Contribution of Older Buildings to a Living City

Living City Initiative – Workshop:
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Gráinne Shaffrey, Shaffrey Architects
Living City is trying to deal with is this......
And this......
PENNIES ARE DROPPING: UNDERPINNING LIVING CITY INITIATIVE

• Cities (and towns) as main economic drivers:
• Our cities and city cores contain extensive historic areas and buildings
• How our cities look is important to economic well-being
• How our cities and buildings are used influences how they look
ECONOMIC PENNY

THE CLIMATE CHANGE PENNY
a paradigm shift...?

EU target: by 2050 reduction in energy consumption by 80%

Implication (EU) in 2050, 90% of the existing building stock will still exist and be in use
Urban heritage, including its tangible and intangible components, constitutes a key resource in enhancing the liveability of urban areas, and fosters economic development and social cohesion in a changing global environment. As the future of humanity hinges on the effective planning and management of resources, conservation has become a strategy to achieve a balance between urban growth and quality of life on a sustainable basis.
Cities are dynamic organisms. There is not a single ‘historic’ city in the world that has retained it’s ‘original’ character: the concept is a moving target destined to change with society itself. To preserve the urban historic landscape, strategic alliances need to be built between various actors in the urban scene, foremost between public authorities which manage the city and developers and entrepreneurs that operate in the city.

(UNESCO New Life for Historic Cities: Historic Urban Landscapes Explained)
Why?

The town is a fundamental – and existing – piece (place) of Community(ies)

To loose this – do we start over? Can we afford to?

The Urban Well-Being Penny
“The human animal requires a spatial territory in which to live that possesses unique features, surprises, visual oddities, landmarks and architectural idiosyncrasies”

(Desmond Morris, The Human Zoo)
Why the problem with living in our (old) urban centres and buildings?

Some prevailing perceptions and influences:

Living in the Town Centres – are we recovering the disconnect; is this any longer a credible scenario for many people?

The tipping point of dereliction

The size of the unit – economies of scale – affordability

Limitations of the short-term / speculative development model

The Statutory Processes: ‘Regulation Strangulation’ – PERCEPTION or REALITY

These buildings are no longer suitable for modern use and ways of living
SOLUTIONS

• Getting the Policies right

• Implementing them + belief and advocacy

• Delivery models: CPO; Financing; scale of development v return

• The Architectural / Urban Design Solutions
“If a building is to be altered, the chances are it will be altered again. The designer therefore has responsibility for a building’s past, its present and, indirectly, it’s future. The interventionist makes a contribution to a continuum which is the life of the host building.”

(Fred Scott, *On Altering Architecture*)

CASE STUDIES
Living well in really great buildings
Diagram 6.1: ‘Living Over the Shop Scenarios’
Option A
- gf: office 582 m²
- Ig: apartment 150 m²
- New fabric
Two-bay, 3 storey over basement with 3 storey return. Retains historic features
Narrow return. Rear wall and return has been altered considerably
Basement/Ground Floor with lower level return:
First Floor and top two return floors:

Office: 183 sq.m.
2-bed apartment: 139 sq. m.
Second and Third Floors with roof garden over return: 2/3 bed apartment: 155 sq. m.
Apartment No 1: Ground floor two-bed apartment: 116 sq.m.

Apartment No 2: First floor two-bed apartment: (122 sq.m.)

3 No apartments combining two existing houses – urban corner
Second Floor Plan

Third floor plan:

Apartment No 3: Second & Third Floor 3 bed Apartment: 244.5 sq.m.
Typical 2 bay, 3 storey (perhaps over basement) street house over shop:

2-bed apartment: (c125 sq m) over shop
1 Crane St / 7 & 8 Thomas St: refurbishment, adaptation & extension as new digital office space & retail: for Digital Hub De
development company

Shaffrey Associates Architects
• Residential over Ground floor retail/office units
• Upper floor residential adaptation will provide 6 No units: 1-bed and 2-bed per floor. Due to existing plan form, these apartments will be generous in size, running front to back providing dual aspect views onto street and, to the rear, southerly aspect overlooking a new semi-private garden.
• A new contemporary 4 storey infill building can accommodate lift and stair access with retail/office at ground level front, linked to adjacent unit
• Residential complex will be accessed via existing archway
"The City crumbles and is repaired"
Section North - South looking East
View from Francis Street

Bird's Eye View from South West to rear Facades, enclosed Courtyard and raised Garden
a. Tackling issues of condition (vacancy; dereliction; lack of maintenance) – significant % of cost of adaptation

b. Meeting Development Standards (national and local)

c. Meeting building and other relevant statutory regulations

d. Functional/comfort requirements:
   - every home should have a front and a back
   - think carefully about single level homes at street level
   - keep wet services to the rear
### Part B – Fire Safety
### B1 Means of escape

#### Potential Impacts
- Introducing second stairs
- Protection of escape routes – lobbies
- Increased capacity on existing stairs
- AoV’s (generally achievable)
- Upgrading existing doors and certifications
- Material Change of Use from office to residential where building is greater than 4 floors in height

#### Issues/Possible mitigation
- Management solutions may restrict use and numbers
- Misting; pressurising; etc – costly and interventions
- Cost/challenges of certifications
- Sprinklers required by one F.O.; where AOV, L1 system acceptable by BCO
Part E - Sound

E1 Airborne sound (walls)

Potential impacts

• Primarily issue for residential use
• As compliance is based on post completion testing, may require redoing or drive extensive intervention up-front. Both may have considerable cost implications

Issues/Possible mitigation

• Less onerous requirements for Protected Structures
• We really do want to ensure decent homes
• Use of floating floor systems to meet compliance – however impact on skirtings, doors, etc
<table>
<thead>
<tr>
<th>Potential impacts</th>
<th>Possible mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td>May end up introducing trickle vents in windows or room ventilation if using default data.</td>
<td>Advance air-tightness testing will provide in-situ data which may obviate need for introducing room/trickle vents</td>
</tr>
</tbody>
</table>
Part M – Access & Use
M1 Access & use of buildings

Potential impacts
• External wheelchair lifts/ramps – physical interventions + cost of maintenance
• Internal Lifts – physical intervention + cost of maintenance
• Low/narrow openings
• Stairs – too narrow; treads/risers; balustrade; no space for second handrail
• Historic floor/ground finishes

Issues / Possible mitigation
• Big issue with mechanical solutions is cost, especially ongoing maintenance costs and affordability
The application of the Building Regulations to works in EXISTING BUILDINGS (extract Building Regulations)

Building Regulations apply to existing buildings where works are being performed on a building as prescribed in the Building Regulations 1997 (S.I. No. 497 of 1997) as amended by the Building Regulations (Part L Amendment) Regulations 2008 (S.I. No. 259 of 2008) and by the Building Regulations (Part M Amendment) Regulations 2010 (S.I. No. 513 of 2010).

**Article 9(2) of the Building Regulations 1997 (as amended) prescribes that no works shall be carried out to a building which would cause a new or greater contravention in the building of any provision of Building Regulations.**

In addition, subject to Article 3 (Application) and Article 8 (Exemptions) the Building Regulations 1997 (as amended) have specific provisions applying to:

- Material alterations, extensions and repair and renewals;
- Provision of services, fittings and equipment (by way of new work or by way of replacement);
- Material changes of use.

1. **Material alterations, extensions and repair and renewals**

   With regard to material alterations, extensions of buildings and repair and renewals, Article 11 of the Building Regulations 1997 (as amended) applies to:
   - (a) all works in connection with the material alteration or extension of an existing building,
   - (b) every part of a building affected by such works referred to in paragraph (a) above but only to the extent of prohibiting any such works which would cause a new or greater contravention, in such building, of any of the provisions of the Building Regulations,
   - (c) any repair or renewal likely to affect the structural integrity of the building or building element been repaired or renewed,
   - (d) Part L of the Second Schedule to the Building Regulations shall apply to renewal works to existing buildings involving the replacement of external doors, windows and roof lights,
   - (e) Part L of the Second Schedule to the Building Regulations also requires that replacement oil or gas boilers where practicable should have a boiler efficiency of greater than 90% in dwellings (condensing boilers have an efficiency of > 86%) as defined on the HARP database.
   - (f) Part L of the Second Schedule to the Building Regulations do not apply to works (including extensions) to an existing building which is a ‘protected structure’ or a “proposed protected structure” within the meaning of the Planning and Development Act 2000 (S.I. 30 of 2000).
Typical Floor Zone
• Fire protection
• Sound
• Services
• Maintenance – access / ownership / reversibility
Typical Floor construction details
- Rockwool Fire batt
- Sound insulation
- Services
- Doubling joists (additional loading)
- Issues where floor is property boundary – access?
Living Over the Shop
Capel Street

Northumberland Avenue
Lawrence and Long Architects

We’ve done it before and are still doing it
South William Street
Robin Mandal Architects
To a question on elegance and taste

My knowledge of materials and my access to skilled people, plus time, created what you call taste. I believe that things in our lives should be cared for, and they should be used at their highest level of use. SO PART OF WHAT YOU SAW WAS MY WILLINGNESS TO CARE FOR THINGS AND INVEST IN THE CARE OF THEM.

(Theaster Gates, Kassel 2012)
END
DESIGN STRATEGIES: INTEGRATING THE HISTORIC AND THE NEW

The Building(s) Dimension:
"Architecture, like all other cultural objects, is not made just once, but is made and remade over and over again each time it is represented through another medium, each time its surroundings change, each time different people experience it" (Adrian Forty), each time a building is encountered and experienced afresh, each time its function changes. Thus architecture is not made just once – but is a process that continues after a building is brought into its original use.”

STRATEGIES
· REPAIR—RECOVERY—RENEWAL
· INTERVENTION: INTERTWINING NEW & OLD
· INSERTION: ENHANCE AND INTENSIFY
· INSTALLATION: INDEPENDENCE:
  The Two(New /Existing) Simply Touch each Other

TACTICS—ELEMENTS OF INTERVENTION:
· PLANE
· LIGHT
· OBJECT
· SURFACE
· OPENINGS (VIEWS & MOVEMENT)
· MOVEMENT / CIRCULATION
SCHEME A: SCHEDULE OF AREAS

Summary:
2 no. Retail Units
1 no. Restaurant/Café/Bar
2 no. Offices
6 no. Apartments
2 no. Maisonettes
Inner Courtyard:
Raised garden – 120 sq. m.
7 no. Car Parking spaces
Bicycle provision
Refuse Area

Retail
2 no. Retail Units
1 no. Café/Restaurant/Café
Retail 58.7 sq. m. each
116.5 sq. m. gross
[95 sq. m. net]

Residential
2 no. 2/3 bed live/work maisonette/house units
155 sq. m.
[plus 16 sq. m. terrace]
3 no. 2 bed apartments
85 sq. m. gross
1 no. 2 bed live/work apartment
124 sq. m.
1 no. 1 bed apartment
52 sq. m.
1 no. 2 bed duplex apartment
105 sq. m.

Commercial/Office
2 no. Units or
147 sq. m. net
[1 no. Unit
295 sq. m.]

TOTAL AREA OF DEVELOPMENT

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<thead>
<tr>
<th>Scheme A</th>
<th>Existing Construction</th>
<th>New Construction</th>
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<td>1,440</td>
<td>300</td>
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Option B
ff - sf - tf: office
lg - gf: duplex 235m²
Option C
ff - sf - tf: triplex
lg - gf: office

Ground Floor Plan 85 m²

Basement Floor Plan 150 m²
Option D

tl - sf - tf: triplex
lg - gf: duplex
Option F
sf - tf: duplex
ff : appartment
lg - gf : office duplex

Ground Floor Office Plan 204 m²

Basement Floor Office Plan 277 m²
Option H
sf - tf: duplex
ff: apartment
gf: apartment
lg: apartment

Third Floor Plan 140m²
Second Floor Plan 113m²
WHERE WE ARE AT NOW:

CONTEXT REMAINS: Desire for greater residential mix in South Georgian Core

CONTEXT EXPANDS: Need to get more people living in the City Centre – need to use our existing resources to the best

Basic Ingredients: KNOW WHAT YOU ARE DEALING WITH

GET THE RIGHT ADVICE at the START

DCC to Commandeer key people for up front consultation

QUALITY & STANDARDS NEEDED THROUGHOUT THE PROCESS

FEEDBACK TO DCC AND DoECLG/DAHG –
Do we need to change the rules?
Do we need more area based solutions?
Might an area based approach offer a new role for the ACA?
Some Emerging Issues

- Alteration of historic spatial sequences and hierarchies
- Accessibility – vertical circulation – narrow basement areas; may lose historic water tanks
- New stairs – Part M TGD dimensions challenging to meet
- Returns – alterations or rebuild
- Open space provision
- Division of property boundaries – challenging if ‘floor by floor’
- No car parking (resident permits)
- Better to work with building’s characteristics than try to fit ‘standards’ into existing proportions.
- Need to work with Building Control Officers as well as planning and conservation - early dialogue
Meeting Development Standards

- ADOPT AREA BASED STANDARDS
  
  • Parking
  • Open Space
  • Delivering Accessibility
  • Mix of Use – 40/60 residential
  • Mix of Tenure (social diversity)
  • Scale and Diversity of Residential
  • Mews developments – considering the whole plot
    – From parking to living/working
    – Scale and height of rear lane development
    – Acknowledging the historic grain
    – Special Uses
    – Site amalgamation
    – Gardens