

P O Box 237 Noonamah NT 0837

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ATTACHMENT B

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Tree # 5	
Khaya <i>seneş</i> Africa introd Top End con	Khaya senegalensis – common name: African Mahogany: Large spreading tree from Senegal in East Africa introduced into the Top End in the mid 1940s. <i>K.senegalensis</i> may reach heights of 45 metres under Top End conditions. These trees have been a feature of the Darwin CBD for many years.
Location: C	Location: On the footpath outside Central Furnishings, Smith Street
Tree Characteristics:	cteristics:
• •	Height - 18 metres Spread – 17 metres
•	Number of trunks – 1
•	DBH - 950 mm
•	Form – minor asymmetry
••	Crown class – dominant Live crown ratio – 25%
•	Age class – mature
Pruning history:	ory:
•	Crown lifted
•	crown cleaned
••	lion tailed
Special value:	
•	Street Tree
Health status:	
••	general health status is average Vigor – average
• • •	foliage color – normal previous history of failure
Growth chara	Growth characteristics and tree development:
•	average to poor
Growth obstructions:	uctions:
•	curbing/paving/ concrete footpath
• •	ground surface packed with compacted gravel roadway
٠	raised planted bed surrounding the tree has constricted the growth of the roots
Defects:	
•	damaged root crown
•	severe damage to the structural root system from surrounding concrete wall
• •	excessive end weight on previously lion tailed limbs
• •	root crown is approx. 1.100mm above the artificial grade within the concrete surrounds

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- pedestrian traffic
- vehicular traffic
- buildings

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Risk assessment:

- Failure potential :
- Size of part:

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Target rating: Total Risk Rating =

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- 2
- Catergory 4 Sub-catergory C (4)

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SUMMARY.

high. Water mains and other services are present under this tree. When this retaining wall is demolished during the re-development the likelihood of complete tree failure is the root system by the surrounding retaining wall. This is a common cause of tree decline in Darwin. The Visual Tree Assessment showed this tree to be in poor health due mainly to the constraints placed upon

This tree should be removed prior to the re-development commencing.

TREE VALUATION:

No Tree Valuation is included as the tree is recommended for removal in the interests of public safety.

Tree # 6

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many years. Alstonia *actinophylla* – common name: Northern Milkwood: Erect, compact tree, native to the Top End. This tree is on the "Significant Tree List" (#103). This species has been a feature of the Darwin CBD for

Location: On the footpath in front of # 59, Smith Street

Tree Characteristics:

- Height 10 metres
- Spread 12 metres
- Number of trunks 1
- DBH 660 mm
- Form generally symmetric
- Crown class dominant
- Live crown ratio 20%
- Age class senescent

Pruning history:

- Crown lifted
- crown cleaned
- lion tailed
- multiple pruning

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Damage to the root crown will continue und depicting the botanical details of the tree an Insect attracting fairy lights should be remo	SUMMARY. The Visual Tree Assessment showed this tr the short term. As this is a significant tree of	S U L E: • Catergory 3 • Sub-catergory D (3)	 Failure potential: Size of part: Target rating: Total Risk Rating = 	 pedestrian traffic vehicular traffic buildings Risk assessment: 	Defects:	 curbing/paving/ concrete footpath ground surface packed with compacted gravel roadway 	Growth obstructions:	• average	 general health status is poor to average Vigor – average foliage color – normal previous history of failure pests and disease – Mistletoe (Amyema 	Health status:	• Significant Tree # 103	Special value:
Damage to the root crown will continue unless a protective guard is erected around the tree. A plaque depicting the botanical details of the tree and its history should be attached to the guard. Insect attracting fairy lights should be removed. Water mains and other services are present under this tree.	SUMMARY. The Visual Tree Assessment showed this tree to be in below average health but with little risk of failure in the short term. As this is a significant tree every effort should be made to retain it for as long as possible.		430 -		th decay present	te footpath with compacted gravel		oment:	general health status is poor to average Vigor – average foliage color – normal previous history of failure pests and disease – Mistletoe (Amyema <i>sanguineum</i>)			19

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Chanian	TREE
Tree	VALUATION:

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6#6		#	Ref.	
actinophylla	Alstonia			Species
120 sq m 3 pts	Large.	(M)	Size	Tree
Years 1 pts	10-20			SULE
4 pts	Great	landscape	In the	Importance
3 pts	Few	trees	of other	Presence
Suitable 3 pts	Very	setting	5	Relation
2 pts	Fair			Form
3 pts	Four		Factors	Special
3x1x4x3x3x2x3 = 648 x \$50			details	Calculation
\$32,400				Value

Reference: Standards Australia: Draft Australian Standard: DR 99307.

Tree # 7

Khaya senegalensis – common name: African Mahogany: Large spreading tree from Senegal in East Africa introduced into the Top End in the mid 1940s. *K.senegalensis* may reach heights of 45 metres under Top End conditions. These trees have been a feature of the Darwin CBD for many years.

Location: On the footpath next to 59 Smith Street

Tree Characteristics:

- Height 18 metres
- Spread 26 metres
- Number of trunks 1
- DBH 1.46 metres
- Form major asymmetry
- Crown class dominant
- Age class mature Live crown ratio – 25%

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Pruning history:

- Crown lifted
- crown cleaned
- multiple pruning lion tailed

Special value:

Street Tree

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Health status:

- general health status is average Vigor average
- foliage color normal
- previous history of failure pests and disease none visible
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Growth characteristics and tree development:

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average to poor

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оран испола.	obstructions

- curbing/paving/ concrete footpath
- ground surface packed with compacted gravel

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- roadway
- raised planted bed surrounding the tree has constricted the growth of the roots

Defects:

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damaged root crown

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- severe damage to the structural root system from surrounding concrete wall
- excessive end weight on previously lion tailed limbs
- bow/sweep on some branches
- Potential targets: root crown is approx. 1,100mm above the artificial grade within the concrete surrounds
- pedestrian traffic
- vehicular traffic

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buildings

Risk assessment:

Failure potential :

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- Size of part:
- Target rating:

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Total Risk Rating =

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- Catergory 4
- Sub-catergory C (4)

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SUMMARY.

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high. The Visual Tree Assessment showed this tree to be in poor health due mainly to the constraints placed upon the root system by the surrounding retaining wall. This is a common cause of tree decline in Darwin. When this retaining wall is demolished during the re-development the likelihood of complete tree failure is are present under this tree. A major structural root is causing damage to an adjacent building. Water mains and other services

This tree should be removed prior to the re-development commencing

TREE VALUATION:

No Tree Valuation is included as the tree is recommended for removal in the interests of public safety.

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Khaya senegalensis -- common name: African Mahogany: Large spreading tree from Senegal in East Africa introduced into the Top End in the mid 1940s. *K.senegalensis* may reach heights of 45 metres under Top End conditions. These trees have been a feature of the Darwin CBD for many years.

tag. number as it was a late addition to the list and is numerically out of sequence. It does not have a number Location: On the footpath at Darwin Central Hotel and McDonalds Restaurant. This tree has a triple zero

Tree Characteristics:

•	•
Spread – 14 metres	Height - 15 metres

- Number of trunks 1
- DBH 1.1 metres
- Crown class dominant Form - major asymmetry
- Live crown ratio 15%
- Age class mature

Pruning history:

Crown lifted

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- crown cleaned
- multiple pruning lion tailed

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Special value:

Street Tree

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Health status:

- general health status is poor Vigor poor
- foliage color choloritic
- no previous history of failure
- . pests and disease – none visible

Growth characteristics and tree development:

average to poor

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Growth obstructions:

- curbing/paving/ concrete footpath
- ground surface packed with compacted gravel
- roadway
- raised planted bed surrounding the tree has constricted the growth of the roots compacted gravel in the raised planter has restricted the supply of oxygen to the roots
- compacted gravel packed tightly around the trunk is constricting the translocation process and thus killing the tree.

	23
Defects:	
•	50% of this tree is dving from the effects of hard landscaning
•	some bird damage to the canopy
•	severe damage to the structural root system from surrounding concrete wall
•	overhang on 1 scaffold limb which is rapidly declining
Potential targets:	targets:
•	pedestrian traffic
•	vehicular traffic
•	buildings
•	outdoor eating area
Risk assessment:	nt: ·
•	Failure potential: 2
•	Size of part: 3
•	ų.
•	10tal Kisk Kating = 8
сорр.	
••	Catergory 4 Sub-catergory C (4)
The Visual Tree the root system I hard landscaping grade and conse translocation pro	The Visual Tree Assessment showed this tree to be in poor health due mainly to the constraints placed upon the root system by the surrounding retaining wall. This is a common cause of tree decline in Darwin. The hard landscaping surrounding this tree has been packed with semi-fine gravel to a height of 600mm above grade and consequently this artificial fill is deficient in oxygen. This compacted gravel is constricting the translocation process and killing the tree. Water mains and other services are present under this tree.
This tree should be re	This tree should be removed prior to the re-development commencing.
No Tree Valuati	No Tree Valuation is included as the tree is recommended for removal in the interests of public safety.

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			Ref. # 10		
• • • • • • • • • • • • • • • • • • •		Reference: Standards Australia: Draft Australian <u>Tree # 11</u> <u>Khaya senegalensis - common name:</u> Africa introduced into the Top End in the Top End conditions. These trees have 1 Location: In front of the Victoria Hote Tree Characteristics:	Species Peltophorum ptercarpum	Risk assessment: Failure potential : Size of part: Target rating: Total Risk Rating = SULE: Catergory 2 Sub-catergory D (2) SUMMARY. The Visual Tree Assessment showed this tree arboricultural reason to remove this tree during to the future growth requirements of this tree.	
		idards Australi g <i>alensis</i> - co uced into th ditions. Th ditions of th 1 front of th	Tree Size (M) Large 120m sq.	ment: Faile Size Targ Tota Cate: Sub- il reason to growth requ	
Crown lifted crown cleaned lion tailed multiple pruning	Height - 22 metres Spread – 25 metres Number of trunks – 1 DBH – 750mm Form – minor asymm Crown class – domin Live crown ratio259 Age class – mature	ia: Draft A ommon r ue Top Er uese trees uese trees	SULE 20-40 Years 2 pts	Failure potential : Size of part: Target rating: Total Risk Rating = Catergory 2 Sub-catergory D (2) Sub-catergory D (2) n to remove this tree a requirements of thi	
ου Ο	Height - 22 metres Spread – 25 metres Number of trunks – 1 DBH – 750mm Form – minor asymmetry Crown class – dominant Live crown ratio25% Age class – mature	Reference: Standards Australia: Draft Australian Standard: DR 99307. <u>Tree # 11</u> <u>Khaya senegalensis</u> - common name: African Mahogany: Large spreading tree from S Africa introduced into the Top End in the mid 1940s. <i>K.senegalensis</i> may reach heights of Top End conditions. These trees have been a feature of the Darwin CBD for many years. Location: In front of the Victoria Hotel, Smith Street Mall Tree Characteristics:	Importance In the landscape Considerable	Risk assessment: Failure potential: 1 • Failure potential: 0 • Size of part: 0 • Target rating: 3 • Total Risk Rating = 4 SULE: Catergory 2 4 • Catergory D(2) SUMMARY. Sub-catergory D(2) SUMMARY. Sub-catergory D(2) The Visual Tree Assessment showed this tree to be in good health with a very low risk factor. There is no arboricultural reason to remove this tree during the re-development but careful consideration must be give to the future growth requirements of this tree.	
		DR 99307. Mahogany 140s. <i>K.sen</i> ature of the Street Mall	Presence of other trees Few 3 pts	he in good	
		y: Large spi <i>egalensis</i> m Darwin CE	Relation to setting Very Suitable 3 pts	health with but but	
		eading tr D for ma	Form Good 3 pts	a very lo careful o	
		ee from Se heights of my years.	Special Factors Two 3 pts	w risk fact	
		1 Standard: DR 99307. African Mahogany: Large spreading tree from Senegal in East ne mid 1940s. <i>K.senegalensis</i> may reach heights of 45 metres under been a feature of the Darwin CBD for many years. l, Smith Street Mall	Calculation details 4x2x3x3x3x3x3x3 =1,458 x \$50	Risk assessment: Failure potential: 1 • Size of part: 0 • Target rating: 3 • Total Risk Rating = 4 SULE: Catergory 2 4 • Catergory D(2) Sub-catergory D(2) SUMMARY. Sub-catergory D(2) The Visual Tree Assessment showed this tree to be in good health with a very low risk factor. There is no arboricultural reason to remove this tree during the re-development but careful consideration must be given to the future growth requirements of this tree.	

Value

\$72,900

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Special value:

Street Tree

Health status:

- general health status is average to good Vigor average
- foliage color normal
- pests and disease none visible no previous history of failure

Growth characteristics and tree development:

average to good

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Growth obstructions:

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- raised area of hard landscaping well above the buttress and root crown
- ٠ high volume of human traffic restricted root area
- Defects:
- moderate phototropism 20 degree of lean
- moderate bow/sweep on limbs

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Potential targets:

- pedestrian traffic
- buildings

Risk assessment:

- . Size of part: Failure potential :

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- Target rating:
- **Total Risk Rating**

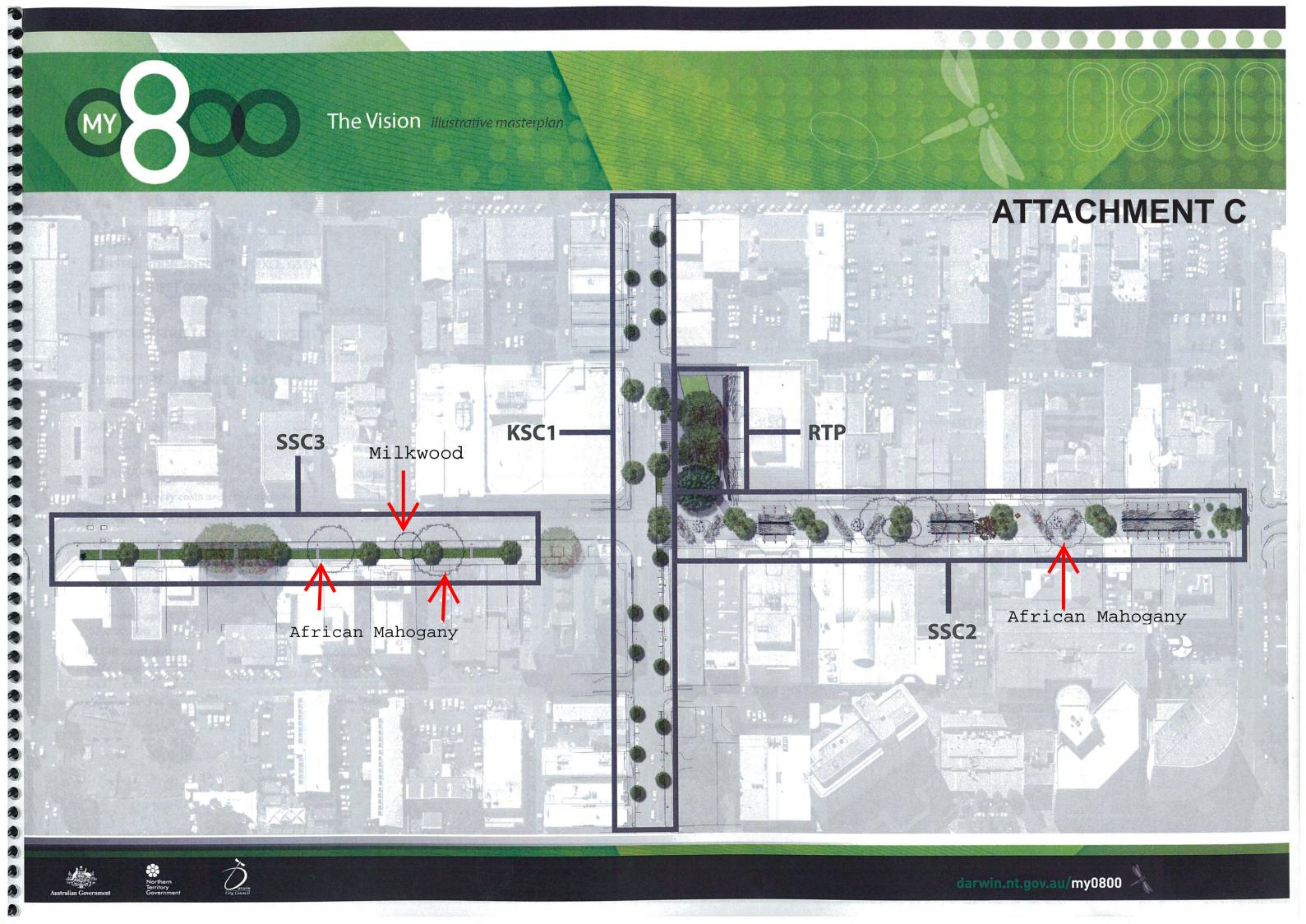
SULE:

- Catergory 3
- Sub-catergory D (2)

SUMMARY.

The Visual Tree Assessment showed this tree to be in average to good health with a medium risk factor and a Safe Useful Life Expectancy of up to 15 years but the tree is suffering from previous lack of management in that it did not have any formative pruning in it's early life and has been haphazardly and incorrectly pruned for many years. This tree has an observed history of periodically doing poorly but this can be attributed to the fact that the tree is completely enclosed by hard landscaping which should be removed

Mall. There is no arboricultural reason to remove this tree. This tree is the best example of K. senegalensis in the



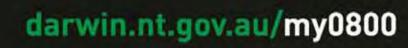
Concept Design (CD) December 2009 The Mall Rain Tree Park Smith Street



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ATTACHMENT D











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It is intended that this project will kick start the revitaliation of Darwin's CBD.

The core components of the city are :

- *The sustainable city* recognising and valuing the role of street and park planting in defining the unique tropical character of the city and to promote Darwin as a walk-able city.
- *The event city* creating streets and public spaces capable of staging important cultural and civic events.
- The retail city building better, less cluttered connections whilst establishing a framework for private sector investment in street level retail.
- The 24 hour city promoting a safe and covered pedestrian environment.







Core components of the project

The core components of the project are :

Greening the CBD

Trees

- Groundcover
- **Connecting** people to places
 - De-cluttering Shelter Lighting Seating Signage Public Art *Meeting* in my 0800 Play spaces Event spaces Retail spaces

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Australian Government



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City Council



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creative thinking positive solutions

RLB | Rider Levett Bucknall













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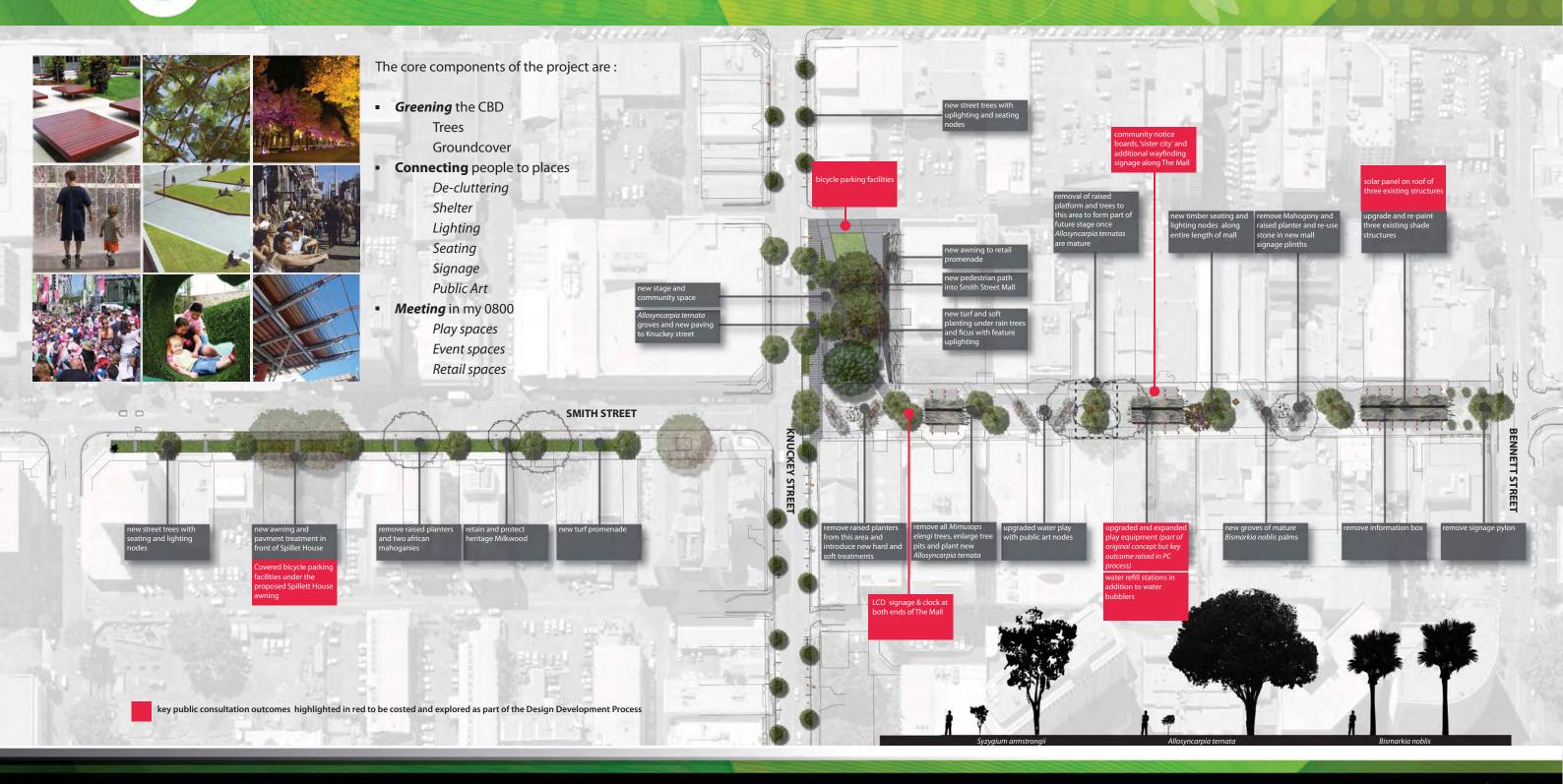






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concept design - overview with key public consultation outcomes









Northerr Territory Gover





CONSTRUCTION ESTIMATES* (EXCL. GST) A SMITH STREET CONNECTION 2 (SSC2) TOTAL SSC2 \$3,000,000 **B KNUCKEY STREET CONNECTION (KSC1)** TOTAL KSC1 \$1,500,000 C SMITH STREET CONNECTION 3 (SSC3) TOTAL SSC3 \$1,200,000 **D RAIN TREE PARK (RTP)** TOTAL RTP \$1,000,000 TOTAL (A+B+C+D) \$6,700,000 *including survey costs and consultant fees **MARGIN & ADJUSTMENTS** PUBLIC ART (ALLOWANCE) 4.0% \$ 268,000 **END OF PROJECT AUDIT** \$ 26,000 **TOTAL PROJECT BUDGET** \$6,994,000 (rounded up) \$7,000,000 **RLCIP** contribution \$3,600,000 NTG contribution \$1,750,000 DCC contribution \$1,150,000 **Private Sector contribution** \$ 500,000







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Smith Street Connection 3 (SSC3) The 'everyday' promenade

Smith Street can be considered the traditional main street of the city. Smith Street is the centre of town, a place to meet and throughout Darwin's European history it was the 'everyday' street for locals.

Current Problems

- Lack of retail sightlines (street to shop-front).
- Unsafe environment at night.
- Lack of a continual covered connection between China Town Carpark and the Mall.









Smith Street Connection 3 (SSC3) The 'everyday' promenade

The core components of SSC3 are :

Greening the CBD

Trees - six Allosyncarpia ternata. Groundcover - Turf promenade

Connecting people to places

> De-cluttering - raised planters and shrubbery. Shelter - new awning to Spillet House. Lighting - pedestrian & tree uplighting. Seating - local stone blade walls. Signage - wayfinding.

Meeting in my 0800 Retail space - catalyst for future retail /alfresco dining.









Smith Street Connection 3 (SSC3) The 'everyday' promenade









Rain Tree Park (RTP) Alfresco dining & community events

The again and a stand

Raintree Park is a key pocket park centrally located in the CBD.

Current Problems

• Conflict between paving and tree health.

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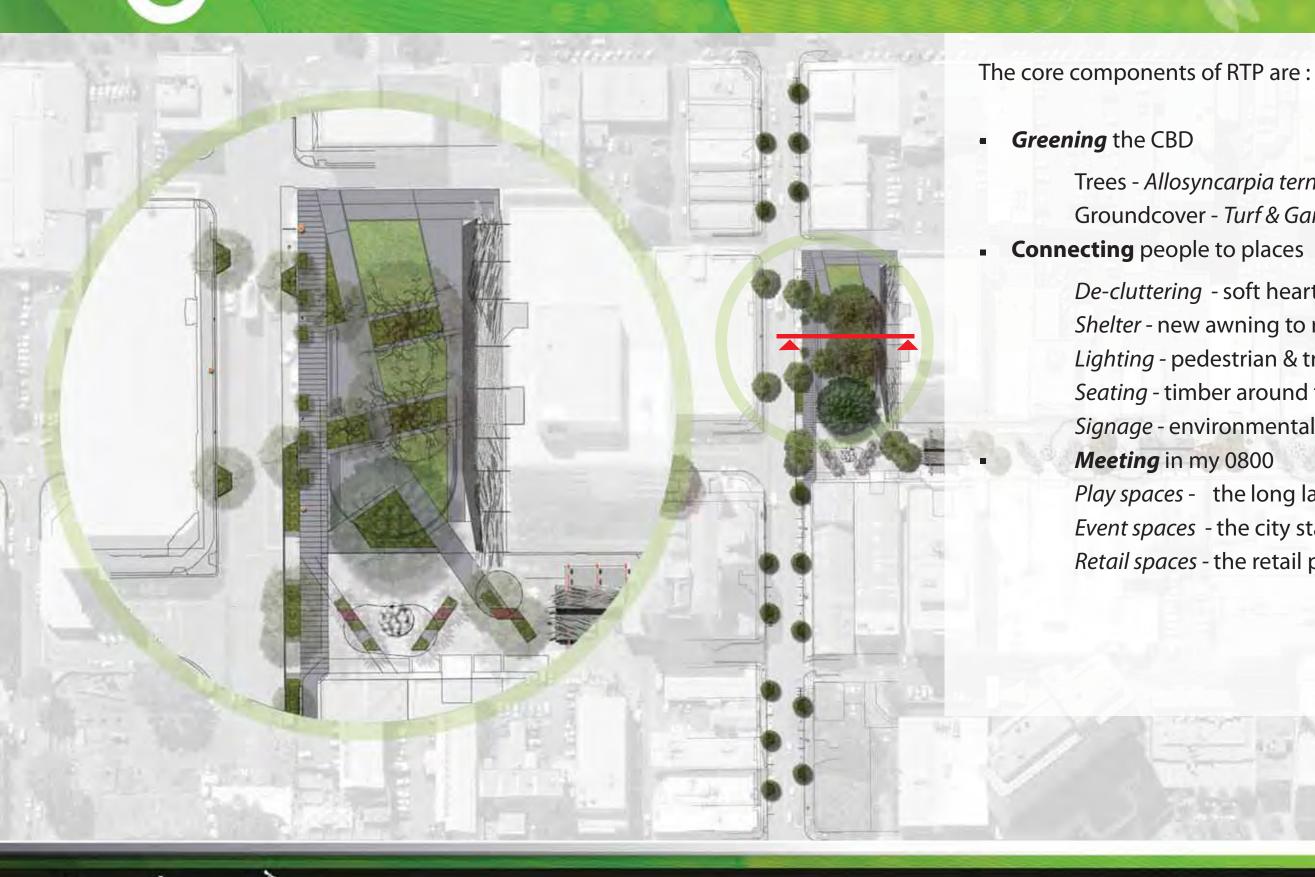
- Weak edges.
- Isolated heart.





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Trees - Allosyncarpia ternata, Rain Trees, Ficus. Groundcover - Turf & Gardenia. *De-cluttering* - soft heart / urban edge. Shelter - new awning to retail promenade. Lighting - pedestrian & tree uplighting. Seating - timber around ficus. Signage - environmental & wayfinding. Meeting in my 0800 Play spaces - the long lawn.

Event spaces - the city stage.

Retail spaces - the retail promenade.



Rain Tree Park (RTP) Alfresco dining & community events















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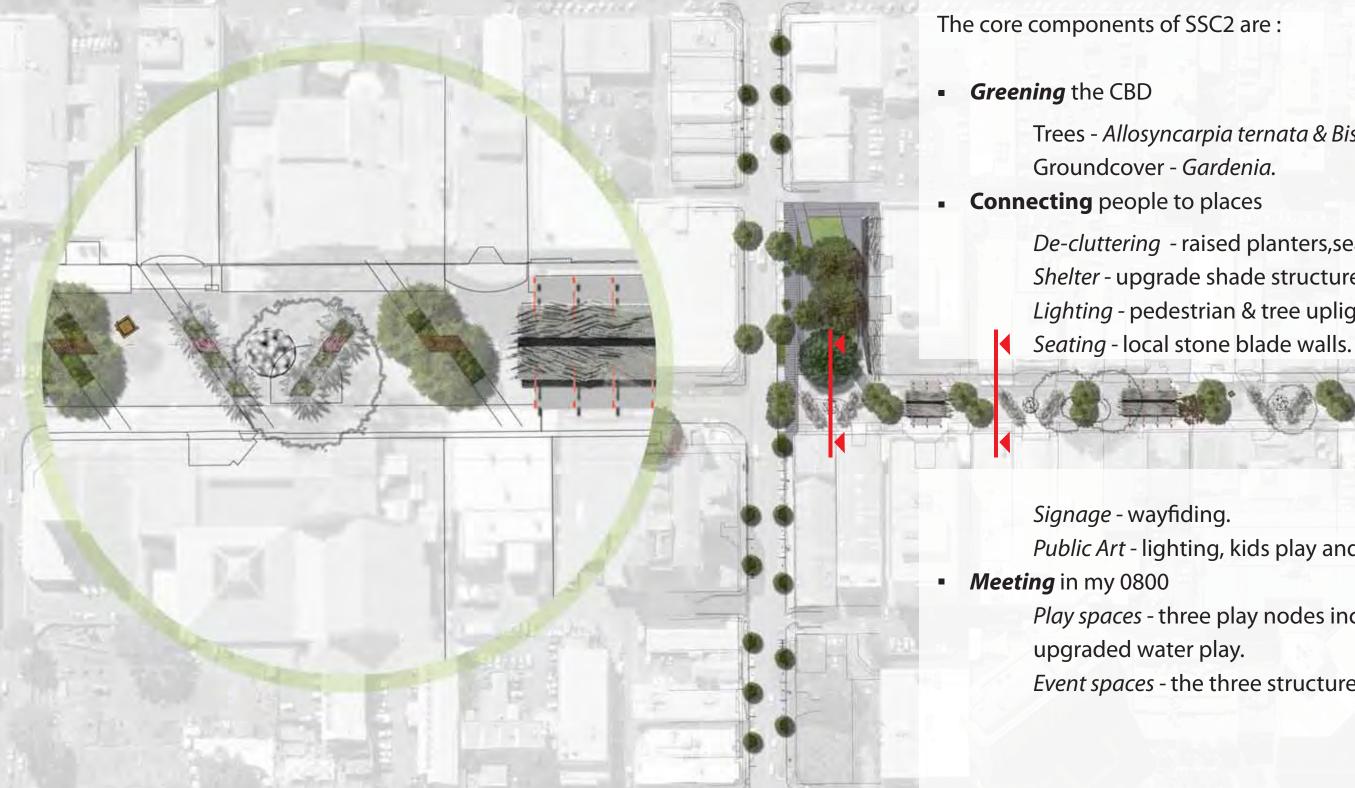


The pedestrianised section of Smith Street (The Smith Street



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Smith Street Connection 2 (SSC2) The city heart





Trees - Allosyncarpia ternata & Bismarkia noblis. *De-cluttering* - raised planters, seating, info box. Shelter - upgrade shade structures. Lighting - pedestrian & tree uplighting.

Public Art - lighting, kids play and groundworks

Play spaces - three play nodes including Event spaces - the three structures.



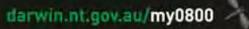
Smith Street Connection 2 (SSC2) The city heart















Smith Street Connection 2 (SSC2) The city heart











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