

HEIGHTENED **DC** CONVERSATIONS

# Impacts of Building Heights in Capital Cities

March 5, 2013, National Archives



NCPC SPEAKER SERIES

# HEIGHTENED **DC** CONVERSATIONS

John Worthington



**NCPC SPEAKER SERIES**

**Heightened Conversations:  
Impact of Building Heights in Capital Cities**

**National Capital Planning Commission**

**Washington 5 March 2013**

**How High?  
Density, Intensity, Identity**

**John Worthington**

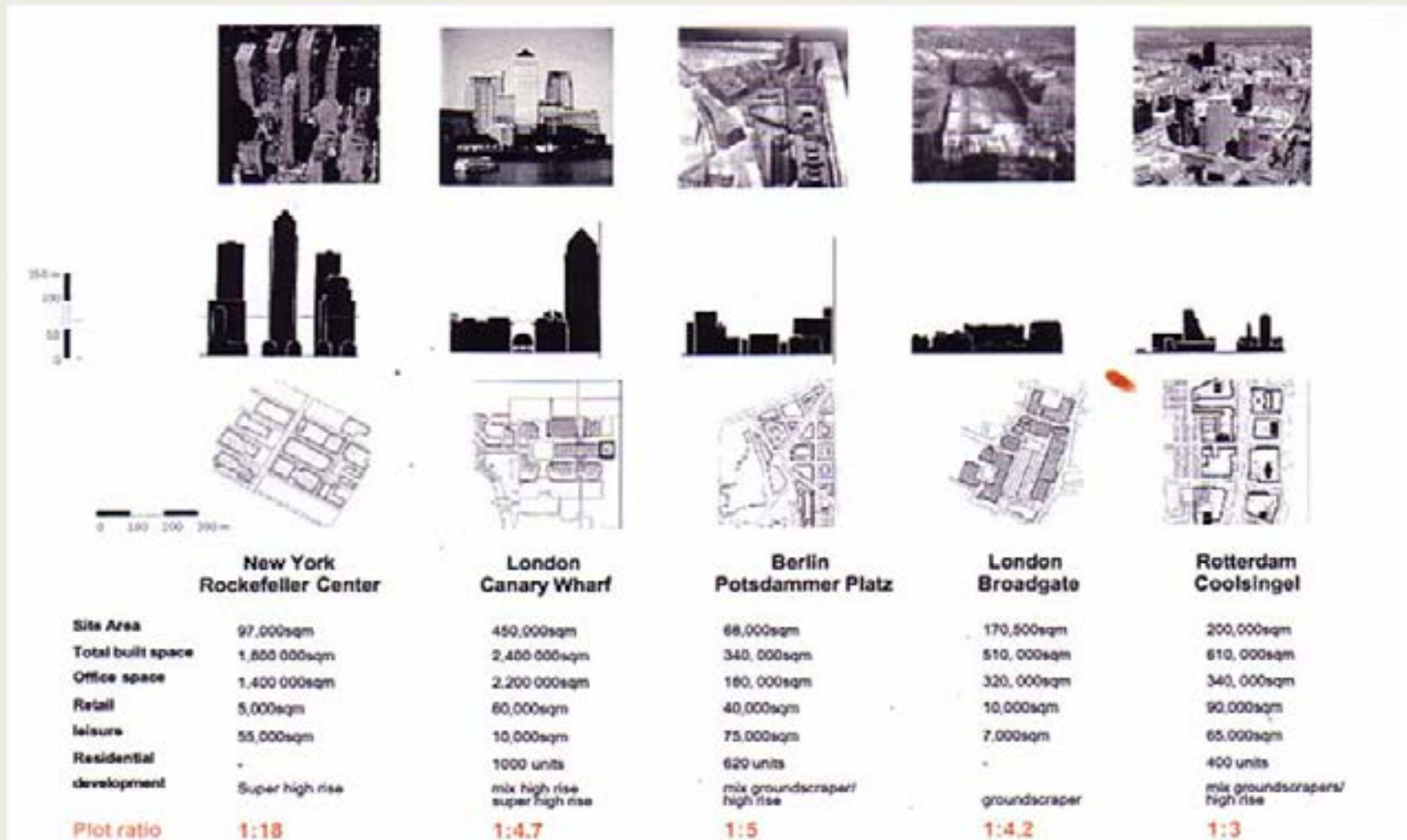
**Founder DEG**

**Director the Academy of Urbanism**





# HEIGHT AND DENSITY IS RELATIVE



# PRIMARY DEVELOPMENT DRIVERS



## Why High Rise? **The opportunities**

- Establish a city global presence
- Supporting economic success
- Intensification of land use
- Improving the public realm
- Symbol to attract investors
- Landmark for navigation

**Arguments for high buildings are strategic market, policy and cultures**



## Why Not High Rise? **The risks**

- Inflexible floor space
- Inflexible mix of use
- Construction costs
- Floor area utilisation
- Phasing
- Impact on city vitality, urban grain and character

**Arguments against focus on the local impact building design issues**

# DIFFERENT 'CONCERNS' SPECIFIC TO 'PLACE'



Rotterdam

consolidation of character of 'high building zone'  
development design guidelines



Dublin

'should we build any and where?'



London

'we need high buildings in order to retain global economic positioning'

## Policy drivers:

- urban character
- economics and markets
- historic & operational
- culture of place



# SINGLE BUILDING OR CLUSTER?



## Individual high buildings

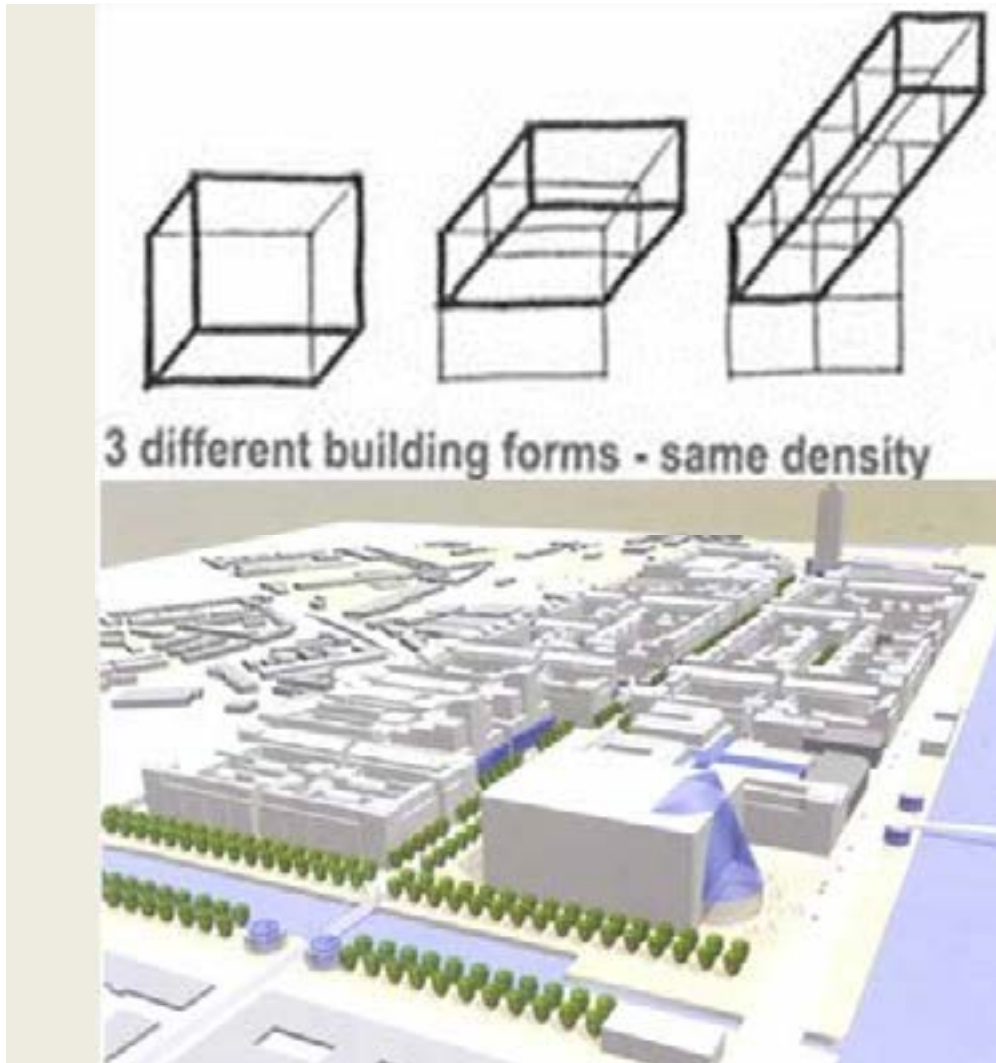
- landmark function
- no significant impact on density
- difficult to control environmental impact
- will often rely on existing infrastructure



## High clusters

- generate own environment
- significant increase of density
- potential enhancement of infrastructure
- comprehensive control of environmental impact

# CITY CHARACTER REFLECTS BUILDING TYPOLOGY AND URBAN GRAIN



## Building Typology

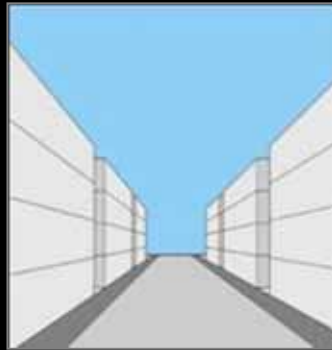
- Height
- Configuration

## Urban Grain

- Block and plot layout
- Street width
- Plan
- Scale



# BUILDING HEIGHT IMPACT ON CHARACTER



**"European" street character**

**15m street**



**22m street**



**"European" street character**

DEGW

15 metre street

THE ACADEMY  
OF URBANISM

# DUBLIN CHARACTER AREAS – A FRAMEWORK FOR MANAGING CHANGE



- 1. Set piece and Conservation areas
- 2. Existing areas of a dominant character
- 3. Potential areas for gradual / considerable character change - medium to long term

- 4. Potential new character area with contextual constraints
- 5. Potential new character areas-possibility for developing new morphologies
- 6. Potential new character areas - possibility for developing new morphologies - long term

# HIGH RISE STRATEGY REFLECTS SCALE AND DIVERSITY OF LOCAL TOWNSCAPE

Dublin, Grafton street



Dublin, Georgian  
terraces





# ROTTERDAM 'THE LEARNING CITY' LABORATORY



Skyscrapers

Groundscrapers

## City Interests

- Integration
- Servicing
- Accessibility
- Adaptability

## Investor Interests

- Response to market
- Value
- Long term success

## User Interests

- Functionality
- Attraction
- Long term quality
- Business performance



# ROTTERDAM - A STRATEGY TO ENCOURAGE INNOVATION



## GOAL

Establish a framework for creative design and mixed use development, through the use of both “groundscrapers” and “skyscrapers” in order to intensify the vitality of places and reinforce the identity and character of quarters within the city, with a minimum use of regulatory controls

# HIGH RISE ROTTERDAM – INTENSIFICATION AND INNOVAT

- Establish a robust zoning and height control framework for discretionary design discussions can be negotiated
- Ensure the minimum controls to achieve the maximum impact
- Encourage new building typologies to reflect changes in work and living
- Concentrate detailed guidance on quality of ground and skyline
- Individually consider landmark and super High Rise applications against agreed criteria
- Use computer modelling to assess environmental quality and urban vitality **IMPACT THROUGH QUALITY, NOT HEIGHT**

# CONSIDER BOTH SKYSCAPE AND GROUNDSCCAPE





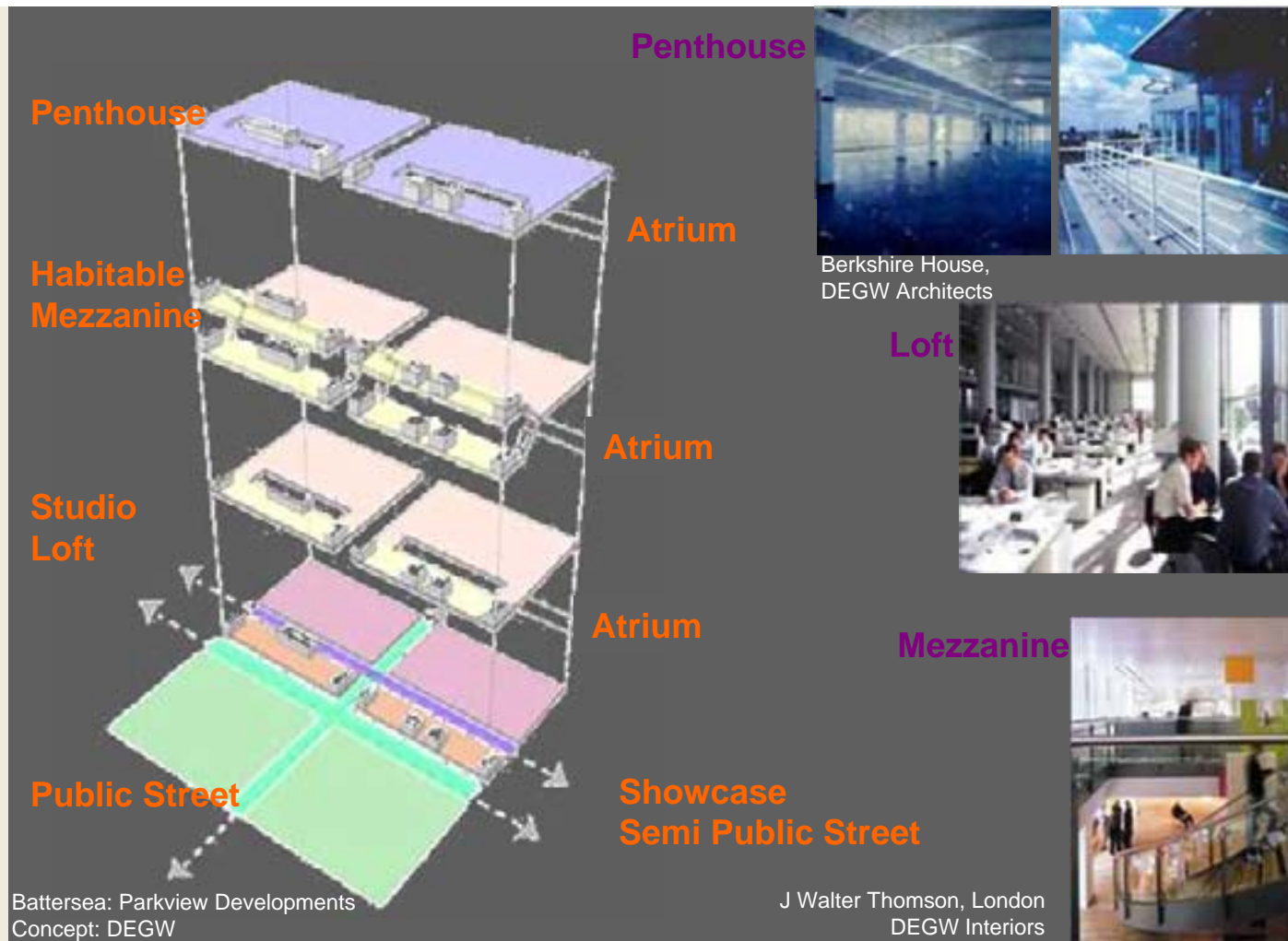
# LONDON BRIDGE TOWER EXPANDING OUR PERCEPTION OF THE CITY OF LONDON

*Architects: Renzo Piano Building Workshop*





# EMERGING BUILDING TYPES



Berkshire House,  
DEGW Architects



Loft



Mezzanine



Heron Tower, Bishopsgate London  
Architects: Kohn Pedersen Fox

**Consider each part of the building as special**

# KINGS PLACE – HUB FOR WORK, LEISURE & CULTURE



# REGULATORY POLICIES COMPARED

## North America

- Statutory
- Specific in principle
- Prescriptive of massing

|                                     | SAN FRANCISCO | NEW YORK | TORONTO | MELBOURNE | SYDNEY | FRANKFURT | LONDON | ROTTERDAM |
|-------------------------------------|---------------|----------|---------|-----------|--------|-----------|--------|-----------|
| STRATEGIC PLANNING POLICY           |               |          |         |           |        |           |        |           |
| Consolidation of City Core          |               |          |         | •         | •      | •         | •      | •         |
| Mixed Use Central Business District |               | •        | •       | •         | •      | •         | •      | •         |
| Housing                             |               |          |         | •         | •      | •         | •      | •         |
| Heritage + Conservation             |               |          |         | •         | •      | •         | •      | •         |
| Sustainability                      |               |          |         | •         | •      | •         | •      | •         |
| Special Districts                   |               |          |         |           |        | •         | •      | •         |
| Amenity                             |               |          |         | •         | •      | •         | •      | •         |
| Infrastructure Development          |               |          |         |           |        | •         | •      | •         |
| ZONING + DEVELOPMENT CONTROL        |               |          |         |           |        |           |        |           |
| Zoning - Land Use                   | •             | •        | •       | •         | •      |           |        | •         |
| Building Height Controls            | •             | •        | •       | •         | •      |           |        | •         |
| Plot Ratio                          | •             | •        | •       | •         | •      |           |        |           |
| Car Parking                         | •             | •        | •       | •         | •      |           |        | •         |
| Control of Demolition               | •             | •        | •       | •         | •      |           |        |           |
| Special Areas                       | •             | •        | •       | •         | •      |           |        | •         |
| Subdivision + Amalgamation of sites | •             | •        | •       | •         | •      |           |        |           |
| Re-zoning                           | •             | •        | •       | •         | •      |           |        |           |
| Temporary Land Use                  | •             | •        | •       | •         | •      |           |        |           |
| SPECIAL PLANNING PROVISIONS         |               |          |         |           |        |           |        |           |
| Infrastructure Planning             |               |          |         | •         |        |           |        |           |

## Europe

- Advisory
- Strategic
- Case by case

# WHY A HEIGHT STRATEGY?

- Provides assurance for landowners, investors and developers
- Improves the quality of the Urban Experience
  - Groundscape
  - Skyscape
  - Skyline
  - Urban vistas
- Sets expectations against which to measure performance
- Structures the city

**Framework for Change, NOT a Blueprint Masterplan**

**Height reflects context and design**

***Recognize value of mid-rise, mixed use nodes in optimizing urban diversity, vitality and capacity***





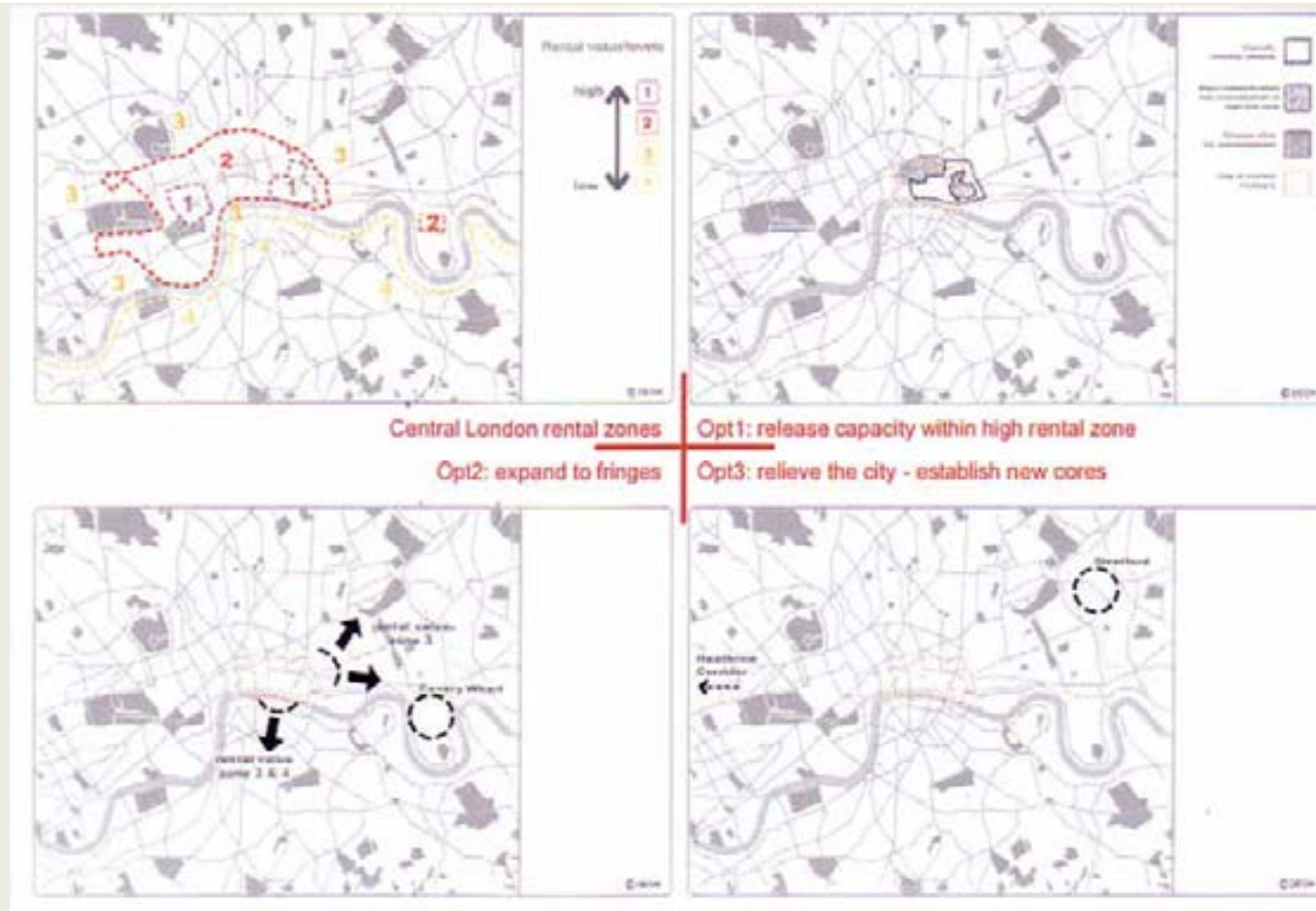
# THE DEBATE - SEVEN MYTHS OF SKYSCRAPERS

## Myth

1. Higher densities require skyscraper buildings
2. Modern cities cannot do without skyscrapers
3. Technology can fix it
4. Skyscrapers are Ok in the right place if they are attractive
5. Allowing enemies to influence our cities is defeatist
6. Regeneration means bigger buildings
7. Only a limited number will be allowed

Jack Warshaw - Urban Design Quarterly, Winter 2002

# LONDON: A STRATEGY FOR POSITIVE IMPACT

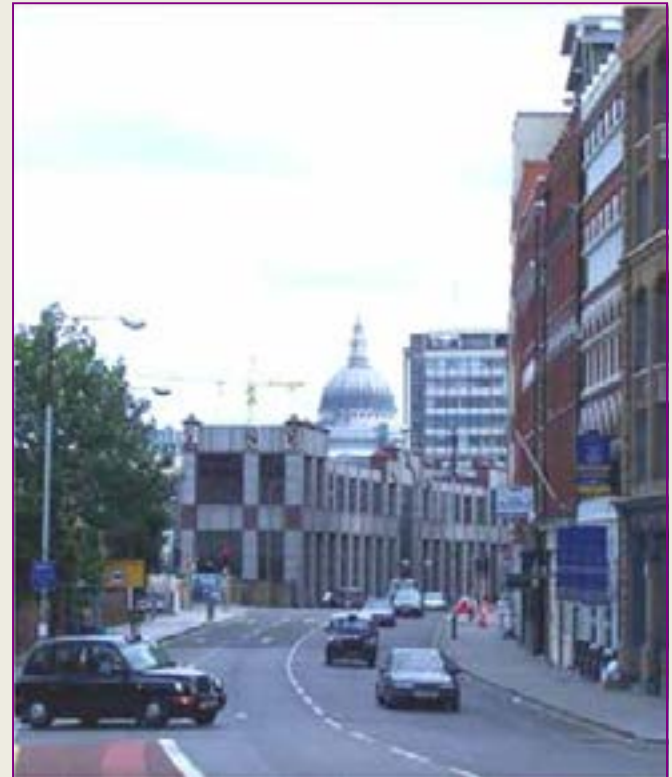


# LONDON - LIMITATIONS OF CURRENT CONTROLS



Serious limitations with current tools

- A 2D tool to control 3D city form
- Achieved views to historic London object, but not the setting
- Lack of regulatory clarity

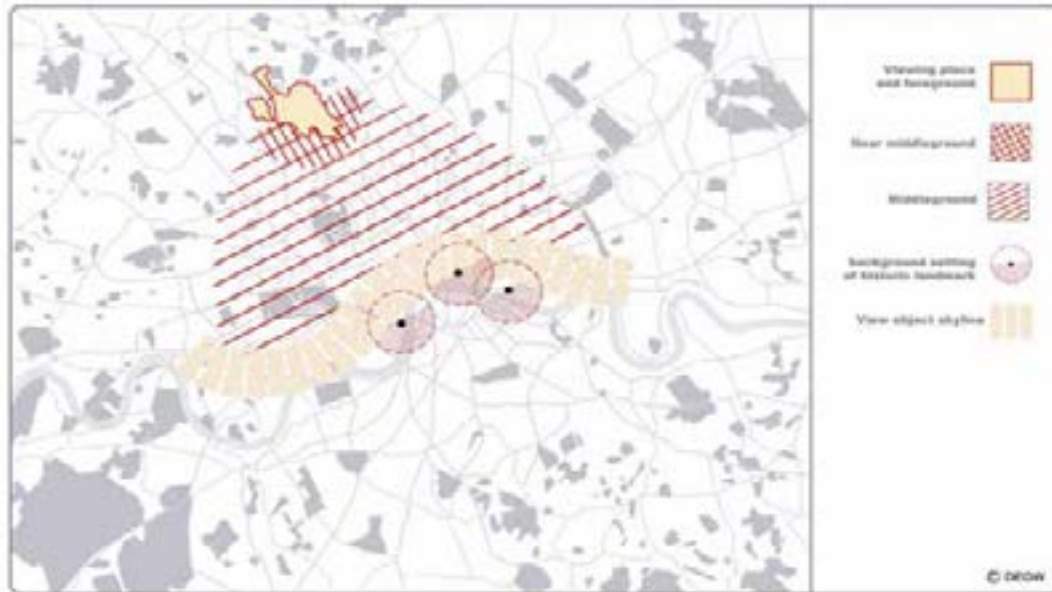




# LONDON - GENERIC VIEW TYPOLOGIES

| View place<br>public space is the defining parameter | + View Type  | = View experience                              |
|--|--|--|
| High Points  | Panoramic View<br>outside looking in, limitless    | A wide view from outside looking into the city |
| Open Space   | Contained Prospect<br>broad view with defined edge | A broad view with a clearly defined edge       |
| broad open space                                     | Broad Prospect                                     | A broad view with a changing edge condition    |
| Linear Space   | Axial View<br>linear with singular defined object  | A linear view with a singular defined object   |
| Linear Route   | Unfolding View<br>shifting changing view           | A shifting, changing view along major routes   |
| Set-piece  | Townscape Composition                              | A round view of a cohesive urban experience    |

# LONDON - VIEW TYPE COMPONENTS



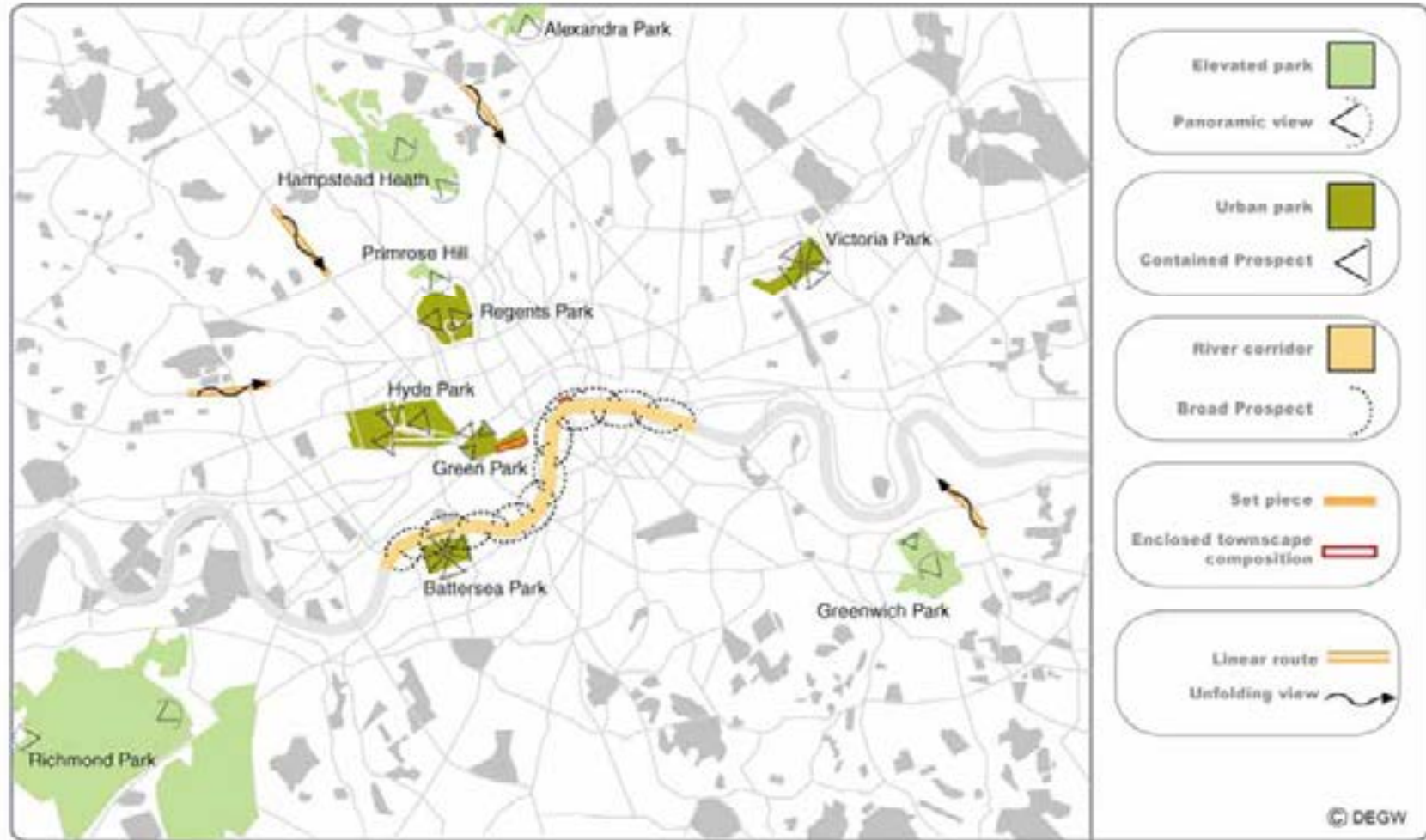
An alternative views framework: Components of the view experience

View Object - skyline (background)

middle-ground

foreground

# LONDON – DISTRIBUTION OF VIEW TYPES



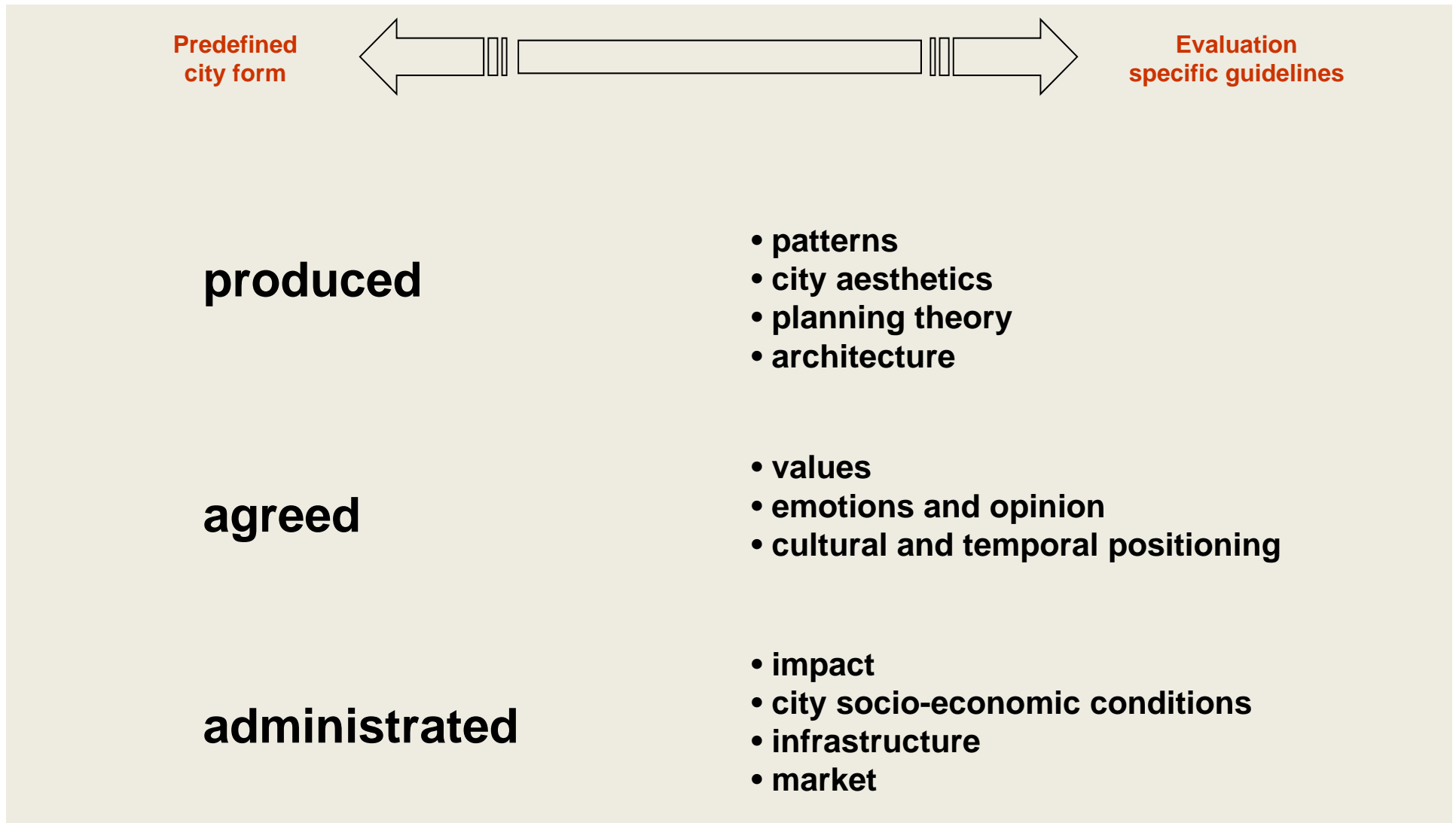
Views and viewplace types



# RELATIVE POSITIONING OF VIEW TO VIEW PLACE



# MULTIPLICITY OF THEMES IN THE DEBATE



# EUROPEAN EXPERIENCE HAS SHOWN CLEAR LEVELS OF PLANNING INPUT

## Proactive planning framework

define locational character - Character areas  
address infrastructure requirements - Transport Hubs



## Development Control tools and procedures

statutory / advisory guidance  
evaluation tools



Frankfurt, tall building distribution

## Administrative frameworks

local, central government responsibilities  
consensus across stakeholder interests



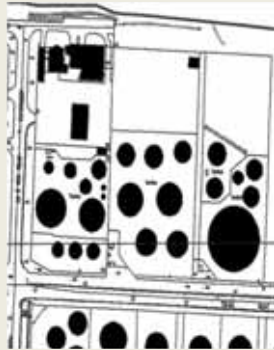
# DUBLIN - STRATEGY FOR INTENSIFICATION & CHANGE



e.g. Georgian Mile/  
Grafton street areas  
etc.



e.g. Docklands/ Poolbeg peninsular



CHARACTER  
ER  
(physical  
attributes)

CONDITION  
(potential  
for change)



ZONES  
FOR  
CHANG  
E

# DUBLIN - SPECTRUM OF CHANGE



Set Piece : Conservation Area

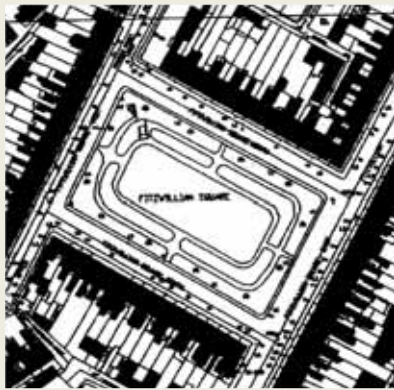


## Height and Intensification

- Preserve existing prevailing building height
- Extensions within block structure

## Control

- Work within current framework
- Designated key views
- Infill sympathetic to context



Large Brown Field Sites



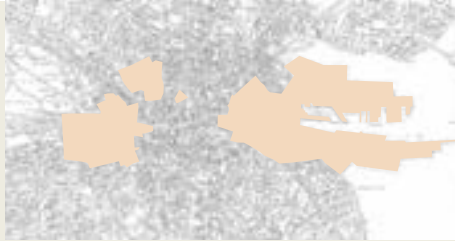
## Height and Intensification

- Opportunity for new typologies
- Innovative form and functions

## Control tools

- Area briefs
  - set goals
  - define sites
  - plot ratio
  - special criteria

# TAKING INTO CONSIDERATION LOCAL AND CITY SCALE



soft areas



historic areas and features



landmark locations



composite map of key elements defining city-wide character

## city scale

- topography
- density
- land use
- memory
- speed of change
- availability of sites



## local scale

- grain
- density
- block structure
- building typology
- land use
- architectural character



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[www.ncpc.gov/heightstudy](http://www.ncpc.gov/heightstudy)



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