University of Huddersfield Repository

Monchuk, Leanne and Armitage, Rachel

Reconciling Security with Sustainability: The Challenge for Eco-Homes

Original Citation

Monchuk, Leanne and Armitage, Rachel (2009) Reconciling Security with Sustainability: The Challenge for Eco-Homes. In: 9th Annual Conference of the European Society of Criminology, 9–12 September 2009, Ljubljana, Slovenia. (Unpublished)

This version is available at https://eprints.hud.ac.uk/id/eprint/9718/

The University Repository is a digital collection of the research output of the University, available on Open Access. Copyright and Moral Rights for the items on this site are retained by the individual author and/or other copyright owners. Users may access full items free of charge; copies of full text items generally can be reproduced, displayed or performed and given to third parties in any format or medium for personal research or study, educational or not-for-profit purposes without prior permission or charge, provided:

- The authors, title and full bibliographic details is credited in any copy;
- A hyperlink and/or URL is included for the original metadata page; and
- The content is not changed in any way.

For more information, including our policy and submission procedure, please contact the Repository Team at: E.mailbox@hud.ac.uk.

http://eprints.hud.ac.uk/

University of
HUDDERSFIELD

The Applied Criminology Centre

As Safe as *Green* Houses?

Security and Sustainability

Leanne Monchuk and Dr. Rachel Armitage

Aim of the research

University of HUDDERSFIELD

To identify whether there were any tensions or synergies between the **security** and the **sustainability** '*the green*' agenda

1) Security = Secured By Design (SBD) - *advises how to build* **SECURE** *developments*

2) Sustainability = Code for Sustainable Homes – *framework to encourage* **SUSTAINABLE** *development*

Content of the Presentation

University of HUDDERSFIELD

- Research commissioned by Association of Chief Police Officers (ACPO SBD)
- The importance of security and secure environments
- The importance of sustainability and sustainable development
- Code for Sustainable Homes
- Security within the sustainability agenda
- Case study
- Tensions/synergies

What we did…

University of HUDDERSFIELD

- Visit to Freiburg, Germany
- Literature Review
- Formed an expert group (***potential*** problems/synergies)
- Interviews with Key Personnel - (DCLG, CABE, Eco-Town Panel)
- Visited 8 case study sites around the country ***(actual*** problems/synergies)
  - Interviews with ALO, planner and developer
  - Discussed experiences of attempting to achieve a sustainable and secure development
- **But first…**

University of HUDDERSFIELD

Security/Secure Environment…

What is Secured by Design?

University of HUDDERSFIELD

- Secured by Design (SBD) is an award scheme which aims to encourage housing developers to design out crime at the planning stage.

- SBD managed by the ACPO SBD whilst the day-to-day delivery of the scheme is conducted by Architectural Liaison Officers (ALOs) or Crime Prevention Design Advisors (CPDAs) working for individual police forces throughout the United Kingdom.

Secured by Design

University of HUDDERSFIELD

The principles of SBD fall largely into the following categories:

- **Physical security:** SBD sets standards of physical security for each property and its boundaries.

- **Surveillance:** SBD estates are designed to achieve maximum natural surveillance without compromising the need for privacy.

- **Access/Egress:** SBD estates are designed to include a minimum number of access/egress points in an attempt to avoid unnecessary entry onto the estate by non-residents and potential offenders.

Secured by Design

University of HUDDERSFIELD

- **Territoriality:** In an attempt to achieve maximum informal social control, SBD draws upon Newman's principles of Defensible Space (1973). If space has a clearly defined ownership, purpose and role, it is evident to residents within the neighbourhood who should and who should not be in a given area.

- **Management and Maintenance:** SBD estates should have a programmed management system in place to maintain the area. This includes the removal of litter and graffiti.

What is sustainability and sustainable development?

What is Sustainability and Sustainable Development?

University of HUDDERSFIELD

- Sustainable means *'capable of being maintained'*
- **Sustainable development;**

'meets the needs of the present without compromising the ability of future generations to meet their own needs.'

UN Department of Social Affairs Division for Sustainable Development (1987) p.54

- **Sustainable community;**

'places where people want to live and work now and in the future. They meet the diverse needs of existing and future residents…'

ODPM (2005) *Defining Sustainable Communities*, HMSO.

What is Sustainability and Sustainable Development?

University of HUDDERSFIELD

‘The main thing we want is places where we can live for a long time and don’t have to regenerate. The fact that we’ve got regeneration departments in all our councils says that we fail and that we are unsustainable…’

Hemingway, W. (2007) *Sustainable City Design*: http://www.hemingwaydesign.co.uk/html/wayne_talks.htm

Why Sustainable Development?

University of HUDDERSFIELD

- Housing shortage –240,000 new homes per annum by 2016 - it is important that this is done without unnecessary costs to the environment

- Buildings contribute half of the UK total CO_2 emissions

- Buildings generate 16% of the nation's waste during the construction phase

Edwards (2000) Sustainable Housing: Architecture, Society and Professionalism. *In:* B. Edwards and D. Turrent (Eds.) *Sustainable Housing Principles and Practice.* London, E & FN Spon. P. 12-35.

Why Sustainable Development?

University of HUDDERSFIELD

- We need **more homes** and we need to make sure that these are built with **minimal impact** on the environment

- The Government is planning to build up to 10 eco-towns by 2020

University of HUDDERSFIELD

Code for Sustainable Homes

Code for Sustainable Homes

University of HUDDERSFIELD

- Officially launched in England in 2007
- Single framework which can be used to measure standards of sustainable design
- Nine categories that form the Code
- Point scoring scheme (mandatory and non-mandatory) across the nine categories
- The sustainability rating which a home achieves represents its overall performance across nine Code design categories

Point scoring table

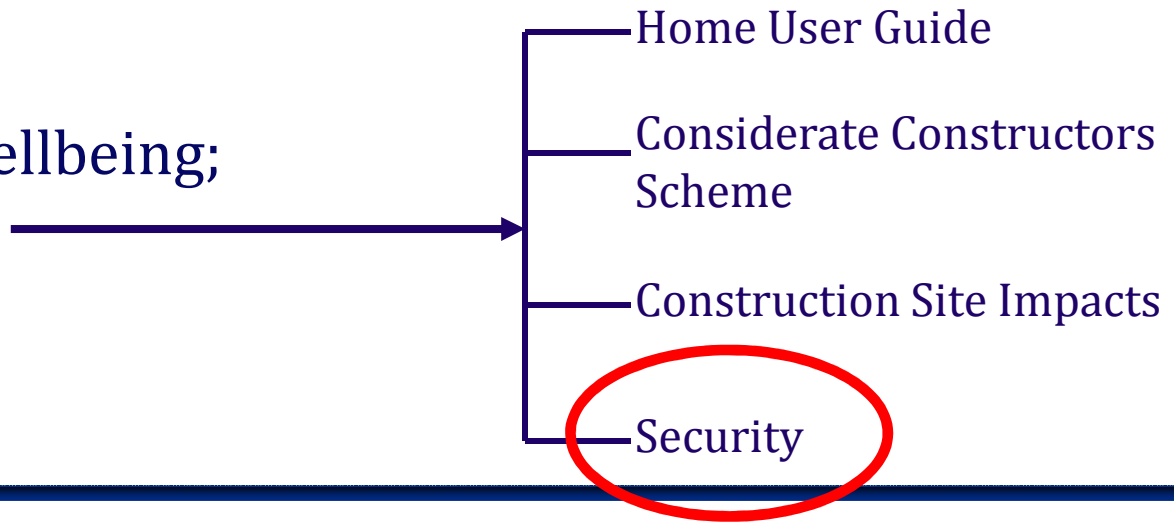
University of HUDDERSFIELD

Total points score	Code Levels
36 Points	Level 1 ☆
48 Points	Level 2 ☆☆
57 Points	Level 3 ☆☆☆
68 Points	Level 4 ☆☆☆☆
84 Points	Level 5 ☆☆☆☆☆
90 Points	Level 6 ☆☆☆☆☆☆

Code for Sustainable Homes

University of HUDDERSFIELD

- Nine categories:
  - Energy and CO_2 emissions;
  - Water;
  - Materials;
  - Surface water run-off;
  - Waste;
  - Pollution;
  - Health and wellbeing;
  - Management;
  - Ecology.



Code for Sustainable Homes

University of HUDDERSFIELD

- Overall sustainability rating
- Mandatory requirements for a number of categories, but apart from these, the Code is flexible
- Developers can choose how they make up their credits

Code for Sustainable Homes

- Credits awarded vary
- Each credit is weighted

Health and Well Being

↓

Daylighting

↓

3 credits

↓

weighted at 1.17 per credit

Code for Sustainable Homes

University of HUDDERSFIELD

- **Water section** - 1 credit is weighted at 1.50

- **Management section –** 1 credit is weighted at 1.11

'…derived from extensive studies involving a wide range of stakeholders who were asked to rank (in order of importance) a range of environmental impacts'.

Department for Communities and Local Government (2008) *The Code For Sustainable Homes: Setting The Standard In Sustainability For New Homes*

- Only information provided in the Code

Code for Sustainable Homes – Crime

University of HUDDERSFIELD

- Management – Security
- A maximum of **two** credits (weighted at 1.11 per credit) are available for security
- Credits are obtained where:
  - an Architectural Liaison Officer or Crime Prevention Design Advisor is consulted at the design stage and their recommendations are incorporated into the design of the dwelling

    AND
  - by complying with Section 2 – Physical Security from 'Secured by Design New Homes'
- Not a mandatory requirement, unlike other sections of the Code that are

University of HUDDERSFIELD

Examples of getting credits

Ways to obtain credits

University of HUDDERSFIELD

- Once all mandatory points from the varying sections of the Code are achieved, additional points can be obtained by:
  - Cycle storage provision (two points)
  - Installing a water-butt (one point)
  - Composting bin (one point)
  - Consultation and compliance with Section 2 of SBD New Homes (two points)

Effort versus reward

University of HUDDERSFIELD

- Easier to obtain two credits by doing other things?
- Don’t have to consider security at all when attempting to score eco-points
- Security is optional and only scores you two points

Points scoring?

University of HUDDERSFIELD

"The government has introduced the Code for Sustainable Homes, so expect to see more 'rabbit hutches' with solar panels…In fact, I am pretty confident that public realm, landscape and house design will suffer because of the rush towards scoring eco-points"

Hemingway, W. (undated) http://www.hemingwaydesign.co.uk/html/waynes%27s_mouthings.htm

- Not just trying to score points as quickly as possible
- Need to make sure they are building truly sustainable developments

University of HUDDERSFIELD

Tensions

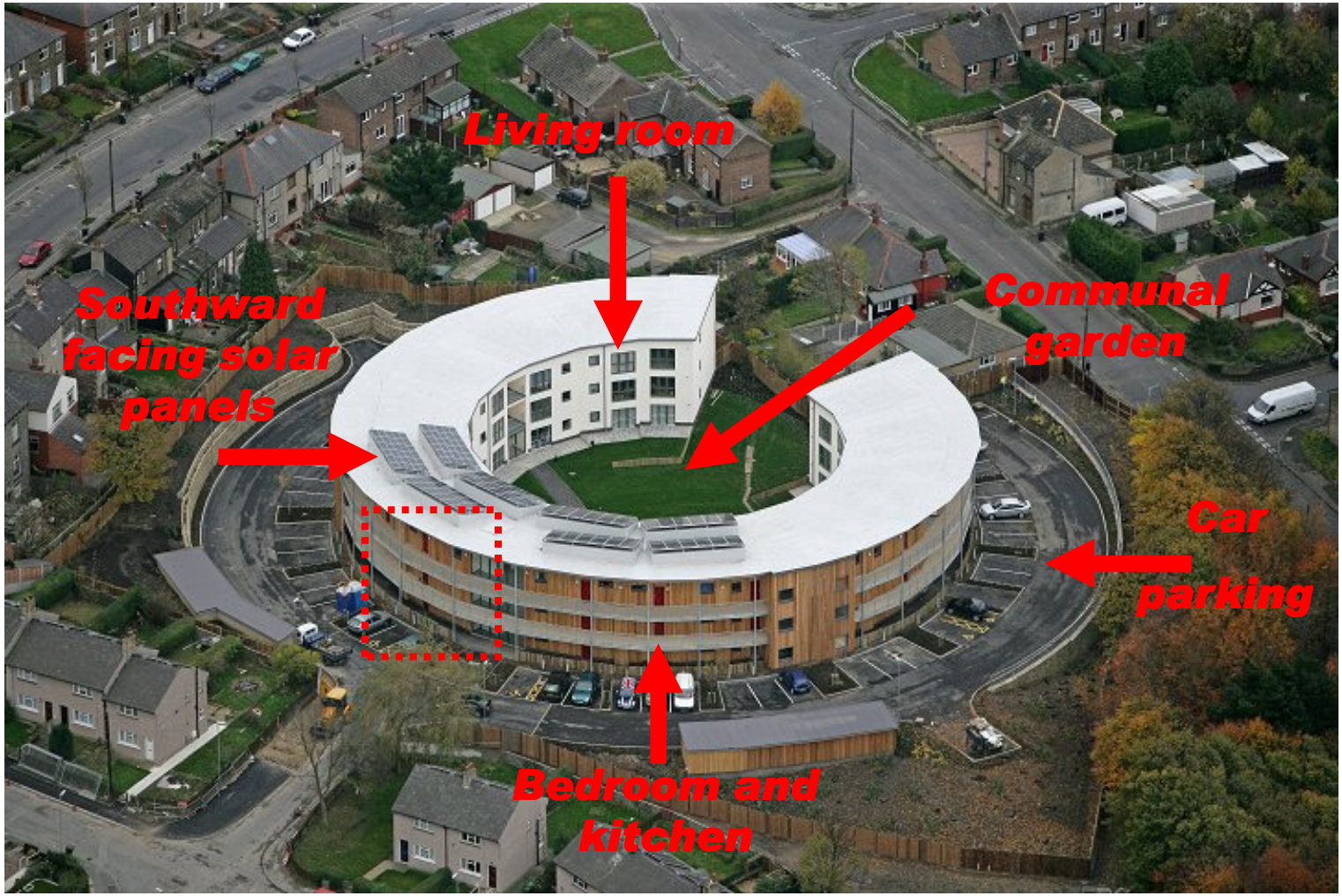
An example…

University of HUDDERSFIELD

- Example in the North of England
- Look at a number of things, specifically:
  - Orientation;
  - Car parking and
  - Decking.
- Other tensions include;
  - External lighting and;
  - Cycle storage

An example…

University of HUDDERSFIELD



An example…

University of HUDDERSFIELD

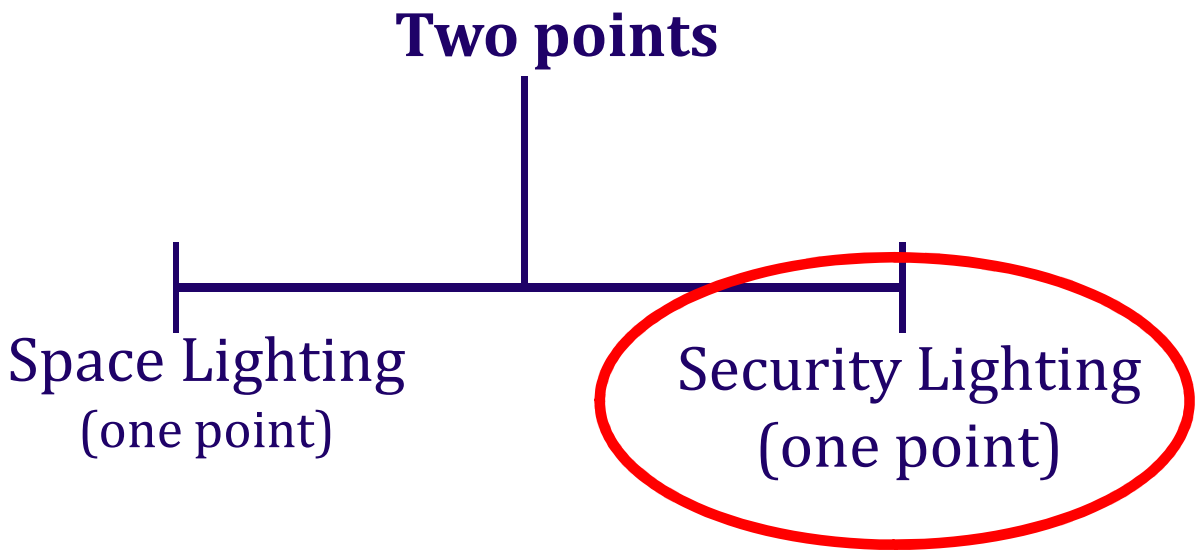
Decking

Sustainable?

University of HUDDERSFIELD

External Lighting

- Two points are available
- **Aim:** To encourage the provision of energy efficient external lighting, thus reducing CO_2 emissions



Security Lighting

University of HUDDERSFIELD

- One point
- Security light fittings are designed for energy efficiency
  - A maximum wattage of 150W **and…**
  - Movement detecting control devices **and…**
  - Daylight cut-off sensors or timers

OR…

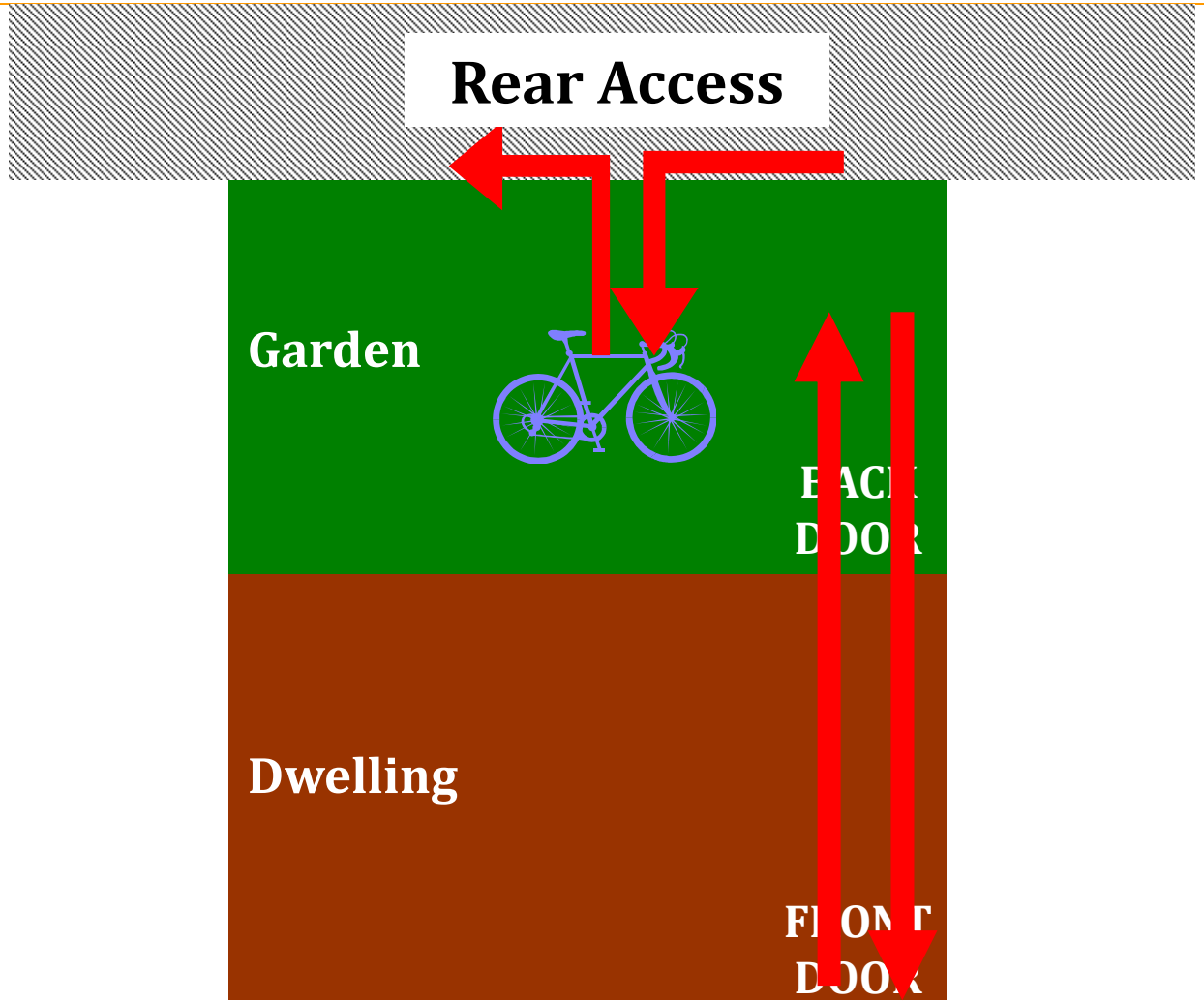
- 'If **no security lighting** is installed, the security lighting credit can be awarded by default'

Cycle Storage

University of HUDDERSFIELD

- Two points for having cycle storage in the occupants' garden
- Points only achieved if access from the store to a public right of way is not through a dwelling

Cycle Storage



Cycle Access

University of HUDDERSFIELD

- Rear access is not recommended by SBD.
- This encourages the use of footpaths/alleys
- It would need to be secure
- Additional lighting, fencing and locks
- Additional cost and additional energy
- Is securing the rear access a priority once the points for cycle storage have been achieved?

Conflicts?

University of HUDDERSFIELD

- Although specific tensions identified through case study visits, the research found that there were no tensions between the wider aims and principles of sustainability and security
- No tensions between aims and principles of SBD and Code for Sustainable Homes
- The tensions we identified were about bad design and poor management
- Achieving SBD does not prevent a developer from achieving high levels of sustainability. Achieving high levels of sustainability does not prevent a developer from achieving SBD
- You can achieve a **secure AND sustainable** development
- Sustainability via security
- "*There is no earthly reason why the two can't live together in harmony*"

CPDA

University of HUDDERSFIELD

Synergies

Synergies…

University of HUDDERSFIELD

- More windows = more natural light
- More windows = more opportunity for surveillance
- Triple glazed windows
- Promotion of private space
- Promotes sound insulation to reduce the likelihood of noise complaints from neighbours (4 points!)

It's not just about being green

University of HUDDERSFIELD

- Too heavily focused around green credentials?
- Crime **has** to be taken into account – is a sustainable development one with high crime rates and high levels of fear of crime?
- *'places where people want to live and work now and in the future…'*

ODPM (2005) *Defining Sustainable Communities*, HMSO.

- People have to be safe and feel safe

It's not just about being green

University of HUDDERSFIELD

"We have to start rolling other things into sustainability. We have to address the climate but…we're becoming blinkered and thinking that this is the only thing that matters to society at the moment. Well it isn't. Other things go hand in hand"

Hemingway, W. (2007) *Sustainable City Design*: http://www.hemingwaydesign.co.uk/html/wayne_talks.htm

More suitable definition?

University of HUDDERSFIELD

"Housing that meets the perceived and real needs of the present in a resource efficient fashion, whilst providing attractive, **safe** and ecologically rich neighbourhoods"

Edwards (2000) Sustainable Housing: Architecture, Society and Professionalism. *In:* B. Edwards and D. Turrent (Eds.) *Sustainable Housing Principles and Practice.* London, E & FN Spon. P. 12-35.

To conclude…

As Safe as Houses?

University of HUDDERSFIELD

- It is not just about being green
- Has the sustainability agenda become too closely focused upon environmental concerns?
- Not about security and sustainability being incompatible – no real thought for security provided within the Code
- Better design
- Pre-planning consultation – seeking ALO/CPDA advice

Thank You

University of HUDDERSFIELD

Leanne Monchuk and Dr. Rachel Armitage

The Applied Criminology Centre

University of Huddersfield

leanne.monchuk@hud.ac.uk