

## **6.8 Works on Private Land at Bruce Crescent, Wallarah**

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TRIM REFERENCE: F2011/01739 - D03154955

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### **SUMMARY**

Council has been in receipt of ongoing representations from the landowner of 380 Bruce Crescent, Wallarah requesting Council undertake stream bank stabilisation works within a watercourse located within 370 and 380 Bruce Crescent. Council has requested a report on the option of constructing a basic rock structure at this location. Section 67 of the Local Government Act 1993 (LGA) requires Council approval for works to be undertaken on private property.

### **RECOMMENDATION**

- 1 That Council receive the report outlining a concept design and estimate for the construction of a rock protection and energy dissipation structure downstream of Councils road culvert located within Lot 19 & 20 DP 26912, 370 - 380 Bruce Crescent, Wallarah.**
- 2 That Council advise the landowners that Council does not propose to undertake stream bank works on their private property.**

### **BACKGROUND**

Council has been in receipt of ongoing representations from an owner of 380 Bruce Crescent, Wallarah requesting Council undertake stream bank stabilisation works within a watercourse located within both 370 and 380 Bruce Crescent. The landowner's concerns are that progressive erosion of the stream bank was reducing the available land area of their property and the resulting bank instability impacting on their future proposal to build a new vehicular access crossing against the embankment (via the neighbouring property) as an alternative to vehicular access to 380 Bruce Crescent.

The watercourse is a small unnamed intermittent tributary of Spring Creek and ultimately flows into the Tuggerah Lakes system. The upstream catchment comprises of rural lands before flowing through a road culvert under Bruce Crescent and into 370 & 380 Bruce Crescent, Wallarah. It is not known when the culvert was constructed however it is believed to have been built at the time of the original subdivision of the area, many decades ago, and well before the purchase of the property by the current owners.

Council is within its legal rights under the Roads Act 1993 to maintain the culvert within the road reserve for the purposes of conveying flows from the natural watercourse under the road. The subject culvert is similar to various other older structures located throughout the Shire. It is accepted that the design of the culvert would have incorporated improved alignment and energy dissipation measures had it been designed and constructed to current design standards and best practice. Council has no legal obligation to complete the works.

Various written communications between staff and the resident of 380 Bruce Crescent made between 2008 and 2010 clearly declined any offer of assistance from Council. In 2011 following an onsite meeting with the then Mayor, staff undertook a survey of the location and had an engineering student complete a concept drawing based on a hard engineering solution. This concept drawing was issued to the resident for their comment with a cover letter implying that the works could commence the following financial year, as part of Council's future adopted capital works program.

Following further representations in relation to the matter, staff met with the land owner and advised that if Council were to fund future works, this would be subject to Council determination attaining the necessary approval under S.67 of the Local Government Act 1993 to complete works on private property. Section 67 outlines procedures for circumstances where Council expends public money to undertake works on private lands, and those works improve the land/provide the private landowner with a benefit. Only once that approval is received would staff be in a position to complete the detailed engineering design, attain the necessary environmental approvals, enter into agreements with the residents, and complete the works.

At the Ordinary meeting of Council on 13 June 2012 Council considered a report detailing a number of options. These included a) do nothing, b) undertake stream bank works, c) undertake works in road reserve only, and d) Council undertakes works but the owner contributes 50%. Council resolved unanimously:

*"1 That Council delegate to the General Manager the authority to negotiate with the landowner an agreement on an appropriate design that achieves the objectives of the Estuary Management Plan in respect of the Caring for Our Country Parameters and respects the objectives of the landowner.*

*2 That Council receive a report on the outcome of the negotiations.*

FOR: COUNCILLORS BEST, EATON, GRAHAM, MATTHEWS, MCBRIDE, MCNAMARA,  
SYMINGTON, VINCENT, WEBSTER AND WYNN

AGAINST: NIL"

Staff subsequently wrote to the landholder and met onsite to outline the criteria for the project to be considered as part of Council's Tuggerah Lakes Estuary Management Plan works. Works would then be consistent with other stream bank rehabilitation works undertaken by Council on private property, align with good practice for stream bank rehabilitation, and be eligible for funding under the Estuary Management Plan via the Caring for Our Country Program. Council has undertaken a large number of successful stream bank rehabilitation programs throughout the Tuggerah Lakes Catchment as a joint initiative between the Federal Government, Council and the landholders.

The criteria for inclusion as part of Council's Estuary Management Plan included the following design components and landholder obligations:

- Battering back of the embankment to a minimum 1:1.5 gradient with rock lining protecting the stream bank provided for approximately 20 metres downstream of the culvert outlet.
- Over-steep bank areas downstream of the rock protection battered back protected using jute matting and planted out to provide vegetated bank protection.

- Fencing would be required to be installed on both sides of the stream bank at a minimum of 3 metres back from the top of bank area. Fencing would need to continue along the full length of the creek on the property to protect riparian areas on the remainder of the stream bank within the properties. Goats currently occupying the property, and any other future stock, would be required to be excluded from the stream bank.
- The owner would be responsible for long term maintenance of both the vegetation and the fencing provided.

A report was submitted to the ordinary meeting of Council on 22 August 2012 advising that the resident had declined Council's offer to complete the works under the terms of Council's Tuggerah Lakes Estuary Management Plan.

The basis of the resident's refusal was that the proposed design was not considered to be sympathetic to the landowner of 380 Bruce Crescent's objectives to retain useable land, and objections to the requirement to fence and prohibit stock from grazing along the property's stream banks.

At the Ordinary meeting held on 22 August 2012, it was resolved on the motion of Councillor Eaton and seconded by Councillor Best:

- "1 That Council acknowledge the landowner's belief of a prior commitment to construct rock walls to alleviate stream bank erosion caused by Council's culvert on 380 Bruce Crescent, Warnervale.
- 2 That Council request the General Manager to report by the end of October 2012 on a basic rock structure to address erosion and ways to fund this within Council's budget.

FOR: COUNCILLORS BEST, EATON, MATTHEWS, MCBRIDE, MCNAMARA,  
SYMINGTON AND VINCENT

AGAINST: COUNCILLORS GRAHAM, WEBSTER AND WYNN."

## CURRENT STATUS

A concept design and estimate has been prepared by staff on the basis of a basic outlet rock protection and energy dissipation structure. This design is in line with the resolution of Council.

The design of any structure needs to take into account a number of site constraints. These include:

- The alignment of the culverts directing water toward the erodible western embankment of the stream for a distance of approximately 15-20m down stream of the culverts.
- Vegetation having been removed from the property stream banks thereby accelerating the erosion downstream.
- There is a significant height difference between the culverts and the stream bed which is currently dealt with by a ramp at the culvert outfall at a 1 in 4 slope. This further accelerates the flows leaving the culvert.

- The existing concrete ramp is underlain by a Telstra conduit which would be required to be relocated at Council's cost (preliminary estimate \$3-6K) in the event the spillway was to be demolished.
- The design and materials are required to withstand the high velocities and volumes of water experienced at this location.

## **THE PROPOSAL**

### **Works on Private Property**

Section 67 of the LGA relates to Council undertaking works on private property. This section outlines procedures for circumstances where Council expends public money to undertake works on private lands, and those works improve the land/provide the private landowner with a benefit (compared to where Council expends public moneys on public infrastructure/public benefit).

Where Council is undertaking these types of works on private property and does not have an approved fee, or is charging less than an approved fee, Council must, by resolution, approve the works before they are carried out.

Where it is proposed to undertake works on private property, an agreement will need to be entered into with the property owner relating to ongoing maintenance, future asset renewal or circumstances where a major flood event occurs that results in damage.

The proposed works consist of integrating a rock lined channel extending approximately 15m downstream of the culverts of which 11m would be built within private property.

Completion of the works will thereby be subject to Council's approval under s.67 of the Local Government Act 1993 and subsequent final agreement between the landowners and Council over scope of works, entry to the site, and ongoing maintenance and renewal.

A concept design incorporating a plan and typical cross section for the draft concept is attached. The key attributes of the design is:

- Retain existing concrete spillway
- Sandstone blocks at end of spillway to prevent scouring
- Battering of western stream bank only
- Excess sediment to be removed from the channel floor immediately downstream of the rehabilitation works (currently directing water to the eastern embankment and causing a scour hole near the bridge) and reused on the property.

The estimated cost to construct these works is \$30,000.

This is considered to be the minimum scope of works which will result in a reduction in stream bank erosion in the vicinity of the culvert outlet. The cost savings in this design has been realised through the reuse of existing materials on the site and not demolishing the existing spillway.

An alternative option consisting of a short section of stacked retaining wall on the western embankment was considered however this would add significant cost to the project due to the need to excavate to obtain suitable footings, the high cost of suitable retaining wall materials, the likely undercutting and scouring around the structure itself over time and the smooth surface not dissipating energy thereby actually accelerating downstream erosion.

Completion of this scope of works would be subject to allocation of funding by Council, completion of detail design drawings, a part 5 environmental assessment, and a signed agreement with landowners to enter the property for construction and land owners agreement to undertake future maintenance.

## **OPTIONS**

There are three available options for the consideration of Councillors which include:

- 1 Do nothing
- 2 Council construct a basic rock structure at culvert outlet as detailed in this report to a maximum cost of \$30,000 and subject to the land owner entering into a deed of agreement for them to be unconditionally responsible for the completed works and all associated costs. In addition the deed will clearly state that at the end of the life of the works Council will not be obligated or liable to replace all or part of the works.
- 3 Council undertakes stream bank work but owner financially contributes

**STRATEGIC LINKS****Wyong Shire Council Strategic / Annual Plan**

<b>Principal Activity</b>	<b>Service</b>	<b>Key Action and Objectives</b>	<b>Funding Source and Description</b>	<b>Impact on Key Performance Indicators/ Service Performance Indicators</b>
Environment and Land Use	6.4 - EPS Major Projects Mgt	<ul style="list-style-type: none"> <li>Implement Stream bank, stormwater and wetland works to ensure that the quality of water meet the needs of the community and lakes and rivers.</li> <li>Ensure social and economic needs of the community are met while protecting the environment of the coastal zone.</li> </ul>	The works would not meet the criteria for Caring for our Country funding as part of the implementation of the Tuggerah Lakes Estuary Management Plan. Funding would need to come from Councils revenue funding.	

**Contribution of Proposal to the Principal Activity**

The works would have some improvement in water quality in the affected stream and for water entering Tuggerah Lakes.

**Link to Community Strategic Plan (2030)**

<b>Priority Objective</b>	<b>How the proposal contributes or links to the Priority Objectives in Shire Strategic Vision and Annual Plan</b>
<b>Natural Areas</b> - Areas of natural value in public and private ownership will be enhanced and retained to a high level in the context of ongoing development.	The health of the Shire's waterways and natural areas would be enhanced by the restoration of the eroded stream bank.

**Financial Implications**

Funding provision for the design and construction of this project can be sourced through Council's general fund capital works programme by reprioritising other projects. This would be completed through the normal quarterly budget adjustment process.

Given the nature of the design, it is anticipated there will be minimal ongoing cost maintenance however this will be a condition of the landowner to maintain.

**Principles of Sustainability**

The works will provide a long term solution to localised stream degradation and erosion issues.

**Long term Financial Strategy**

Nil impact.

**Asset Management Strategy**

Nil impact.

**Workforce Management Strategy**

Nil impact.

**Link to Community Strategic Plan (2030)**

Nil impact.

**Budget Impact**

Nil impact.

**CONSULTATION**

Where rehabilitation works are proposed to be undertaken on private land, discussions will need to be held with owners to obtain their permission to undertake the defined scope of works and agreement to ongoing maintenance and future renewal responsibilities. This is a requirement under Section 67 of the Local Government Act, together with consideration of possible cost sharing arrangements.

Consultation has occurred with the relevant landholders over stream bank rehabilitation options at the subject location. Final landowner agreement to the design and accompanying maintenance agreements will be required prior to commencement of works.

**GOVERNANCE AND POLICY IMPLICATIONS**

There are large numbers of existing culvert and pipe crossings located within natural water courses under the Shire's roads which legally direct water through private property in accord with the natural topography of the land.

These were built by a combination of Council and developers to the standards of the day and are characterised as having minor erosion at the device outlets. Undertaking the subject works could expose Council to further requests to undertake similar works on other private properties.

**CORPORATE RISKS**

<b>Risk</b>	<b>Possible Outcome</b>	<b>Mitigation Method</b>
Risk of non-compliance with Section 67 of Local Government Act	Loss of Council reputation. Penalties from non-compliance	Obtain Council approval prior to expenditure of funds
Fraud and corruption allegations from favouring certain land-owners	Loss of Council reputation. Investigations into Council practices and possible penalties	Obtain Council approval prior to expenditure of funds

**MATERIAL RISKS AND ISSUES**

While not recommended, if works were to be undertaken Council would require the landowner to sign a maintenance agreement, releasing Council from any future responsibility.

**CONCLUSION**

The landowner of 380 Bruce Crescent, Wallarah has made representations to Council over a number of years in relation to ongoing erosion of the stream bank within 370 and 380 Bruce Crescent, Wallarah.

An engineering design for stream bank works comprising of a basic rock structure has been prepared and estimated in response to a resolution of Council.

Council has no legal responsibility and has made no commitment to the landowners to complete streambank works on private property.

The completion of streambank rehabilitation works on private property requires Council's approval under S.67 of the Local Government Act 1993.

**ATTACHMENTS**

- |   |  |           |
|---|--|-----------|
| 1 | Plan of proposed works for 370 & 380 Bruce Crescent Wallarah | D03095150 |
| 2 | Lots 370 & 380 Bruce Crescent Wallarah Concept Plan          | D03174783 |





AUSIMAGE © 2011 Council of Wright Motors Pty Ltd  
 Department of Finance and Services 2012

Projection: Transverse Mercator  
 Projected Co-Ordinate System: GDA 1994 MGA Zone66  
 Geographic Co-Ordinate System: GCS\_GDA\_1994

10/08/2012 nadixon

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# MAP EXTRACT

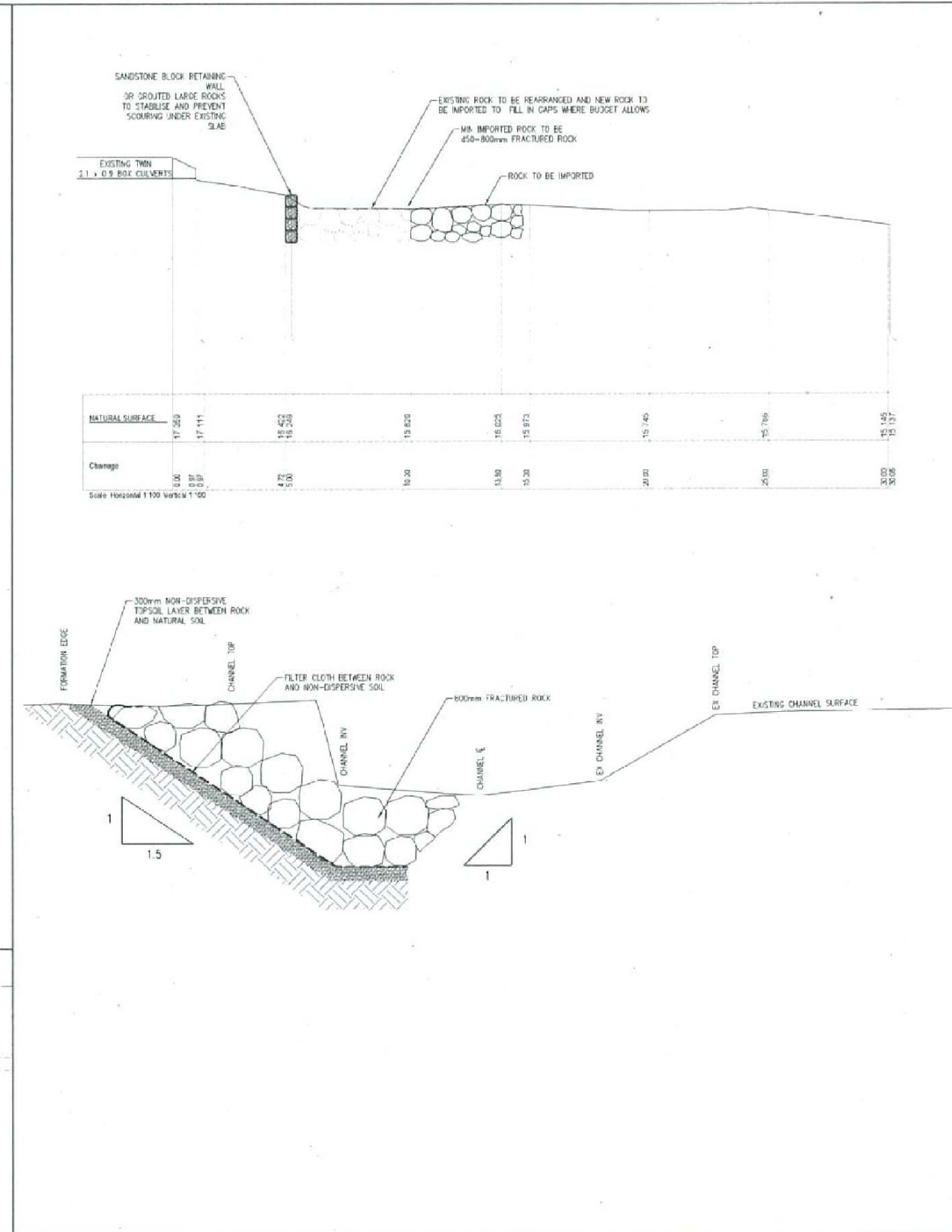
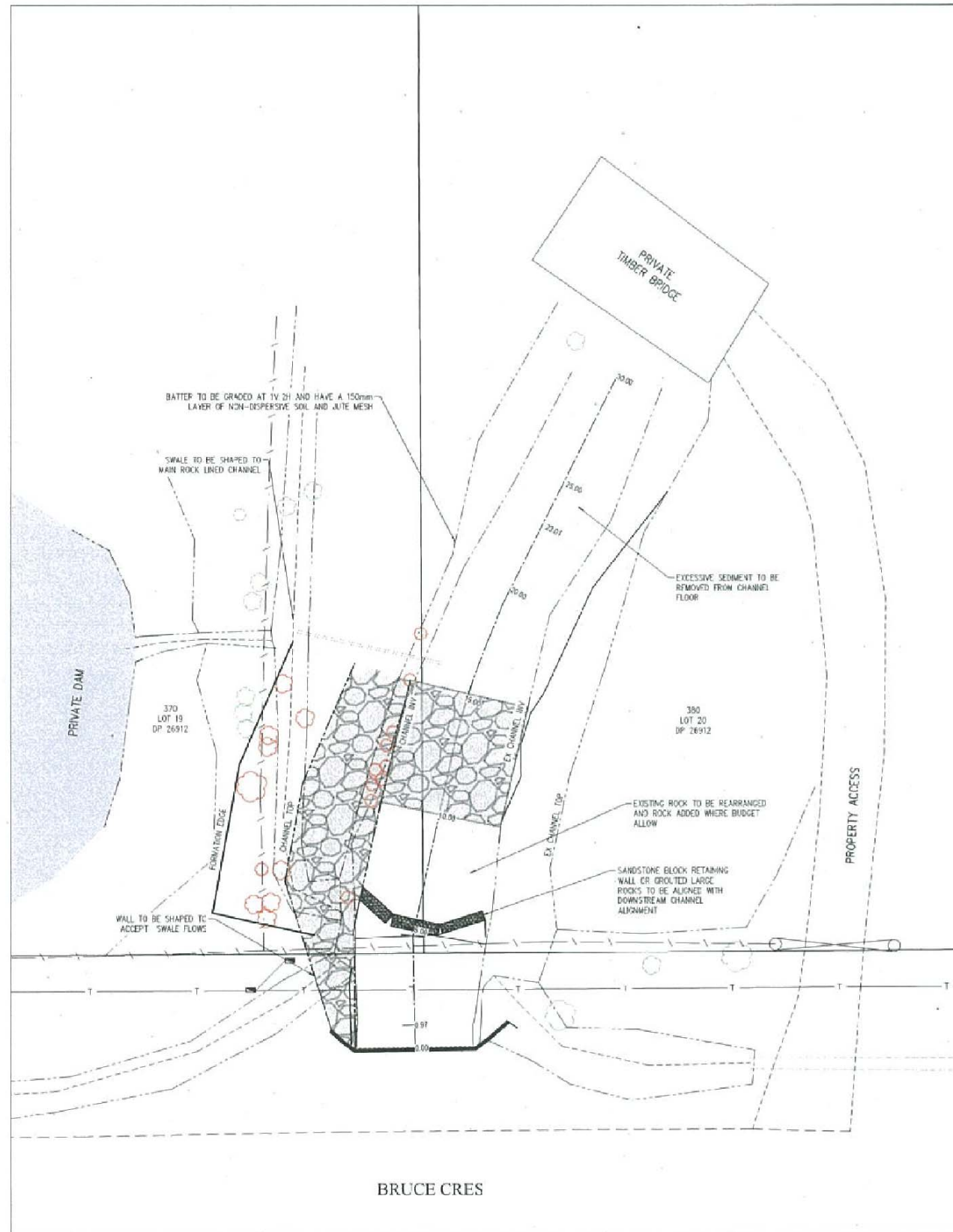
Scale 1:1800

Note: Data is not survey accurate.  
 Scale is representation only.

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 Michael Wichtaker  
 General Manager







APPROVED BY				Surveyed	WSC	ORIGINAL SHEET SIZE		SCALE		370-380 BRUCE CR - WALLARAH					
FOR DIRECTOR OF INFRASTRUCTURE MANAGEMENT				Surveyor's Ref	NH	A1	0 1 2 3 4	1:100	PROPOSED STREAMBANK REHABILITATION DOWNSTREAM OF CULVERT						
DESIGNED BY				Structural Design	MH	0 1 2 3 4		1:50	CONCEPT PLAN						
DRAWN BY				Drawn	MH				FORM FOLDER No	DESIGN PROJECT No	DATUM	SHEET No	No. OF SHEETS	PLAN No	REVISION
CHECKED BY				Passed	Design & Projects Manager				F2010/02141	AHD	2	2		-	
REV	DATE	AMENDMENT	DESIGNER'S INITIALS	DESIGN MGR INITIALS	DATE										
					25/10/12										