HOW CO-LOCATION OF ACTIVITIES IN A HUMAN SCALED WALKABLE BUILT ENVIRONMENT CAN ENCOURAGE HEALTHY LIFESTYLES
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EXECUTIVE SUMMARY

A GROWING GREATER SYDNEY NEEDS FINE GRAIN PLACES TO THRIVE

GREATER SYDNEY IS CHARACTERISED BY DIVERSITY + CULTURE. WHEN OUR BUILT FORM REFLECTS THESE CHARACTERISTICS IT CAN PROMOTE HEALTHY LIFESTYLES AND BOND COMMUNITIES.

Greater Sydney is growing.
The Greater Sydney Commission (GSC) recognises the challenges a growing Greater Sydney faces. A draft amendment to A Plan for Growing Sydney, Towards our Greater Sydney 2056, set a vision for a more equitable Greater Sydney. As Greater Sydney develops into a metropolis of three cities it is essential that the urban environment and the activities which occur within it be considered in a place-based and people-focussed manner.

This report builds on the findings of the 2016 Liveability Framework prepared by ARUP for the GSC. It also responds directly to the need to create and renew Great Places in a City for People, outlined in Directions for a Greater Sydney 2017-2056.

Greater Sydney needs to thrive.
This report, Fine Grain People Places examines how the urban environment can encourage Greater Sydney to thrive - both at the collective and individual level. Thought leaders suggest that thriving is about realizing our fullest potential as individuals and communities, a holistic endeavour which relates to concepts of prosperity, health, sustainability, social equity, and happiness.

We propose that the healthier and happier people are, the more they thrive, and in turn the more their communities thrive. A ‘thriving city’ is one in which this positive reciprocal relationship between people and place occurs by promoting frequent social exchange, sense of belonging, and more active and healthy lifestyles. Ultimately, the improved wellbeing outcomes that a thriving city affords make it a more resilient, prosperous and sustainable place.

“
We have an opportunity to shift Greater Sydney’s spatial structure in a way that benefits all existing and future citizens.
Towards Our Greater Sydney 2056
”

Fine Grain places are thriving places.
The value of Fine Grain places is that they encourage people to walk more, talk more and linger, offering opportunities to build a sense of community belonging and for cultural and creative expression. The nature of Fine Grain places can be broken into two components:
- ‘Activity’: the uses and destinations that support people’s experience of being part of community, and,
- ‘Fabric’: the built form that promotes walkability and sociability.

1 Thriving Cities, an initiative of the University of Virginia and the Institute of Advanced Studies in Culture
Social benefits

- Builds a sense of trust
- More accidental and intentional interactions
- Reduced crime
- More local volunteering
- More political involvement
- Sense of ownership
- Increased local spending
- Less likely to get ill, become depressed, or die prematurely
- Creates shorter commute times
- Walkable access to schools and shops
- Cross-promotion of different uses
- Time for recreation and family
- Builds a sense of trust
- More accidental and intentional interactions
- Reduced crime
- More local volunteering
- More political involvement
- Sense of ownership
- Increased local spending
- Less likely to get ill, become depressed, or die prematurely
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- Cross-promotion of different uses
- Time for recreation and family

Fine grain fabric + activity

Health benefits

Social capital

Human-scaled and connected urban environments can make us healthier and happier
Fine grain activities enhance social sustainability.

Fine grain activities encourage formal and informal social interactions amongst people of all ages and abilities. These activities act as ‘social connectors’, and can include social infrastructure such as schools and libraries, institutions such as universities and museums, and the more informal places such as parks, playgrounds, streets and restaurants. The more of these different social connectors and the closer together they are, the greater the opportunity for people to connect and engage with one another.

This report should be read in conjunction with CRED Consulting’s 2017 report Greater Sydney’s Social Capital: Its Nature and Value, which examines in greater detail the different types of social capital and the types of places which encourage these community bonds.

Fine grain fabric encourages healthy and connected lifestyles.

Many of Greater Sydney’s pre-war neighbourhoods are great examples of fine grain urban fabric – places designed to explore on foot and to suit a hyper-local lifestyle. When the blocks, lots and connections which make up the city’s urban fabric are designed at a human-scale, not only do they encourage walking and active lifestyles, but they engage the senses through

### THE ELEMENTS

**FINE GRAIN ACTIVITY**

1. CULTURE + CIVIC
2. EVERYDAY USES
3. PARKS + PUBLIC DOMAIN

**FINE GRAIN FABRIC**

4. SMALL CITY BLOCKS
5. STREETS + CONNECTIONS
6. SMALL LOTS

### THE PRINCIPLES

- Co-located
- Compact + Permeable
- Variety of Scales
- Many Shapes + Forms
- Engaged with the Street
- Active Use + Active Transport
- Multifunctional
- Flexible + Adaptable

### THE VISION

‘DIVERSE GRAIN’ FOR GREATER SYDNEY’S FUTURE

**EASTERN HARBOUR CITY**

<table>
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<tr>
<th>NOW</th>
<th>BY 2036</th>
<th>BY 2056</th>
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<tbody>
<tr>
<td>A vibrant, established city with existing great places and innovative new ones, both formal and informal.</td>
<td>A transformed city with improved walkability and better access to fine grain activities.</td>
<td>A well designed city with new residential areas, centres and local destinations that are places for people.</td>
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Coarse grain development threatens the wellbeing of Greater Sydney. With the advent of the car, development catered to vehicle speeds of 60km/hr, which is exemplified in some of Greater Sydney’s 20th Century suburbs, with larger and more separated destinations which we term ‘coarse grain’. Coarse grain environments make walking less pleasurable and less feasible, which in turn can increase social isolation, promote sedentary lifestyles and inhibit the intensity of activity centres. With the total direct cost of overweight and obesity in Australia reaching $21 billion a year¹ and the cost of mental health reaching $200 billion a year², the importance of places which improve our wellbeing is made increasingly apparent. In contrast to building auto-oriented coarse grain environments, a growing Greater Sydney needs to embrace a new model.

As Greater Sydney grows and changes, its places will offer more than just new homes and jobs. They will enhance well-being and a sense of community identity by delivering safe, inclusive and walkable mixed use areas that exhibit urban design excellence and are connected to social infrastructure and open spaces. These places will respect heritage and foster interaction and healthy lifestyles by encouraging exercise, creativity, enterprise and innovation.

Directions for a Greater Sydney 2017 - 2056

¹ Australian Diabetes, Obesity and Lifestyle
² Herald Lateral Economic Index of Australia’s Wellbeing
THE OVERARCHING BENEFITS OF FINE GRAIN PLACES FOR PEOPLE

COMMUNITY
- neighbourhood bonds
- sense of belonging
- social cohesion

CREATIVITY
- skills building
- more creative and cultural expression
- innovation

HEALTH
- more physical activity
- greater social connectivity
- improved mental health
- longer life expectancy

ECONOMY
- greater productivity
- stronger local economies
- job creation

LIFESTYLE
- more civic involvement
- shorter commutes
- work, live and play locally

SOCIAL CONNECTORS

TAFE
- fresh food art gallery
- community
- social connectors
- schools
- playground
- library
- childcare centre
- co-working hub
- swimming pool
- eat street
- pocket park
- creativity
- health
- economy
- lifestyle

FARMERS MARKET

ART GALLERY

SWIMMING POOL

EAT STREET

POCKET PARK

CHILDRENCARE CENTRE

CO-WORKING HUB

LIBRARY

FRESH FOOD

PLAYGROUND

SCHOOLS

TAFE
FINE GRAIN PLACES ARE FOR PEOPLE

THE WAY WE BUILD OUR CITIES HAS A BIG IMPACT ON HUMAN HEALTH AND WELL-BEING. THE MORE WE WALK AND TALK, THE MORE WE THRIVE.

There is now a large body of research1 verifying that social connectors and opportunities for cultural and creative expression play important roles in social cohesion and support people’s experience of being part of a community. Much of this is experienced at a local level when fine grain urban fabric and a land use mix recognises the importance of human scale, pedestrian links and accessibility. These elements contribute to local identity and foster a sense of welcome and belonging, which contribute to community resilience.

Fine grain places can be conceived through two primary lenses; Fabric and Activity.

**ACTIVITY** - describes the way people inhabit, traverse, transgress, utilise, abandon, appropriate, program, police, and adapt urban fabric. This study focuses on formal and informal social connectors and the activities that occur within and around them, and refers to them as ‘fine grain activity.’

**FABRIC** - comprised of the physical make-up, compartmentalisation of land, armatures, enclaves, buildings and public realm etc… the “parts” that collectively make up the city. The public realm includes streets, plazas, malls, spaces between buildings, parks, and pathways.

Both are symbiotic as the activity of people brings fabric into being, and conversely, fabric either inhibits or enables certain kinds of activities. So to map out what we value in a city for people this study examines fabric (the urban environment), and activity (social connectors) and the ways in which each positively inform the other. These are detailed in the following pages.

THE POTENTIAL
A THRIVING GREATER SYDNEY WITH A RICH TAPESTRY OF FINE GRAIN ACTIVITY AND FABRIC

THE MORE ACCESSIBLE FINE GRAIN AND CO-LOCATED ACTIVITY IS TO WHERE WE LIVE, THE MORE CONNECTED WE ARE TO COMMUNITY

When in close proximity to one another, fine grain activities create an energy and identity within a neighbourhood and act as a social magnet. Social infrastructure including community facilities, arts institutions, libraries, education and sports facilities, and health and recreation centres can collectively serve the needs of a larger area and benefit the broader region as a whole. Other, more local and informal social connectors also play an important role. These include co-working spaces, eat streets, parklets and dog parks, mens sheds, community gardens and elements of the sharing economy such as Go-Get.

Within fine grain fabric it is easier to link these activities together, with smaller, local assets working in conjunction with the larger, regionally focused uses. In Sydney this can be seen where large arts and civic institutions such as the Museum of Contemporary Art or the Bankstown Library and Knowledge Centre successfully reside in close proximity to smaller spaces such as the White Rabbit Gallery in Chippendale or shops and eateries along Bankstown’s Chapel Road, offering diversity in experience not just for residents but for a higher variety of outsiders.

The linkages between social connectors increase social bonds amongst diverse groups and improve neighbourhood identity and attachment. This allows the idea of the common good, different between each society, to grow and to reach more people over time.

Fine grain fabric provides the framework for physical and multiple, innovative activities to take place in close proximity to one another. This enables the fine grain activities to further strengthen, within the network for the collective common good.
in Sydney

a thriving city is a social, connected city
THE ISSUE

WHEN WE STOP BUILDING FINE GRAIN WE DIMINISH OUR ABILITY TO THRIVE

People that live in fine grain walkable places tend to be healthier and happier. We need to get back to building places that prioritise human well-being.

Pre-war, traditional neighbourhoods

Neighbourhoods developed around a human’s sensory experiences and were characterised by small block and lot sizes, traditional cultural, civic and everyday uses, and more narrow streets.

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<thead>
<tr>
<th>Grain</th>
<th>Designed for</th>
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<th>Lifestyle</th>
<th>Health</th>
<th>Implication</th>
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<tr>
<td>FINE GRAIN</td>
<td>WALKING - 4-5KM/H</td>
<td>INTERMIXED BETWEEN BLOCKS</td>
<td>HYPER-LOCAL LIVING</td>
<td>HIGH WELL-BEING, HIGH SOCIAL CAPITAL</td>
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20th century suburbs

With the advent of the car, development catered to car speeds of 60km/hour and land uses spread out. This resulted in unwalkable environments and de-centralised activities.

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<td>COARSE GRAIN</td>
<td>DRIVING - 60KM/H</td>
<td>LOW MIXING, DESTINATIONS SPREAD FAR APART</td>
<td>SEDENTARY + DISCONNECTED</td>
<td>HIGHER RATES OF OBESITY + DIABETES, LESS</td>
<td>SOCIAL CONNECTIVITY AND CAPITAL</td>
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A NEW APPROACH

MANY SHAPES + FORMS
COMPACT + PERMEABLE
MULTIFUNCTIONAL
FLEXIBLE + ADAPTABLE
VARIETY OF SCALES
ENGAGED WITH THE STREET
ACTIVE USE + ACTIVE TRANSPORT
CO-LOCATED

THE IDEA

DIVERSE GRAIN: A ‘NEW MODEL’
WHERE FINE GRAIN IS MIXED INTO THE FABRIC OF OUR COMMUNITIES
(DETAILS IN CH 4)
FINE GRAIN ACTIVITY IS...

CIVIC AND SOCIAL PLACES WHERE HUMAN CONNECTIONS OCCUR

FINE GRAIN ACTIVITIES ALLOW FORMAL AND INFORMAL SOCIAL INTERACTION AND INCLUSION OF PEOPLE OF ALL AGES AND ABILITIES. THIS GIVES RISE TO BONDING, BRIDGING AND LINKING SOCIAL CAPITAL.

1 CULTURE + CIVIC (IE. LIBRARIES AND ARTS VENUES)
2 EVERYDAY USES (IE. PUBS AND FRESH FOOD)
3 PARKS + PUBLIC REALM (IE. STREETS, OPEN SPACES AND SPORTS FACILITIES)

Fine grain activity supports a socially cohesive and sustainable community. According to CRED Consulting's 2017 report Greater Sydney’s Social Capital: Its Nature and Value, fine grain activities are 'social connectors'. These can be social infrastructure and places that facilitate formal human relationships and bonds; or, those that facilitate unstructured or incidental human relationships and bonds.

**Formal** - These can include: museums and galleries, community halls, gardens, schools, libraries, co-working spaces, sport fields, arts spaces, start-up incubators, TAFES and universities or meet-ups.

**Informal** - These can include: streets as places, parks, playgrounds, live music venues, eat streets, retail strips/hubs, parklets, farmers markets, dog parks, small bars, communal spaces in high rises, small bars or pop-up parklets.

According to Montgomery’s Happy City, social connections are directly linked to community wellbeing; the idea that civic engagement generates social trust and co-operative norms. When fine grain activity is supported on a variety of scales in walkable, fine grain urban fabric, better health, social and economic outcomes are achieved through greater opportunities to build social capital and lead more physically active lives.

**DEFINITIONS (SOURCE: GREATER SYDNEY’S SOCIAL CAPITAL: ITS NATURE AND VALUE, CRED)**

**SOCIAL CAPITAL**
Our many social connections, and the benefits and resources these bring to the wellbeing of individuals and of the community.

**BRIDGING CAPITAL**
Connections that stretch beyond a shared sense of identity or a place or network.

**BONDING CAPITAL**
Social connections to people based on a sense of common identity, e.g. kinship, ethnicity, religion, profession.

**LINKING CAPITAL**
Social connections between people operating at different levels of power or authority in a society.
**Introduction**

Googong township seeks to encourage a mix of dwelling types across the township to cater for all ages and stages of life, as well as assist in the provision of Affordable Housing. As a part of the delivery of a range of housing types, ‘small streets’ or ‘laneways’ will be created to provide vehicle access and garaging for small lot housing.

Laneways form a valuable and a functional component of the built environment by:

- Avoiding streetscapes dominated by garages and car ports in narrow subdivision
- Alleviating the need for driveways at the front of properties
- Allowing reduced front setbacks consistent with Googong transect character zones
- Providing the opportunity for increased street planting and on street parking at the front of properties
- Providing the opportunity for unique residential and commercial (mixed use) development with reduced front setbacks.
- Providing opportunities to remove service traffic from streets
- Allowing attractive street frontage where volumes of traffic inhibit driveway access (e.g. Googong Avenue)
- Facilitating studio housing

**The Issue**

Laneways have been delivered in the ACT and NSW with varying effect and quality. Laneways delivered to a unsatisfactory quality or of ineffective function have resulted in poor built environment outcomes. The failings of poorly executed laneways can be described as:

- Long and continuous alignment of laneways
- Do not terminate with ‘ends’ through controlled placement of built form or landscape elements
- Do not offer passive or active surveillance
- Allow for ease of short cutting for vehicular traffic
- Monotonous in material selection and character
- Provide poor bin storage and pick-up locations which lead to poor management of bins.

**Gungahlin - laneways offer no surveillance**

Laneways can offer attractive, useful spaces to local residents and community.

**Googong Township Laneway Strategy**

Two types of laneways are proposed (Type 1 and Type 2). The following pages outline the laneway design techniques to address concerns about laneways and add value and function to the built environment.

**Within 400m of:**

- Community Centres
- Leisure Centres
- Museums, Galleries
- Libraries, Schools
- Co-working Facilities

**Within 400m of:**

- Third Places
- Pubs and Restaurants
- Corner Stores
- Retail Strips or Hubs
- Work Place
- Regional Parks
- Pocket Parks
- Dog Parks
- Lanes or Streets
- Community Gardens

**Coarse Grain Activity: A Quick Example**

5 min walk

- 400m

**Limited Culture + Civic

- No Everyday Uses

**Isolated Public Domain**

**Fine Grain Activity: A Quick Example**

5 min walk

- 400m

**50+ Culture + Civic

- 100+ Everyday Uses

**Networked Public Domain**
Walkable places are typically characterised by small blocks in close proximity, with many buildings with narrow frontages, frequent storefronts, and minimal setbacks from the street. And as there are more intersections, traffic is slower and safer and pedestrian navigation is easier. There are virtually no surface parking lots or dead-zones of inactivity. This fine-grained approach to cities offers many opportunities for discovery and exploration.

A 400m distance, equivalent to a 5 minute walk, is traditionally acknowledged as a reasonable distance for people to walk between destinations. More recent studies show that people are willing to walk much greater distances if the walking environment is favourable. Fine grain urban fabric, complete with greater visual variety, greater variety of uses, and greater route choices, can encourage people to walk further, which not only improves destination patronage on foot, but also improves health.

In Sydney, places like Surry Hills or Potts Point best exemplify fine grain fabric. These neighbourhoods are walkable, vibrant and diverse. The reason for this is simple: humans were built to walk. The built environment that best caters to this generates more social activity and greater use of the public realm.

At a fundamental level, fine grain fabric is built for walking speeds of 4-5km/hour, with lot size diversity that helps to satisfy a human’s need for novelty by offering variety in the streetscape every 4-8m. What keeps us engaged is the promise that if we keep moving and looking, things will surprise and intrigue us.

Finally, more walkable and mixed-use environments with connected street networks promote neighbourly interactions, social capital and sense of community. The presence of local shops or neighbourhood centres and the provision of social infrastructure and facilities are also important for encouraging social interaction and social capital.
FINE GRAIN URBAN FABRIC: A QUICK EXAMPLE

5 MIN WALK
400M

151 BLOCKS
225 CONNECTIONS
8,000m² LARGEST LOT

WITHIN 400M OF:

15 PUBS
23 RESTAURANTS
8 ART GALLERIES
4 BANKS
5 PLACES OF WORSHIP
1 HARDWARE STORE
4 GROCERY STORES
2 COMMUNITY CENTRES
1 LIBRARY
1 HARDWARE STORE
2 THEATRES
DOZENS MORE

COARSE GRAIN URBAN FABRIC: A QUICK EXAMPLE

5 MIN WALK
400M

25 BLOCKS
43 CONNECTIONS
80,000m² LARGEST LOT

WITHIN 400M OF:

PARKING LOTS
BIG-BOX RETAIL
CAR-FOCUSED ROADS
Fine grain activity is more than just the physical and programmatic elements which define it. Fine grain activities, particularly those in close proximity to one another, affect the behaviour of city users by creating positive experiences. These behavioural patterns form the basis for social networks and interactions that we broadly term ‘social capital’ as described in Chapter 1. Studies now show that many of the factors associated with recent decline in social capital can be connected to suburbanisation and the homogenisation of land uses and the built environment. In *Bowling Alone*, Robert Putnam suggests social capital has been on the decline in many western nations including Australia for decades, for a myriad of reasons including a change in how we build neighbourhoods and the long commute times associated with that change. As people increasingly work further from home, people are time-poor, and are able to spend less time in their community and rely on cars to travel from destination to destination.

In contrast, the integration of fine grain activity and pedestrian focus of fine grain places have both social and lifestyle benefits by encouraging interaction and facilitating daily activities by foot. Simply, there is more time in the day to engage with your community and local social and cultural activities.

Having high social capital has positive consequences at both a community and individual level; ranging from improved physical and mental health, reciprocity amongst citizens, and reduced crime. As such, social ties and community connections are much more than just ‘feel good factors’ — they are the benchmark by which we should be the measuring success of places and the liveability of Greater Sydney.
4 principles for successful fine grain activities in a fine grain fabric context

- Principle 1: Co-located
- Principle 2: Multifunctional
- Principle 3: Engaged with the street
- Principle 4: Variety of scales

Fine grain activities function individually + collectively.
Fine grain activities are more useful when they are co-located, shared and close-by. Close proximity allows for interconnectedness and the rise of the ‘civic commons’, whereby the sum of multiple parts becomes far greater than individual activities existing in isolation.

**CO-LOCATED**

The proximity of fine grain spaces to one another in Chippendale make it the perfect setting for the annual Art Month in Sydney, encouraging visitors to move from one venue to another.

**VARIETY OF SCALES**

Fine grain activities are more useful when they are co-located, shared and close-by. Close proximity allows for interconnectedness and the rise of the ‘civic commons’, whereby the sum of multiple parts becomes far greater than individual activities existing in isolation.

**ENGAGED WITH THE STREET**

Darcy Street and laneway in Parramatta was reactivated through the inclusion of art, sculptural furniture and small retail operators.

Fine grain activity should positively engage with its surroundings, particularly at street level where pedestrians and cyclists encounter the building and use. A level of permeability should connect the inside use with the outside realm. This works to activate the public domain from the outside-in and promotes inclusivity, sociability and a sense of shared ownership and experience.

**MULTIFUNCTIONAL**

There is an inherent multifunctionality of use, experience, people and activity in fine grain places. This multifunctionality caters to different flows of people throughout the day, encourages shared uses, and allows an activity to change function during the day or week into something completely different for special occasions or weekends.

Both large and small activities are welcome in a fine grain environment. This is typical of fine grain places where large institutions such as a state library can act as a regional attraction while more local, bespoke libraries can function separately, with both working together to improve literacy by being accessible at many levels.

**ROOM FOR BOTH**

The Joan Sutherland Centre, Penrith, not only provides space for theatre, comedy and music companies but also for educational and community purposes including festivals and classes.

Both large and small activities are welcome in a fine grain environment. This is typical of fine grain places where large institutions such as a state library can act as a regional attraction while more local, bespoke libraries can function separately, with both working together to improve literacy by being accessible at many levels.
OUTCOMES:
MORE SOCIAL + CULTURAL EXCHANGE

HOW?
A VARIETY OF USES AND MORE DESTINATIONS

BENEFICIAL OUTCOMES

+ MORE DESTINATIONS WITHIN WALKING DISTANCE
+ ROOM FOR LARGE AND SMALL ARTS AND CULTURAL FACILITIES AND PROGRAMS
+ ROOM FOR LARGE AND SMALL ART EDUCATION FACILITIES
+ ROOM FOR LARGE AND SMALL COMMUNITY PLACES AND SOCIAL INFRASTRUCTURE
+ HERITAGE
+ IDENTITY
+ INCREASED SENSE OF COMMUNITY OWNERSHIP
+ ‘THIRD PLACES’ (AFTER HOME AND WORK)
+ EAT STREETS
+ PLACES OF WORSHIP
+ MORE SOCIABILITY MEANS MORE SOCIAL ENTERPRISES AND INDUSTRY CLUSTERS

SOCIAL COHESION IMPROVES HEALTH
+ REDUCES MORTALITY
(WHO Europe)
Ideal neighbourhoods include a range of employment, education, recreation and retail opportunities and regional transport connections within comfortable walking or cycling distances of a dense population base.

- Healthy Active By Design, Australia Heart Foundation

The presence of local shops or provision of community infrastructure and facilities within the neighbourhood unit are critical for encouraging social interaction and social capital.

- Healthy Active By Design, Australia Heart Foundation

Neighborhood designs (or types) most likely to promote social capital are those that are mixed use [with a high amount of destinations]

- Suburban Nation

Living within close proximity of a mix of destinations is associated with higher levels of active transport (walking and cycling) across all age groups

- Healthy Active By Design, Australia Heart Foundation
OUTCOMES: IMPROVED WELLBEING + INCLUSION

HOW? A VARIETY OF OPEN SPACES

BENEFICIAL OUTCOMES

+ MORE OPEN SPACES WITHIN WALKING DISTANCE
+ ROOM FOR LARGE AND SMALL OPEN SPACES
+ ROOM FOR LARGE AND SMALL SPORTS AND RECREATION ACTIVITIES AND FACILITIES
+ IMPROVED MENTAL AND PHYSICAL HEALTH AND WELL-BEING
+ INCREASED SOCIAL INCLUSION
+ INCREASED SENSE OF COMMUNITY OWNERSHIP
+ PLACES FOR KIDS TO PLAY AND BE SOCIAL
+ COMMUNITY GARDENS
+ INFORMAL SPACES FOR ARTISTIC AND CULTURAL EXPRESSION
+ SPACE FOR COMMUNITY DEVELOPMENT
+ TREE CANOPY AND BIODIVERSITY
+ PLACES TO TAKE PETS
Public open spaces that cater for multiple users encourage a sense of community by facilitating chance encounters between individuals.

- Healthy Active By Design, Australia Heart Foundation

Large urban parks are undoubtedly great places for connection with nature but smaller public green spaces are more common places for socialising.

- Use of Small Public Urban Green Spaces, Karin Peschardt
OUTCOMES:
MORE WALKING, TALKING + LINGERING

HOW? WALKABLE DISTANCES BETWEEN ACTIVITIES

BENEFICIAL OUTCOMES

+ MORE LINGERING AND GATHERING
+ INCREASED USE OF PUBLIC SPACE
+ INCREASED CYCLING
+ DECREASED POLLUTION FROM CARS
+ IMPROVED STREET SAFETY FOR ALL PEOPLE
+ INCREASED PASSIVE SURVEILLANCE

WALKING ONLY
15 MINUTES PER DAY
REDUCES RISK OF

MENTAL HEALTH ISSUES BY 33%

EARLY DEATH BY 22%

(European Society of Cardiology, research presented in 2016 by Dr David Hupin)
Research identifies that social networks and community involvement have positive health consequences. Persons who are socially engaged with others and actively involved in their communities tend to live longer and be healthier physically and mentally.

- Social Capital and the Built Environment: The Importance of Walkable Neighborhoods, Kevin M. Leyden

People with access to a ‘High Street’ style centre (a walkable place with diverse functions and activities) are over 7 times more likely to walk for over an hour each week. High street centres have been associated with increased sense of community.

- Healthy Active By Design, Australia Heart Foundation

Best practice research concludes that if intersection density is doubled, walking will increase by 40 percent.

- Travel and the Built Environment: A Meta-Analysis, Reid Ewing + Robert Cervero
OUTCOMES: SENSE OF BELONGING + OWNERSHIP

HOW? PERSONALISATION OF PLACE AND HUMAN QUIRKINESS ON DISPLAY

BENEFICIAL OUTCOMES
- MORE HUMAN ELEMENTS FOUND IN STREETS
- PUBLIC-PRIVATE INTERFACE AT A HUMAN SCALE
- DIVERSITY OF PERSONALITY AND TASTES
- ENGAGING THE SENSES
- IDEAL FOR WALKING ENVIRONMENTS
- PROMOTES NEIGHBOURLINESS AND TRUST
- DEVELOPS INDIVIDUAL AND COMMUNITY RESILIENCE
Edge zones, porches and front yards can make a decisive contribution to vitalizing life in public space. These transition zones between the private and public sphere must be carefully articulated in order to clearly distinguish between what is private and what is public.

- Cities for People, Jan Gehl

If ground floors are friendly, soft and — in particular — populated, pedestrians are surrounded by human activity. Even at night when little is happening in cafés and front yards, furniture, flowers, parked bicycles and forgotten toys are a comforting witness of life and proximity to other people.

- Cities for People, Jan Gehl
THRIVING CITIES HAVE A LOT OF FINE GRAIN FABRIC
Like “fine grain activity,” “fine grain urban fabric” is a complex issue. “Fine grain fabric” is used to describe an urban environment where the elements are typically smaller and highly varied in size. Block and lot size vary significantly in a fine grain place, and are characterised by a diversity of building typologies and land uses within a block as well as shorter distances between intersections.

Fine grain places are naturally more walkable because there are more destinations within walking distance. On the contrary, coarse grain environments are made up of large blocks and lots and are built at scales that cater to the car. In past decades this has created sprawling urban environments with destinations and social connectors further and further apart.

In Central Sydney’s traditional fine grain places such as Surry Hills, diverse destinations are within walking distance for residents, in contrast to suburbs in Sydney’s outer ring where a car is often required to get to local shops.

The identified fine grain fabric elements, particularly when contrasted against coarse grain development, shed light on how fine grain places function and enhance the supply and distribution of services, arts, cultural and creative enterprises and facilities through spatial connectivity.

In addition, research suggests land use diversity can create a more resilient built form that is susceptible to change and cater better to incremental redevelopment. Fine grain neighbourhoods also promote multi-age, socially and economically diverse communities that can strengthen social networks, encourage neighbourliness and build social capital.¹

¹ Including Jane Jacobs, The Death and Life of Great American Cities
PRINCIPLES
FINE GRAIN FABRIC IS WALKABLE + ENGAGES THE SENSES TO ELICIT PLACE ATTACHMENT

4 PRINCIPLES FOR SUCCESSFUL FINE GRAIN FABRIC AS A FRAMEWORK TO ACHIEVE SOCIAL INCLUSION AND MORE PHYSICALLY ACTIVE LIFESTYLES
The fabric utilises human scale to engage the senses and enhance local identity. Its compact nature is inherently interesting and allows for 5km/h architecture (the walking speed) with close encounters with buildings, better acoustics for communication and places designed for sound and smell. High intersection densities and small blocks make a place walkable and safe. According to the Travel and the Built Environment: A Meta-Analysis, high intersection densities has the largest effect on walking, more than population density or distances.

Diversity in block and lot shapes and sizes facilitates a greater variety of building floorplates to arise and provides for different uses and users. Over time, buildings, users and uses evolve incrementally, providing for a rich tapestry of city layers.

The small scale granularity of fine grain lots allows for incremental adaptation of building uses within larger blocks and provides capacity for trialling and testing uses with a lower associated risk (e.g. pop-up shops, short-term leases, not-for-profit interim uses). This flexibility also allows for more spontaneous responses to market demands and a greater level of personalisation (e.g. bespoke architectural solutions and additions).
OUTCOMES: ENCOURAGES ACTIVITY ACROSS ALL SCALES AND SECTORS

CASE STUDY

INTERNATIONAL GREAT CITY: GOTHIC QUARTER, BARCELONA

Location: Inner City cultural/tourism district
District Type: Historic, mixed-use

400m metre = 5 min walk
800 metre = 10 min walk
Clustering of micro galleries bring life to the laneways, whilst larger cultural institutions are physically prominent landmarks.

Strong night time economy, unique dining and drinking destinations paired with everyday amenity and coarse grain retail.

Traditional social connectors such as places of learning and religion are woven into the historic fabric of the district.

Public spaces respond to surrounding built form - regional attractors at district edge and smaller local meeting spaces nestled within the historic fine grain core.
OUTCOMES:
DELIVERS ENJOYABLE WALKING AND CYCLING FOR PHYSICALLY ACTIVE LIFESTYLES

CASE STUDY
INTERNATIONAL GREAT CITY:
NEWTOWN, SYDNEY

Location: Inner City Neighbourhood
Street Type: Commercial corridor
Study area length: 750m

- 9 Community, civic and cultural destinations
- Countless shops, pubs, bars and restaurants
- Cycle routes on low-medium traffic
- Cycle routes on heavy traffic
King Street is successful at both a macro and micro level - anchored by major destinations such as the train station and university, and punctuated by human scale shop frontages, pocket parks and regular intersections. High lot diversity and ownership provide the framework for the street’s well-loved eclectic and personalised appearance.
OUTCOMES:
CREATES DISCOVERY + WONDERMENT

CASE STUDY

INTERNATIONAL GREAT CITY:
LOCUST STREET, PHILADELPHIA

Location: Inner City Neighbourhood
Area: 17,000m²
Block Type: Residential with mixed use perimeter

- 12 Cafes and shops
- 2 Community facilities:
  - Medical centre and Arts school
- Dedicated cycleway
113 LOTS

- **Finest Grain** (Smallest 50m²)
- **Coarsest Grain** (Largest 907m²)

Larger lots are appropriately integrated amongst fine grain terraces - variety to street facade and building heights.

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1 SUPERBLOCK
7 SUB-BLOCKS

The superblock is divided up into 7 sub-blocks to create a highly walkable, interesting fabric of human scale.

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75/25% USE MIX

- Residential Only
- Residential, Commercial and Community

Active perimeter block attracts visitors and encourages interaction. Unique destinations such as community garden.

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4 CONNECTION TYPES

- 1-way Main Street (11 metres)
- 1-way Laneway (5 metres)
- Pedestrian Only (2 metres)
- Dedicated Cycle Lane

Tight network of smaller connections in the block core encourage wandering whilst perimeter routes facilitate movement.

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3:1 Private to Public

1,120m of active frontages
OUTCOMES: HAS PEDESTRIAN PLACES GREAT FOR INFORMATION EXCHANGE

CASE STUDY
INTERNATIONAL GREAT CITY: KENSINGTON STREET, SYDNEY

Location: Inner City cultural/tourism district
Street Type: Historic, pedestrian laneway

Pedestrian connectivity is critical to choice of route, passive surveillance and safety and achieving higher walkability rates. Small blocks ensure destinations are nearer.

Art galleries
Provides a larger diversity of land ownership.

4-8M Width to active street frontages is ideal to engage the senses.

Street rhythm that engages human senses, avoids boredom and homogeneity and naturally caters to 4-5km/hr. walking speeds.

Public domain seating of different sizes and function is critical to encourage lingering.

Many building openings that interface with public domain.

Local materials.
‘DIVERSE GRAIN’ FOR SYDNEY’S FUTURE

PROMOTE AUTHENTIC, WALKABLE FINE GRAIN PLACES FOR PEOPLE, RECOGNISING 21ST CENTURY REALITIES

As Towards Our Greater Sydney 2056 outlines, now is the time to conceive, and plan, for Greater Sydney maturing into a metropolis of three cities that will collectively create a Global Sydney. Sydney must enhance and implement the principles of successful fine grain places outlined in Chapters 2 + 3 to fit modern day realities and locally unique conditions so that each city will thrive individually and collectively. Below are the visions for each City that will provide the basis to deliver a successful diverse grain for the future.

**Eastern Harbour City - Innovate**
Eastern Harbour City features significant heritage precincts such as The Rocks and fine grain places such as Surry Hills and Paddington. The Eastern City will continue to protect these places and find new ways to connect activities and people with locally unique experiences. The opportunity exists to increase connectivity in and to local centres to promote walkability and cycling, and to apply fine grain principles to enhance economic activity in the Eastern City’s high streets.

**Central River City - Retrofit**
The evolving Central River City is set to experience significant urban transformation over the next 20 years. While human-scaled heritage is a significant component of Parramatta and other local centres, the River City is largely single use zones not well serviced by transport. The Central River City has the opportunity to retrofit these places and infuse local and neighbourhood centres with fine grain activities and fabric to create a diverse grain outcome. This will create greater social opportunities for the diverse populations that live here.

**Western Parkland City - New Principles**
The Western Parkland City offers a unique opportunity to drive a new economy in the emerging aerotropolis that incorporates the areas around the proposed Western Sydney Airport. Delivering a diverse grain future with large and small uses in places that promote walkability and transport access will ensure connected, inclusive communities. If done successfully, diverse grain subdivision and development patterns and fine grain activities will proliferate and furnish the new city with diverse, affordable housing, access to social connectors and jobs, and create places people are proud to call home.

The well-established centres of Greater Penrith, Liverpool and Campbelltown have opportunities to innovate and retrofit leveraging their locally unique character and environmental qualities.
PRINCIPLES FOR A WALKABLE CITY

WHAT THE NEW ‘DIVERSE GRAIN’ MODEL LOOKS LIKE

THE DIVERSE GRAIN MODEL COMBINES COARSE GRAIN USES + INSTITUTIONS NECESSARY FOR MODERN SYDNEY WITH FINE GRAIN PLACES FOR PEOPLE AT THE HEART OF NEIGHBOURHOODS WHERE IT MATTERS MOST

Fine grain places in the future won’t look like the thriving fine grain places of the past. Instead, they will take on a characteristic of diversity, where fine grain activity and fabric makes way for coarse granularity that is necessary for today’s modern economy. There needs to be room for large hospital precincts, shopping centres and apartment podiums. But instead of places where that is the dominant pattern, the principles outlined in Chapter’s 2 + 3 can evolve to reinstate fine grain fabric and activity into future development patterns. Below is a suggested mix of fine grain and coarse grain for each of Sydney’s 3 cities and particularly relevant for the Central and Western Cities. Like any thriving ecosystem, the smaller the element, the more abundant it ought to be. This model can be applied generally to each city, with different opportunities in each.

### EASTERN HARBOUR CITY

**NOW**
A vibrant, established city with existing great places and innovative new ones, both formal and informal.

**BY 2036**
A transformed city with improved walkability and better access to fine grain activities.

**BY 2056**
A well designed city with new residential areas, centres and local destinations that are places for people.

### CENTRAL RIVER CITY

### WESTERN PARKLAND CITY
THE IDEA

DIVERSE GRAIN: A SAMPLE BLOCK
WHERE FINE GRAIN FABRIC AND ACTIVITIES ARE THE FOCUS OF OUR NEIGHBOURHOODS AND COMMUNITIES
DIVERSE GRAIN ACTIVITY APPLIED

KEY ATTRIBUTES FOR CREATING AND RENEWING GREAT PLACES FOR PEOPLE

IN TERMS OF ACTIVITY, IT’S ABOUT PROMOTING DIVERSITY AND MULTIFUNCTIONALITY OF USES AND ENSURING PROXIMITY BETWEEN USES TO CATER FOR DIVERSE NEEDS AND PEOPLE

CO-LOCATED

- Allow for interconnectedness by co-locating activities within accessible catchments.
- Locate fine grain within neighbourhoods, coarse grain at seams.
- Cluster activities around transport hubs and in town/civic centres.
- Create walking and cycling connections between key landmarks.
- Provide for walkable everyday uses from residential areas.
- Stack uses vertically as well as horizontally.
- Provide uses for people of all ages and abilities.

VARiETY OF SCALeS

- Offer a spectrum of complimentary regional, neighbourhood and hyper-local uses.
- Consider “lighter, quicker and cheaper” activities.
- Maintain and create small and micro activity (e.g. pocket parks).
- Promote cultural destinations with satellites and pop-ups.
- Locate traditional larger civic uses in proximity to smaller activities.

ENGAGED WITH THE STREET

Activate the public domain from the outside in by providing engaging activities at street level.

Initiate an active facades plan with features such as:
- 15-20 doors per 100m
- Integrate retail signage with unit design
- Lots of vertical greenery + local character + materials
- Visual richness in façade articulation (horizontal + vertical)
- Co-ordinate management of servicing zones for pedestrian
- Consistent and continuous awnings

MULTIFUNCTIONAL

Diversify existing fine grain activities and promote innovative programming and shared uses for new activity spaces.

- 18-hour city programming where appropriate
- Schools and libraries as innovation hubs
- Recreation centres as well-being institutions
- Parks as experiences
- Integrated digital tech (real-time data, sharing platforms)
- Advance existing social assets as hubs of ‘connection’

Source: Studio Gang
DIVERSE GRAIN URBAN FABRIC APPLIED

KEY ATTRIBUTES FOR CREATING AND RENEWING GREAT PLACES FOR PEOPLE

IN TERMS OF URBAN FABRIC, IT'S ABOUT REDISCOVERING THE HUMAN SCALE AND IMPROVING CONNECTIVITY, WHETHER THROUGH WALKING, CYCLING OR PUBLIC TRANSPORT

**COMPACT+ PERMEABLE**

Design for human scale to encourage walking, lingering and sensory engagement.

- Small blocks, high intersection density (200-500/ha²)
- Break up superblocks with pedestrian and cycling connections
- Allocate road widths for pedestrian priority
- Increase permeability with new streets or pedestrian links
- Easy navigable, lattice-like street patterns

**MANY SHAPES + FORMS**

Diversify the shapes and sizes of blocks and built forms including height, floorplates and podiums

- Identify ‘Places for People’ (PfP) and ensure fine grain fabric
- Promote smaller blocks for high streets, centres, lanes, parks
- Discourage lot amalgamation in ‘PfP’ where possible
- Weave fine grain activities into residential neighbourhoods
- Reapportion ‘big box’ uses into walkable network
- Intermix dwelling and built form types between blocks
- Celebrate local flora, fauna and history

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1 Intersection density includes pedestrian links. 200-500/ha² benchmark based on existing fine grain urban fabric in Sydney
ACTIVE USE + ACTIVE TRANSPORT

- Encourage active environments for people with accessible open spaces, cycling, and engaging streets.
- Linger on the street and alfresco footpath dining
- 5-minute walking catchment for residents to small open spaces
- Focus on cycle connectivity in first evolution of retrofitted networks
- Break down street-level podium mass to a 4-8m width rhythm
- Activate blank walls with murals or pop-up activities
- Densify certain residential areas for critical mass of activities

FLEXIBLE + ADAPTABLE

- Create places which can evolve and respond to change through smaller and finer urban fabric.
- Public share economy nodes (tool share sheds, craft spaces, etc)
- Design for tides of change throughout day where appropriate
- Ensure array of built form sizes to appeal to diverse user base
## Glossary

### Key Terms and Concepts

**Civic commons**  
A network of civic assets and social infrastructure such as libraries, recreational centres, schools and parks. A ‘civic commons’ employs innovative and adaptive ways to maximise use of these assets, and ways in which they can be used in conjunction with one another. Architects Studio gang have explored this concept in their ‘Reimagining the Civic Commons’ initiative.

**High street (or ‘Main street’)**  
The primary retail street in a neighbourhood, town or city which is the focal point for the commercial centre. Shops and business commonly face out onto the road, and activity occurs in the streets and sidewalks in front of them, as opposed to an inward-facing, indoor shopping mall.

**Human scale**  
An environment which responds to the shape, size, needs and ability of an average person. For example, residential ceiling heights average between 2.4 and 2.7m in response to humans’ height, and well-designed public plazas should be no larger than 100m across in response to humans’ eyes (the maximum distance for seeing any human movement is 135m). The concept of the human scale has been particularly championed by Project for Public Places and Gehl Architects.

**Lighter, quicker, cheaper**  
A low-cost, high-impact approach to urban transformation which is centred on small changes that can be easily enacted, often by the community. This approach can also be termed ‘D.I.Y. Urbanism’ and ‘Tactical Urbanism’.

**Public realm (or ‘Public domain’)**  
The spaces which are shared communally by the public, such as streets, parks, squares, playgrounds and pedestrian pathways. The definition of the public realm has an inherent looseness and can sometimes come to include indoor uses such as building atriums and community centres, as well as privately-operated public spaces (e.g. Australian Technology Park, Redfern).
Social capital

Our many social connections, and the benefits and resources these bring to the wellbeing of individuals and of the community.

Bonding capital

Social connections to people based on a sense of common identity, e.g. kinship, ethnicity, religion, profession.

Bridging capital

Connections that stretch beyond a shared sense of identity or a place or network.

Linking capital

Social connections between people operating at different levels of power or authority in a society.

Third places

Third places are the neutral places in which people choose to socialise, relax, and engage with their community in. Third places follow first places (home) and second places (work), and examples of third places include high streets, pubs and parks. The urban sociologist Ray Oldenburg is famous for his studies surrounding third places.

Thriving cities

A place which encourages positive reciprocal relationships between people and place by promoting frequent social exchange, sense of belonging, and more active and healthy lifestyles. This holistic concept relates to prosperity, health, sustainability, social equity, and happiness both at the individual and collective level. The concept of thriving cities has been explored in an initiative led by the University of Virginia and the Institute of Advanced Studies in Culture.