VML:MB
Vicki Lukritz
3810 6221

SPARE

5 October 207

Sir/Madam

You are advised that a meeting of the **INFRASTRUCTURE AND EMERGENCY MANAGEMENT COMMITTEE** will be held in the **Council Chambers** on the 2nd Floor of the Council Administration Building, 45 Roderick Street, Ipswich commencing at 1**0.30 am** ***or 10 minutes after the conclusion of the Arts and Community Development Committee, whichever is the earlier*** on **Monday, 9 October 2017**.

MEMBERS OF THE INFRASTRUCTURE AND EMERGENCY MANAGEMENT COMMITTEE	
Councillor Bromage **(Chairperson)** Councillor Silver **(Deputy Chairperson)**	Councillor Antoniolli **(Mayor)** Councillor Wendt **(Deputy Mayor)** Councillor Morrison Councillor Ireland

Yours faithfully

Gary Kellar
ACTING CHIEF EXECUTIVE OFFICER

INFRASTRUCTURE AND EMERGENCY MANAGEMENT COMMITTEE AGENDA

10.30 am *or 10 minutes after the conclusion of the Arts and Community Development Committee, whichever is the earlier* on **Monday,**
9 October 2017
Council Chambers

Item No.	Item Title	Officer
1	"Sealing Gravel Roads" Sub-Program	TO(T
2	Infrastructure Delivery Progress as at 22 September 2017	CFM
3	Queensland Manual of Uniform Traffic Control Devices	PE(IP)
4	Intelligent Transport Systems Strategy	E(TS)

INFRASTRUCTURE AND EMERGENCY MANAGEMENT COMMITTEE NO. 2017(01)

9 OCTOBER 2017

AGENDA

1. "SEALING GRAVEL ROADS" SUB-PROGRAM

With reference to a report by the Technical Officer (Traffic) dated 26 September 2017 regarding the "Sealing Gravel Roads" capital works portfolio sub-program.

RECOMMENDATION

A. That the contents of the report be received and noted.

B. That the prioritised list of projects as detailed in Attachment B to the report by the Technical Officer (Traffic) dated 26 September 2017 be considered when developing the "Sealing Gravel Roads" sub-program as part of the 2018–2019 capital works portfolio.

Report

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2. INFRASTRUCTURE DELIVERY PROGRESS AS AT 22 SEPTEMBER 2017

With reference to a report by the Commercial Finance Manager dated 22 September 2017 concerning the delivery of the 2017–2018 Infrastructure Services Capital Works Portfolio.

RECOMMENDATION

That the report be received and the contents noted.

Report

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3. QUEENSLAND MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES

With reference to a report by the Principal Engineer (Infrastructure Planning) dated 22 September 2017 concerning the Queensland Manual of Uniform Traffic Control Devices, and its application across the Ipswich City Council road network.

RECOMMENDATION

That the report be received and the contents noted.

Report

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4. INTELLIGENT TRANSPORT SYSTEMS STRATEGY

With reference to a report by the Engineer (Traffic Systems) dated 14 September 2017 concerning the development of the Intelligent Transport System Strategy.

RECOMMENDATION

A. That the development of the *Intelligent Transport Systems Strategy* commences and proceeds in accordance with the scope, methodology and governance arrangements outlined in the report by the Engineer (Traffic Systems) dated 14 September 2017.

B. That the Chief Operating Officer (Infrastructure Services) present future reports to the Infrastructure and Emergency Management Committee relating to key milestones in the development of the Intelligent Transport Systems Strategy.

Report

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and any other items as considered necessary.

Infrastructure and Emergency Management Committee	
Mtg Date: 09.10.17	OAR: YES
Authorisation: Charlie Dill	

DW:DW
A4391198

26 September 2017

M E M O R A N D U M

TO: INFRASTRUCTURE PLANNING MANAGER

FROM: TECHNICAL OFFICER (TRAFFIC)

RE: "SEALING GRAVEL ROADS" SUB-PROGRAM

INTRODUCTION:

This is a report by the Technical Officer (Traffic) dated 26 September 2017 regarding the "Sealing Gravel Roads" capital works portfolio sub-program.

BACKGROUND:

As part of the 2018–2019 capital portfolio build process, it is proposed to submit a report outlining the project listing for each sub-program. This report relates to the "Sealing Gravel Roads" sub-program. Table 1 below outlines the sub-program's that will have prioritised lists reported to Council with a status update.

Table 1 – Proposed Sub-Program Project Lists

Program	Sub-program	Project Lists	Status
Transport and Traffic	Strategic Transport	Strategic Roads	Submit to September 2017 CI&EM Committee
	Road Safety and Operations	SafeST	Submit to September 2017 CI&EM Committee
		Road Safety Improvements	Submitted to August 2017 CI&EM Committee
		Gravel Turnarounds	Submit to August 2017 CI&EM Committee
	Sustainable Travel	Public Transport Improvements	Submit to August 2017 CI&EM Committee
		Pedestrian Safety Improvements	Submitted to September 2017 CI&EM Committee
		Cycle Safety and Mobility Improvements	Submitted to August 2017 CI&EM Committee
Flood Mitigation and Drainage	Local Drainage	Local Drainage Improvements	Submit to September 2017 CI&EM Committee
Local Amenity	Sealing Gravel Roads	Sealing Gravel Roads	Submitted to October 2017 I&EM Committee

PREVIOUS CONSIDERATIONS:

At its Ordinary meeting on 10 November 2015, Council endorsed a methodology for assessing sealing gravel roads [refer to Item 8 tabled at the City Infrastructure Committee Meeting 2015(11)], as per Attachment A.

The previously developed methodology endorsed by Council has been used to prioritise future projects. It should however be noted that due to additional maintenance cost data being available, the road maintenance costs have been calculated over five (5) years in lieu of four (4) years. The full list of sealing gravel road projects for future years can be viewed in Attachment B, with the associated priority ranking.

FURTHER CONSIDERATIONS:

Although Riverside Drive, Pine Mountain is listed as Council's top priority project, it should be noted that safety along this road has been improved through the installation of a significant number of signs. In addition, improvements to drainage over the coming years. Riverside Drive is also a high cost project due to the existing curves and grades along the carriageway and the amount of work necessary to seal to current road design standards.

Currently the "Sealing of Gravel Roads" sub-program is supplemented with funds from the Division 10 Divisional Allocation sub-program. In the 2017–2018 budget $550,000 was allocated to this sub-program with an additional $250,000 allocated from the Division 10 Allocation. Given the vast majority of prioritised gravel roads for sealing are located in Division 10, and in particular those within the top ten (10) of the prioritised list, further

discussions have occurred with the Local Councillor. The Local Councillor has nominated the following projects as his preferred top five (5) priorities. This has also been reflected in Attachment B.

1. Borallon Station Road, Pine Mountain
2. Two Tree Hill Road, Tallegalla
3. Trowers Road, Pine Mountain
4. Waters Road, Calvert
5. Morgans Road, Purga

CONCLUSION:

"Sealing Gravel Roads" is a sub-program within Council's capital works portfolio. Council previously endorsed a methodology for assessing sealing of gravel roads which has been used to develop a list of priority projects. The priority list of projects for the "Sealing Gravel Roads" sub-program is shown in Attachment B of this report. It is proposed that this prioritised list of projects, including the Division 10 Councillor's preferred priorities, will be considered when developing the 'Sealing Gravel Roads' sub-program as part of the 2018–2019 capital works portfolio.

ATTACHMENTS:

Name of Attachment	Attachment
Report from City Infrastructure Committee No 2015(11) regarding the Sealing Gravel Road sub-program	Attachment A
Sealing Gravel Road – Prioritised project list	Attachment B

RECOMMENDATIONS:

A. That the contents of the report be received and noted.

B. That the prioritised list of projects as detailed in Attachment B to the report by the Technical Officer (Traffic) dated 26 September 2017 be considered when developing the "Sealing Gravel Roads" sub-program as part of the 2018–2019 capital works portfolio.

Dylan Wingfield
TECHNICAL OFFICER (TRAFFIC)

I concur with the recommendation contained in this report.

Tony Dileo
INFRASTRUCTURE PLANNING MANAGER

I concur with the recommendation contained in this report.

Charlie Dill
CHIEF OPERATING OFFICER (INFRASTRUCTURE SERVICES)

City Infrastructure Committee	
Mtg Date: 04.11.2015	OAR: YES
Authorisation: Charlie Dill	

WB:WB
H:\5-Infrastructure Planning\Infrastructure Planning Team\Committee Reports\Sealing of Gravel Roads Methodology.docx

ITEM 8

20 October 2015

M E M O R A N D U M

TO: INFRASTRUCTURE PLANNING MANAGER

FROM: SENIOR PROGRAM PLANNING OFFICER (ROADS)

RE: SEALING OF GRAVEL ROADS SUB- PROGRAM – PRIORITY LIST OF PROJECTS

INTRODUCTION:

This is a report by the Senior Program Planning Officer (Roads) dated 20 October 2015 concerning the Sealing of Gravel Roads capital works portfolio sub-program.

BACKGROUND:

As part of the 2016-2017 capital portfolio build process, it is proposed to submit a report outlining the prioritisation methodology and subsequent project listing for each sub-program. This report relates to the "Sealing of Gravel Roads" sub-program. Table 1 below outlines the sub-program's that will have prioritised lists reported to Council with a status update.

Table 1 – Proposed Sub-Program Project Lists

Program	Sub-program	Project Lists	Status
Transport	Growth Management	Strategic Roads	Submitted to September 2015 CI Committee
	Safety and Amenity	SafeST	Submitted to September 2015 CI Committee
		Road Safety Improvements	Submitted to July 2015 CI Committee
		Gravel Turnarounds	Submitted to August 2015 CI Committee

Program	Sub-program	Project Lists	Status
		Sealing Gravel Roads	Submitted to November 2015 CI Committee
	Sustainable Travel	Public Transport Improvements	Submitted to September 2015 CI Committee
		Pedestrian Safety Improvements	Submitted to August 2015 CI Committee
		Cycle Safety and Mobility Improvements	Submitted to July 2015 CI Committee
Drainage	Drainage	Local Drainage Improvements	Submitted to September 2015 CI Committee

PREVIOUS CONSIDERATIONS:

At its ordinary meeting on 22 July 2008, Council endorsed a methodology for assessing sealing of gravel roads with an associated prioritised project list, [refer to Item 3 tabled at City Works Committee Meeting 2008(07)], as per Attachment A.

The previously endorsed methodology has been used to develop sealing of gravel roads project lists where funds have been available. As part of the development of the 2016–2017 capital portfolio build, a re-evaluation of the previously endorsed methodology has been undertaken. The review has outlined that improvements can be made to the methodology to ensure each category is relevant and easily quantifiable.

PRIORITY LIST OF PROJECTS

The previous Council endorsed methodology, as show in Attachment A of this report, had eight main categories to determine prioritisation of projects. These have been reviewed individually, and below in Table 2 are comments on the significance of their continued use as assessment criteria.

Table 2– Previous Assessment Criteria

Assessment Category	Description	Relevance
Traffic Volumes	Volume of traffic using the road.	Still relevant.
Existing gravel depth	The actual depth of gravel existing on the carriageway.	Not relevant as an assessment category as this is considered during detailed design.
Geometric Safety	What is the existing road geometry and how this relates to existing standards.	Still relevant.
Drainage	What type of drainage does the existing carriageway have.	Still relevant.

Assessment Category	Description	Relevance
Maintenance Costs	This is the amount of maintenance dollars Council is spending on undertaking regular maintenance as per the desired standard of service agreement.	Still relevant.
Seal Costs	This is the cost per length of road to seal the carriageway.	Not relevant. During the initial investigation stage it is difficult to determine how much the carriageway would cost to seal until detailed investigations are undertaken and a design has been prepared.
Residential Accesses	The number of residential properties accessing the carriageway and others.	Still relevant.
Residences Affected	This relates to how many houses are located close to the road.	Not relevant. In the current methodology there is no defined distances to quantify this.

Given the large number of gravel roads within Ipswich and the ability to only seal one or two roads annually with available funding, it was determined to only assess roads that have gravel maintenance expenditure of $20,000 or above over the past 4 year period (August 2011 to July 2015). The Infrastructure Services Department have obtained the gravel maintenance expenditure for the listed roads from the Works, Parks and Recreation Department. It should be noted that some roads that qualify in this initial list will not be prioritised due to development of adjoining land whereby developers will be conditioned to upgrade the carriageway to relevant standards. These roads have been noted in the listing, however should not be considered for funding as part of Council's sealing of gravel roads sub-program.

As noted in Table 2, some of the original assessment criteria are still considered relevant and outlined below is the proposed methodology to determine the prioritised projects. There are four criteria that are considered when prioritising potential project sites. Each criteria has also been assigned a percentage weighting. These criteria and their assigned percentage weighting are listed and detailed below:

a) <u>Traffic Volumes – 20% weighting</u>

This factor is based on the volume of traffic on the carriageway. As the actual traffic volumes are not readily available for all of the roads listed, it has been assumed the traffic generation rates are calculated as 10 vehicle trips per day per dwelling.

Traffic Volumes	Rating
High (> 100)	10
Medium (> 50 and < 100)	5
Low (<50)	2

b) **Existing Maintenance Costs – 20% Weighting**

This factor is based on the actual maintenance cost Council is spending on the individual road over a 4 year period. A 4 year period has been considered appropriate to average out the costs rather than choosing an individual year of spend. The costs have then been used to calculate the maintenance cost per kilometre based on the length of road in the following way:

Maintenance cost (per km) = Cost / road length

Existing Maintenance Costs / km (over a 4 year period)	Rating
Very High (> $50k)	10
High (between $40k and $50k)	8
Medium (between $30k and $40k)	6
Low (between $20k and $30k)	3

c) **Ratio of Residential Properties over project length – Weighting 20%**

This criteria considers two important factors and their relationship. The number of residential properties is an important factor, however it should be considered even more important over the length of carriageway. As an example of this, there may be a very long stretch of carriageway but it may only service a small number of properties. And vica versa, a small length of road may service a high number of properties. Therefore this criteria has been determined by this relationship in the following way:

Ratio = length of road / number of residential properties

Ratio of Residential properties against road length	Rating
Very High (< 150)	10
High (between 150 and 300)	8
Medium (between 300 and 500)	6
Moderate (between 500 and 800)	4
Low (> 800)	2

d) **Known Drainage Problem – Weighting 10%**

Gravel roads experience overland drainage concerns and some roads can experience significant overflowing during and following rain events. In addition, some roads also present a safety risk to motorists due to drainage geometric issues associated with the design of the carriageway (e.g steep table drain).

Known Drainage Problem	Rating
Yes	10
No	0

e) Geometric Safety – 20%

This factor considers the geometric safety of the carriageway based on the existing road conditions such as whether the road has curves.

i) Combined vertical and horizontal curves – there are some roads that have a combination of both vertical and horizontal curves along the length that would be considered to increase hazards. These geometric conditions can be challenging for motorists to negotiate and the carriageway provides the perception the road or roadside objects are hazardous.

ii) horizontal or vertical curves – this rating considers horizontal or vertical curves that would be considered geometrically to increase hazards. The horizontal or vertical curves can provide the perception the road could be challenging to negotiate and can restrict motorist visibility.

iv) straight alignment – This rating is used for roads that have a relatively straight alignment where hazards to motorists are considered minimal.

Geometric Safety	Rating
Combined vertical and horizontal (carriageway has increased hazards, can be challenging to negotiate, potential for perceptional issues)	10
Horizontal or vertical curve (the individual curves can restrict motorist visibility and can be hazardous)	6
Straight alignment (minimal hazards)	0

f) Additional Traffic Generator – Weighting 10%

There are some roads that have additional traffic generators instead of just household trips. Traffic generators are facilities that would be considered to increase the number of vehicles using the carriageway. Examples of additional traffic generators are: private businesses, places of worship, recreational facilities etc.

Additional Traffic Generator	Rating
Yes	10
No	0

Based on the above methodology, each identified site has been provided an individual score under each category. Each category is then multiplied by the assigned percentage weighting to provide a weighted score. The weighted scores are added to provide an overall score. The sites that have the same priority rating will then further be prioritised based on the scores from the ratio of residential properties against road length. The sealing of gravel roads criteria matrix and the full list of projects and their priority ranking are shown in Attachment B.

It should be noted there are many roads in the priority list that are of a significant length. Therefore some of these roads may need to be broken into sections and delivered over a number of financial years based on their priority order for delivery.

CONCLUSION:

"Sealing of gravel roads" is a sub-program of Council's capital works portfolio. A list of priority projects have been developed based on the methodology of using the following four categories:

1. Traffic volumes;
2. Maintenance costs (over a 4 year period);
3. Ratio of residential properties against road length;
4. Additional traffic generator.

The priority listing for this sub-program is shown in Attachment B of this report.

ATTACHMENTS:

Name of Attachment	Attachment
Report from City Works Committee No 2008(04) on the Proposed Construction Program of Sealing Gravel Roads	 Attachment A
Sealing of Gravel Roads – Assessment Criteria Matrix and prioritised project list	 Attachment B

RECOMMENDATION:

A. That the prioritisation methodology for Sealing of Gravel Roads, as detailed in the report by the Senior Program Planning Officer (Roads) dated 20 October 2015, be adopted and used when developing the 2016–2017 Capital Works Portfolio.

B. That the prioritised list of projects, as detailed in Attachment B of the report by the Senior Program Planning Officer (Roads) dated 20 October 2015 be received and used when developing the Sealing of Gravel Roads sub-program as part of the 2016–2017 Capital Works Portfolio, subject to funding availability.

Wayne Barram
SENIOR PROGRAM PLANNING OFFICER (ROADS)

I concur with the recommendation contained in this report.

Tony Dileo
INFRASTRUCTURE PLANNING MANAGER

I concur with the recommendation contained in this report.

Charlie Dill
CHIEF OPERATING OFFICER (INFRASTRUCTURE SERVICES)

ATTACHMENT B - SEALING OF GRAVEL ROADS ASSESSMENT CRITERIA MATRIX AND PRIORITY LISTING

Traffic Volumes	Weighting	Existing Maintenance Costs (per km of road)	Weighting	Ratio of Residential Properties over road length	Weighting	Known Drainage Problem	Weighting	Geometric Safety	Weighting	Additional Traffic Generator	Weighting	Total
	20%		20%		20%		10%		20%		10%	100%
High	10	Very High	10	Very High	10	Yes	10	Combined Vertical / Horizontal curves	10	Yes	10	
Medium	5	High	8	High	8	No	0	Horizontal or vertical curve	6	No	0	
Low	2	Medium	6	Medium	6			Straight alignment	0			
		Low	3	Moderate	4							
				Low	2							

NOTE: In the case where sites have been given the same score, priority will be given to the site with the lowest score from the ratio of residential properties against road length.

Division	Project	Traffic Volumes	Weighted Score	Road Length (m)	Existing Maintenance Costs / km	Weighted Score	Number of Dwellings	Ratio of Residential Properties over road length	Weighted Score	Known Drainage Problem	Weighted Score	Geometric Safety	Weighted Score	Traffic Generator	Overall Score	Priority	Division 10 Councillor Preferred Priority	Notes
10	**Riverside Dr, Pine Mountain**	10	2	4000	10	2	22	8	1.6	10	1	10	2	10	9.6	1		Several businesses, access to Kholo Gardens
10	**Trowers Road, Pine Mountain**	10	2	750	10	2	12	10	2	0	0	6	1.2	10	8.2	2	3	Natural Therapies business
10	**Paynes Road, Ebenezer**	10	2	3400	10	2	13	8	1.6	10	1	0	0	10	7.6	3		Access to the motorsport precinct
10	**Stokes Road, Pine Mountain**	10	2	1500	6	1.2	9	10	2	0	0	6	1.2	10	7.4	4		Lot 330 Car Repair and Maintenance
10	**Woolshed Creek Road, Tallegalla**	10	2	2800	6	1.2	10	8	1.6	10	1	6	1.2	0	7	5		
10	**Borallon Station Road, Pine Mountain**	10	2	1770	8	1.6	12	10	2	0	0	6	1.2	0	6.8	6	1	

10	**Hodgsons Road, Walloon**	10	2	1200	8	1.6	10	10	2	0	0	6	1.2	0	6.8	6		
10	**Schumanns Road, Mt Marrow**	10	2	3160	6	1.2	11	8	1.6	0	0	10	2	0	6.8	6		
10	**Two Tree Hill Road, Tallegalla**	5	1	1500	10	2	6	8	1.6	0	0	6	1.2	10	6.8	6	2	Cemetery
10	**Cochranes Road, Tallegalla**	2	0.4	600	10	2	4	10	2	0	0	6	1.2	10	6.6	7		Fruit tree nursery business
10	**Piepers Road, Marburg**	2	0.4	300	10	2	2	10	2	0	0	6	1.2	10	6.6	7		
10	**Purga School Road, Purga**	10	2	700	8	1.6	12	10	2	0	0	0	0	10	6.6	7		Water cart business
10	**Reillys Road, Rosewood**	10	2	2250	10	2	12	8	1.6	10	1	0	0	0	6.6	7		
10	**Russells Road, Pine Mountain**	5	1	1000	8	1.6	6	8	1.6	0	0	6	1.2	10	6.4	8		Orchard & Agricultural Risk Consultant
10	**Freeman Road, Tallegalla**	2	0.4	800	10	2	3	8	1.6	0	0	6	1.2	10	6.2	9		Access to Historic Society railway and rail museum
10	**Embrey's Road, Ashwell**	5	1	1100	10	2	7	6	1.2	0	0	10	2	0	6.2	9		
10	**Embreys Road , Tallegalla**	10	2	2370	3	0.6	10	8	1.6	0	0	10	2	0	6.2	9		
10	**Greet Road, Ashwell**	5	1	1200	10	2	9	10	2	0	0	6	1.2	0	6.2	9		
10	**Morgans Road, Purga**	10	2	2400	8	1.6	10	8	1.6	0	0	0	0	10	6.2	9	5	
10	**Stevens Road, Purga**	10	2	1900	8	1.6	11	8	1.6	0	0	0	0	10	6.2	9		Trade business

10	**Greens Road, Purga**	5	1	1100	10	2	8	10	2	0	0	0	0	10	6	10		Gas fitting and plumbing business
10	**Hughes Road, Purga**	5	1	600	10	2	7	10	2	0	0	0	0	10	6	10		Road Haulage Company
10	**Humphrey's Road, Tallegalla**	2	0.4	500	10	2	2	8	1.6	10	1	0	0	10	6	10		
10	**Pine Mount Quarry Road, Pine Mountain**	5	1	2500	8	1.6	7	6	1.2	0	0	6	1.2	10	6	10		Manufacturing business
10	**Siddans Road, Purga**	5	1	500	10	2	6	10	2	0	0	0	0	10	6	10		Water truck business
10	**Champions Way, Willowbank**	2	0.4	1400	10	2	4	6	1.2	0	0	6	1.2	10	5.8	11		Willowbank Raceway
10	**Mt Flinders Road, Peak Crossing**	2	0.4	1700	10	2	1	2	0.4	10	1	10	2	0	5.8	11		
10	**Bluff Road, Ashwell**	2	0.4	1000	10	2	2	6	1.2	0	0	10	2	0	5.6	12		
10	**Cummings Road, Calvert**	5	1	2250	6	1.2	6	6	1.2	0	0	6	1.2	10	5.6	12		Calvert Station Harness Racing and Stud
10	**Sherlocks Road, Pine Mountain**	2	0.4	700	10	2	2	6	1.2	10	1	0	0	10	5.6	12		Factory fabricator business
10	**Butterfield Road, Karrabin**	5	1	600	8	1.6	7	10	2	0	0	0	0	10	5.6	12		Close to West Moreton Anglican College
10	**Durlik Road, Pine Mountain**	5	1	700	3	0.6	6	10	2	10	1	0	0	10	5.6	12		Digital printing and computer repairs business
10	**Hornbuckles West Road, Mt Mort**	5	1	900	3	0.6	6	10	2	0	0	10	2	0	5.6	12		
10	**Keanes Road, Rosewood**	5	1	1230	10	2	8	8	1.6	10	1	0	0	0	5.6	12		

10	**Boyles Road, Pine Mountain**	2	0.4	900	8	1.6	2	6	1.2	10	1	6	1.2	0	5.4	13		
10	**Kavanagh East Road, Thagoona**	5	1	1200	3	0.6	6	8	1.6	0	0	6	1.2	10	5.4	13		
10	**Marburg Quarry Road, Marburg**	5	1	880	6	1.2	7	10	2	0	0	6	1.2	0	5.4	13		
10	**Starks Road, Tallegalla**	5	1	790	6	1.2	6	10	2	0	0	6	1.2	0	5.4	13		
10	**Mountain Scrub Road, Tallegalla**	2	0.4	1980	8	1.6	4	6	1.2	10	1	0	0	10	5.2	14		Soil stabilisation services and plant nursery business
10	**Ellison Road, Goolman**	5	1	1600	3	0.6	6	8	1.6	0	0	10	2	0	5.2	14		
5	**Francis Street, Chuwar**	5	1	1900	8	1.6	8	8	1.6	0	0	0	0	10	5.2	14		Colliery and Energex substation
10	**Ivy Hansens Road, Tallegalla**	5	1	1800	8	1.6	7	8	1.6	0	0	0	0	10	5.2	14		Hatchery Business
10	**Laglan Lane, Tallegalla**	5	1	880	8	1.6	5	8	1.6	10	1	0	0	0	5.2	14		
10	**Missigs Road, Haigslea**	10	2	2600	3	0.6	17	8	1.6	0	0	0	0	10	5.2	14		2 Businesses. Rahn holdings and drilling supplies
10	**Postmans Track, Marburg**	10	2	2800	8	1.6	14	8	1.6	0	0	0	0	0	5.2	14		
10	**Archery Road, Calvert**	5	1	500	10	2	6	10	2	0	0	0	0	0	5	15		
10	**Ivan Lane, Ironbark**	2	0.4	800	10	2	3	8	1.6	10	1	0	0	0	5	15		
10	**Waters Road, Calvert**	2	0.4	2000	10	2	2	2	0.4	10	1	6	1.2	0	5	15	4	

10	**Earls Road, Marburg**	2	0.4	500	10	2	1	6	1.2	0	0	6	1.2	0	4.8	16		
10	**Lairhopes Road, Ebenezer**	5	1	1300	6	1.2	7	8	1.6	0	0	0	0	10	4.8	16		Department of Transport and Main Roads Depot
10	**Park Road, Grandchester**	5	1	800	3	0.6	8	10	2	0	0	6	1.2	0	4.8	16		
10	**Greys Plains Road, Mt Walker**	2	0.4	3000	8	1.6	3	2	0.4	10	1	6	1.2	0	4.6	17		
10	**Hiddenvale Road, Calvert**	5	1	3150	6	1.2	8	6	1.2	0	0	6	1.2	0	4.6	17		
10	**Perrins Road, Rosewood**	5	1	1600	6	1.2	5	6	1.2	0	0	6	1.2	0	4.6	17		
10	**Bakers Road, Grandchester**	5	1	2000	10	2	8	8	1.6	0	0	0	0	0	4.6	17		
10	**Berlins Road, Tallegalla**	5	1	2300	10	2	9	8	1.6	0	0	0	0	0	4.6	17		
10	**Brass Road, Mt Forbes**	10	2	1350	3	0.6	13	10	2	0	0	0	0	0	4.6	17		
10	**Hedricks Road, Mt Forbes**	5	1	900	8	1.6	9	10	2	0	0	0	0	0	4.6	17		
10	**Turnbull Road, Thagoona**	10	2	1000	3	0.6	10	10	2	0	0	0	0	0	4.6	17		
10	**Pepper Lane, Pine Mountain**	2	0.4	300	10	2	4	10	2	0	0	0	0	0	4.4	18		
10	**Stokes Road, Grandchester**	2	0.4	300	10	2	3	10	2	0	0	0	0	0	4.4	18		
10	**Coach Lane, Ironbark**	2	0.4	650	6	1.2	3	8	1.6	10	1	0	0	0	4.2	19		

10	**Coramandel Road, Ironbark**	5	1	950	6	1.2	7	10	2	0	0	0	0	0	4.2	19		
10	**Howell Road, Grandchester**	5	1	700	6	1.2	6	10	2	0	0	0	0	0	4.2	19		
10	**Johs Road, Lower Mount Walker**	5	1	1800	8	1.6	7	8	1.6	0	0	0	0	0	4.2	19		
10	**McCarthys Road, Thagoona**	5	1	1800	8	1.6	7	8	1.6	0	0	0	0	0	4.2	19		
10	**Mt Beau Brummel Road, Mt Mort**	2	0.4	890	6	1.2	1	2	0.4	10	1	6	1.2	0	4.2	19		
10	**Schubels Road, Marburg**	5	1	1800	8	1.6	9	8	1.6	0	0	0	0	0	4.2	19		
10	**Strongs Road, Lanefield**	2	0.4	1500	10	2	2	4	0.8	10	1	0	0	0	4.2	19		
10	**Teves Road, Ebenezer**	2	0.4	500	10	2	3	8	1.6	0	0	0	0	0	4	20		
10	**Bodley Road, Karrabin**	5	1	930	6	1.2	6	8	1.6	0	0	0	0	0	3.8	21		
10	**F.Holts Road, Pine Mountain**	5	1	1600	6	1.2	9	8	1.6	0	0	0	0	0	3.8	21		
10	**Franklyn Vale Road, Mt Mort**	2	0.4	800	6	1.2	2	6	1.2	10	1	0	0	0	3.8	21		
10	**M.Hines Road, Ebenezer**	5	1	1300	6	1.2	5	8	1.6	0	0	0	0	0	3.8	21		
10	**Grandchester-Mt Mort Road, Mt Mort**	2	0.4	1500	10	2	3	2	0.4	10	1	0	0	0	3.8	21		
10	**Coynes Road, Mt Mort**	2	0.4	960	3	0.6	2	4	0.8	0	0	10	2	0	3.8	21		

10	**Bourkes West Road, Calvert**	2	0.4	900	10	2	2	6	1.2	0	0	0	0	0	3.6	22		
10	**Doonans Road, Grandchester**	5	1	3300	3	0.6	5	4	0.8	0	0	6	1.2	0	3.6	22		
10	**Gordon Road, Grandchester**	5	1	850	3	0.6	8	10	2	0	0	0	0	0	3.6	22		
10	**Jacobs Road, Mt Forbes**	2	0.4	1000	8	1.6	4	8	1.6	0	0	0	0	0	3.6	22		
10	**Kings Road, Mt Mort**	2	0.4	725	10	2	2	6	1.2	0	0	0	0	0	3.6	22		
10	**Kuss Road, Calvert**	2	0.4	1485	10	2	4	6	1.2	0	0	0	0	0	3.6	22		
10	**McGuires Hut Road, South Ripley**	2	0.4	1100	8	1.6	4	8	1.6	0	0	0	0	0	3.6	22		
10	**Redhill Road, Karrabin**	2	0.4	1300	10	2	3	6	1.2	0	0	0	0	0	3.6	22		
10	**Alpers Road, Mt Mort**	5	1	3200	8	1.6	5	4	0.8	0	0	0	0	0	3.4	23		
10	**Henderson Road, Lanefield**	5	1	2800	6	1.2	8	6	1.2	0	0	0	0	0	3.4	23		
10	**M.Hines Road, Mt Forbes**	5	1	2500	0	0	8	6	1.2	0	0	6	1.2	0	3.4	23		
10	**Stirling Road, Walloon**	2	0.4	1900	3	0.6	2	2	0.4	0	0	10	2	0	3.4	23		
10	**Grants Road, Lower Mount Walker**	5	1	1200	3	0.6	6	8	1.6	0	0	0	0	0	3.2	24		
10	**Grieves Road, Haigslea**	2	0.4	1000	6	1.2	4	8	1.6	0	0	0	0	0	3.2	24		

10	**McCormack Road, Lower Mount Walker**	2	0.4	600	10	2	1	4	0.8	0	0	0	0	0	3.2	24		
10	**Huth Road, Ironbark**	5	1	1900	3	0.6	6	6	1.2	0	0	0	0	0	2.8	25		
10	**Langdon Road, Rosewood**	2	0.4	1500	6	1.2	4	6	1.2	0	0	0	0	0	2.8	25		
10	**Lubes Road, Purga**	5	1	2200	3	0.6	5	6	1.2	0	0	0	0	0	2.8	25		
10	**Hodges Road, Mt Mort**	2	0.4	2000	10	2	2	2	0.4	0	0	0	0	0	2.8	25		
10	**Bramwell Road, Calvert**	2	0.4	1000	3	0.6	4	8	1.6	0	0	0	0	0	2.6	26		
10	**Glen Cairn Road, Purga**	2	0.4	800	3	0.6	3	8	1.6	0	0	0	0	0	2.6	26		
10	**Higgs Road, Ebenezer**	2	0.4	700	3	0.6	4	8	1.6	0	0	0	0	0	2.6	26		
10	**Poplar Street, Walloon**	5	1	1100	0	0	7	8	1.6	0	0	0	0	0	2.6	26		
10	**Bassett Road, Ashwell**	2	0.4	1000	8	1.6	1	2	0.4	0	0	0	0	0	2.4	27		
10	**Blanchs Road, Lower Mount Walker**	2	0.4	1800	3	0.6	1	2	0.4	10	1	0	0	0	2.4	27		
5	**Robin Streetreet, Chuwar**	2	0.4	1000	8	1.6	1	2	0.4	0	0	0	0	0	2.4	27		
10	**Sippels Road, Grandchester**	2	0.4	2100	6	1.2	4	4	0.8	0	0	0	0	0	2.4	27		
9	**Patrick Street, Swanbank**	2	0.4	1300	0	0	2	4	0.8	0	0	0	0	10	2.2	28		Substation

10	**Carmichaels Road, Purga**	2	0.4	1700	6	1.2	2	2	0.4	0	0	0	0	0	2	29		
10	**Hartwigs Road, Mt Forbes**	2	0.4	1700	0	0	2	2	0.4	0	0	6	1.2	0	2	29		
10	**Hornbuckles Road, Calvert**	2	0.4	2800	6	1.2	2	2	0.4	0	0	0	0	0	2	29		
10	**Murrimo Road, Ebenezer**	2	0.4	1500	3	0.6	2	4	0.8	0	0	0	0	0	1.8	30		
10	**Meiers Road, Mt Mort**	2	0.4	1500	0	0	2	4	0.8	0	0	0	0	0	1.2	31		
10	***Bryants Road, Ripley***																	*Maintenance cost is over $20,00 over 5 years, however road will be upgraded due to adjoining development*
10	***Binnies Road, Ripley***																	*Maintenance cost is over $20,00 over 5 years, however road will be upgraded due to adjoining development*
10	***Fischer Road, Ripley***																	*Maintenance cost is over $20,00 over 5 years, however road will be upgraded due to adjoining development*
10	***Wensley Road, Ripley***																	*Maintenance cost is over $20,00 over 5 years, however road will be upgraded due to adjoining development*
10	***Barrams Road, South Ripley***																	*Maintenance cost is over $20,00 over 5 years, however road will be upgraded due to adjoining development*
10	***Bayliss Road, South Ripley***																	*Maintenance cost is over $20,00 over 5 years, however road will be upgraded due to adjoining development*
10	***Wards Road, South Ripley***																	*Maintenance cost is over $20,00 over 5 years, however road will be upgraded due to adjoining development*

10	***Watsons Road, South Ripley***																	*Maintenance cost is over $20,00 over 5 years, however road will be upgraded due to adjoining development*
10	***Taylors Road, Walloon***																	*Maintenance cost is over $20,00 over 5 years, however road will be upgraded due to adjoining development*
9	***School Road, Redbank Plains***																	*Maintenance cost is over $20,00 over 5 years, however road will be upgraded due to adjoining development*

Infrastructure and Emergency Management Committee	
Mtg Date: 09.10.17	OAR: YES
Authorisation: Charlie Dill	

EG:DH
22 September 2017

M E M O R A N D U M

TO: CHIEF OPERATING OFFICER (INFRASTRUCTURE SERVICES)

FROM: COMMERCIAL FINANCE MANAGER

RE: INFRASTRUCTURE DELIVERY PROGRESS AS AT 22 SEPTEMBER 2017

INTRODUCTION:

This is a report by the Commercial Finance Manager dated 22 September 2017 concerning the delivery of the 2017–2018 Infrastructure Services Capital Works Portfolio.

BACKGROUND:

The Infrastructure Services (IS) Department is responsible for the planning and delivery of the city's transport and municipal capital infrastructure. The IS Monthly Activity Report (Attachment A) is for the month of September as of 22 September 2017.

CONCLUSION:

The IS Monthly Activity Report provides a status on the delivery of the Capital Works Portfolio, progress update on key capital projects and community affairs.

ATTACHMENT/S:

Name of Attachment	Attachment
Infrastructure Services Activity Report for IEM September 2017	Attachment A

RECOMMENDATION:

That the report be received and the contents noted.

David Hillman
COMMERICAL FINANCE MANAGER

I concur with the recommendation contained in this report.

Charlie Dill
CHIEF OPERATING OFFICER (INFRASTRUCTURE SERVICES)

Infrastructure Services

Monthly Activity Report
September 2017
Presented by Charlie Dill

Ipswich.qld.gov.au

City of Ipswich

Table of Contents

Glossary of Terms

Term / Acronym	Description
CO	Financial carry-over from previous financial year
EOFY	End of Financial Year
FFC	Forecast Final Cost
FY	Financial Year
FYTD	Financial Year to Date
IS	Infrastructure Services Department

Introduction

Council's Department of Infrastructure Services (IS) is the lead service provider in the Ipswich community for the planning and delivery of the city's transport and municipal capital infrastructure. This includes Strategic Transport and Investment Planning, Program Development, Traffic Engineering & Road Safety Advice, Program Management, Design and Survey, Procurement, Project Management and Construction.

The IS Department's activities are delivered through its four (4) Branches:

- Infrastructure Planning, comprising of:
  - Transport Planning
  - Infrastructure Planning
  - Management of Customer Service Requests related to transport, traffic and local drainage
  - Manage and operate the traffic signal network and intelligent transport systems
- Program Management & Technical Services, comprising of:
  - Program Management and Coordination Section (Pre-Tender Management)
  - Technical Services Section (Design, Survey, Geotech)
- Construction, comprising of:
  - Transport Delivery
  - Municipal Works Delivery (Open Space, Drainage, Facilities, Divisional works)
- Business Support
  - Cost Management
  - Procurement
  - Performance and Control

This monthly activity report, dated 22 September 2017, provides a status of Infrastructure Services key activities for the 2017-2018 Infrastructure Services Capital Works Portfolio.

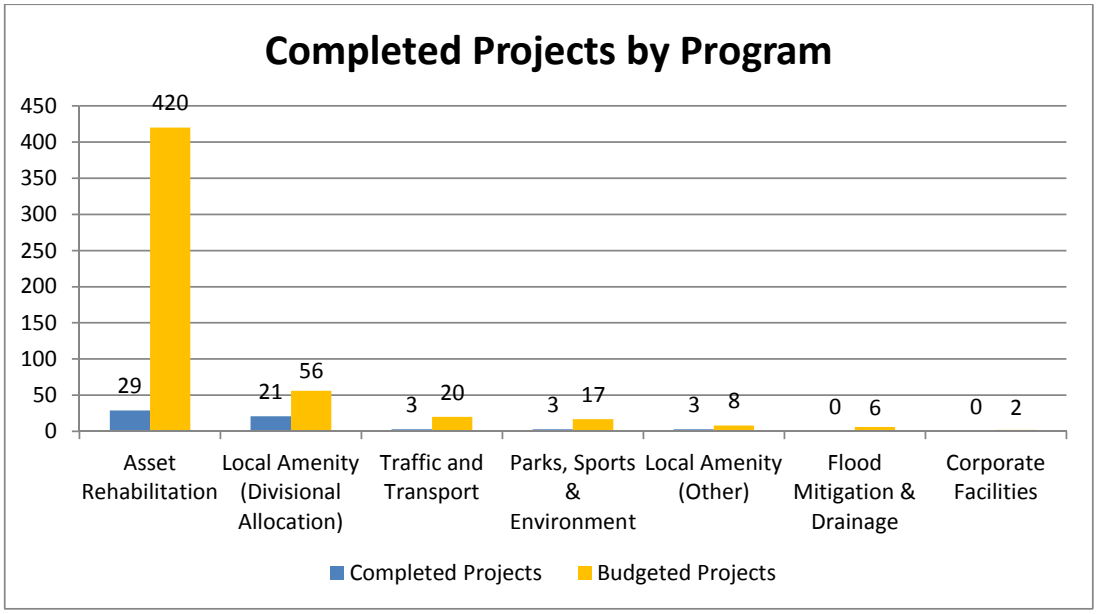
"Trusted Advisor to Council for Infrastructure Planning, Design and Delivery"

Capital Portfolio

Progress Summary

The 2017-2018 Portfolio performed well against the Master Schedule for the period. IS has completed 59 projects financial year to date out of approximately 529 projects. This includes all the reseal projects for delivery in 2017-2018.

There are 19 projects carried over from the 2016-2017 financial year to be completed this financial year. Nine (9) carryover projects have been completed. Six (6) projects are planned to be completed by October 2017, a further two (2) by December 2017 and the remaining two (2) by March 2018. The carryover projects scheduled to finish by March 2018 were deferred projects that will span calendar years.



Cost Summary

The Budget Amendment BAv1 was adopted in September 2017 and the 'IS Deliverable' Budget has increased by $9.6 million to $83.9 million. The increase was due to the incorporation of carryover projects from 2016-2017 FY. The Financial Year to Date (FYTD) cost is $11.1 million.

Planning

The recommended actions outlined in iGO continue to be progressed; including strategy and policy development, investment and corridor planning, grant applications, project scoping and feasibility and provision of transport and traffic advice.

Springfield Parkway Planning Study – In progress (iGO Action R2). The road corridor planning study for the upgrade of Springfield Parkway between Old Logan Road and the Centenary Highway to four (4) lanes will commence in October 2017.

Goodna Roundabout Planning Study – In progress (iGO Action R2). Project analyses potential short to long term upgrade options which improve the intersection's traffic operations during peak hours (queuing and delays) and improves pedestrian safety and mobility when crossing approach roads of the intersection. Consultation with the Divisional Councillor will commence in the coming months.

iGO Risk Management Strategy – Complete (iGO Action D12). Outcomes to be reported to Council late 2017.

iGO Public Transport Advocacy & Action Plan – In progress (iGO Action PT7). This project will identify short, medium and long term improvements to the future public transport system and advocacy strategies. Procurement of a consultant and the inception meeting has been completed.

iGO Parking Pricing Strategy – Commencement pending (iGO Action P6). Project scope and methodology being confirmed with commencement in late 2017. The project will identify short, medium and long term pricing actions; technologies, zones, pricing models, etc. to effectively manage short and long stay parking arrangement in the Ipswich City Centre.

iGO Active Transport Action Plan Implementation – In progress (iGO ATAP Action 1.1, 1.2 and 2.2). Detailed design for the approved projects will commence late 2017. Citywide priority locations for the program were reported to Council and approved in September 2017 and subsequently project identification of the 2018-2019 projects is in progress.

TMR Cycle Network Local Government Grants – Commenced (iGO ATAP Action 1.3). Early grant project identification has commenced.

Ipswich Central to Gailes Cyclist Wayfinding Signage – Commencement pending (iGO ATAP Action 6.4). Project was successful in securing 50/50 principal cycle network design funding from the State government and will commence detail design in February 2018.

Annual Strategic Traffic Count Program – Commenced (iGO Action TDM4). Project comprises the gathering of traffic data from approximately 100 locations across Council's major road network during the months of October/November. Procurement for a consultant has been completed with the program to commence on 4 October 2017 for Groups 1 and 2.

Community

- Land acquisition negotiations are ongoing for the following projects:
    - Blackstone and South Station
    - Brisbane Street West
    - Marsden Parade realignment
- Discussions with property owners affected by the Goodna Creek Bikeway will commence soon.
- Ongoing consultation efforts to support the following projects:
    - Redbank Plains Road Upgrade Stage 2
    - Sports Field Lighting Programs 2016-2017
    - Ipswich Cycle Park
    - Sandra Nolan Project

Opening/Media Events

The Queensland State Miner's Memorial Service was held in Redbank Plains on 19 September 2017. Council constructed the memorial for the Department of Natural Resources and Mines.

Media Releases/Articles Published

None for the period.

Schedule

Key Capital Project Updates

Springfield Central Library – Design works on the internal layout and preparation of detailed design is progressing. Resolution to the external façade Concept is progressing in preparation to circulate to Stakeholders.

Rosewood Library – Approval is underway for the external Concept for the building and preparation for submission of the Development Application for the works.

Redbank Plains Road – Stage 2 – Asphalt and line-marking works are close to completion. Installation of the traffic signals at Frawley Drive has commenced and is due for commissioning early October 2017. Fencing works are close to completion and landscaping works on the adjoining streets has commenced. It is anticipated that works will reach practical completion in October 2017.

Ipswich Cycle Park (Briggs Road Sporting Complex / Criterium Track - Stage 1) – Tender Evaluation is complete and contract issued to preferred tenderer for signing. Construction is expected to commence in October 2017.

Road Resurfacing Program – Scoping of Division 8, 9 and 10 is complete and designs are progressing. Construction for Divisions 8, 9 and 10 are expected to commence in November 2017. Scoping on Divisions 7 and 6 are underway.

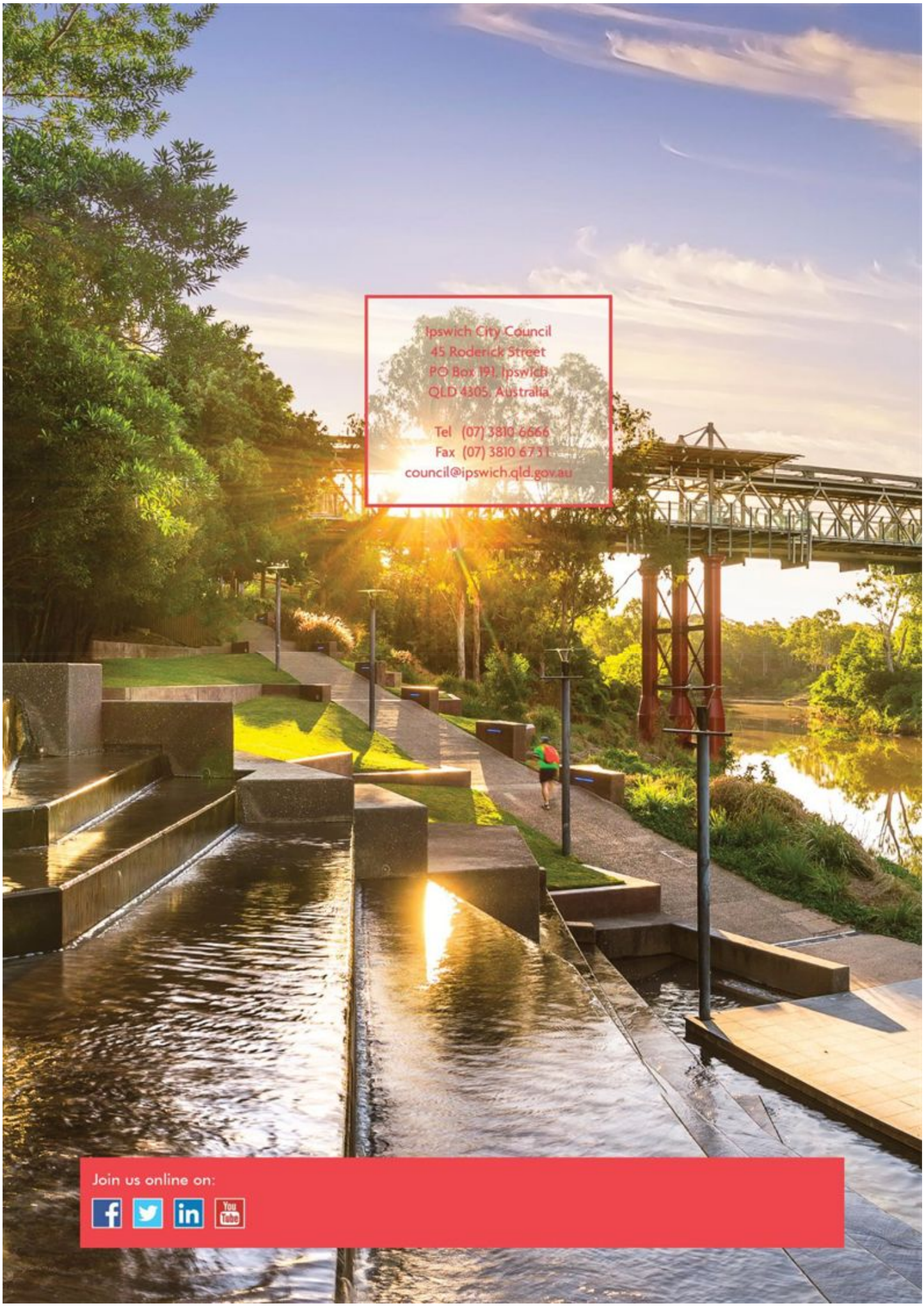
Kerb & Channel Program – The 2017-2018 Program is progressing well, with Waghorn Street completed this period. Barclay Street is scheduled to commence mid-October 2017 and Child Street to commence in November 2017. The procurement process is now complete for Franklin, Pat, Roy and McMillian Streets with the construction commencement dates for McMillan being late October / early November 2017 and Franklin, Pat and Roy commencing in February 2018. Procurement has commenced for kerb and channel forward design with 23 projects issued for pricing.

Drainage Program – The key projects of Barclay Street Detention Basin and Sandra Nolan Drainage Channel are progressing well and due for completion in October 2017.

2016-2017 Sports Field Lighting Program – Evan Margison and George & Eileen Hastings Park were completed in September 2017. Works are continuing for Camira Recreation Park, with scheduled completion late September 2017. Richardson Park is scheduled to commence early October 2017 with completion expected early December 2017.

Strategic Roads Program – Key projects:

- Detail designs for Brisbane Street West Ipswich and Old Toowoomba Road, Leichhardt are waiting for Service Authorities to submit their final designs, before design sign-off can occur.
- Blackstone/South Station Roads intersection upgrade property acquisitions are on track to be completed by late October with service relocations to follow. Communication to local residents will commence shortly.
- The following key projects for delivery in 2018-2019 FY are scheduled for detailed design this FY Redbank Plains Stage 3, Marsden Parade realignment and Deebing Creek Bikeway Stage 1.



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Join us online on:

Infrastructure and Emergency Management Committee	
Mtg Date: 09.10.17	OAR: YES
Authorisation: Charlie Dill	

MT:MT
H:\5-Infrastructure Planning\Infrastructure Planning Team\Committee Reports\MUTCD.docx

22 September 2017

M E M O R A N D U M

TO: INFRASTRUCTURE PLANNING MANAGER

FROM: PRINCIPAL ENGINEER (INFRASTRUCTURE PLANNING)

RE: QUEENSLAND MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES

INTRODUCTION:

This is a report by the Principal Engineer (Infrastructure Planning) dated 22 September 2017 concerning the Queensland Manual of Uniform Traffic Control Devices, and its application across the Ipswich City Council road network.

BACKGROUND:

The *Transport Operations (Road Use Management) Act 1995* (TORUM) is the State legislation which specifies road management and other transport related matters across Queensland. The objectives of TORUM are outlined, but not limited, to the following:

i) Ensure the effective and efficient management of road use across the State;
ii) Promote the effective and efficient movement of people, goods and services;
iii) Promote the effective management of road infrastructure;
iv) Improve road safety and environmental impact of road use contributing to transport effectiveness and efficiency;
v) Provide for effective and efficient management of vehicle use in a public place.

It should be noted that TORUM binds everyone within the State of Queensland, including every government entity, contractors and consultants. This application across the State ensures consistency is maintained across the entire road network.

TORUM states that "*An official sign must be installed in a way specified by the Queensland Manual of Traffic Control Devices (MUTCD)*". The MUTCD contains the design of, the

methods, standards and procedures in relation to every traffic control device (i.e sign, signal, marking, light or other device) installed on a road. There are currently 15 supplements contained in the Queensland MUTCD and these provide further guidance or requirements on application within a Queensland road.

APPLICATION OF THE MUTCD:

The installation of signs, pavement markings, signals or any other traffic control device within a road are an essential part of the road traffic system. Their effectiveness comes from their uniformity (standardisation of shape, colour and messages), and consistency of their application. This is followed for the purpose of regulating, warning or guiding road users. It should be noted that this is fundamental, and this consistency of application and uniformity of design facilitates immediate identification and appropriate behaviour by the road user.

When traffic control devices are installed in accordance with the MUTCD, by a public authority or an official body having the necessary jurisdiction, there are three (3) key terms used. These terms and their definitions are, as noted below:

Shall – the installation as specified is mandatory.
Where certain requirements in the design or application of the device are described with the 'shall' stipulation, it is mandatory that when an installation is made, these requirements be met;

Should – the installation as specified is recommended.
Where the word 'should' is used, it is considered to be recommended usage, but not mandatory. Any recommendation that is not applied must be based on sound traffic engineering judgement and documented;

May – the installation as specified is optional.
Where the word 'may' is used, it indicates that usage of the device is conditional, or optional. Usually, no specific requirement for design or application is intended.

Therefore, when consideration is being given to the installation of a traffic control device on the road network anywhere in Queensland, it must be assessed in accordance with the MUTCD and its application in accordance with the terms and definitions indicated.

Furthermore, it should be noted that the majority of traffic control devices have an associated 'shall' or 'should' recommendation. The 'may' recommendation is usually restricted to supplementing a 'shall' or 'should' recommendation (e.g a give way sign may be repeated on a median island to improve visibility of the intersection priority).

Just as road users are required by law to comply with traffic control devices, the TORUM Act outlines that official traffic control devices shall be installed by the authority of the Director General, Transport and Main Roads or a local government all in accordance with the MUTCD. Whenever a regulatory sign or device is erected, removed or changed it is necessary to record the decision to use in any prosecutions or litigation. For Council this is undertaken through the Infrastructure Services Department who is Council's accountable department

for the assessment and implementation approvals, all through the Regulatory Traffic and Parking Signs Delegation process. Currently for the Regulatory Traffic and Parking Signs Delegation process, the following positions have the necessary Council delegations to assess and implement any requirements:

i) Chief Operating Officer (Infrastructure Services);
ii) Infrastructure Planning Manager;
iii) Principal Engineer (Infrastructure Planning).

There are also many instances that signs or devices are requested to be considered for installation within road reserves that are not in accordance with the MUTCD and are therefore considered to be non standard (i.e suburb signs, information signs or other advisory signs). Infrastructure Services is the advisory Department for installation of any non-standard signs or devices within the road reserve. There are also many engineering factors that require assessment (e.g will any non-standard sign distract drivers, or will a non-standard proposal conflict with MUTCD recommendations).

NATIONAL HARMONISATION:

It should be noted the Queensland MUTCD is derived from the Australian Standard AS1742-MUTCD. There is a current effort to ensure traffic control devices are uniform and consistently applied, not only across the State, but also nation wide. As a result, the Queensland Department of Transport and Main Roads (TMR) are adopting the Australian Standard AS1742-MUTCD as part of a process called 'national harmonisation'.

The harmonisation towards a national MUTCD has commenced and it is currently being carried out in stages. The proposed completion of the harmonisation is due by late 2018, and this will be a positive step towards maintaining consistency across the nation.

CONCLUSION:

The Queensland Manual of Uniform Traffic Control Devices (MUTCD) is used across the State to ensure uniformity and to maintain consistency of application across all road networks. The use of the MUTCD is legislated within the *Transport Operations (Road Use Management) Act 1995* (TORUM). There are three (3) legislative conditions that are followed when assessment is made on application of traffic control devices; namely 'shall', 'should' and 'may'. In an effort to maintain consistency of application across the nation, there is a staged transition between the existing Queensland MUTCD to an Australian Standard MUTCD which is currently proposed to be implemented by the end of 2018.

RECOMMENDATIONS:

That the report be received and the contents noted.

Mary Torres
PRINCIPAL ENGINEER (INFRASTRUCTURE PLANNING)

I concur with the recommendation contained in this report.

Tony Dileo
INFRASTRUCTURE PLANNING MANAGER

I concur with the recommendation contained in this report.

Charlie Dill
CHIEF OPERATING OFFICER (INFRASTRUCTURE SERVICES)

Infrastructure & Emergency Management Committee	
Mtg Date: 09/10/2017	OAR: YES
Authorisation: Charlie Dill	

14 September 2017

M E M O R A N D U M

TO: CHIEF OPERATING OFFICER (INFRASTRUCTURE SERVICES)

FROM: ENGINEER (TRAFFIC SYSTEMS)

RE: INTELLIGENT TRANSPORT SYSTEMS STRATEGY

INTRODUCTION:

This is a report by the Engineer (Traffic Systems) dated 14 September 2017 concerning the development of the *Intelligent Transport System Strategy*.

BACKGROUND:

In May 2016, Council adopted the *iGO City of Ipswich Transport Plan.* It is used to:

(i) **Guide** transport related policy, planning, investment and resourcing decisions;
(ii) **Advocate** for funding from higher levels of government for transport initiatives; and
(iii) **Promote** travel choices and a sustainable and healthy transport culture.

The iGO delivery structure (refer Figure 1 over) includes the development and implementation of a number of detailed network action plans relating to the following transport elements:

- Active Transport (endorsed by Council in November 2016);
- Public Transport;
- Road Safety;
- Parking;
- Freight;
- Direction Signs; and
- Local Area Traffic Management

FIGURE 1
iGO DELIVERY STRUCTURE

A key policy focus of the plan is to support and enable technology and transport infrastructure innovations. The plan also encourages the embracing of technology and partnerships to drive efficiency, promote sustainability and improve safety. This has led to the consideration for the development of an Intelligent Transport Systems Strategy.

INTELLIGENT TRANSPORT SYSTEMS:

Advancement in technology will continue to influence the way decisions are made, the way we go about our day and improve the way in which we live. Transport is no exception with technology and the transport industry making significant progress in the way in which we travel between destinations.

Intelligent Transport Systems (ITS) has been defined by ITS Australia as “the application of modern computer and communication technologies to transport systems, to increase efficiency, reduce pollution and other environmental effects of transport and to increase the safety of the travelling public.”

ITS apply advanced technology to:

- Integrate all aspects of direct transport modes (rail, road, air and sea) into one integrated transport system;
- Attain improved traffic efficiency and reduced congestion;
- Control traffic movements;
- Inform drivers and operators of vehicles about traffic and road conditions and availability of services;
- Efficiently operate public transport;
- Automate payment of road use charges;
- Aid management of emergencies and incidents;
- Operate commercial fleets and freight interchanges; and
- Link with vehicle control systems to allow vehicles to detect hazards and communicate with drivers to improve public safety.

Technology growth is changing the landscape of the transport network. Whilst modern computer and communications technologies are being applied to new vehicles, the transport network falls behind in technology advancement. It is therefore important for road network managers to be planning and implementing new technologies to keep up-to-date with industry and best practice. It is therefore proposed to develop an ITS Strategy so that Council as road managers can increase safety and travel efficiency through the implementation of modern technology to the transport system.

In addition, an ITS Strategy would support Council's Smart City Program. The Smart City Program is used to:

(i) **Drive innovation**: embark on a bold, ambitious plan to become Australia's most liveable, prosperous and Smart City – live it, see it, be part of it;
(ii) **Build knowledge:** go beyond digital technology embracing new ways of working, learning and living to transform into a truly connected community, full of ideas, energy and innovation; and
(iii) **Promote investment:** as we look for the like-minded to help us bring our Smart City vision to life.

One of the Smart City Priority Initiatives is *Connected Transport* and the challenge is to make travel simple and safe for our community. The initiative aims to create an intelligent transport system focusing on connected and potentially autonomous vehicles. It also establishes Ipswich as a preferred testbed for intelligent transportation innovation in relation to different modes of transport and traffic management.

SCOPE:

The ITS Strategy will take the outcomes and messages from both iGO and Smart City to provide further information to guide Council's strategic direction and investment decision making. The proposed scope of the strategy is outlined below.

FIGURE 2
Project Scope Areas

Traffic & Transport Management Systems

These systems deploy ITS technology in projects that endeavour to reduce traffic congestion and enhance safety. The technology is applied to traffic signalling systems, traffic safety and route and congestion management.

Electronic Fee Collection Systems

To provide a cost effective way of collection of transport related charges. These systems deploy ITS technology to collect fees efficiently and minimise delays thus reducing traffic congestion.

Public Transport Systems

To improve safety, efficiency and effectiveness benefits for the public transport user including reduced delays, ticketing convenience and security, and accurate route and schedule information.

Council's involvement in the Public transport systems is as an advocate for change. It is the aim of this project to work with public transport providers to improve and integrate technologies into the wider intelligent transport system. The Strategy will also align with the objectives and outcomes of the Public Transport Advocacy and Action Plan (PTAAP).

Parking Systems
To inform motorists of available parking spaces at destinations and to also provide a cost effective way for collection of fees and enforcement. These technologies can be applied to on-street and off-street parking facilities to assist with traffic management, data collection and demand.

Traveller Information Systems
To better inform the traveller about road, environment and traffic information. These systems incorporate the use of advanced information and navigation technology to enhance driver safety and play a role in minimising freeway and traffic congestion.

Commercial & Freight Vehicles Systems
To better manage and service freight industry and minimise on-route interference and delays while still maintaining the highest level of safety and cost efficiency. These systems play an important role in the management of truck fleets to improve efficiency.

Connected & Autonomous Vehicle Systems
For improved road safety by allowing the vehicle to assist the driver. Vehicles have been developed which monitor the ever-changing driving conditions and take necessary measures to avoid accidents.

OUT OF SCOPE:

It is proposed that the Strategy be a document to guide Council's future resourcing and investment decision making in regards to ITS and to outline Council's advocacy efforts in a coordinated and robust manner. It is therefore out of context for the strategy to deal with specific locational or operational issues (e.g. design and location of traffic signals, locations of on-street parking systems etc).

METHODOLOGY:

The proposed methodology that will be used to produce the Strategy is outlined in the sections below. It is similar to that used to develop iGO and including the lessons learnt in terms of producing a high quality, robust and user friendly document.

Phasing
The proposed generic phases for the development of the Strategy are outlined in Table 1.

TABLE 1
PHASING

NO.	PHASE	TASK OVERVIEW
1	**PLANNING**	Project plan Visioning & goal setting
2	**SCOPING & DISCOVERY**	Scoping Stakeholder engagement Problem and issue identification Data collation Gap analysis Priority setting
3	**PROCUREMENT**	Procurement of consultant
4	**DELIVERY**	Consultant reporting Solution identification Stakeholder engagement Draft strategy Report to Council
5	**FINALISATION**	Final plan reported to Council for endorsement

Project Plan

It is proposed that a Project Plan be prepared by the Project Team for approval by the Project Advisory Group (refer to the Governance section below).

Timing & Duration

The development of the Strategy will be scheduled to commence in October 2017 and is estimated to be complete by June 2018.

Internal Production

It is proposed that the Strategy will be project managed using Council resources. This will lead to corporate capacity benefits for Council in the future by having staff ownership of the project outputs and an intimate knowledge and expertise to drive the delivery of the Strategy.

External Expertise

The services of an appropriately qualified consulting firm will be sought to provide strategic advice and development of the Strategy. They will also assist the Project Team with the research, policy and stakeholder engagement components of the project.

External Stakeholders

Engagement with key external stakeholders will be undertaken in the development of the Strategy to generate 'buy-in' and also ensure the Strategies technical accuracy and practicality. External stakeholders will be formally identified by the Project Team and approved by the Project Advisory Group. It is expected that external stakeholders will include relevant Government agencies (e.g. Department of Transport & Main Roads).

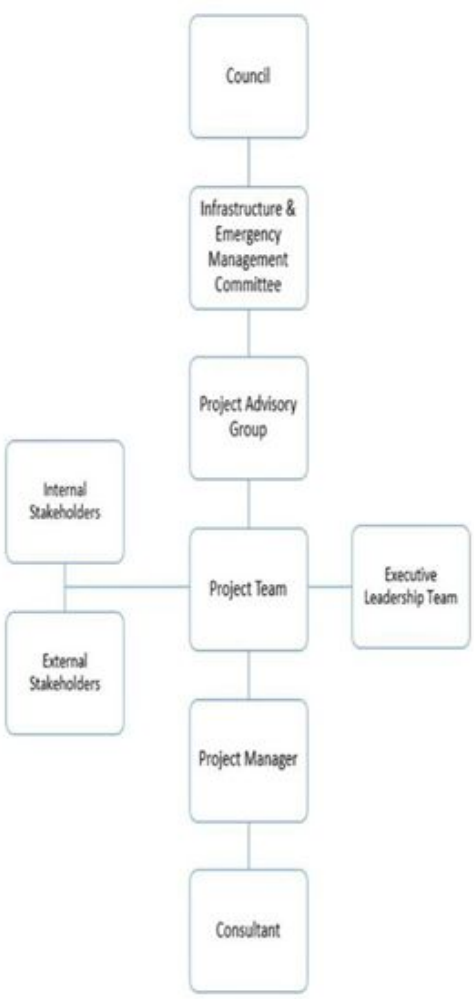
Workshops

Workshops will be held throughout the process to identify ITS opportunities and challenges and to ensure the technical accuracy and the ability to effectively implement the Strategy.

GOVERNANCE:

The proposed governance framework for the development of the Strategy is outlined in Figure 3.

FIGURE 3
GOVERNANCE FRAMEWORK



Council Endorsement

It is proposed that the draft and final Strategy be reported to Council (via the standing committee governance process) for consideration and endorsement.

Project Advisory Group

It is proposed that a *Project Advisory Group* (PAG) be established to provide the Project Team with strategic guidance and direction on the inputs and outputs of the Strategy. It is expected that the PAG will only need to meet on several occasions during the project with meetings having formal agendas and recorded actions for execution by the Project Manager.

The proposed membership of the PAG is outlined in Table 2.

TABLE 2
PROJECT ADVISORY GROUP

NAME	PORTFOLIO / POSITION
Councillor Bromage	*Chairperson - Infrastructure & Emergency Management Committee
Councillor Wendt	Deputy Mayor
Charlie Dill	Chief Operating Officer – Infrastructure Services
Ben Pole	Chief Operating Officer - Economic Development and Marketing
Tony Dileo	Infrastructure Planning Manager

** Chairperson and Project Champion*

Executive Leadership Team

It is proposed that Council's Executive Team be provided with updates during the development of the Strategy and provide feedback to the Project Team on major issues that will affect Council at a corporate level. The Executive Sponsor of the Strategy will be the Chief Operating Officer (Infrastructure Services).

Strategic Advisor

The services of a Strategic Advisor may be engaged as part of the project. The Strategic Advisor will provide direction and advice to the Project Manager and Project Team in relation to processes, scope, risks, budget, community engagement and technical inputs and outputs of the project to ensure project success.

Project Team

The proposed Project Team for the development of the Strategy is outlined in Table 3.

TABLE 3
PROJECT TEAM

TITLE	NAME	POSITION TITLE
Project Director	Tony Dileo	Infrastructure Planning Manager
Project Manager	Josh Ellis	Engineer (Traffic Systems)
Team Members	Mary Torres	Principal Engineer (Infrastructure Planning)
	Dylan Wingfield	Technical Officer (Traffic)

The Project Director will strategically manage the development of the Strategy and will have overall responsibility for delivering the Project's outputs. The Project Director will also be a member of the PAG and be able to approve minor scope, timing and budget variations.

The Project Manager will manage the development of the Strategy and will have day to day control of the project's scope, timing and budget. The Project Manager will convene and attend PAG meetings (including setting agendas and liaison with the Chair), execute the recommended actions of the PAG and procure and manage the project consultant.

The Project Team will also invite other members to meetings from time to time, who will be able to provide technical advice, scoping and process assistance and mentorship to the Project Manager including data collection, review of reports and maps.

KEY OUTPUTS:

It is proposed that the Strategy will achieve the key outputs outlined in Table 4.

TABLE 4
KEY OUPUTS

OUTPUT	DESCRIPTION
Baseline Data	Collection of data on the current state of ITS in Ipswich to set a baseline.
Aspirations	Develop ITS specific aspirations (vision, goals, and objectives).
Gap Analysis	Undertake an analysis of the current gaps in Ipswich's ITS transport system including identification of barriers.
Solutions	Identification of potential solutions.
Advocacy Statement	Clear and concise 10 point advocacy statement outlining the ITS priorities for Ipswich to support Council's aspirations.
Action Schedule	A schedule outlining short, medium and long term actions that Council will undertake to support the implementation of the Strategy. This will likely include low-cost initiatives, promotional activities, policy development and investment.
Delivery & Monitoring Guide	Identification of mechanisms to deliver, monitor the Action Schedule and keeping pace with technology.

CONCLUSION:

Intelligent Transport Systems is the application of modern computer and communication technologies to transport systems, to increase efficiency, reduce environmental effects of transport and to increase the safety of the travelling public. As road managers it is important to not only be aware of the new technology but to also embrace, implement and manage this technology to ensure that a safer and efficient road network can be achieved in the future.

It is therefore proposed to develop the *Intelligent Transport Systems Strategy* which will outline Council's preferred short, medium and long term implementation plan for transport systems technology. The Strategy will aim to improve safety, increase sustainability and drive efficiencies through the use of transport systems technology. This report has outlined the premise, scope, methodology and governance arrangements to develop the Intelligent Systems Transport Strategy.

RECOMMENDATION:

A. That the development of the *Intelligent Transport Systems Strategy* commences and proceeds in accordance with the scope, methodology and governance arrangements outlined in the report by the Engineer (Traffic Systems) dated 14 September 2017.

B. That the Chief Operating Officer (Infrastructure Services) present future reports to the Infrastructure and Emergency Management Committee relating to key milestones in the development of the Intelligent Transport Systems Strategy.

Josh Ellis
ENGINEER (TRAFFIC SYSTEMS)

I concur with the recommendations contained in this report.

Tony Dileo
INFRASTRUCTURE PLANNING MANAGER

I concur with the recommendations contained in this report.

Charlie Dill
CHIEF OPERATING OFFICER (INFRASTRUCTURE SERVICES)