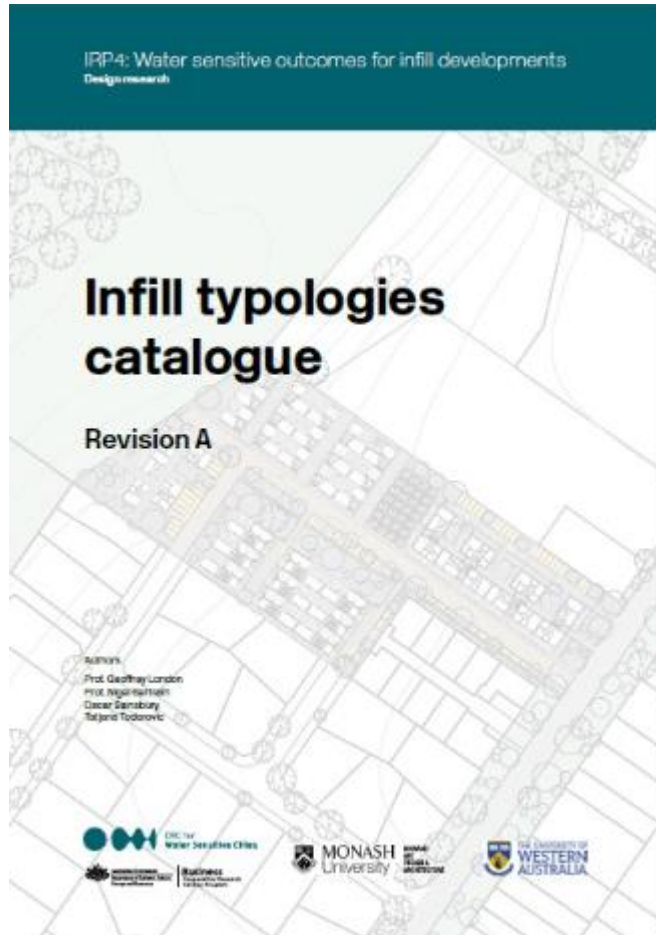


01 - Infill typologies catalogue

Minor infill – Built form typologies



Category 1: Dual Occupancy, Duplex

Category 2: Terrace, Courtyard, Townhouse

Category 3: Stacked, Cluster

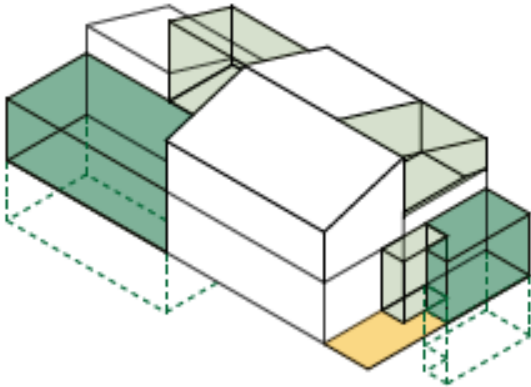
Category 4: Six Pack, Lift Core, Walk Up

Category 5: Apartment Buildings

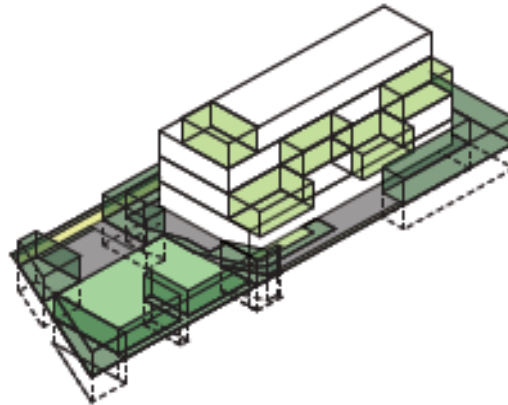
Category 6: Urban Spaces

Category 7: Precincts

Infill typologies Catalogue and performance analysis



Dwellings

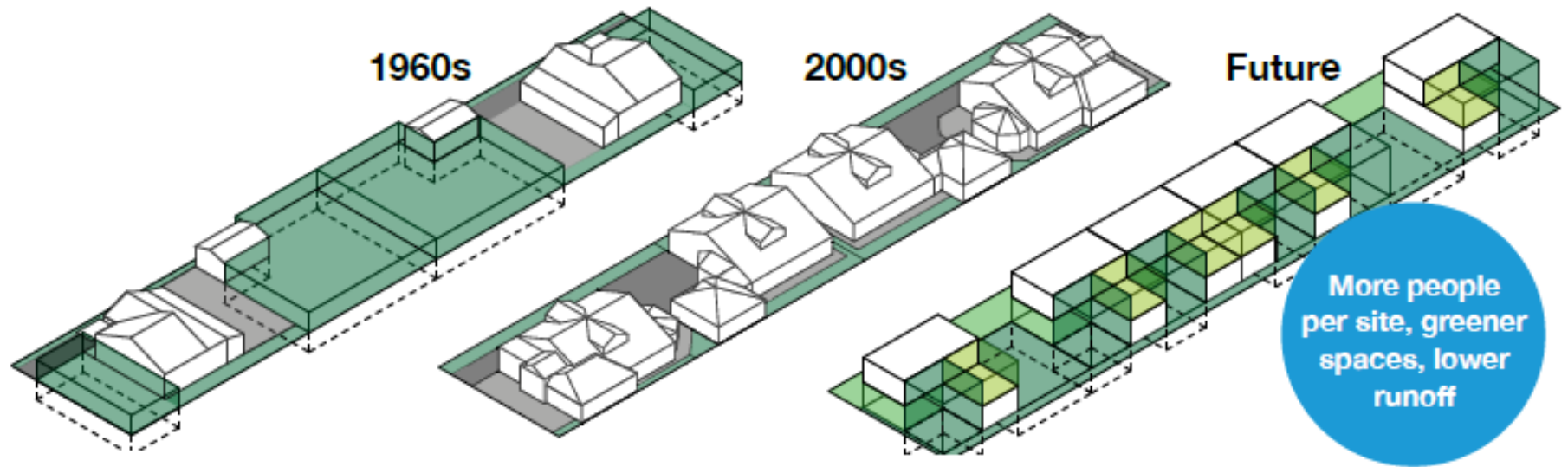


Apartments



Streets / public spaces

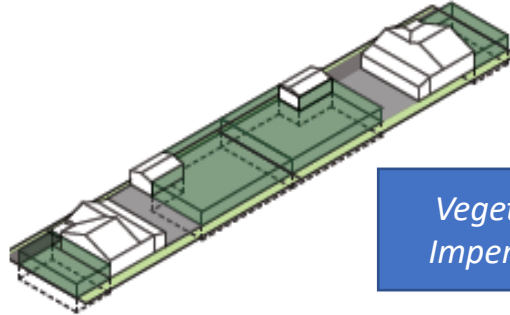
Minor Infill - reimaged



Small site typologies example:

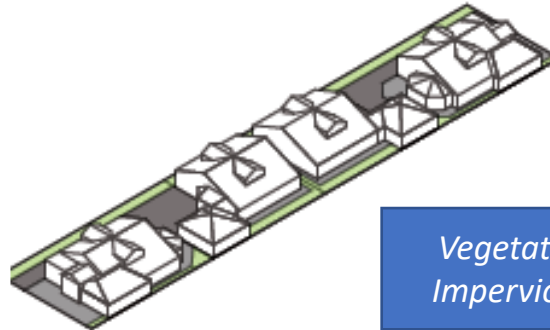
1 lot into 3, 2 lots into 6

EXISTING



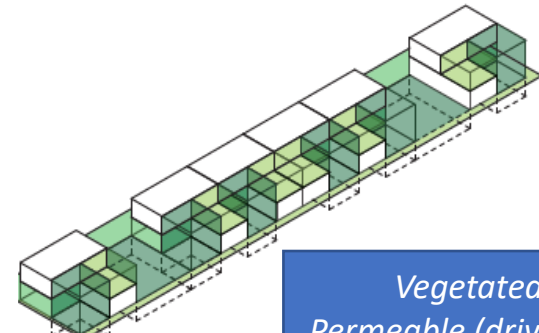
Vegetated = 60%
Impervious = 40%

BUSINESS AS USUAL



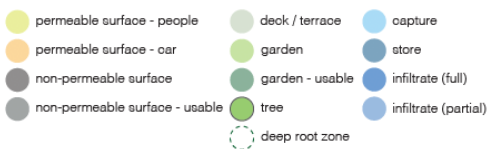
Vegetated = 20%
Impervious = 80%

WATER SENSITIVE



Vegetated = 38%
Permeable (driveway) = 20%
Impervious = 41%

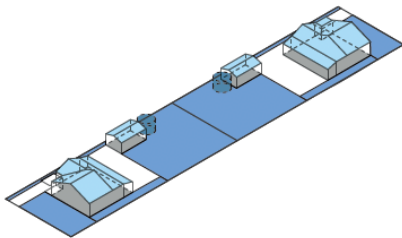
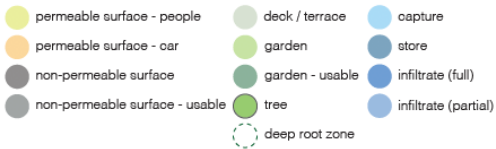
Category 1: Dual Occupancy
Existing Suburban Condition
Single Detached House



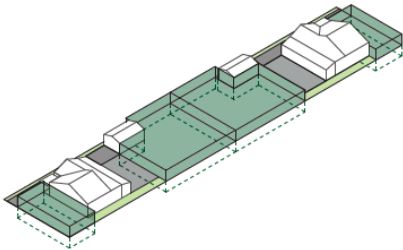
context plan 1/1000

Site Data:			
Site Area:	1420 m2 (2 lots)	Permeable Hard Surface:	0 m2
Number of Lots:	2	Non Permeable Hard	276 m2
Number of Dwellings:	2	Vegetated Surface:	844 m2
Density:	14 dwellings per hectare	Deep Root Zones:	4 (703 m2)
Open Space:	1160 m2	Canopy Trees	6+
Site Coverage:	18%	Additional On-Site Water	None

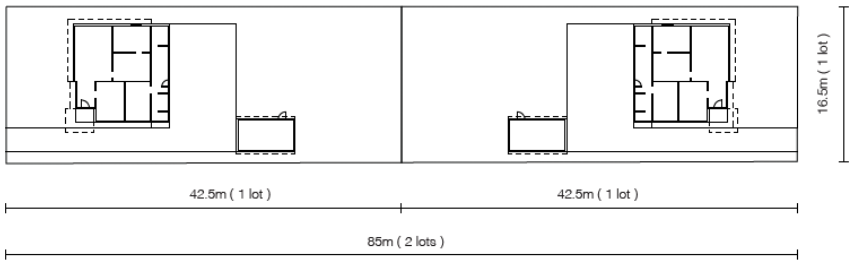
Category 1: Dual Occupancy
Existing Suburban Condition
Single Detached House



axo (water)



axo (landscape)



plan 1 / 500

Dwelling Data:			
Bedrooms:	3 (per dwelling)	Floor Area (deck):	0 m2
Occupants:	4 to 6 (per dwelling)	Garden Area:	422 m2 (per dwelling)
Cars:	2+ (per dwelling)	Roof Surface Area:	150 m2 (per dwelling)
Building Storeys:	1	% of roof area connected to	16%
Building Footprint:	120 m2 (per dwelling &	Rainwater Storage Capacity:	2500L (per dwelling)
Floor Area (building):	120 m2 (per dwelling &	Household water appliances:	1x shower, basin, wc, bath,

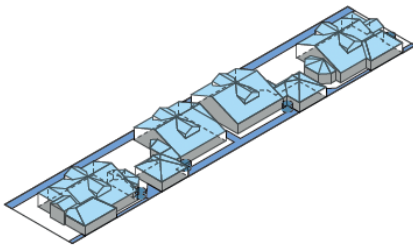
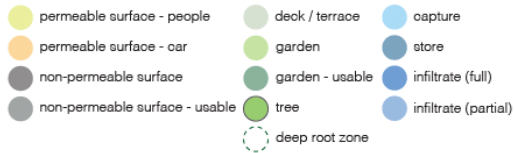
Category 1: Dual Occupancy
Standard Industry Practice
Two Unit Occupancy



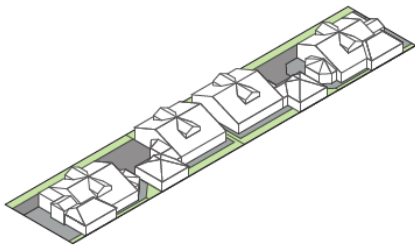
context plan 1/1000

Site Data			
Site Area:	1420 m2 (2 lots)	Permeable Hard Surface:	0 m2
Number of Lots:	2	Non Permeable Hard	379 m2
Number of Dwellings:	4	Vegetated Surface:	304 m2
Density:	28 dwellings per hectare	Deep Root Zones:	2
Open Space:	770 m2	Canopy Trees	2
Site Coverage:	46%	Additional On-Site Water	None

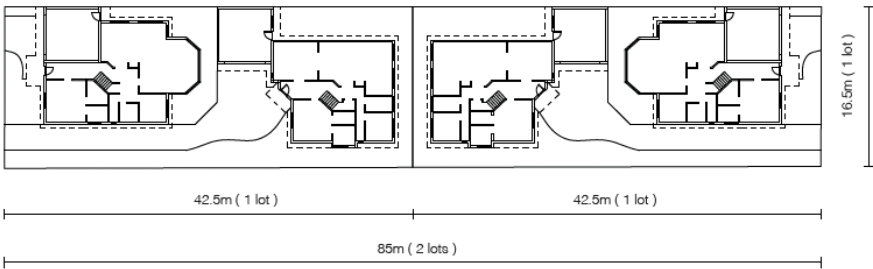
Category 1: Dual Occupancy
Standard Industry Practice
Two Unit Occupancy



axo (water)



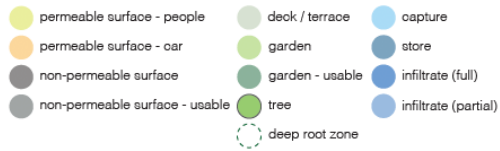
axo (landscape)



plan 1 / 500

Dwelling Data:			
Bedrooms:	3 (per dwelling)	Floor Area (deck):	0 m2
Occupants:	4 to 5 (per dwelling)	Garden Area:	76 m2 (per dwelling)
Cars:	2 (per dwelling)	Roof Surface Area:	188 m2 (per dwelling &
Building Storeys:	2	% of roof area connected to	40%
Building Footprint:	162m2 (per dwelling &	Rainwater Storage Capacity:	1000L (per dwelling)
Floor Area (building):	200m2 (per dwelling &	Household water appliances:	2x shower, basin, wc, 1x

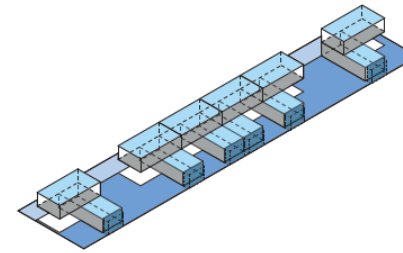
Category 1: Dual Occupancy
Water Sensitive Design
Infill Opportunities, Monash University
2012



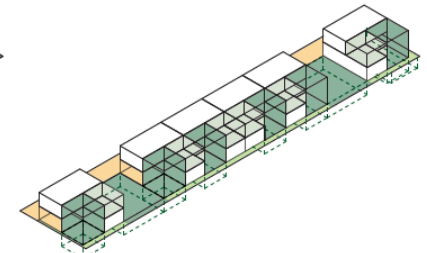
context plan 1/1000

Site Data			
Site Area:	1420 m ²	Permeable Hard Surface:	539 m ²
Number of Lots:	2	Non Permeable Hard	0 m ²
Number of Dwellings:	6	Vegetated Surface:	532 m ²
Density:	42 dwellings per hectare	Deep Root Zones:	8 (430 m ²)
Open Space:	1090 m ²	Canopy Trees	10+
Site Coverage:	23%	Additional On-Site Water	Communal water tanks

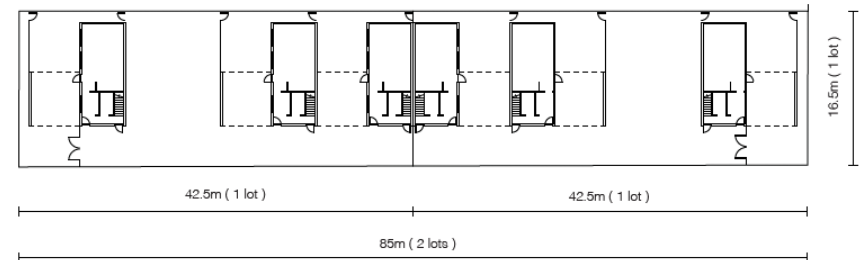
Category 1: Dual Occupancy
Water Sensitive Design
Infill Opportunities, Monash University
2012



axo (water)



axo (landscape)



plan 1 / 500

Dwelling Data:			
Bedrooms:	2 and 3 (per dwelling)	Floor Area (deck):	30 m ² (per dwelling)
Occupants:	2 to 5 (per dwelling)	Garden Area:	42 m ² (private) + 46 m ²
Cars:	2 (per dwelling)	Roof Surface Area:	55 m ² (per dwelling)
Building Storeys:	2 (3)	% of roof area connected to	100%
Building Footprint:	55 m ² (per dwelling)	Rainwater Storage Capacity:	5000L (per dwelling)
Floor Area (building):	110 m ² (per dwelling)	Household water appliances:	12x shower, basin, 6 x wc, kitch

Category 2: Terrace House
 Water Sensitive Design
 Salisbury Terrace
 Monash University &
 University Of Western Australia
 2019

- permeable surface - people

permeable surface - car

non-permeable surface

non-permeable surface - usable

deck / terrace

garden

garden - usable

tree

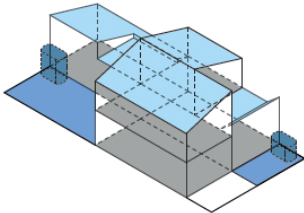
deep root zone

capture

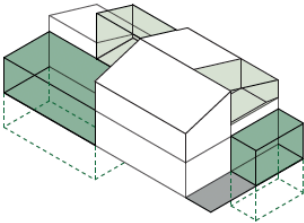
store

infiltrate (full)

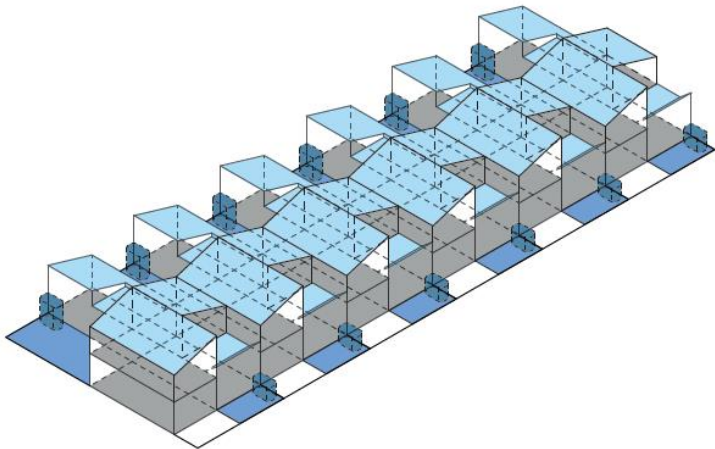
infiltrate (partial)



axo (water)



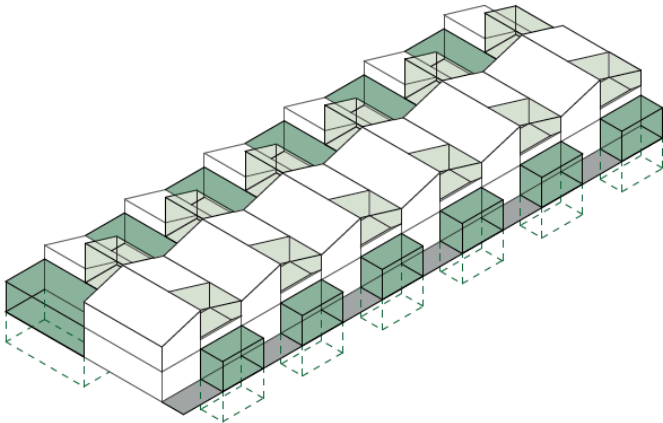
axo (landscape)



plan 1 / 500



section 1 / 500



Dwelling Data:			
Bedrooms:	3 (per dwelling)	Floor Area (deck):	34 m2 (per dwelling)
Occupants:	4 to 5 (per dwelling)	Garden Area:	52 m2 (per dwelling)
Cars:	1 (per dwelling)	Roof Surface Area:	94 m2 (per dwelling)
Building Storeys:	1	% of roof area connected to	100%
Building Footprint:	124 m2 (per dwelling)	Rainwater Storage Capacity:	2500L (per dwelling)
Floor Area (building):	180 m2 (per dwelling)	Household water appliances:	2 x basin, wc, shower, kitch