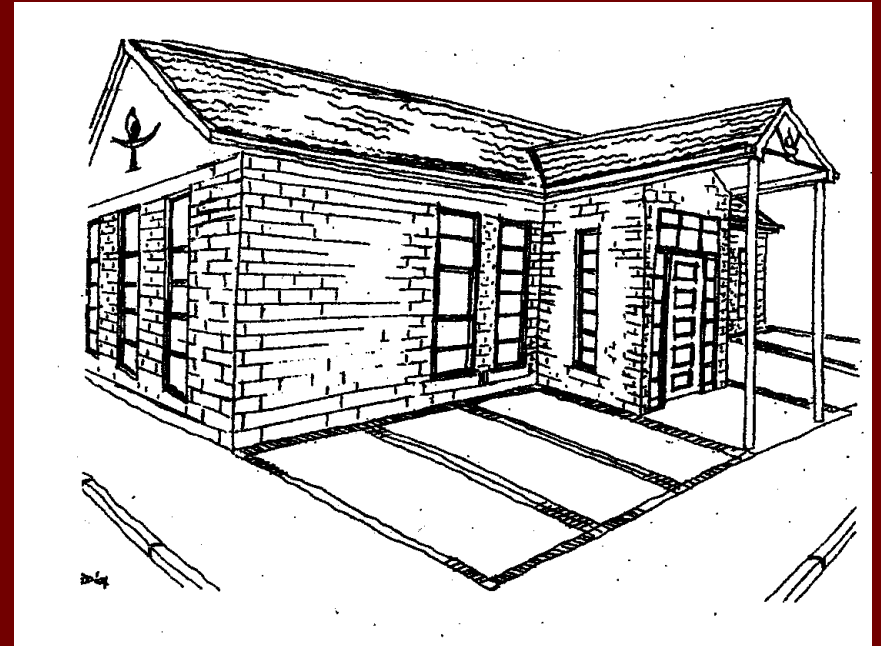
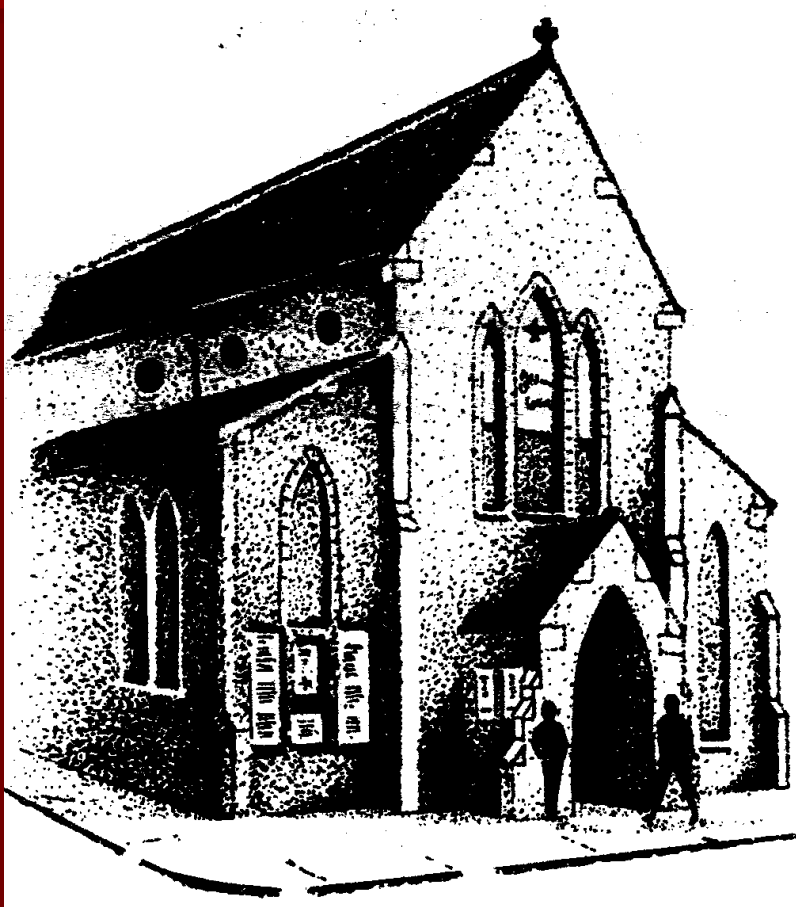


Stockton's New Building - Caring for the Environment



Contents of the Presentation

- What have we been doing at Stockton?
- Our environmental objectives
- Why go 'Green'?
- Key 'Green' Features of the Project
- Recycling internal fixtures and fittings
- Design features of the new building
- How much electricity can we generate?
- The battle to 'go green'
- What were the main stages of the project?
- Some pictures of progress to date
- Publicity and Press cuttings
- The funding of the project
- Future Plans
- Questions

What have we been doing at Stockton?

Replacing our large Victorian Church with a new Meeting House:

- ✓ Much cheaper to run and maintain
- ✓ Big reduction in our 'carbon footprint'
- ✓ Far greater flexibility for Unitarian and other users
- ✓ More comfortable and attractive meeting place
- ✓ Enhances the surrounding street scene
- ✓ Provision of 'state of the art' facilities for community use
- ✓ A showcase for renewable energy – solar roof and wind turbine
- ✓ A new chapter for a group tracing its foundation back to 1688

Our Environmental Objectives

1. We set out to minimise the environmental impact of demolition and construction
2. From the outset our specifications for the new building were designed to minimise its environmental impact throughout its life, within the constraints of a tight budget

Why go 'Green'

1. Many people believe that 'greenhouse' gases produced by human activity are causing accelerated global warming and potentially catastrophic damage to the Earth's climate
2. The world economy is heavily dependant on energy, mostly from fossil fuels, and other finite natural resources which are limited, and fast being used up
3. Most forms of energy generation and use of other resources cause potentially harmful emissions into the atmosphere as well as 'greenhouse' gases

Any of the above provide compelling reasons why we should all strive to minimise the environmental impact of our activities wherever we can

Key 'Green' Features of the Project

- Bringing to an end our use of a large and thermally very inefficient building
- Hard work by church members to ensure that as much as possible of the internal materials were recycled
- Best current thermal insulation standards specified for the new building
- Building has been designed to minimise resource consumption – gas, electricity and water
- We specified that the new building should have its own capability to generate renewable energy – photo-voltaic tiles in the roof and a wind generator

The 1873 Church and Schoolroom



Recycling internal fixtures and fittings

- Arched door frames
- Pews
- Cast iron spiral staircase
- Cast iron radiators
- Fireplace
- Wood
- Old furniture
- The organ
- Two stained glass windows

Clearing the interior



Dismantling the organ to go to Sri Lanka



Renovated Stained Glass Window



We received a commendation for recycling in the Stockton *Care for your Area Awards 2005*



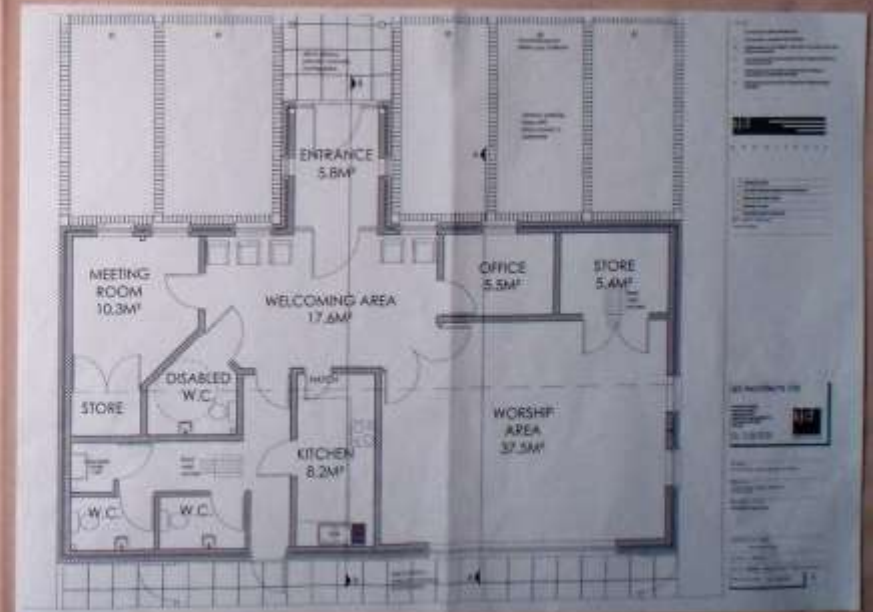
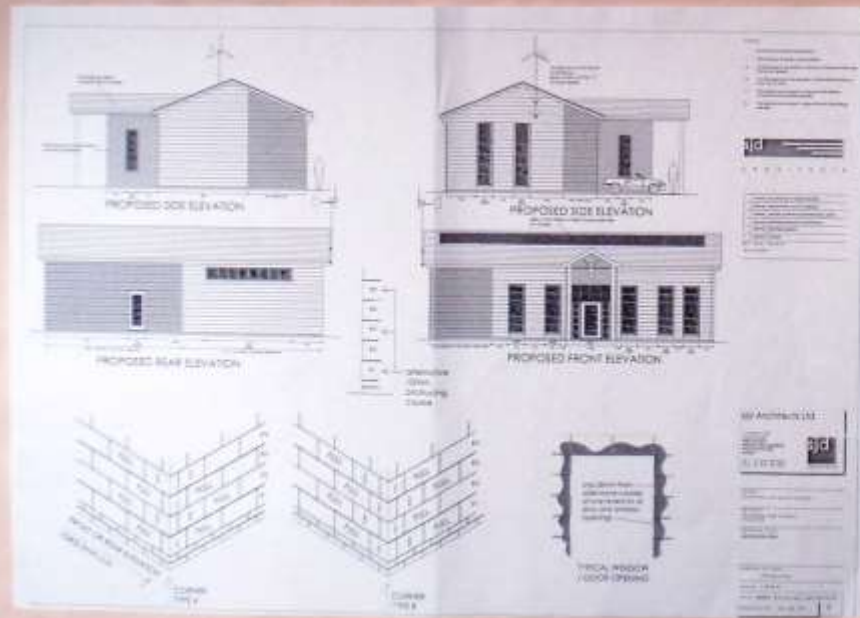
Design features of the new building (1)

- ❖ Good insulation specifications – under floor, cavity walls and ceilings
- ❖ Double glazed using 'k glass' giving equivalent of triple glazing thermal performance
- ❖ Building construction designed to minimise draughts
- ❖ Efficient condensing gas boiler for central heating with thermostatic radiator valves
- ❖ Low energy light bulbs specified throughout
- ❖ Water saving 'percussion' type taps fitted to wash basins
- ❖ Dual flush water saving toilets fitted
- ❖ Super-efficient hot water storage tanks
- ❖ Up to date fire and security systems installed

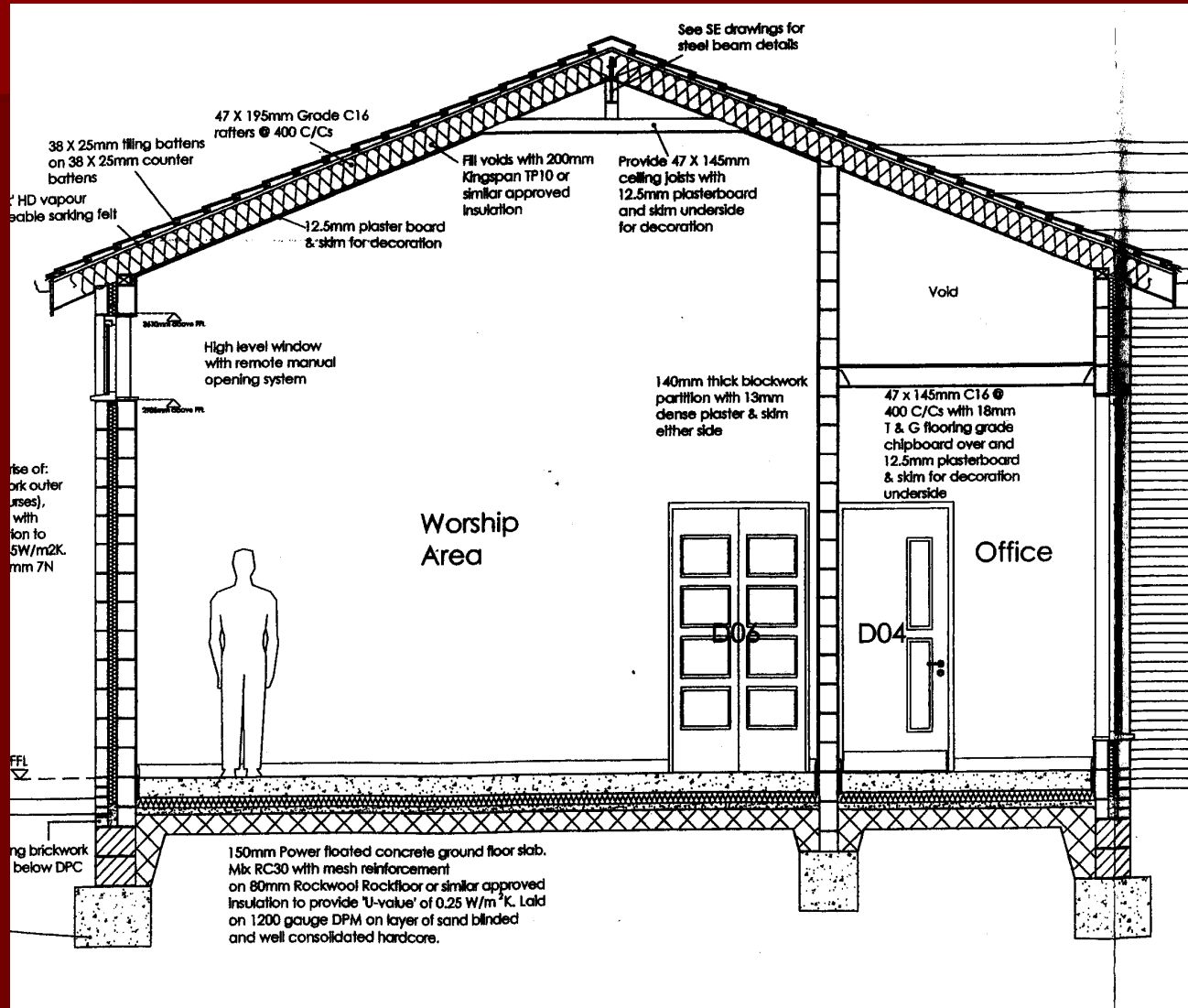
Design features of the new building (2)

- ❖ Building designed to be fully accessible
- ❖ 'State of the art' infra-red hearing system incorporated, in consultation with RNID
- ❖ Baby change unit incorporated in accessible toilet
- ❖ Computer points provided in meeting rooms with internet access available to user groups
- ❖ Hypoallergenic 'Flotex' floor coverings incorporating one metre diameter Chalice artwork feature in the 'Welcome' area.
- ❖ Photo-voltaic tiles built into roof capable of generating up to 1.92 kWh
- ❖ Provision for 'Windsave' wind turbine to be fitted to the south gable end if we can get planning permission, maximum output 1 kWh

Plans for the new building



Insulation details



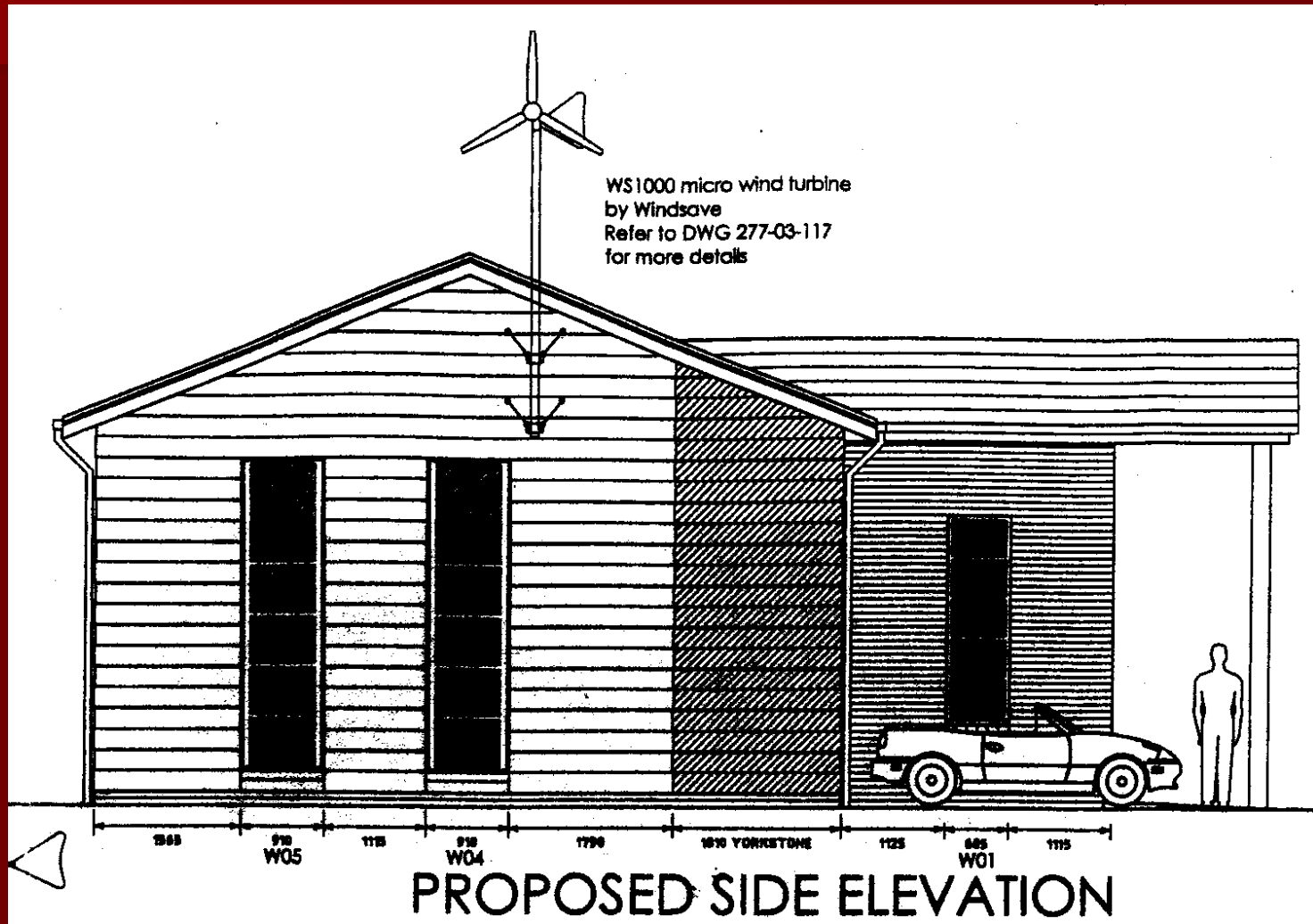
One of the 48 Photo-voltaic tiles installed in the roof



PV Tiles on the roof



Wind Turbine



How much electricity can we generate? (1)



The PV tiles and wind turbine can generate up to 2.92 kWh maximum



The actual output will be much less depending on the amount of sunshine, daylight and wind in a given period



We estimate that we could generate about 2,000 units in a full year



This is more than we used in our old building – 1,500 to 1,600 units per year



We should, therefore be a net 'exporter'



Each 500 units generated in a year qualifies us for a 'Renewable Obligation Certificate' (ROC) payment, currently worth about £42 each

How much electricity can we generate? (2)



Calculating our likely annual benefit is complex and depends on how much of it we use ourselves and how much the electricity supplier will pay us for units exported



Our best estimate is a benefit of between £165 and £330 in a full year, including ROC payments, based on very pessimistic generation assumptions



Only with experience will we be able to say what the actual benefit has been



BUT we will have the satisfaction of knowing that we have reduced our non-renewable energy consumption significantly and if (when!) energy prices rise the benefit will increase

Good News! – We are now generating renewable electricity



At 10.50 am on 30th March our solar roof was connected and started generating immediately



In the first 8 days we generated more than 50 kWh (units), enough to power 15 low energy light bulbs continuously for a week

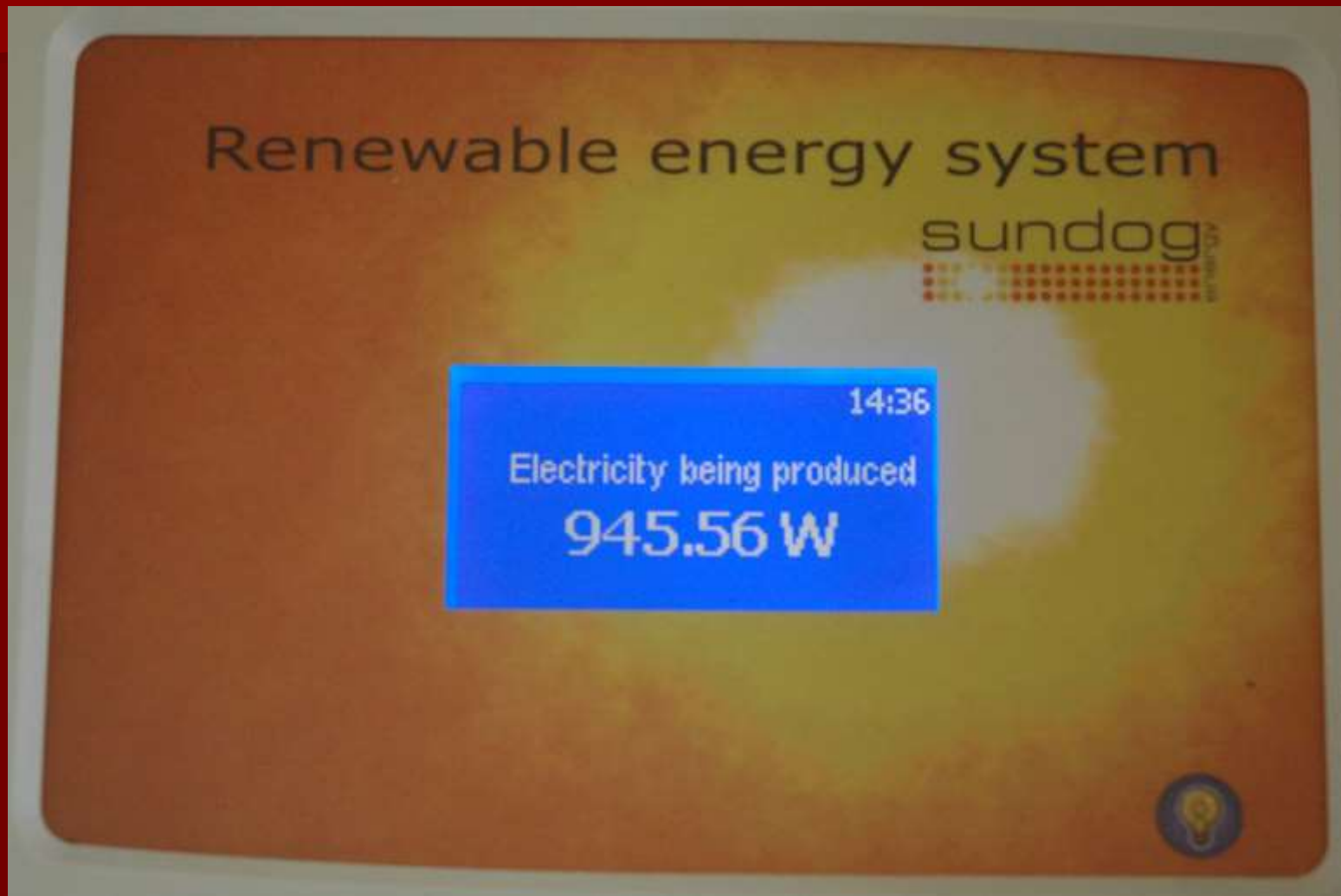


Most of what we produced has been exported to the network



Average daily production so far is 70% above our planning estimates

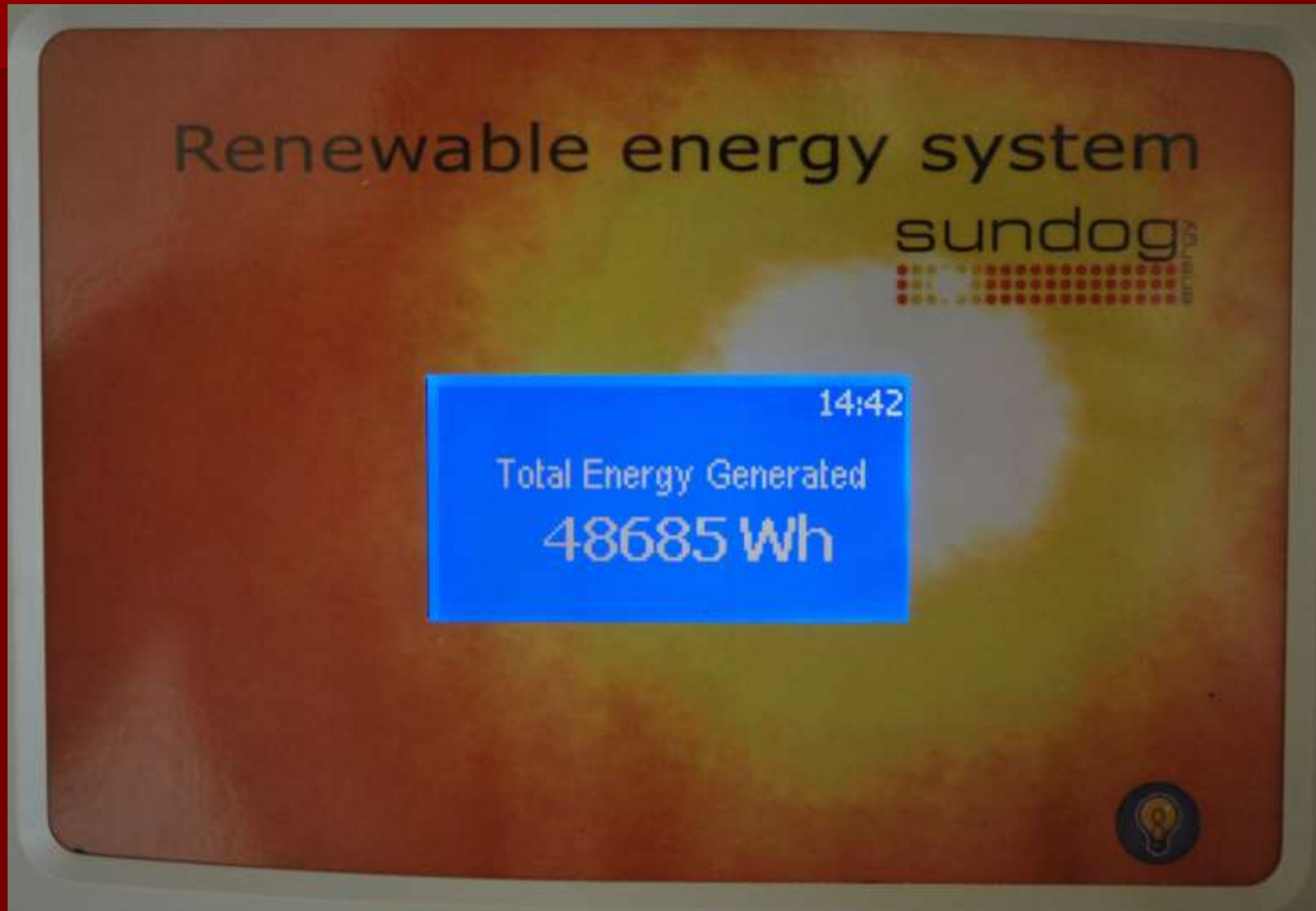
Electricity production display (1)



Electricity production display (2)



Electricity production display (3)



The battle to 'go green'

Despite international concern about global warming we have found that 'going green' has not been easy!

- ❑ We have had to push hard to get environmental features incorporated which go beyond 'run of the mill' building practices.
- ❑ Navigating through the bureaucratic quagmire to get 'Clear Skies' grants for the PV tiles and wind turbine has been a nightmare
- ❑ Getting planning permission for the wind turbine is very difficult – we are still negotiating
- ❑ Most electricity suppliers refuse to pay us for electricity we export and the few that will buy from us will only give us around 2p per unit compared with 8p to 15p that they charge us to buy from them. We are still negotiating on this too!

What were the main stages of the project?

- Designing and costing the new building
- Fund raising
- Final service in the old building
- Selection of contractors for demolition and construction
- Demolition and site clearance
- Digging of foundations and burying our 'Time Capsule'
- Construction of the new building
- Formal hand-over of keys
- Connection of services – ***this took from December to April , causing serious delays and extra costs!***
- Fitting out the interior
- Opening ceremonies

Final service in the 1873 church



Handing out the wooden models



Opening the Construction Tenders



Signing the contract



Demolition of the old building (1)



Demolition of the old building (2)



Demolition of the old building (3)



The demise of the schoolroom



The cleared site



Foundations for the new building



New walls rising up



The walls get higher



The roof goes on



Construction completed



The builder hands over the keys



In the new Worship Room (1)



In the new Worship Room (2)



Publicity

- Throughout the project we have worked hard to gain publicity in the local media
- Aspects like the final service in, and wooden models of, the 1873 building; recycling; sending the Harrison organ to Sri Lanka; demolition; signing the construction contract; and most recently our first electricity production; have all attracted attention
- Features have appeared in the *Middlesbrough Evening Gazette*, *Darlington and Stockton Times*, *Northern Echo*, *Church Times*, and of course *The Inquirer* and *The Unitarian*
- We have much more planned!

Press cuttings (1)

Evening Gazette, Wednesday, April 13, 2005

www.icTeesside.co.uk

Special presentation as old church closes

TAKE YOUR PEWS



By SARAH STACK

REMEMBER: Above, Peter Whitham with a model of the church, left. Pictures by IAN COOPER

LASTING mementoes of a Teesside church were handed out to its dedicated congregation at its final service.

The old Unitarian Church, which has stood in Wellington Street, Stockton, for 132 years, is to be demolished later this year and replaced with a modern meeting house.

During its last service, models of the church - hand-carved from one of the pews by Peter Whitham - were presented to church members.

The service of celebration and re-

membrance was conducted by Mr Whitham, present chairman of the congregation, and former chair Linda Anderson. There were hymns from Stockton Vocal Union, which has rehearsed on the site for 70 years.

As the carvings were handed out, Mr Whitham told the congregation: "Most of you have sat on these at some time in your lives."

The congregation, founded in 1681, is the oldest non-conformist group in Stockton.

Member Hazel Wadhurst said: "It was a sad day for some people who are unhappy to see the building come down, but it is the people who make the church, not the building."

"The Unitarian Church was using up a lot of our resources. Because of its size it was costly to heat, decorate and maintain it and the new meeting house will be environmentally friendly and cost effective."

"We are looking forward to taking it forward into the 21st century."

Press cuttings (2)



Press cuttings (3)

FRIDAY, AUGUST 25, 2006

LOCAL NEWS

www.darlingtonandstocktontimes.co.uk

Darlington



Town & Village



Cleveland

ETON WISKE

- St Mary's Church display service at 11am by David Lewis on

ILSDALE

Bilsdale Show is at Thornhill Farm between 257 midway between and Helmsley. The show is at 9am and events throughout the day. Bilsdale Silver Band playing at Bilsdale Show and Farndale Show. There is a practice for Tuesday at Chopwell Hall, in preparation for at Guisborough on September 3. Low Ellermerie Farm is at 6pm on Thurs-

ISHOPTON

day. - The service on Sunday is a family service at 10am with refreshments

BROTTON

morning. - All Saints' Church holds a coffee morning on Sunday from 10am until 12pm. Proceeds are for the church piano fund.

IRLIN HOW

reunion. - Tickets are for the Rosecroft School class of 1972-3, on Friday 6, at Carlin How. Tickets cost £5 including disco and buffet. For further information, contact

archery from the Golden Eagle display team and a Robin Hood-style comedy routine. Entry costs £2.50 for adults and £1.50 for concessions. There is ample free parking and a free park and ride bus service from the Swallow Hotel, Stockton, on Sunday and Monday. To book a family ticket telephone (01642) 527346/5/4.

EAST BARNABY

102nd exhibition. - One of East Cleveland's oldest farming exhibitions will take place tomorrow when Barnaby Farm Produce Society holds its 102nd annual exhibition. Attractions include: sideshows, quizzes, tombola, block test and trade stands, along with a threshing demonstration which will run throughout the day. There is also ferret racing, a bouncy castle, Lythe fire brigade and a fairground organ. There will be an exemption dog show from 2pm, children's sports from 3pm, pony sports from 1pm and a car boot sale from noon. Entries will be taken from 9pm to 11.30.

ELTON

Service. - Holy communion (BCP) will be held at 9am on Sunday at St John's. Evensong is at 6.30 every fourth Sunday.

GREAT AYTON

Bottom Village. - The garden at Mulgrave Castle, Lythe bank is open on Sunday in aid of Cleveland Friends of Bottom Village from 2-6pm. Entrance costs adults £2.50, children 50p.



Time capsule buried

A STEEL time capsule has been buried in the foundations of Stockton's new Unitarian meeting house, containing a CD of photographs of recent church activities plus black and white prints of previous Unitarian chapels in Stockton.

It also contains a copy of the church's history from its foundation in 1688, the monthly calendar, local newspapers and other publications along with written faith statements by present church members.

Construction of the new meeting

house is under way on the site of the former Stockton Unitarian Church, a landmark in Wellington Street, Stockton, for more than 100 years, which was pulled down earlier this year.

The new meeting house has been designed to minimise energy consumption and environmental impact.

Pictured: Ron Brennan of Marcus Design and Build signs the contract for the work, watched by treasurer, Mike Tomlin, and members of the congregation.

shows, roundabouts, pony rides and refreshments.

Sunday service - Morning worship at the Methodist

church, Tel (01642) 440571 or email smact@rcvda.org.uk.

Free training - The Guisborough centre of Ashham Bryan

will hold a service at 2pm on Saturday, September 9. Forms are available from local churches.

KILDALE

AYCLIFFE VILLAGE

Show. - Great Aycliffe Show takes place tomorrow and on Sunday at the Oak Leaf Leisure Centre, 11am-5pm. Events include a football competition for youngsters aged seven-16, an agricultural show, a playhouse marquee for local bands and dancers, plus classes for rabbits and cavyies. There is a £1 charge for car parking. For more details, contact Great Aycliffe Town Council on (01325) 305700.

Correspondent leaves. - This is my last week as the Aycliffe Village correspondent, writes Jackie Craft. I would like to thank everyone for their help over the last eight years when compiling these paragraphs, and wish everyone well in the future.

BARNARD CASTLE

Walk. - English Nature's Green Guides will lead an eight-mile walk over Cronkley Fell, Teesdale, tomorrow, going through traditional farmland and ancient juniper woods, following the historic green trod drove road up on to Cronkley Fell. The walk starts at Hanging Shaw car park, Forest-in-Teesdale at 10.30 and finishes at about 4pm. The route is a tiring strenuous and walkers should go equipped for a day on the fells, with waterproofs, packed lunch and plenty of snacks and drinks. Booking is essential. For further information, tel (01833) 822374.

Exhibition. - Two young

Darlington & the I

the borough council for internal alterations to the listed rectory on Haughton Green.

Riding arena. - A planning application has been made to the borough council for permission to build an equestrian building for stables and an outdoor riding arena at Low Carbury Farm, Gainford Road.

Car break-in. - A car parked in Ebon Parade had its window smashed and a digital camera stolen between 1pm and 4pm on August 13.

Bag theft. - A window was smashed in a car parked in Parkside between 4.15 and 5pm on August 13 and a handbag stolen.

Cash taken. - Cash was stolen from an insecure parked car in Hillside Road between 7.15 and 10pm on August 13.

Car stolen. - A green Vauxhall Astra estate, registration B458 JVK, was taken from a driveway in Carlton Moor Crescent overnight on August 12.

Sat nav theft. - Between 4.20 and 5pm on August 12, a window of a car parked at Holgate Moor Green was smashed and satellite navigation equipment stolen. Anyone with any information about this or any other incident is asked to call Darlington police on 0845 6060 365 or Crimestoppers on 0800 555 111.

Holy Trinity. - Services at Holy Trinity Church in Woodland Road on Sunday are 8am, holy eucharist; 10am, parish eucharist, and 6.30, Celtic evening prayer with meditation. During the week the holy eucharist is

Press cuttings (4)

FOUR LEGS GOOD: children on the new slope with Humphrey the donkey led by Kim Pwcock - RL

DARLINGTON HERALD-TRIBUNE TIMES FROM APRIL 2007

Turbine is planned too Renewed meeting house is full of energy

THE time of St. Stephen's Friday was an historic moment for Stockton Unitarians. In the newly-completed meeting house in Wellington Street, there was great excitement as the display recorded the first watts of electricity produced by plants volcanic sites in the north.

The Unitarians believe that building may be the first place of worship in the area generating renewable energy.

Church minister, David Whittaker, said: "As a chartered employer with a lifelong concern for the environment, I am delighted to see this successful outcome of several years of planning and hard work."

"Even those who doubt that carbon dioxide is causing global warming should be reassured that world resources of fossil fuels are running out. Unitarians believe that we all have a responsibility to conserve resources, use them generously and minimise damage to the environment."

The solar roof can generate almost two thousand hours of electricity at peak output. The congregation also plans to fit a B100 wind turbine but planning permission for this is waiting for more data from the meteorologists.

With these facilities in place, the church expects to generate

most electricity overall than it will use for its own purposes, exporting the surplus to the national grid.

The new building replaces the 1873 Victorian church on the same site which was demolished last year. It has been designed throughout to conserve resources and minimise its carbon footprint.

Middlesbrough-based Mike Tomlin, treasurer at the (Unitarian) congregation in Stockton, a member of the general assembly of Unitarian and Free Christian Churches at its annual meeting last week, congratulated Whittaker to measure, and then cut, their own carbon footprint and their place of worship.

He is speaking on behalf of the Northern Unitarian Association, whose secretary is Peter Lamont of Darlington.

"Whatever your views about the causes of global warming," said Mr Tomlin, "we are running out of fossil fuel in both our lives and nature, so we must do our bit to make this planet in function as we would wish it to."

"Thus, we shall enjoy our advantages and those in the developing world the benefits we have had from these fuels. We need to conserve that our own."



POWER HOUSE: Stockton Unitarians' new meeting house in the town's Wellington Street, complete with solar panels

Observer praise for eatery

...essence, it is a key building to look for in the new field, but expect to see the branches, church and local...



GET AHEAD

Eggs

FAMILIES enjoyed shared Easter fun organised by the Free Stockton.

Children enjoy an Easter egg hunt.

Care you

A WATCHDOG caught his ex-wife's new partner worried the selfless dog was not of his own mind. The dog was present on the court for sentencing. A judge said the dog had been with the man for years.

Whittaker attacked Corbett with a bike. He was injured after the race. The race was held in the town of Stockton. The race was held on the 20th of the month.

Funding of the project

- £ The total cost including demolition and furnishing will be around £260,000, financed by:
- £ Church and Trustees investments
- £ Generous donations and grants from Unitarians, Unitarian bodies and some other grant making trusts
- £ Sale of part of our land on which flats will be built
- £ Lots of fund raising – don't forget to buy your ticket for our balloon race on July 1st!
- £ Loan support from the NUA
- £ We will end the project with very little money but the new building will be very economical to run so we expect to move forward on a sound financial basis.

Future Plans (1)

Completion of construction will trigger a variety of events including:

- ❖ Opening celebrations (MPs, local and our Unitarian friends and dignitaries to be invited)
- ❖ Balloon race scheduled for July 1st – ***get your tickets now!***
- ❖ Features of the new building including renewable energy capacity and low carbon footprint will be promoted on local radio and TV as well as printed media
- ❖ A media campaign if our wind turbine application is refused!
- ❖ Coffee mornings featuring use of Fairtrade products
- ❖ We have decided to use only environmentally friendly cleaning and toilet products in the new building

Examples of Fair Trade Products



Examples of 'Green' cleaning/toilet products



Future Plans (2)

- ❖ 'Open days' with invitations to neighbours
- ❖ Encouragement to local groups to make use of the building
- ❖ Contacts with nearby school
- ❖ Constructing our website
- ❖ Improving our calendar
- ❖ Booklet about the building project
- ❖ Regular events to attract the public
- ❖ New leaflets to tell people about us
- ❖ **Making sure that what we do reflects our Unitarian philosophy and is worth publicising**

The Credits

- ❖ Architects:
sjd Architects
Director: Stephen J Dodds Dip. Arch RIBA
Senior Technician: Chris Brown
- ❖ Main Contractor:
Marcus Design & Build Ltd
Director: Ron Brennan
Site Foreman: Barry Israel
- ❖ Solar Roof design and supply:
Sun Dog Energy Ltd
- ❖ Many Unitarian friends, churches and grant making bodies who have supported us financially and given us great encouragement
- ❖ Stockton Unitarians!

The End of the Presentation
but, we hope, it will be
The Beginning of an exciting new
chapter for Unitarians in the North East

