PLANNING APPLICATION

NEW LOW ENERGY DWELLING

TO

LAND ADJACENT TO THE RETREAT

ST NICHOLAS

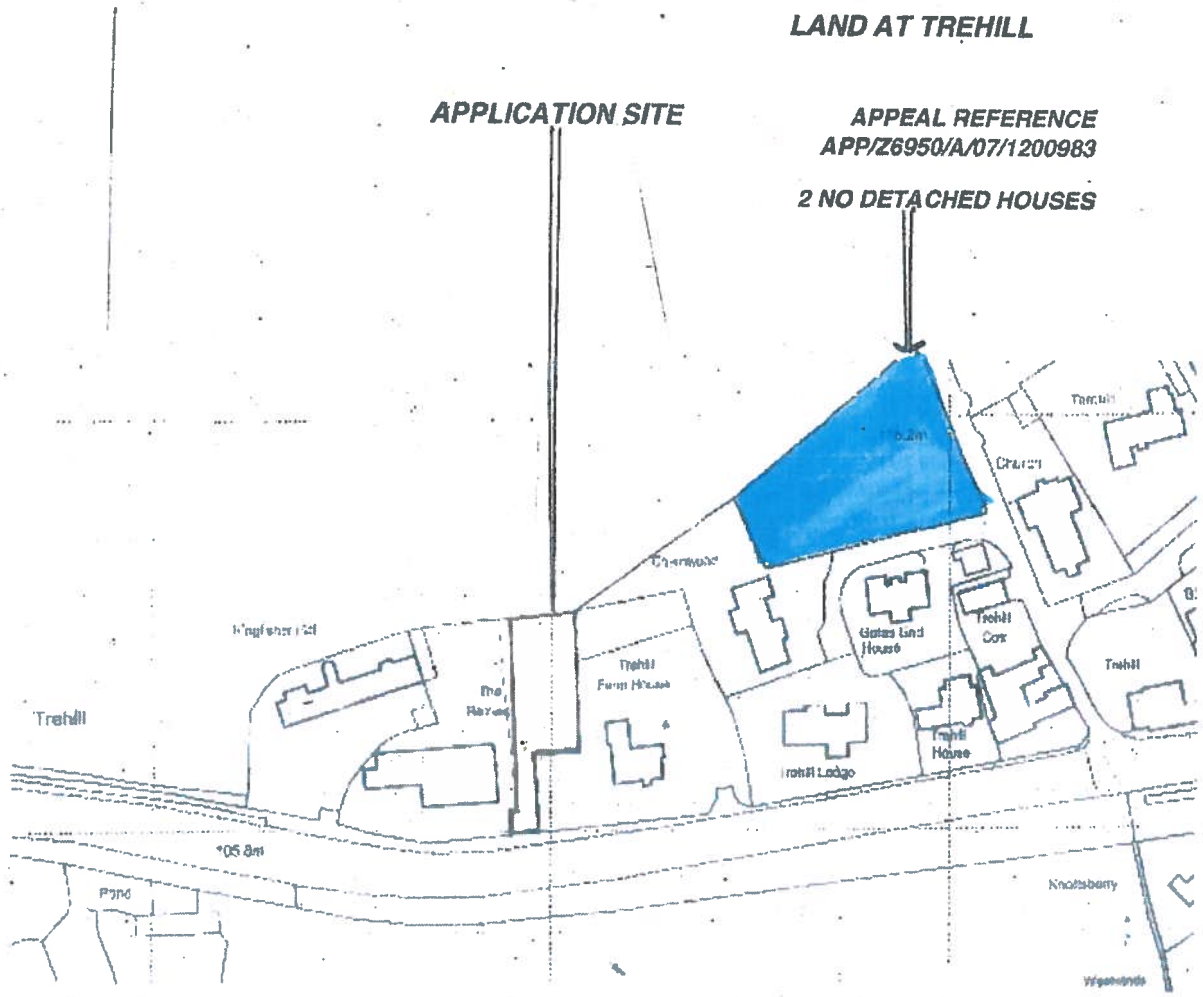
FOR

MR AND MRS LAW

October 2009

ANDREW PARKER ARCHITECT

The Great Barn
Bonvilston
Vale of Glamorgan



SITE LOCATION PLAN

1500044 FUL

PLANNING AND ACCESS STATEMENT 1

Introduction

This planning application has been prepared on behalf of Mr and Mrs Law.
The application seeks Full Planning Approval for the erection of one detached dwelling on land adjacent to The Retreat, St Nicholas.

Site Description

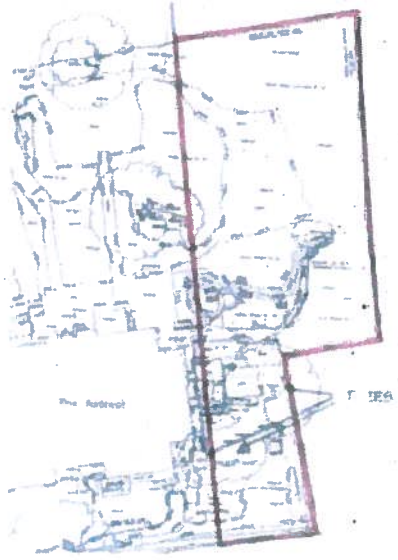
The application site lies to the west of the village of St Nicholas on the main A48. The site currently forms part of the domestic garden of The Retreat; a large two storey detached dwelling benefiting from a large curtilage. The Retreat lies to the west of the application site, with a further residential development to the east. The northern boundary of the site is adjoined to Cottrell Park Golf Club.

The application site is outside the conservation area, the body of which incorporates a core of older properties dating back to the 17th century, but include twentieth century developments of detached homes. The character of the area derives from this juxtaposition of elements of different ages, and a variety of architectural styles.

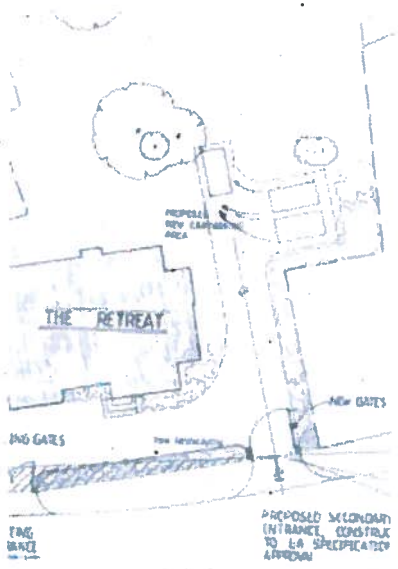
The site extends to 738m2. The site comprises of extensive landscaped gardens with out- buildings.
The site enjoys Full Planning Permission (approval No 2006/01382/FUL for vehicular access from the main A48

SITE SURVEY

APPLICATION SITE



PLANNING PERMISSION VEHICULAR ACCESS



PROPOSED SITE LAYOUT

Planning History

The application site was subject to a previous planning application submitted by Andrew Parker Architect on behalf of Mr & Mrs Law ref No 2009/00711/FUL also for the erection of a detached building.The Planning Authority considered application ref No 2009/00711/FUL unacceptable and it was refused – however further consultation with planning authority officers has suggested this detailed application may be considered acceptable taking in to account site location of the property, street scene, character, and with a strong sustainable ethos.

PLANNING AND ACCESS STATEMENT 2

The applicants asked Andrew Parker Architect to make a proposal for such a development. Pre application discussions with the planning authority including preliminary sketches suggest a detailed application for a single dwelling designed to: **reduce the visual impact of a development on the site – respect the outlook of the neighbouring property to the east – reach a minimum of level 4 of the Code for Sustainable Homes - be contemporary in style.**

The proposal takes into account the informal advice of the planning authority mentioned above and the basis of the design concept will be discussed in the sustainability statement.

ACCESS STATEMENT

Note: The site has Full Planning Permission (approval No 2006/01382/FUL) for vehicular access to the site

Location

The site is situated on the west side of the village of St Nicholas which is 5 miles from Cardiff the capital of Wales and offers all the facilities of a major city, 2.5 miles from Barry which is the administrative centre for the Vale of Glamorgan, 5 miles from the picturesque market town of Cowbridge.-

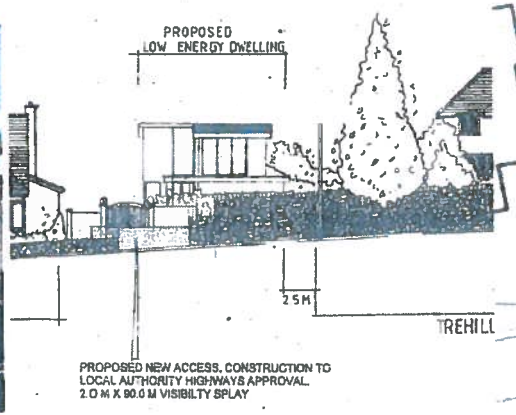
Vehicular Access

The proposed development has planning permission for vehicular access with a frontage onto the A48 and is within the 30mph zone of the village. It is proposed to open up the stone wall and construct the entrance to L-A- approval and specification. The new entrance width of 5m opening to 7m and 11m depth will allow vehicles to leave and enter the site without need to wait on the carriageway. There is adequate vehicular turning space on site to allow for vehicles to enter and leave the site in forward gear.

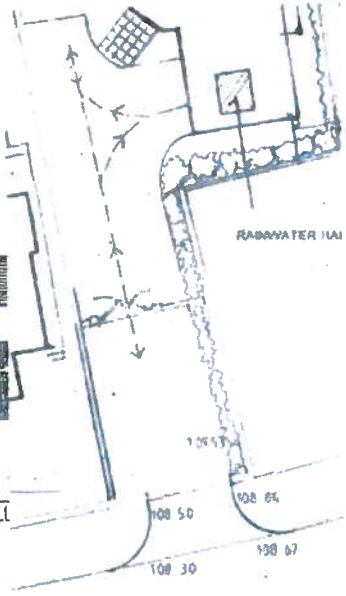
VIEW OF PROPOSED SITE ACCESS

VIEW OF PROPOSED SITE ACCESS

PROPOSED VEHICULAR ACCESS



TURNING & PARKING



15 00044 FUL

PLANNING AND ACCESS STATEMENT 3

Pedestrian Access
There is a dedicated footpath from the site to the centre St Nicholas village, allowing access to the local village school and Churches. Alternatively a dedicated footpath to the west allows access to Cottrell Golf Club with its leisure facilities and restaurant and further on to the village of Bonvilston with its local shop and pub/restaurant.

Public Transport
Bus
The bus service operates between Cardiff, Culverhouse Cross, Cowbridge, Bridgend and beyond (including Cardiff International Airport) – the bus stops are within 200m of the site.

Train
The train station Cardiff Central is within 20 minutes drive time by private vehicle and bus – from Cardiff Central there is access to all major networks including regular services to London – including Cardiff International Airport.

Air
Cardiff International Airport is approximately 5 miles from St Nicholas by private vehicle or direct from Cardiff by bus or train – Cardiff International Airport with regular flights to and from European cities as well as UK cities – over 400 worldwide connecting flights.

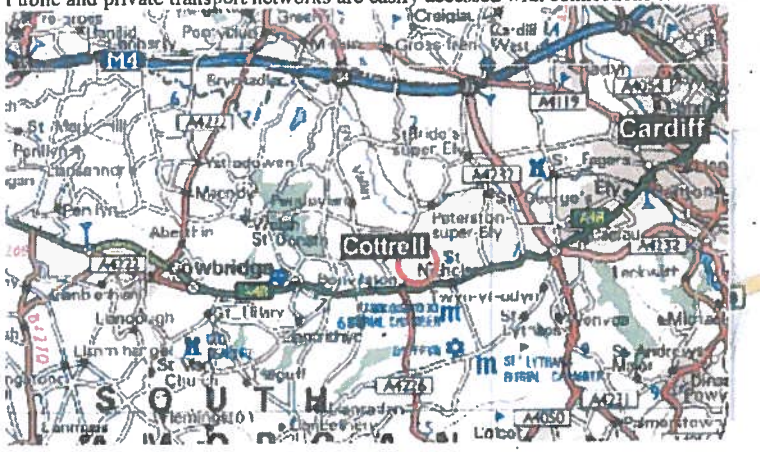
Car
The site has instant access to the main arterial road network and all major cities via M4 motorway – Junction 33 (5m)

Summery
The above shows that the site is well situated with regards to alternative modes of transport.
The proposed development plot can provide access for private with light vehicles able to turn within the site and there is ample room for parking within the site.

The site has good access to all local amenities – including local shop and pub at Bonvilston and further shopping centres at Culverhouse Cross to the east or Cowbridge to thewest.

The commercial and employment centres of Cardiff, Barry, Cowbridge and Bridgend.

Public and private transport networks are easily accessed with connections to the wider network.



15 00044 FUL

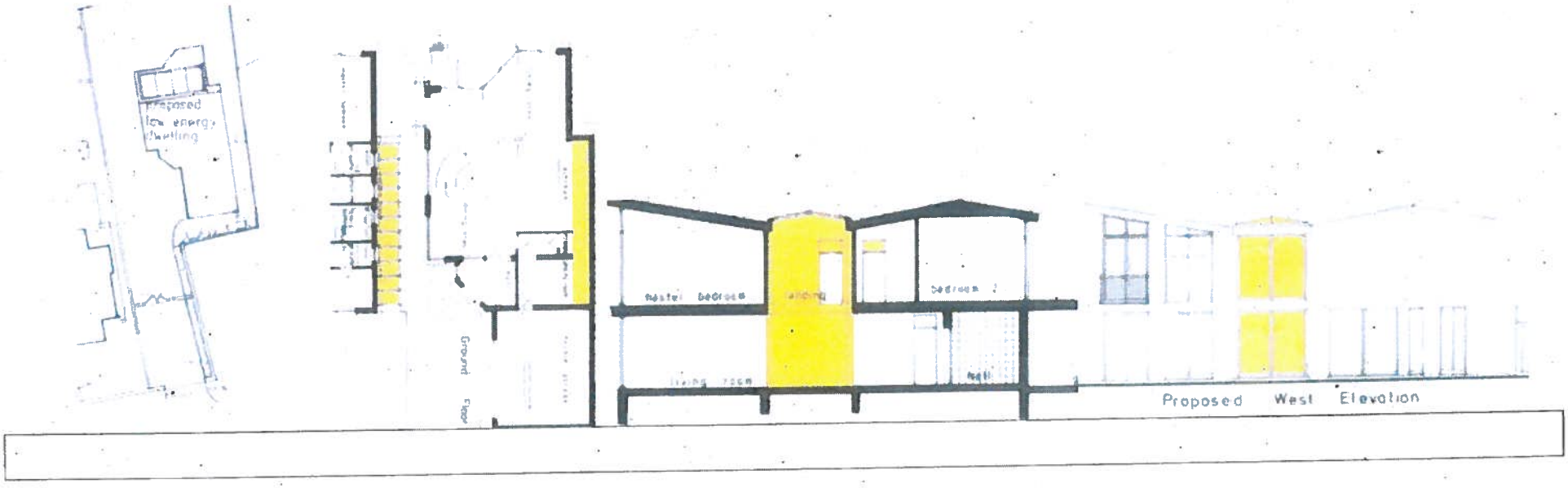
SUSTAINABILITY STATEMENT 1.

Introduction
This sustainability Statement has been prepared in line with the sustainability guidelines set out in supplementary planning guidance prepared by the Vale of Glamorgan Council 'Sustainable Development – A Developer's guide'. The following sections cover those elements in the guidelines considered most relevant to the submitted application:

- Site Layout
- Energy Use
- Renewable Energy Sources
- Energy Efficient and Material Choice
- Water Conservation
- Sustainable Drainage
- Waste Management
- Landscape Trees and Ecology

SITE LAYOUT
The form of the building is long and narrow to take advantage of solar radiation: The rear section of the roof is set at an angle of 15° to take advantage of sunlight and passive solar gain technology – simple rectangular form to reduce surface area; and uses the mass of the garage to provide a sheltered entrance sequence. The position of the building is set (in consultation with LA) 2.5m from the easterly boundary with planted green beech hedge reducing the visual impact for the neighbour to the east – furthermore there will be no windows overlooking the neighbour to the east by using (1) first floor high level 'letter box' style windows set at 2m internal height with obscure glazing – (2) high performance roof-lights providing natural daylight to the kitchen, cloaks and utility room during daylight hours further reducing the need of electricity consumption. (3) High performance roof lantern providing natural daylight through the building to first floor landing, stairwell, and ground floor including high performance triple glazed windows.

NORTH Solar panels Roof-lights Roof Lantern Glazed Panel



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SUSTAINABILITY STATEMENT 2

ENERGY USE

The concept behind the development is design and realisation of low carbon and carbon neutral building. Where possible this is achieved by:

- Reducing the heat loads by providing an thermally effective envelope;
- Reducing ventilation heat losses by ensuring air tight construction and introducing fresh air by means of mechanical ventilation with heat recovery;
- Taking advantage of sunlight and passive solar gain;
- Making use of active solar technology to provide power or hot water with solar panels;
- Reducing reliance on conventional heating systems which use fossil fuels;
- Attempting to match electricity consumption with on site generation;
- Use of geo-thermal heat pumps to make use of ambient energy;
- Use of naturally available building materials and timber to lock up CO2

ENERGY EFFICIENCY AND MATERIAL CHOICE

The building will be design to meet the heat load of the building to a very low standard, i.e., less than 15kWh/m2/yr. This will enable the use of low temperature under-floor heating cooling using a reverse cycle heat pump. When used in combination with a heat store (tank of water buried underground) the CoP of the heat pump is typically more than 5:1. A borehole will be used which will deliver the required CSH Code level. The external mass will be present in the inner walls and also in the floors and ceiling to help regulate the internal temperature.

WATER CONSERVATION

The roofs will discharge rainwater to a holding tank, which will be pumped to WCs and used also for low-grade water use such as garden watering and car washing. Where ever practical storm water run-off will be used.

SUSTAINABLE DRAINAGE

Storm-water run off will be controlled by use of sustainable urban drainage systems buried under the building and by use of porous paving in the hard standings to the south and west of the dwelling.

WASTE MANAGEMENT

Contractors will be asked to sign up to the considerate contractors scheme that, among other things, encourages the management of site waste and in accordance with LA recommendations for recycling.

LANDSCAPE TREEES AND ECOLOGY

Existing trees and shrubs where possible will be retained and limited development will have no effect on the ecology within the area. Green/living construction to the garage roof - Green roofs deliver many benefits - particularly to urban areas. Help clean the air and counteract climate change; provide microclimates for insects and bird life

1500044 FUL

SUSTAINABILITY STATEMENT 3

Roof design:

In part will act as a solar heat and photovoltaic collector – the garage roof will be constructed to incorporate a green/living roof providing microclimates for insects and bird life.

Rainwater Harvesting

Collection of rainwater for reuse in the home and garden is important to the scheme. The large amounts of area provided by the roof ensures that significant amount of water can be collected and stored for later use. That not only will make the consumption of potable water much smaller but also will remediate any impact that the dwelling can make in the natural drainage.

Wall Construction

The external walls will provide an highly insulated envelope with a compact shape and clean joints. Thermal mass will be presented in the inner walls, and mainly in the floor and ceilings to help regulate the internal temperature.

High Performance Windows

Excellent daylight levels and clear views of the sky are provided to all habitable spaces. This is possible through the use of an efficient plan, a tightly sealed envelope and triple glazed lights ensuring low U values.

Heating and Cooling

The temperature of the house is moderated by water circulating in the under-floor heating pipes. Warm water is extracted from the ground using geo-thermal/ heat pumps technology to make use of ambient energy and stepped up to provide heating at around 26 degrees C. In the summer the house can be cooled by reversing the heating pump. The controls are simple: winter on, summer off.

Ventilation

With heat recovery: The system provides tempered air to habitable rooms and exhausts stale air from wet rooms to enhance air quality whilst losing minimal heat.

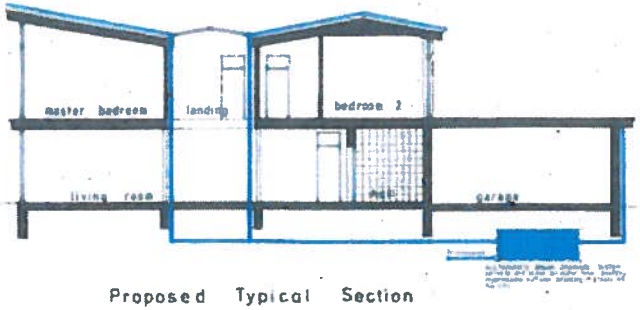
Energy Efficient White Goods

In order to keep the energy usage down, excellent energy efficient appliances white goods will be installed.

Healthy Living

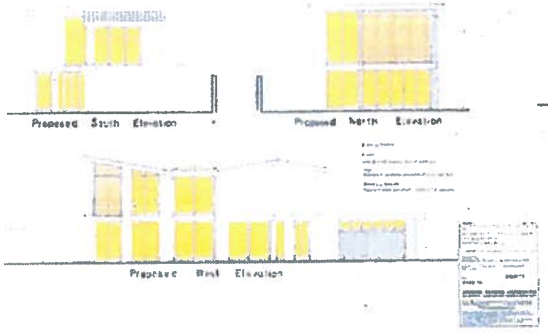
All materials from basic elements to finishes are selected with the environment in mind. Wherever possible materials will be recycled, locally sourced and unharmful to the environment.

SUSTAINABLE DRAINAGE SYSTEM

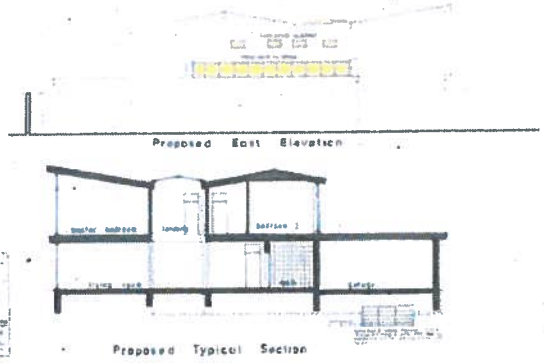


Proposed Typical Section

HIGH PERFORMANCE WINDOWS



HIGH PERFORMANCE WINDOWS



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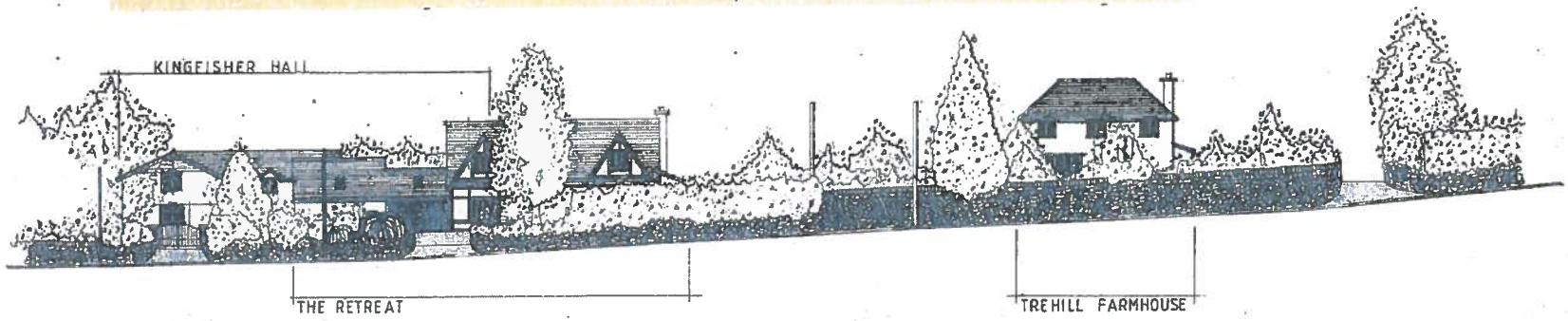
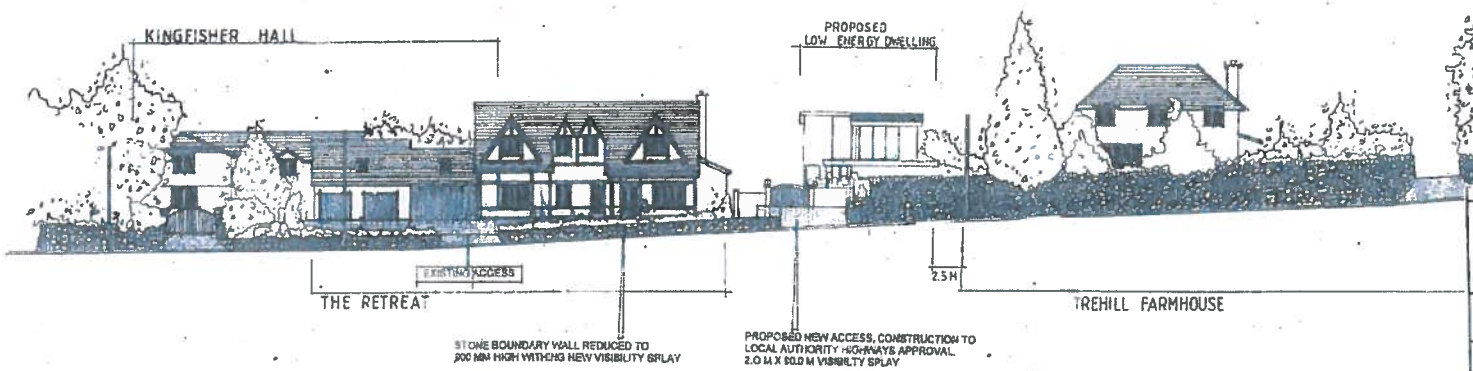


EXISTING ELEVATION ALONG A 48 1: 200



PROPOSED ELEVATION ALONG A 48 1: 200

ASSOCIATES: SIGN: DATE

JOB TITLE
LAND ADJACENT THE RETREAT, ST. NICHOLAS, VALE OF GLAMORGAN
CLIENTS MR AND MRS. JAMES LAM
PROPOSED NEW LOW ENERGY DWELLING

DRAWING TITLE:
EXISTING /PROPOSED ELEVATIONS ALONG A 48

SCALES: 1: 200	DRAWN BY	DRAWING NUMBER: 474/P/15
DATE: OCTOBER 2000		

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E-MAIL. [redacted]

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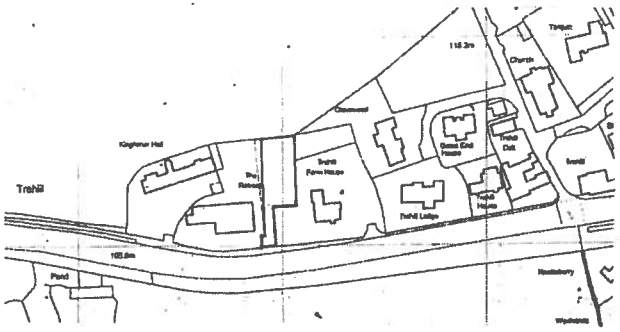
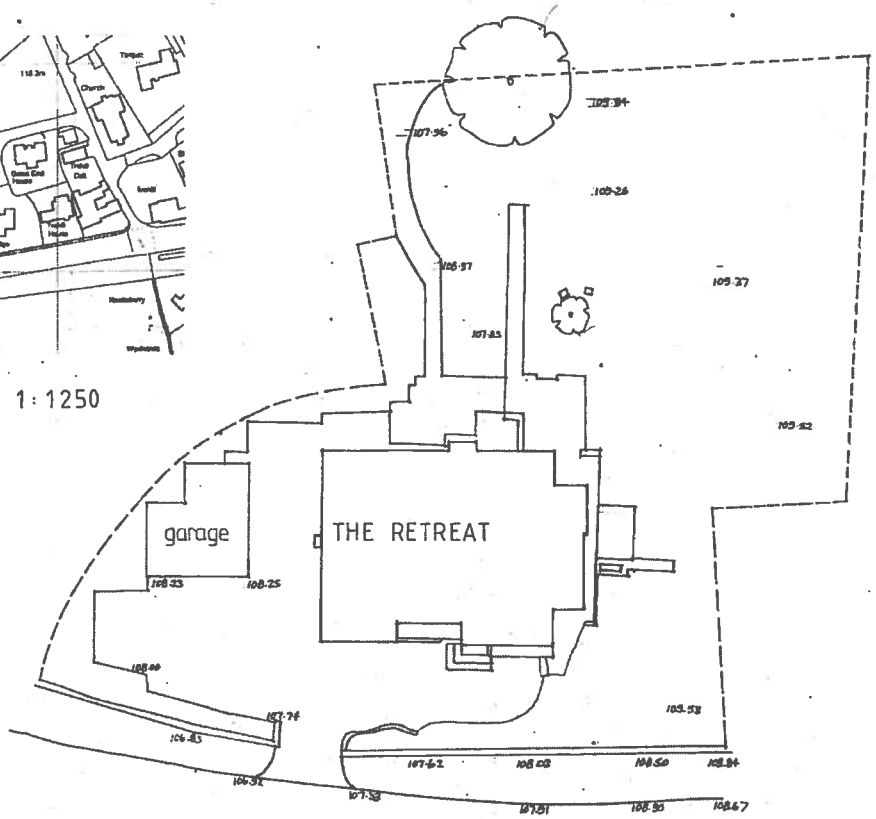


SITE LOCATION PLAN 1:1250



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AMENDMENTS: REV: DATE

JOB TITLE

LAND ADJACENT THE RETREAT, ST. NICHOLAS, VALE OF GLAMORGAN

CLIENTS : MR AND MRS. JAMES LAY

PROPOSED NEW LOW ENERGY DWELLING

DRAWING TITLE
EXISTING SITE PLAN / LOCATION PLAN

SCALES:	DRAWN BY	DRAWING NUMBER
1:200 @ A1 1:400 @ A3 1:1250@ A1 1:2500@ A3		474/P/10
DATE: OCTOBER 2009		

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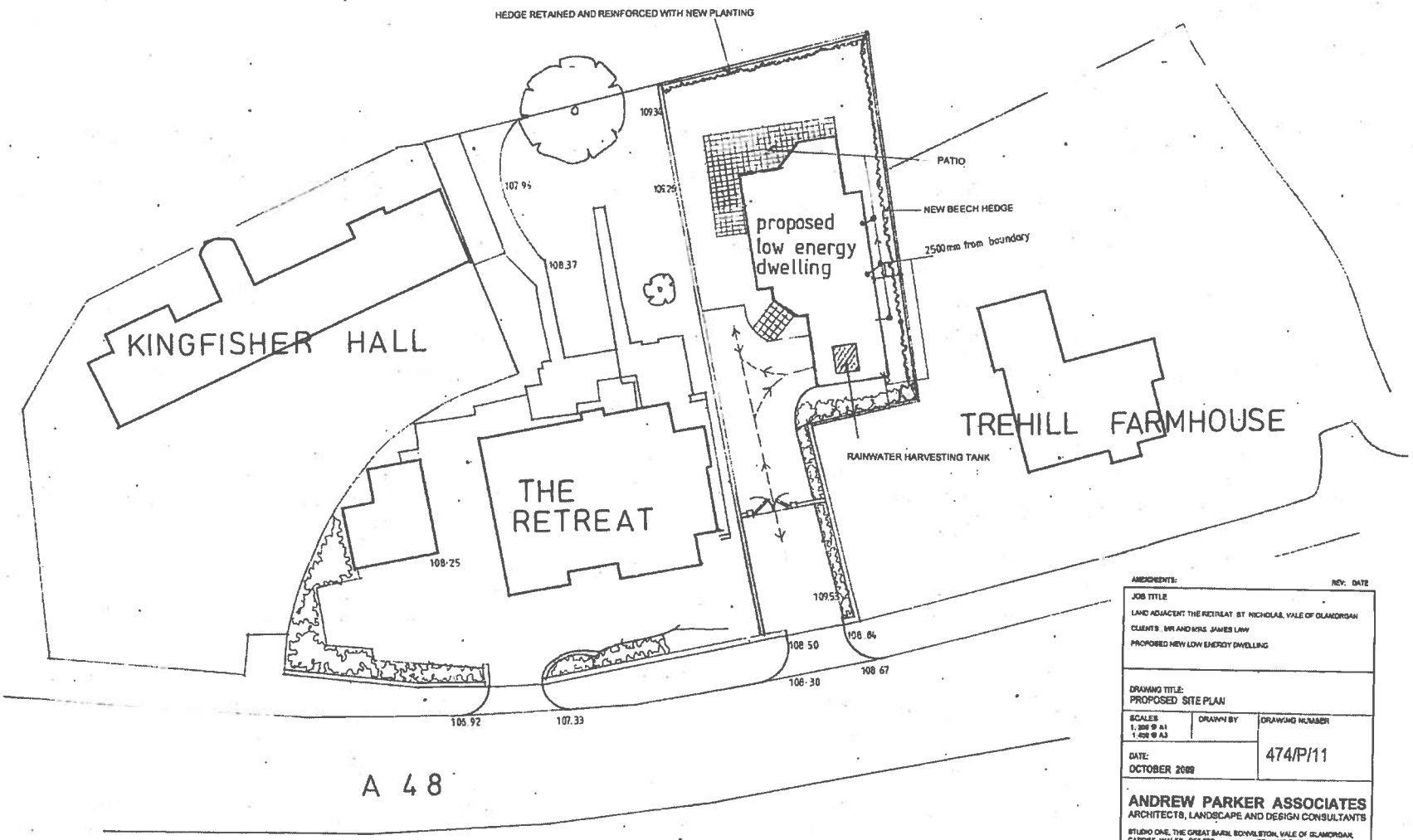
PROPOSED SITE LAYOUT 1:200



AMENDMENTS: REV. DATE

JOB TITLE

LAND ADJACENT THE RETREAT, ST NICHOLAS, VALE OF GLAMORGAN

CLIENTS: MR AND MRS JAMES LAW

PROPOSED NEW LOW ENERGY DWELLING

DRAWING TITLE:
PROPOSED SITE PLAN

SCALES: 1:200 @ A1, 1:400 @ A3	DRAWN BY	DRAWING NUMBER
DATE: OCTOBER 2009		474/P/11

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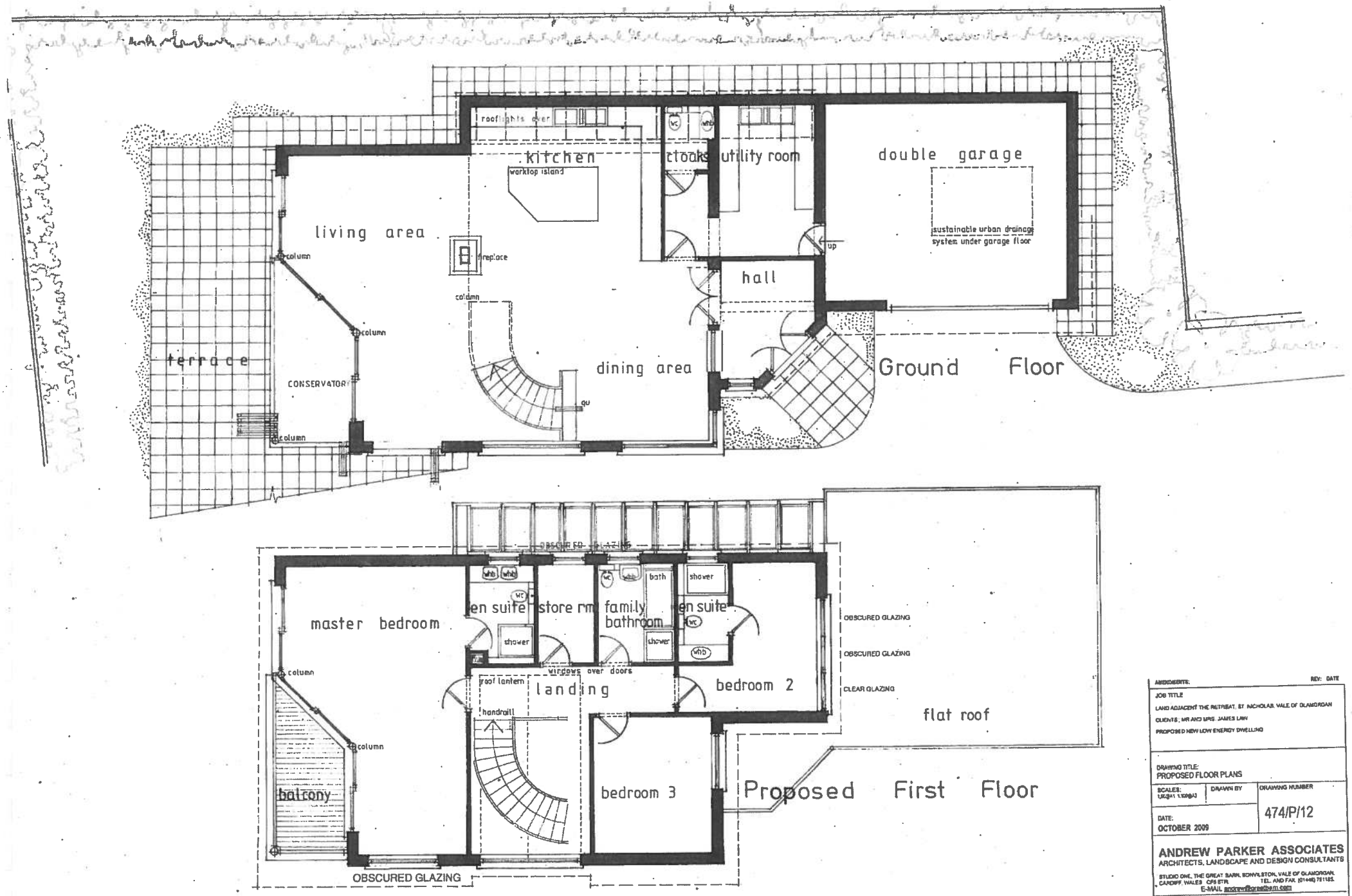

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AMENDMENTS: REV: DATE

JOB TITLE
LAND ADJACENT THE RETREAT, ST NICHOLAS, VALE OF GLAMORGAN
CLIENTS: MR AND MRS. JAMES LAW
PROPOSED NEW LOW ENERGY DWELLING

DRAWING TITLE:
PROPOSED FLOOR PLANS

SCALES: 1:50@A1 1:100@A3 | DRAWN BY | DRAWING NUMBER 474/P/12

DATE: OCTOBER 2009

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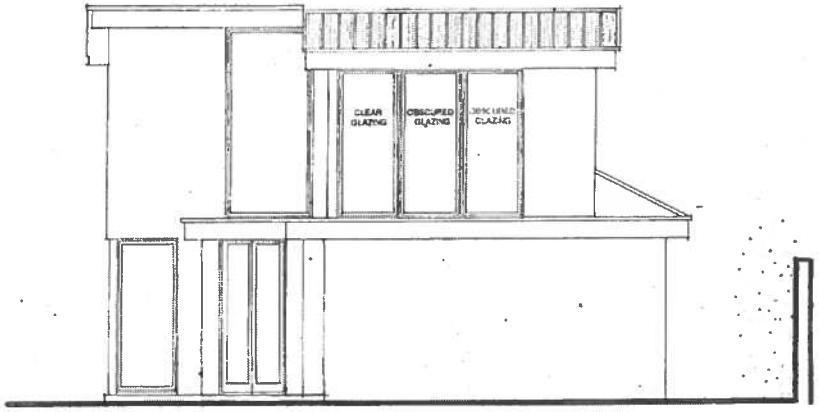
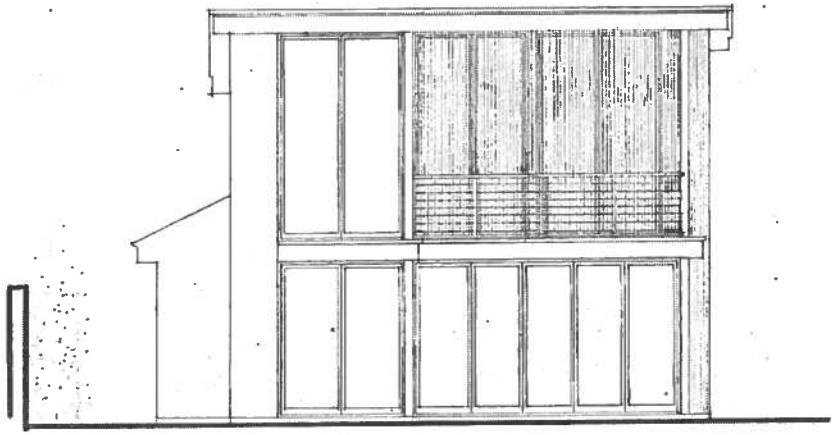
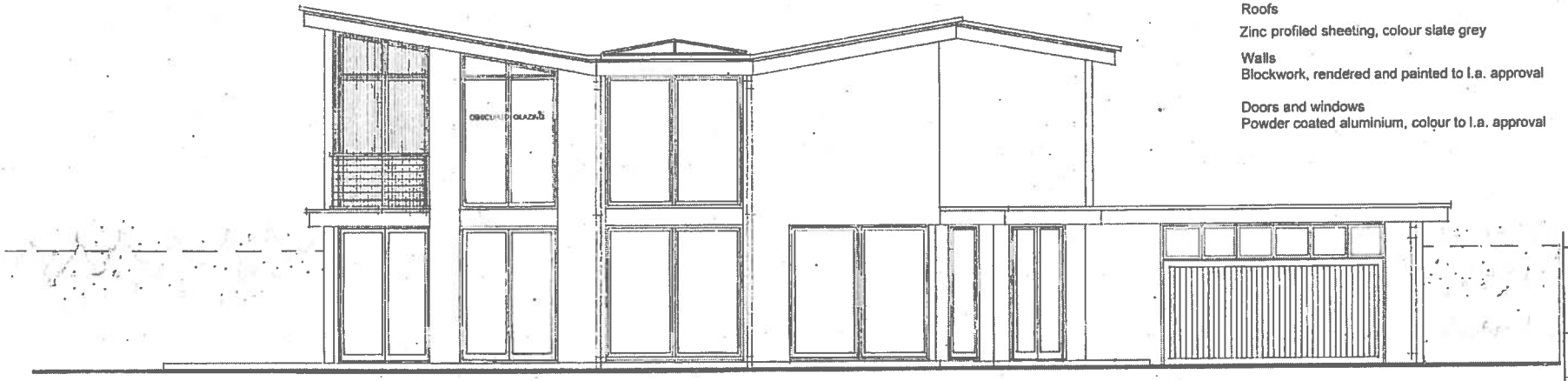


Proposed South Elevation



Proposed North Elevation



Proposed West Elevation

External finishes

Roofs
Zinc profiled sheeting, colour slate grey

Walls
Blockwork, rendered and painted to l.a. approval

Doors and windows
Powder coated aluminium, colour to l.a. approval

AMENDMENTS: REV: DA

JOB TITLE
LAND ADJACENT THE RETREAT, ST NICHOLAS VALE OF GLAMORGAN
CLIENTS , MR AND MRS JAMES LAW
PROPOSED NEW LOW ENERGY DWELLING

DRAWING TITLE:
PROPOSED SOUTH, NORTH AND WEST ELEVATIONS

SCALE E.G. 1:50@A1 1:100@A3	DRAWN BY	DRAWING NUMBER
DATE. OCTOBER 2009		474/P/13

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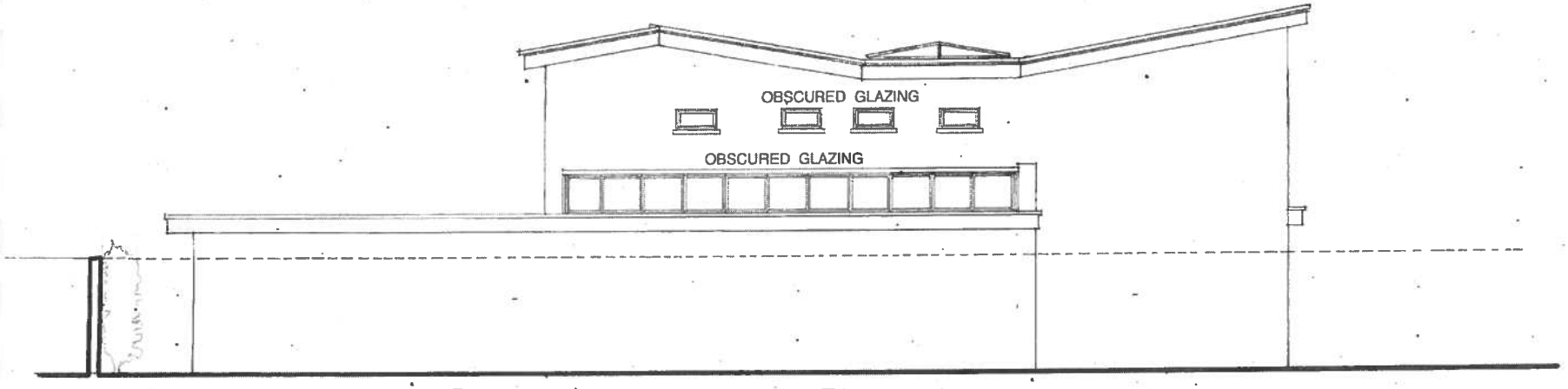


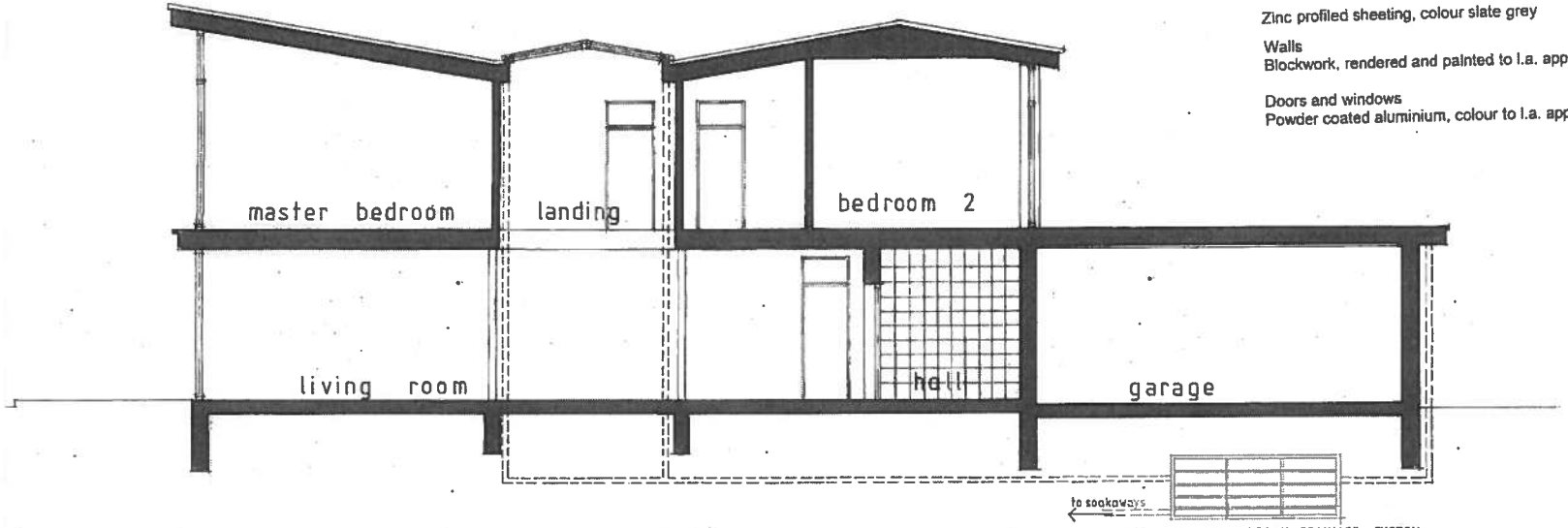
Proposed East Elevation

External finishes

Roofs
Zinc profiled sheeting, colour slate grey

Walls
Blockwork, rendered and painted to l.a. approval

Doors and windows
Powder coated aluminium, colour to l.a. approval



SUSTAINABLE URBAN DRAINAGE SYSTEM collects and stores all water from dwelling impermeable surfaces releasing it slowly into the soil.

Proposed Typical Section

15/0044 FUL

JOB TITLE
LAND ADJACENT THE RETREAT, ST NICHOLAS, VALE OF GLAMORGAN
CLIENTS MR AND MRS JAMES LAW
PROPOSED NEW LOW ENERGY DWELLING

DRAWING TITLE:
PROPOSED EAST ELEVATION AND TYPICAL SECTION

SCALES: 1:100@A1 1:100@A3	DRAWN BY	DRAWING NUMBER
DATE: OCTOBER 2009		474/P/14

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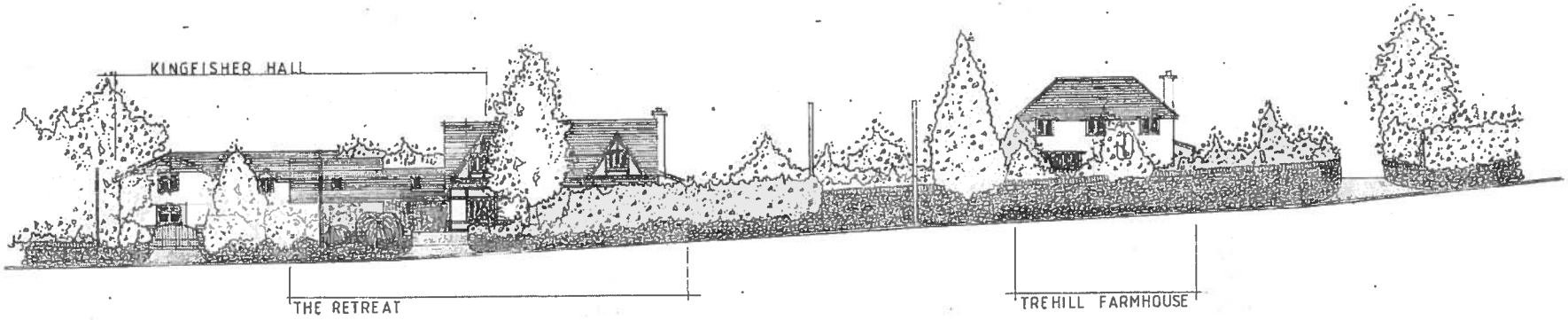
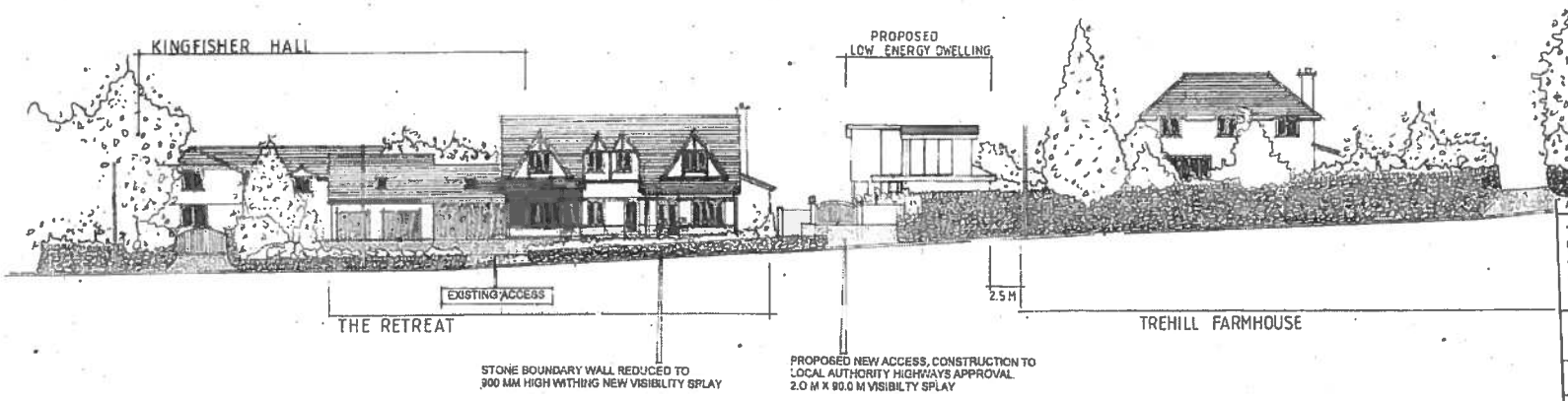


EXISTING ELEVATION ALONG A 48 1:200



PROPOSED ELEVATION ALONG A 48 1:200

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AMENDMENTS:	REV: DATE
JOB TITLE LAND ADJACENT THE RETREAT, ST NICHOLAS, VALE OF GLAMORGAN CLIENTS : MR AND MRS JAMES LAW PROPOSED NEW LOW ENERGY DWELLING	
DRAWING TITLE: EXISTING /PROPOSED ELEVATIONS ALONG A 48	
SCALES: 1:200 / DRAWN BY	DRAWING NUMBER 474/P/15
DATE. OCTOBER 2009	

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