



GLADSTONE
REGIONAL COUNCIL

EXTRACT FROM

GENERAL MEETING AGENDA

**TO BE HELD AT THE COUNCIL CHAMBERS - CIVIC CENTRE
101 GOONDOON STREET, GLADSTONE**

On Tuesday 15 December 2015

Commencing at 9.00am

Stuart Randle
CHIEF EXECUTIVE OFFICER

GENERAL MEETING MINUTES

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G/5.2.17 HODDINOTT BRIDGE - 2ND RIVER CROSSING BOYNE ISLAND

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Officer's Recommendation:

1. That Council adopt the Boyne Island Second River Crossing (Hoddinott Bridge) 100% Detailed Design Report - August 2015 and the associated documentation and drawings as the preferred arrangement for a second Boyne River Crossing within Boyne Island/Tannum Sands.
2. That the Chief Executive Officer update Council's Long Term Financial Plan to reflect Council's contribution to the staged construction of the Boyne Island Second River Crossing (Hoddinott Bridge) as follows:-

Stage No.	Stage Description	Funds \$2015	Year
1	Acquisitions	\$1,000,000	2015/16
2	Interim Upgrade of Boyne Island and Pioneer Drive (East) Intersection (DTMR condition for DA/20621/2008)	Developer Funded	2020
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**	Milestone - Two lane access from Boyne Island Road to Old Tannum Sands Road	\$25,000,000	2025
9	Two Lane Duplication and Ultimate Intersection Upgrade (includes any adjustments that may be required to the Dennis Park sporting complex)	\$150,000,000	2044/2045
**	Milestone - Four lane access from Boyne Island Road to Old Tannum Sands Road	\$175,000,000	2044/2045

Moved Cr Lanson
Seconded Cr Brushe

That the Officer's Recommendation be adopted.

CARRIED

**SUBJECT: HODDINOTT BRIDGE - 2ND RIVER CROSSING
BOYNE ISLAND**

Responsible Officer: Director Engineering Services

Council Meeting Date: 15 December 2015

Purpose:

The purpose of this report is to allow Council to consider the Boyne Island Second River Crossing (Hoddinott Bridge) Detailed Design Report - August 2015 and associated documentation.

Officer's Recommendation:

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	Dennis Park sporting complex)		
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Background:

At the 17 June 2014 General Meeting, Council resolved as follows (*Vide G14/2030*):-

1. *That Council (Contract Principle) endorse the Tender Panels assessment and authorise the Chief Executive Officer (Principle's Representative) to accept the Tender from GHD Pty Ltd to complete the work associated with Tender 130/14 Design of the Boyne Island Second River Crossing for the value of \$2,003,953.45 excluding GST; and execute the appropriate tender documents.*
2. *That Council note vide resolutions 05-1284 and 08-0020 from the former Calliope Shire Council and resolve as follows;*

When Pioneer Drive - Boyne Island and Pioneer Drive - Tannum Sands are connected by a bridge crossing the Boyne River the road will be named "Pioneer Drive" (from Boyne Island Road to Tannum Sands Road), the twin bridges (ie four lanes) that crosses the Boyne River will be named "Hoddinott Bridge" and should the design identify another bridge along the route the name of that bridge will be determined by a further Council resolution.

Whilst the roads are not connected by a bridge a Locality sign will be placed under the Pioneer Drive road sign at each end (ie Boyne Island and Tannum Sands), thus avoiding formal name changes for property owners.

On 23 June 2014, Council advised GHD Pty Ltd of the acceptance of the tender to conduct the Detailed Design for the Boyne Island Second River Crossing project known as the Hoddinott Bridge Project.

The Detailed design phase of the project relates to the provision of a four lane median divided dual carriageway road along Pioneer Drive between Boyne Island Road and Tannum Sands Road on approximately the alignment of the existing Pioneer Drive and sewerage treatment plant access road. The project includes the provision of bridge crossings of the Boyne River and Boyne River Bifurcation with separate bridge structures planned for each carriageway.

It should be noted that as part of this project, no allowance was made for staging by constructing an initial 2-lane road as part of the design process.

The detailed design project has concluded with the following reports and drawings produced:-

- Bridge Design Report - August 2015
- Durability Assessment Report - August 2015
- 100% Detailed Design Report - August 2015 (Attachment 1)
- Approvals Scoping Study - August 2015
- Erosion & Sediment Control Plan - August 2015
- Bifurcation & Boyne River Bridges Foundation Design Report - August 2015
- Geotechnical Design Report - August 2015
- Hydrology & Hydraulics - November 2015

- Pavement Design Report - August 2015
- Detailed Design Road Safety Audit - August 2015
- Bridge Detailed Design Drawings (Attachment 2)
- Civil & Electrical Drawings (Attachment 3)
- Resumption Drawings (Attachment 4)
- Concept Intersection Designs - Boyne Island Road Intersection and Tannum Sands Road Intersection (Attachment 5)
- Boyne River Regional Flood Study - September 2015
- Specification - November 2015

At the 17 November 2015 General meeting, a confidential report was presented regarding land acquisitions in Pioneer Drive and Dennis Street, Boyne Island associated with the Hoddinott Bridge project. Council resolved as follows:-

"That Council obtain the land required to create the road reserve for the Hoddinott Bridge Project as allocated in the 2015/2016 budget and defined on Drawing No. 42-18562-SK210, Revision B (Land Acquisition Plan, Sheet 1 of 7) dated 28 August 2015. The Chief Executive Officer be authorised to finalise negotiations on the purchase of the land on mutually acceptable terms between Council and the property owner. In the event that such mutually acceptable terms cannot be reached the Chief Executive Officer is authorised to commence land resumption proceedings under the Acquisition of Land Act to secure the land required for the project".

Consideration:

In undertaking the Detailed Design, traffic volumes and analysis from the TMR Link Study (July 2012) was adopted. These traffic parameters were:

Year	AADT		%CV
	Boyne Island Road to Industrial Precinct Access	Pioneer Drive Heidelberg Access to Tannum Sands Road	
2024 (opening year)	19,050 - 24,350	13,150 – 18,650	5.0
2044 (design horizon)	34,450 – 41,000	25,935 – 32,600	5.0

It is acknowledged that the above figures are high and that all traffic assumptions should be revisited and designs and timing altered accordingly prior to construction activities commencing.

The design has catered for B-Doubles to utilise Pioneer Drive. All intersections/ accesses are designed for a 19m semi with a check vehicle being a B-Double.

In relation to intersections, the following are key items to note:

- Existing Dennis Street intersection to be closed.
- Existing access to Dennis Park is to be converted to a four way signalised intersection.
- Existing access to the Crematorium off Pioneer Drive will be a signalised 'T' intersection.
- Crematorium access is located to connect onto the 4 lane Riverstone Rise access road as an unsignalised all movement tee intersection.
- All movement access is provided into the WWTP.

- Dual lane 4 leg roundabout to service the future sports park and a common access point for any future residential development to the north or south of Pioneer Drive and Ergon Substation site.
- The Boyne Island Road/Pioneer Drive intersection and the Old Tannum Sands Road/Pioneer Drive intersection did not form part of the detailed design project, however, concept designs have been prepared for completeness.

Additional items to note (not an exhaustive list):

- Significant service clashes at both end limits of the road, eg, water & sewer, electrical, communications infrastructure
- Relocation of water main along Pioneer Drive - Boyne Island Road intersection to the Crematorium.
- Relocation of 450mm diameter water main from Tannum Sands Road intersection to chainage 2700
- Relocation of existing and future rising main from the existing WWTP
- New Telstra line required from Boyne Island Road intersection to Crematorium
- High Voltage power lines have been designed to take into account the four lane design
- Relocation of low voltage power lines along Pioneer Drive from Dennis Street to the Crematorium
- Relocation of the overhead electricity feed to the WWTP.
- No endangered regulated vegetation was identified.
- Further assessment required at the Tannum Sands Road intersection for 'essential habitat - Koala'.
- Special least concern flora species were identified in one location
- High proportion of weed species in the study area
- Further surveys to determine extent of impact to mangroves and saltmarsh species is required prior to construction.
- MOU be entered into with the PCCC in relation to Cultural Heritage.
- On-road and off-road shared pedestrian and cycleways are proposed.
- A number of land acquisitions will be required from a number of freehold, leasehold and Council owned properties for the purpose of road reservation (refer Attachment 4).
- Road Reserve width is 60m minimum or determined based on providing 5m clearance from the toe/top of earthworks batters.
- Construction program for the 'ultimate' design is approximately 17 months.

The Detailed Design Report provided a high level draft P90 cost estimate as follows. A P90 cost estimate is a statistical cost estimate indicating a 90% confidence level that total outturn costs will not exceed the value determined.

Date	Amount (Strategic estimate only)
30/06/15 (Total out-turn cost - total project)	~\$170M (2015 \$'s)
Boyne Island Intersection (ultimate)	~\$35M (2015 \$'s)
Pioneer Dr and Hoddinott Bridges (4 lane)	~\$120M (2015 \$'s)
Tannum Sands Intersection (2 lane roundabout)	~\$15M (2015 \$'s)

Following receipt of the Detailed Design Report, an additional document was provided titled "Cost Estimate and Risk Report - October 2015". This report contains a *risk adjusted cost estimate (in \$2015) and escalated to June 2020*.

- The P90 cost estimate excluding principal costs and intersection upgrades at each end in \$2015 is \$109,000,000 (rounded).
- The P90 cost estimate excluding principal costs and intersection upgrades at each end in \$2020 is \$138,000,000 (rounded).

The Detailed Design has been undertaken based on the 'ultimate'. That is, four lane median divided dual carriageway with two bridge crossings. Given the costs, it is not considered feasible for Council to construct the 'ultimate' as one construction project. It is recommended that the project is staged as follows:-

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The above costings and year of construction are an estimate only. This project will require an annual review to assess the growth and traffic volumes and therefore, the need for the works to occur.

Refer Attachment 6 for a sketch showing the stages contained in the above table.

Communication and Consultation (Internal/External):

Communication with affected landowners has occurred predominantly to obtain permission for access for the purposes of Survey, Cultural Heritage walkover and geotechnical investigations.

Key Stakeholders for the project are:

- Landowners
- Business Owners
- State Government Agencies, eg. DTMR, MSQ, GPCL, DILGP, DEHP, DAF
- Aboriginal Groups, eg PCCC
- Service Providers, eg Ergon, Telstra, etc
- Surrounding Land Developers
- Emergency Services
- Political Representatives
- Consultants
- Boyne Island/Tannum Sands residents
- Representative from the netball club that uses the Dennis Park Sporting Complex
- Representatives from the Regional Development Australia RDA subcommittee.

Legal Environmental and Policy Implications:

Nil.

Financial and Resource Implications:

Council's Long Term Financial Plan is to be updated to reflect a staged construction over a 30 year period (ie. to 2045).

It is considered that Council seeks funding from Federal and State Governments and private partnerships in order to assist with funding of the project.

Commentary:

Nil.

Summary:

Nil.

Attachments:

1. Boyne Island Second River Crossing (Hoddinott Bridge) 100% Detailed Design Report.
2. Bridge Detailed Design Drawings
3. Civil & Electrical Drawings
4. Resumption Drawings
5. Concept Intersection Designs - Boyne Island Road Intersection and Tannum Sands Road Intersection
6. Staging Sketch

Tabled Items:

Nil.

Report Prepared by: Engineering Officer.