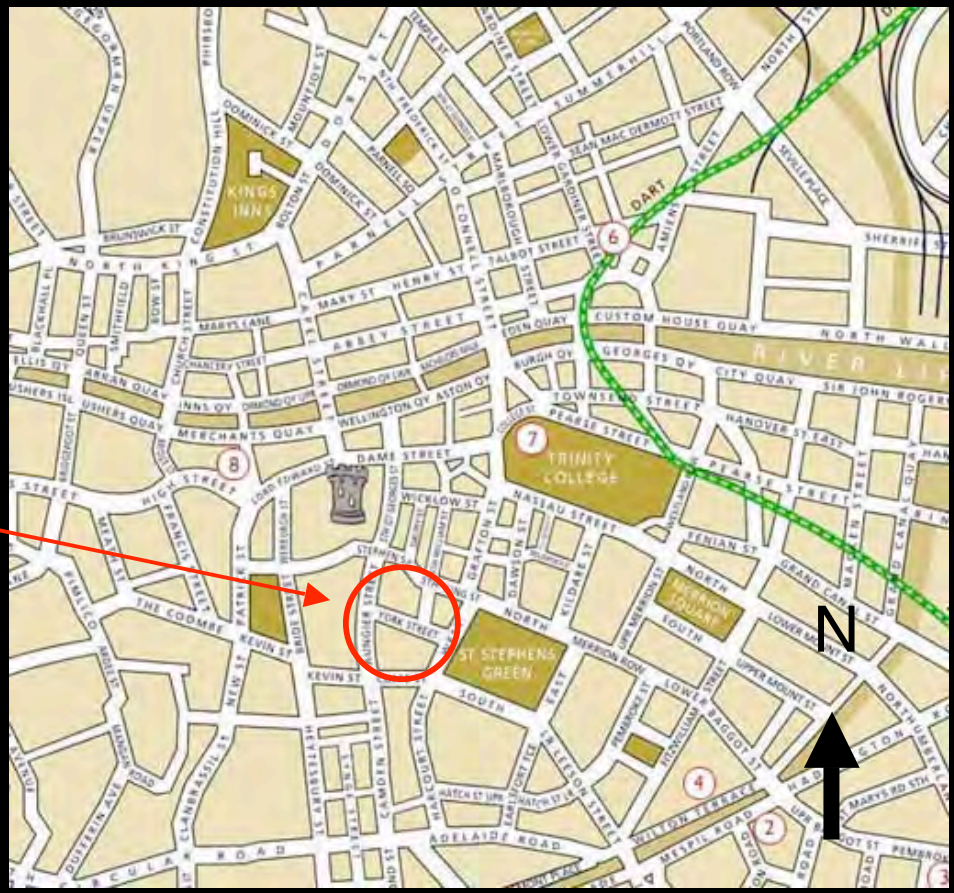
# Social Housing.
# York Street, Dublin

SEÁN HARRINGTON
ARCHITECTS

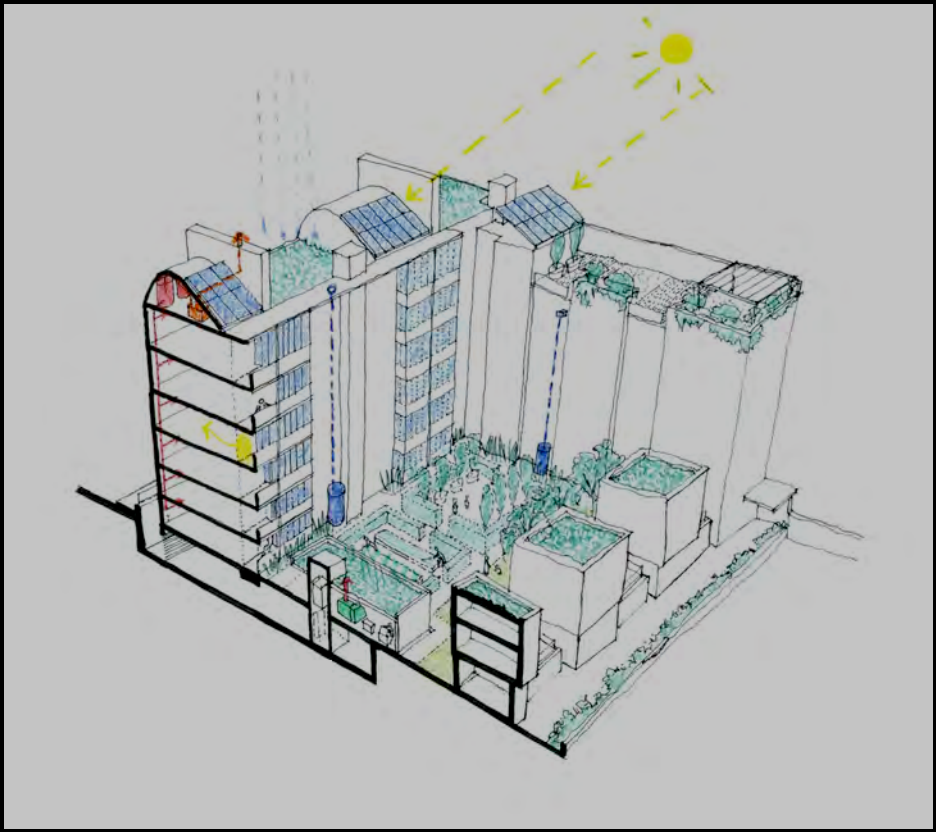
Dublin City Council
Comhairle Cathrach Bhaile Átha Cliath

# Dublin City Centre

York Street



Critical Design Issues;



1. **Social Inclusion**
2. **Energy**
3. **Water**
4. **Biodiversity**
5. **Building Materials**
6. **Waste**
7. **Adaptability**

# 1. Social Inclusion

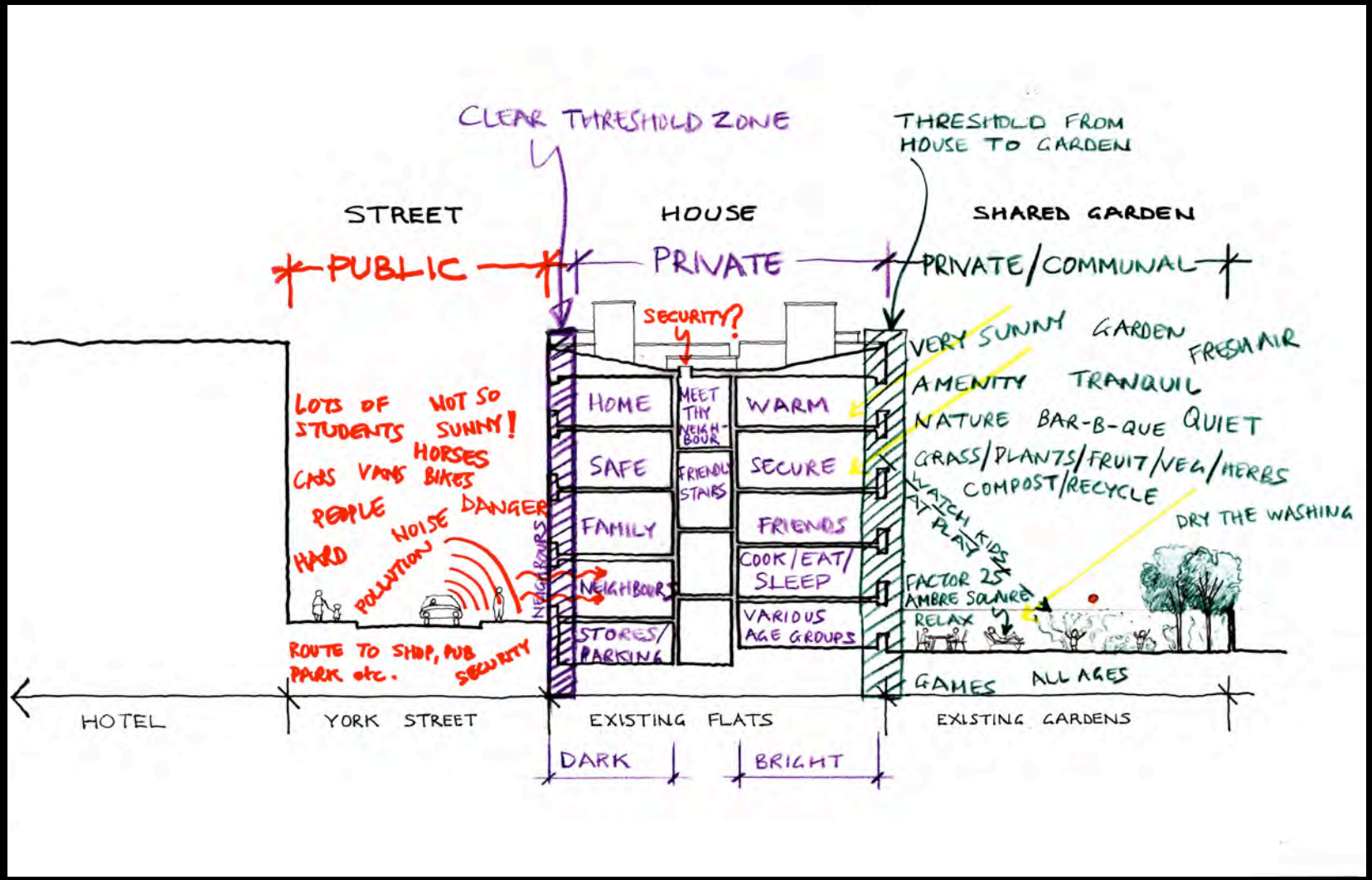
What was there before;

Blank gable ends

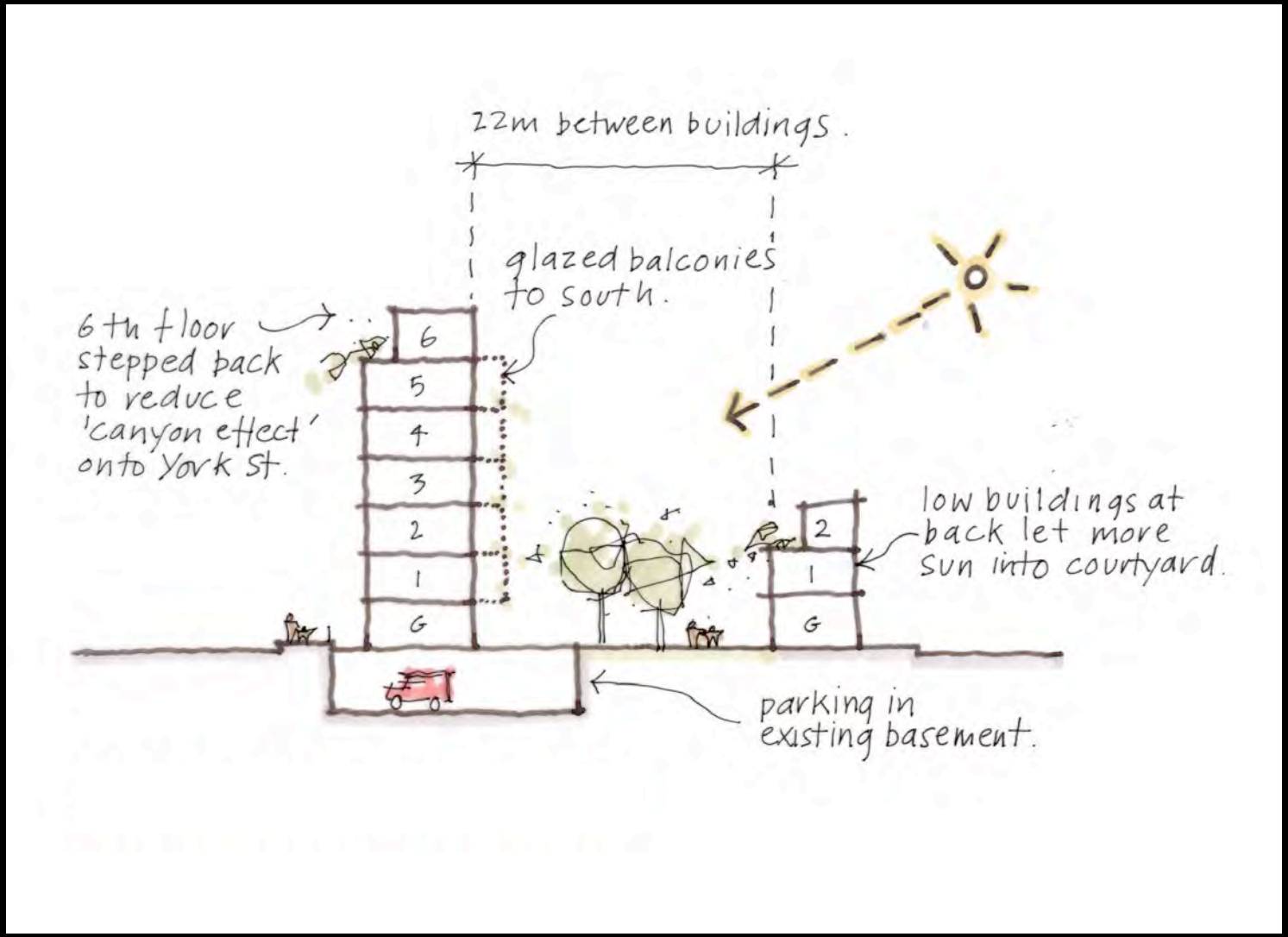
Useless open space

# Consultation

# Discussion

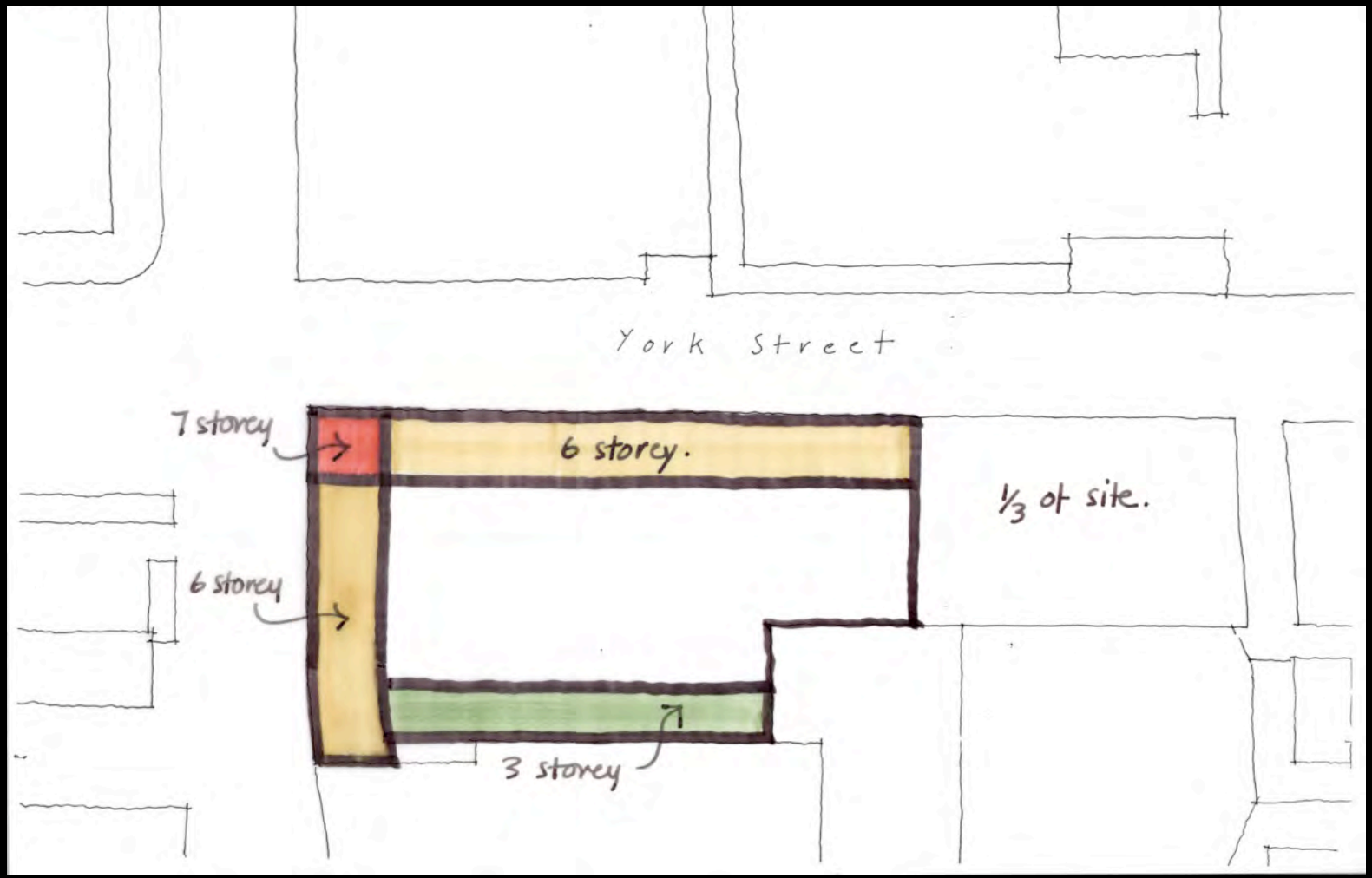

CLEAR THRESHOLD ZONE
THRESHOLD FROM HOUSE TO GARDEN
STREET
HOUSE
SHARED GARDEN
PUBLIC
PRIVATE
PRIVATE/COMMUNAL
SECURITY?
LOTS OF STUDENTS
NOT SO SUNNY!
CARS VANS HORSES BIKES
PEOPLE
NOISE
DANGER
HARD
POLLUTION
NEIGHBOURS
HOME
MEET THY NEIGH-BOUR
WARM
SAFE
FRIENDLY STARS
SECURE
FAMILY
FRIENDS
NEIGHBOURS
COOK/EAT/SLEEP
STORES/PARKING
VARIOUS AGE GROUPS
ROUTE TO SHOP, PUB PARK etc.
SECURITY
VERY SUNNY GARDEN
FRESH AIR
AMENITY
TRANQUIL
NATURE
BAR-B-QUE
QUIET
GRASS/PLANTS/FRUIT/VEG/HERBS
COMPOST/RECYCLE
WATCH KIDS AT PLAY
DRY THE WASHING
FACTOR 25 AMBRE SOLAIRE
RELAX
GAMES
ALL AGES
HOTEL
YORK STREET
EXISTING FLATS
EXISTING GARDENS
DARK
BRIGHT

# Strategic Decision A



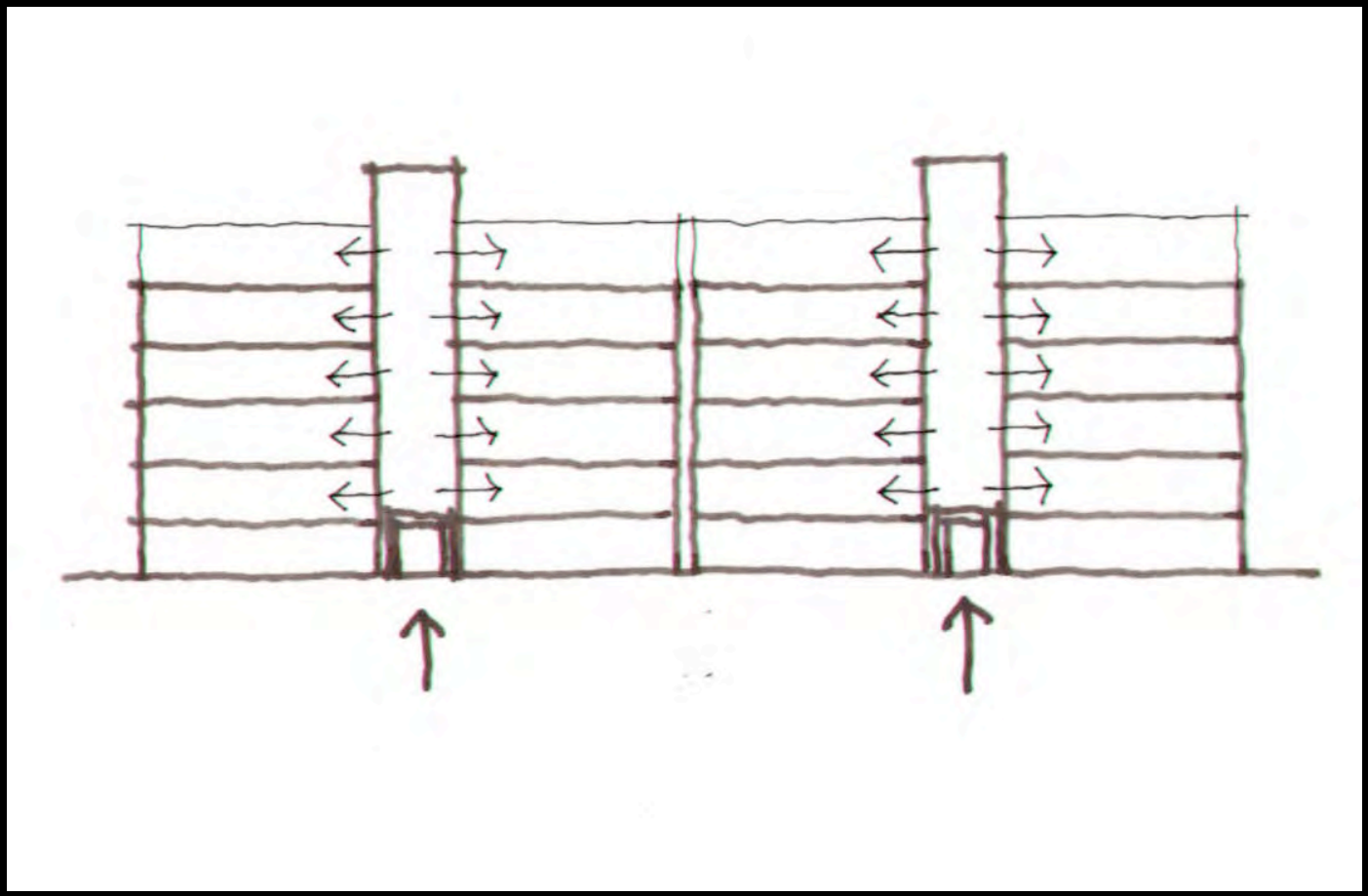

Lower buildings on the south side.

# Strategic Decision B




Define the street, mark the corner,
enclose the gardens.

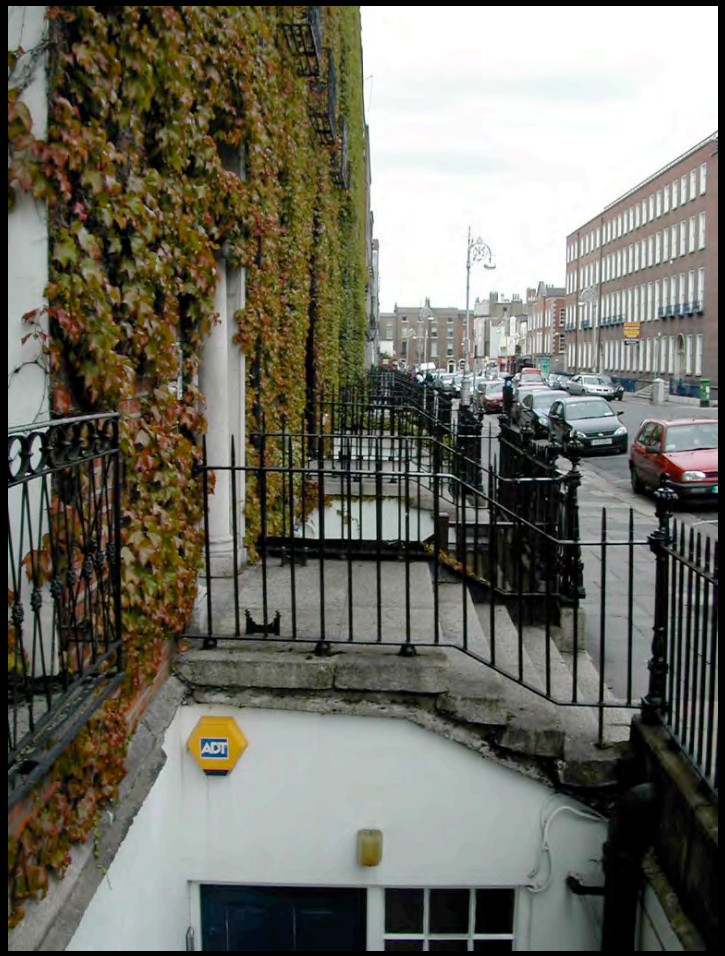
## Strategic Decision C



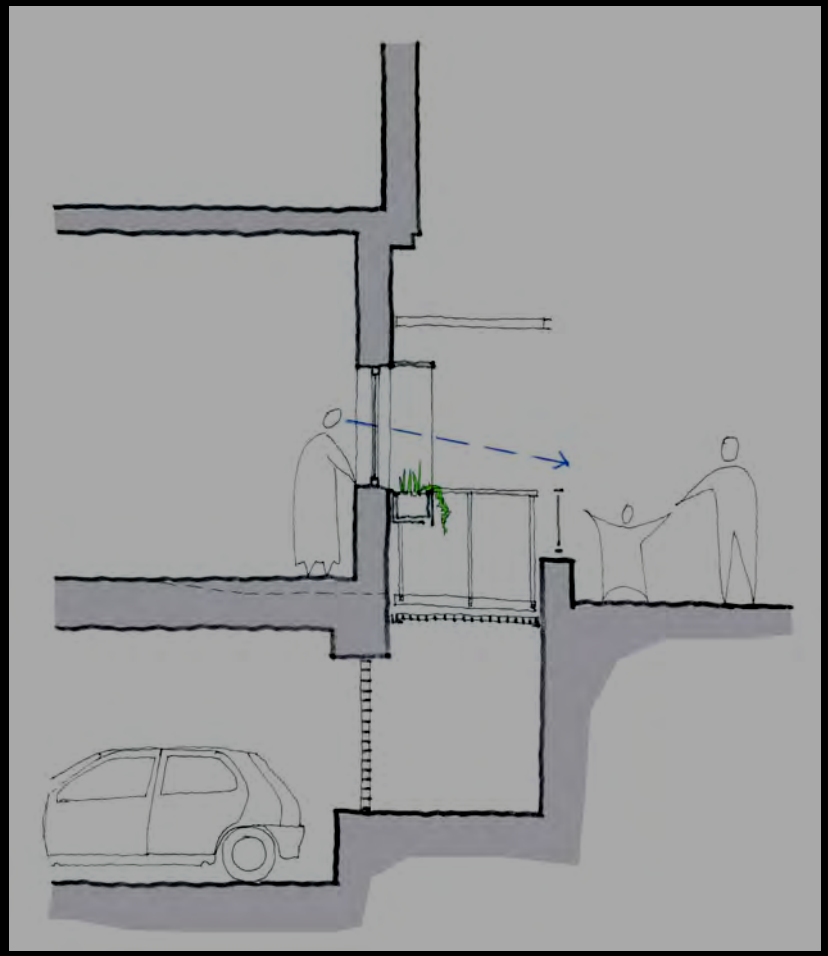
Vertical Access to enable dual aspect.

Front doors to the street, shared stairwells

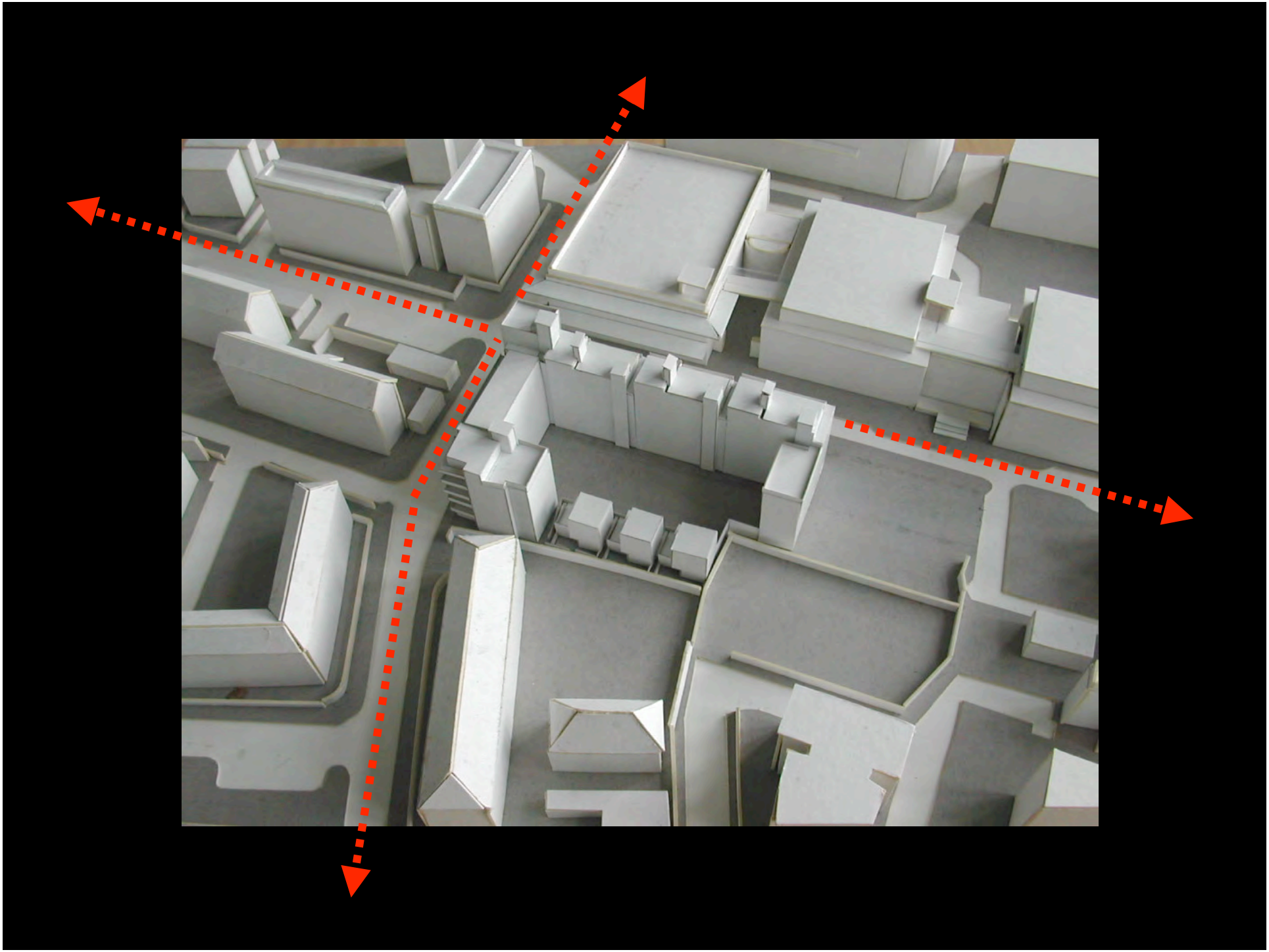
# Privacy and Security

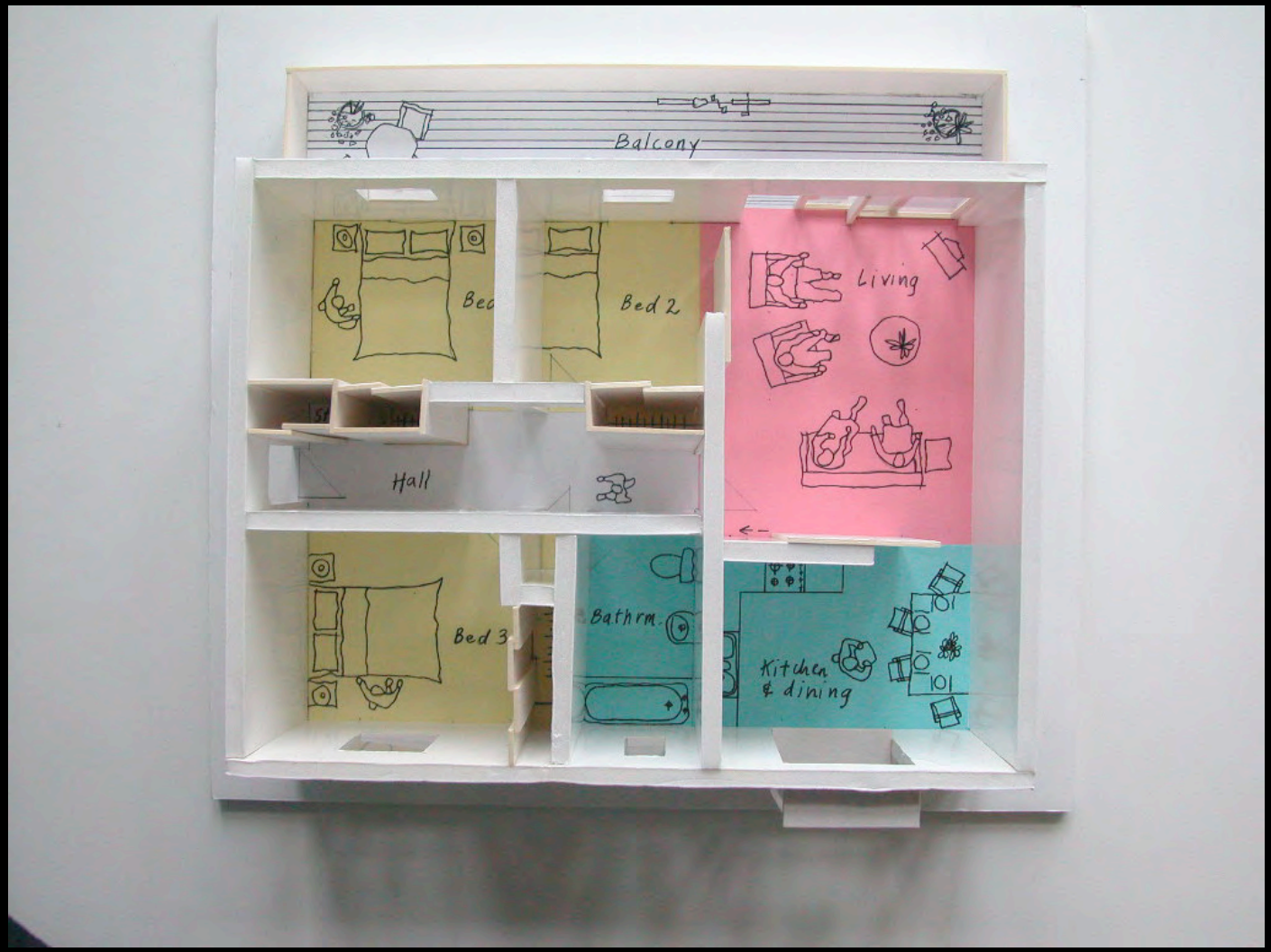



Traditional arrangement.



Our proposal.



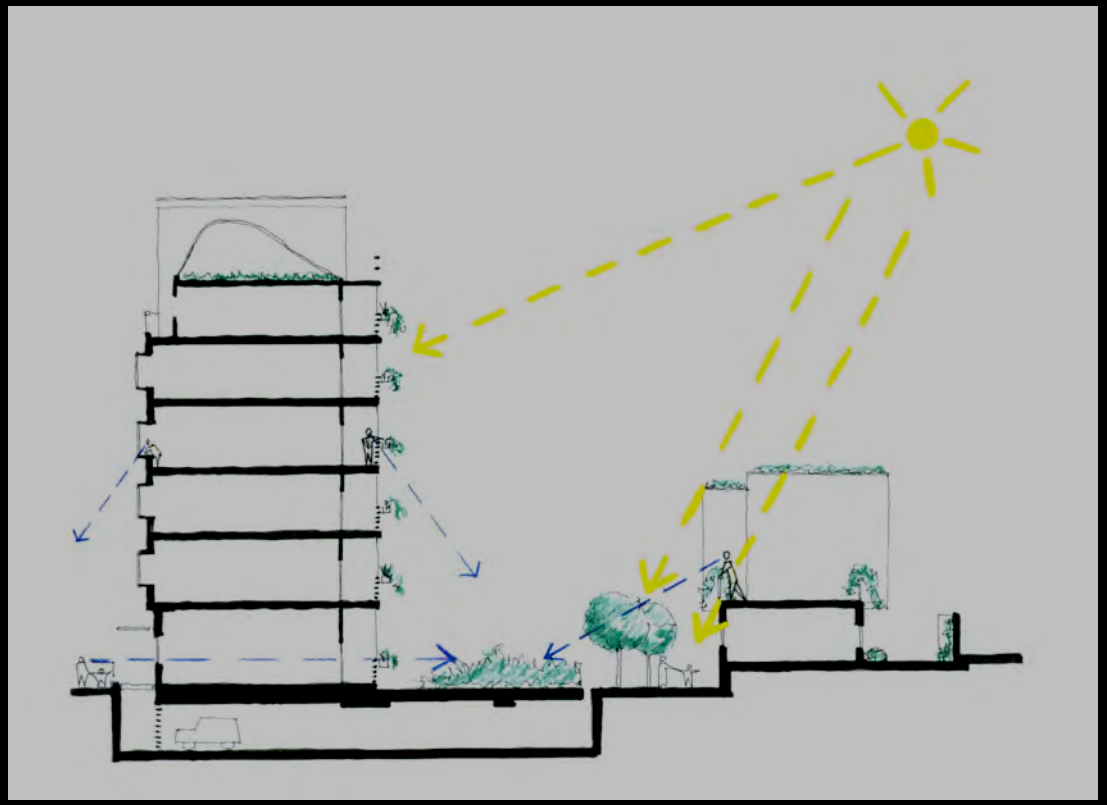

Balcony
Bed
Bed 2
Living
Hall
Bed 3
Bathrm.
Kitchen
& dining

# 2. Energy


(a) Site Strategy

- Orientate buildings south
- Avoid overshadowing on the south side
- Create large sun-trapped communal garden

# 2. Energy



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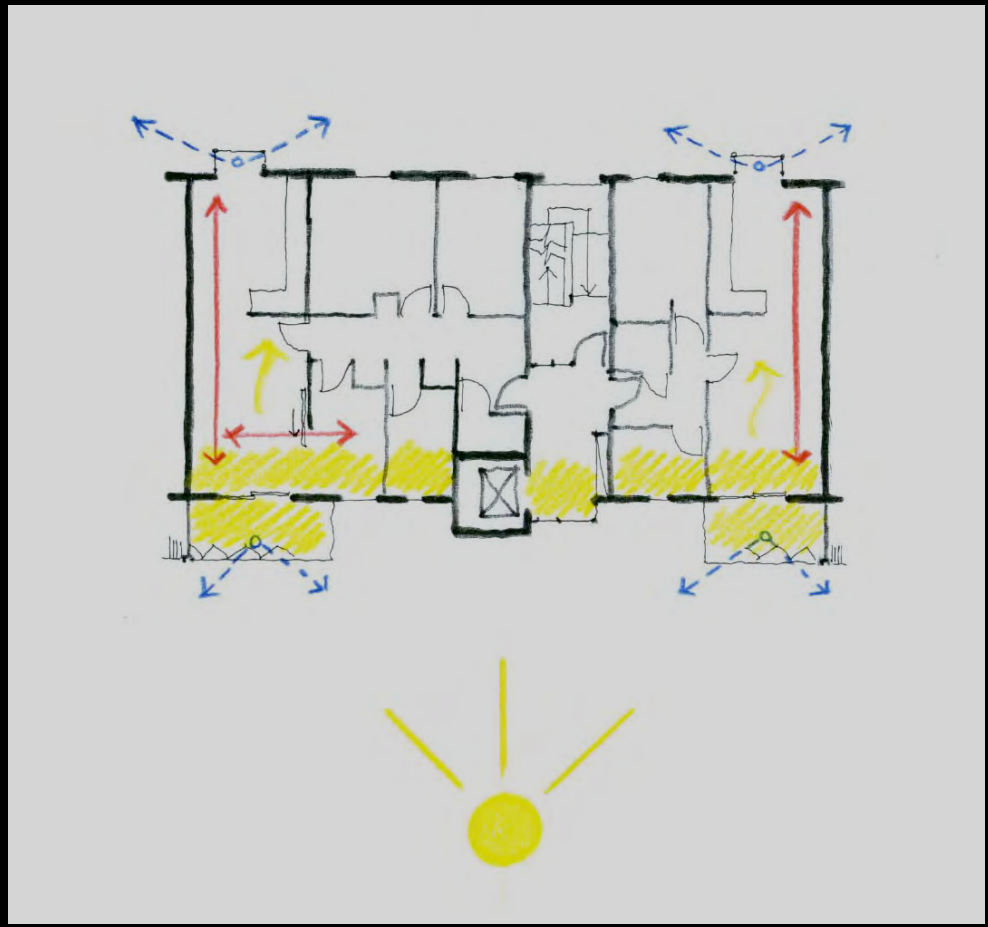


(a) Site Strategy

- All living spaces and balconies get the sun
- Smaller windows o the north side,
  but with bay windows to look over the street

# 2. Energy

(b) Reduce demand

- High quality specifications and high insulation levels
- Careful detailing (avoidance of cold bridging etc)
- No open fireplaces or chimneys
- Careful sizing of north facing windows
- Glazed winter gardens reduce heat loss
- Maximise natural light using dual aspect and tall windows, to avoid frequent use of artificial lighting

# 2. Energy

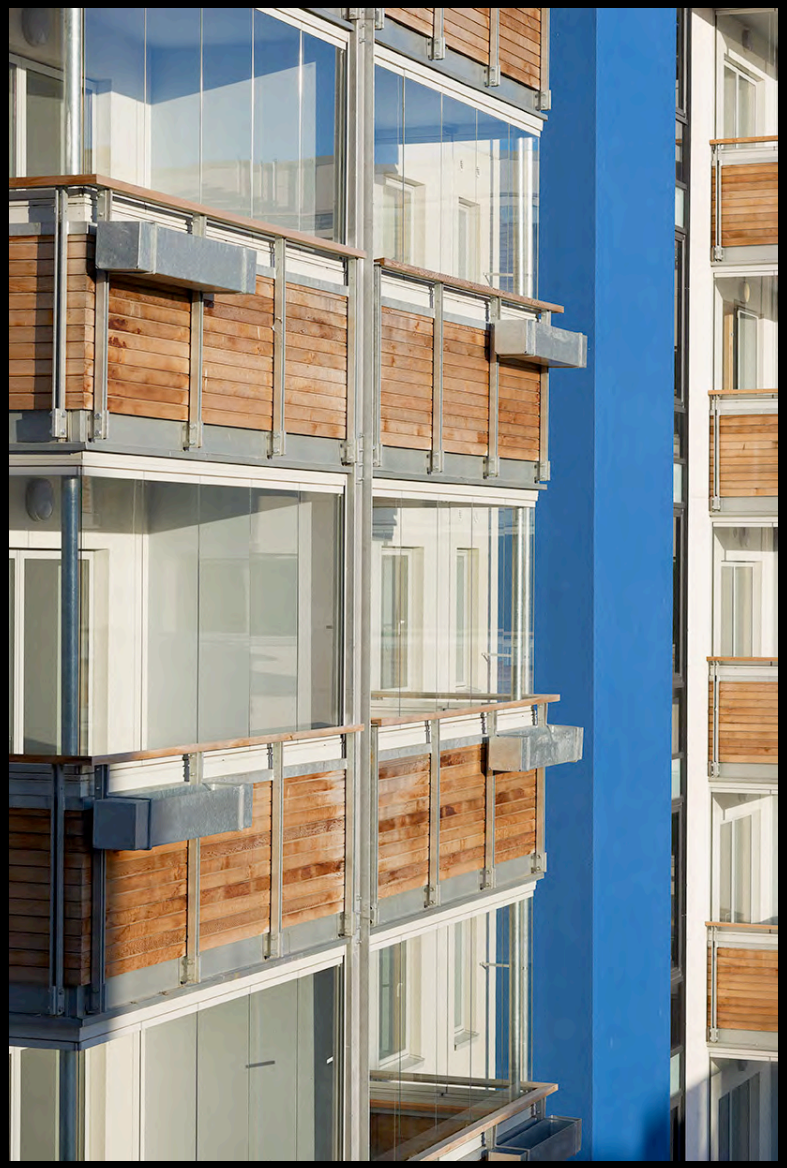
(b) Heating Strategy - Solar thermal panels on the roofs feed…..
- central, high efficiency gas condensing boilers…..
- that provide hot water for radiators and taps
- High levels of insulation to walls and roofs
- All radiators have thermostatic valves for local control
- Residents only pay for hot water / heating they use

# 2. Energy

## (b) Heating Strategy

- Passive solar gain through large south-facing windows

- Air warmed in glazed balconies for redistribution throughout apartment



Designed in 2003/04
in excess of then-current standards

Completed and occupied in 2009

THINK AHEAD !

## ENERGY EFFICIENCY

-51% target reduction in energy usage and $CO^2$ emissions (cp. to 2004 )

-70% target reduction in running costs - combats fuel poverty

- 1.17$m^2$ solar thermal panels per dwelling.

- 90% efficiency gas condensing boilers (av. 2 boilers per 15 apartments)

- 1.1 tonnes of $CO^2$ emitted per dwelling per year. (cp. To 2.34 tonnes per year for electrical storage heating)

- €442 saving per dwelling per year for space heating and hot water (cp. to electrical storage heating)

-Typical external wall U-value 0.17 W/$m^2$k (0.27)
-Typical flat roof U-value 0.15 W/$m^2$k (0.22 )

# House of Tomorrow Programme.


Energy Consumption monitoring;

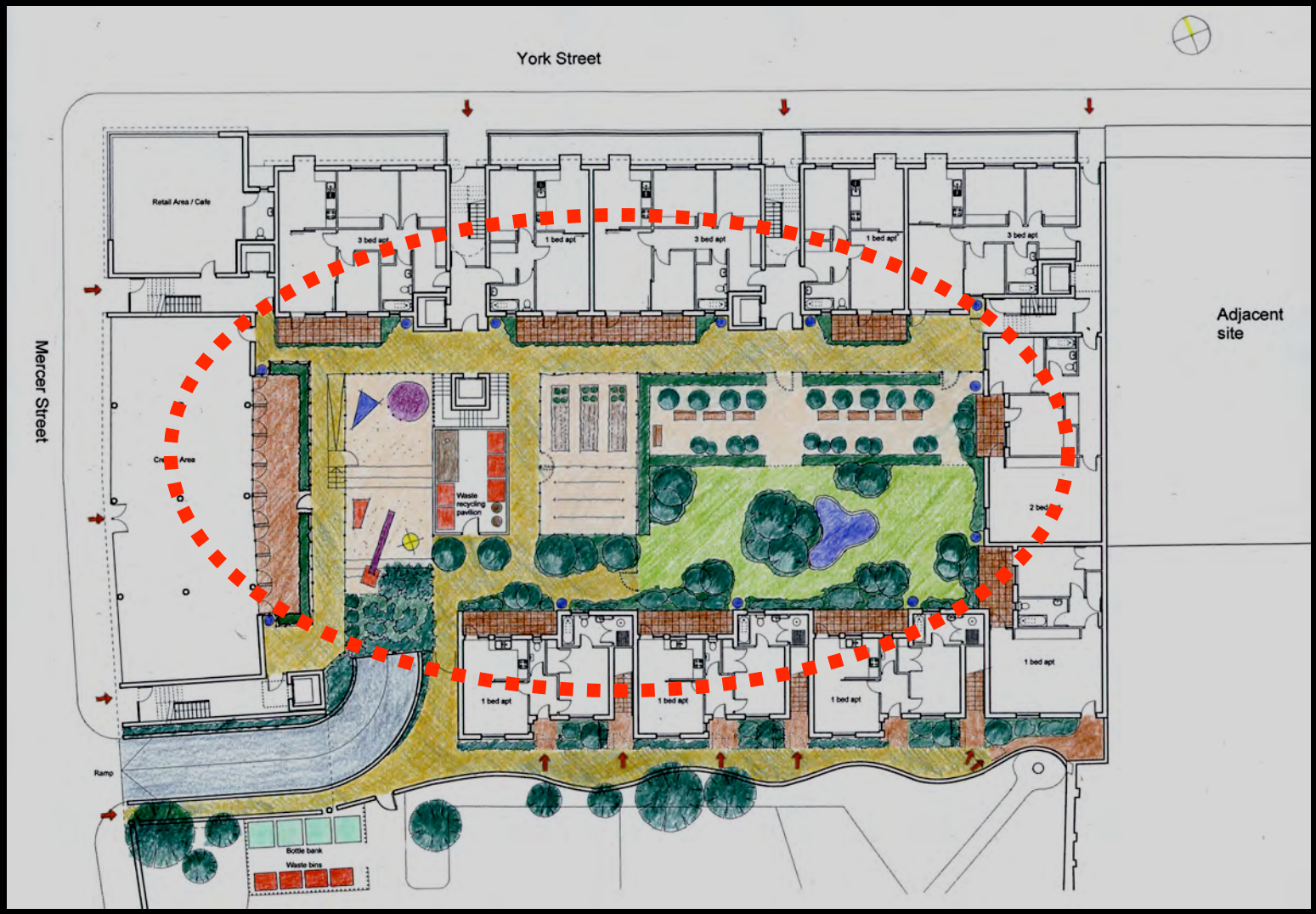
Starts August 2009
Bi-monthly heat and gas consumption
Solar panels also monitored

# 3. Biodiversity

Provision of habitat for insects and wildlife

- Green roof-gardens
- Green common gardens
- Balcony plant boxes
- Specially designed bird boxes

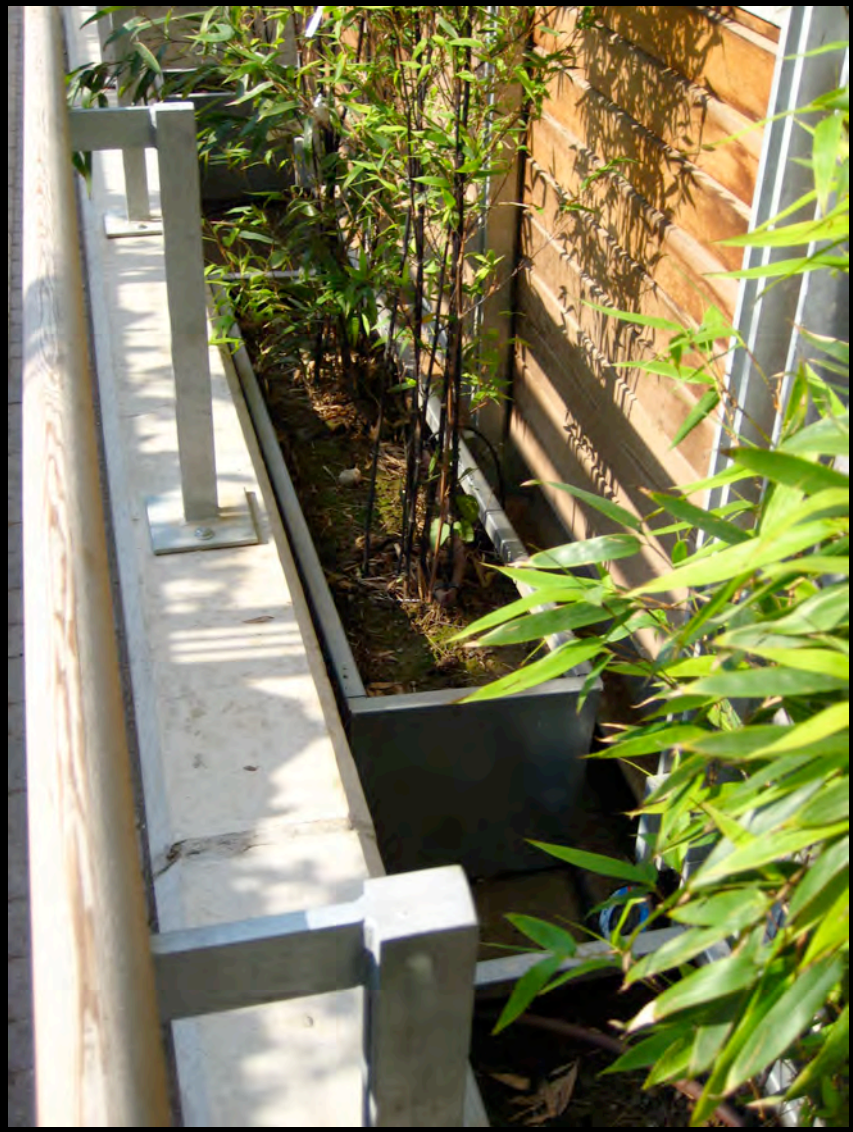
# Communal gardens



Bauder sedum roofs

Green communal garden courtyard

Balcony plant boxes



# 4. Building Materials

*Use materials with*
*a low environmental impact*

- Ecocem concrete
- Lime render
- Softwood windows
- Avoidance of PVC products
- Low solvent wood stains and paints
- Avoidance of MDF
- Recycling of materials  from demolition of the existing buildings
  eg. Timber floor joists being reused in the roofs of the main blocks and in the waste pavilion

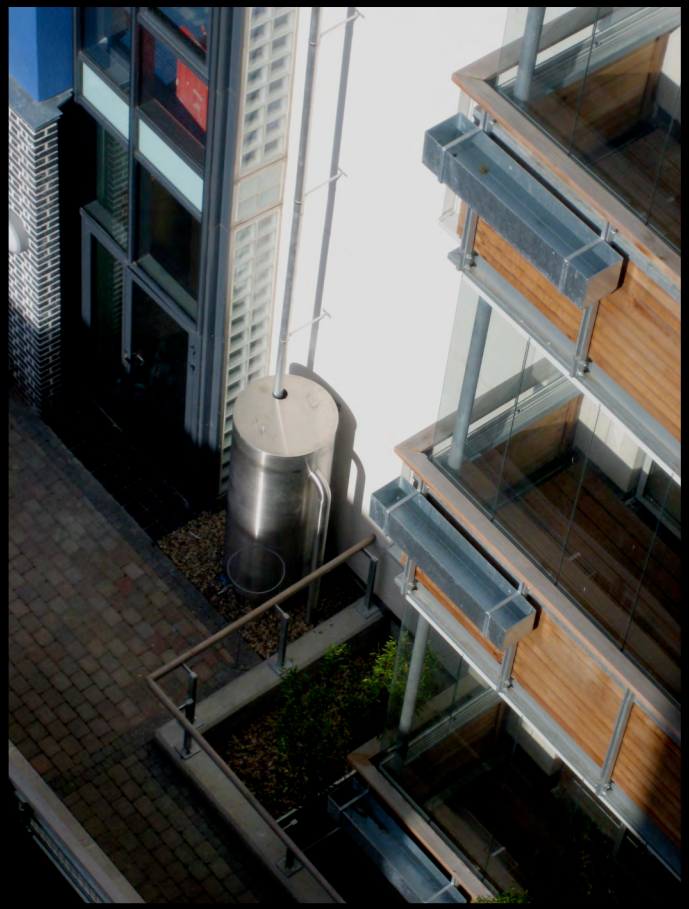
## 5. Water

### Water Absorption

- green roofs that absorb water
- lots of soft landscaping in the courtyard

### Water usage

- dual flush toilets
- no power showers



# Water harvesting

- collection of rainwater in butts for irrigation and washing cars

## 6. Waste

Generous and easily accessible separation and storage facilities for household waste recycling

Electric organic waste composting machine in a timber pavilion in the communal garden

Swedish waste and recycling pavilions.

# Recycling pavilion in the garden


www.joraform.

# Waste and Recycling


*Photo: Showing what to put into and what not to put in the composter.*
*Note: The 'digester' is another name for the composter.*





## The Composter

The composter is for digesting food waste from your kitchen. You can take your compostable waste to the recycling hut where the caretaker will put it in the machine for you. You can put most foodstuffs and some kinds of soft paper into the composter. The complete list of items that can be put into the composter is shown on the page opposite and there is also a large poster with this information in the Recycling Hut. The Composter is divided into several parts that process cooked and raw food and plant waste, turning it into fully finished compost over a four to six week period.

The compost can be used in the courtyard, the roof gardens or for your individual balcony planters or pots. The Composter works automatically and will be maintained by the Caretaker and the company that installed it. If the bins in the Waste Recycling Hut become full you can bring your waste to the bins that are located in the store in the basement car park. On certain days every week the caretaker will wheel the waste bins into Mercer Court for collection by the bin lorry.


*The composter*


*Food going into the composter*


*Food in the composter*

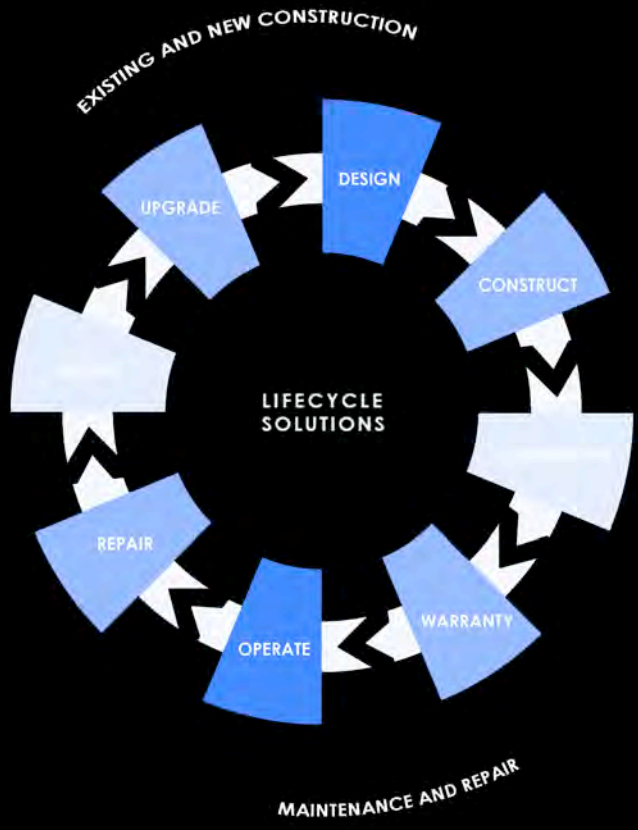

*Composter processing the food*

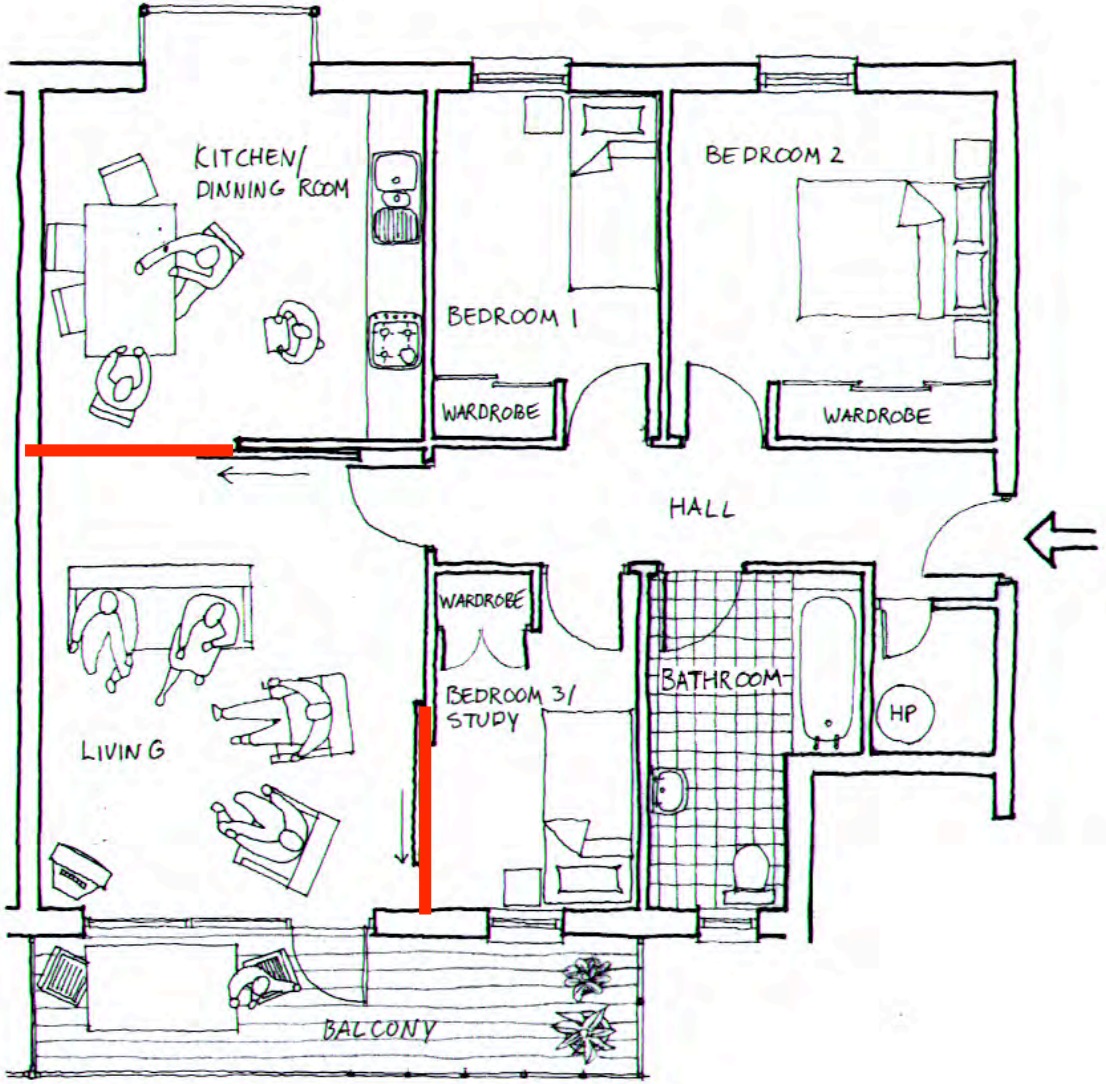
# 7. Adaptability

- “Lifetime Homes” standards

- Apartment layouts can change

- Significant dismantle-ability potential



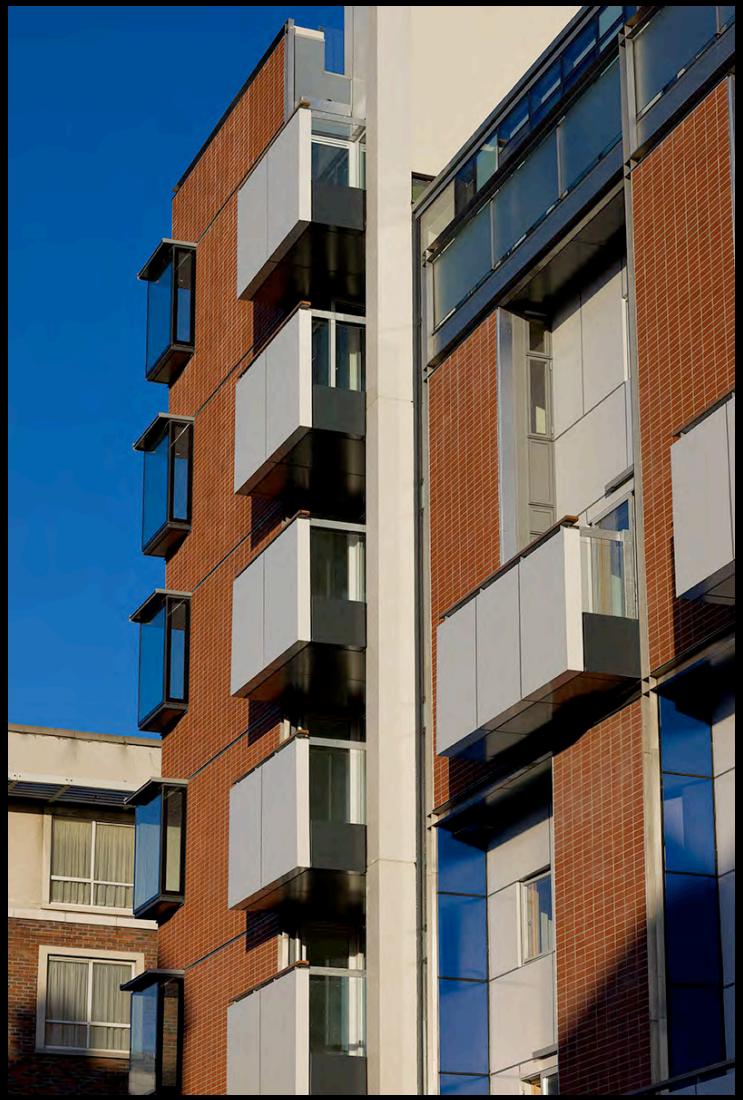

KITCHEN/
DINNING ROOM
BEDROOM 1
BEDROOM 2
WARDROBE
WARDROBE
HALL
WARDROBE
BEDROOM 3/
STUDY
BATHROOM
HP
LIVING
BALCONY

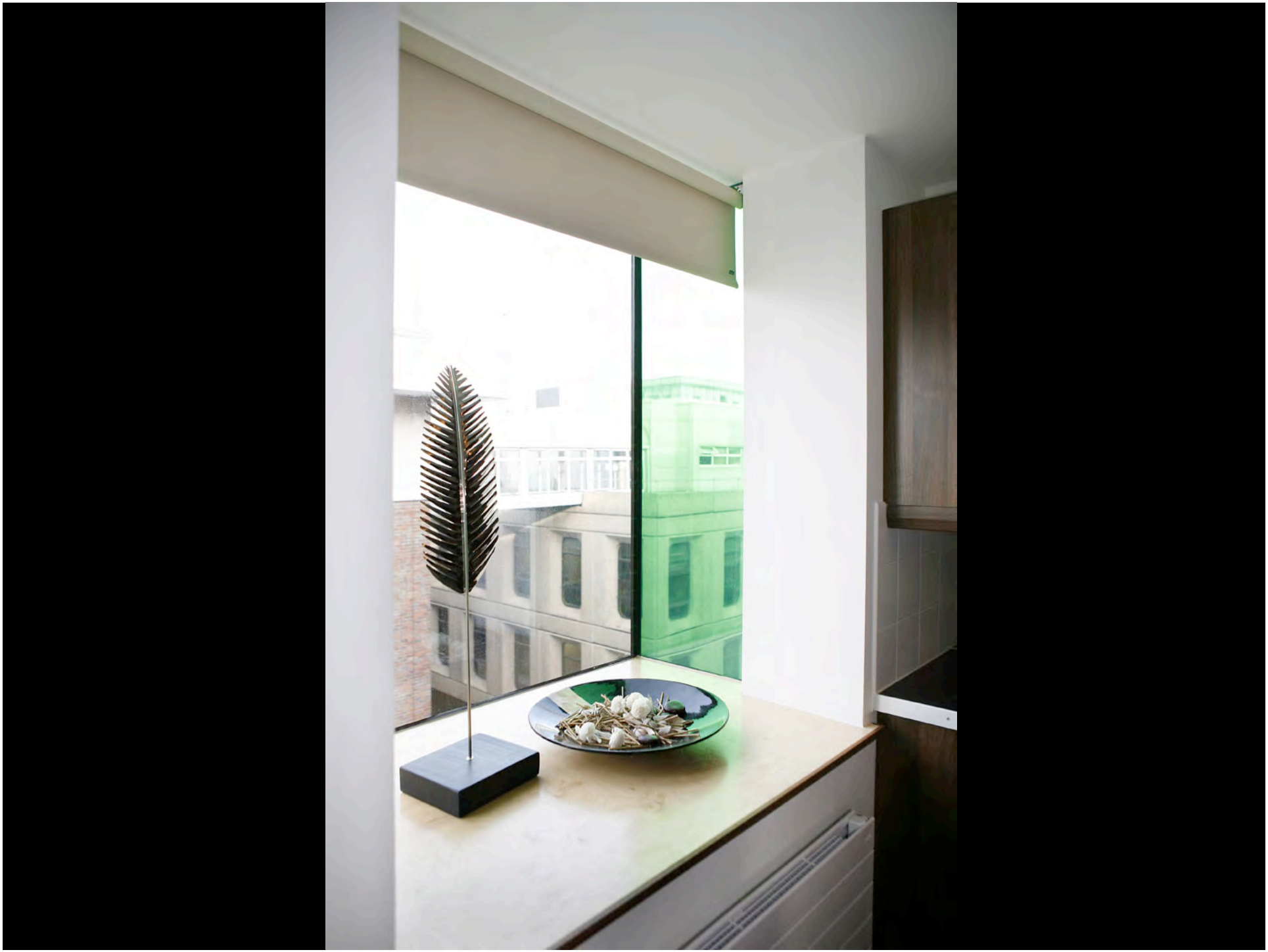
# Residents' Handbook

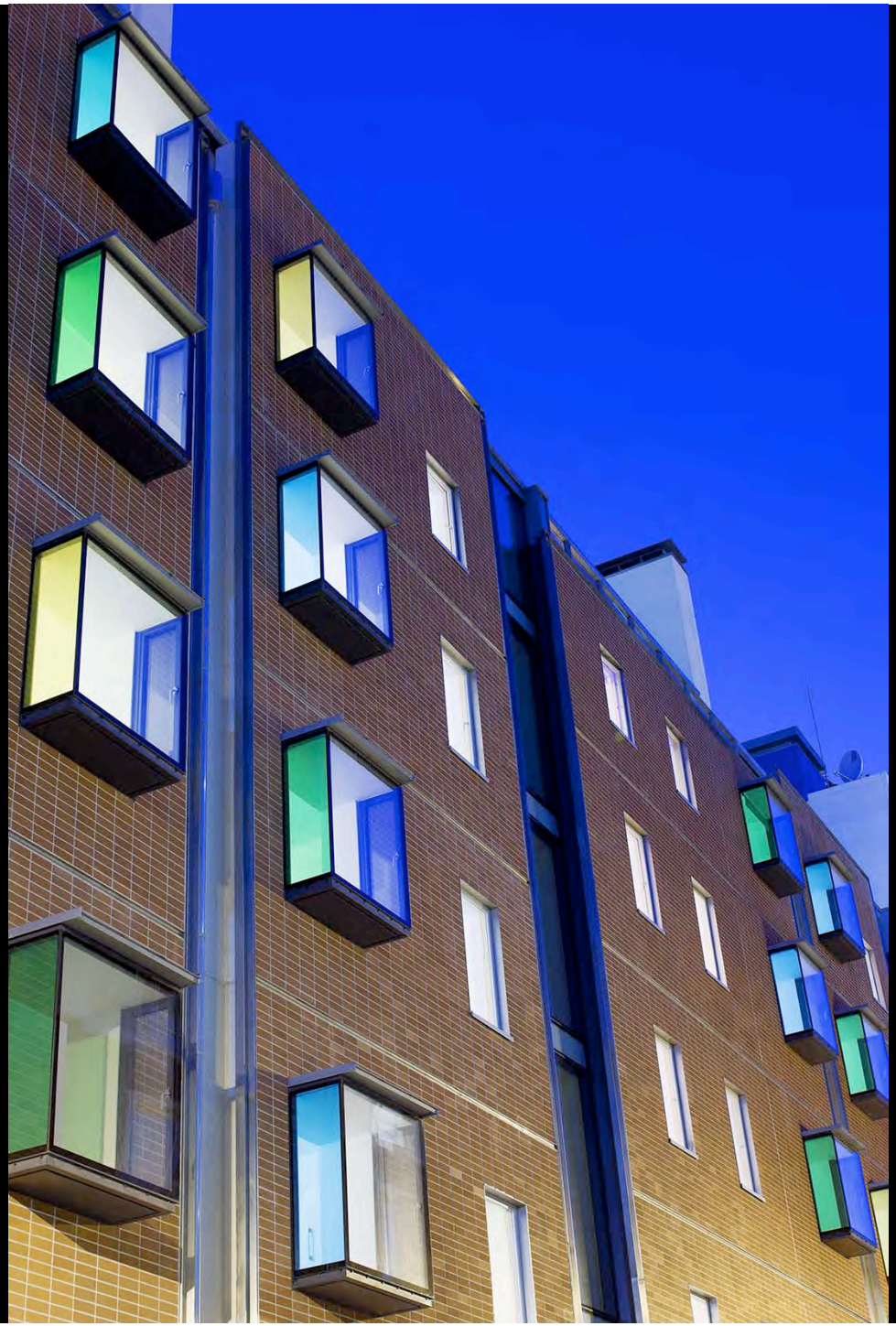
17-19 York Street

Dublin City
Baile Átha Cliath

contents







## GREEN GOOD DESIGN AWARD 2009

The World's Leading Sustainable Green Design

GOOD DESIGN

Ecological Apartment Building, York Street, Dublin

**Seán Harrington Architects**

Awarded by the European Centre for Architecture Art Design and Urban Studies and the Chicago Athenaeum Museum of Architecture and Design

## IRISH ARCH-ITEC-TURE AWARDS 2009

RIAI

Award: WINNER

Category: SUSTAINABILITY

Project: YORK STREET SOCIAL HOUSING

Architect: SÉAN HARRINGTON ARCHITECTS

Client: DUBLIN CITY COUNCIL

President

Honorary secretary

PROMOTING REPRESENTING
REGULATING ARCHITECTURE

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Irish Council for Social Housing

## COMMUNITY HOUSING AWARDS 2009

**Features**

Interview with Professor J. Owen Lewis, SEI
Retrofitting Buildings
A Checklist for Sustainable Buildings
Sustainable Transport Options

**Buildings**

*York Street Housing, Dublin*, Seán Harrington Architects
*ARC Centre for the Built Environment, Hull (UK)*, Niall McLaughlin Architects
*Waterways Ireland HQ, Enniskillen, Co Fermanagh*, Mullarkey Pedersen Architects
*Boole Library and Postgraduate Library*, UCC Cork, Wilson Architecture
*A-Rated Family House, Dublin*, FKLarchitects
*The Ko Lee Institute (CSET), Ningbo, China*, Mario Cucinella Architects

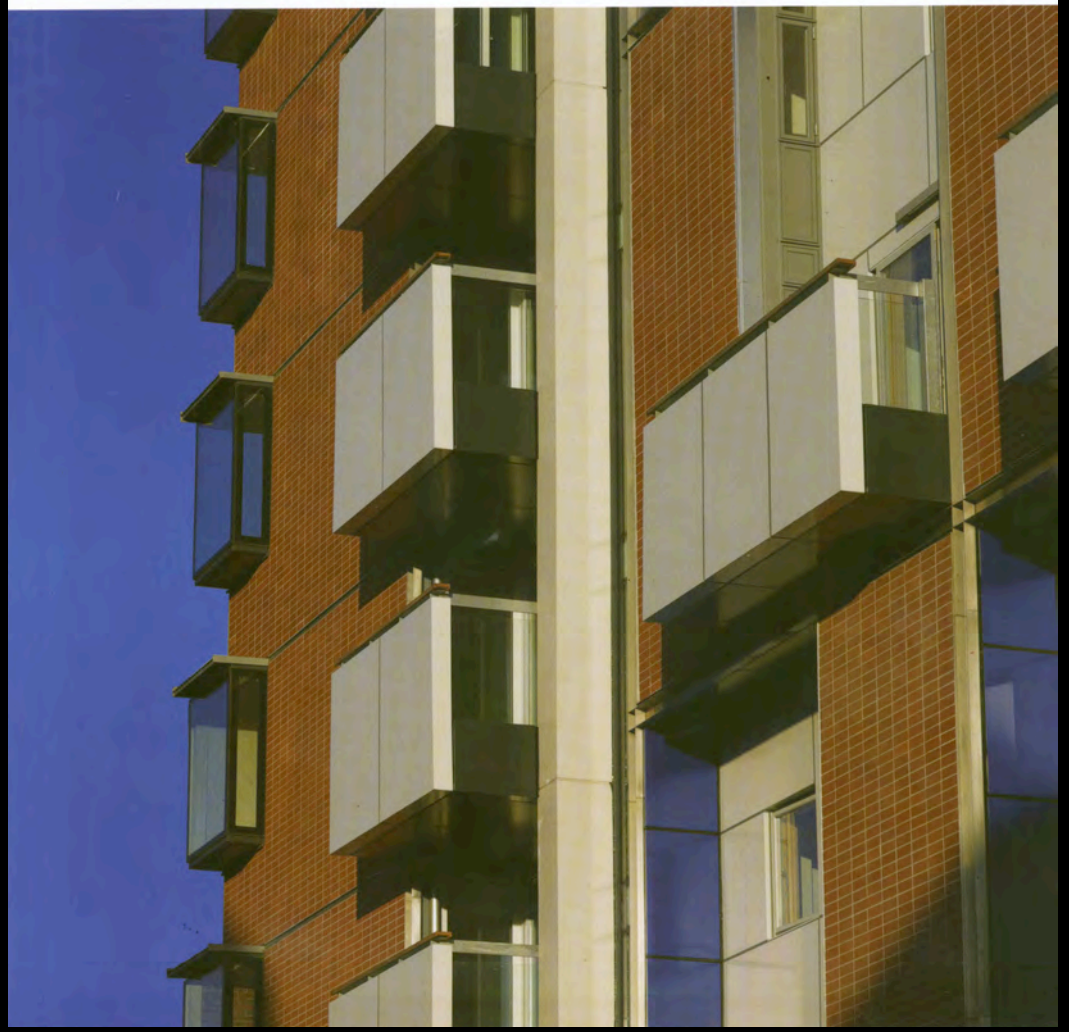
244

RIAI

February 2009
€10 (Incl VAT)

# ARCHITECTURE

The Journal of the Royal Institute of the Architects of **Ireland**



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