

Trees

Principles

- | | |
|------|--|
| 4.01 | Create a unique and iconic avenue |
| 4.02 | Create a light and deciduous canopy |
| 4.03 | Provide a high quality growing environment |
| 4.04 | Select a species with proven urban performance |

**The City's target is a
five-fold increase in
tree canopy area**

Trees

Strategy

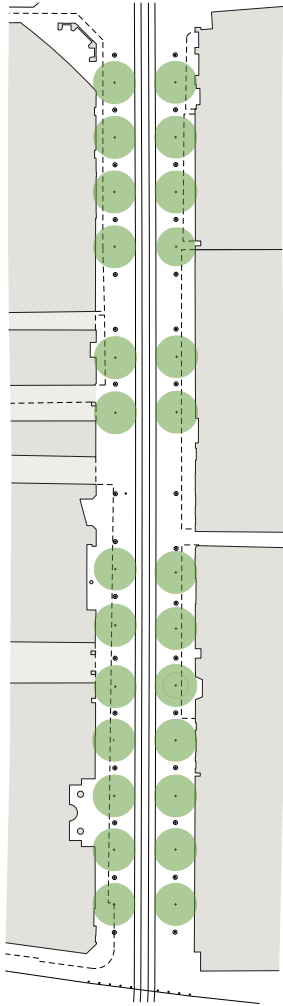
A unique avenue

Street tree selection will be part of what makes George Street unique. The species chosen must be uncommon within the City Centre, yet be a proven, robust street tree.

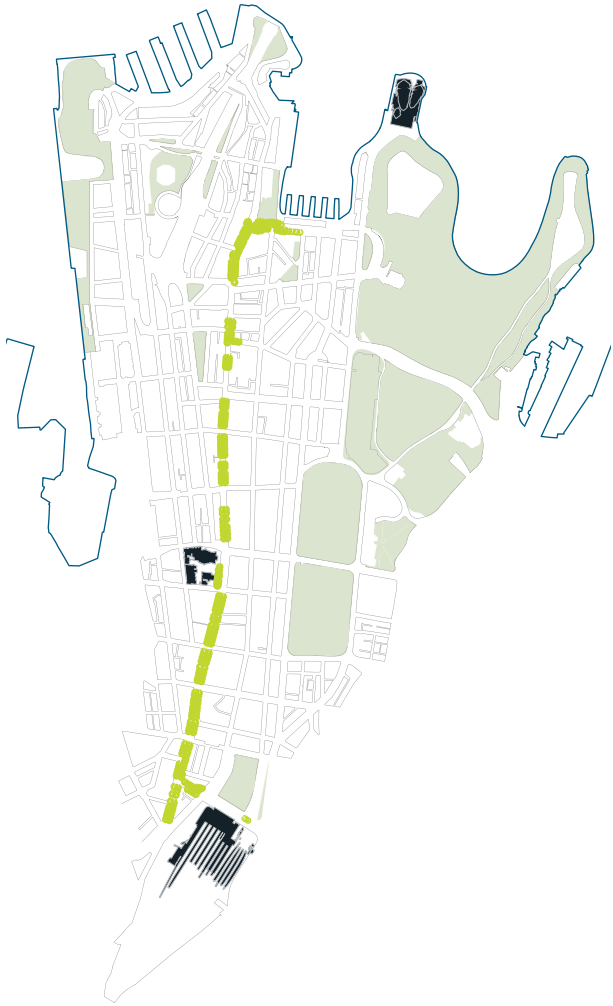
Trees will be placed at a regular interval along George Street, creating a strong visual alignment.

With the removal of traffic lanes, we have the opportunity to place trees in a location where they will be physically unimpeded and have better access to sunlight. By moving the trees away from buildings we can ensure that they will be healthier and more vigorous than their existing counterparts.

We also believe that we can increase the number of trees on George Street by around 30%, making George Street a more attractive and comfortable walking environment.



Regular planting with spaces where infrastructure is required.



A unique and legible avenue of trees through the city.

Detail

Existing Plane trees

Most of the existing Plane trees on George Street have failed to thrive. This is because they generally have a poor underground environment and are squeezed between roadways and overhead awnings. With the removal of traffic lanes, we have the opportunity to move trees to a more healthy location where they will be physically unimpeded and have access to sunlight.

Greening Sydney

The City of Sydney's aim is to increase the canopy coverage of the LGA by 50% by 2030. Our project easily exceeds this target. In order to avoid a dark street, however, with too much overshadowing in winter, we are recommending a deciduous tree with a light and open canopy. The changing colour of this canopy will add to the legibility and visual appeal of George Street.

Tree pits

The underground environment is the most critical factor in a street tree's success. The City proposes to introduce high quality structural cells in each tree pit (these prevent soil compaction and root damage) as well as increasing soil volumes to 55-65 m³ per tree. This will give the trees a high-quality growing environment and their best chance of reaching their maximum size.

Species

Zelkova serrata Cultivar 'Green Vase'

The recommended street tree for George Street is the *Zelkova serrata* (Green Vase). This recommendation is based on independent arboricultural advice and has been endorsed by the City's arborist. This tree has been chosen because it is a proven street tree suited to our climate. The shape of its canopy lends itself to the constraints of a narrow street confined by both infrastructure and built form. It is deciduous with a light canopy providing winter sun and summer shade. The trees specified will be planted at a root ball size of 400 litres, which is over 5 metres in height. As these trees are not currently used in the city, it will contribute to the principle of a unique and iconic streetscape.

Natives

A number of native trees were assessed for their suitability, however given the complex and tough conditions, none met the selection criteria.



Summer Foliage

Autumn Foliage

H: 10 - 12m
W: 8 - 10m



Figure B

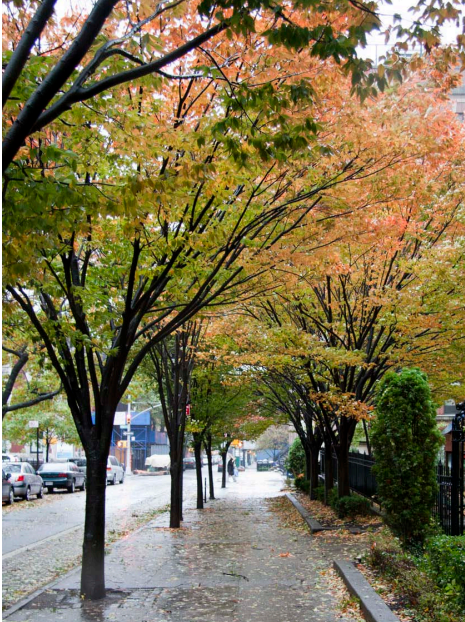


Figure C



Figure D

Furniture

Principles

- | | |
|------|--|
| 5.01 | Produce a co-ordinated public domain suite |
| 5.02 | Create new zones for outdoor dining |
| 5.03 | Create comfortable places for people to linger |
| 5.04 | Allow for festivals and temporary events |

**New seats, lights
and bubblers**



Furniture

Strategy



Figure E

A new public domain suite

The Sydney Streets Code 2013 identifies the need for a co-ordinated suite of public domain furniture to unify the diverse public domain elements of the former City of Sydney, South Sydney and Leichhardt areas.

The City has engaged Tzannes Associates, with ABUD, to design and deliver a co-ordinated suite of public domain furniture that can work with the existing Smartpoles and JC Decaux elements. A consistent palette of public domain furniture will contribute to a high quality public domain and assist in long term asset management.

The final public domain furniture designs have been incorporated into the Sydney Streets Code 2013, giving certainty to developers at Barangaroo and Green Square and greatly improving the appearance of city streets.

Design

A more comfortable street

George Street today has little to offer pedestrians. There is nowhere to sit, no bubblers, few trees and no pleasant spots in which to linger. The reclamation of traffic lanes for people coupled with the rollout of our new furniture will create desirable places for people to stop.



Figure F

Outdoor dining

Today there are only 12 outdoor dining licences on George Street, with just over 200 seats in total. This equates to just nine seats every 100 metres. By world standards, we also have relatively few restaurants. Sydney has only 99 restaurants per 100,000 population. Tokyo has 1,144. New York has 295. The transformation of George Street offers great opportunity for increased dining, both indoor and out. The City is now studying how much dining is appropriate and where it should occur. We are working to update our policies to encourage this positive change.



Figure G

Event furniture

A pedestrian-friendly street also offers the potential for temporary furniture associated with events. The 2012 Crave Festival shows how successful this can be. The City will identify the best places for these events and determine the types of furniture and infrastructure that would be appropriate to make these types of events a success.



Figure H

Lighting

Principles

- | | |
|------|--|
| 6.01 | Implement the George Street Lighting Masterplan |
| 6.02 | Reinforce George Street as the spine of the city |
| 6.03 | Enhance the pedestrian experience |
| 6.04 | Introduce smart lighting |

Lighting for people

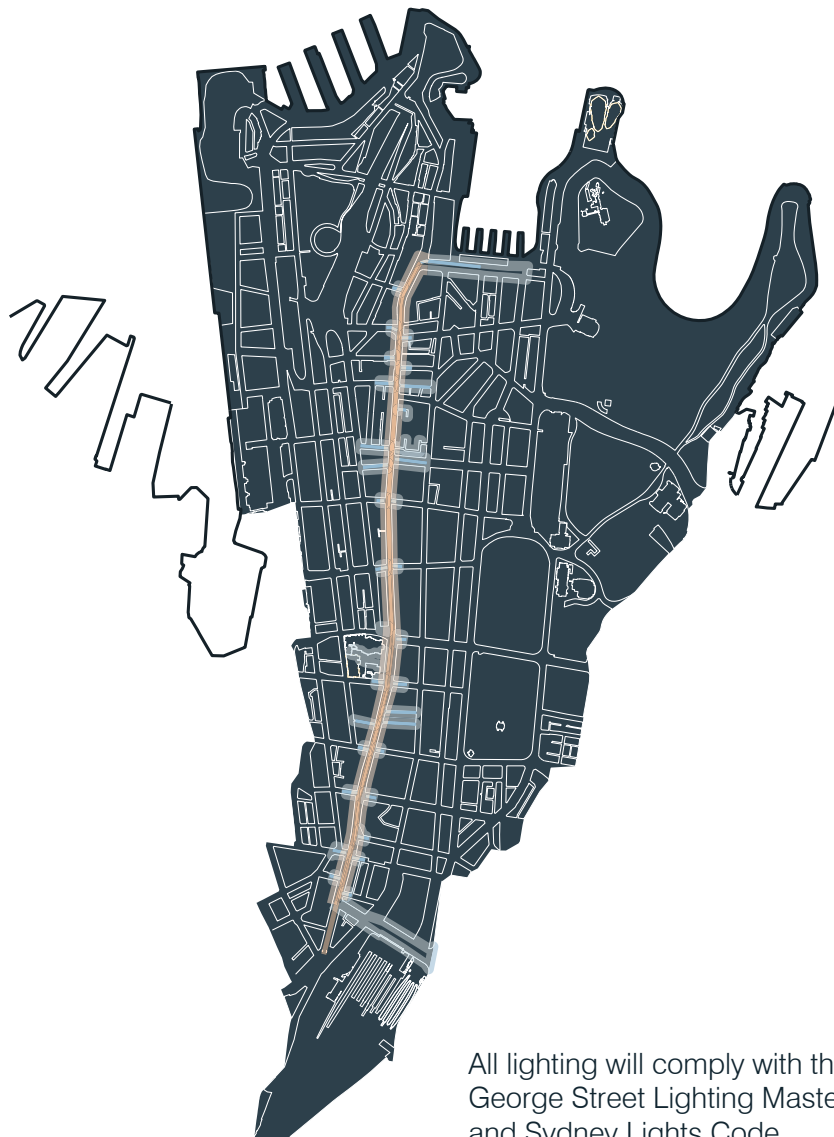
Lighting

Strategy

Lighting for people

George Street is currently lit predominantly for cars and buses. Lighting has not been considered specifically for pedestrians nor has it been designed to enhance the positive aspects of the street. Our vision is to create a pedestrian-focused boulevard that has a distinct night-time identity. The lighting design will satisfy all the statutory requirements for vehicles and safety, but will re-focus the street as a place for people. Street tree foliage will be highlighted to give scale and texture. Heritage buildings will be accented, places to sit will be made more inviting and squares and lanes will be celebrated.

In-ground lighting in the light rail corridor will enhance safety and warn pedestrians of approaching vehicles. New pedestrian-scaled light poles will transform into celebratory lighting during events and special occasions. All this will help to reinforce George Street as a world class pedestrian boulevard.



All lighting will comply with the George Street Lighting Masterplan and Sydney Lights Code.

Detail

Lighting Masterplan

Steensen Varming have completed the George Street Lighting Masterplan, which uses international benchmarks and data and provides strategic direction on both functional and aesthetic lighting. This masterplan will inform the City's future Sydney Lights Code.

The Masterplan describes three ideas; the spine of George Street, the public rooms (squares) that occur along its length and the backdrop of buildings. Each element is treated with a different light brightness and colour temperature, clearly articulating each to create a memorable nighttime street.

Smartpoles

Structural engineering advice indicates that the Smartpoles are incapable of supporting overhead wires to power the light rail. We have engaged HUB to design a new Smartpole, a 'kit of parts' that can do everything we need. It will sit comfortably with both the existing Smartpoles and the City's new public furniture.

Design



Figure I



Figure J



Figure K



Figure L



Figure N



Figure M

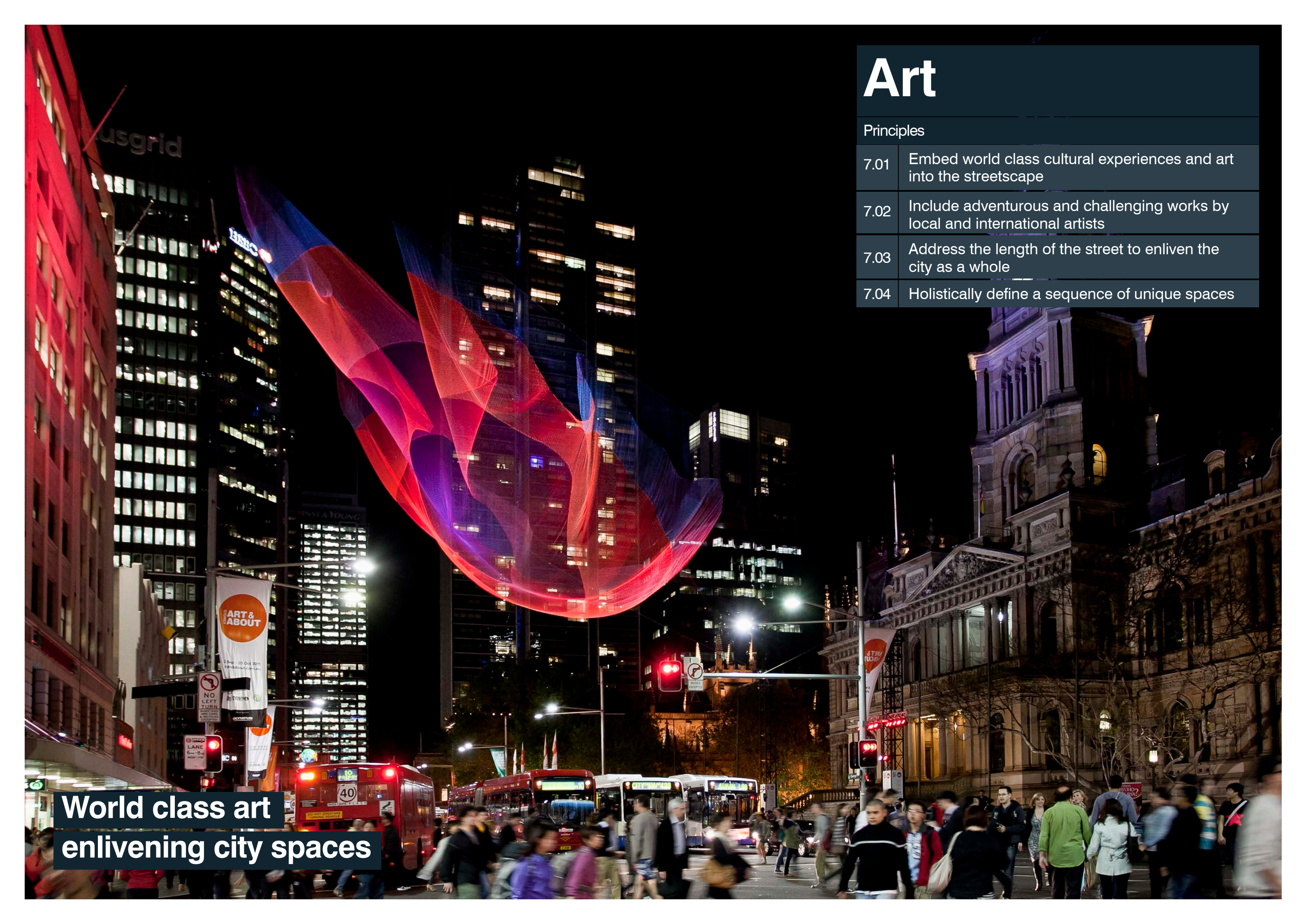


Figure O

Art

Principles

- | | |
|------|--|
| 7.01 | Embed world class cultural experiences and art into the streetscape |
| 7.02 | Include adventurous and challenging works by local and international artists |
| 7.03 | Address the length of the street to enliven the city as a whole |
| 7.04 | Holistically define a sequence of unique spaces |



**World class art
enlivening city spaces**

Art

Strategy

Public Art Plan

The City of Sydney's Public Art Policy and Public Art Strategy support key directions of Sustainable Sydney 2030.

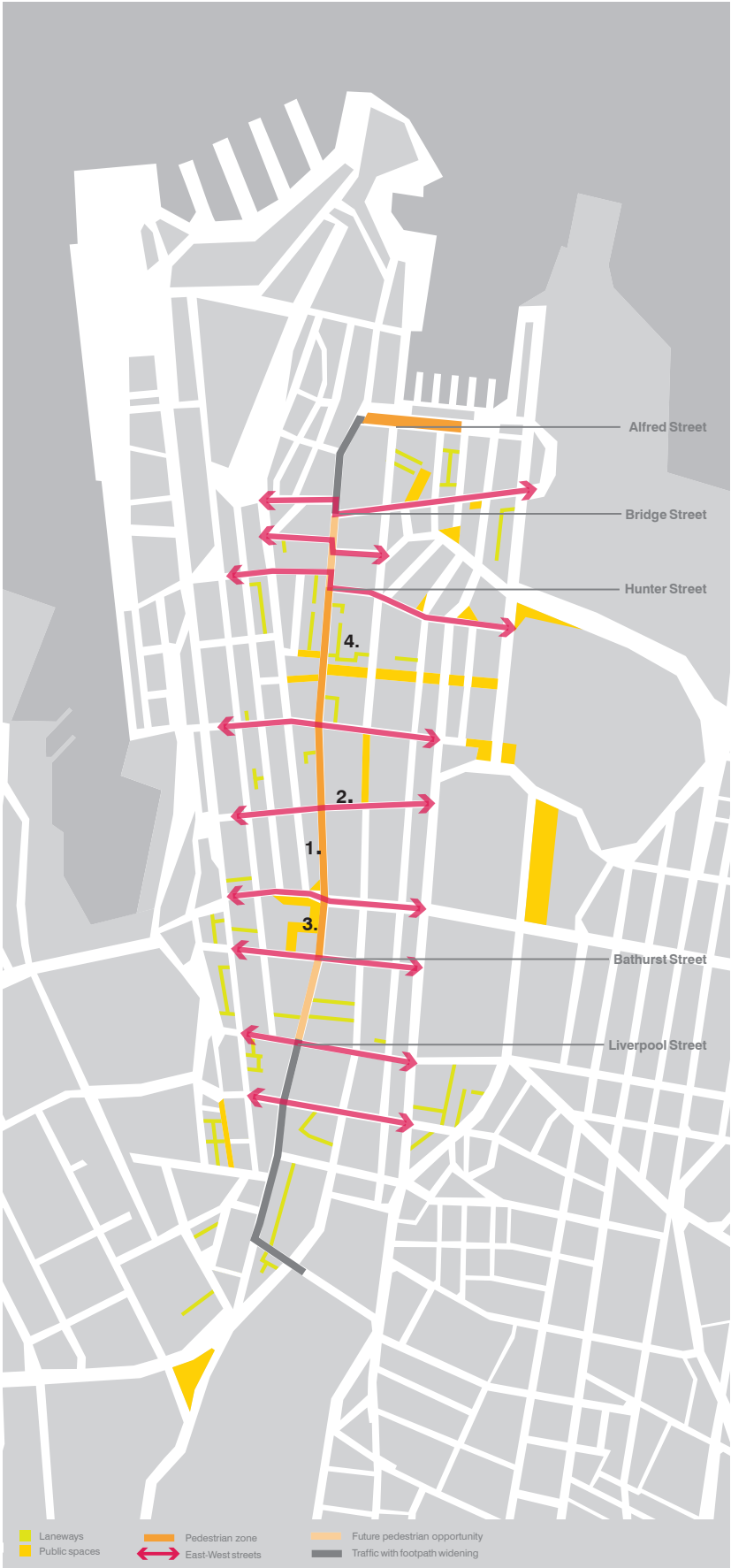
Curator Barbara Flynn has been engaged as Curatorial Advisor, City Centre, and in collaboration with the City has developed the City Centre Public Art Plan.

The plan advocates new permanent works of art that are future-oriented, inspiring, singular, and possessing of a gravitas and landmark quality equivalent to that of Sydney's great civic buildings and spaces. There is a role for both monumental-scale works of public art that are strong and bold and effective tools for place-making, and small, even delicate, works of art that will add texture to the urban experience. An emphasis on the permanent does not preclude the engagement with artists creating temporary works of art. In the short-term, during the light-rail construction period, temporary art and events will help relieve any inconvenience caused by the infrastructure works and nurture the audience for the exciting permanent art works to come.

The plan outlines major art projects for the City Centre;

- 1 - The George Street Spine
- 2 - The East/West Connectors
- 3 - Public Squares
- 4 - Laneways
- 5 - Temporary Projects

The City will manage the procurement of artists and development of the works and will work closely with TfNSW to integrate the work into the light rail project.



Precedent



Figure P

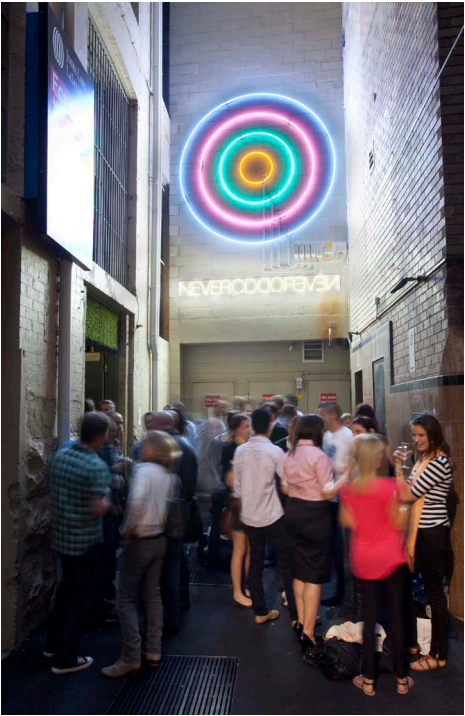


Figure R



Figure Q



Figure S

The Edges

Principles

- | | |
|------|--|
| 8.01 | Review planning policy to protect and enhance the potential of George Street |
| 8.02 | Investigate opportunities to open up inactive facades on to the street |
| 8.03 | Encourage outdoor dining and seating |

**Connecting buildings
to the street**



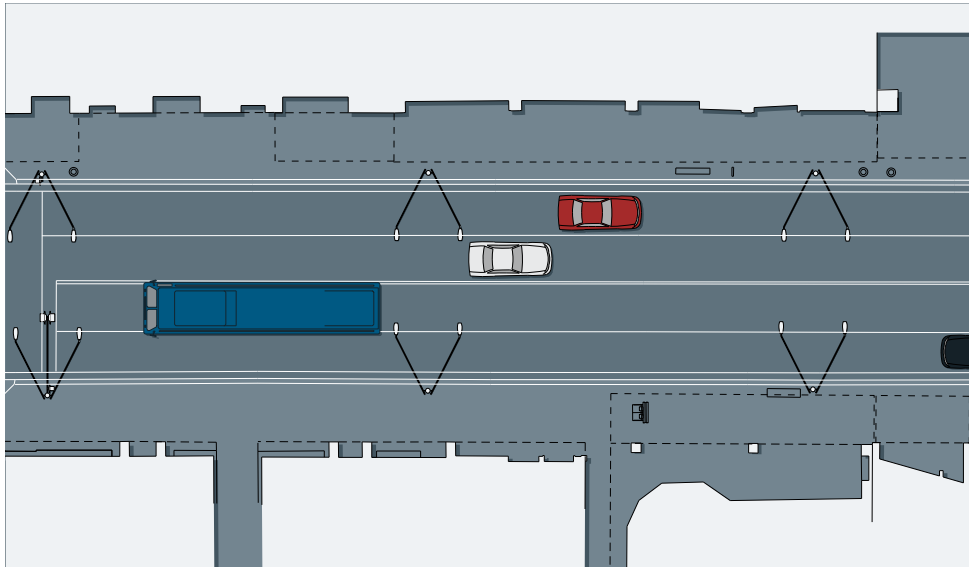
The Edges

Strategy

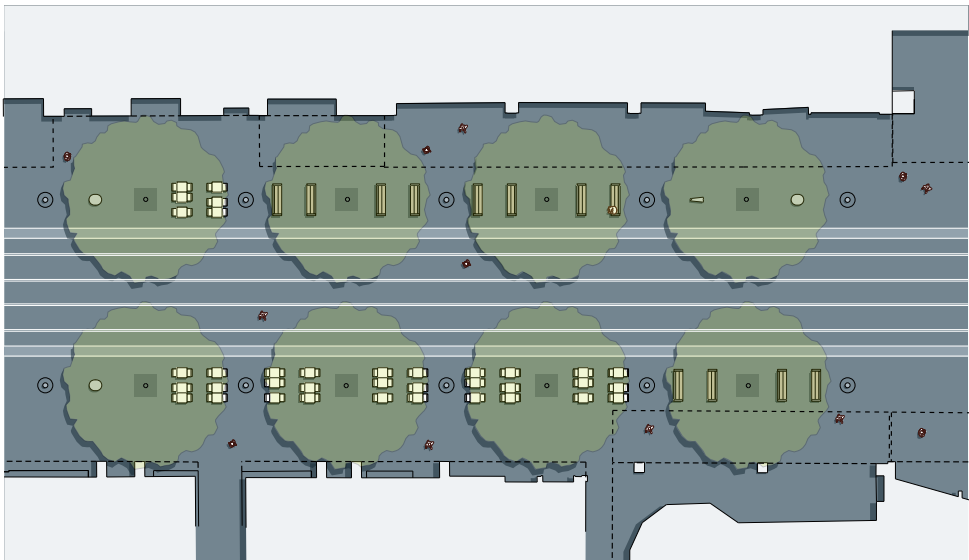
Connecting buildings to the street

The experience of George Street will be shaped by its edges and the activities they offer. Today the street has a number of ground floor uses that do not contribute to an active, people-focused public domain. With buses and traffic removed from George Street, façades that are currently closed to the street and inwardly-focused can be transformed into engaging and lively frontages. Widening footpaths and removing clutter and traffic will not only make George Street a more functional and pleasant place to walk, but will provide many more places to stop, rest, eat and drink. The City will identify opportunities for outdoor dining, trading and increased public seating. Outdoor dining furniture, along with lighting, trees and public domain seating will be located in a ‘flexible zone’ between the light rail and the building line, creating a defined area for activity whilst preserving clear pedestrian movement along the street.

To achieve the engaging public domain that George Street deserves, a public domain plan for the length of George Street will be prepared. The plan will study George Street block-by-block, considering existing and potential ground and first floor uses, façade quality and treatment, awnings, signage and fixed furniture and kiosks. Activation zones along the edges of George Street and in the laneways and squares immediately adjoining will be identified and a range of potential uses examined.



George Street today



George Street proposed



Figure T

A world class street

Great streets are the result of great design, not chance.



Champs Élysées



George Street, Sydney



Swanston Street



George Street, Sydney



La Rambla, Barcelona



Strøget, Copenhagen



Broadway, NYC

1788	1828	1856	1920	1962	1992	2009	Future
Sydney Founded	The Champs Élysées becomes city property. Footpaths, lighting and fountains are added. The last footpath widening occurred in 1994.	The famous plane trees are planted on La Rambla.	George Street is photographed with trams and pedestrians criss-crossing its length.	Strøget is closed to vehicular traffic. It is the first pedestrian street of the modern era and remains successful today.	Swanston Street is closed to daytime traffic and a number of improvements are made along its length. In 2012 it was permanently closed to cars and upgrades were made for trams, cyclists and pedestrians.	Sections of Broadway (including Times Square) are closed to vehicular traffic and are immediately popular. Designs are currently being finalised to make these changes permanent.	Light rail is re-introduced to George Street and a large section is dedicated to pedestrians. The street becomes Sydney's walkable spine and a legible link between Central Station and Circular Quay.

Supporting documents

Image references

City of Sydney Public Domain Design Codes:

Sydney Streets Code 2013
Sydney Lights Code (currently being updated)
Sydney Signs Code (currently being updated)
Sydney Parks Code (currently being updated)
Sydney Landscape Code (currently being updated)
Sydney Streets Technical Specifications 2013

City of Sydney City Centre Public Art Plan 2013

George Street Lighting Masterplan 2013 (Steensen Varming)

Tree Species Investigation Report 2012 (Arterra)

Figure A: *Buchanan Street, Glasgow Scotland; <http://archlandblog.com/wp-content/uploads/2011/08/buchanan-street.jpg>*

Figure B: *Zelkova serrata; <http://66squarefeet.blogspot.com.au/search?q=zelkova>*

Figure C: *Zelkova serrata; <http://66squarefeet.blogspot.com.au/search?q=zelkova>*

Figure D: *Zelkova serrata; <http://66squarefeet.blogspot.com.au/search?q=zelkova>*

Figure E: *Concept images by Tzannes Associates in association with Australian Built Urban Designs*

Figure F: *Sant Joan Promenade, Barcelona; Paisea 021: La Calle 2*

Figure G: *Cafe Furniture, Madrid, Spain; <http://www.flickr.com/photos/sol33/148874045/>*

Figure H: *A Moveable Feast, Crave Sydney International Food Festival, George Street Closure*

Figure I: *Exhibition Street, London; <http://www.behance.net/jnphotographs/frame/3131803>*

Figure J: *Regent Street London; <http://www.behance.net/jnphotographs/frame/5286587>*

Figure K: *Placa de Guidi, Vinci, Italy; http://www.urban-solutions.it/progetti_23.asp.htm*

Figure L: *Fermata in Herning, Denmark, AF Lighting; <http://www.afconsult.com/no/Tjenester/Infrastruktur-og-byplanlegging/Lysdesign/Design/Referanser---design/Grafiske-projeksjoner/>*

Figure M: *Helsingborg Waterfront, Sweden, ÅF – HANSEN & HENNEBERG; <http://www.iald.org/about/awards/details.asp?ID=122>*

Figure N: *Frederiksberg New Urban Spaces, Copenhagen (DK), ÅF – HANSEN & HENNEBERG <http://www.afconsult.com/en/sectors/infrastructure--urban-planning/lighting/urban-landscape--architecture/references-urban-landscape/frederiksberg-new-urban-spaces>*

Figure O: *Devonshire Square, London; <http://www.viewpictures.co.uk/Details.aspx?ID=155686&TypeID=1>*

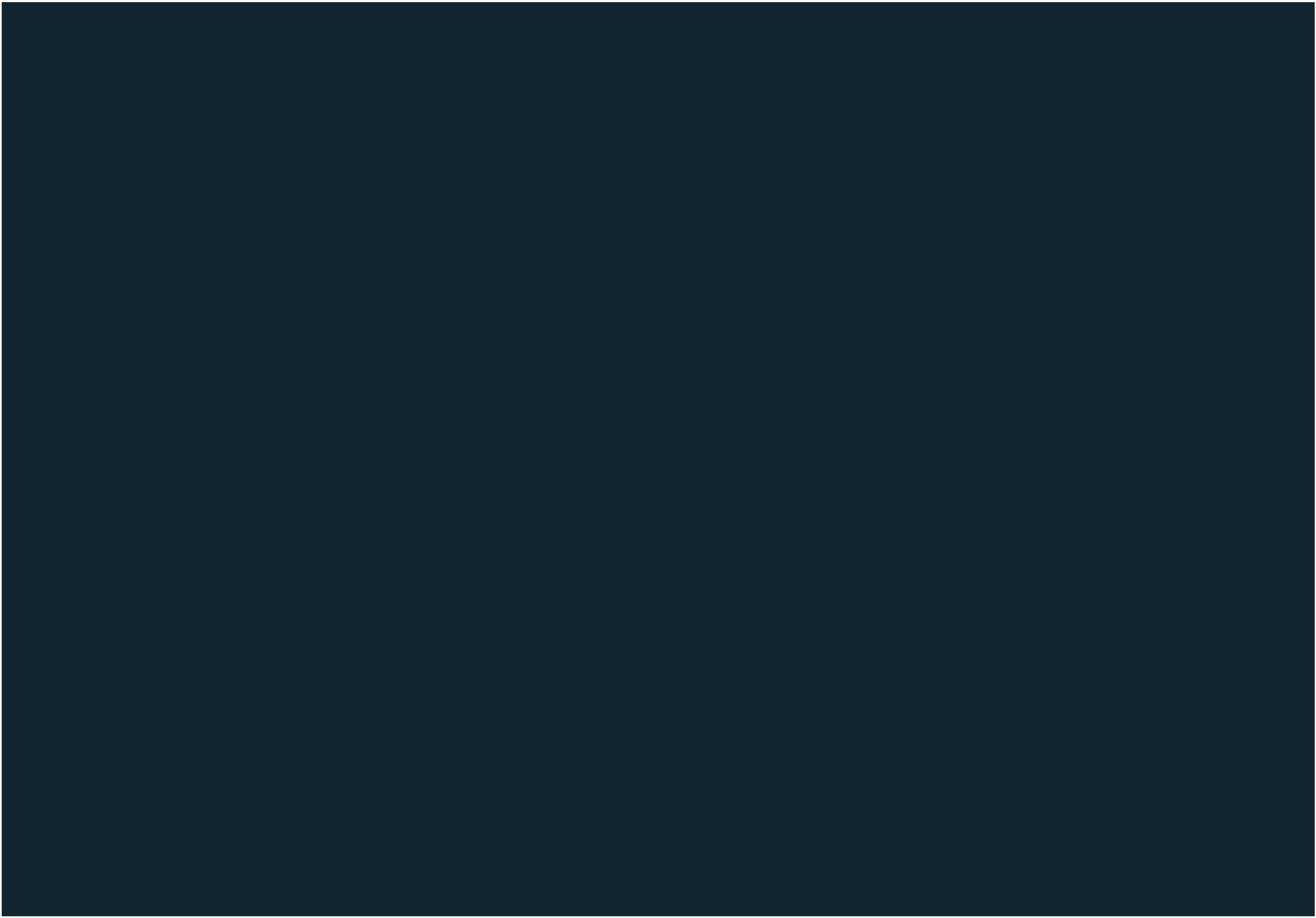
Figure P: *Pipilotti Rist and Carlos Martinez. Stadtlounge (City open-air living room), 2005. Rubber granulate and halogen metal vapor lamps, dimensions variable. St Gallen, Switzerland. Photos Tim Carr. ©Pipilotti Rist and Carlos Martinez. [Plan, p 37 top]*

Figure Q: *Doris Salcedo, 1,550 chairs stacked between two city buildings, 2003. Found timber chairs, dimensions variable. Exhibited: 8th International Istanbul Biennial, 2003, Istanbul, Turkey. ©Doris Salcedo. [Plan, p 28]*

Figure R: *Circle/s in the round' for (Miles and Miles +1) Newell Harry, Temperance Lane*

Figure S: *Caroline Rothwell, Youngsters, 2012. Bronze. Barrack Street, City of Sydney. ©Caroline Rothwell. [Plan, p 4]*

Figure T: *<http://sandratblog.com/2013/07/07/catalonias-vibrant-barcelona/>*



city of villages