none"> - THERE IS HIGH WATER LEVEL HOLDING IN THIS PIPE, WHICH RESTRICTS THE CCTV CAMERA FROM ACCESSING BEYOND 0.35M. - IT APPEARS THAT THERE IS A DIPPED SECTION OF PIPE CAUSING THIS HIGH WATER LEVEL BUILD UP. - WE WOULD THEREFORE ADVISE REMEDIAL REPAIR, TO EXCAVATE AND REPAIR THIS DEFECTIVE/ DIPPED SECTION OF PIPEWORK.
	<u>CONTACT</u>	<ul style="list-style-type: none"> - WE TRUST THE ABOVE IS CLEAR, HOWEVER PLEASE LET US KNOW IF YOU DO HAVE ANY QUERIES. - PLEASE CONTACT US IF ANY FURTHER EXPLANATIONS ARE REQUIRED OR IF ANY ASSISTANCE IS REQUIRED FOR GAINING QUOTATIONS FOR OR ARRANGING ANY OF THE RECOMMENDED REPAIR WORKS THAT YOU WISH TO PROCEED WITH. <p><u>MANY THANKS,</u> <u>I SPY SURVEYS</u></p>
		<p><u>CCTV DRAINAGE SURVEY SUMMARY, FINAL REMARKS & RECOMMENDATIONS COMPLETED</u></p>

Appendix B.2: Site Inspection Report

Site Inspection Report



53 Mount Stuart Square, Cardiff CF10 5LR
T: 02920 480333 www.mannwilliams.co.uk

Project No: **153**

Project: **St Edward's Church, Roath**

Report No: **7153_SVR_TM_01**

Page: **1 of 6**

Engineer: **Tom Martin**

Present: **Non acLellan Ispy Surveys**

Date of visit: **6th February 2018**

Weather:

1.0 Introduction

- 1.1 Mann Williams initially visited site on the 6th December 2017 to inspect the church drainage following reports that a section of the drainage had collapsed.
- 1.2 Following this visit we recommended that the system was cleared and CCTV surveyed which was carried out on the 6th of February 2018 with Mann Williams in attendance.
- 1.3 Mann Williams have also obtained the Welsh Water sewer plan for the area and reviewed it.
- 1.4 This report presents the findings of these investigations in three sections, the existing layout and condition, recommended remediation options and impact on the proposed development.

Site Inspection Report

53 Mount Stuart Square, Cardiff CF10 5LR
T: 02920 480333 www.mannwilliams.co.uk

Project No: **153**

Project: **St Edward's Church, Roath**

Report No: **7153_SVR_TM_01**

Page: **2 of 6**

Engineer: **Tom artin**

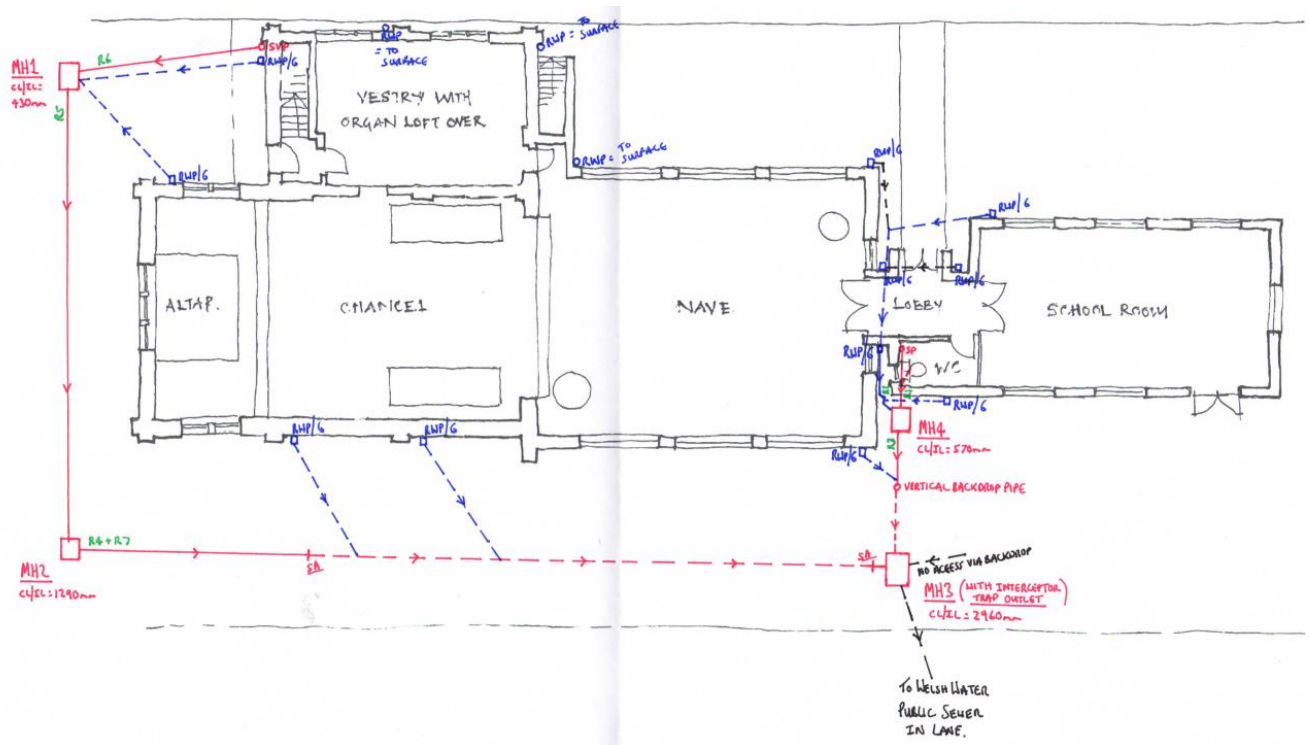
Present: **Non acLellan Ispy Surveys**

Date of visit: **6th February 2 1**

Weather:

2.0 Existing Layout and Condition

2.1 The sketch below shows the drainage system as demonstrated by the CCTV survey.



- 2.2 This shows some key differences to the layout we had assumed following our first site visit. The key conclusion is that all of the drainage on site discharges to the Welsh Water sewer in the lane via MH3.
- 2.3 The other significant conclusion is that the WC in the vestry does connect to this system.
- 2.4 At this stage depths of manholes have been measured but the relative cover levels have only been assessed visually. Based on this it appears that the existing falls are reasonable. They vary from about 1 in 40 to 1 in 120.
- 2.5 Generally the condition of the drainage around the school room and MH4 is reasonable. A few minor open joints and some limited root ingress has been noted.
- 2.6 The condition of the drainage from the vestry WC, MH 1, MH2 and the run along the north of the church is significantly worse. Displaced joints, open joints, cracks, poor manhole benching, low points and significant root ingress have been noted.



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Project No: 153

Project: **St Edward's Church, Roath**

Report No: 7153_SVR_TM_01

Page: 3 of 6

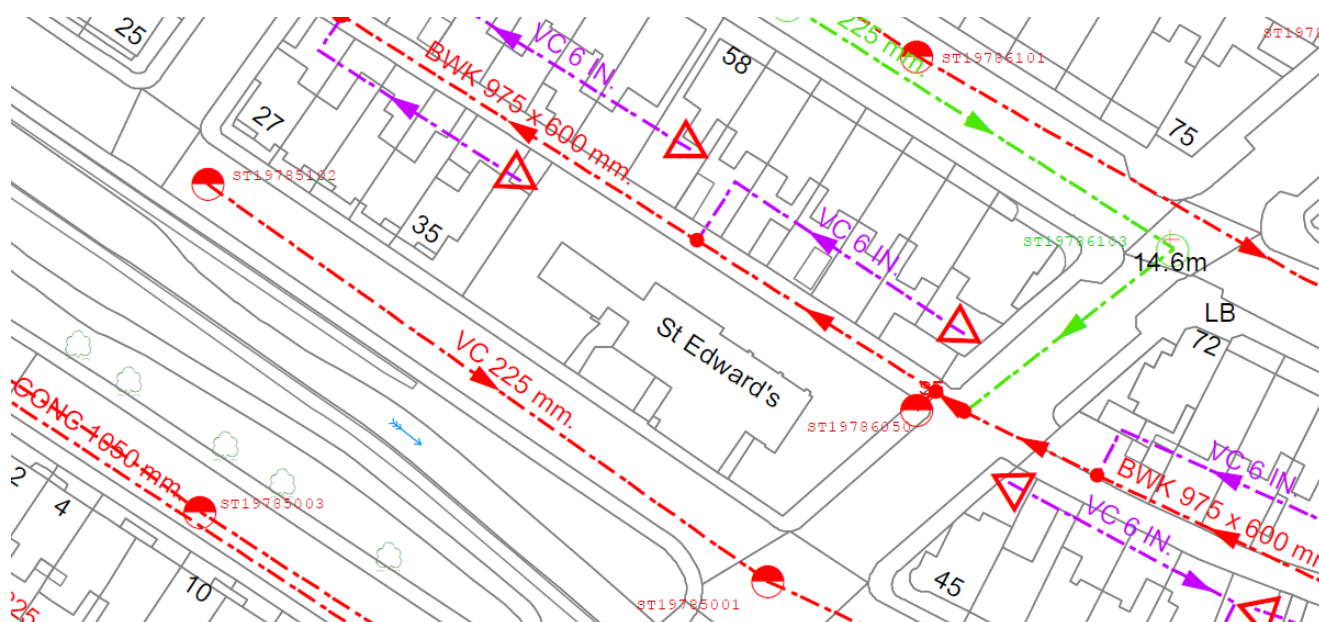
Engineer: Tom Martin

Present: **Non acLellan Ispy Surveys**

Date of visit: **6th February 2 1**

Weather:

- 2.7 The most significant issues are with the drainage run to the north of the church between MH2 and MH3. The survey of this run was abandoned due to root ingress obstructions from MH2 and water filling the pipe from MH3. A tap root was noted running along the pipe and the survey was abandoned at a root mass blocking 80% of the pipe. It is of note that there are 3 significant trees on the line of the drain and 2 others which have been felled since 2013.
- 2.8 The benching and layout of MH1 is particularly poor and appears to be holding some water with restrictions to the incoming pipe and outgoing pipe.
- 2.9 An extract from the Welsh Water sewer plan is shown below



- 2.10 This shows that MH 3 most likely forms the connection point for the church and the pipe labelled VC 6 IN to the main sewer which runs in the lane tot the north of the church. This is a substantial 975x600mm brick sewer and was most likely constructed when the surrounding houses were built. In addition there is a small diameter sewer in the road to the south of the church.

Site Inspection Report



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Project: **St Edward's Church, Roath**

Report No: **7153_SVR_TM_01**

Page: **4 of 6**

Engineer: **Tom artin**

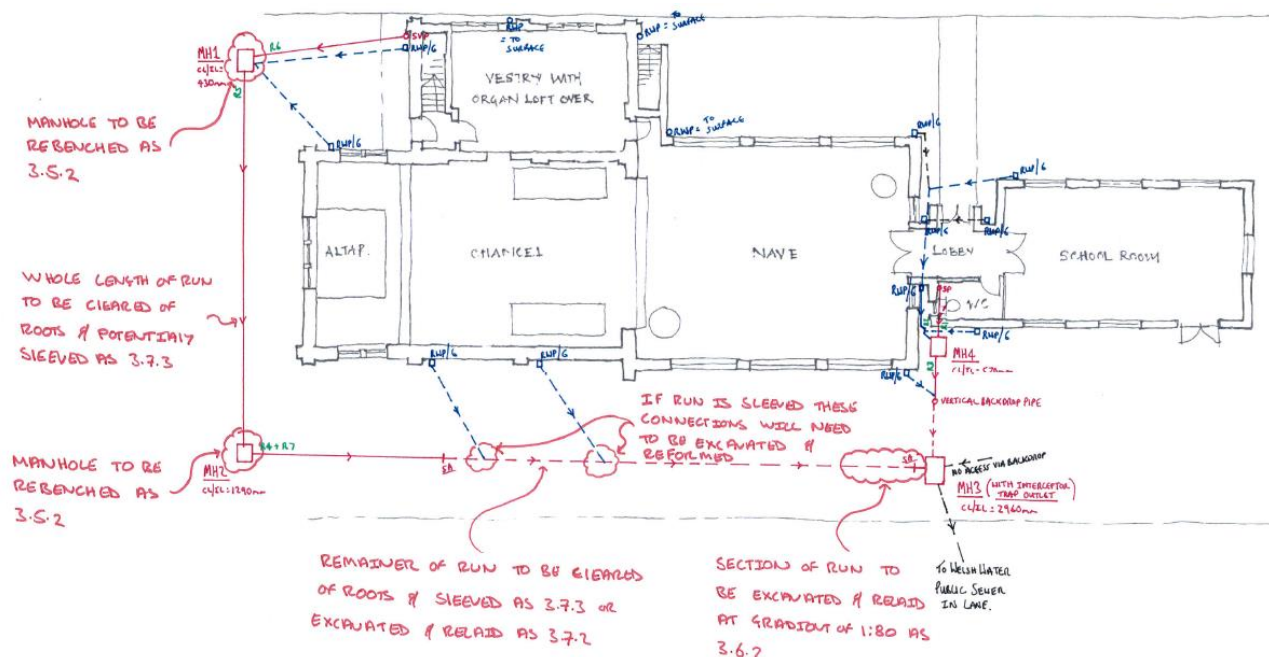
Present: **Non acLellan Ispy Surveys**

Date of visit: **6th February 2 1**

Weather:

3.0 Recommended Remediation Options

- 3.1 There are three main defects requiring remediation
 - Benching of manholes MH1 and MH2
 - Root ingress and displaced joints to drainage runs between MH1/ MH2 and MH2 / MH3
 - Low point of drainage run between MH2 / MH3 at MH3 connection
- 3.2 The remainder of the drainage has minor issues which provided the system is properly maintained should not cause significant problems.
- 3.3 A portion of the run MH2 / MH3 has not been surveyed because of the existing defects restricted access to the CCTV camera. We recommend that during the works this run is surveyed once access has been facilitated, this should be reviewed for any further defects requiring repair.
- 3.4 The recommended repairs are shown on the sketch below



Site Inspection Report



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Project No: **153**

Project: **St Edward's Church, Roath**

Report No: **7153_SVR_TM_01**

Page: **5 of 6**

Engineer: **Tom Martin**

Present: **Non acLellan Ispy Surveys**

Date of visit: **6th February 2011**

Weather:

3.5 Benching of manholes H1 and H2

- 3.5.1 The benching and layout of both manholes are causing restrictions to the flow but MH1 is more significant than MH2.
- 3.5.2 The existing benching should be broken out and removed. New benching should be constructed so as not to restrict the flow with inverts formed from channel pipes, slopes not greater flatter than 1 in 30 and a minimum 20mm high strength concrete topping. Where existing pipe levels do not allow for a smooth fall over the chamber they should be excavated and adjusted locally avoiding low spots.
- 3.5.3 We recommend that both manholes are re-benched. MH2 could be left as existing but this would remain as a defect which may cause future blockages.

3.6 Low point of drainage run between H2 / H3 at H3 connection

- 3.6.1 The low point in this pipe is holding water which will tend to hold debris and restrict the flow. There is also some minor damage to the backdrop within MH3.
- 3.6.2 The pipe should be excavated locally and re-laid back from the manhole as far as required (anticipated 2-3m) to achieve a fall of 1 in 80. Any damaged sections of pipe should be replaced and a root protection barrier should be included in the trench. In addition the broken backdrop pipe should be replaced.

3. Root ingress and displaced joints to drainage runs between H1/ H2 and H2 / H3

- 3.7.1 Root ingress to these pipe runs is reducing the effective cross sectional area of the pipes and therefore restricting the flow. Displaced and open joints are causing obstructions to the flow which will tend to hold debris and restrict the flow. The run MH2 / MH3 is significantly worse than the run MH1 / MH2.
- 3.7.2 There are two main options for remediating these defects. The pipework could be excavated and re-laid replacing damaged sections of pipe and including a root barrier to the outside of the pipe. Excavating adjacent to the existing trees will require some cutting of roots and working around major roots to minimise damage to the trees. As discussed in section 3.5 the 2-3m of this run at MH3 is recommended to be excavated and relined.
- 3.7.3 Alternatively root cutting and pipe sleeving technique could be used to clear and reline the pipe without excavation. Pipe sleeving would require local excavation to reform each of the branch connections.
- 3.7.4 We recommend the run MH2 / MH3 is fully remediated with either solution and the run MH1 / MH2 has the roots removed only. The displaced joints would remain as defects in the run MH1 / MH2 which may cause future blockages but as this run is shorter and there is less vegetation surrounding it the risks are reduced.

Project No: **153**

Project: **St Edward's Church, Roath**

Report No: **7153_SVR_TM_01**

Page: **6 of 6**

Engineer: **Tom artin**

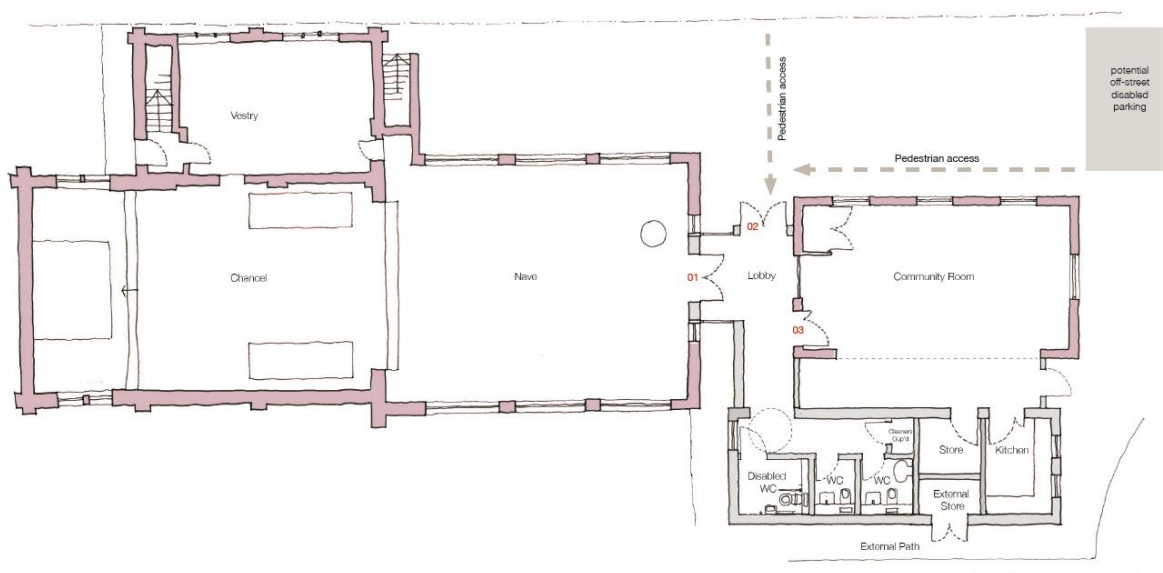
Present: **Non acLellan Ispy Surveys**

Date of visit: **6th February 2 1**

Weather:

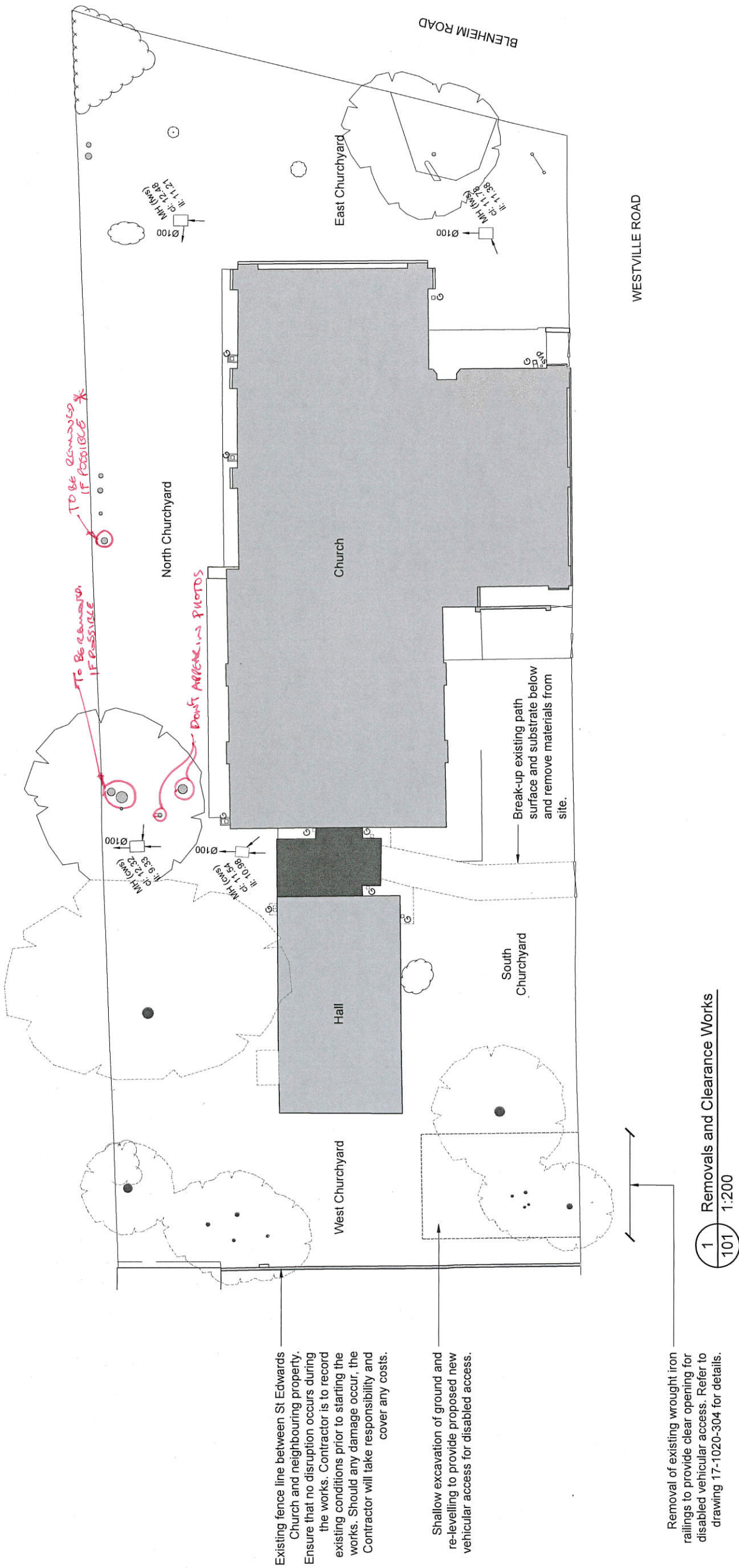
4.0 Impact on the Proposed Development

- 4.1 Our understanding at this stage is that the client is considering an extension of the school room to the north as shown on the plan below. This will require the creation of a flat area, by reducing ground levels, over the footprint of the extension and surrounding path.



- 4.2 The Welsh Water sewer plan confirms that no Welsh Water sewers cross the site and that the only adjacent sewer runs in the lane to the north. This should have no impact on the proposed development.
- 4.3 There are two existing manholes in this area of the site and a number of drainage runs. These manholes and some of the drainage runs will need to be maintained as they serve the existing rain water pipes to the front of the school room. The drainage for the existing school room WC could be removed.
- 4.4 The drainage runs could be built over and are not a significant issue. Loadbearing walls running parallel and close to pipes should be avoided if possible.
- 4.5 It is possible that MH4 could be relocated but this would require significant work and it is unlikely that MH3 could be relocated. The cover of MH4 is at approximately the level of the external path and MH3 could be lowered so its cover is at this level.
- 4.6 Our recommendation is that a simple topographical survey is undertaken to position the manholes and the plan is adjusted so the manholes sit within the external path between the building and the retaining wall.

Appendix B.3 Tree Felling Note



General Notes

Removals and Clearance Works

All stripping out to be carefully carried out as to not disturb the remaining fabric and areas to be made good. Method of stripping out to be confirmed with Architect before proceeding.

The following items are to be set aside for inspection by the Architect and Client for possible reuse:

Wrought Iron Fence

After inspection, if any of the items listed above are not required by the Client, the Contractor is to remove from site. All valuable metals that are stripped out are to be set aside for inspection and valuation. Agreed value to be deducted from the contract value

For details f stripping out to the building fabric, please refer to drawings 17-1020-102 and 103.

Below Ground Drainage

For all works to below ground drainage, please refer to Mann Williams information.

Tree Removal

For tree removal works please refer to the tree surgeons report. Please also refer to Soltys Brewster's Ecological Report for ecological constraints.

Prior to any removal works provide risk assessments and method statements to the Architect on how to remove the trees. No works are to be carried out until approval has been provided.

Mann Williams
Tree Removal Comments
28/08/18
7153-SK-04-P1

Notes:
Drawings are based on survey data and may not accurately represent what is physically present.
Do not scale from this drawing. All dimensions are to be verified on site before proceeding with the work.
All dimensions are in millimeters unless noted otherwise.
Volute Architects shall be notified in writing of any discrepancies.



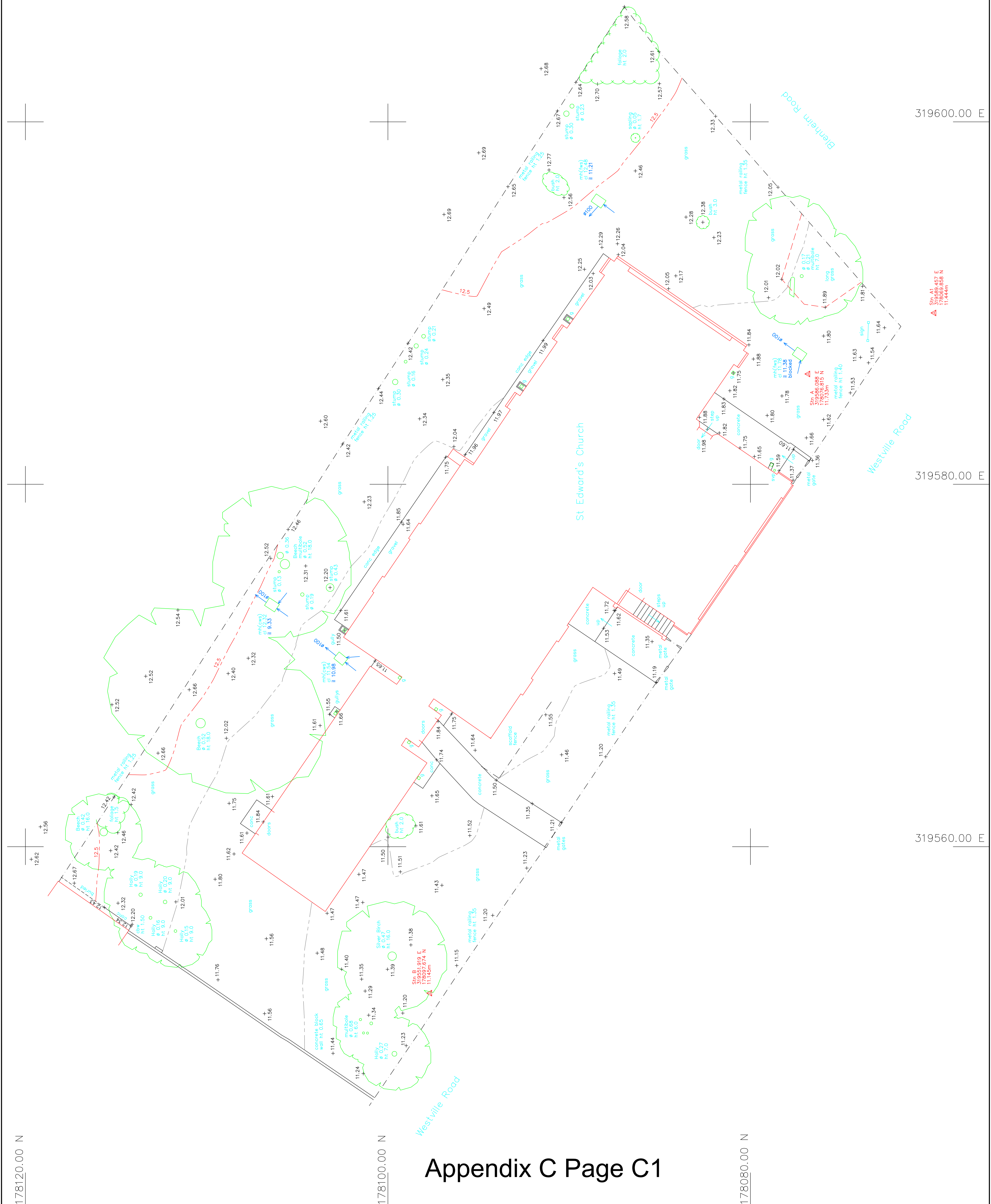
ISSUE	DATE	DRAWN	CHECKED	DESCRIPTION
First Issue	18.12.2018	AN	AN	Add


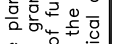

CLIENT	THE PCC OF ST EDWARDS CHURCH	DRAWING TITLE	SITE PLAN AS EXISTING WITH REMOVALS AND CLEARANCE WORKS	JOB NUMBER	17-1020
PROJECT	ST EDWARDS CHURCH COMMUNITY ROOM REDEVELOPMENT	SIZE & SCALE	A3 @ 1:200	DRAWING NO.	101
DRAWING STATUS	CONCEPT STUDY	REVISION			

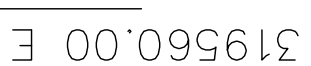
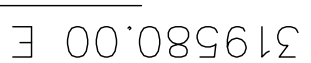
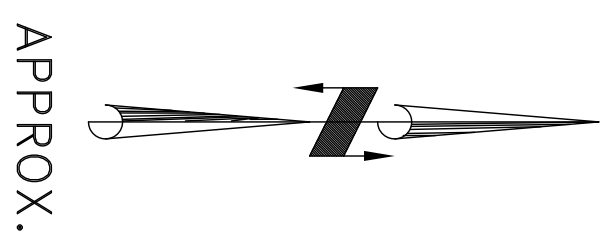
Appendix C: Topographic & Measured Buildings Survey



APPROX.



STANDARD REFERENCES			
ABBREVIATIONS			
bb	beliana beacon	ko	kerb outlet
bl	ballard	lh	lamp post
bw	brick ret. wall	nh	manhole
bs	bus stop	mk	marker post
bs	brick wall	mk	marker post (road)
catv	cable TV cover	obf	open boarded fence
cfst	closedboard fence	p	post
cbrw	canc block ret. wall	pb	post box
ccw	canc block wall	re	retaining wall
cl	cave level	re	retaining wall
clf	chainlink fence	rg	road gully
cnc	concrete	rg	road sign
cnc	concrete post	sp	sewer pipe
co	combined sewer	sp	sewer pipe
dk	drop kerb	sw	stone ret. wall
ew	electricity pole	sv	stop valve
ESS	ESS. Sub-Station	svp	soil vent pipe
fl	flower bed	sw	stone wall
fh	floor level	s/w	stop wire
fw	floor level	sws	storm water sewer
fw	floor level sewer	tbl	telephone callbox
g	gully	tbl	telephone callbox
gsv	gas valve	tp	telegraph pole
ic	inspection cover	up	unable to raise
il	invert level	vp	vent pipe
irf	iron railing fence	w/p	wallopaid fence
jb	junction box	wp	water meter
		wp	wood post
Notes			
1. This survey has been computed and drawn "true to scale" and relates to the OSTN15 GPS National Grid at a single point.			
2. All levels are in metres and relate to the mean of the nearest five Ordnance Survey active GPS stations (OSGM15).			
3. This survey was measured for a scale of 1:100, any subsequent enlargements should be verified on site.			
Revisions			
<div>Anthony Brookes Surveys Ltd LAND, GPS, BUILDING & ENGINEERING SURVEYORS Units 2, Thornbury Office Park Midlands Way Thornbury Bristol, GBS TEL: (01454) 419 133 FAX: (01454) 501 711 e-mails: info@anthonybrookes.com web: www.anthonybrookes.com</div> <div></div> <p>The copyright in the plans remain vested in Anthony Brookes Surveys Ltd who will grant an irrevocable licence for use by the client to the extent beyond the specified scale of graphical mapping. All services and critical dimensions should be field verified.</p>			
Surveyed	C Langslow	Date	April 2018
Drawn	C Langslow	Checked	May 2018
Drawing Title	Topographical Survey Church of Saint Edward Westville Road, Roath Cardiff, CF23 5DE		
Client	Volute Architects Ltd 22 Merton Green Caerwent Monmouthshire, NP26 5AT		
Drawing No.	Rev	Scale	A1 @
A686/10391/1	1	1:100	

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Notes

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2. All levels are in metres and relate to the mean of the nearest five Ordnance Survey active GPS stations (OSM15).
3. This survey was measured for a scale of 1:50, any subsequent enlargements should be verified on site.

Revisions



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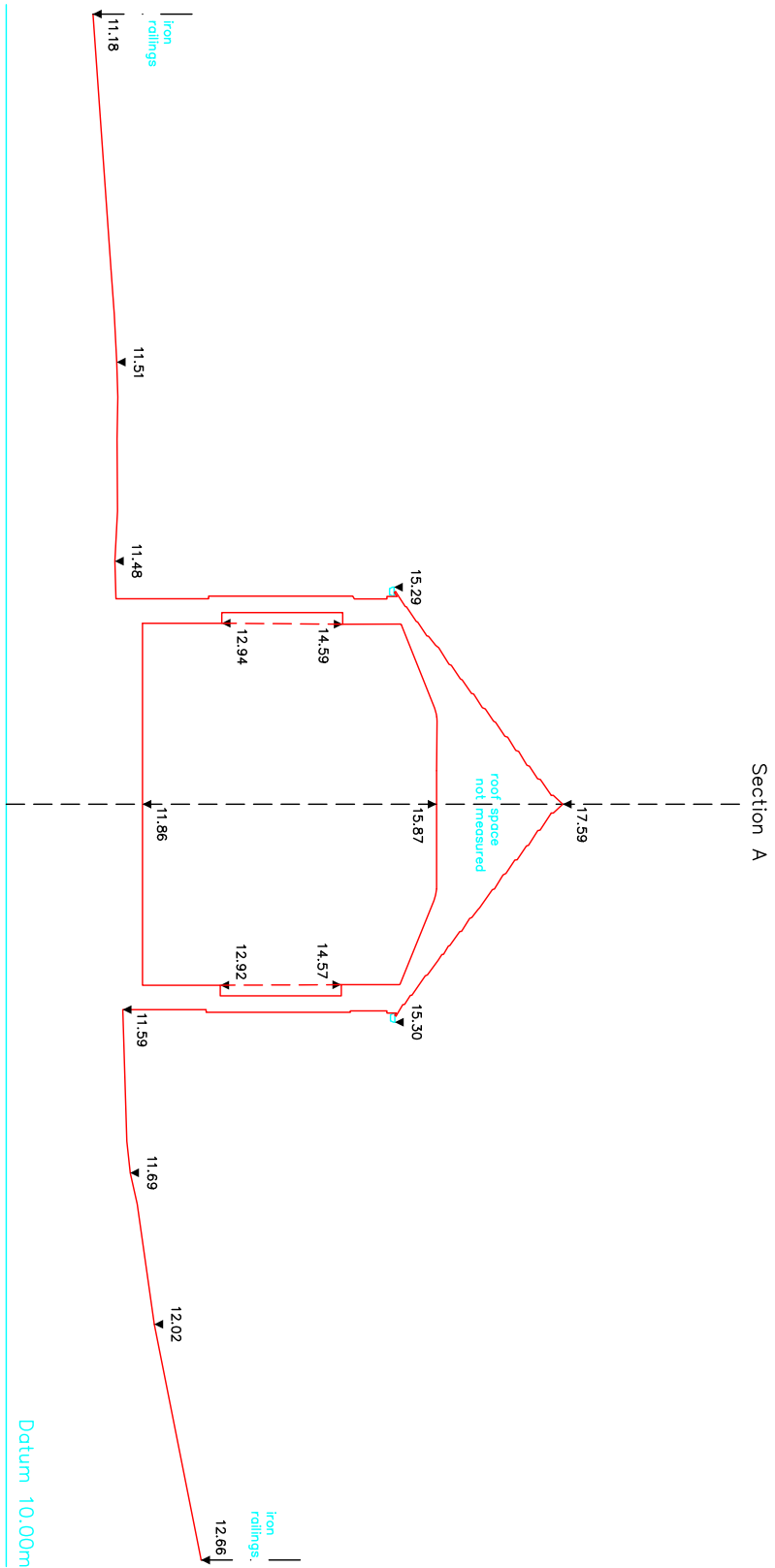
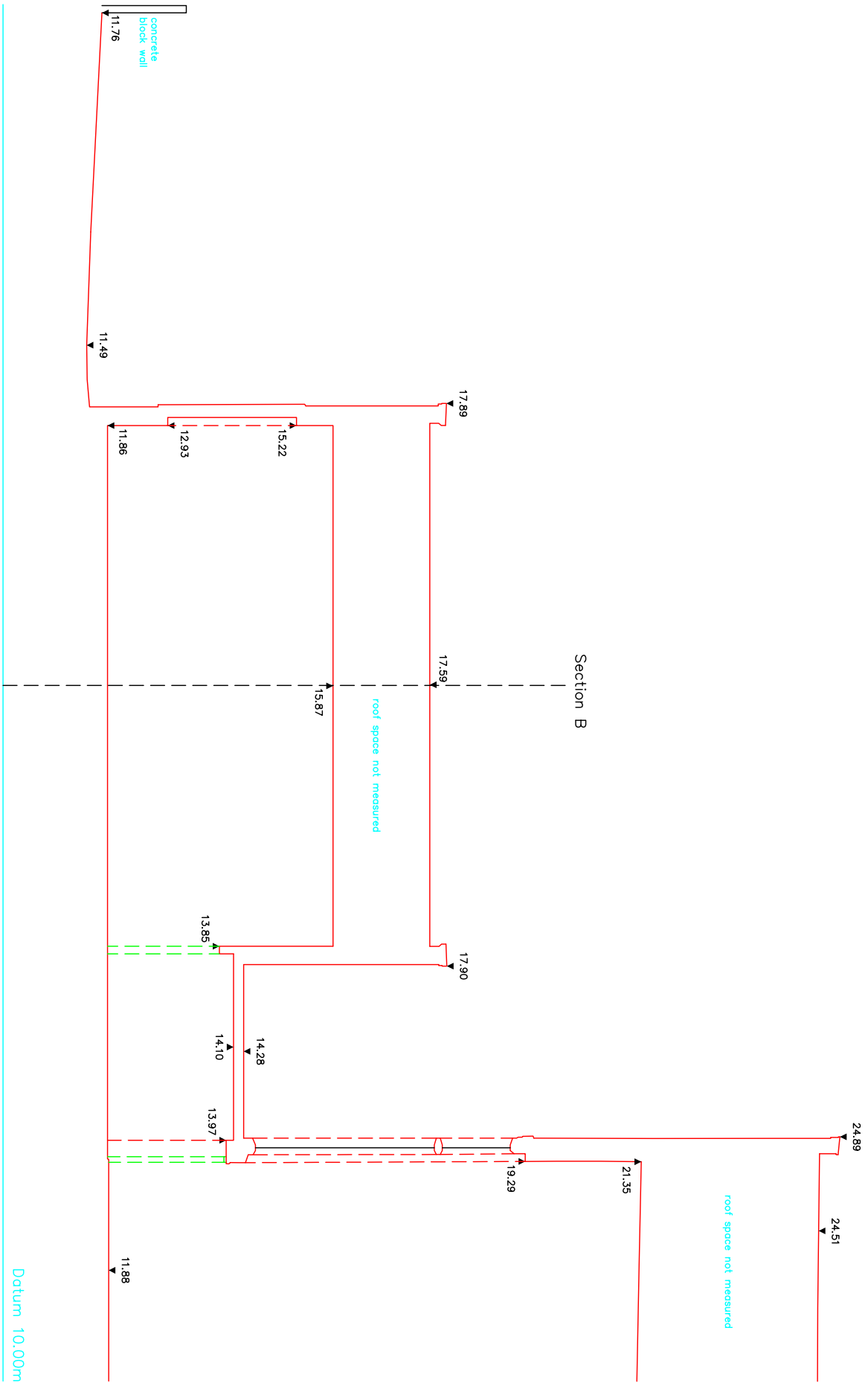
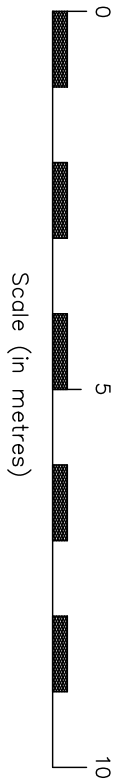
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Surveyed	J.P.Marshall	Date	May 2018
Drawn	J.P.Marshall	Checked	May 2018

Drawing
Title
Ground & First Floor Plan
Church of Saint Edward
Westville Road, Roath
Cardiff, CF23 5DE

Client
Volute Architects Ltd
22 Merton Green
Caerwent
Monmouthshire, NP26 5AT

Drawing No.	Rev	Scale	A1 @
A686/10391/2		1:100	



STANDARD REFERENCES

ABBREVIATIONS

dh	apex height	mh	manhole
dl	apex level	rad	radiator
bh	beam height	rwp	rainwater pipe
ch	ceiling height	sh	sill height
cl	cover level	sl	sill level
csu	ceiling slopes up	sph	spring height
dh	door height	spl	spring level
fch	false ceiling ht.	syp	soil vent pipe
fl	floor level	utr	unable to raise
fh	head height	wh	vent head height
ic	inspection cover	vp	vent pipe
il	invert level	vsh	vent sill height

Notes

- This survey has been computed and drawn "true to scale" and relates to the OSN15 GPS National Grid at a single point.
- All levels are in metres and relate to the mean of the nearest five Ordnance Survey active GPS stations (OSGM15).
- This survey was measured for a scale of 1:50, any subsequent enlargements should be verified on site.

Revisions



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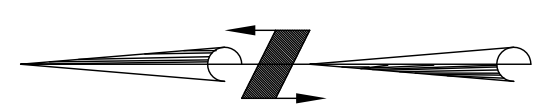
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Drawn	J.P.Marshall	Checked	May 2018

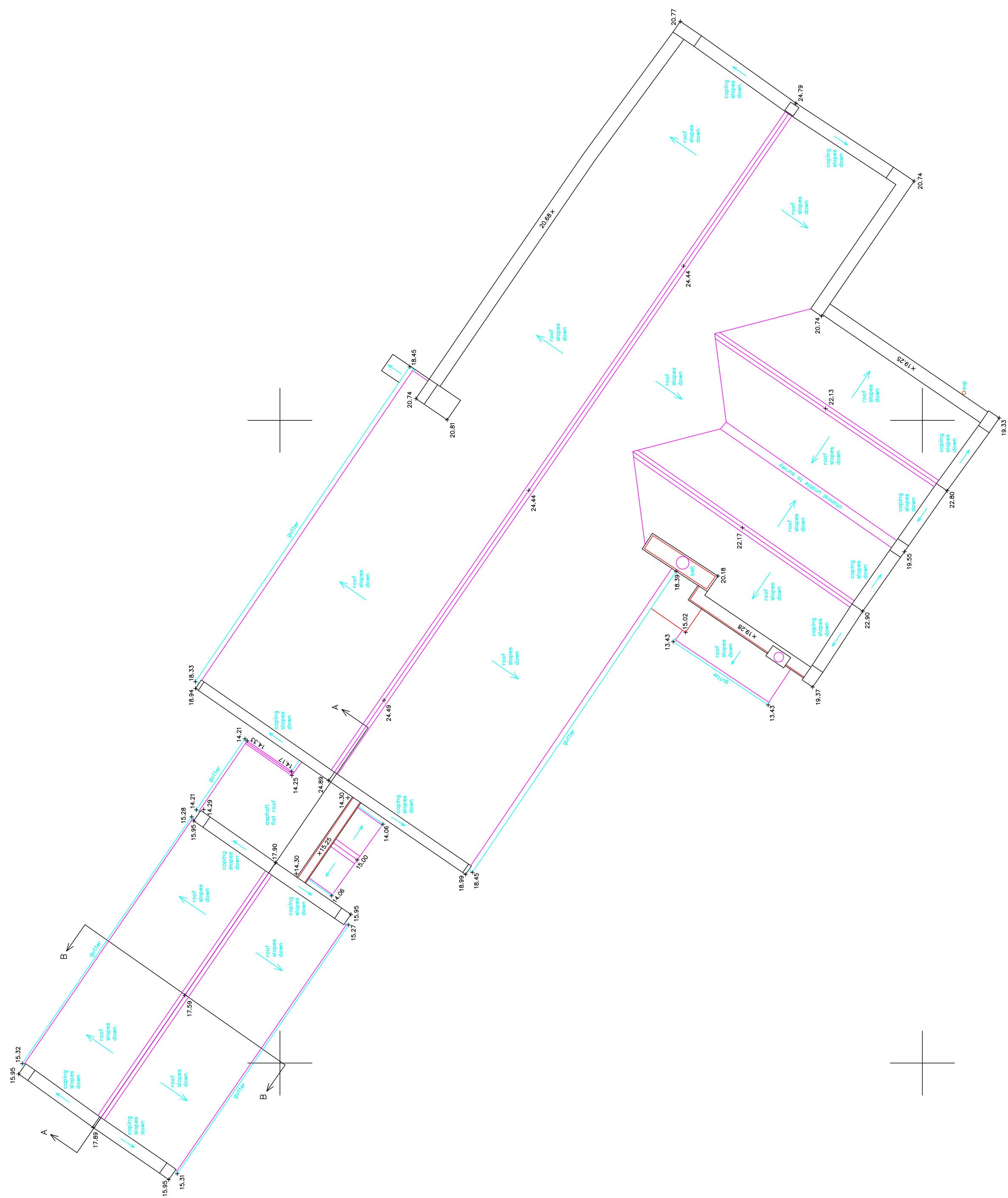
Drawing Title
Sections A & B
Church of Saint Edward
Westville Road, Roath
Cardiff, CF23 5DE

Client
Volute Architects Ltd
22 Merton Green
Cderwent
Monmouthshire, NP26 5AT

Drawing No.	Rev	Scale	A2 @
A686/10391/4		1:100	



APPROX.



STANDARD REFERENCES																			
ABBREVIATIONS																			
ah	apex height	mh	manhole																
apx	apex level	rad	radiator																
bl	beam height	rwp	roadway pipe																
ch	ceiling height	sh	soil level																
cl	cover level	sl	sill level																
clv	cover level up	sp	soil vent pipe																
dh	door height	upl	uphill																
dhv	door height up	upl	uphill																
fch	face ceiling ht	svp	soil vent pipe																
fl	floor level	uvh	unable to raise																
h	head height	vht	vent head height																
ic	inspection cover	vh	vent pipe																
il	invert level	vhv	vent sill height																
Notes																			
<p>1. This survey has been computed and drawn "true to scale" and relates to the OSTN15 GPS National Grid of a single point.</p> <p>2. All levels are in metres and relate to the mean of the nearest five Ordnance Survey active GPS stations (OSGM15).</p> <p>3. This survey was measured for a scale of 1:50, any subsequent enlargements should be verified on site.</p>																			
Revisions																			
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Drawn	J.P.Marshall	Checked	May 2018																
Drawing No.	Rev	Scale	A1 @																
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Surveyed	D.Keane	Date	May 2018
Drawn	J.P.Marshall	Checked	May 2018

Drawing Title	Roof Plan Church of Saint Edward Westville Road, Roath Cardiff, CF23 5DE
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Client: Volute Architects Ltd
22 Merton Green
Caerwent
Monmouthshire, NP26 5AT

Drawing No.	Rev	Scale	A1
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SUMMARY

Soltys Brewster Ecology were commissioned to undertake an ecological appraisal of St Edwards Church, Roath. The Church is currently in use and refurbishment works involving construction of a new extension to the existing Community Room on the western side of the Church is proposed. No demolition or works to main church building are required to facilitate the extension. In order to inform a planning submission for the new build extension, the ecological baseline conditions within and adjacent to the site were established between April & June 2018 through a combination of desk study and site surveys.

The desk study consultation via the South East Wales Biodiversity Records Centre (SEWBRc) confirmed that the site is not covered by any form of nature conservation designation, but is located adjacent to Roath Brook Site of Importance for Nature Conservation (SINC) which is south of the site, across Westville Road. No desk study records of bats or roof nesting birds were specifically associated with the Church although numerous records of bats and birds were identified within the local area, with Roath Brook and associated trees/parkland likely to represent a key habitat feature for bats in the immediate local area.

The site walkover survey undertaken in April 2018 identified a very limited range of habitats or ecological features, consistent with the current use of the site. Amenity grass, standard trees, scrub, buildings and hard standing were the only features present within the site boundary. The internal inspection of the Church and accessible roof voids found no evidence of use by birds or roosting bats. A number of features were present on the exterior of the Church and the Community Room that individual or small numbers of bats could use – such as gaps under fascia boards or raised roof slates and ridge tiles.

A small hole/crevice potential bat roost feature was identified within the trunk of a mature Hornbeam *Carpinus betulus* tree, which is located within the proposed extension development footprint and further dusk emergence/dawn re-entry checks of this tree were undertaken on 21 May & 07 June respectively. No bats were seen to emerge from or re-enter the Hornbeam or the gaps under the fascia board on the southern elevation of the Community Room. Regular foraging activity by Common & Soprano Pipistrelle was noted during both the dusk and dawn surveys with bats utilising the tree –lines along the northern site boundary and along Roath Brook to hunt insects.

In combination, the day-time inspection and emergence/re-entry surveys (of the Hornbeam and Community Room) found no evidence to indicate that roosting bats were present. Accordingly, no specific mitigation or licensing would be required for the proposed refurbishment works although a precautionary approach would be adopted as described in the current report.

No evidence of current use by nesting birds was identified during the survey although an old nest was present on the building (Community Room) exterior between the WC and lobby. A check for nesting birds by a suitably experienced ecologist would be advised if refurbishment works are proposed between 1st March and 31st August (i.e. in the nesting season).

Other considerations for the refurbishment works include the provision of bat boxes on retained trees to the northern boundary as a localised enhancement and appropriate site practice employed for any excavation work where the non-native Spanish Bluebell *Hyacinthoides hispanica* is present to prevent accidental spread of this species off-site (e.g. in soil containing bulbs).

- b) the connections between and within ecosystems
- c) the scale of ecosystems
- d) the conditions of ecosystems (including their structure and functioning);
- e) the adaptability of ecosystems

4.9 Section 7 of the Act places a duty on Welsh Ministers to prepare and publish a list of the living organisms and types of habitat which are of principle importance for the purpose of maintaining and enhancing biodiversity in relation to Wales. Without prejudice to the duty under Section 6, Welsh Ministers must take reasonable steps to maintain and enhance these principle habitats and species (e.g. Piistrelle Bats) and encourage others to take such steps.

5.0 CONCLUSIONS AND RECOMMENDATIONS

Bats

- 5.1 The combination of building inspection, dusk emergence & dawn re-entry survey conducted between April and June 2018 did not identify any evidence to indicate the use of the Community Room building or Hornbeam tree by roosting bats. The negative results of these surveys are considered to offer robust evidence to support the conclusion of likely absence of roosting bats at the site. On this basis no specific mitigation or licencing relating to bats would be required to support the proposed refurbishment/extension works.
- 5.2 As noted within the Bat Mitigation Guidelines (Mitchell-Jones, 2004), the absence of bats is very difficult to prove and many bat species are itinerant in nature and will often make use of multiple roosts during the course of the active months (typically April to October) and as such the occasional use of the building or the rot hole in the Hornbeam as day roosting habitat during the active months could not be precluded. As such, it is recommended that precautionary 'reasonable avoidance measures' be implemented during works to minimise the risk in the unlikely event a bat were present. These measures should include the removal of any boarding, raised tiles or flashing etc. using hand tools as far as practicable (e.g. crow bars etc.). The Hornbeam should be felled by a suitably experience arborist and be immediately preceded by a check of the rot hole on the southern side to confirm no bats were present. All contractors undertaking the works should be briefed on the low risk that bats could be encountered during works and that, in the unlikely event that a bat were discovered, that all work in the area should cease immediately and the project ecologist or Natural Resources Wales contacted for advice on how to proceed.

- 5.3 Timing of the start of refurbishment/new build works, and in particular any tree felling or roof works to the Community Room should aim to coincide with the period when bats are least susceptible to disturbance – i.e. in autumn or spring. Dependent on receipt of planning approval, works should be time to commence in September/October or March/April if possible. At present, no confirmed programme of works is in place.

Nesting Birds

- 5.4 No evidence of current nesting by birds was identified although an old nest was located on the connecting corridor between the Nave and Community Room. The scrub and trees to the west and north of the Community Room could also support nesting birds during the breeding season, which is typically taken as extending from March – August inclusive. In the event that refurbishment works are progressed in the nesting season a precautionary check prior to commencement of any vegetation clearance, tree felling or roof works would be recommended to ensure that no active bird nests were present.

Other Considerations

- 5.5 The presence of Spanish Bluebell in the south western corner of the site would require careful consideration if disturbance or movement of soil was required. If any soil is to be removed or disposed of off-site, appropriate control measures would be recommended to avoid or limit the risk of spreading this non-native species off-site – this could be incorporated as part of a Contractors Environmental Management Plan. Where possible, soil should be re-used on site.
- 5.6 Provision of bird and bat boxes on retained trees to the north of the Community Room should also be considered as a localised enhancement for these groups – i.e. adopting the principles of the Environment (Wales) Act. A range of boxes suitable for use by Pipistrelle bats are available with the Schwegler wood-crete boxes² offering good longevity and requiring little or no maintenance. Bird boxes for species typical of sub-urban/garden habitats could also be provided on retained trees or affixed to the new extension (e.g. Schwegler 1SP sparrow terrace³).

² <https://www.nhbs.com/2f-schwegler-bat-box-general-purpose>

³ <https://www.nhbs.com/1sp-schwegler-sparrow-terrace>

The PCC Of St Edwards

St Edwards Church, Roath

Building Inspection Survey (Protected Species)

E1882701 Doc 01

REFERENCES



Bat Conservation Trust (2016) *Bat Surveys for Professional Ecologists – Good Practice Guidelines*. Bat Conservation Trust, London.




Institute for Environmental Assessment (1995) *Guidelines for Baseline Ecological Assessment*. E & FN Spon, Hong Kong.




Joint Nature Conservation Committee (JNCC) (1990) *Handbook for Phase I Habitat Survey. A technique for environmental audit*. JNCC, Peterborough.

Mitchell-Jones, A.J. (2004) *Bat mitigation guidelines; January 2004*. English Nature. Peterborough.

APPENDIX III TARGET NOTES, PHOTOGRAPHS (APRIL 2018) & ANNOTATED PLAN

Target Note	Description/comment
<i>Birds seen/heard during survey: Blackbird, Magpie</i>	
1	Silver Birch Tree & Ornamentals, Spanish Bluebell, Laurel, Ivy.
2	<p>Amenity grass (Surrounding church entirety) grading into taller, unmanaged vegetation at the site margins (to north & west) – Species included: Daisy, Dandelion, Ribwort Plantain, Daffodil (from planted bulbs), Cuckoo Flower, Cleavers, Cockspur Thorn, Spear Thistle, Rowan, Greater Plantain, Bramble, Speedwell sp. ,Strawberry, Forget-me-not Knot, Lords & Ladies, Pendulous sedge, Butterfly Bush.</p> 
3	Hornbeam trees, Holly, Honeysuckle, Spanish Bluebell. No bat potential associated with trees
4	<p>Hornbeam in extension works footprint with hole next to knot on Main trunk (Moderate potential).</p> 
5	Hornbeam tree (No Bat Roost Potential - BRP)
6	Sycamore tree with no BRP
7	Ornamental with split trunk with crevices (Moderate BRP)
8	Gaps behind bargeboard into wall cavity.

Target Note	Description/comment
	
9	Small number of gaps under ridge tiles & roof tiles 
10	Crevice into wall under roof edge
11	Gaps into cellar vents on door. 
12	Missing mortar & gaps into crevices in walls to southern elevation of main building

Target Note	Description/comment
	
13	<p>Missing mortar & crevice into gable end ridge of Vestry at apex of gable</p> 
14	<p>Small gaps into brickwork associated with downpipes/stonework to eastern corner of main building.</p> 

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- 3 All dimensions are to be checked on site and any discrepancies reported to the engineer before work commences
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- 5 All drawings to be read in conjunction with the project specification with all works carried out in accordance with the latest British Standards and codes of practice

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REV	DESCRIPTION	B	DATE
P1	First Issue	T	22/ 6/2 1

St Edwards Church Roath

round Floor Structural Scheme

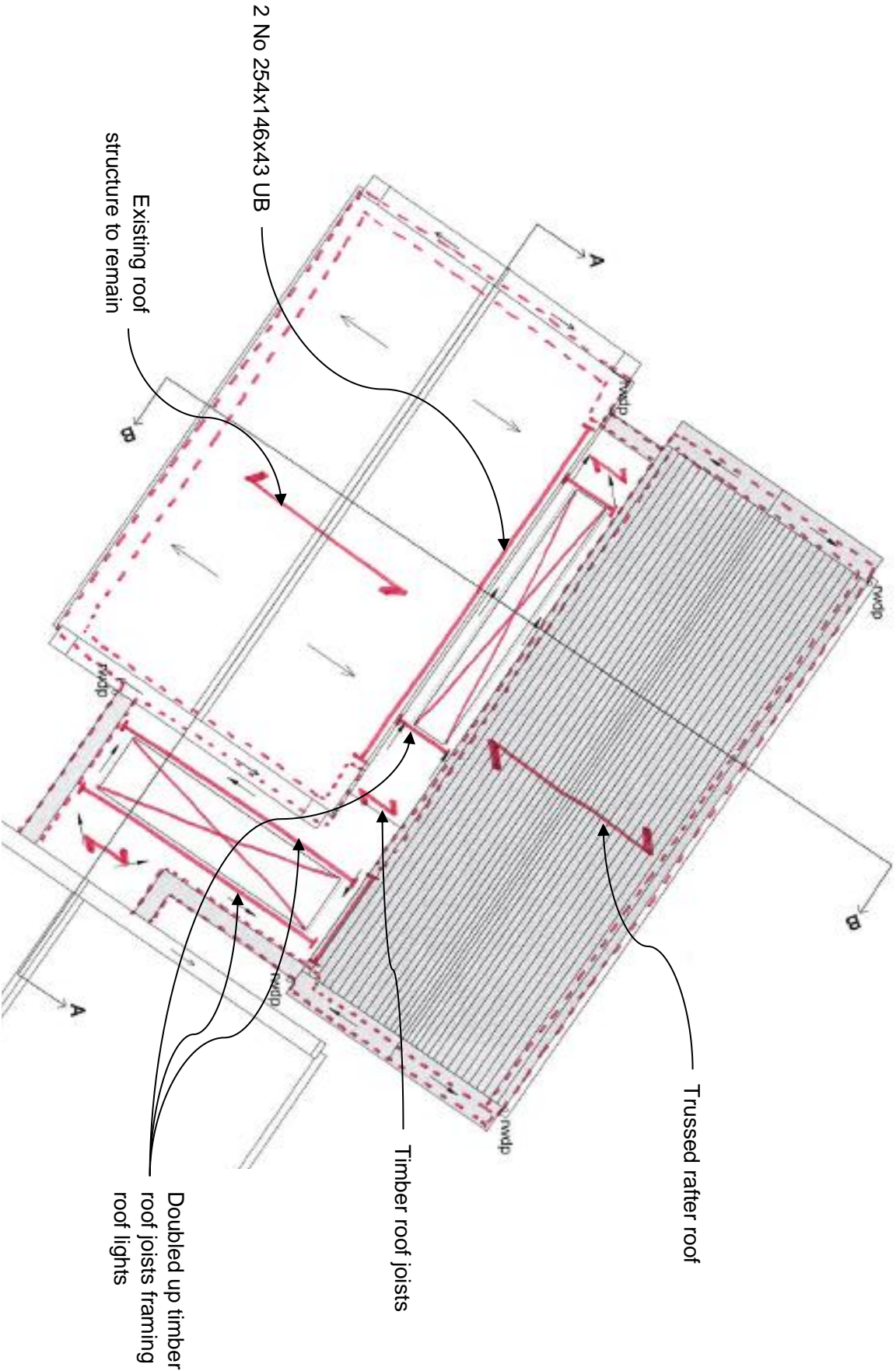


DRAWN	CHKD	SI E	SCALE	DATE
T	TH	A3	1:1	06 '18

STATUS
PRELI INAR

PRO ECT	SKETCH	REV
153	SK 1	P1





Appendix E Page E2

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 - 5 All drawings to be read in conjunction with the project specification with all works carried out in accordance with the latest British Standards and codes of practice

REV	DESCRIPTION	B	DATE
P1	First Issue	T	22/ 6/2 1
PROJECT St Edwards Church Roath			
TITLE round Floor Structural Scheme			



ann Williams
Consulting Civil And
Structural Engineers
53 Mount Stuart Square
Cardiff CF10 5LR
t 02920 480333 f 02920 435920
e cardiff@mannwilliams.co.uk

STATUS		
PRELIMINARY		
PROJECT	SKETCH	REV
153	SK 2	P1

Appendix F.1: Council Maintainable Land Around St Edward's Church



Getting certain goods and building work for disabled people VAT free if you're a charity: helpsheet

If you're a charity you'll generally have to pay VAT on the things you buy. However, there's VAT relief available on a limited range of goods and building work you buy for disabled people.

This helpsheet is about the VAT relief that may be available if you're a charity buying certain goods and building work because of someone's disability, it explains:

- how VAT relief works
- which goods and building work can be bought VAT free
- what HM Revenue and Customs (HMRC) mean by 'disabled' and who qualifies for VAT-free goods and building work
- how to prove that you qualify for VAT-free goods and building work
- what to do if you think you've paid too much VAT
- how to contact HMRC for more information

How VAT relief works

This isn't a VAT refund system and there's no facility for HMRC to refund VAT to you if you're entitled to buy VAT-free goods or building work. If you're entitled to buy VAT-free goods or building work, your supplier won't charge you VAT.

Goods that can be bought VAT free by a charity

The following goods can be bought VAT free by a charity because of a person's disability:

- medical and surgical appliances
- mobility scooters
- equipment to aid the hard of hearing and low vision aids
- specialist beds, chair and stair lifts, rise and recline chairs and other lifting equipment and sanitary devices
- goods that have been designed solely for disabled people
- computer equipment
- emergency alarm call systems
- boats
- parts and accessories

A charity can hire or lease eligible goods VAT free for a disabled person.

Your retailer or other supplier's responsible for checking whether the goods are eligible to be sold VAT free.

Please see [Getting certain goods VAT free if you have a disability: helpsheet](#) about the goods that can be bought VAT free for disabled people.

Building work that a charity could have carried out VAT free for a disabled person

This section has information on the building work that a charity could have done VAT free for disabled and chronically sick people including:

- ramps, doorways and passageways
- bathrooms, washrooms and lavatories in certain charity buildings
- installation or repair and maintenance of lifts in certain charity buildings
- preparation and restoration work

Ramps, doorways and passageways

A charity won't have to pay VAT if they're having a ramp installed or an existing doorway or passageway widened in order to help disabled people enter or move around in their building.

Bathrooms

A charity won't have to pay VAT if they're having a bathroom, shower room or lavatory provided, extended or adapted if the work's being done because of a person's disability and the work's being done in a building that's:

- residential accommodation including a residential nursing, care or respite home but not a hotel, boarding house or similar establishment
- a day centre where at least 20% of the people using the centre are disabled

Lavatories and washrooms (not bathrooms)

A charity won't have to pay VAT if they're having a lavatory or washroom provided, extended or adapted **if** the work's being done to assist disabled people and the work's being done in a building that's used mainly by a charity for charitable purposes.

Installation or repair and maintenance of lifts

A charity won't have to pay VAT if they're having a lift installed, repaired or maintained and the lift's installed for the purpose of helping disabled people move between floors of the building which is:

- a day centre for disabled people
- temporary or permanent residential accommodation

Preparation and restoration work

A charity won't have to pay VAT on any necessary preparation or restoration work if it's directly related to the VAT-free work described above.

For example, if they have a doorway widened the supply and fitting of a wider doorframe and door, removal of the bricks and mortar and the restoration of the damaged decor can all be VAT free.

Who qualifies for VAT-free goods or building work?

You'll only be able to have eligible goods or building work VAT free if you're a charity and, in the case of goods, they're for the personal or domestic use of a chronically sick or disabled person.

What HMRC mean by 'chronically sick or disabled'

For VAT purposes, a person's chronically sick or disabled if they have:

- a physical or mental impairment which has a long term and substantial adverse effect upon their ability to carry out everyday activities
- a condition which the medical profession treats as a chronic sickness (that's a long-term health condition)

For VAT purposes, the term 'chronically sick or disabled' doesn't include a person who's only temporarily disabled or incapacitated, for example with a broken limb or someone who's elderly but isn't chronically sick or disabled.

You don't need HMRC's permission to declare that a person's disabled or chronically sick and our advisers can't tell you whether or not someone is disabled or chronically sick. If you're not sure whether their condition means they're chronically sick or disabled you may wish to ask them to consult their doctor or other medical adviser.

What HMRC mean by 'personal or domestic use'

This means that the goods are made available specifically for the use of an individual disabled person.

The following aren't 'personal' or 'domestic' uses and aren't VAT free:

- goods used for business purposes
- goods supplied to or for an in-patient or out-patient of a hospital or to or for a resident of a nursing or care home where the goods are for use in the care or treatment provided in the hospital or nursing or care home
- supplies made widely available for a whole group of disabled people to use generally, rather than for the personal use of specified individuals - for example, the installation of a stairlift in a charity building for the convenience of disabled people who might use the building in order to meet the requirements of the Equality Act, isn't eligible for relief; however, the installation of a stairlift in a charity building because of a specified disabled individual person's needs can be supplied to a charity VAT free

How to prove that you qualify for VAT-free goods or building work

Eligibility declarations

To demonstrate that you're entitled to buy the goods or building work VAT free, your supplier will usually ask you for a simple written declaration stating your eligibility. If the supplier doesn't provide you with a form to fill in you can use our [suggested version](#).

You'll need to provide a separate declaration for each supplier for them to keep with their VAT records.

Please don't send any completed declarations to HMRC.

In addition to a written declaration, suppliers may need evidence that the purchaser is a charity. This may be either by being registered by the Charity Commission or by being recognised by HMRC with the letter confirming charitable status.

What to do if you think you've paid too much VAT

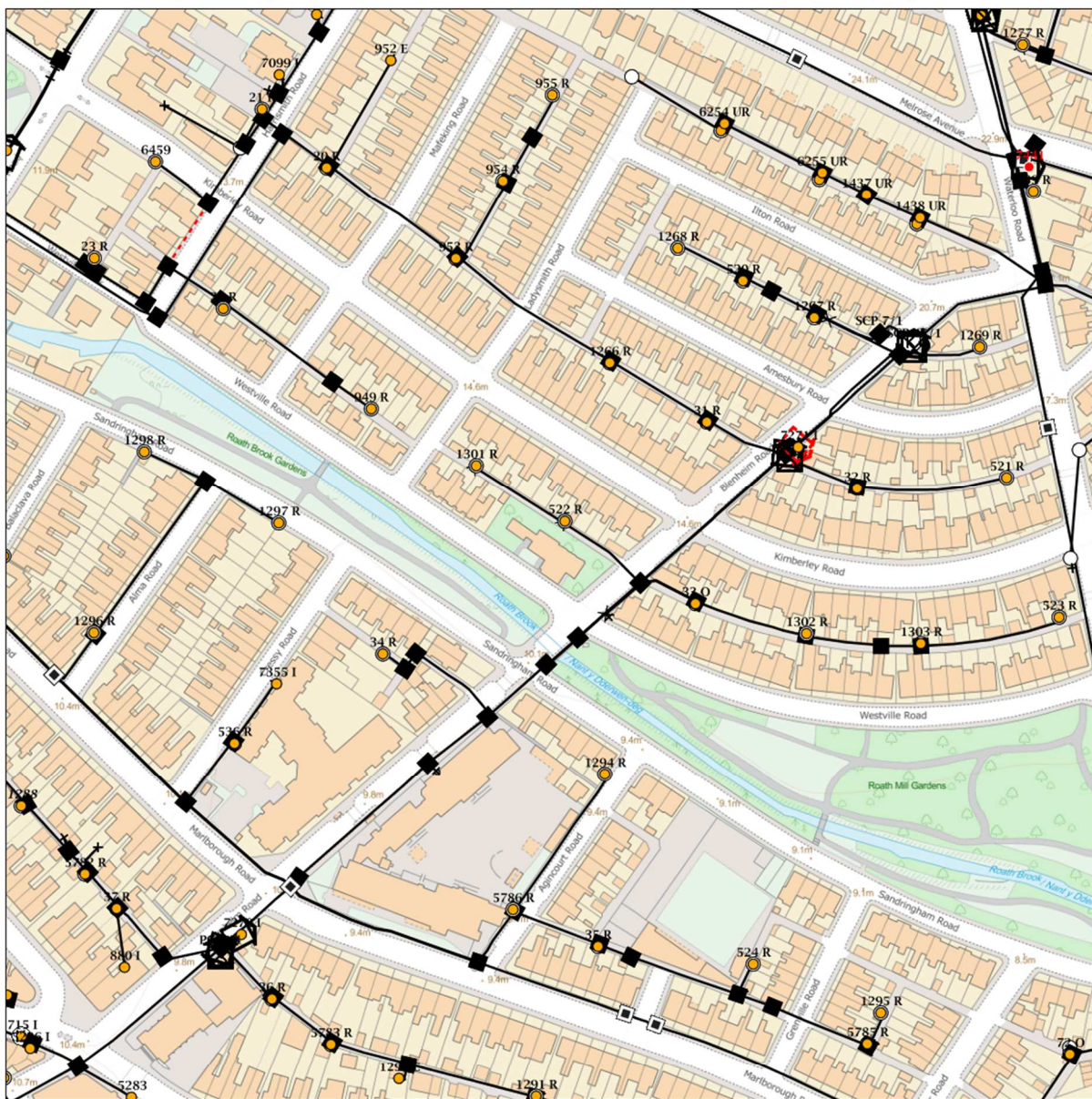
If you think that you meet all the conditions for VAT-free goods or building work but have been incorrectly charged VAT you should ask your supplier for a refund. There's no facility for HMRC to refund VAT to you.

If your supplier isn't sure how to do this they can contact HMRC for advice. Our helpline advisers can give advice in cases of uncertainty but can't intervene in disputes between customers and suppliers.

How to contact HMRC for more information

You can find more information about the VAT reliefs available for disabled people by visiting the GOV.UK website or contacting our [advisers](#).

Maps by email Plant Information Reply



IMPORTANT WARNING

Information regarding the location of BT apparatus is given for your assistance and is intended for general guidance only. No guarantee is given of its accuracy. It should not be relied upon in the event of excavations or other works being made near to BT apparatus which may exist at various depths and may deviate from the marked route.



openreach

CLICK BEFORE YOU DIG

FOR PROFESSIONAL FREE ON SITE ASSISTANCE PRIOR TO COMMENCEMENT OF EXCAVATION WORKS INCLUDING LOCATE AND MARKING SERVICE

email cbyd@openreach.co.uk

ADVANCE NOTICE REQUIRED
(Office hours: Monday - Friday 08.00 to 17.00)
www.openreach.co.uk/cbyd

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KEY TO BT SYMBOLS

DP	
Planned DP	
PCP	
Planned PCP	
Built	
Planned	
Inferred	
Duct	
Building	
Kiosk	
Hatchings	

Pole	
Planned Pole	
Joint Box	
Change Of State	
Split Coupling	
Duct Tee	
Planned Box	
Manhole	
Planned Manhole	
Cabinet	
Planned Cabinet	

Other proposed plant is shown using dashed lines.
BT Symbols not listed above maybe disregarded.
Existing BT Plant may not be recorded.
Information valid at time of preparation

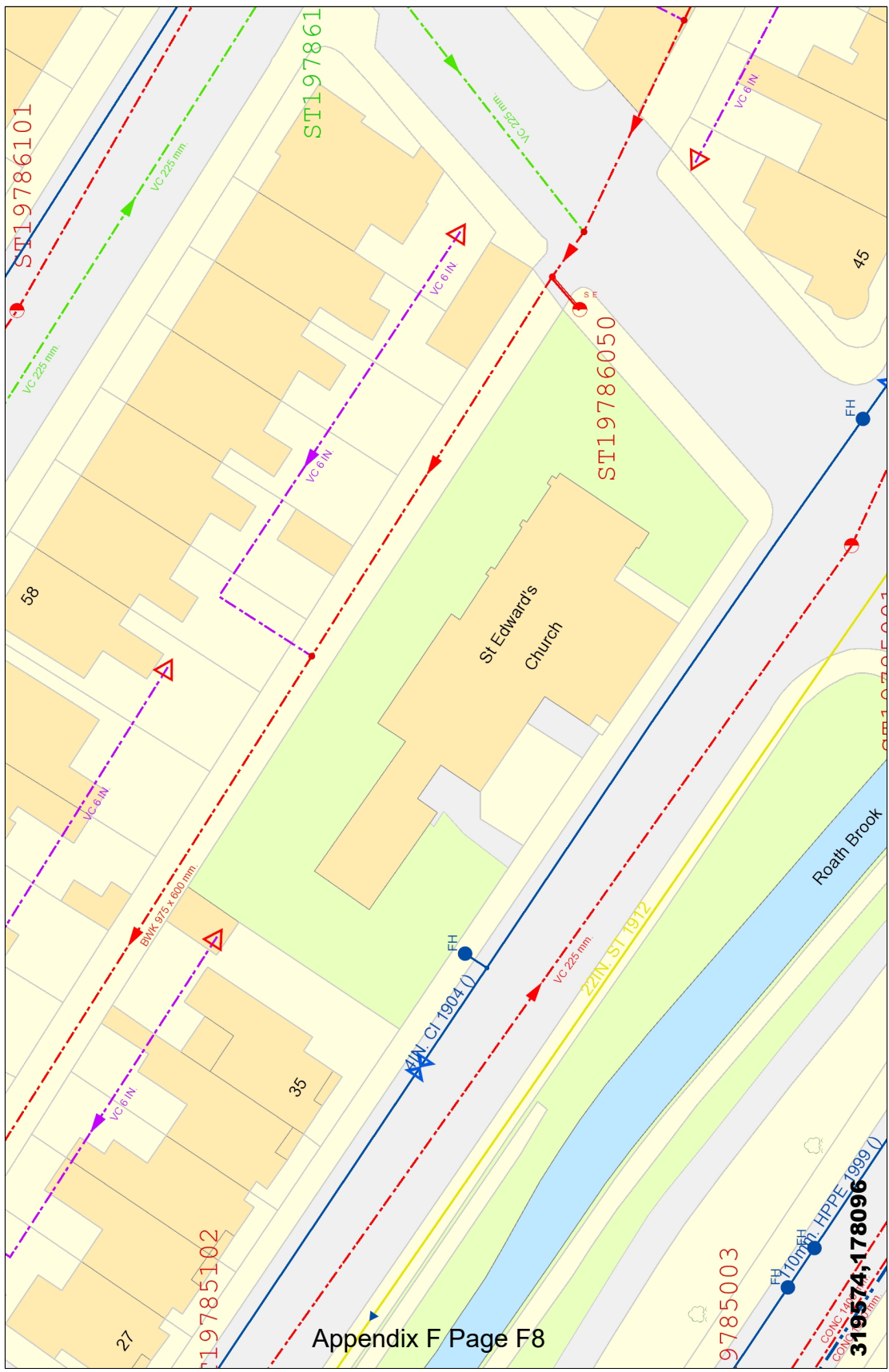
BT Ref : RA104356W

Map Reference : (centre) ST1957878091

Easting/Northing : (centre) 319578,178091

Issued : 25/07/2018 16:36:00

WARNING: IF PLANNED WORKS FALL INSIDE HATCHED AREA IT IS ESSENTIAL BEFORE PROCEEDING THAT YOU CONTACT THE NATIONAL NOTICE HANDLING CENTRE. PLEASE SEND E-MAIL TO: nnhc@openreach.co.uk



LEGEND	
Clean Water	
Sluice Val	
Air Val, SINGLE	
Tap	
Pressure Reducing Valve	
Meter	
BULK Meter	
FH	
Cap	
Existing Main	
NON COMPANY	
Sewerage External	
Foul	
Surface Water	
Combined	
Rising Main	
Private	
Treatment Works	
Pumping Station	
Special Purpose	
Unknown End	
Change, Combined Overflow	
Outfall, FOUL	
Lamp Hole, Foul	
Private Sewer Transfer	
Lateral Drain	
Inspection Chamber	

Dŵr Cymru Cyfyngedig ('the Company') gives this information as to the position of its underground apparatus by way of general guidance only and on the strict understanding that it is based on the best information available and no warranty as to its correctness is relied upon in the event of excavations or other works made in the vicinity of the company's apparatus and any onus of locating the apparatus before carrying out any excavations rests entirely on you. The information which is supplied hereby the company, is done so in accordance with statutory requirements of sections 198 and 199 of the water industry Act 1991 based upon the best information available and in particular, but without prejudice to the generality of the foregoing, it should be noted that the records that are available to the Company may not disclose the existence of a drain sewer or disposal of a drain sewer or disposal of a drain sewer, or if they do, the particulars thereof including their position underground may not be accurate. It must be understood that the furnishing of this information is entirely without prejudice to the provision of the New Roads and Street Works Act 1991 and the company's right to be compensated for any damage to its apparatus.

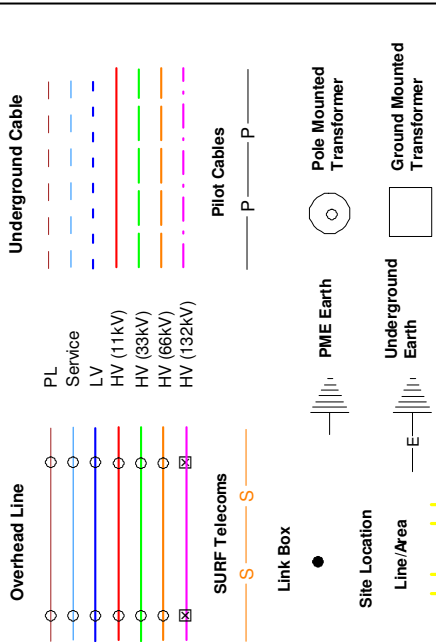
EXACT LOCATION OF ALL APPARATUS TO BE DETERMINED ON SITE

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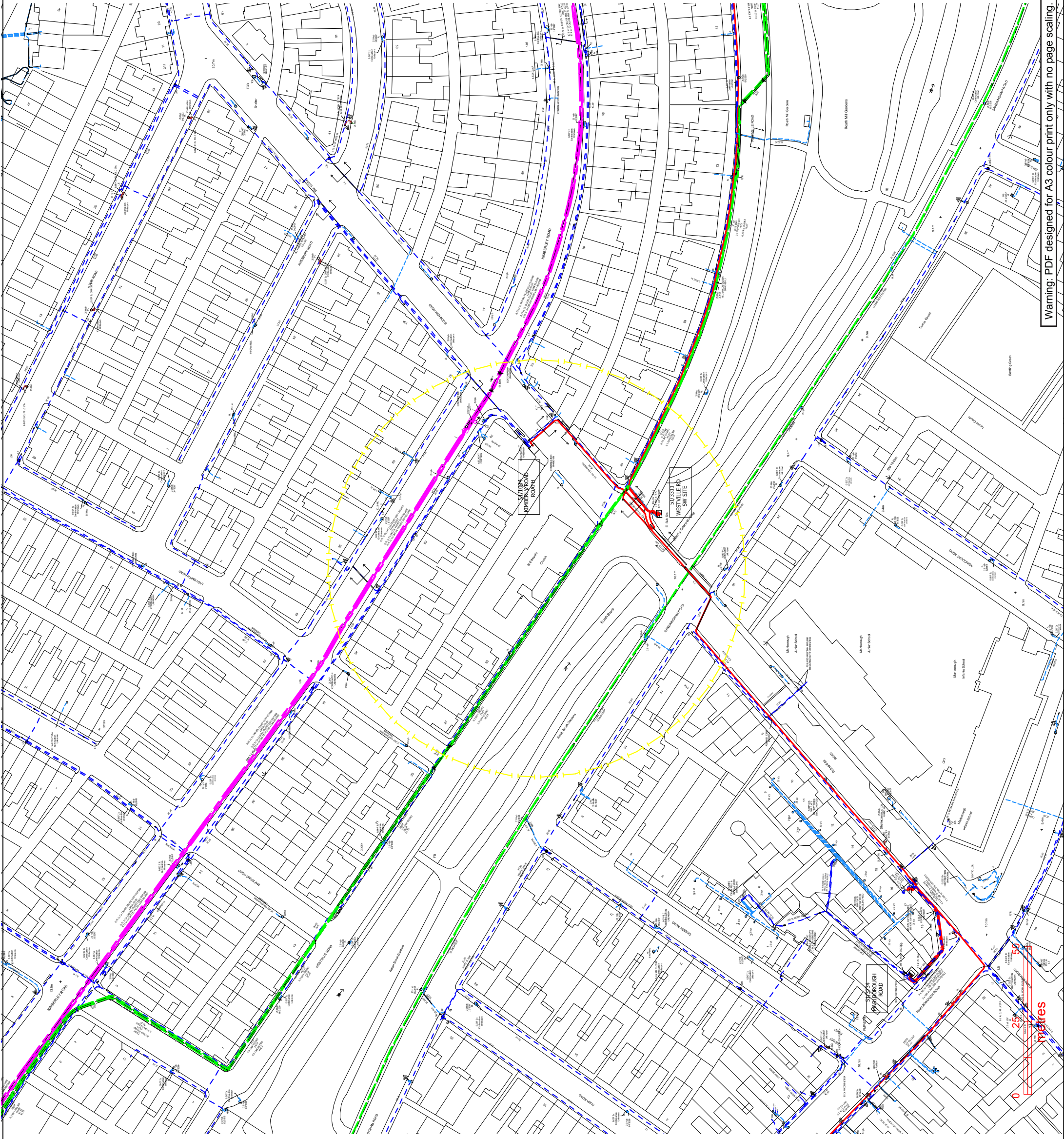
Report damage immediately – KEEP EVERYONE AWAY FROM THE AREA
0800 6783 105

1:1250 Area or Cir

- This information is given as a guide only and its accuracy cannot be guaranteed. Services or recent additions to the network may not be shown.
- Cables, overhead lines & substations owned by other electricity network owners or private companies may be present and may not be shown.
- You should always verify exact locations of cables using a cable locator and by careful use of hand tools in accordance with HSE guidance note HSG47.
- When working within 10m of any overhead electric line you should follow the requirements of HSE Guidance Note GS6.
- For further advice on working near our electricity cables or lines, call our Contact Centre on 0800 096 3080.
- Advice should be sought from the Western Power



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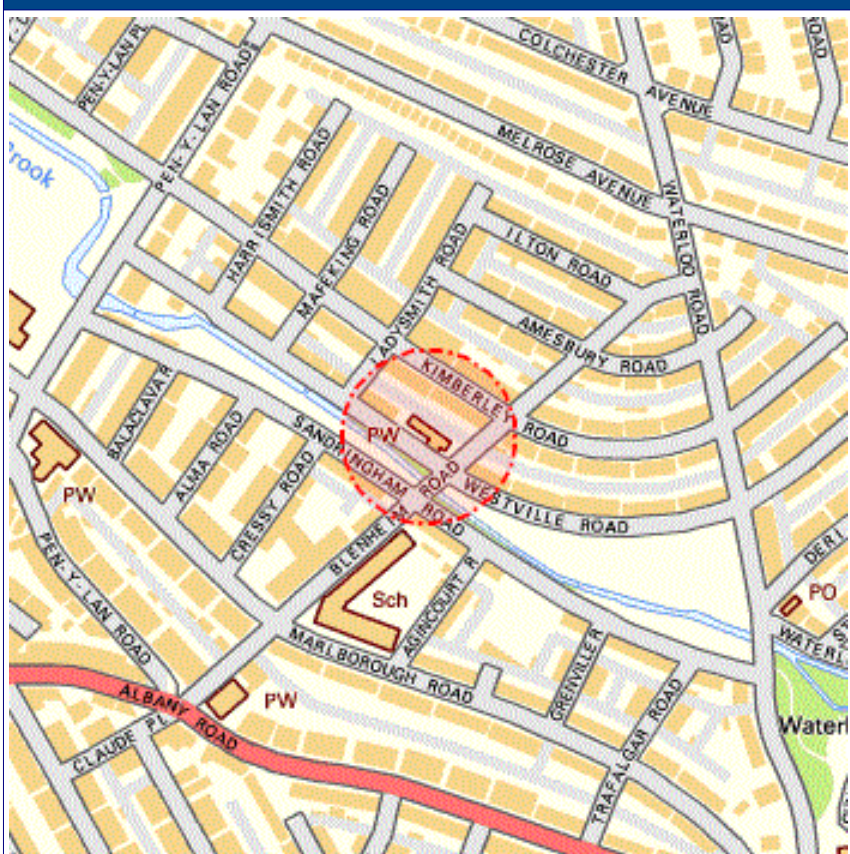
Enquirer

Name	Mr David Old	Phone	02920 926809
Company	Hyder consulting	Mobile	Not Supplied
Address	HCL HOUSE St Mellons Business Park Fortran Road Cardiff Cardiff CF3 OEY		
Email	david.old@hyderconsulting.com		

Enquiry Details

Scheme/Reference	St Edwards		
Enquiry type	Initial Enquiry	Work category	Domestic Works (General public)
Start date	04/02/2019	Work type	Domestic building project
End date	04/07/2019	Site size	145 metres diameter
Searched location	cf23 5dt	Work type buffer*	25 metres
Confirmed location	319574 178092		
Site Contact Name	Not Supplied	Site Phone No	Not Supplied
Description of Works	Not Supplied		

* The WORK TYPE BUFFER is a distance added to your search area based on the Work type you have chosen.

Site Map


Asset Owners

Terms and Conditions. Please note that this enquiry is subject always to our standard terms and conditions available at www.lineasearchbeforeudig.co.uk ("Terms of Use") and the disclaimer at the end of this document. Please note that in the event of any conflict or ambiguity between the terms of this Enquiry Confirmation and the Terms of Use, the Terms of Use shall take precedence.

Notes. Please ensure your contact details are correct and up to date on the system in case the LSBUD Members need to contact you.

Validity and search criteria. The results of this enquiry are based on the confirmed information you entered and are valid only as at the date of the enquiry. It is your responsibility to ensure that the Enquiry Details are correct, and LineasearchbeforeUdig accepts no responsibility for any errors or omissions in the Enquiry Details or any consequences thereof. LSBUD Members update their asset information on a regular basis so you are advised to consider this when undertaking any works. It is your responsibility to choose the period of time after which you need to resubmit any enquiry but the maximum time (after which your enquiry will no longer be dealt with by the LSBUD Helpdesk and LSBUD Members) is 28 days. If any details of the enquiry change, particularly including, but not limited to, the location of the work, then a further enquiry must be made.

Asset Owners & Responses. Please note the enquiry results include the following:

1. "LSBUD Members" who are asset owners who have registered their assets on the LSBUD service.
2. "Non LSBUD Members" are asset owners who have not registered their assets on the LSBUD service but LSBUD is aware of their existence. Please note that there could be other asset owners within your search area.

Below are three lists of asset owners:

1. LSBUD Members who have assets registered within your search area. ("Affected")
 - a. These LSBUD Members will either:
 - i. Ask for further information ("Email Additional Info" noted in status). The additional information includes: Site contact name and number, Location plan, Detailed plan (minimum scale 1:2500), Cross sectional drawings (if available), Work Specification.
 - ii. Respond directly to you ("Await Response"). In this response they may either send plans directly to you or ask for further information before being able to do so, particularly if any payments or authorisations are required.
2. LSBUD Members who do not have assets registered within your search area. ("Not Affected")
3. Non LSBUD Members who may have assets within your search area. Please note that this list is not exhaustive and all details are provided as a guide only. It is your responsibility to identify and consult with all asset owners before proceeding.

National Grid. Please note that the LSBUD service only contains information on National Grid's Gas above 7 bar asset, all National Grid Electricity Transmission assets and National Grid's Gas Distribution Limited above 2 bar asset.

For National Grid Gas Distribution Ltd below 2 bar asset information please go to www.beforeyoudig.nationalgrid.com

LSBUD members who have assets registered on the LSBUD service within the vicinity of your search area.

List of affected LSBUD members

Asset Owner	Phone/Email	Emergency Only	Status
Western Power Distribution	08000963080	08006783105	Await response

LSBUD members who do not have assets registered on the LSBUD service within the vicinity of your search area. Please be aware that LSBUD members make regular changes to their assets and this list may vary for new enquiries in the same area.

List of not affected LSBUD members

AWE Pipeline	BOC Limited (A Member of the Linde Group)	BP Exploration Operating Company Limited
BPA	Carrington Gas Pipeline	CATS Pipeline c/o Wood Group PSN
Cemex	Centrica Storage Ltd	CLH Pipeline System Ltd
Concept Solutions People Ltd	ConocoPhillips (UK) Ltd	DIO (MOD Abandoned Pipelines)
E.ON UK CHP Limited	EirGrid	Electricity North West Limited
ENI & Himor c/o Penspen Ltd	EnQuest NNS Limited	EP Langage Limited
ESP Utilities Group	ESSAR	Esso Petroleum Company Limited
Fulcrum Pipelines Limited	Gamma	Gateshead Energy Company
Gigaclear PLC	Gtt	Hafren Dyfrdwy
Humbly Grove Energy	IGas Energy	INEOS FPS Pipelines
INEOS Manufacturing (Scotland and TSEP)	INOVYN Enterprises Limited	Intergen (Coryton Energy or Spalding Energy)
Mainline Pipelines Limited	Manchester Jetline Limited	Manx Cable Company
Marchwood Power Ltd (Gas Pipeline)	Melbourn Solar Limited	National Grid Gas (Above 7 bar), National Grid Gas Distribution Limited (Above 2 bar) and National Grid Electricity Transmission
Northumbrian Water Group	NPower CHP Pipelines	Oikos Storage Limited
Ørsted	Perenco UK Limited (Purbeck Southampton Pipeline)	Petroineos
Phillips 66	Premier Transmission Ltd (SNIP)	Prysmian Cables & Systems Ltd (c/o Western Link)
Redundant Pipelines - LPDA	RWEnpower (Little Barford and South Haven)	SABIC UK Petrochemicals
Scottish Power Generation	Seabank Power Ltd	Severn Trent (Chester area only)
SGN	Shell (St Fergus to Mossmorran)	Shell Pipelines
SSE (Peterhead Power Station)	Tata Communications (c/o JSM Construction Ltd)	Total (Colnbrook & Colwick Pipelines)
Total Finaline Pipelines	Transmission Capital	UK Power Networks
Uniper UK Ltd	Vattenfall	Veolia ES SELCHP Limited
Westminster City Council	Wingas Storage UK Ltd	Zayo Group UK Ltd c/o JSM Group Ltd

The following Non LSBUD members may have assets in your search area. It is OUR RESPONSIBILITY to contact them before proceeding. Please be aware this list is not exhaustive and it is your responsibility to identify and contact all asset owners within your search area.

Non LSBUD members Asset owners not registered on LSBUD			
Asset Owner	Preferred contact method	Phone	Status
BT	https://www.swns.bt.com/pls/mbe/welcome.home	08009173993	Not Notified
CenturyLink Communications UK Limited	plantenquiries@instalcom.co.uk	02087314613	Not Notified
CityFibre	asset.team@cityfibre.com	033 3150 7282	Not Notified
Colt	plantenquiries@catelecomuk.com	01227768427	Not Notified
Dwr Cymru Welsh Water	ndcenquiries@dwrcymru.com	0800 917 2652	Not Notified
Energetics Electricity	plantenquiries@energetics-uk.com	01698404646	Not Notified
ENGIE	nrsua@cofely-gdfsuez.com	01293 549944	Not Notified
GTC	https://pe.gtc-uk.co.uk/PlantEnqMembership	01359240363	Not Notified
Interoute	interoute.enquiries@plancast.co.uk	02070259000	Not Notified
KPN (c/-Instalcom)	kpn.plantenquiries@instalcom.co.uk	n/a	Not Notified
Mobile Broadband Network Limited	mbnl.plant.enquiries@turntown.com	01212 621 100	Not Notified
Sota	SOTA.plantenquiries@instalcom.co.uk		Not Notified
Utility assets Ltd	assetrecords@utilityassets.co.uk		Not Notified
Verizon Business	osp-team@uk.verizonbusiness.com	01293611736	Not Notified
Virgin Media	http://www.digdat.co.uk	08708883116	Not Notified
Vodafone	osm.enquiries@atkinsglobal.com	01454662881	Not Notified
Vtesse Networks	https://plant.interoute.com/plant-enquiries/	01992532100	Not Notified
Wales and The West Utilities	www.wutilities.co.uk/login.aspx	02920278912	Not Notified

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DESIGN NOTE - VENTILATION

Project: The Edwards Church – Community Room Redevelopment
Date: Friday 10th August 2018
Regarding: Natural Ventilation

ITEM	DESIGN NOTE / COMMENT	ACTION
1	<p>The Stage 2 design information issued by the services engineer, included for the provision of a mechanical means of ventilating the community hall space via a Mechanical ventilation with Heat Recovery (MVHR) unit. The MVHR unit was designed to be fitted within the ceiling of the community room, which would require ongoing access to maintain the unit. In addition, the unit would also require part removal of the existing ceiling (if not all) to position the unit, creation of a new ceiling hatch, incorporation of 2 no grilles of approx. sizes of 550 x 500mm on the gable.</p> <p>Information of the proposed MVHR unit can be found on drawing 182339 SK-M-800.</p>	
2	<p>At the meeting held on the 17th July 2018, it was agreed that a natural ventilation system should be considered rather than proceeding with the MVHR system, on the basis that the mechanical means appeared to be intrusive and overly complex.</p>	
3	<p>At the meeting held on the 17th July 2018, it was noted that it was understood that the existing windows in the south elevation of the school hall were designed as a fixed window due to the planner's requirements when the school hall was designed.</p> <p>The means of providing natural ventilation would be, in part, provided by openable windows and therefore any strategy will require the existing windows to be changed for opening windows.</p>	
4	<p>It was agreed that a natural ventilation strategy would be considered, by using the available building elements:</p> <ul style="list-style-type: none">• South windows to the existing school hall• Proposed new door leading out to the west elevation of the new extension• Rooflights over the new extension (hall extension) <p>This is known as purge ventilation. The client will need to control the means of ventilation by manually opening or closing building elements, and will need to consider the availability to do so i.e. wet weather, security etc.</p>	

5 The proposed roof lights on drawing 17-1020-202-A demonstrate a large opening glazed rooflight – intended to be fixed. It was agreed that the rooflight could comprise several smaller rooflights, which could be electrically actuated.

6 Building Regulations:

Part F of the Building Regulations requires that adequate purge ventilation is provided and achieved by openable windows and/or external doors. There are two rules of thumb that can be applied, all of which depend upon the extent of how much the window/door can open. For example:

- Windows:
 - For a hinged or pivot window that open 30 degrees or more, at least 1/20th of the floor area of the room is to be provided by the windows.
 - For a hinge or pivot window that opens between 15 and 30 degrees, at least 1/10th of the floor area of the room is to be provided by the windows.

As the windows to the South Elevation face on to a proposed pathway, it is recommended that the windows are restricted in terms of opening. This means that we are working on the basis of providing 6 no opening lights opening between 15 and 30 degrees, which would provisionally allow for 2.14m² of opening area.

If the windows were relied upon for providing natural means of ventilation for a 60m² room, this would fall short of the requirement. Therefore, we will be required to enhance the strategy with other building elements.

- Doors:

The proposed new door to the west elevation, leading out to the new hard-landscaping, provides an approximate opening area of 1.89m². The regulations state that if the room combines at least one external door and at least one openable window, the areas of all the opening parts may be added to achieve at least 1/20th of the floor area of the room. On this basis, the math is:

$$2.14 + 1.89 = 4.03\text{m}^2 \text{ of openable area}$$

$$1/20^{\text{th}} \text{ of the floor area} = 60/20 = 3\text{m}^2$$

Therefore, we should meet the requirements of part F of the building regulations.

- Rooflights:

Openable rooflights can be designed in to help achieve the natural ventilation requirement or to provide the user with flexibility to ventilate the space i.e. some users may not be able to open a door for safety reasons. We would need to look at the electrically hinged rooflight as this would provide a pitch of up to 70 degrees.

Glazing Vision Rooflights provide a suitable rooflight and can be designed with the following sizes:

Min width: 845mm

Max Width: 2400mm

I have drawn 3 rooflights at a size of 845 x 1200mm on the revised plan 202-B.

- 7 Overall, as a strategy for this stage of the project, the natural ventilation as indicated above will meet the requirements of buildings regulation, and if all building elements are opened at the same time, it should exceed the requirement.