

Business Papers

City Operations Committee Meeting

Wednesday, 25 October 2017
5.30pm



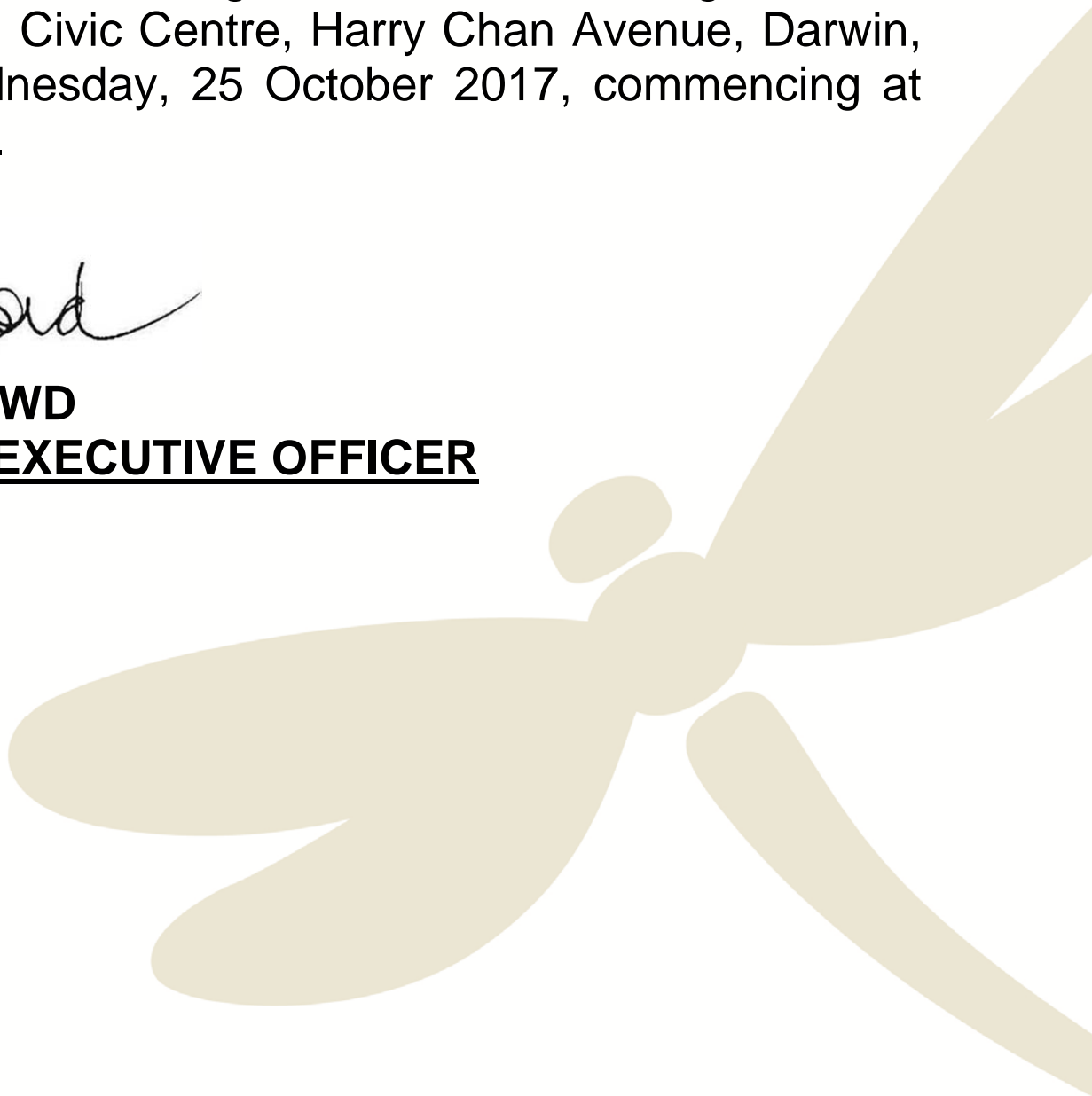


Notice of Meeting

To the Lord Mayor and Aldermen

You are invited to attend a City Operations Committee Meeting to be held in Meeting Room 1, Level 1, Civic Centre, Harry Chan Avenue, Darwin, on Wednesday, 25 October 2017, commencing at 5.30pm.

B P DOWD
CHIEF EXECUTIVE OFFICER



OPEN SECTION

OPERATIONS 10/3

CITY OF DARWIN

CITY OPERATIONS COMMITTEE MEETING

WEDNESDAY, 25 OCTOBER 2017

MEMBERS: Member R Want de Rowe (Chair); The Right Worshipful, The Lord Mayor, K Vatskalis; Member R M Knox; Member E L Young.

OFFICERS: Chief Executive Officer, Mr B Dowd; General Manager City Operations, Mr L Cercarelli; Manager Design, Development & Projects, Mr D Lelekis; Acting Manager Infrastructure Maintenance, Mr N Kleine; Acting Manager Capital Works, Mr N Lewis; Manager Technical Services, Mrs N Nilon; Executive Assistant, Ms J Wylie.

Enquiries and/or Apologies:

E-mail: j.wylie@darwin.nt.gov.au - PH: 89300 581

OR Phone Meeting Room 1, for Late Apologies - PH: 89300 519

Committee's Responsibilities

THAT effective as of 26 September 2017 Council, pursuant to Section 32 (2)(b) of the Local Government Act, hereby delegates to the City Operations Committee the power to make recommendations to Council and decisions relating to City Operations matters within the approved budget:

- | | |
|---------------------|--------------------------------------|
| • Asset Management | • Fleet/Workshop |
| • Building Services | • Operations Administration & Stores |
| • Capital Works | • Parks & Reserves |
| • Civil Works | • Waste Management |
| • Design | • Public lighting |
| • Development | |

***** INDEX *****

PAGE

1.	MEETING DECLARED OPEN	5
2.	APOLOGIES AND LEAVE OF ABSENCE	5
3.	ELECTRONIC MEETING ATTENDANCE	5
4.	DECLARATION OF INTEREST OF MEMBERS AND STAFF	5

OPEN SECTION

OPERATIONS 10/4

5.	CONFIRMATION OF MINUTES OF PREVIOUS MEETING/S	5
6.	DEPUTATIONS AND BRIEFINGS	6
7.	CONFIDENTIAL ITEMS	6
8.	WITHDRAWAL OF ITEMS FOR DISCUSSION	6
9.1	OFFICERS REPORTS (ACTION REQUIRED)	
9.1.1	Nightcliff Village Shopping Centre CCTV	8
9.1.2	Anula and Wulagi Local Area Traffic Management Study - Wulagi Crescent, Matthews Road and Union Terrace	22
9.1.3	Traffic and Parking Issues Along Tambling Terrace Between Lee Point Road and Kailis Street	38
9.1.4	Nightcliff Primary School - Request of Lease for use of Council Land	50
9.1.5	Sale of Road Reserve Adjacent to Lot 4181 Town of Darwin (12) Wilmot Street, The Narrows	57
9.1.6	Nightcliff and Rapid Creek Active Paths	65
9.1.7	Opportunities For Diversion of Tyres from Landfill - Update	73
9.1.8	Lakeside Drive Master Plan Update	78
9.2	OFFICERS REPORTS (RECEIVE & NOTE)	
9.2.1	Ludmilla Creek Flood Mitigation Project – Dwyer Park	84
10.	INFORMATION ITEMS AND CORRESPONDENCE RECEIVED	94
11.	QUESTIONS BY MEMBERS	94
12.	GENERAL BUSINESS	94
13.	CLOSURE OF MEETING	94

OPEN SECTION

OPERATIONS10/5

City Operations Committee Meeting – Wednesday, 25 October 2017

1. MEETING DECLARED OPEN

2. APOLOGIES AND LEAVE OF ABSENCE

Common No. 2695036

2.1 Apologies

2.2 Leave of Absence Granted

THAT it be noted Member E L Young is an apology due to a Leave of Absence previously granted on 17 October 2017, for the period 18 to 25 October 2017.

3. ELECTRONIC MEETING ATTENDANCE

Common No. 2221528

3.1 Electronic Meeting Attendance Granted

4. DECLARATION OF INTEREST OF MEMBERS AND STAFF

Common No. 2752228

4.1 Declaration of Interest by Members

4.2 Declaration of Interest by Staff

5. CONFIRMATION OF MINUTES OF PREVIOUS MEETING/S

Common No. 1955119

5.1 Confirmation of the Previous City Operations Committee Meeting Minutes

Nil

5.2 Business Arising

OPEN SECTION

OPERATIONS10/6

City Operations Committee Meeting – Wednesday, 25 October 2017

6. DEPUTATIONS AND BRIEFINGS

Nil

7. CONFIDENTIAL ITEMS

8. WITHDRAWAL OF ITEMS FOR DISCUSSION

THAT the Committee resolve under delegated authority that all Information Items and Officers Reports to the City Operations Committee Meeting held on Wednesday, 25 October 2017 be received and considered individually.

OPEN SECTION

OPERATIONS10/7

City Operations Committee Meeting – Wednesday, 25 October 2017

9.1 OFFICERS REPORTS (ACTION REQUIRED)



ENCL: CITY OPERATIONS COMMITTEE
YES MEETING/OPEN

AGENDA ITEM: 9.1.1

NIGHTCLIFF VILLAGE SHOPPING CENTRE CCTV

REPORT No.: 17CO0030 LC:jw COMMON No.: 3649463

DATE: 25/10/2017

Presenter: General Manager City Operations, Luccio Cercarelli

Approved: Chief Executive Officer, Brendan Dowd

PURPOSE

The purpose of this report is to inform Council of the proposed Northern Territory Police project to install Closed Circuit Television Cameras (CCTV) around the Nightcliff Village Shopping Centre and to seek Council direction.

LINK TO STRATEGIC PLAN

The issues addressed in this Report are in accordance with the following Goals/Strategies as outlined in the 'Evolving Darwin Towards 2020 Strategic Plan':-

Goal

1 Collaborative, Inclusive and Connected Community

Outcome

1.2 Desirable places and open spaces for people

Key Strategies

1.2.5 Participate and partner in activities that contribute to a safer Darwin

KEY ISSUES

- Northern Territory Police (NT Police) are responding to raised concerns about ongoing safety and security concerns associated with antisocial behaviour around the Nightcliff Village Shopping Centre (NVSC).
- Northern Territory Government (NTG) has committed to installing 9 CCTV cameras and associated equipment around the NVSC.
- To realise this project the NTG is seeking Council support. Council is being asked to fund the upgrade and maintenance of Council owned assets being improved lighting and streetscape pruning to support the CCTV being functional.
- Member of Legislative Assembly for Nightcliff Hon Natasha Fyles is seeking prompt installation of CCTV cameras around NVSC.
- Council has received negative social media coverage regarding reports that certain vegetation will be removed within the surrounds of the NVSC, which has never been indicated as being required by Council.

PAGE: 2
 REPORT NUMBER: 17CO0030 LC:jw
 SUBJECT: NIGHTCLIFF VILLAGE SHOPPING CENTRE CCTV

RECOMMENDATIONS

THAT it be a recommendation to Council:-

- A. THAT Report Number 17CO0030 LC:jw entitled Nightcliff Village Shopping Centre CCTV, be received and noted.
- B. THAT Council advise the Northern Territory Police and local member that it supports the installation of CCTV cameras in the Nightcliff Village Shopping Centre to improve community safety.
- C. THAT Council approves the upgrading of public lighting at the Nightcliff Village Shopping Centre to support the installation of CCTV to improve community safety as detailed in Report Number 17CO0030 LC:jw entitled Nightcliff Village Shopping Centre CCTV.
- D. THAT Council fund the lighting upgrades through the existing 2017/2018 capital works public lighting program.
- E. THAT Council advise the Northern Territory Government and Northern Territory Police that Council does not approve the removal or pruning of existing trees, or landscaping within the Nightcliff Village Shopping Centre Mall associated with the implementation of this project but will undertake appropriate pruning of street trees in accordance with its regular maintenance program.
- F. THAT Council engage with the Northern Territory Police following the installation of the CCTV and lighting upgrades to monitor their effectiveness.

BACKGROUND

As a result of ongoing community safety and security concerns, the NT Police contacted City of Darwin seeking assistance and input on vegetation management and public lighting levels in relation to their proposed installation of CCTV cameras around the NVSC.

Initial meetings with the NT Police outlined the potential impacts and requirements for the installation of CCTV cameras on and around Council infrastructure.

NT Police confirmed that they would fund the CCTV infrastructure and they are seeking Council fund and undertake the public lighting and landscaping works on Council owned infrastructure to realise the project. These requirements from the NT Police included the following:

- Thinning of garden beds and pruning of trees with a particular focus on the area surrounding the leased Groove Café dining shelter would be required due to the proposed positions of CCTV cameras within the NVSC Mall.

- Improved public lighting levels would be required from both Council street and pedestrian lighting to ensure CCTV are effective.

On Councils assessment both vegetation management and lighting requirements would be needed. It should be noted that no budget has been allocated for the proposed upgrade of luminaires by Council to coincide with the NT Police CCTV project.

This report seeks Council support for the CCTV project and direction regarding the public lighting upgrade and treatment of landscaping.

DISCUSSION

Location

NT Police have proposed to install nine (9) CCTV cameras within the highlighted project area (Figure 1) being the NVSC. Figure 1 also identifies the location of 30 street lights and eight (8) pedestrian area lights requiring upgrading.

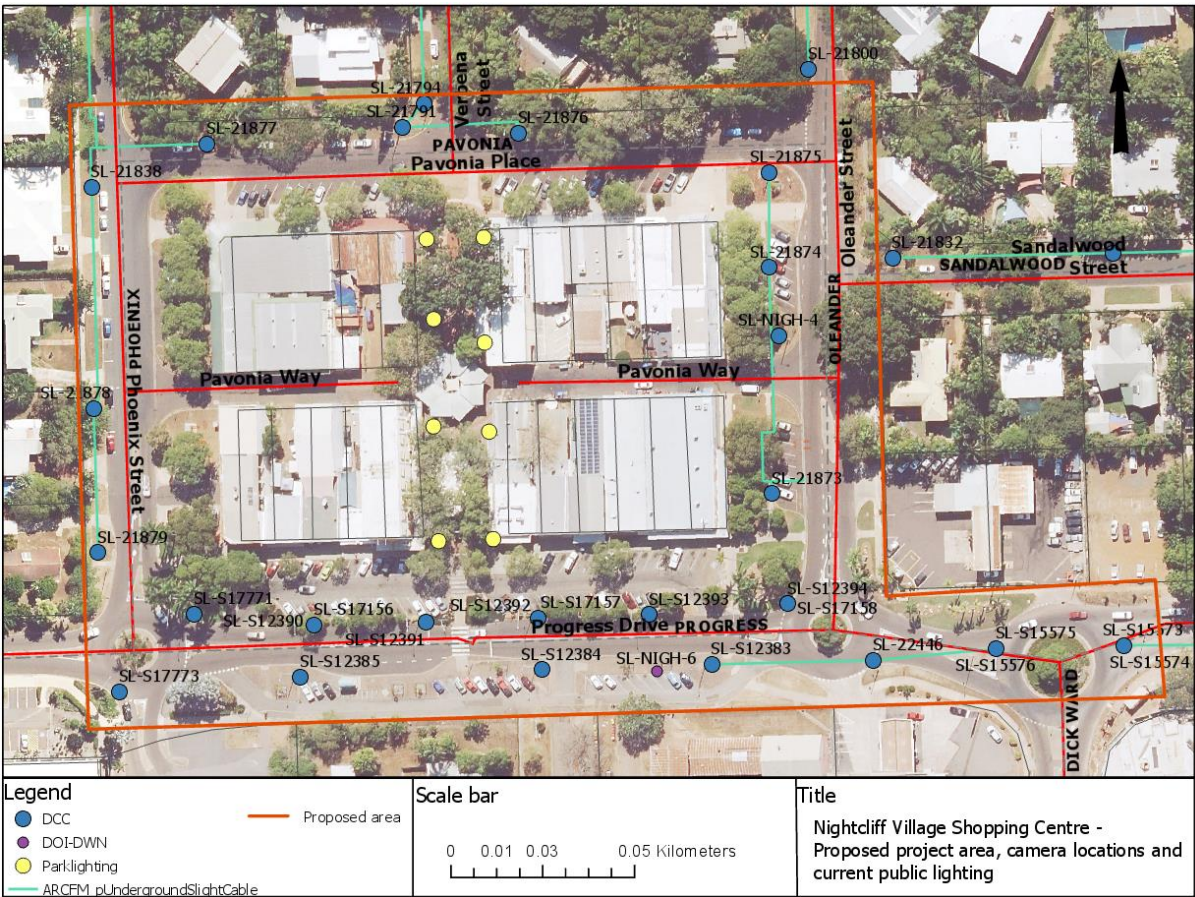


Figure 1. Project Area (location of cameras may be subject to change)

NTG CCTV Project

Due to ongoing crime and anti-social behaviour problems within the area, the NT Police have identified this area as a hotspot and following an assessment are proposing to install 9 CCTV cameras to improve community safety. Mobile CCTV

PAGE: 4
 REPORT NUMBER: 17CO0030 LC:jw
 SUBJECT: NIGHTCLIFF VILLAGE SHOPPING CENTRE CCTV

units have been deployed in the area but have been unable to obtain the required sightlines and coverage to address hotspot areas due to a number of factors and are not a preferred option. Funding has been allocated by the NTG to deliver the NVSC CCTV infrastructure needs.

To realise the project the NTG are seeking Council support and funding for the upgrade of Council's public lighting assets to ensure adequate lighting is achieved for CCTV. Seven (7) CCTV cameras are proposed to be fixed to existing Council street light columns on adjoining streets, except for on Oleander Street where there will be two new poles installed. Two cameras within the mall will be fixed to the corner of the adjacent buildings.

The design and location of the CCTV cameras has been undertaken by the NT Police subject experts to ensure they have adequate coverage of the required areas to be monitored following their assessment of needs including Council's toilet.

MLA for Nightcliff Hon Natasha Fyles supports the project and it is understood to have undertaken a number of engagements with various precinct stakeholders.

Public Lighting

The NT Police recommended that a total of 21 street lights and 8 pedestrian area lights be upgraded to accommodate for the CCTV installation at an estimated cost by NT Police of \$51,000.

On receiving the request Council has undertaken its own assessment in accordance with current Council practices and programs. It is proposed that all lighting upgrades will be LED smart ready luminaires. Council has identified that a total of 30 street lights and 8 pedestrian area lights will require upgrading to ensure uniformity and consistency of lighting. This is reflective of work being undertaken by Council regarding public lighting within the municipality.

The conversion to LED luminaires will also deliver additional benefits of reducing Council's carbon footprint and energy consumption.

Table 1 is an indication of luminaire replacements and it should be noted that if approved, further work will occur to maximise the design where possible, ensuring the lighting needs of CCTV are maintained.

Table 1. Luminaire replacements

Existing HPS Luminaires	Replacement LED Smart Ready Luminaires
26 x 150W streetlights	129W
4 x 250W streetlights	212W
8 x 70W mall lights	41W

PAGE: 5
 REPORT NUMBER: 17CO0030 LC:jw
 SUBJECT: NIGHTCLIFF VILLAGE SHOPPING CENTRE CCTV

The estimated cost to Council for the upgrade is \$65,000 and calculations regarding potential energy savings have not been undertaken at this early stage.

Individual luminaire suitability for CCTV cameras was also taken into consideration as consistent lighting assists CCTV applications. Lighting levels above the Australian Standard vehicle/pedestrian category should be determined from further modelling based on the specific CCTV objective required by NT Police, being Detection, Recognition or Identification.

Initial modelling actually found that due to improved LED lighting levels in certain areas, some existing poles would most likely become redundant.

Vegetation Management

A CCTV and Crime Prevention through Environmental Design (CPTED) assessment was undertaken by the NT Police that highlighted concerns around the height and density of vegetation in the garden bed areas, including around the Groove Café raised alfresco area. The current vegetation was considered to impede a clear line of vision for the proposed camera locations within the mall area, potentially limiting the cameras effectiveness and impacting on safety.

It should be noted that the works identified did not include the removal of the trees.

Council staff have assessed the works that would be required to alleviate these concerns if the project were to proceed. The outcomes are discussed below;

Groove Café vegetation (refer to photos in **Attachment A**):

- An extensive amount of work is required around the Groove Café garden beds to remove high screening shrubs/palms. It would be recommended that it would be more effective and result in a better outcome if the garden beds were completely rejuvenated with low level plants versus extensive pruning of the existing.
- Arboreal work needed on the Ficus sp. trees in each corner garden bed. This would need careful consideration to ensure the health and longevity of the trees.

It is considered that the removal of this vegetation could impact on the amenity of the area and community as it has been in place for many years.

Vegetation at other CCTV camera locations (refer to photos in **Attachment B**):

- Tree pruning work around the mall and adjacent streets to lift up and prune tree branches to allow vision under shop awnings/eaves.
- Pruning works / replacement of high level planting in garden beds to allow vision would be required.

The community have become aware of the proposal, and segments of the community have demonstrated a strong view against this occurring, particularly due to the potential vegetation removal.

PAGE: 6
 REPORT NUMBER: 17CO0030 LC:jw
 SUBJECT: NIGHTCLIFF VILLAGE SHOPPING CENTRE CCTV

It is recommended that Council not support the landscaping works identified within the NVSC Mall at this stage. It is recommended that Council and the NT Police engage and monitor community safety issues following the installation of CCTV and upgrade of public lighting to better review its effectiveness, the need for further action, and options available.

CONSULTATION PROCESS

In preparing this report, the following City of Darwin officers were consulted:

- General Manager City Life
- Manager Infrastructure Maintenance
- Technical Officer Parks & Reserves
- Asset Management GIS Officer

In preparing this report, the following External Parties were consulted:

- Northern Territory Police

Community concern has been expressed regarding the proposed removal or significant modifications to vegetation via social media and direct contact to Council. Council staff have advised the community that Council was not removing trees.

POLICY IMPLICATIONS

There are no policy implications identified.

BUDGET AND RESOURCE IMPLICATIONS

The 2017/2018 Council budget has not specifically identified the project, however Council has allocated funding within its capital works program as a result of taking on the street lighting as of 1 January 2018 and likely outcomes.

The NTG has identified it will fund the installation of 9 CCTV cameras.

The estimated cost to upgrade the identified Council owned public lighting is \$65,000.

The estimated cost of landscaping works identified by the Police CPTED audit and CCTV requirements is \$30,000.

Should Council wish to proceed with any upgrade of infrastructure elements it owns, it would do so from within existing budgets.

Council could request that the NT Police/NTG fund all endorsed elements as this area was not previously identified, therefore would need to be brought forward in Council programs. This is not being recommended given the elements brought forward in the report are Council infrastructure assets and the lighting upgrades are

PAGE: 7
 REPORT NUMBER: 17CO0030 LC:jw
 SUBJECT: NIGHTCLIFF VILLAGE SHOPPING CENTRE CCTV

in keeping with Council's overall objectives. The lighting upgrade will contribute to improving overall Community safety.

RISK/LEGAL/LEGISLATIVE IMPLICATIONS

Council could risk community disapproval if it did not upgrade public lighting it owns resulting in community concerns and safety not being addressed.

Removal of trees or significant landscaping works within NVSC Mall would likely result in significant community dissatisfaction. If landscaping works were required further consultation with the community is recommended.

ENVIRONMENTAL IMPLICATIONS

Vegetation removal could have negative effects on community amenity and potentially reduce plant health.

The implementation of new LED smart ready luminaires will decrease energy consumption and Councils carbon footprint whilst improving lighting and safety.

COUNCIL OFFICER CONFLICT OF INTEREST DECLARATION

We the Author and Approving Officers declare that we do not have a Conflict of Interest in relation to this matter.

BRENDAN DOWD
CHIEF EXECUTIVE
OFFICER

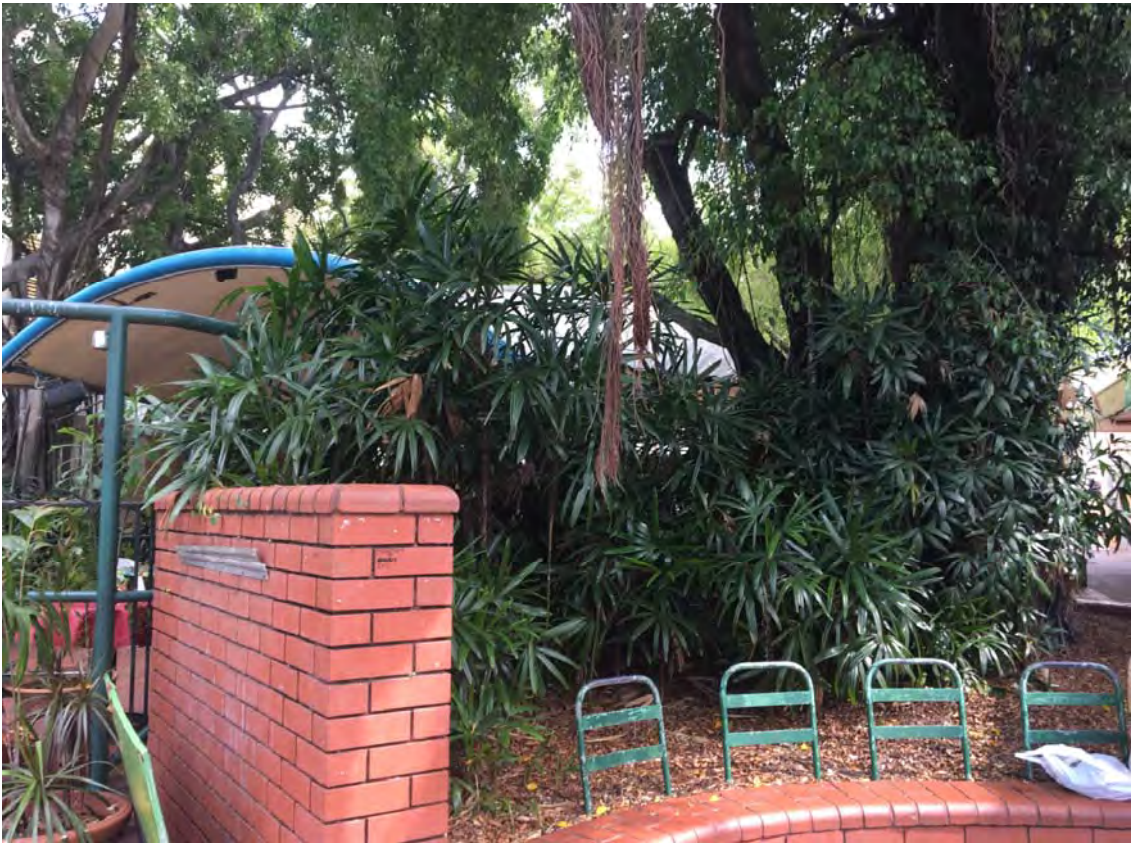
LUCCIO CERCARELLI
GENERAL MANAGER
CITY OPERATIONS

For enquiries, please contact Luccio Cercarelli on 89300581 or email:
 l.cercarelli@darwin.nt.gov.au.

Attachment A: Groove Café vegetation

Attachment B: Vegetation at other CCTV camera locations







ATTACHMENT B









ENCL: CITY OPERATIONS COMMITTEE/OPEN
YES

AGENDA ITEM: 9.1.2

ANULA AND WULAGI LOCAL AREA TRAFFIC MANAGEMENT STUDY – WULAGI CRESCENT, MATTHEWS ROAD AND UNION TERRACE

REPORT No.: 17CO0019 DL:jg COMMON No.: 3303808

DATE: 25/10/2017

Presenter: Manager Design, Development and Projects, Drosso Lelekis

Approved: General Manager City Operations, Luccio Cercarelli

PURPOSE

The purpose of this report is to inform Council of the outcomes of the Local Area Traffic Management (LATM) study to address traffic concerns along Union Terrace, Wulagi, its intersections and along Wulagi Crescent and Matthews Road, Anula

LINK TO STRATEGIC PLAN

The issues addressed in this Report are in accordance with the following Goals/Strategies as outlined in the 'Evolving Darwin Towards 2020 Strategic Plan':-

Goal

2 Vibrant, Flexible and Tropical Lifestyle

Outcome

2.1 Improved access and connectivity

Key Strategies

2.1.3 Manage the road network to meet community needs

KEY ISSUES

- Council received a petition in relation to concerns about speeding along Union Terrace and its intersections.
- At its Ordinary meeting on 27 June 2017 Council resolved to undertake investigations onto traffic calming measures to reduce actual speeds along Union Terrace, its intersections, and within the school zones along Wulagi Crescent and Matthews Road.
- Councils 2017/2018 Municipal Plan does not include a budget allocation for the implementation of this specific proposal.
- A draft traffic management plan has been developed and includes a combination of traditional and innovative solutions, engineering, education and enforcement suggestions.
- The report recommends staged implementation with Stage 1 being referred to the Council 2018/2019 budget process for consideration and prioritisation.

PAGE: 2
 REPORT NUMBER: 17CO0019 DL:jg
 SUBJECT: ANULA AND WULAGI LOCAL AREA TRAFFIC MANAGEMENT STUDY-
 WULAGI CRESCENT, MATTHEWS ROAD AND UNION TERRACE

RECOMMENDATIONS

THAT it be a recommendation to Council:-

- A. THAT Report Number 17CO0019 DL:jg entitled Anula and Wulagi Local Area Traffic Management Study - Wulagi Crescent, Matthews Road and Union Terrace, be received and noted.
- B. THAT Council endorse in principle the Traffic Management Plan and staging as outlined in Report Number 17CO0019 DL:jg entitled Anula and Wulagi Local Area Traffic Management Study - Wulagi Crescent, Matthews Road and Union Terrace.
- C. That Council refer Stage 1 measures of the Traffic Management Plan as outlined in Report Number 17CO0019 DL:jg entitled Anula and Wulagi Local Area Traffic Management Study - Wulagi Crescent, Matthews Road and Union Terrace to the 2018/2019 budget process for consideration and prioritisation, and that community consultation be undertaken following funding approval.
- D. That Council continue to seek external funding opportunities and partnerships for traffic management projects as outlined in Report Number 17CO0019 DL:jg entitled Anula and Wulagi Local Area Traffic Management Study - Wulagi Crescent, Matthews Road and Union Terrace.

BACKGROUND

At the 2nd Ordinary Meeting held on 27 June 2017 Council resolved as follows:

- A. *THAT Report Number 17TS0054 DL:tz entitled Petition- Speeding Along Union Terrace, Anula, be received and noted.*
- B. *THAT Council refer an appropriate treatment to address the Lee Point Road/Union Terrace intersection to the 2018/2019 Budget process.*
- C. *That an investigation be undertaken within 4 months into traffic calming measures to reduce speeds within the school zones along Wulagi Crescent and Matthews Road.*
- D. *That an investigation be undertaken within 4 months into traffic calming measures to reduce speeds along Union Terrace.*
- E. *That Council develops a local area traffic management plan for Union Terrace, Wulagi Crescent and Matthews Road.*
- F. *THAT the sections of road and intersections with accident histories as identified in Report Number 17TS0054 DL:tz entitled Petition - Speeding Along Union Terrace, Anula be included on Council's list of sites for investigation and prioritisation of any upgrading works deemed necessary.*

DECISION NO. 21\5524

(27/06/17)

PAGE: 3
 REPORT NUMBER: 17CO0019 DL:jg
 SUBJECT: ANULA AND WULAGI LOCAL AREA TRAFFIC MANAGEMENT STUDY-
 WULAGI CRESCENT, MATTHEWS ROAD AND UNION TERRACE

In response to this resolution, an investigation into traffic calming measures to reduce speeds and address accidents along specific roads in the suburbs of Anula and Wulagi was undertaken.

DISCUSSION

GTA Consultants were commissioned to investigate the issues raised and undertake the Anula and Wulagi Local Area Traffic Management (LATM) Study.

The scope of work included identifying traffic and amenity issues and how to address these issues in terms of both physical and non-physical measures (e.g. education and enforcement). A draft traffic management plan and accompanying non-physical measures has been developed for Council's consideration.

This study originated from a collective community response in regard to disruptive levels of speeding and poor driver behaviour along Union Terrace, Wulagi Crescent and Matthews Road in Anula and Wulagi. Residents have expressed concerns over safety and amenity within their neighbourhood as a result of the impact of these behaviours.

The approach employed in the study was to review the available evidence, including traffic speed data, volumes and crash history within the study area and to evaluate the issues from an evidence base. In addition to a review of this data, GTA inspected the study area at night and during a typical school day and met with the Principals of Wulagi Primary School and Sanderson Middle School to better understand the road safety issues faced by the school community.

Findings

An executive summary of the study is provided as **Attachment A**.

The table below summarises which of the issues raised could be supported on an evidence basis and those which could not. The reasons are provided in the discussion that follows.

Issue Raised	Evidence Basis
Union Tce/Matthews Rd –speeding around intersection	Supported
Union Tce/Yanyula Dve – speeding and “hoon” behaviour	Not supported
Union Tce/Wulagi Cres – speeding and “hoon” behaviour	Not supported
Union Terrace – speeding around the bend	Not supported
Union Tce/Lee Point Rd – identified Black Spot	Supported - being addressed separately
Union Terrace – speeding mid-block	Not supported
Wulagi Crescent - speeding	Supported in School Zone and mid-block
Matthews Road - speeding	Supported in School Zone and south end

PAGE: 4
 REPORT NUMBER: 17CO0019 DL:jg
 SUBJECT: ANULA AND WULAGI LOCAL AREA TRAFFIC MANAGEMENT STUDY-
 WULAGI CRESCENT, MATTHEWS ROAD AND UNION TERRACE

The consultant was asked to identify innovative and forward thinking road safety initiatives that could complement more traditional local area traffic measures.

A broad spectrum of possible treatments was considered as part of the study, including engineering, education and enforcement, considering both traditional and non-traditional methods of traffic management.

Summaries of the study findings in relation to the issues raised by residents are provided within **Attachment B**.

The measured daily vehicle volumes along Wulagi Crescent, Matthews Road and Union Terrace are considered low for the function of these roads.

Measures to address the identified issues, supported by evidence, were developed and are included on the draft traffic management plan. These LATM measures include the following:

- flat-top road humps,
- wombat crossing,
- raised pavements,
- lane narrowing via line marking and/or kerb extensions,
- slow points/blister islands,
- modified T-intersections,
- School Zone changes.

Innovative measures include parallelogram-shaped pavement markings and pavement art.

The study also produced a set of warrants and information on selecting LATM treatments.

The approach employed to develop the recommended actions included:

- establishing the real need (differentiating from perceived concerns),
- identifying the focus area (i.e. primarily within School Zones),
- concentrating on locations with issues supported by data,
- applying a tailored, multi-faceted approach to treat the causes,
- engaging and collaborating with schools in the area,
- considering cost-effective and innovative solutions,
- broad assessing of the issues against recognised warrants, and
- creation of a “consistent and intuitive road environment that seeks to encourage behaviour change and increased awareness of the surrounding environment”.

These measures are described and included at **Attachment C**.

Photos of the recommended measures are provided at **Attachment D** to this report.

PAGE: 5
 REPORT NUMBER: 17CO0019 DL:jg
 SUBJECT: ANULA AND WULAGI LOCAL AREA TRAFFIC MANAGEMENT STUDY-
 WULAGI CRESCENT, MATTHEWS ROAD AND UNION TERRACE

Prioritisation of Recommended Measures

The various elements and their benefits have been assessed. The works have been prioritised and could be staged subject to funding.

A table showing an indicative staging plan to prioritise the delivery of the proposed treatments is provided below.

Stages of Installation	Proposed Treatment	Potential Speed Reduction	Treatment Cost	Stage Cost
1	Blister island/refuge treatment on Wulagi Crescent	-24%	\$55,000	\$147,500
	Modified T-intersection treatments at Mathews Road/Patterson Street and Matthews Road/Union Terrace	-56%	\$80,000	
	Line marking a parking lane on Union Terrace and Wulagi Crescent	-8%	\$12,500	
2	Raised intersection treatment at Wulagi Crescent/Brolga Street and Wulagi Crescent/Rosella Crescent	-24%	\$215,000	\$215,000
3	Parallelogram shaped line marking at existing pedestrian crossing	-8%	\$6,000	\$63,500
	Wombat Crossing upgrade on Matthews Road	-27%	\$12,500	
	Gateway Treatment and relocated school speed zone	-27%	\$20,000	
	Pedestrian refuge islands on Matthews Road and on Wulagi Crescent	-24%	\$25,000	
4	Splitter island on Wulagi Crescent and kerb outstand on NW corner of Wulagi Crescent/Union Terrace	-24%	\$25,000	\$99,000
	Splitter island on Yanyula Drive and southeast corner kerb outstand	-24%	\$24,000	
	Possible threshold treatment (optional)	-24%	\$50,000	

Other potential suggestions include the use of LED 40km/h signs at strategic locations, pavement markings with a positive messaging strategy (e.g. 'Thanks for Slowing Down'), additional tree planting within kerb outstands to create a "canopy effect" and disrupt the forward visibility of drivers, speed limit reduction and transverse rumble strips/tactile line marking. These could be considered subject to evaluation of the other recommended measures post-implementation.

PAGE: 6
 REPORT NUMBER: 17CO0019 DL:jg
 SUBJECT: ANULA AND WULAGI LOCAL AREA TRAFFIC MANAGEMENT STUDY-
 WULAGI CRESCENT, MATTHEWS ROAD AND UNION TERRACE

Education and awareness is also an important consideration in dealing with road safety issues and a suitable education and awareness strategy needs to be developed and implemented concurrent with the implementation of any physical LATM measures.

Education

This involves educating drivers on how to respond to the proposed changes, encouraging them to change their travel behaviour and adhere to the intent of the proposed new scheme. This should also be implemented concurrent with the implementation of the physical LATM measures.

An important element is to highlight the positive safety benefits to children and improved local amenity.

Approaches could include:

- information disseminated to parents through the surrounding school networks,
- articles in the local newspaper highlighting the changes,
- safety messages on waste collection bins,
- deploying dynamic speed feedback signs,
- warnings relating to associated enforcement outcomes,
- highlighting the negligible difference to travel times.

Ongoing driver education about the impacts of speeding should also be included as part of the education process.

Enforcement

The study concludes that:

While it would be desirable to have a self-enforcing LATM scheme, it can often be challenging to change engrained driver behaviours without outlining the potential consequences and ramifications for non-compliance. In this regard, it is important to include and engage with the Northern Territory Police on the proposed changes with a view to achieving support for police presence after the implementation of the scheme and at random times thereafter. Additional measures could include the placement of mock speed stationary speed cameras and the use of dynamic speed feedback displays for motorists. Where possible, the preference is to minimise using enforcement as a 'threat', but rather disseminate the positive benefits through school communication channels and broader community.

The three-tiered simultaneous approach of physical LATM measures, education and policing is considered appropriate.

PAGE: 7
 REPORT NUMBER: 17CO0019 DL:jg
 SUBJECT: ANULA AND WULAGI LOCAL AREA TRAFFIC MANAGEMENT STUDY-
 WULAGI CRESCENT, MATTHEWS ROAD AND UNION TERRACE

Post-Implementation Evaluation

It is considered that a post-implementation study of the LATM measures employed should be undertaken to determine the impacts of these measures and the effect on driver speeds and behaviour and to determine whether or not additional measures or stages are necessary.

Traffic Issues across the Whole Municipality

At present, Council does not have a traffic management strategy, including guiding principles, adopted warrants, prioritisation system or policy to ensure a consistent approach to addressing traffic management issues within its whole road network.

A holistic approach to traffic management across the whole municipality is desired. The development of a draft traffic management policy is underway and will be presented to Council at a future date.

There are a number of other sites, including School Zones (e.g Alawa Primary School and possible other School Zones currently under investigation such as Dripstone Middle School/Henbury Special School and Nakara Primary School) identified where works are required to address traffic issues, particularly speeding. The measures outlined in this report to address the issues within Anula and Wulagi could be applied, if shown to be effective during post-implementation assessment, to School Zones in particular, in other problem areas across the municipality. In effect, the draft Anula and Wulagi Traffic Management Plan would be a “pilot” project.

Conclusion

It is recommended that Stage 1 of the works, as identified in this report be referred to the 2018-2019 Budget process and that post-implementation monitoring be undertaken to confirm the effectiveness of these measures prior to any further works proceeding. An engagement plan will be developed for each stage when Council allocates budget for implementation of that stage.

CONSULTATION PROCESS

In preparing this report, the following City of Darwin officers were consulted:

- Design Team Leader
- Acting Capital Works Manager

In preparing this report, the following External Parties were consulted:

- GTA Consultants (Vic)
- Principal of Wulagi Primary School
- Principal of Sanderson Middle School

The implementation of any traffic calming measures associated with the study would be subject to community consultation.

PAGE: 8
 REPORT NUMBER: 17CO0019 DL:jg
 SUBJECT: ANULA AND WULAGI LOCAL AREA TRAFFIC MANAGEMENT STUDY-
 WULAGI CRESCENT, MATTHEWS ROAD AND UNION TERRACE

POLICY IMPLICATIONS

City of Darwin Policy No. 025 - Community Engagement.

The development of a draft traffic management policy is underway and will be presented to Council at a future date.

BUDGET AND RESOURCE IMPLICATIONS

Council has an annual budget of approximately \$250,000 per annum for local area traffic management within its Municipal Plan.

The indicative cost of the implementation of the total LATM scheme provided at **Attachment A** to this report is \$525,000 (excluding GST). This estimate does not include the cost of design and documentation or any street lighting upgrades to facilitate the works. A lighting assessment for each of the individual sites would be undertaken as part of the design work.

The indicative cost for the delivery of the Stage 1 measures (excluding lighting) is \$147,500 plus \$9,500 for design/documentation.

There is program of LATM projects for 2017/2018. However, Council could re-prioritise to enable some elements of Stage 1 of the traffic management plan to be implemented within the current financial year. This would mean that programmed 2017/2018 LATM projects would need to be deferred. Therefore, it is recommended that the Stage 1 works be referred to the 2018/2019 budget deliberations.

External funding opportunities and partnerships (such as the Black Spot Program) will continue to be pursued for the funding traffic management projects.

The appropriate treatment for the intersection of Lee Point Road and Union Terrace will be referred to the 2018/2019 Budget process.

RISK/LEGAL/LEGISLATIVE IMPLICATIONS

Motorists have a legal obligation to drive at or below the road speed limit.

The enforcement of road speed limits in Darwin is the responsibility of the Northern Territory Police.

Given Council's limited budget for LATM, it is considered appropriate Council develop a LATM strategy, including guiding principles, adopted warrants, prioritisation system or LATM policy to ensure a consistent approach to addressing traffic management issues within its whole road network.

There is a risk that there are other sites within the municipality that have similar if not worse traffic issues than those covered within this report.

PAGE: 9
 REPORT NUMBER: 17CO0019 DL:jg
 SUBJECT: ANULA AND WULAGI LOCAL AREA TRAFFIC MANAGEMENT STUDY-
 WULAGI CRESCENT, MATTHEWS ROAD AND UNION TERRACE

ENVIRONMENTAL IMPLICATIONS

Council aims to provide a safe road network environment for all road users.

In order to facilitate and a safer road environment appropriate enforcement, education and engineering measures should be considered.

COUNCIL OFFICER CONFLICT OF INTEREST DECLARATION

We the Author and Approving Officers declare that we do not have a Conflict of Interest in relation to this matter.

DROSSO LELEKIS
MANAGER DESIGN,
DEVELOPMENT AND PROJECTS

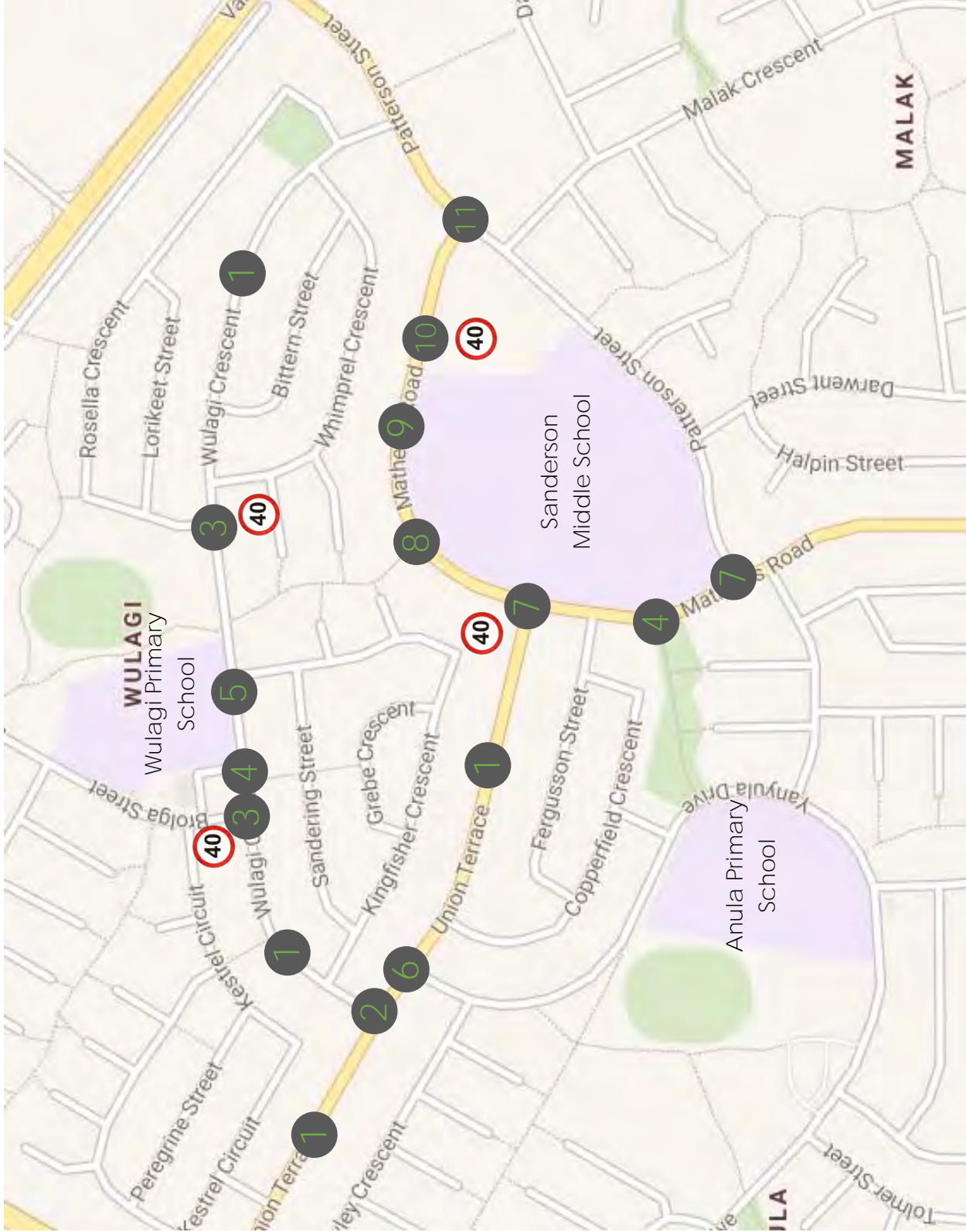
LUCCIO CERCARELLI
GENERAL MANAGER
CITY OPERATIONS

For enquiries, please contact Drosso Lelekis on 8930 0414 or email:
 d.lelekis@darwin.nt.gov.au.

Attachments:

- Attachment A:** Draft Anula and Wulagi Traffic Management Plan
- Attachment B:** Study Findings Summary
- Attachment C:** Recommended Treatment Measures
- Attachment D:** Photos of Recommended Treatment Measures

Recommendations



40 Possible LED signs

Concept designs for the key recommendations are included in Chapter 06.

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- Line marking a parking lane
To create visual narrowing and improve delineation. Could be supplemented with alternate kerb outstands and planting for greater effect.
- Splitter island on Wulagi Crescent and kerb outstand on NW corner of Wulagi Crescent/Union Terrace
To reduce width of intersection, reduce crossing distances and vehicle turning speeds.
- Raised intersection treatment
To create a gateway to school frontage on Wulagi Crescent
- Pedestrian refuge island
To narrow carriageway and reduce crossing distances at high demand student road crossings.
- Blister island/refuge treatment
To disrupt visual sight lines and create an additional crossing.
- Splitter island on Yanyula Drive and SE corner kerb outstand
To reduce width of intersection and discourage high speed manoeuvres within the intersection.
- Modified T-intersection
To narrow carriageway, disrupt sight lines, control vehicle speeds at the intersections and act as gateway treatments.
- Wombat crossing upgrade (bus-sensitive)
To provide an important mid-block, speed attenuation device combined with improving safety of crossing
- Parallelogram-shaped line marking
Optical line marking on approach to existing kerb outstand crossing to highlight crossing location and narrow roadway.
- Gateway and relocated speed zone start
To create a distinctive gateway and raise awareness of school speed zone.
- Possible threshold treatment and relocation of speed zone
To create a gateway to the Matthews Road school zone and move the start of the speed zone to location 10 so that it is more visible and more 'believable'.

STUDY FINDINGS SUMMARY

The 85th percentile speed mentioned in the summaries is the speed at which 85 percent of vehicles are travelling at or below.

Union Terrace Road/Matthews Road – Speeding around the intersection.

- 85th percentile speeds within 60 metres of the intersection were 47.5km/hr,
- there is a bus stop within 95 metres of the intersection,
- the generous radius on the south western corner could promote high speed entry,
- 85th percentile speeds (2015) at the bend are 39.2km/hr northbound and 36.4km/hr southbound,
- design vehicle swept paths indicate that speeds above 34km/hr exceed the existing design parameters,
- vehicles travelling at these speeds present a hazard to pedestrians.

Union Terrace/Yanyula Drive intersection – speeding and hoon behaviour

- 85th percentile speeds are 4.6km/hr over the limit (60 km/hr),
- no casualty crashes, however 1 run off the road crash,
- concerns are observational and not supported by evidence.

Union Terrace/Wulagi Crescent intersection – speeding and hoon behaviour

- 85th percentile speeds are 4.6km/hr over the limit (60 km/hr),
- no recorded crashes,
- concerns are observational and not supported by evidence.

Union Terrace – speeding around the bend

- 85th percentile speeds are 1 km/hr over the limit (60 km/hr),
- bend is near Copperfield Crescent intersection which has two crashes (non- casualty) that could be speed related,
- no line marking delineation east of Copperfield Crescent (although negligible difference in speed between directions),
- concerns are observational and not supported by evidence.

Lee Point Road/Union Terrace intersection

Council has previously identified this site as requiring treatment. Design work is underway to develop a treatment for this site, which will be referred to the 2018/2019 budget process. This specific location maybe eligible for Black Spot funding and this is being reviewed.

Union Terrace – speeding mid-block

- 85th percentile speeds are 4.6km/hr over the limit (60 km/hr),
- 34% of vehicles were recorded travelling above the speed limit,
- concerns are observational and not supported by evidence.

Wulagi Crescent – Speeding mid-block (School Zone)

- There is a clear speeding issue during school hours and after hours within the School Zone,
- 85th percentile speeds are approximately 13.6km/hr over the limit during school hours and 10.5km/hr over the limit after hours,
- eastbound 85th percentile speeds are highest (54.4km/hr) during school hours.

Matthews Road – Speeding mid-block

- 85th percentile speeds are approximately 18km/hr over the limit during school hours,
- eastbound 85th percentile speeds are highest (59.8km/hr) at Matthews Road (north) during school hours,
- there is a clear speeding issue during school hours within the School Zone and at the southern end outside the School Zone,
- 85th percentile speeds are 5.2km/hr over the limit at the southern end of Matthews Road and 3.4km/hr above the limit at the northern end of Matthews Road after hours.

RECOMMENDED TREATMENT MEASURES

Along Union Terrace

- Line marking a parking lane to create visual narrowing and improve delineation. This could be supplemented with alternate kerb outstands and plantings for greater effect,
- construct a splitter island on Yanyula Drive at the intersection with Union Terrace to reduce the width of the intersection and discourage high speed manoeuvres.

Wulagi Crescent

- Install splitter islands and kerb outstands on north western corner of Wulagi Crescent at the intersection with Union Terrace to reduce the width of the intersection and discourage high speed manoeuvres,
- construct a raised intersection to create a 'Gateway' to the School frontage,
- construct a pedestrian refuge island to narrow the road carriageway and reduce pedestrian/student crossing distances,
- construct a blister island to disrupt visual sight lines and create an additional crossing point.

Matthews Road

- Construct a modified T-intersection at Patterson Street to narrow carriageway, disrupt sight lines and control vehicle speeds and act as a gateway treatment,
- upgrade the existing children's crossing to a raised wombat crossing. This will provide a mid-block speed attenuation device with improved safety of crossing,
- install parallel shaped line marking on approaches to existing kerb outstand to highlight crossing and narrow roadway,
- construct a raised intersection to create a gateway treatment and relocate School Zone start to raise awareness of the School Zone,
- modify the intersection with Patterson Street to include a threshold treatment to create a gateway to the School Zone and relocate the School Zone start.

Photos of Proposed LATM Treatments

1. Line marking a parking lane

To create visual narrowing and improve delineation. Could be supplemented with alternative kerb outstands and planting for greater effect.



2. Splitter island on Wulagi Crescent and kerb outstand on NW corner of Wulagi Crescent/Union Terrace

To reduce width of intersection, reduce crossing distances and vehicle turning speeds



3. Raised intersection treatment

To create a gateway to school frontage on Wulagi Crescent





Proposed LATM Treatments

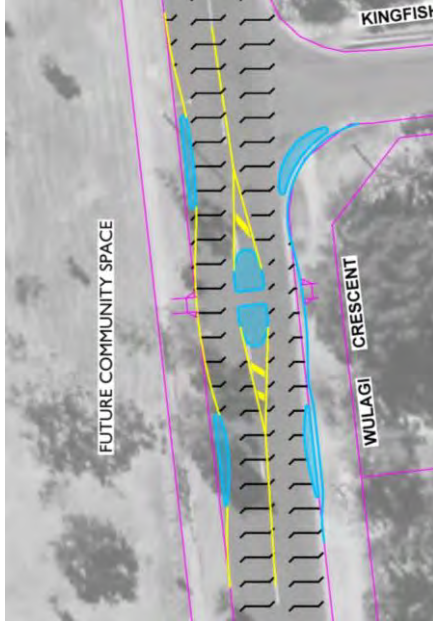
4. Pedestrian refuge island

To narrow carriageway and reduce crossing distances at high demand student road crossings



5. Blister island/refuge island

To disrupt visual sight lines and create an additional crossing



6. Splitter island on Yanyula Drive and SE corner kerb outstand

To reduce width of intersection and discourage high speed manoeuvres within the intersection



Proposed LATM Treatments

7. Modified T-intersection

To narrow carriageway and reduce crossing distances at high demand student road crossings



8. Wombat crossing upgrade (bus-sensitive)

To provide an important mid-block, speed attenuation device combined with improving safety of crossing



9. Parallelogram-shaped line marking

Optical line marking an approach to existing kerb outstand crossing to highlight crossing location and narrow roadway



Proposed LATM Treatments

10. Gateway and relocated speed zone start

To create a distinctive gateway and raise awareness of school speed zone

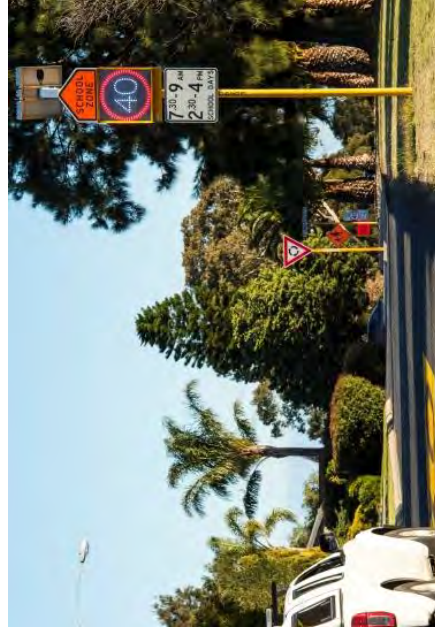


11. Possible threshold treatment and relocation of speed zone

To create a gateway to Matthews Road school zone and move the start of the speed zone to location 10 so that it is more visible and more 'believable'



Optional LED 40 km/h signs



ENCL: CITY OPERATIONS COMMITTEE/OPEN
YES

AGENDA ITEM: 9.1.3

**TRAFFIC AND PARKING ISSUES ALONG TAMBLING TERRACE BETWEEN
LEE POINT ROAD AND KAILIS STREET**

REPORT No.: 17CO0018 DL:lf

COMMON No.: 3576971

DATE: 25/10/2017

Presenter: Manager Design, Development and Projects, Drosso Lelekis

Approved: General Manager City Operations, Luccio Cercarelli

PURPOSE

The purpose of this report is to inform Council of the outcomes of an investigation into traffic and parking issues raised along Tambling Terrace and Kailis Street, Wanguri and to seek consideration of a parking management options.

LINK TO STRATEGIC PLAN

The issues addressed in this Report are in accordance with the following Goals/Strategies as outlined in the 'Evolving Darwin Towards 2020 Strategic Plan':-

Goal

2 Vibrant, Flexible and Tropical Lifestyle

Outcome

2.1 Improved access and connectivity

Key Strategies

2.1.3 Manage the road network to meet community needs

KEY ISSUES

- At its Ordinary meeting on 25 July 2017 Council resolved to undertake an investigation into traffic and parking problems along Tambling Terrace, from Lee Point Road to Kailis Street and to consider the possibility of implementing indented kerb-side parking along Kailis Street.
- Council has received complaints in relation to concerns about traffic and parking issues at the intersection of Tambling Terrace and Kailis Street and along Kailis Street.
- The issues raised were investigated and options developed to address the traffic and parking issues occurring in this area.
- Concept designs for three options were developed for Councils consideration.
- The 2017/2018 Municipal Plan does not contain specific funding for this project
- There is currently no funding allocated to implement the parking options described in this report.
- It is recommended that Option 1 be endorsed for the purpose of community consultation.

PAGE: 2
 REPORT NUMBER: 17CO0018 DL:lf
 SUBJECT: TRAFFIC AND PARKING ISSUES ALONG TAMBLING TERRACE
 BETWEEN LEE POINT ROAD AND KAILIS STREET

RECOMMENDATIONS

THAT it be a recommendation to Council:-

- A. THAT Report Number 17CO0018 DL:lf entitled Traffic and Parking Issues along Tambling Terrace between Lee Point Road and Kailis Street, be received and noted.
- B. THAT Council endorse Option 1 as described in Report Number 17CO0018 DL:lf entitled Traffic and Parking Issues along Tambling Terrace between Lee Point Road and Kailis Street for the purpose of community consultation.

BACKGROUND

There is a history of concerns raised by local residents about safety and access at the intersection of Tambling Terrace and Kailis Street.

These complaints have become more frequent following the duplication of Lee Point Road and the increased development occurring in the suburbs of Lyons and Muirhead.

Several vehicles, associated with adjacent land uses, park in the area around the intersection, limiting sight distance, as well as reducing through traffic on Kailis Street to a single lane.

At the Ordinary Council Meeting of 25 July 2017, Council resolved as follows:

Tambling Terrace and Lee Point Road Intersection with Kailis Street

Common No. 3576971

- A. *THAT a report be brought to Council in October 2017 regarding solutions to the traffic and parking problems along Tambling Terrace from the Tambling Terrace and Lee Point Road intersection to the Kailis Street turn off.*
- B. *That Council investigate the possibility of having indented kerb side parking installed along Kailis Street.*

DECISION NO.21\5634 (25/07/17)

A study was undertaken into the the issues raised and to develop options to address the traffic and parking issues occurring in this area and a number of solutions to address the issues identified.

PAGE: 3
 REPORT NUMBER: 17CO0018 DL:lf
 SUBJECT: TRAFFIC AND PARKING ISSUES ALONG TAMBLING TERRACE
 BETWEEN LEE POINT ROAD AND KAILIS STREET

DISCUSSION

Tonkin Consulting was commissioned to investigate the issues raised and to develop options to address the traffic and parking issues occurring in this area.

Some of the parking problems occurring along Tambling Terrace, around the intersection of Tambling Terrace and Kailis Street and along Kailis Street reported by residents, are described below:

- Visibility issues when exiting Kailis Street onto Tambling Terrace due to vehicles either parked too close to the intersection and/or on the road verges;
- Difficulty manoeuvring along Kailis Street due to vehicles parking on both sides of the street restricting the road to one travel lane, causing congestion at the Tambling Terrace intersection;
- Visibility issues at the intersection of Marguerite Street and Kailis Street due to vehicles either parked too close to the intersection and/or on the road verges;
- Residents not being able to enter or exit their properties in the morning and afternoon peak times due to the traffic congestion on Tambling Terrace between Kailis Street and Lee Point Road;
- Safety concerns due to vehicles parking too close to the intersection.

One of the main generators of parking at the intersection of Tambling Terrace and Kailis Street is an adjacent property in the vicinity, which generates a considerable number of vehicles that are unable to park within this property. The overflow vehicles generated by this property then park on Tambling Terrace, Kailis Street or on the adjoining verges.

While some of these overflow vehicles park legally on the street, others park on the verge, which can restrict visibility for motorists turning from Kailis Street into Tambling Terrace.

The parking practices occurring around the intersection of Tambling Terrace and Kailis Street are continuing to be regulated by Council Rangers to ensure compliance with the road rules and there has been increased compliance.

One of the consequences of addressing the verge parking issue is that some vehicles have moved from the verge onto the roadway, prompting complaints from motorists that Kailis Street is difficult to negotiate due to the congestion caused by vehicle parked on the road.

The study's findings in regard to the issues identified and recommendations for addressing these issues are discussed below.

PAGE: 4
 REPORT NUMBER: 17CO0018 DL:lf
 SUBJECT: TRAFFIC AND PARKING ISSUES ALONG TAMBLING TERRACE
 BETWEEN LEE POINT ROAD AND KAILIS STREET

The primary issue is the lack of car parking available on-site in the area. This in turn results in overflow vehicles from adjacent properties (up to eight vehicles) parking along roads and verges, creating sight distance concerns at the intersection and limiting road lane width along Kailis Street, when cars park directly opposite each other along the kerb.

The provision of parking management measures, such as indented car parking or parking restrictions to implement staggered kerb-side car parking along Kailis Street and a combination of parking restrictions and safely placed kerbside parking along Tambling Terrace (from Lee Point Road to Kailis Street) are considered options to address the identified safety concerns.

A. Traffic and parking issues along Tambling Terrace, from Lee Point Road to Kailis Street.

In order to address the driver visibility issues along Tambling Terrace, it is suggested that sections of parking restrictions in the form of chevron line marking be installed along the southern side of the road, from Lee Point Road up to and including the intersection with Kailis Street.

This will allow the Give Way Line on Kailis Street to be moved forward by approximately two metres, allowing drivers to see past any cars parked along Tambling Terrace. This line marking will also provide on-street parking space for two vehicles near the Kailis Street intersection (outside 50 Kailis Street) and a further vehicle closer to the Lee Point Road intersection (space for a total of three parked vehicles on the southern side of Tambling Terrace between Kailis Street and Lee Point Road).

B. Kailis Street Kerb-Side Parking

Three options to formalise parking along Kailis Street have been developed to improve the traffic flow and assist the current parking and congestion problems occurring along this road. All three options include the need to line mark the southern side of Tambling Terrace (as mentioned above) to restrict parking and delineate where parking can occur without impacting sight distance.

The delivery of all three options can be staged consecutively, which will allow Council to measure the success or otherwise of each stage (option) prior to determining the need to undertake any further works.

Option 1

Option 1 involves line marking only to implement parking restrictions that would stagger the parking between the east and west sides of Kailis Street. This option would allow uninterrupted two-way vehicle flow along this section of road, thereby decreasing congestion in the vicinity of the Tambling Terrace intersection, without impacting on the verge area and hence would have no negative impact on the amenity of the streetscape.

PAGE: 5
 REPORT NUMBER: 17CO0018 DL:lf
 SUBJECT: TRAFFIC AND PARKING ISSUES ALONG TAMBLING TERRACE
 BETWEEN LEE POINT ROAD AND KAILIS STREET

Option 1 would allow kerbside parking for 12 vehicles along that section of Kailis Street, with no construction required, simply the installation of yellow no stopping lines.

Additional policing along Kailis Street for parking non-conformance would be required for this option.

Options 2 and 3

Options 2 and 3 include the provision of indented car parking along Kailis Street (between Tambling Terrace and just beyond Margaritis Street). The indented car parking will allow uninterrupted two-way flow along Kailis Street, reducing congestion and improving sight distance along the road.

Option 2 would provides nine indented car parking spaces along Kailis Street. This option provides the least amount of car parking of the three options, but will address the identified concerns with regards to sight distance and allow car parking without creating congestion. It will not require services relocation or tree removal.

Option 3 will provide 13 indented car parking spaces along Kailis Street. This option is the most expensive of the three and would result in the loss of five street trees. It will also require services relocation and a driveway reconstruction.

Both of these indented car parking options would result in a reduction of the verge area and hence would result in some loss of amenity in the area of impact. Option 3 would have the greater impact.

Both Options 2 and 3 would not require additional policing of Kailis Street for parking non-conformance.

Plans showing the three above mentioned parking management options are included at **Attachment A** to this report.

An Executive Summary summarising the findings of the investigation and outlining recommendations is provided at **Attachment B** to this report.

Given its relatively low cost to implement, the comparable number of potential parking bays it would create to the indented parking options and zero impact to the verges and amenity in the area, it recommended that Council endorse Option 1.

CONSULTATION PROCESS

In preparing this report, the following City of Darwin officers were consulted:

- Team Leader Design
- Regulatory Operations Supervisor

In preparing this report, the following External Parties were consulted:

- Tonkin Consulting

PAGE: 6
 REPORT NUMBER: 17CO0018 DL:lf
 SUBJECT: TRAFFIC AND PARKING ISSUES ALONG TAMBLING TERRACE
 BETWEEN LEE POINT ROAD AND KAILIS STREET

The implementation of any of the traffic measures discussed in this report would be subject to community consultation.

POLICY IMPLICATIONS

City of Darwin Policy No. 025 – Community Engagement

BUDGET AND RESOURCE IMPLICATIONS

Council has an annual budget of approximately \$250,000 per annum for local area traffic management within its Municipal Plan.

The indicative cost of implementing Option 1 is \$21,000 (including GST).

The indicative cost of implementing Option 2 is \$203,900 (including GST).

The indicative cost of implementing Option 3 is \$266,750 (including GST).

The above costings have been provided by an independent Quantity Surveyor based on applicable rates and conditions as at September 2017 and include the costs for design and documentation.

There is program of LATM projects for 2017/2018. However, Council could re-prioritise to enable some of the parking management options to be implemented within the current financial year. This would mean that some current 2017/2018 LATM projects would need to be deferred. However, it is considered that these parking management options should be referred to the 2018/2019 budget deliberations.

Council actively seeks external funding opportunities and partnerships for the upgrading of its road network.

RISK/LEGAL/LEGISLATIVE IMPLICATIONS

Motorists have a legal obligation to obey the road rules which includes on and off street parking.

Illegal parking can create traffic hazards.

Possible risks of implementing indented parking along Kailis Street as per Options 2 and 3 are;

- requests for indented parking on similar roads within the Council's road network;
- concerns in relation to the removal of the existing verge trees.

PAGE: 7
 REPORT NUMBER: 17CO0018 DL:lf
 SUBJECT: TRAFFIC AND PARKING ISSUES ALONG TAMBLING TERRACE
 BETWEEN LEE POINT ROAD AND KAILIS STREET

ENVIRONMENTAL IMPLICATIONS

Council aims to provide a safe road network environment for all road users.

COUNCIL OFFICER CONFLICT OF INTEREST DECLARATION

We the Author and Approving Officers declare that we do not have a Conflict of Interest in relation to this matter.

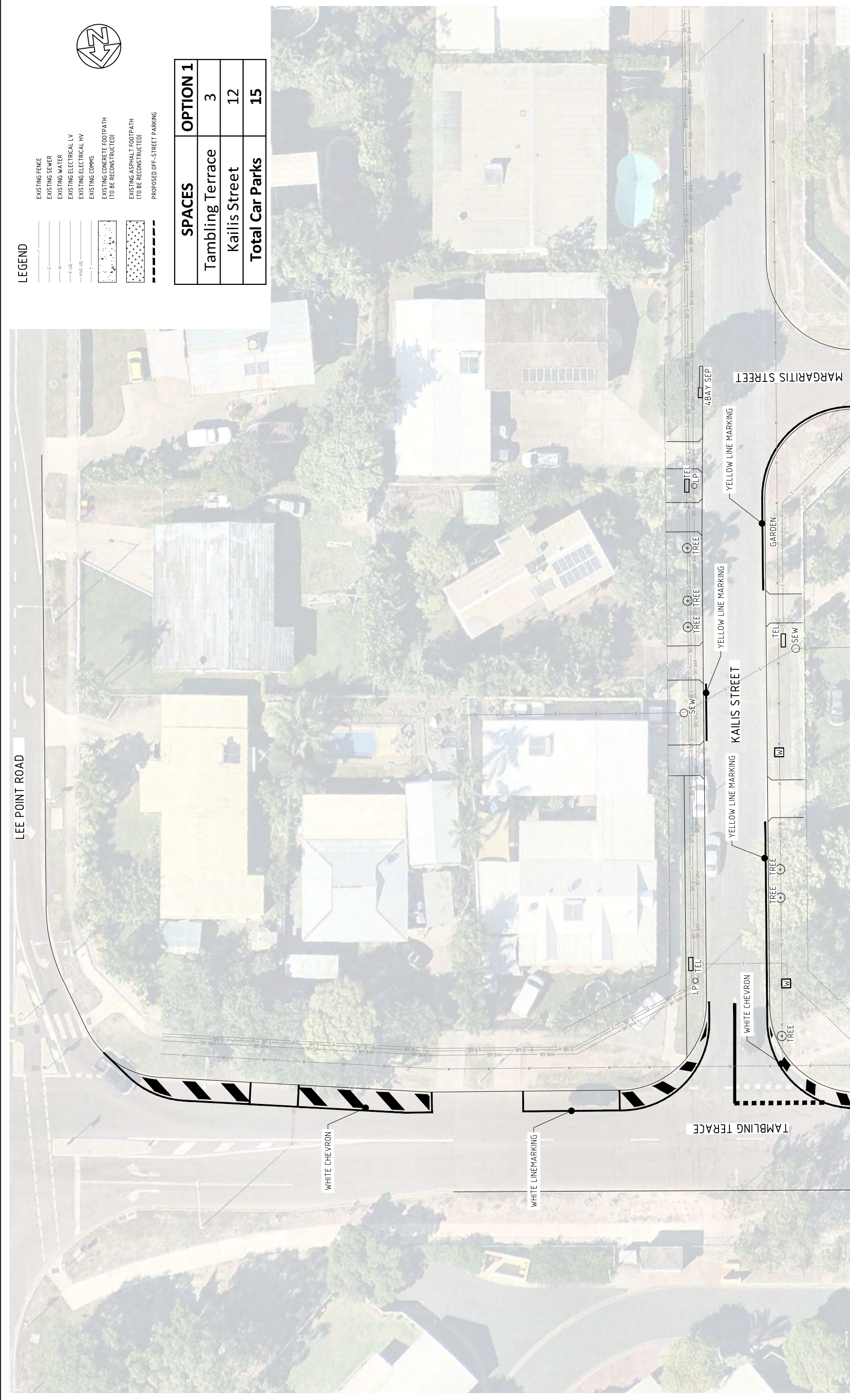
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GENERAL MANAGER
CITY OPERATIONS

For enquiries, please contact Drosso Lelekis on 8930 0414 or email:
 d.lelekis@darwin.nt.gov.au.

Attachments:

Attachment A: Parking Management Options
Attachment B: Executive Summary from Kailis Street and Tambling Terrace
 Parking Report



LEGEND

- EXISTING FENCE
- EXISTING SEWER
- EXISTING WATER
- EXISTING ELECTRICAL LV
- EXISTING ELECTRICAL HV
- EXISTING COMMS
- EXISTING CONCRETE FOOTPATH (TO BE RECONSTRUCTED)
- EXISTING ASPHALT FOOTPATH (TO BE RECONSTRUCTED)
- PROPOSED OFF-STREET PARKING



SPACES	OPTION 1
Tambling Terrace	3
Kailis Street	12
Total Car Parks	15

PRELIMINARY									
SHEET SIZE		A1		CITY OF DARWIN					
SCALE:		1:200 (A1); 1:400 (A3)		KAILIS AND TAMBLING STREET PARKING					
ORIGINAL SURVEY BY				LAYOUT PLAN - OPTION 1					
SURVEY DATE:				FILENAME:					
COORDS & DATUM		COORDINATES TO MC84 ZONE52		JOB NUMBER		20171233		SHEET NUMBER	
ALL LEVELS TO A.H.D.				PARKING SKETCH DWG				101	
								REVISION	
								45	
								C	



PUBLIC UTILITIES:
THE SERVICES SHOWN ARE DERIVED FROM PLANS OBTAINED FROM THE RELEVANT SERVICE AUTHORITIES. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ARRANGE WITH THE RELEVANT SERVICE AUTHORITIES FOR CONFIRMATION OF SERVICES AND THEIR LOCATION BEFORE EXCAVATION WORK COMMENCES.

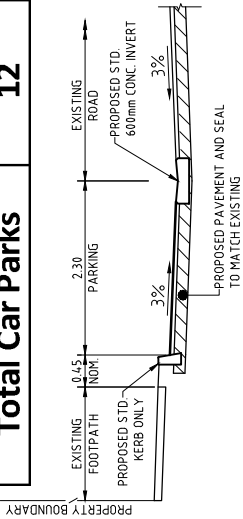


LEGEND

- EXISTING FENCE
- EXISTING SEWER
- EXISTING WATER
- EXISTING ELECTRICAL LV
- EXISTING ELECTRICAL HV
- EXISTING COMMS
- EXISTING CONCRETE FOOTPATH (TO BE RECONSTRUCTED)
- EXISTING ASPHALT FOOTPATH (TO BE RECONSTRUCTED)
- PROPOSED OFF-STREET PARKING



SPACES	OPTION 2
Tambling Terrace	3
Kailis Street	9
Total Car Parks	12



TYPICAL SECTION - INDENTED PARKING BAY
SCALE 1:50

PRELIMINARY									
SHEET SIZE		A1		CITY OF DARWIN					
SCALE:		1:200 (A1); 1:400 (A3)		KAILIS AND TAMBLING STREET PARKING					
ORIGINAL SURVEY BY				LAYOUT PLAN - OPTION 2					
SURVEY DATE:				FILENAME:					
COORDS & DATUM				PARKING SKETCH DWG					
ALL LEVELS TO A.H.D.				JOB NUMBER					
				20171233					
				SHEET NUMBER					
				102					
				REVISION					
				C					

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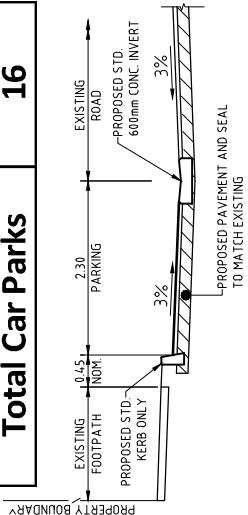


LEGEND

- EXISTING FENCE
- EXISTING SEWER
- EXISTING WATER
- EXISTING ELECTRICAL LV
- EXISTING ELECTRICAL HV
- EXISTING COMMS
- EXISTING CONCRETE FOOTPATH (TO BE RECONSTRUCTED)
- EXISTING ASPHALT FOOTPATH (TO BE RECONSTRUCTED)
- PROPOSED OFF-STREET PARKING






SPACES	OPTION 3
Tambling Terrace	3
Kailis Street	13
Total Car Parks	16



TYPICAL SECTION - INDENTED PARKING BAY
SCALE 1:50

PRELIMINARY									
CITY OF DARWIN									
KAILIS AND TAMBLING STREET PARKING									
LAYOUT PLAN - OPTION 3									
FILENAME:									
COORDINATES TO MC84 ZONE52									
PARKING SKETCH.DWG									
SHEET NUMBER									
103									
REVISION									
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PUBLIC UTILITIES:
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Executive Summary

There is a history of concerns being raised by residents regarding the junction of Tambling Terrace and Kailis Street. The concerns relate to safety at the junction (sight distance to and from vehicles exiting Kailis Street into Tambling Terrace) and two-way access along Kailis Street (when two vehicles are parked opposite each other, the road is reduced to a single through lane).

This investigation has reviewed the available sight distance at the junction (with and without parked vehicles on Tambling Terrace), and options to maintain two traffic lanes along Kailis Street.

The study area extends along the southern side of Tambling Terrace between Lee Point Road and Kailis Street and along Kailis Street from Tambling Terrace to Margaritis Street.

Three concept options have been developed to address the identified issues.

Sight Distance

Sight distance at Kailis Street for drivers waiting to enter Tambling Terrace is limited to 85m to Lee Point Road (if there are no restrictions in place). Sight distance to and from the west is not restricted.

The recommended safe intersection sight distance is 151m. Sight distance is further restricted when parking occurs along Tambling Terrace to the east of the driveways (or on the driveways).

It is recommended that an edge line is painted on Tambling Terrace to provide a 3.2m through lane and 2.3m parking lane. This will allow the give way line at the junction of Kailis Street and Tambling Terrace to be brought forward to maximise sight distance.

The parking lane would allow three vehicles to park along Tambling Terrace without impacting sight distance.

Traffic Flow

Parking on Kailis Street occurs on both sides of the road and this can restrict through traffic to a single lane (ie drivers have to give way to oncoming traffic to get past parked vehicles). This creates congestion and the potential for collisions at the junction.

Background information provided by Council indicate that near misses have occurred at the junction when a vehicle enters Kailis Street at unsafe speeds and parking has reduced Kailis Street to a single lane of traffic.

In order to maintain two-way traffic flow, either parking can be provided off the street to allow two lanes of traffic (indented parking bays) or some parking could be restricted to ensure that parking on the street is staggered and that two-way flow is always possible.

Car Park Demand

Based on site inspections conducted at different times of the day, peak car parking demand was 8 vehicles at any one time within the investigation area. The time of the inspection had no impact on the observed car parking demand.

The total space available for parking on Kailis Street would allow for parking of 19 vehicles. This level of parking would limit the available road width available for through traffic to a single lane.

Options

Three options have been developed to improve the traffic flow on Kailis Street by providing indented car parking spaces or by restricting car parking on the road.

All options include linemarking on Tambling Terrace to delineate where parking can occur **without** impacting negatively on sight distance (aimed at road user safety rather than provision of car parks along Tambling Terrace).

All three of the options would allow sufficient parking to accommodate the observed demand.

Option 1

Option 1 does not provide indented car parking but maintains the two-way traffic flow on Kailis Street by providing yellow no-stopping lines to restrict kerbside parking to one side of the street at a time. This option would require regular policing to ensure drivers are not parking on the yellow lines.

Option 1 allows parking of approximately **15 vehicles** in total:

- 12 spaces along Kailis Street.
- 3 spaces (delineated by linemarking) along Tambling Terrace.

Option 1 requires no construction (line marking only) and is estimated to cost approximately **\$21,000 including GST**. This includes traffic control, road signage, and 10% contingency.

Option 2

Option 2 provides indented car parking along Kailis Street and linemarking on Tambling Terrace. Indented car parking will allow 2-way flow along Kailis Street.

Option 2 provides **12 spaces** in total:

- 9 indented car parks along Kailis Street.
- 3 spaces (delineated by linemarking) along Tambling Terrace.

This option delivers the least amount of parking available of the three options proposed. However, the options does not require service relocation or tree removal, though services must still be verified (potholed) during detailed design.

This option is expected to cost a total of **\$203,900 including GST**. This includes design and a construction budget for the works (inclusive of contingencies). Based on this estimate, each car park would cost approximately \$16,990 including GST.

Option 3

Option 3 also provides indented car parking on Kailis Street and linemarking along Tambling Terrace.

Option 3 provides **16 spaces** in total:

- 13 indented car parks along Kailis Street.
- 3 spaces (delineated by linemarking) along Tambling Terrace.

This option delivers the most car parks of the proposed options. The option requires service relocation and tree removal to construct the additional indented car parks.

This is the most expensive option as detailed in the cost estimate section of the report and results in the loss of a number of established street trees. A total design and construction budget for this option (including contingencies) is approximately **\$266,750 including GST**. Based on this estimate, each car park would cost approximately \$16,675 including GST and is slightly better value for money than Option 2.

ENCL: CITY OPERATIONS COMMITTEE/OPEN
YES

AGENDA ITEM: 9.1.4

NIGHTCLIFF PRIMARY SCHOOL - REQUEST OF LEASE FOR USE OF COUNCIL LAND

REPORT No.: 17CO0020 DL:jw **COMMON No.:** 3393692

DATE: 25/10/2017

Presenter: Manager Design, Development and Projects, Drosso Lelekis

Approved: General Manager City Operations, Luccio Cercarelli

PURPOSE

The purpose of this report is to consider a request from Nightcliff Primary School to occupy a portion of Cunjevoi Crescent road reserve adjacent Lot 1201 (17) Pandanus Street, Nightcliff.

LINK TO STRATEGIC PLAN

The issues addressed in this Report are in accordance with the following Goals/Strategies as outlined in the 'Evolving Darwin Towards 2020 Strategic Plan':-

Goal

5 Effective and Responsible Governance

Outcome

5.5 Responsible financial and asset management

Key Strategies

5.5.1 Manage Council's business based on a sustainable financial and asset management strategy

KEY ISSUES

- The Nightcliff Primary School has approached the City of Darwin requesting to occupy a portion of Cunjevoi Crescent road reserve (approximately 21 metres by 10 metres) adjacent the School.
- The school has requested a 10 year Permit to Occupy the subject land on a "peppercorn fee" basis.
- The school intend to fence the area off and use it as part of the school open space.
- A number of verge trees exist within the subject verge area and the school agrees to take responsibility for the routine maintenance of these trees. The City of Darwin would be provided access to undertake a Leased Property Tree Risk inspection every six months.
- The school have advised that the new leased area would create greater play space for the pre-school and likely reduce opportunities for loitering and anti-social behaviour in the area under the trees within the verge.

PAGE: 2
 REPORT NUMBER: 17CO0020 DL:jw
 SUBJECT: NIGHTCLIFF PRIMARY SCHOOL - REQUEST OF LEASE FOR USE OF COUNCIL LAND

- All costs associated with the lease and relocation and maintenance of the fence will be borne by the Nightcliff Primary School.

RECOMMENDATIONS

THAT it be a recommendation to Council:-

- A. THAT Report Number 17CO0020 DL:jw entitled Nightcliff Primary School - Request of Lease for use of Council Land, be received and noted.
- B. THAT Council approve the issue to the Nightcliff Primary School of a Peppercorn Permit To Occupy for a period of 10 years, over part of the road reserve adjacent Cunjevoi Crescent, as shown in Report Number 17CO0020 DL:jw entitled Nightcliff Primary School - Request of Lease for use of Council Land subject to:
 - a. Nightcliff Primary School paying all costs associated with the supply, installation and ongoing maintenance of all fencing.
 - b. Nightcliff Primary School guaranteeing access on a six- monthly ongoing basis for a *Leased Property Tree Inspection* of the existing verge trees.
 - c. Nightcliff Primary School accepting responsibility for the day to day maintenance and management of the existing verge trees.
 - d. No permanent structures being erected in the area covered by the Permit to Occupy.
- C. THAT Council, pursuant to Section 32 (2) of the Local Government Act 2008 (as amended), hereby delegates to the Chief Executive Officer, the power to finalise the details and all other matters related to the Permit to Occupy in accordance with Report Number 17CO0020 DL:jw entitled Nightcliff Primary School – Request of Lease for use of Council Land.

BACKGROUND

The City of Darwin has received a formal request from Nightcliff Primary School for a Permit to Occupy a portion of Cunjevoi Crescent road reserve adjacent Lot 1201 (17) Pandanus Street, Nightcliff.

The existing school fence is offset approximately 10 metres from their property boundary (**Attachment A**).

The total verge width in the vicinity is currently approximately 15 metres and has four established trees.

DISCUSSION

The School intends to relocate the fence to the property boundary and has requested the opportunity to occupy an additional approximately 21 metre by 10 metre section of adjacent verge, to be included in the fenced area to allow more play space for the pre-school (Figure 1).

PAGE: 3
 REPORT NUMBER: 17CO0020 DL:jw
 SUBJECT: NIGHTCLIFF PRIMARY SCHOOL - REQUEST OF LEASE FOR USE OF COUNCIL LAND

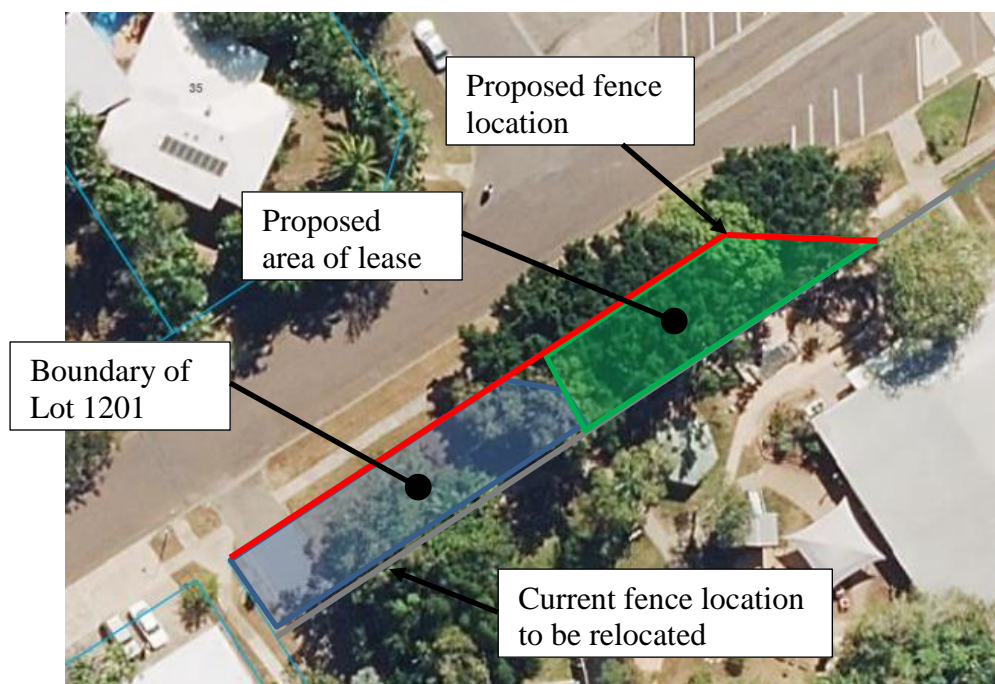


Figure 1 Boundary Locations and Proposed Lease Area

The additional area would not only increase play space, but would also reduce loitering and antisocial behaviour reportedly currently occurring under the trees in the verge in the vicinity. The school has confirmed that no structures, other than the fence, are intended to be erected within the occupied area.

Council officers have not identified any short to medium term use for the area. A Dial Before You Dig was conducted for the area. No major services were identified in the area with the exception of Low Voltage Power Lines for the street lighting. Low Voltage conduits are generally located under the footpath and therefore should not be impacted by the proposed works.

A review of the request by the Nightcliff Primary School to obtain a Permit to Occupy over the section of verge adjacent their land has been conducted by City of Darwin officers and the following options are presented for Council's consideration.

Option 1 – Issue a Peppercorn Permit to Occupy the Land (Recommended)

The issue of a Permit to Occupy part of (approximately 21 metres by 10 metres) of the road reserve will provide additional play area for children from the pre-school and will also address concerns raised by the Member for Nightcliff in regard to loitering and anti-social behaviour in the area with an expansive verge and shady trees, for the period of any Permit issued.

The shape of the proposed leased area is determined on the western extremity by the need to preserve public access to the footpath along the verge in the vicinity.

PAGE: 4
 REPORT NUMBER: 17CO0020 DL:jw
 SUBJECT: NIGHTCLIFF PRIMARY SCHOOL - REQUEST OF LEASE FOR USE OF COUNCIL LAND

The proposed leased area contains four established trees and prior to any issue of a Permit to Occupy the land, the trees will need to be inspected by City of Darwin officers and any works required to ensure the trees are safe, needs to be undertaken. There is no additional landscaping proposed for the area.

City of Darwin six-monthly tree inspections, on an ongoing basis, will be required to ensure the risk to children utilising the area is minimised. Access to the area will need to be provided by the school and maintained for the duration of the Permit to Occupy.

The school accepts responsibility for the day to day management of the area and for the safety and supervision of any children climbing the trees.

The relocation of and any maintenance on the fence a will be at the cost of the Nightcliff Primary School. The actual property boundaries were determined by a detailed survey.

The Permit to Occupy request by the school is consistent with lease arrangements made with other entities in the area.

It is recommended that this option be approved by Council, with conditions relating to fencing and trees.

Option 2 – Decline the Request

This option would maintain the status quo, except for the Nightcliff Primary School realigning a portion of the existing fence line to the existing property boundary.

This would fail to provide increased play area for the pre-school, and there would be no obvious benefit to the Council aside from retaining the verge area for public access.

This option is not recommended.

CONSULTATION PROCESS

In preparing this report, the following City of Darwin officers were consulted:

- Technical Officer Park and Reserves
- Contract Officer
- Family and Children's Services Coordinator

In preparing this report, the following External Parties were consulted:

- Principal Nightcliff Primary School

PAGE: 5
 REPORT NUMBER: 17CO0020 DL:jw
 SUBJECT: NIGHTCLIFF PRIMARY SCHOOL - REQUEST OF LEASE FOR USE OF COUNCIL LAND

POLICY IMPLICATIONS

Nil

BUDGET AND RESOURCE IMPLICATIONS

A peppercorn Permit to Occupy would be offered at \$1 per annum (GST inclusive).

All costs associated with the Permit to Occupy documents would be borne by the Nightcliff Primary School.

All costs associated with the realignment and maintenance of the fence and the routine maintenance of the verge trees and area would be borne by the school.

All costs associated with the six-monthly verge tree inspections would be borne by the City of Darwin.

RISK/LEGAL/LEGISLATIVE IMPLICATIONS

The trees within the occupied area could present a risk to children if not inspected and maintained regularly. As ownership of the land within the proposed permitted area will be retained by the City of Darwin, it is obligated to continue maintenance of the trees from a safety perspective. It is proposed that the trees are inspected on a six-monthly basis to minimise any risk to children in the area.

It is sought that all details related to the finalisation of the Permit to Occupy be delegated to the Chief Executive Officer.

ENVIRONMENTAL IMPLICATIONS

There will be no loss of amenity in the area as a result of the works and the existing trees will not be impacted. The existing landscaping will be maintained by the school, and no additional landscaping is proposed.

The only change will be the relocation of the fence which will reduce the width of accessible verge to the public from approximately 15 metres to 4.5 metres. This is considered a small impact to the community.

PAGE: 6
 REPORT NUMBER: 17CO0020 DL:jw
 SUBJECT: NIGHTCLIFF PRIMARY SCHOOL - REQUEST OF LEASE FOR USE OF COUNCIL LAND

COUNCIL OFFICER CONFLICT OF INTEREST DECLARATION

We the Author and Approving Officers declare that we do not have a Conflict of Interest in relation to this matter.

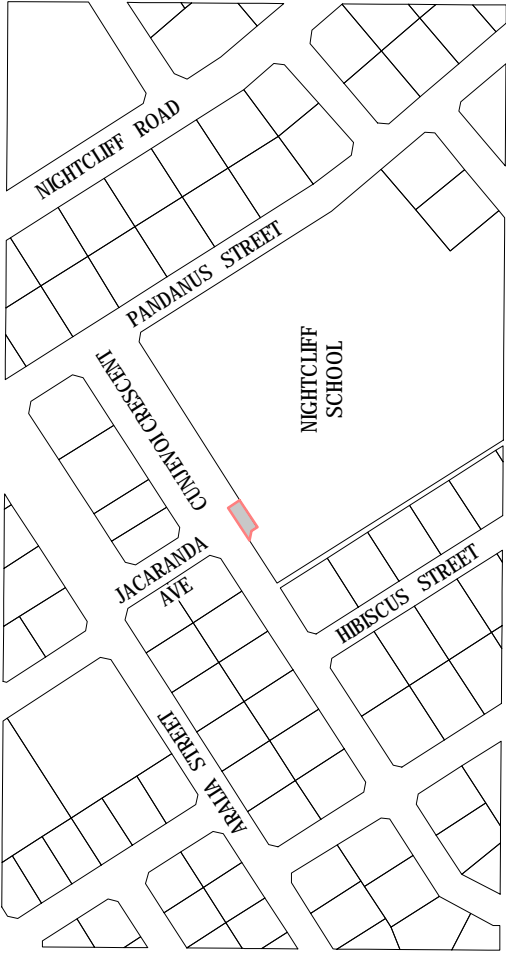
DROSSO LELEKIS
MANAGER DESIGN,
DEVELOPMENT AND PROJECTS

LUCCIO CERCARELLI
GENERAL MANAGER
CITY OPERATIONS

For enquiries, please contact Drosso Lelekis on 8930 0414 or email:
d.lelekis@darwin.nt.gov.au.

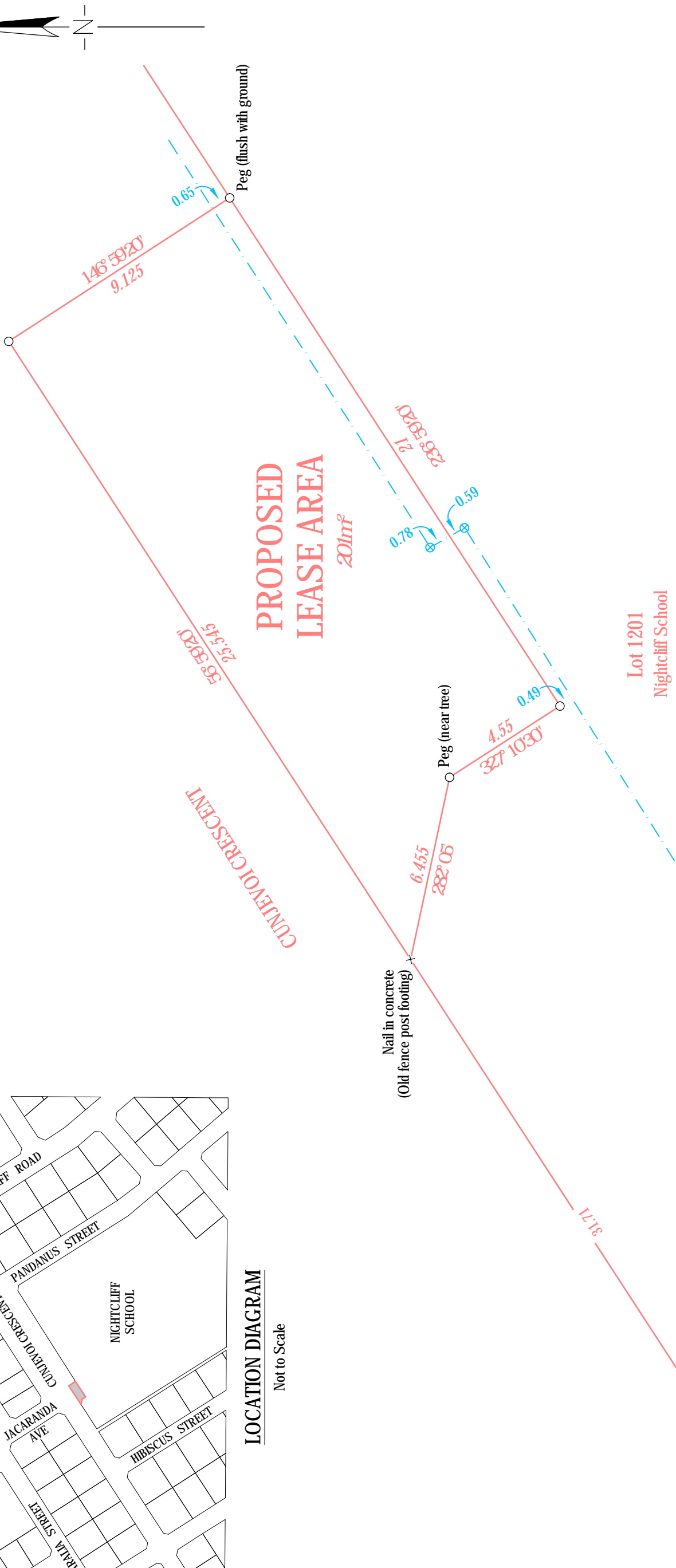
Attachments:

Attachment A: Proposed lease area



LOCATION DIAGRAM

Not to Scale



Lot 1201
Nightcliff School



earl james & associates

SURVEY & PLANNING CONSULTANTS
10 HARVEY STREET
DARWIN NT 0801
PH. (08) 89812494
FAX. (08) 89815205
darwin@eja.com.au

LOT 1201, TOWN OF NIGHTCLIFF

PROPOSED LEASE AREA

Client: CITY OF DARWIN

..... Licensed Surveyor: Date: Drawn by: SJH Date: 06/09/17 Cad File: 10395-1.DWG	Scale: 1:150 (A3) Datum:
Drawing No: 17/10395/1	

ENCL: CITY OPERATIONS COMMITTEE/OPEN
NO

AGENDA ITEM: 9.1.5

**SALE OF ROAD RESERVE ADJACENT TO
LOT 4181 (12) WILMOT STREET, THE NARROWS**

REPORT No.: 17CO0013 JW:jg

COMMON No.: 2149707

DATE: 25/10/2017

Presenter: Manager Design, Development & Projects, Drosso Lelekis

Approved: General Manager City Operations, Luccio Cercarelli

PURPOSE

The purpose of this report is to advise Council of a request for the sale of a walkway adjacent 12 Wilmot Street, The Narrows and to seek Council's approval in principle for the sale of the land.

LINK TO STRATEGIC PLAN

The issues addressed in this Report are in accordance with the following Goals/Strategies as outlined in the 'Evolving Darwin Towards 2020 Strategic Plan':-

Goal

5 Effective and Responsible Governance

Outcome

5.5 Responsible financial and asset management

Key Strategies

5.5.1 Manage Council's business based on a sustainable financial and asset management strategy

KEY ISSUES

- The owner of 12 Wilmot Street, The Narrows has approached Council wishing to purchase the adjacent walkway,
- The walkway contains stormwater drainage infrastructure servicing upstream lots and Council system.
- The owner of 12 Wilmot Street, The Narrows claims that the walkway is often used for ant-social behaviour and wishes to purchase the land to mitigate this.
- There are two adjacent land owners, being 10 and 12 Wilmot Street, The Narrows.
- A valuation report has been completed for the walkway and this approximately 122 square metre area of land is valued at \$9,375.00.
- There walkway is landlocked and serves no connectivity purpose for pedestrians and cyclists.

PAGE: 2
 REPORT NUMBER: 17CO0013 JW:jg
 SUBJECT: SALE OF ROAD RESERVE ADJACENT TO LOT 4181 (12) WILMOT STREET, THE NARROWS

RECOMMENDATIONS

THAT it be a recommendation to Council:-

- A. THAT Report Number 17CO0013 JW:jg entitled Sale of Road Reserve Adjacent to Lot 4181 Town of Darwin (12) Wilmot Street, The Narrows, be received and noted.
- B. THAT Council approve in principle the closure of the walkway adjacent 12 Wilmot Street, The Narrows and the sale of the land subject to compliance with the Local Government (Road Opening and Closing) Regulations and the satisfactory resolution of all issues associated with that compliance and that the sale be subject to:
 - a. The owners of 10 Wilmot Street, The Narrows being approached to ascertain if they are also interested in the purchasing the land.
 - b. The land being sold to the highest bidder of the two adjacent property owners, if both are interested, with a minimum sale price of \$9,375.00 (excluding GST).
 - c. The land being consolidated into the purchaser's Lot after the closure of the road reserve.
 - d. An easement being established over the entirety of the land in favour of the City of Darwin.
 - e. All costs associated with the sale of the land, including but not limited to, advertising, survey plans, Local Government road closure process, legal and other associated fees be borne by the proponent.
- C. THAT the City of Darwin pursuant to Section 32 (2) of the *Local Government Act 2008* (as Amended) hereby delegates to the Chief Executive Officer the power to finalise the sale and terms and conditions of the contract of sale and associated road closure in accordance with Report Number 17CO0013 JW:jg entitled Sale of Road Reserve Adjacent to Lot 4181 (12) Wilmot Street, The Narrows.
- D. THAT Council approve the affixing of the common seal to all associated documentation for the closure and sale of road reserve adjacent to Lot 4181 Town of Darwin and that all documentation be attested by the signatures of the Lord Mayor and Chief Executive Officer.

PAGE: 3
 REPORT NUMBER: 17CO0013 JW:jg
 SUBJECT: SALE OF ROAD RESERVE ADJACENT TO LOT 4181 (12) WILMOT STREET, THE NARROWS

BACKGROUND

Council previously considered the sale of this Land in 2005 and resolved as follows:

DECISION NO.19/2057 (27/09/05)

Request to Close Walkway Adjacent to 12 Wilmot Street, The Narrows

Report No.05TS0236 (12/09/05) Common No.387806

THAT it be a recommendation to Council:-

- A. THAT Report Number 05TS0236 entitled Request To Close Walkway Adjacent To 12 Wilmot Street The Narrows, be received and noted.*
- B. THAT Council approve in principle the closure of the walkway adjacent to 12 Wilmot Street, The Narrows and the sale of the land to Mr William Dunlop for \$4,000.00 subject to compliance with the Local Government (Road Opening and Closing) Regulations and the satisfactory resolution of all issues associated with that compliance.*
- C. THAT Mr Dunlop pay for all of Council's outgoing expenses in seeking closure of the walkway and any title and land transfer costs.*

The owner of 12 Wilmot Street, The Narrows at the time did not proceed with the sale of land and ownership of 12 Wilmot Street changed.

DECISION NO.21\218 (26/06/12)

Proposed Sale of Walkway 219, Wilmot Street to Lot 6942, The Narrows

Report No. 12C0040 HB:kl (18/06/12) Common No.2149707

- A. THAT Report Number 12C0040 HB:kl entitled Proposed Sale Of Walkway 219, Wilmot Street To Lot 6942, The Narrows, be received and noted.*
- B. THAT Council approve in principle the closure of Walkway 219, Wilmot Street to Lot 6942, The Narrows and the sale of the land to Mr Damien Butler subject to compliance with the Local Government (Road Opening and Closing) Regulations and the satisfactory resolution of all issues associated with that compliance.*
- C. THAT Darwin City Council pursuant to Section 32 (2) of the Local Government Act 2008 hereby delegates to the Chief Executive Officer for the time being the power to negotiate the sale of Proposed Sale Of Walkway 219, Wilmot Street To Lot 6942, The Narrows to Mr Damien Butler based on a value \$404 m², being 25% of the average unimproved capital of the adjacent properties.*

PAGE: 4
 REPORT NUMBER: 17CO0013 JW:jg
 SUBJECT: SALE OF ROAD RESERVE ADJACENT TO LOT 4181 (12) WILMOT STREET, THE NARROWS

- D. *THAT the sale of Proposed Sale Of Walkway 219, Wilmot Street To Lot 6942, The Narrows is subject to Ministerial approval and the permanent closure of the walkway as prescribed within the Local Government (Administration) Regulations 2008, Part 7 Section 19.*
- E. *THAT Proposed Sale Of Walkway 219, Wilmot Street To Lot 6942, The Narrows is consolidated into lot 4181, 12 Wilmot Street, The Narrows.*
- F. *THAT Council approve the affixing of the common seal to all associated documentation for the sale of Proposed Sale Of Walkway 219, Wilmot Street To Lot 6942, The Narrows, and that the documentation be executed by signatures of the Chief Executive Officer and Lord Mayor.*
- G. *THAT Mr Butler pay for all of Council's outgoing expenses in seeking closure of the walkway and any title and land transfer costs.*
- H. *THAT these decisions be moved into Open.*

DISCUSSION

Following renewed interest this year from the owner of 12 Wilmot Street, The Narrows, an updated valuation of the walkway land adjacent this property was obtained and the approximately 122 square metre area of land (Figure 1) is now valued at \$9,375. The owner was advised of the re-evaluation and has expressed that they would be interested in purchasing the land at this value.



Figure 1 Location of Walkway

PAGE: 5
 REPORT NUMBER: 17CO0013 JW:jg
 SUBJECT: SALE OF ROAD RESERVE ADJACENT TO LOT 4181 (12) WILMOT STREET, THE NARROWS

The walkway contains existing City of Darwin stormwater drainage infrastructure that services upstream lots (Figure 2).

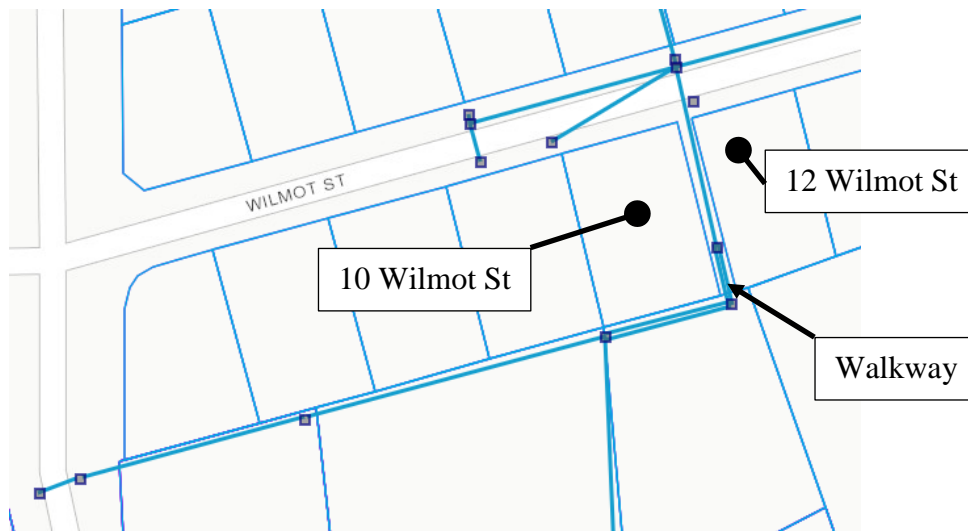


Figure 2 Location of Stormwater Infrastructure

The walkway is landlocked and terminates at a boundary to a private allotment to the rear. Therefore it serves no connectivity purposes for pedestrians and bike riders.

Although it contains stormwater drainage infrastructure, it is not considered to have a Q100 containment function. The stormwater drainage network upstream runs through private allotments and is contained within easements.

Should the sale of the land be approved, a stormwater drainage easement over the entirety of the walkway in favour of the City of Darwin would be required to provide access to the infrastructure for maintenance and upgrade purposes.

Council preferred practice is to place current community infrastructure within private allotments to avoid the associated issues regarding maintenance and renewals however in this particular case a majority of the upstream infrastructure is within easements and private allotments.

In order to ensure easy and practical access to the infrastructure, the land be sold in entirety to only one adjacent land owner and it would be consolidated within a single allotment. This would mean that the infrastructure and easement are within one allotment reducing risks and issues with future maintenance.

Given that there are two adjacent land owners, it will be required that the owners of Lot 10 Wilmot Street, The Narrows also be given an opportunity to express their interest in purchasing the land. If both parties are interested then an expression of interest would be required from each party with a minimum sale price of \$9,375 (excluding GST). Only a single expression of interest would be allowed from each party.

PAGE: 6
 REPORT NUMBER: 17CO0013 JW:jg
 SUBJECT: SALE OF ROAD RESERVE ADJACENT TO LOT 4181 (12) WILMOT STREET, THE NARROWS

The advantages and disadvantages associated with any sale of the walkway land are provided below:

Positive Aspects of Sale of Land

- The walkway land is landlocked on one side and serves no connectivity purpose for pedestrians or bike riders-so no negative impacts of sale in the in that regard.
- The area will no longer be accessible to members of the public with any intention of participating in anti-social behaviour.
- City of Darwin will have no on-going walkway maintenance requirements.
- Small income to Council.

Negative Aspects of Sale of Land

- There may be physical impediments to accessing the infrastructure for future maintenance or upgrading.
- Inability of the City of Darwin to utilise the land in the future (although future use is considered limited).

It is recommended that the walkway land be sold subject the process outlined in this report and conditions.

CONSULTATION PROCESS

In preparing this report, the following City of Darwin officers were consulted:

- Contract Officer
- Manager Economic Development, Tourism and International Relations

In preparing this report, the following External Parties were consulted:

- Owner 12 Wilmot Street, The Narrows

POLICY IMPLICATIONS

City of Darwin Policy No. 010 - Land Acquisition and Disposal provided guidance in relation to the proposed sale of Council land.

As a general rule, Council (as custodian of public assets) would dispose of all property interests in an open market format to ensure due probity of process and optimal financial return (and minimal risk).

However, Council may undertake an alternative process for the disposal of land where in Council's opinion, an alternative disposal approach will achieve greater benefits to the ratepayers than could be achieved through a public process and will entertain a direct sale, lease or similar to the exclusion of a public process.

PAGE: 7
 REPORT NUMBER: 17CO0013 JW:jg
 SUBJECT: SALE OF ROAD RESERVE ADJACENT TO LOT 4181 (12) WILMOT STREET, THE NARROWS

The circumstances which give rise to an alternative process as specified in Policy No. 010 include:

“Where there is only one identifiable purchaser. For example where a site is not large enough for development in its own right and is surrounded by public roads on all sides other than the adjoining owner.”

It is not considered that this case adheres to applying the alternative process as more than one property adjoins the land. Any sale should be conducted in consultation with all adjoining properties and consider all expressions to purchase.

BUDGET AND RESOURCE IMPLICATIONS

The current valuation of the walkway land is \$9,375 (excluding GST).

Should Council approve the sale of the land, if both adjacent land owners are interested in its purchase, it would be sold to the highest bidder, with the minimum sale price set at the current valuation.

All costs associated with any sale of this land (including road closure) would be borne by the proponents.

If sold, the City of Darwin would no longer be subject to the cost of maintaining the walkway.

Costs of maintenance or renewal of assets within easements on private allotments are generally higher than assets within Council land.

RISK/LEGAL/LEGISLATIVE IMPLICATIONS

If sold:

- Physical access to the stormwater drainage infrastructure for upgrading or maintenance could be problematic within the confines of an easement over private land.
- The walkway is currently part of the road reserve and would require the walkway to be excised prior to any sale.
- The area of land would be a titled lot and if sold and would be subject to a contract of sale and transfer of title by the Lands Titles Office.
- To maintain access for future maintenance of the stormwater drainage infrastructure within the walkway land, a condition of any sale of this land would be that an easement be created over the walkway in favour of the City of Darwin.
- If Council endorse the sale of land to the owner of 12 Wilmot Street and the owner of 10 Wilmot Street, The Narrows is not approached to seek their interest in the purchase of the walkway, the City of Darwin may be seen to have not have undertaken a fair and equitable process in regard to the sale of the land.

If not sold:

- The potential for antisocial behaviour could remain.

PAGE: 8
 REPORT NUMBER: 17CO0013 JW:jg
 SUBJECT: SALE OF ROAD RESERVE ADJACENT TO LOT 4181 (12) WILMOT STREET, THE NARROWS

ENVIRONMENTAL IMPLICATIONS

There are no environmental implications in not selling the walkway land.

The sale of this land will reduce public open space within the area.

COUNCIL OFFICER CONFLICT OF INTEREST DECLARATION

We the Author and Approving Officers declare that we do not have a Conflict of Interest in relation to this matter.

DROSSO LELEKIS
MANAGER DESIGN,
DEVELOPMENT & PROJECTS

LUCCIO CERCARELLI
GENERAL MANAGER
CITY OPERATIONS

For enquiries, please contact James Whyte on 8930 0413 or email:
j.whyte@darwin.nt.gov.au.

ENCL: CITY OPERATIONS COMMITTEE/OPEN
YES

AGENDA ITEM: 9.1.6

NIGHTCLIFF AND RAPID CREEK ACTIVE PATHS

REPORT No.: 17CO0007 RM:lf

COMMON No.: 3259492

DATE: 25/10/2017

Presenter: Manager Design, Development & Projects, Drosso Lelekis

Approved: General Manager City Operations, Luccio Cercarelli

PURPOSE

The purpose of this report is to provide Council with an update on the Nightcliff Primary School Active Paths trial and to seek endorsement of precinct-wide Active Paths Programs across the Darwin municipality.

LINK TO STRATEGIC PLAN

The issues addressed in this Report are in accordance with the following Goals/Strategies as outlined in the 'Evolving Darwin Towards 2020 Strategic Plan':-

Goal

2 Vibrant, Flexible and Tropical Lifestyle

Outcome

2.1 Improved access and connectivity

Key Strategies

2.1.1 Improve the pathway and cycle networks and encourage cycling and walking

KEY ISSUES

- Active Paths is a program developed by Bicycle Network and has been rolled-out in Victoria, Tasmania and New South Wales.
- Large and brightly coloured stickers are utilised on footpaths to delineate the safest routes for children to walk to school.
- Council has previously approved a trial of Active Paths for the Nightcliff Primary School which is nearing completion.
- Feedback received from the Nightcliff Primary School has revealed that they believe the program has been successful.
- The St Paul's Catholic Primary School has secured Northern Territory Government (NTG) funding to implement an Active Paths Program and is seeking Council's permission to install these stickers on footpaths leading to the school.
- Active Paths is only one tool of a multi-tier approach to encourage students to actively travel to school.

PAGE: 2
 REPORT NUMBER: 17CO0007 RM:lf
 SUBJECT: NIGHTCLIFF AND RAPID CREEK ACTIVE PATHS

- In order to ensure consistency and to decrease clutter it is recommended that precinct-wide approaches to Active Paths be developed across the Darwin municipality.
- Each school's request for Active Paths would be assessed and prioritised against the particular precinct-wide program.
- An Active Paths Program for the Nightcliff and Rapid Creek precinct will be developed as a priority due to two schools in the area already requesting Active Paths.
- It is anticipated that if Council proceeds with this program that more schools will seek involvement.

RECOMMENDATIONS

THAT it be a recommendation to Council:-

- THAT Report Number 17CO0007 RM:lf entitled Nightcliff and Rapid Creek Active Paths, be received and noted.
- THAT Council approve the retention of the Nightcliff Primary School Active Paths trial.
- THAT Council approve the development of precinct-wide approaches to Active Paths across the Darwin municipality with the development of a Nightcliff and Rapid Creek precinct program as a priority.
- THAT Council approve the St Paul's Catholic Primary School Active Paths request subject to consistency with the Nightcliff and Rapid Creek precinct Active Paths Program.
- THAT future school requests for Active Paths be assessed and prioritised against the particular adopted precinct-wide program.

BACKGROUND

At the Environment and Infrastructure Committee Meeting held on 20 September 2016, the Committee resolved under delegated authority as follows:

DECISION NO.21\4846 (20/09/16)

Nightcliff Primary School - Active Paths Project

Report No. 16TS0154 DL:lf (20/09/16) Common No. 3259492

THAT the Committee resolve under delegated authority:-

- THAT Report Number 16TS0154 DL:lf entitled Nightcliff Primary School - Active Paths Project, be received and noted.*

PAGE: 3
 REPORT NUMBER: 17CO0007 RM:lf
 SUBJECT: NIGHTCLIFF AND RAPID CREEK ACTIVE PATHS

- B. THAT Council approve in principle a 12 month trial for the placement of stickers on its footpaths to delineate routes for children to walk to school as outlined in Report Number 16TS0154 DL:lf entitled Nightcliff Primary School - Active Paths Project subject to the submission and approval of the final sticker designs.*
- C. THAT pursuant to Section 32(2)(d) of the Local Government Act 2008, the Chief Executive Officer be delegated authority to approve the final sticker designs and locations.*
- D. THAT the Council request that the Nightcliff Primary School monitor the effectiveness of the program for a period of 12 months and provide Council with the findings.*

The stickers around the Nightcliff Primary School were installed in December 2016.

A further request has been received from the St Paul's Catholic Primary School seeking Council's permission for the school to implement a similar Active Paths Program along City of Darwin footpaths in the area.

DISCUSSION

The aim of the Active Paths Program is to encourage children to walk and ride to school by delineating the safest routes to school. Its implementation involves the use of large and brightly coloured stickers applied on footpaths along these routes. The stickers are designed to display various messages about the route and safety warnings on approaches to road crossings.

Nightcliff Primary School Active Paths Trial

The Nightcliff Primary School Active Paths trial commenced in December 2016. At the time of writing this report, the stickers had been in place for approximately 10 months.

A condition assessment of the Nightcliff Primary School Active Paths stickers was undertaken by City of Darwin officers in July 2017. It was identified that six of the 70 stickers (8.5%) installed at the start of the 12 month trial needed replacement due to excessive damage or the stickers being removed. These six stickers will be replaced by Bicycle Network under the 12 month replacement warranty. Examples of the Nightcliff Primary School Active Paths stickers can be found at **Attachment A** to this report.

A condition of the Nightcliff Primary School trial of Active Paths was that the School monitor the effectiveness of the stickers and provide Council with the findings. A submission from the School to that effect is provided at **Attachment B** to this report.

In summary, the findings show that:

- The rate of students riding or walking to School in the previous semester (to June 2017) increased by 30%,

PAGE: 4
 REPORT NUMBER: 17CO0007 RM:lf
 SUBJECT: NIGHTCLIFF AND RAPID CREEK ACTIVE PATHS

- over 60% of all students rode or walked to school on 'Ride to School Days',
- the school considers this a "major success".

Active Paths is just one of many behaviour change programs which have led to the increase of students actively travelling to school. Other programmes which Nightcliff Primary School has initiated are 'Ride to School Days' and regular 'Bike Hospitals'.

Although it has only been 10 months since the Nightcliff Primary School Active Paths trial commenced, given the effectiveness of the program and relatively low percentage of stickers requiring replacement, it is considered that the outcomes of the trial have been positive. Due to these positive outcomes it is recommended that Council approve the retention of the Nightcliff Primary School Active Paths Program in advance of the 12 month trial end date of December 2017.

St Paul's Catholic Primary School Request for Active Paths Program

After securing funding from the NTG to implement an Active Paths Program, the St Pauls Catholic Primary School has requested City of Darwin's approval to implement this project along footpaths within its care and control.

Precinct-Wide Approach to Active Paths

There are 33 schools within the Darwin municipality with Primary or Middle School age students. Given that any to all of these schools could request the approval of individual Active Paths programmes, it is considered necessary to develop precinct-wide Active Paths Programs across the entire municipality.

This approach would ensure consistency across the municipality and reduce the potential for clutter that could result if individual school programs are approved and implemented on an ad hoc basis. Individual requests from schools for Active Paths could then be assessed and prioritised against the relevant precinct-wide program. The precincts will consist of neighbouring suburbs with multiple schools in close proximity to each other.

Given that two schools within Nightcliff and Rapid Creek have already sought the approval of individual Active Paths Programs, and given the significant number of other schools within these suburbs, it is considered a priority to develop a precinct-wide program for the suburbs of Nightcliff and Rapid Creek as soon as practical.

City of Darwin officers are currently working with Bicycle Network on developing a precinct-wide Active Paths Program for Nightcliff and Rapid Creek. It is envisaged that this program could be developed by the end of November 2017. The St Paul's Catholic Primary School Active Paths Program will be approved subject to consistency with the Nightcliff and Rapid Creek precinct Active Paths Program.

Going forward, City of Darwin officers will continue to work with Bicycle Network and the NTG to develop the precinct-wide Active Paths Programs and delivery models for other suburbs in the Darwin municipality. Individual school Active Paths requests would then be assessed and prioritised against the particular precinct-wide program relevant to the school's location.

PAGE: 5
 REPORT NUMBER: 17CO0007 RM:lf
 SUBJECT: NIGHTCLIFF AND RAPID CREEK ACTIVE PATHS

It should be noted that the Active Paths Program is only one tool in promoting active travel to school. Schools which request Active Paths should be encouraged to explore a multi-tier approach to encourage students to get physically active on their journey to school, similar to what Nightcliff Primary School has implemented.

On-going Maintenance and Replacement

In view of the public liability associated with the stickers being placed on Council paths, it is considered appropriate that Council be responsible for the replacement (beyond the 12 month warranty period) and maintenance of the stickers.

There is currently no funding within existing Council budgets to cater for the additional costs associated with maintaining and replacing the stickers. It is suggested that Council consider allocating funding to cover the costs associated with the maintenance and replacement of Active Paths stickers as part of the 2018/2019 budget review process.

CONSULTATION PROCESS

In preparing this report, the following City of Darwin officers were consulted:

- Acting Manager Infrastructure Maintenance
- Design Team Leader
- Technical Officer

In preparing this report, the following External Parties were consulted:

- Nightcliff Primary School Principal
- St Paul's Catholic Primary School Principal
- Bicycle Network Ride2School and Membership Coordinator NT

POLICY IMPLICATIONS

Should Council endorse the permanent placement of Active Paths stickers on its path network, this should be addressed in a future review of City of Darwin Policy No. 048 – Footpaths and Shared Paths.

BUDGET AND RESOURCE IMPLICATIONS

Once the 12 month warranty period has expired, the cost involved with maintaining and replacing each set of Active Paths stickers is estimated to cost approximately \$5,000 per school per year.

These ongoing costs will increase proportionally with the implementation of Active Paths Programs for other schools if requests are received and approved. If all 33 schools within the Darwin municipality were to have Active Paths Programs implemented, the ongoing costs associated with maintaining and replacing the stickers could be of the order of \$165,000 per year.

PAGE: 6
 REPORT NUMBER: 17CO0007 RM:lf
 SUBJECT: NIGHTCLIFF AND RAPID CREEK ACTIVE PATHS

It is suggested that Council consider allocating funding to cover the costs associated with the maintenance and replacement of Active Paths stickers as part of the 2018/2019 budget review process.

It is also suggested that Council seek external funding opportunities to cover these ongoing maintenance costs in the likelihood of other schools seeking permission to implement Active Paths Programs.

RISK/LEGAL/LEGISLATIVE IMPLICATIONS

Council is liable for all infrastructure within its road network and therefore it is considered appropriate that Council be responsible for the replacement and on-going inspection/maintenance of the Active Path stickers on its path network.

ENVIRONMENTAL IMPLICATIONS

The implementation of Active Paths Programs results in improved education around alternate modes of travel and road safety around schools.

COUNCIL OFFICER CONFLICT OF INTEREST DECLARATION

We the Author and Approving Officers declare that we do not have a Conflict of Interest in relation to this matter.

DROSSO LELEKIS
MANAGER DESIGN,
DEVELOPMENT & PROJECTS

LUCCIO CERCARELLI
GENERAL MANAGER
CITY OPERATIONS

For enquiries, please contact Drosso Lelekis on 8930 0414 or email:
 d.lelekis@darwin.nt.gov.au.

Attachments:

Attachment A: Photos of the Nightcliff Primary School Active Paths Stickers

Attachment B: Nightcliff Primary School correspondence

ATTACHMENT A



Start of Route Sticker



Distance to School Sticker



Road Crossing Warning Sticker



Nightcliff Primary School

Cunjevoi Crescent

Nightcliff, NT 0810

Ph: (08) 8948 8488 Fax: (08) 8948 8499

Email: nightcliff.ps@ntschoools.net

Website: <http://www.nightcliffprimary.nt.edu.au/>



Sister school of
Hefei School, China

Nightcliff Community Active Paths 'Sticker Project'

To Whom It May Concern

Nightcliff Primary School approached the City of Darwin in 2017 to discuss the possibility of designing and laying safe travel decal stickers to identify the safest routes to Nightcliff Primary School. Three key routes were identified with the support of The Bicycle Network then based in Melbourne to support our needs.

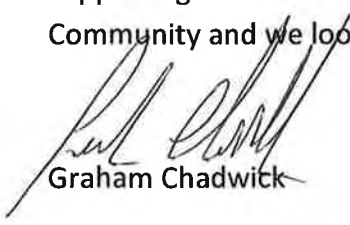
The project has been a major success with the growth in students riding, scooting and walking to school increased by 30% over the past semester including over 60% of students walking and riding to school on specific 'Ride to School Days'.

The 'Active Paths' stickers identify safe, direct routes to school and promotes active travel and greater awareness of traffic movement often on congested routes around the schools perimeter. Parents feel more confident to allow their students to ride or walk to school knowing that these identified routes are visible, easy to read and follow the safest course when leaving home or returning from the school grounds.

Children walking and riding to school has increased significantly over the past couple of years and can be attributed to a number of actions and behaviour change programs that the school has initiated - the Active Paths is just one of those. Other projects include the promotion of regular Walk and Ride to school days, the weekly Bike Hospital, and more recently the construction of the bike path around the school oval.

Together all of these play a part in encouraging more children to walk and ride to school and as such it is difficult to pin the significant changes we've seen down to any specific action. The identified routes though provide a safer environment for children to gain the skills and confidence when riding/walking safely outside of the school area.

We would like to thank the City of Darwin Council for their interest and commitment in supporting the establishment of the safe travel decal stickers within the Nightcliff Community and we look forward to our future partnership with this successful project.


Graham Chadwick

Principal

10/10/2017



ENCL: CITY OPERATIONS COMMITTEE/OPEN
NO

AGENDA ITEM: 9.1.7

OPPORTUNITIES FOR DIVERSION OF TYRES FROM LANDFILL - UPDATE

REPORT No.: 17CO0023 NN:tz COMMON No.: 3344411

DATE: 25/10/2017

Presenter: Manager Technical Services, Nadine Nilon

Approved: General Manager City Operations, Luccio Cercarelli

PURPOSE

The purpose of this report is to provide Council with an update on potential options for tyre disposal and diversion from landfill.

LINK TO STRATEGIC PLAN

The issues addressed in this Report are in accordance with the following Goals/Strategies as outlined in the 'Evolving Darwin Towards 2020 Strategic Plan':-

Goal

3 Environmentally Sustainable City

Outcome

3.1 Council's carbon footprint reduced

Key Strategies

3.1.3 Reduce Council's waste production

KEY ISSUES

- Shoal Bay Waste Management Facility (SBWMF) accepts approximately 1100 tonnes of tyres (equivalent to 137,500 passenger tyres) per annum.
- Council has obtained Bronze Accreditation under the Tyre Stewardship Australia (TSA) scheme in relation to tyre management to demonstrate leadership in the market for tyres.
- The landfill disposal fees for unshredded and shredded tyres were increased for 2017/2018 to encourage users to investigate alternative options that avoided landfilling, such as recycling.
- Initial data collection for 2017/18 indicates a reduction in the volumes of tyres received following the fee changes, when compared to the first quarter in 2016/2017.
- The tyre industry and Northern Territory Government (NTG) have also been preparing reports relating to tyre diversion options.
- It is recommended Council engage with the NTG and the tyre industry to undertake a feasibility study following the new fees being in place for a period of 6 months to allow for more data to be collected, and the release of relevant industry reports.

PAGE: 2
 REPORT NUMBER: 17CO0023 NN:tz
 SUBJECT: OPPORTUNITIES FOR DIVERSION OF TYRES FROM LANDFILL - UPDATE

RECOMMENDATIONS

THAT the Committee resolve under delegated authority:-

- A. THAT Report Number 17CO0023 NN:tz entitled Opportunities For Diversion of Tyres from Landfill - Update, be received and noted.
- B. THAT Council continue its engagement with the NTG and tyre industry on options for the management of tyres.
- C. THAT Council undertake a Tyre Management Feasibility Study in February 2018 following the further collection and substantiation of Shoal Bay Waste Management Facility data and the release of relevant industry reports.
- D. THAT a further report is presented to Council in April 2018 outlining the findings of the Tyre Management Feasibility Study.

BACKGROUND

At the Committee meeting held on the 23 May 2017, the Committee resolved as follows:

10.1.1 Opportunities for Diversion of Tyres from Landfill

Report No. 17TS0045 NN:km (23/05/17) Common No. 3344411

- B. THAT a further report is presented to Council in October 2017 updating Council on progress towards obtaining Bronze level Tyre Stewardship Australia Local Government accreditation, assessment of disposal and market trends and consideration of a feasibility study on tyre processing at Shoal Bay Waste Management Facility.*

DECISION No.21\5414

This report provides an update on the current status of accreditation, the current disposal and market trends and a recommendation on timing for a feasibility study.

DISCUSSION

TSA Accreditation

The City of Darwin not only has a role to play through the management of end-of-life (EoL) tyres, but also through the tyre supply chain as purchasers of tyres. TSA have implemented a voluntary national accreditation scheme to promote and encourage a more environmentally responsible tyre industry. The accreditation scheme has a specific local government category to promote local government support for sustainable tyre procurement and disposal practices.

PAGE: 3
 REPORT NUMBER: 17CO0023 NN:tz
 SUBJECT: OPPORTUNITIES FOR DIVERSION OF TYRES FROM LANDFILL -
 UPDATE

City of Darwin obtained a Bronze level accreditation under this scheme in September 2017. There is an action plan to retain this level of accreditation that includes promotion of the National Tyre Product Stewardship Scheme (ie on Council's website), commitment to sustainable procurement and commitment to sustainable end-of-life tyre management.

Disposal & Market Trends

As part of the 2017/2018 budget review, Council officers reviewed the current disposal fees for tyres (shredded and whole). As a result, increased fees for tyre disposal at SBWMF have been adopted to encourage recycling and provide improved market pricing for alternatives to be explored further. Increases to tyre disposal fees were as follows:

- from \$268 to \$500 per tonne for whole tyres
- from \$72 to \$250 per tonne for shredded tyres

This increased tonnage rate for whole tyres is equivalent to \$4 per tyre for passenger tyres and \$8 per tyre for light truck tyres. The increased fees brings SBWMF more in line with other regional councils in the Northern Territory, but still remains below average in comparison to other landfills and transfer stations across Australia.

The disposal of tyres to SBWMF since the introduction of the fees has been reviewed. The table below compares the amount of passenger and light truck tyres disposed of since the increase in fees in comparison to the same quarter last year and the total figure last year. The initial data indicates a 50% reduction in overall tyre disposal rates of passenger and light truck tyres when compared to the same quarter last financial year.

	16/17FY	1Q 16/17 FY	1Q 17/18 FY
Unshredded Tyres	458	129	40
Shredded Tyres	740	220	135
TOTAL	1198	349	175

There was an additional 155 tonnes of heavy truck tyres disposed of this quarter that was not included in the above data. This is because the 155 tonnes can be attributed to tyre disposal from a closing mine site and considered an anomaly for the purpose of this report.

Feasibility Study

In order to determine the most suitable option for tyre management, in respect to Council operations, a feasibility study needs to be undertaken. The study would review several different models, including a Council managed facility and a privately managed facility on Council land, to determine if these are potentially viable options. The study would also need to consider what, if any, markets currently exist and what are the relevant market issues such as distance to markets. This would require the engagement of a specialist consultant, preferably one that has experience in the current EoL tyre market in Australia. Initial discussions with consultants have

PAGE: 4
 REPORT NUMBER: 17CO0023 NN:tz
 SUBJECT: OPPORTUNITIES FOR DIVERSION OF TYRES FROM LANDFILL -
 UPDATE

indicated that a high-level assessment could be undertaken for a cost of \$15,000 to \$20,000.

TSA, in conjunction with the Victorian Government, have been developing a National Market Strategy for EoL tyres which should be released by the end of the year. Once published, this report should provide an insight into the current available markets and potential for commercial expansion into this field.

Earlier this year, the NT EPA issued a grant to the Motor Trades Association NT and Reincarnate Consulting, to undertake a study into the management of waste tyres in the NT. The study will capture the number of waste tyres generated and the volumes currently being disposed of in landfills, stockpiled, exported or illegally dumped. This report has been finalised and is with the NT EPA for release.

In respect to Council undertaking a feasibility study, the information to be provided in the National Market Strategy and NT Waste Tyre study will be very beneficial to inform the current market situation. It is recommended that the feasibility study be undertaken after the release of these two documents in order to capture the most accurate data (at least 6 months) and affirm the potential viability of different options.

The volumes of tyres disposed over the next year will continue to be reviewed to determine whether or not the fee increase has had a significant impact on the disposal volumes as initially data indicates.

CONSULTATION PROCESS

In preparing this report, the following City of Darwin officers were consulted:

- Waste Management Coordinator

In preparing this report, the following External Parties were consulted:

- Golder Associates
- Tyre Stewardship Australia

POLICY IMPLICATIONS

All activities will be undertaken in accordance with Council policies.

The diversion of waste from landfill is consistent with the provisions of *City of Darwin Policy No. 054 - Waste Management* and is a large focus of the new Waste Management Strategy currently under development.

PAGE: 5
 REPORT NUMBER: 17CO0023 NN:tz
 SUBJECT: OPPORTUNITIES FOR DIVERSION OF TYRES FROM LANDFILL -
 UPDATE

BUDGET AND RESOURCE IMPLICATIONS

Initial discussions with consultants have indicated that a high-level assessment could be undertaken for a cost of \$15,000 to \$20,000. This could be budgeted for within the existing waste consultancy budget, based on current predictions (assuming no critical incidents at the landfill occur).

RISK/LEGAL/LEGISLATIVE IMPLICATIONS

There is a risk that the study occurs prior to the market adjusting to Council's new, higher fees, which would impact the results of the feasibility study.

ENVIRONMENTAL IMPLICATIONS

The diversion of waste tyres from landfill does not only allow for better landfill management but also has positive environmental outcomes as the recycled waste material can be recycled into new products.

COUNCIL OFFICER CONFLICT OF INTEREST DECLARATION

We the Author and Approving Officers declare that we do not have a Conflict of Interest in relation to this matter.

NADINE NILON
MANAGER TECHNICAL
SERVICES

LUCCIO CERCARELLI
GENERAL MANAGER
CITY OPERATIONS

For enquiries, please contact Nadine Nilon on 8930 0417 or email:
 n.nilon@darwin.nt.gov.au.

ENCL: CITY OPERATIONS COMMITTEE/OPEN
NO

AGENDA ITEM: 9.1.8

LAKESIDE DRIVE PRECINCT MASTER PLAN UPDATE

REPORT No.: 17CO0022 DL:lf

COMMON No.: 2952242

DATE: 25/10/2017

Presenter: Manager Design, Development and Projects, Drosso Lelekis

Approved: General Manager City Operations, Luccio Cercarelli

PURPOSE

The purpose of this report is to provide an update to Council on the Lakeside Drive Master Plan community consultation process and to seek Council's endorsement to delay the planned works.

LINK TO STRATEGIC PLAN

The issues addressed in this Report are in accordance with the following Goals/Strategies as outlined in the 'Evolving Darwin Towards 2020 Strategic Plan':-

Goal

1. Collaborative, Inclusive and Connected Community

Outcome

- 1.2 Desirable places and open spaces for people

Key Strategies

- 1.2.4 Provide for diversity of uses and experiences in public places and open spaces

KEY ISSUES

- In May 2017 Council resolved to proceed to community consultation on the Lakeside Drive Precinct Master Plan (Master Plan).
- It was also resolved that, subject to the outcomes of the community consultation on the Master Plan, that a water supply and fencing to the Community Garden and formalising the Alawa Oval car park by implementing one-way flow and shared path realignment be undertaken by 31 December 2017.
- The commencement of the community consultation was delayed until after the Council Caretaker Period ended on 5 September 2017. The six week consultation closed on 22 October 2017.
- A report to Council on the outcomes of the community consultation will not be provided until November 2017. As there is considerable work involved in the construction of the water supply, fencing and works associated with the Alawa Oval car park it is feasible that the works will be completed by 31 October 2017.

PAGE: 2
 REPORT NUMBER: 17CO0022 DL:lf
 SUBJECT: LAKESIDE DRIVE MASTER PLAN UPDATE

- It is recommended that the deadline for the completion of the nominated works be amended from 31 December 2017 to 30 April 2018 as a result of the delayed consultation.

RECOMMENDATIONS

THAT the Committee resolve under delegated authority:-

- A. THAT Report Number 17CO0022 DL:lf entitled Lakeside Drive Master Plan Update, be received and noted.
- B. THAT Council amend the completion date of the following works from 31 December 2017 to by 30 April 2018, subject to community consultation outcomes;
 - i. Install a water supply for the Lakeside Drive Community Gardens/The Patch,
 - ii. Install a perimeter fence for the Lakeside Drive Community Gardens/The Patch,
 - iii. Implement one-way flow and shared path re-alignment for Alawa Oval car park.

BACKGROUND

At the Ordinary Council Meeting held on 30 May 2017, Council resolved as follows:

DECISION NO.21\5433 (30/05/17)

Lakeside Drive Precinct Master Plan

Report No. 17TS0048 DL:lf (23/05/17) Common No. 2952242

- A. *THAT Report Number 17TS0048 DL:lf entitled Lakeside Drive Precinct Master Plan, be received and noted.*
- B. *THAT the Lakeside Drive Precinct Master Plan, Lakeside Drive Community Garden Master Plan and Northern Ovals Access and Parking Plan provided at Attachments B, C and D respectively to Report Number 17TS0048 DL:lf entitled Lakeside Drive Precinct Master Plan, be endorsed for the purposes of community consultation.*
- C. *THAT a further report be presented to Council on the outcomes of the community consultation process on the Lakeside Drive Precinct Master Plan, Lakeside Drive Community Garden Master Plan and Northern Ovals Access and Parking Plan.*

PAGE: 3
 REPORT NUMBER: 17CO0022 DL:lf
 SUBJECT: LAKESIDE DRIVE MASTER PLAN UPDATE

D. THAT Council undertake the following works by 31 December 2017, subject to community consultation outcomes;

- a. install a water supply and fencing for the community gardens as indicated on Attachment C to Report Number 17TS0048 DL:lf entitled Lakeside Drive Precinct Master Plan, and*
- b. implement one way flow and shared path re-alignment for Alawa Oval as indicated in Attachment D to Report Number 17TS0048 DL:lf entitled Lakeside Drive Precinct Master Plan.*

The community consultation closed on 22 October 2017 and a report will be submitted to Council on the consultation outcomes in November 2017.

DISCUSSION

The commencement of the community consultation was delayed until after the Caretaker Period of 3 August– 5 September 2017. This was in accordance with our Caretaker Policy that: “The Council will not commission or approve any public consultation where it is likely that such consultation will continue into the **Caretaker Period.**” The consultation ran for a period of six weeks and closed on 22 October 2017.

A report to Council on the outcomes of the community consultation will now not be provided until November 2017. Given that there is considerable work involved in the construction of the water supply and car park works, which are subject to the outcomes of the consultation, it is recommended that the deadline for the completion of these works be amended to 30 April 2018.

It is recommended that the fence around the combined Lakeside Drive Community Garden/The Patch be installed when both groups have agreed on the location in consultation with Council.

The design for the formalisation of the Alawa Oval car park, which will include the implementation of one-way flow and shared path realignment, is underway and will result in 34 formalised car parking bays including disability compliant and motorcycle parking bays.

The design process for the water supply works to the combined Lakeside Drive Community Gardens/The Patch is also underway.

CONSULTATION PROCESS

Community consultation in the draft Master plan closed on the 22 October 2017. The feedback is being collated and assessed with a report to Council in November 2017.

PAGE: 4
 REPORT NUMBER: 17CO0022 DL:lf
 SUBJECT: LAKESIDE DRIVE MASTER PLAN UPDATE

In preparing this report, the following City of Darwin officers were consulted:

- Technical Officer
- Communications and Engagement Officer

POLICY IMPLICATIONS

The community engagement was undertaken at the level of “*consult*” in accordance with *City of Darwin Policy No. 025 – Community Engagement*.

BUDGET AND RESOURCE IMPLICATIONS

The costs of water supply and a perimeter fence for the future combined Lakeside Drive Community Garden/The Patch site and the one-way flow access and path realignment to the northern ovals car parking area are to be accommodated within Council’s programmed 2017/2018 budget.

There is currently no funding within Council’s budget for the implementation of the Master Plan (with the exception of water supply and fencing to the Lakeside Drive Community Garden/The Patch site and car park works described above).

Implementation of additional Master Plan elements would be subject to future budget correlations and the outcome of Community Consultation.

RISK/LEGAL/LEGISLATIVE IMPLICATIONS

Nil.

ENVIRONMENTAL IMPLICATIONS

Consideration was given to any limitations or conservation obligations presented by the proximity to Rapid Creek and the adjoining mangroves in the development of the Plan.

PAGE: 5
REPORT NUMBER: 17CO0022 DL:lf
SUBJECT: LAKESIDE DRIVE MASTER PLAN UPDATE

COUNCIL OFFICER CONFLICT OF INTEREST DECLARATION

We the Author and Approving Officers declare that we do not have a Conflict of Interest in relation to this matter.

DROSSO LELEKIS
MANAGER DESIGN,
DEVELOPMENT AND PROJECTS

LUCCIO CERCARELLI
GENERAL MANAGER
CITY OPERATIONS

For enquiries, please contact Drosso Lelekis on 8930 0414 or email:
d.lelekis@darwin.nt.gov.au.

OPEN SECTION

OPERATIONS10/8

City Operations Committee Meeting – Wednesday, 25 October 2017

9.2 OFFICERS REPORTS (RECEIVE & NOTE)



ENCL: CITY OPERATIONS COMMITTEE
YES MEETING/OPEN

AGENDA ITEM: 9.2.1

LUDMILLA CREEK FLOOD MITIGATION PROJECT - DWYER PARK

REPORT No.: 17CO0010 JW:hd COMMON No.: 1485703

DATE: 25/10/2017

Presenter: Manager Design, Development & Projects, Drosso Lelekis

Approved: General Manager City Operations, Luccio Cercarelli

PURPOSE

The purpose of this report is to provide Council with further information on the approval process for the flood management embankment (berm) and the authorisation of the removal of 26 trees within Dwyer Park as part of the Northern Territory Government's Ludmilla Flood Mitigation Project.

LINK TO STRATEGIC PLAN

The issues addressed in this Report are in accordance with the following Goals/Strategies as outlined in the 'Evolving Darwin Towards 2020 Strategic Plan':-

Goal

2 Vibrant, Flexible and Tropical Lifestyle

Outcome

2.4 Economic growth supported

Key Strategies

2.4.1 Deliver, advocate for, and partner in infrastructure and services that support Darwin's economic growth

KEY ISSUES

- Flood mitigation works in Dwyer Park were identified through the Ludmilla Creek Flood Mitigation project as a Northern Territory Government (NTG).
- The project within Dwyer Park involved creating a detention/holding basin by construction of a 1.4m high embankment (bund) around the northern perimeter of the park that prevents stormwater from flooding nearby properties.
- A report was provided to Council in July 2017 on the status of the Ludmilla Flood Mitigation works and their impacts on Dwyer Park.
- Council requested a further report detailing the approval process for the embankment and the authorisation of the removal of 26 trees within Dwyer Park.
- The Northern Territory Government led the concept and detailed designs of the works with City of Darwin officers reviewing and commenting on the designs before approving the final design.

PAGE: 2
 REPORT NUMBER: 17CO0010 JW:hd
 SUBJECT: LUDMILLA CREEK FLOOD MITIGATION PROJECT – DWYER PARK

- The extent of the flood mitigation works within Dwyer Park to achieve the flood protection required the removal of 26 trees, and as a result 33 new trees will be planted within Dwyer Park to replace the trees removed.
- The playground and irrigation infrastructure has been replaced and upgraded in conjunction with the works.

RECOMMENDATIONS

THAT Report Number 17CO0010 JW:hd entitled Ludmilla Creek Flood Mitigation Project – Dwyer Park, be received and noted.

BACKGROUND

At the Ordinary Council meeting held on 25 July 2017, Council resolved as follows:

DECISION NO.21\5618 (25/07/17)

Ludmilla Flood Mitigation Update

Report No. 17TS0062 NN:km (25/07/17) Common No. 1485703

- A. *THAT Report Number 17TS0062 NN:km entitled Ludmilla Flood Mitigation Update, be received and noted.*
- B. *THAT a further report be provided to Council with detailed information on the approval process for the berm and the authorisation of the removal of 26 trees.*

The reasons for the flood mitigation and the design were discussed in the previous report; however more detailed information has been included below.

Flood Mitigation Overview

The Northern Territory Government (NTG) allocated \$50 million towards flood mitigation in the Darwin and Katherine region. The Ludmilla Creek catchment was identified as an area for investigation and \$7.5 million of this funding was allocated to works within this catchment.

Dwyer Park is primarily within the Sadgroves Creek catchment area but during larger rainfall events, stormwater “jumps” the catchment through Dwyer Park to Ludmilla Creek and causes flooding of properties. A flood event occurred in The Narrows as recently on 28 February 2015, which flooded a number of properties along Wilmot Street, Narrows Road and Bagot Road, the Winnellie shopping centre and parts of Ludmilla Primary School flooded.

PAGE: 3
 REPORT NUMBER: 17CO0010 JW:hd
 SUBJECT: LUDMILLA CREEK FLOOD MITIGATION PROJECT – DWYER PARK

The NTG made a presentation to Council on the Darwin Flood Mitigation Advisory Committee Draft Report at the 1st Ordinary Council Meeting on 16 June 2015, including information on the overarching flood mitigation strategy and on the recommendations in relation to the Ludmilla Creek and Rapid Creek Catchments, which are of relevance to Council. Dwyer Park was identified as a potential site for stormwater detention work in this presentation.

The Darwin Flood Mitigation Advisory Committee (FMAC) did not take part in the project beyond the draft report that was presented to Council. However FMAC was provided with a detailed issues paper following the flooding of properties, the shops and Ludmilla Primary School in February 2015, and a works plan detailing the need to use Dwyer Park to mitigate the impact of flooding on parts of the Narrows, which it endorsed in May 2015. Public consultation regarding the contents of the report, including using Dwyer Park to mitigate the effects of flooding in the Narrows, was undertaken in June 2015. The FMAC's final report was endorsed by its members in August 2015 and made public in October 2015.

Flood Mitigation Design and Works

The flood mitigation works are designed to protect the Narrows from stormwater "jumping" from the Sadgroves Creek to Ludmilla Creek catchments through Dwyer Park. The work included:

- a new culvert under both lanes of Tiger Brennan Drive;
- a new underground drain along Tiger Brennan Drive and part of Bennison Road;
- an open concrete lined drain along Bennison and Reichardt Roads with new barrier fences installed to improve public safety;
- a holding embankment in Dwyer Park;
- cleaning 800 tonnes of materials from Council's local drainage network in the Narrows and from NTG roads in the Ludmilla catchment; and
- reinstating the Ludmilla Creek trunk drain to its 1974 state and extending the trunk drain to the tidal reaches of the open drain (creek) at Dick Ward Drive (these works are ongoing).

The work within Dwyer Park included:

- construction of an embankment (approximately 1.4 metres high at maximum), which is necessary to hold the volume of water during a Q100 storm event while it discharges under the Stuart Highway to the existing drain through the railway embankment to Reichardt Road;
- the removal of 26 trees out of a total of 91 trees (with the 3 trees of significance being retained) due to the location of the embankment. Of the 26 trees removed, 5 were considered mature trees, of which 2 trees were Mahogany trees and identified as a safety risk;
- irrigation to improve the coverage of the park from 70% to approximately 100% of the park, with a new controller installed;
- a new concrete lined low flow swale to the existing outfall under the Stuart Highway and the railway embankment to prevent water- logging in the Park;

PAGE: 4
 REPORT NUMBER: 17CO0010 JW:hd
 SUBJECT: LUDMILLA CREEK FLOOD MITIGATION PROJECT – DWYER PARK

- a new playground;
- new footpath and connections to access park and shade structure; and
- new and additional exercise equipment and park furniture.

The Park will hold water for no more than approximately three hours after a major Q100 storm event. During minor storm events, only a small volume of water will be temporarily stored in the Park which will drain out quickly (via the swale). Photographs of the park following the flood mitigation works are shown in Attachment A.

As requested by Council, this report provides further information on the removal of the trees and approval process for the flood mitigation project.

DISCUSSION

Approval Process

Concept designs were prepared following the presentation to Council. The project was led by NTG and reviewed by City of Darwin officers in joint meetings. This is a typical process for a project of this nature. The major points raised by City of Darwin officers at the concept design stage included:

- Maintenance and operational requirements;
- Public safety requirements (safety grates, fencing etc);
- Minimising the number of trees requiring removal;
- Options to retain trees identified for removal; and
- Managing public safety within the park during flood events through safety in design assessments.

Iterative discussions between NTG and City of Darwin officers, based on flood modelling and consulting engineering advice determined the most appropriate location for the embankment that provided the necessary stormwater detention to reduce potential flooding of The Narrows residents that also resulted in the minimal impact on the park.

Design discussions and amendments were ongoing to ensure that the design was the minimum required to ensure the outcome of flood mitigation was met. If the design was reduce further, there would be the risk of properties in the Narrows still being flooded by the stormwater from Dwyer Park. This residual risk - particularly to the safety of residents – was deemed significant and unacceptable following the flooding recorded in February 2015.

Following the final approval of the design, NTG engaged a contractor, obtained the necessary permits, and commenced work on the park and associated infrastructure.

The embankment, irrigation and playground works within Dwyer Park are now complete. The installation of the exercise equipment, furniture and planting of the new trees will be undertaken shortly by Council.

PAGE: 5
 REPORT NUMBER: 17CO0010 JW:hd
 SUBJECT: LUDMILLA CREEK FLOOD MITIGATION PROJECT – DWYER PARK

Tree Removal and Amenity

Discussions were had during the course of the detailed design to try and protect as many trees as possible, including site assessments. In addition, NTG undertook negotiations with Traditional Owners as part of Aboriginal Areas Protection Act certification, and three significant trees were able to be retained following a design amendment to adjust the embankment location.

The final design (as detailed) resulted in the unavoidable removal of 26 trees, 5 considered mature trees and 2 of these 5 trees were Mahogany's. There were 54 trees in the park which remained. Final designs for the Dwyer Park portion of works were approved by City of Darwin officers in August 2016.

In order to maintain the primary function of Dwyer Park to provide public amenity for the community, it was agreed that the NTG would fund to the replacement playground, exercise equipment, furniture, irrigation infrastructure, and the supply and installation of 33 trees to replace the 26 trees that were removed.

It has been agreed with NTG that Council will undertake the tree sourcing and planting of new trees, design and installation of playground infrastructure, exercise equipment and furniture, with funding from the NTG.

Summary

The intent of the work undertaken in Dwyer Park, combined with the other Ludmilla Flood Mitigation works, was to achieve the necessary flood mitigation for residents in the Narrows, whilst also improving the amenity of the area and providing improved park infrastructure.

The approval process undertaken was typical for works of this nature when being project management by a NT Government department. Council was involved throughout the design process and ensured that the design would provide the required outcome for the community, whilst still meeting the objectives of protecting properties from flooding.

Overall, this project has a net benefit to the community, with a significant reduction in flood affected properties and an improvement to this valuable public space.

The tree removal, although undesirable, was required in order to enable the works to mitigate the risk of flooding on private property from Council land, improving the safety and protection of people and infrastructure.

PAGE: 6
 REPORT NUMBER: 17CO0010 JW:hd
 SUBJECT: LUDMILLA CREEK FLOOD MITIGATION PROJECT – DWYER PARK

CONSULTATION PROCESS

The NTG were responsible for undertaking the community consultation for the flood mitigation project, including with key stakeholders and the general community. It appears that the detail of the number of trees to be removed as part of the works within Dwyer Park were not highlighted in the broader community consultation undertaken, given that the principle driver of the works was mitigating the risk of flooding to private properties, improving the safety and protection of people and infrastructure.

The NTG has recognised that flooding is intermittent and the Park's flood mitigation function is secondary to its primary function as public space and as such, has funded a significant upgrade to Dwyer Park to support its primary function.

While there has been significant cooperation between Council and NTG in progressing this project, it is recognised by both Council and NTG officers that where future projects are to be undertaken by the NTG that impact on City of Darwin land or infrastructure, the community consultation process for that project should be undertaken collaboratively between Council and the NTG, scaled to an appropriate level for each project.

This will ensure that residents have the necessary understanding of the scope of a project, and both positive and negative impacts of the desired objectives of the project.

In preparing this report, the following Internal Parties were consulted:

- Manager Infrastructure Maintenance
- Technical Officer, Parks

In preparing this report, the following External Parties were consulted:

- Department of Infrastructure, Planning and Logistics.

POLICY IMPLICATIONS

Nil identified.

BUDGET AND RESOURCE IMPLICATIONS

The total cost (funded by the NTG) of the Sadgroves Creek flood mitigation works cost (including Dwyer Park Works, Reichardt/Bennison Roads drain and Tiger Brennan Drive culverts) was \$4,625,000.

The Dwyer Park flood mitigation works cost \$210,000 of the overall project (including embankment earthworks, irrigation, topsoiling and footpaths).

PAGE: 7
 REPORT NUMBER: 17CO0010 JW:hd
 SUBJECT: LUDMILLA CREEK FLOOD MITIGATION PROJECT – DWYER PARK

A further \$250,000 of the total cost was for non-flood mitigation works in Dwyer Park (including irrigated trees and grass, exercise and playground equipment, and furniture). The NTG views this contribution as important as it is seeking to maintain the primary function of Dwyer Park as public space.

The total allocated to Dwyer Park by the NTG for all works is \$460,000.

The playground and shade were jointly funded by Council and the NTG as the playground was on Council's shade and playground refurbishment programs. Council's contribution to the playground and shade was \$50,000.

RISK/LEGAL/LEGISLATIVE IMPLICATIONS

If the flood mitigation works within Dwyer Park were not undertaken, there would remain a high risk of flooding to property in the Narrows resulting from a flow of stormwater from Council land. This introduces the risk of insurability issues for properties affected and potential liability for Council.

ENVIRONMENTAL IMPLICATIONS

The construction of the flood mitigation works within Dwyer Park has resulted in the loss of 26 out of a total of 91 (28%) trees. Of the 26 trees removed, only five of these were considered mature trees and of these five mature trees, two were Mahogany trees, identified as a public safety risk.

Every effort was made during the design process to retain existing trees, including those trees identified by traditional owners as having cultural significance. Approximately 33 new irrigated trees will be planted in Dwyer Park to replace the removed trees.

As the additional trees will be irrigated, it is likely that they will grow more quickly than the trees which were removed and increase the extent of shade within the park.

A Notice of Intent was submitted to the NT Environment Protection Authority in 2016 as part of the design process, with a determination of no further assessment required due to the limited nature of the works and that no threatened species were identified within the site.

An Asbestos Management Plan was implemented and audited regularly by the NTG and NTEPA, to manage the potential discovery of unexpected asbestos material, and a sediment control plan was put in place to manage sediment.

PAGE: 8
 REPORT NUMBER: 17CO0010 JW:hd
 SUBJECT: LUDMILLA CREEK FLOOD MITIGATION PROJECT – DWYER PARK

COUNCIL OFFICER CONFLICT OF INTEREST DECLARATION

We the Author and Approving Officers declare that we do not have a Conflict of Interest in relation to this matter.

DROSSO LELEKIS
MANAGER DESIGN,
DEVELOPMENT & PROJECTS

LUCCIO CERCARELLI
GENERAL MANAGER
CITY OPERATIONS

For enquiries, please contact James Whyte on 8930 0413 or email:
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Attachments:

Attachment A: Dwyer Park – Photographs of Flood Mitigation Works



Figure 01 – Dwyer Park Prior to Flood Mitigation Construction



Figure 02 – Dwyer Park Following Flood Mitigation Construction



Figure 03 – Dwyer Park Following Flood Mitigation Construction



Figure 04 – Dwyer Park Following Flood Mitigation Construction

OPEN SECTION

OPERATIONS10/9

City Operations Committee Meeting – Wednesday, 25 October 2017

10. INFORMATION ITEMS

Nil

11. QUESTIONS BY MEMBERS

12. GENERAL BUSINESS

13. CLOSURE OF MEETING