



# No. 31 – Terranora Area E

Version 1.0 September 2011

TWEED SHIRE COUNCIL | TOGETHER FORWARD



# CERTIFIED IN ACCORDANCE WITH

## THE ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979

AND REGULATIONS

GENERAL MANAGER

DATE: xxx

DRAFT SECTION 94 PLAN No 31

Terranora Area E

Version 1.0

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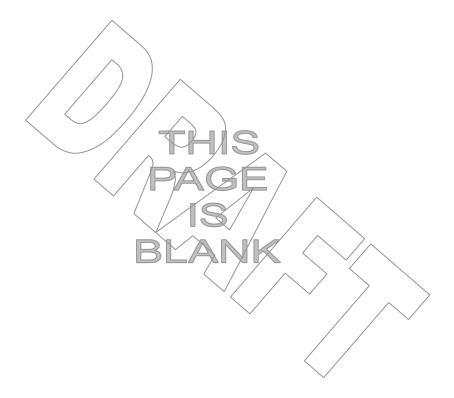
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# **1.0 PART A – SUMMARY SCHEDULES**

# **1.1 Summary schedule – contribution rates**

	Persons	Road Works Base Rate	Structured Open Space Base Rate	Casual Open Space Base Rate	Stormwater / Flooding Facilities Base Rate	TOTAL
Per person	1	\$5,980	\$5,873	\$2,473	\$163	\$14,490
Per Lot/ET	2.4	\$14,353	\$14,096	\$5,935	\$392	\$34,777
Detached dwelling	2.4	\$14,353	\$14,096	\$5,935	\$392	\$34,777
1 bedroom unit	1.3	\$7,775	\$7,635	\$3,215	\$212	\$18,837
2 bedroom unit	1.7	\$10,167	\$9,985	\$4,204	\$278	\$24,633
3 bedroom unit	2.1	\$12,559	\$12,334	\$5,193	\$343	\$30,430
4+ bedroom unit	2.4	\$14,353	\$14,096	\$5,935	\$392	\$34,777

# **1.2 Summary schedule - works program**

Road Works	\$21,540,830
Structured Open Space	\$21,155,612
Casual Open Space	\$8,907,333
Stormwater and Flooding Facilities	\$588,724
TOTAL	\$52,192,499

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# **1.3** Published indices at time of adoption

Index	Rate	Index Date	Published		
IPD (Engineering Construction)	99.94	March 2011	Released 20/7/2011 ABS		
TSC Land Index	142.50	June 2009	2009/2010 Tweed Shire Council Revenue Policy		

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# 2.0 PART B - ADMINISTRATION

# 2.1 Name of plan

This development contributions plan is called Section 94 Plan No. 31 – Terranora Area E.

#### 2.2 Land to which this plan applies

This Plan applies to development on land affected by Tweed Development Control Plan DRAFT Section B24 – Area E Urban Release Development Code ("DCP-B24") as shown in Figure 1 below:

Terranora Area E





<u>Figure 1 – Area E</u>

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# 2.3 The purpose of the s94 plan

The purpose of the Development Contributions Plan is to:

- (a) present Council's strategy for the provision of public amenities and public services in the Area E Urban Release Area.
- (b) provide an administrative framework under which specific public facilities strategies may be implemented and coordinated
- (c) ensure that adequate public facilities are provided for as part of any new development
- (d) to authorise the council to impose conditions under section 94 (s94) of the *Environmental Planning and Assessment Act 1979* when granting consent to development on land to which this plan applies
- (e) provide a comprehensive strategy for the assessment, collection, expenditure accounting and review of development contributions on an equitable basis
- (f) ensure that the existing community is not burdened by the provision of public amenities and public services required as a result of future development
- (g) enable the council to be both publicly and financially accountable in its assessment and administration of the development contributions plan.

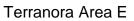
#### 2.4 Commencement of the plan

The key objectives of this Plan include the timely and equitable provision of the following infrastructure:

- the provision of Broadwater Parkway, the main collector road servicing the development, and upgrading of Mahers Lane to the standard required to service the development;
- the provision of structured open space areas (sports fields) distributed within the residential and town centre areas which meet the standards of quality and quantity as specified in Tweed Development Control Plan Section A5 – Subdivision Manual;
- the provision of casual open space distributed within the residential areas which meets standards of quality and quantity as specified in Tweed Development Control Plan Section A5 – Subdivision Manual;
- the provision of suitable stormwater discharge and flood mitigation systems;

## 2.5 Commencement of the plan

This development contributions plan has been prepared pursuant to the provisions of s94 of the EP&A Act and Part 4 of the EP&A Regulation and takes





effect from the date on which public notice was published, pursuant to clause 31(4) of the *EP&A Regulation*.

# 2.6 Relationship to other council plans

This plan is part of the package of Contributions Plans prepared for a variety of key community infrastructure which are required to be provided and/or augmented by or on behalf of Tweed Shire Council to meet the needs of new development within the Tweed Shire Local Government Area.

The development contributions plan supplements the provisions of the Tweed Local Environmental Plan 2000 and any amendment or local environmental plan which it may supersede.

This Plan also relates to Tweed Development Control Plan DRAFT Section B24 – Area E Urban Release Development Code ("DCP-B24") which contains a Structure Plan and details of the type and location of public amenities and public services to which this Contribution Plan applies.

This Plan does not provide for the Community Facilities infrastructure described in DCP-24. Such facilities are provided for in Plan No.15 – Community Facilities.

#### Special Relationship with Contributions Plan No. 4 - Tweed Road Contributions Plan (TRCP)

Upon the commencement of this plan, contributions under Contributions Plan No. 4 - Tweed Road Contributions Plan, Local Area Contribution No.1 - Terranora, Area E will no longer be required as these works will be included in contributions under Section 94 Plan No. 31. Contributions will continue to be required however for TRCP non Local Area Contributions applicable to Sector 5 Terranora.

## 2.7 Definitions and standards

#### Definitions

Accredited Certifier	For the purposes of the certification of Construction Certificates and Complying Development Certificates as referenced in this plan, the Accredited Certifier is the principal certifying authority
EP&A Act	Environmental Planning and Assessment Act, as amended
EP&A Regulation	Environmental Planning and Assessment Act Regulation, as amended.
IPD (Implicit Price Deflator)	Index used for adjustment of construction component – refers to the value of work done (implicit price deflator); Chain Volume Measures; Engineering Construction; ABS Reference A405071T, ABS Product Number 8782.0.65.001
TSC Land Index	Index used for adjustment of land acquisition costs – Tweed Shire Council Land Index, as published in Council's Management Plan and Quarterly Report.

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## Definitions

Nexus The relationship between the expected types of development in the area and the demand created by those developments for additional public facilities. The link between the proposed development and the increased demand for public facilities may be demonstrated through causal nexus (what), spatial nexus (where) and temporal nexus (when). **Causal nexus** requires that the need for the service or facility being levied must be a result of the development being levied. **Physical nexus** requires that the service or facility be near enough in physical terms to provide benefit to that development. **Temporal nexus** requires that the service or facility must be provided within a reasonable time.

# Standards used in this contributions plan

Dwelling house/lot	Equivalent to 2.4 persons (one Equivalent Tenement) Source: Tweed Shire Urban Land Release Strategy 2009
1 bedroom unit	Equivalent to 1.3 persons
	Source: Tweed Shire Urban Land Release Strategy 2009
2 bedroom unit	Equivalent to 1.7 persons Source: Tweed Shire Urban Land Release Strategy 2009
3 bedroom unit	Equivalent to 2.1 persons Source: Tweed Shire Urban Land Release Strategy 2009
4+ bedroom unit	Equivalent to 2.4 persons Source: Tweed Shire Urban Land Release Strategy 2009
Tourist related development that provides accommodation	Equivalent to the above residential standards with reference to the number of bedrooms

## 2.8 Timing of payment

A contribution must be paid to the council at the time specified in the condition that imposes the contribution. If no such time is specified, the contribution must be paid prior to the issue of a construction certificate or complying development certificate.

- Council's policy regarding the timing of payment of S94 contributions is as follows:
- DAs involving subdivision prior to the release of the subdivision linen plan;
- DAs involving building work prior to the release of approved building plans; and
- DAs where no building work involved prior to occupation.

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Specifically in relation to this plan:

#### 2.8.1 The Site

Contributions are payable prior to the issue of a Subdivision Certificate (Linen Plan of Subdivision) and prior to the issue of a Construction Certificate for buildings.

#### 2.8.2 Road Works

Construction of the road formation and associated facilities, or payment of a contribution in lieu is required prior to issue of a Subdivision Certificate, and dedication of the road reserve is required upon registration of the Plan of Subdivision.

# 2.8.3 Casual and Structured Open Space

Dedication and embellishment or the payment of a contribution in lieu is required prior to the issue of a Subdivision Certificate and dedication is required upon registration of the Plan of Subdivision. Where dedication is not proposed or is not appropriate, contributions in lieu are payable prior to the issue of a Subdivision Certificate. In respect of buildings, the contributions are payable prior to the issue of a Construction Certificate.

# 2.8.4 Stormwater and Flooding Facilities

Contributions are payable prior to the issue of a Subdivision Certificate.

## 2.9 Obligation of accredited certifiers

## **Construction Certificates:**

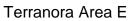
In accordance with Clause 146 of the EP&A Regulation, a certifying authority must not issue a construction certificate for building work or subdivision work under a development consent unless it has verified that each condition requiring the payment of monetary contributions has been satisfied.

In particular, the certifier must ensure that the applicant provides a receipt(s) confirming that contributions have been fully paid and copies of such receipts must be included with copies of the certified plans provided to the council in accordance with clause 142(2) of the EP&A Regulation. Failure to follow this procedure may render such a certificate invalid.

The only exceptions to the requirement are where a works in kind, material public benefit, dedication of land or deferred payment arrangement has been agreed by the council. In such cases, council will issue a letter confirming that an alternative payment method has been agreed with the applicant.

#### **Complying Development Certificates:**

In accordance with section 94EC of the EP&A Act a certifying authority must impose a condition on a complying development certificate requiring the payment of a monetary contribution in accordance with this plan. The condition must require payment prior to commencement of works or prior to commencement of use whichever occurs first. The condition must be set out and be calculated in accordance with APPENDIX C of this plan.





Payment for contributions cannot be accepted by Council before Council has registered the complying development certificate in its system which will not occur until Council has received notification of the complying development certificate from the accredited certifier of the issuing of the certificate.

Failure to follow this procedure may render such a certificate invalid.

#### **Recalculation of contributions:**

Council's search fee will apply in cases where the recalculation of contribution rates is required.

## 2.10 Deferred/periodic payments

Deferred or periodic payments may be permitted in the following circumstances:

- (a) compliance with the provisions of Clause 2.8 is unreasonable or unnecessary in the circumstances of the case,
- (b) deferred or periodic payment of the contribution will not prejudice the timing or the manner of the provision of public facilities included in the works program,
- (c) where the applicant intends to make a contribution by way of a planning agreement, works-in-kind or land dedication in lieu of a cash contribution and council and the applicant have a legally binding agreement for the provision of the works or land dedication,
- (d) there are circumstances justifying the deferred or periodic payment of the contribution.

If council does decide to accept deferred or periodic payment, council may require the applicant to provide a bank guarantee by a bank for the full amount of the contribution or the outstanding balance on condition that:

- the bank guarantee be by a bank for the amount of the total contribution, or the amount of the outstanding contribution, plus an amount equal to thirteen (13) months interest plus any charges associated with establishing or operating the bank security
- the bank unconditionally pays the guaranteed sum to the council if the council so demands in writing not earlier than 12 months from the provision of the guarantee or completion of the work
- the bank must pay the guaranteed sum without reference to the applicant or landowner or other person who provided the guarantee, and without regard to any dispute, controversy, issue or other matter relating to the development consent or the carrying out of development
- the bank's obligations are discharged when payment to the council is made in accordance with this guarantee or when council notifies the bank in writing that the guarantee is no longer required

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• where a bank guarantee has been deposited with council, the guarantee shall not be cancelled until such time as the original contribution and accrued interest are paid.

## 2.11 "In-kind" settlement or material public benefit

The council may accept an offer by the applicant to provide an "in-kind" contribution (i.e. the applicant completes part or all of work/s identified in the plan) or through provision of another material public benefit in lieu of the applicant satisfying its obligations under this plan.

Council may accept such alternatives in the following circumstances:

- (a) the value of the works to be undertaken is at least equal to the value of the contribution that would otherwise be required under this plan; and
- (b) the standard of the works is to council's full satisfaction; and
- (c) the provision of the material public benefit will not prejudice the timing or the manner of the provision of public facilities included in the works program; and

The value of the works to be substituted must be provided by the applicant at the time of the request and must be independently certified by a Quantity Surveyor who is registered with the Australian Institute of Quantity Surveyors or a person who can demonstrate equivalent qualifications.

Council will require the applicant to enter into a written agreement for the provision of the works.

Acceptance of any such alternative is at the sole discretion of the council. Council may review the valuation of works or land to be dedicated, and may seek the services of an independent person to verify their value. In these cases, all costs and expenses borne by the council in determining the value of the works or land will be paid for by the applicant.

## 2.12 Adjustment of contribution rates

To ensure that the value of contributions are not eroded over time by movements in the land value increases, the capital costs of administration of the plan or through changes in the costs of studies used to support the Plan, the council will adjust the contribution rates.

The contribution rates will be adjusted in accordance with the consent condition by reference to the following specific indices:

- construction costs by the IPD Chain Volume Measures:Engineering Construction as published by the Australian Bureau of Statistics (ABS);
- land acquisition costs by reference to average land valuation figures (Tweed Land Index) published by council in Council's Management Plan;
- specific valuations for particular parcels of land that are identified in the s94 plan as published by the council in Council's Management Plan;

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- changes in the capital costs associated with provision of administration and salary costs for staff involved in implementing council's s94 plan by reference to increases in salary rates under the Local Government State Award Plan as published by the council in Council's Management Plan;
- changes in the capital costs of various studies and activities required to support the strategies in the plan by reference to the actual costs incurred by council in obtaining these studies plan as published by the council in Council's Management Plan.

In accordance with clause 32(3)(b) of *the EP&A Regulation*, the following sets out the means that the council will make changes to the rates set out in this plan.

For changes to the **IPD** index, the contribution rates within the plan will be adjusted on a quarterly basis in accordance with the following formula:

\$C <sub>A</sub> + <u>\$C<sub>A</sub> x ([Current Index – Base Index</u> ]			
	[Base Index]		
\$C <sub>A</sub>	is the contribution at the time of adoption of the		
	plan expressed in dollars;		
Current_	is the IRD as published by the ABS available at		
Index IPD	the time of adjustment of the contribution rate;		
Base Index _ IPD	is the IPD as published by the ABS for the date of adoption of this Plan		

Note: In the event that the Current <u>IPD</u> is less than the previous <u>IPD</u>, the Current <u>IPD</u> shall be taken as not less than the previous <u>IPD</u>. Also note that the ABS adjusts the base year annually and therefore the actual IPD figures to be used are those applicable on the date on which indexation occurs. Please refer to paragraph 1.3 for the applicable figures at the time of adoption, however these may vary over time for the reasons stated.

For changes to land values, the council will publish at least on an annual basis the revised land index values that are to be used to change the base land values contained in the plan which will be determined in accordance with the following formula:

#### \$C<sub>LV</sub> + <u>\$C<sub>LV</sub> x ([Current LV – Base LV Index])</u> [Base Index]

Where

Where

\$CLVis the land values within the plan at the time<br/>of adoption of the plan expressed in dollars;Current LV Index<br/>TSC Land Indexis the land value index as published by the<br/>council available at the time of adjustment<br/>of the contribution rate;Base LV Index<br/>TSC Land Indexis the land value index as published by the<br/>council for the date of adoption of this Plan.

Note: In the event that the Current <u>LV Index</u> is less than the previous <u>LV Index</u>, the Current <u>LV Index</u> shall be taken as not less than the previous <u>LV Index</u>. Also note that the council may adjust the base year for this index and therefore the actual LV Index figures to be used are those applicable on the date on which indexation occurs. Please refer to paragraph 1.3 for the indexation figures available at the time of adoption, however these may vary over time for the reasons stated.

For changes in salary costs and changes in the costs for studies and other activities associated with the plan, council will publish at least on an annual basis

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the revised indices that are to be used to change the base costs of salaries and the costs of studies and associated activities in administering the plan.

#### 2.13 Adjustments at the time of payment

The contributions stated in a consent are calculated on the basis of the s94 contribution rates determined in accordance with this plan. The contributions payable will be adjusted and the amount payable will be calculated on the basis of the contribution rates that are applicable at time of payment in accordance with the consent condition.

The current contribution rates are published by council and are available from council offices. Should the council not validly publish the applicable contribution rates, the rate applicable will be calculated in accordance with the rate prevailing in the previous guarter.

## 2.14 Pooling of contributions

This plan expressly authorises monetary s94 contributions paid for different purposes under this plan to be pooled and applied (progressively or otherwise) for those purposes. The priorities for the expenditure of the levies are determined by resolution of Council.

#### 2.15 Savings and transitional arrangements

A development application for the area covered by this plan, which has been submitted prior to the adoption of this plan shall be determined in accordance with this plan.

#### 2.16 Register

Council will maintain a register of all contributions in accordance with EP&A Regulation 34.

The register will be made available for public inspection at any time during normal office hours. An annual statement of contributions will be produced documenting amounts received and relevant details. Such statements will also be made available for public inspection upon request.



# 3.0 PART C - STRATEGY PLAN AND NEXUS

#### 3.1 Introduction

Part 116D of the Environmental Planning and Assessment Act requires that Council take account of 5 key considerations for development contributions, being:

- (a) Can the public infrastructure that is proposed to be funded by a development contribution be provided within a reasonable time?
- (b) What will be the impact of the proposed development contribution on the affordability of the proposed development?
- (c) Is the proposed development contribution based on a reasonable apportionment between existing demand and new demand for public infrastructure to be created by the proposed development to which the contribution relates?
- (d) Is the proposed development contribution based on a reasonable estimate of the cost of proposed public infrastructure?
- (e) Are the estimates of demand for each item of public infrastructure to which the proposed development contribution relates reasonable?

These considerations are addressed in this section by demonstrating a clear nexus between the requirement for public infrastructure and facilities to meet the needs of the increased population as a result of new development and the works program designed to provide it.

#### 3.2 Expected Population

Tweed DCP-B24 identifies the precincts intended to be developed for large lot residential, suburban lot residential, small lot and medium density, neighbourhood planning housing, and shop-top and village centre housing together with target yields and precinct areas. DCP-B24 provides for a lot yield of 1799 allotments spread across these various land uses.

Based on this lot yield, a population of 3,782 has been used as the basis for developer contribution calculations.

## 3.3 Demand for Facilities

In order to levy contributions under S94, a fundamental link must be established between the new development and the demand created for additional public facilities.

Area E is a "greenfield" site which is mainly used for agricultural purposes including small cropping and grazing. Tweed DCP-B24 identifies the types of development anticipated within the area following rezoning of the majority of the land for urban purposes in October 2007. This Plan contemplates a population increase of 3,782 people over a period of approximately 20 years. Currently, there are no public amenities and public services within or within close proximity to the Terranora Area E Release Area which would satisfy the demand generated by the additional population.

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# 3.4 Facilities

# 3.4.1 Road Works - Broadwater Parkway and Mahers Lane

Broadwater Parkway is the major connector road proposed to service the Area E Urban Release Area, connecting to Fraser Drive to the east, and Mahers Lane / Terranora Road to the west. Mahers Lane is an existing road with a varying cross section. The carriageway requires upgrading and realignment in order to service the traffic demands of the development.

Broadwater Parkway and Mahers Lane were previously included as Local Area Contributions in Contribution Plan No.4 – Tweed Road Contribution Plan (TRCP). The Local Area Contributions were deleted from the TRCP as part of a review in 2011 (Version 6) in order for it to be included in CP31. The eastern portion of Broadwater Parkway, adjacent to and including the intersection with Fraser Drive has been retained in the TRCP, within the general works program.

Broadwater Parkway has been determined by traffic network modelling in the Tweed Road Development Strategy as having negligible benefit to the wider traffic network. As such, the cost of the provision of Broadwater Parkway is considered to be entirely the result of new development, and hence funded 100% by CP31, with no apportionment for existing development.

All remaining undeveloped land adjoining Mahers Lane is also associated with the Area E Urban Release Area, and as such, the upgrading of Mahers Lane is also funded 100% by CP31.

The following table summarises the estimated cost for the provision of Broadwater Parkway and the upgrading of Mahers Lane:

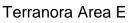
Road	Construction Costs*	Land Acquisition	Geotech, Environmental, Design Supervision	Contingency^	TOTAL
Broadwater Parkway	\$8,208,640	\$3,653,640	\$3,011,096	\$4,761,011	\$19,634,388
Mahers Lane	\$1,257,650	Nil	\$163,495	\$485,298	\$1,906,443
				TOTAL ROADS	\$21,540,830

\* Construction costs include road works, bridges, intersections, lighting, environmental, and geotechnical works.

^ Contingency for road works has been calculated using the Project Estimating matrix for strategic road projects (Roads and Traffic Authority NSW) as detailed in Appendix G, and as summarised below:

# Broadwater Parkway Contingency (applied to road and bridge construction costs)

Task	Comment	Contingency
Project scope	Reasonably confident and reliable	12%
Risks	Reasonably confident and reliable	12%
Constructability	Not confident and not reliable	10%





Task	Comment	Contingency
Key dates	Not confident and not reliable	5%
Information	Not confident and not reliable	12%
Length of project	Reasonably confident and reliable	7%
	TOTAL	58%

# Mahers Lane Contingency (applied to road construction costs)

Task	Comment	Contingency
Project scope	Highly confident and reliable	9%
Risks	Highly confident and reliable	9%
Constructability	Reasonably confident and reliable	8%
Key dates	Reasonably confident and reliable	4%
Information	Highly confident and reliable	9%
Length of project	Highly confident and reliable	4%
	TOTAL	43%

Broadwater Parkway and Mahers Lane costing details are contained in Schedule 1.

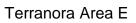
## C (road works) = \$21,540,830

## 3.4.2 Open Space

- (a) For the purposes of this Plan Council has classified public open space into two (2) categories:
  - 1. Structured (Active) Public Open Space sportsfields used for organised sporting activities such as cricket, rugby league, rugby union, hockey, netball etc. Includes ancillary facilities (e.g. car parking, amenities buildings) embellishment and related essential services.
  - 2. Casual (Passive) Public Open Space Public Open Space utilised for a variety of generally "non-organised" activities, including embellishment (e.g. neighbourhood parks, play equipment).
- (b) For the purposes of deriving the area of land set aside for public open space Council has adopted the commonly used standard of 2.83 hectares per 1000 persons. This standard has generally been adopted by the Land and Environment Court for developing areas (Department of Planning 1992).

Public open space shall be provided in the following proportions:

i. 1.7 hectares (60%) "structured" open space (sportsfields) per 1000 persons);





ii. 1.13 hectares (40%) "casual" open space (neighbourhood parks, etc) per 1000 persons.

Estimated Population of Area E as per Exhibited Draft DCP, 3,782 persons			
Open Space Areas required (ha) in accordance with above formula		Open Space Proposed in exhibited draft DCP	Open Space provided in this Contributions Plan
Structured	6.4294	6.81	6.11
Casual 4,2737		5.2143	4.211

Whilst there is a small variance between the areas required by formula and actual areas provided in this plan the variations are small and deemed acceptable.

(c) Casual public open space is to be provided generally as indicated in DCP-B24, but as specifically varied by this contributions plan, and each area must meet criteria regarding minimum size and quality in accordance with Tweed Development Control Plan Section A5 – Subdivision Manual. Where more than the required amounts of suitable casual open space are provided (normally due to topographic constraints) Council may consider its dedication as parkland, provided the area is developed to reduce Council's maintenance costs. These additional areas are not eligible for credits under CP31.

Where casual open space cannot be provided or where it is unacceptable due to quality constraints Council will impose a contribution levy based on current land valuations in the development area and embellishment costs to enable Council to acquire suitable land or request dedication of an alternative site.

- (d) Open space contributions will only apply to the residential areas of each precinct as well as any residential component within the village centre precinct.
- (e) If the initial stage of development is subdivision, contributions will be levied assuming that a dwelling house will be erected on each allotment. This will apply to subdivisions created in conjunction with integrated housing, cluster housing, community titles, and dual occupancy and duplexes.
- (f) Where development is medium density development (comprising two or more dwellings), Council will levy contributions based on the number of dwellings created and the number of bedrooms per dwelling less any previous contribution paid.

## 3.4.3 Structured Public Open Space

DCP-B24 provides approximately 6.11 hectares of structured public open space for Area E. Contribution levies for structured open space have been based on the cost of acquiring land at market value, the cost of landforming, access, services,





and embellishment (topsoiling, seeding, irrigation equipment, amenities buildings, car parking etc.).

Council has predetermined the location of structured public open space which is illustrated in Tweed DCP-B24.

Cash contributions for structured public open space will be required from all residential development within Area E.

Structured Public Open Space Requirements

Development standards relating to structured public open space are contained in Table A5-8.3 of Tweed Development Control Plan Section A5 – Subdivision Manual.

Dedication of Structured Public Open Space

Council will only accept dedication of areas in accordance with Tweed DCP-B24.

## Structured Open Public Space Costings

The following table summarises the estimated cost for the provision of structured public open space in Area E:

Field Number	1. Village Centre Oval	2. Mahers Lane Rectangular	3. Central Precinct Rectangular
Land Acquisition	\$2,949,500	\$1,572,500	\$1,776,500
Earthworks	\$915,000	\$1,385,000	\$1,496,000
Road Access	\$109,500	\$766,500	\$722,700
Trunk Stormwater	\$1,510,000	\$0	\$0
Embellishment and services	\$2,205,322	\$1,482,431	\$1,505,231
Contingency (15%)	\$1,153,398	\$780,985	\$825,065
TOTAL	\$8,842,720	\$5,987,396	\$6,325,496
TOTAL STRUCTURED OPEN SPACE			\$21,155,612

Structured public open space costing details are contained in Schedule 2.

#### C (structured open space) = \$21,155,612

#### 3.4.4 Casual Open Space

DCP-B24 provides approximately 4.211 hectares of casual public open space is for Area E. Contribution levies for casual open space have been based on the cost of acquiring land at market value, the cost of landforming, access, services, and embellishment (topsoiling, seeding, irrigation equipment, furniture etc.)

Terranora Area E



Council has predetermined the location of casual public open space which is illustrated in Tweed DCP-B24.

Cash contributions will be required from all residential development within Area E, unless requirements are provided and embellished on site.

Casual Open Space Requirement

Development standards relating to casual public open space are contained in Table A5-8.3 of Tweed Development Control Plan Section A5 – Subdivision Manual.

Dedication of Casual Open Space

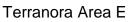
Council will only accept dedication of areas in accordance with Tweed DCP-B24.

Council will not accept casual open space in lieu of structured open space.

# Casual Open Public Space Costings

The following table summarises the estimated cost for the provision of casual public open space in Area E:

Field Number	1. Altitude Aspire North	2. Altitude Aspire South	3. Altitude Aspire Central – does not comply with DCP-A5 requirements	4. Parkes Lane
Land Acquisition	\$467,500	\$484,500	NA	\$309,400
Earthworks	\$113,750	\$168,000	NA	\$62,500
Road Access	\$109,500	\$98,550	NA	\$140,160
Embellishment and services	\$326,830	\$276,362	NA	\$230,449
Contingency (15%)	\$152,637	\$154,112	NA	\$111,376
TOTAL	\$1,170,217	\$1,181,524	NA	\$853,885
Field Number	5. Central East	6. Central West	Sportsfield 1 Casual Park	Sportsfield 2 Casual Park
Land Acquisition	\$382,500	\$467,500	\$595,000	\$884,000
Earthworks	\$102,000	\$175,000	\$0	\$0
Road Access	\$240,900	\$284,700	\$0	\$0
Embellishment and services	\$265,014	\$324,930	\$473,120	\$587,814
Contingency (15%)	\$148,562	\$187,820	\$160,218	\$220,772
TOTAL	\$1,138,976	\$1,439,950	\$1,228,338	\$1,692,586





Public Toilet	4 x Unisex WCs	Location to be confirmed	TOTAL	\$201,858
TOTAL STRUCTURED OPEN SPACE				\$8,907,333

Casual public open space costing details are contained in Schedule 3.

# C (casual open space) = \$8,907,333.

# 3.4.5 Stormwater and Flooding Facilities

The topography of the Area É Urban Release Area dictates that the majority of stormwater runoff internal to the site, as well as external catchments to the south and east, discharge to an environmentally zoned allotment (Lot 227 DP 755740). This allotment has remnant drainage lines from previous land uses which convey runoff in a generally north western direction towards Trutes Bay. Perimeter drainage has previously been excavated around the allotment, with the spoil used to build a flood levee around the northern perimeter of the allotment, to limit tidal water entering the lower portions of Area E. A floodgate fitted with a sluice valve is located towards the western end of the levee within the excavated drainage channel. This floodgate allows all water draining from Area E to discharge from behind the levee to the Broadwater, and for controlled tidal inflows up to the level of the bund. These tidal inflows are critical for the control of mosquitoes, as well as for environmental purposes.

Each subdivision and development is required to implement its own stormwater management system, including stormwater quality and quantity controls, in accordance with Council specifications. Each development must establish a lawful point of discharge and accommodate external flows through the site and provide easements to formalise these arrangements. All costs of these arrangements are borne by the developer.

As Lot 227 is unlikely to develop due to its environmental constraints, CP31 includes the creation of stormwater easements in favour of Council within Lot 227, to provide connectivity between urban development areas and the floodgated outlet to Trutes Bay, and thereby establish a lawful point of discharge for development land. The primary discharge easement to be acquired will extend generally from the northern most part of the drainage channel formation and extend southwards to the southern boundary of Lot 227 in width and in length will extend from east to west along the southern boundary of Lot 227 and then north west to the discharge point on Trutes Bay. The other easements are to cover the levee, floodgate and associated access. The costs of acquisition of these easements are to be borne section 94 cash contributions under this plan by all new development in Area E. Any apportionment of the costs of creating the easements to existing development is not considered reasonable as the lawfulness of existing discharge points is already assumed.

CP31 also provides for the upgrade to the existing flood levee and floodgate control structures, and creation of Council easements over these assets. These works will prevent king tides form overtopping the levee, thereby allowing tidal



Terranora Area E

inflows to Area E to be controlled by flow control structures. Urbanisation of Area E due to development increases the importance of mosquito control over the extensive areas of wetlands within Lot 227, and tidal influence is the most cost effective method of doing so. The works program includes the provision of two new high level culvert structures at the western and eastern end of the levee to provide increased capacity to release stormwater flows generated by the urbanised catchment to discharge to Trutes Bay, without adverse impact to the regular wetting and drying cycle of the wetland areas. The costs of these works shall be borne via cash contributions by all new development in Area E.

The following table summarises the estimated cost for the provision of structured public open space in Area E:

Item	Cost
Acquisition of easements	\$94,500
Levee Upgrading	\$217,840
Additional culverts	\$109,939
Tidal floodgate	\$10,000
Access roads	\$20,000
Approvals / design / investigation	\$79,778
Contingency (15%)	\$59,667
TOTAL	\$588,724

Acquisition and construction details are contained in Schedule 4.

## C (flooding and stormwater) = \$588,724

#### 3.5 Exclusions

The plan does not provide for the collection of developer contributions to fund provision of the following infrastructure, as such works are provided for by other contribution plans, or are the responsibility of the developer to provide as part of subdivision / development works:

- Community Buildings
- Cycleway and Footpath Infrastructure
- Stormwater Treatment and Detention
- Off Site Carparking

In accordance with the NSW Department of Planning's *Draft Development Guidelines 2009*, the acquisition and rehabilitation of environmental land is not considered to provide public amenity or services, and as such cannot be funded by developer contributions. According to the Guidelines, planning agreements and other funding sources such as government grants should be pursued in order to undertake environmental works.

Terranora Area E



## 3.6 Formulae for Contributions

Where a monetary contribution is considered more appropriate than dedication of land, or where the amount of land does not fully satisfy the standard of passive open space to be provided, the following formula shall apply:

Contribution per person =  $\underline{C}$  + 5% Administration levy P

Where:

C = cost of facilities

P = anticipated population in locality to be served by the facilities

The formulae for calculating the amount of contributions payable is based on consideration of:

- the demand for open space generated by the development, based on the additional population expected;
- the current cost of acquiring the necessary land;
- the current capital cost of providing the facility or service;
- increases in land acquisition and building costs, based on the Tweed Shire Land Index and ABS IPD (refer Section 2.7 - Definitions and standards on page 6);
- project costs, being valuation and annual revaluation of lands;

a 5% levy applies to all Section 94 charges to cover the costs associated with administration, development and review of Section 94 Plans.

# 3.7 Calculations

## 3.7.1 Road Works:

Refer to Schedule 1:

Total facilities cost

 $= \frac{\$21,540,830}{3,782} = \$5,695.62$ Anticipated release 3,782

Add 5% administration levy:

= \$5,695.62 + \$284.75 = \$5,980.40



Terranora Area E

Resulting in the following contribution for roadworks:

	Persons	Roadworks
Per person	1	\$5,980
Per Lot/ET	2.4	\$14,343
Detached dwelling	2.4	\$14,343
1 bedroom unit	1.3	\$7,775
2 bedroom unit	1.7	\$10,167
3 bedroom unit	2.1	\$12,559
4+ bedroom unit	2.4	\$14,353

# 3.7.2 Structured Open Space;

Refer to Schedule 2:

=

Total facilities cost\$21,155,612Anticipated release=3,782=\$5,593.76area population=3,782=\$5,593.76

Add 5% administration levy:

= \$5,593.76 + \$279.67 = \$5,873.45

Resulting in the following contribution for structured open space:

	Persons	Structured Open Space Base Rate
Per person	1	\$5,873
Per Lot/ET	2.4	\$14,096
Detached dwelling	2.4	\$14,096
1 bedroom unit	1.3	\$7,635
2 bedroom unit	1.7	\$9,985
3 bedroom unit	2.1	\$12,334
4+ bedroom unit	2.4	\$14,096

# 3.7.3 Casual Open Space:

Refer to Schedule 3:

	Total facilities cost		\$8,907,333		
:	Anticipated release area population	=	3,782	=	\$2,355.19

Add 5% administration levy:

= \$2,355.19 + \$117.76 = \$2,472.95

=

Terranora Area E



Resulting in the following contribution for casual open space:

	Persons	Casual Open space Base Rate
Per person	1	\$2,473
Per Lot/ET	2.4	\$5,935
Detached dwelling	2.4	\$5,935
1 bedroom unit	1.3	\$3,215
2 bedroom unit	1.7	\$4,204
3 bedroom unit	2.1	\$5,193
4+ bedroom unit	2.4	\$5,935

# 3.7.4 Stormwater and Flooding Facilities

Refer to Schedule 4:

= Total facilities cost Anticipated release area population Total facilities cost \$588,724 = \$155.66

Add 5% administration levy:

= \$155.66 + \$7.78 = \$163.44

Resulting in the following contribution for casual open space (if land not dedicated):

	Persons	Stormwater and Flooding Facilities
Per person	1	\$163
Per Lot/ET	2.4	\$392
Detached dwelling	2.4	\$392
1 bedroom unit	1.3	\$212
2 bedroom unit	1.7	\$278
3 bedroom unit	2.1	\$343
4+ bedroom unit	2.4	\$392

Terranora Area E



# **APPENDIX A - HISTORY OF THE PLAN**

# Version 1 (This Version):

Calculations in this version result in the following contribution rates per person:

- Road Works: \$5,451
- Structured Open Space: \$5,873
- Casual Open Space: \$2,473
- Stormwater and Flooding Facilities: \$163

See Section 1.1 - Summary schedule – contribution rates on page 1 to view the rates in detail.



# APPENDIX B – INDEXATION CALCULATIONS Original plan date: XXXX



# APPENDIX C – TABLE A5-8.3 FROM TWEED SHIRE DEVELOPMENT CONTROL PLAN 2008 SECTION A5 – SUBDIVISION MANUAL

TABLE A5-8.3: SPORTS PLAYING FIELDS - DEVELOPMENT STANDARDS			
Areas of local structu	Areas of local structured open space for formal outdoor sporting activities		
OPEN SPACE DEVELOPMENT STANDARDS			
DESIGN ELEMENT	(See also Development Design Specification D14 - Landscaping and Open Space)		
AREA SHAPE	To be provided at the rate of 1.7ha per 1,000 persons, and of sufficient area to allow for playing fields, ancillary buildings, parking, movement areas and safe play margins: Minimum area of 5 hectares, minimum dimensions of 210m by 170m. North south orientation, buffering to adjacent residences.		
	Slopes appropriate for sports fields to be compliant with appropriate Australian/ International standards, but, sufficient slope for natural drainage. Generally slopes >1:100and <1.70 with no catchments longer than 100m between drains. In floodplain areas must be filled to at least, Q100 -1m.		
ACCESS	Off connector road with vehicle access and off street parking provided. Linked to paved bike/path network		
ROAD FRONTAGE	>50% of perimeter.		
AMENITIES	Toilets and change rooms (minimum 1M+1F +1 disabled toilets plus 1 extra toilet or equivalent per300 persons in catchment), lighting, off street parking area (1 per 100 persons in catchment minus adjacent on street parking capacity that will not adversely impact on nearby residents), irrigation, drinking fountains, seating, turf surfacing, benching/mounds for informal seating.		
CONSTRAINTS	Must not contain contaminated land and must be separated from busy roads, waterways and overhead electricity cables.		
SERVICES	Access for garbage collection, regular mowing, water, sewerage, electricity, irrigation.		



# APPENDIX D – TABLE A5-8.1 FROM TWEED SHIRE DEVELOPMENT CONTROL PLAN 2008 SECTION A5 – SUBDIVISION MANUAL

ТА	TABLE A5-8.2.1: LOCAL PARKS - DEVELOPMENT STANDARDS		
	Small intimate space used for children's play and adult respite		
OPEN SPACE	DEVELOPMENT STANDARDS		
DESIGN ELEMENT	(See also Development Design Specification D14 - Landscaping and Open Space)		
AREA DISTRIBUTION	Area of 0.25 to 0.4ha. The number and distribution of these parks is to be to be such that 95% of residents are located within a 400m walking distance.		
CONFIGURATION SHAPE	Contain a central activity zone of 400m <sup>2</sup> for play areas and equipment (with a 20m buffer to residential boundaries), balance of area to be for passive use. The length/width ratio shall not to exceed 3:1		
	>80% of area to have slopes <8%. Site well drained with surfaces grassed, landscaped, paved or provided with soft fall. In floodplain areas must be filled to at least, Q100-1m. To be considered for detention basin dual use must have at least Q1 flood immunity.		
ACCESS	Vehicular access from local roads (preferably more than 1, but internally configured to discourage through traffic) in locations that are permeable to the catchment with adequate access for garbage collection and maintenance. Safe and easy access to bicycle/pedestrian networks.		
ROAD FRONTAGE	>50% of perimeter.		
AMENITIES	Appropriately embellished with play equipment, soft fall surfaces under play equipment, kick about area, paving for ball games, seating with shade, landscaping, drinking fountains, general shade and lighting. Play areas appropriately fenced from balance of park area to delineate changed use.		
SERVICES	Access for garbage collection, regular maintenance, water, electricity.		



# **APPENDIX E - SCHEDULES**

#### Schedule 1 - Road Works

Road Construction         900         11         160         \$ 1,584,000         from Mahers Lance Centre           1260         13,4         160         \$ 2,701,440         Drive intersection           Bridge Construction         40         11         4000         \$ 1,760,000         Major flow path to           15         13,2         4000         \$ 792,000         Minor flow path to           10         13.2         4000         \$ 792,000         Minor flow path to           10         13.2         4000         \$ 528,000         precinct           Signalised Intersection         \$ 380,000         Town centre         Roundabout         \$ 150,000         Fraser Drive precinct           Lighting         2160         145         \$ 313,200         Land Value         900         18.5         85         \$ 1,415,250         Low volume connector           Environmental         \$ 300,000         \$ 300,000         \$ 300,000         \$ 300,000         \$ 300,000         \$ 588/6         \$ 58% contingency           Design (10%)         \$ 1,316,228         \$ 58% contingency         \$ 58% contingency         \$ 58% contingency         \$ 58% contingency	L	.ength					
Road Construction         900         11         160         \$ 1,584,000         from Mahers Land Centre           1260         13,4         160         \$ 2,701,440         Drive intersection towen centre to s           Bridge Construction         40         11         4000         \$ 1,760,000         Major flow path to towen centre to s           Bridge Construction         40         11         4000         \$ 792,000         Minor flow path to precinct           15         13.2         4000         \$ 792,000         Minor flow path to precinct           10         13.2         4000         \$ 528,000         precinct           Signalised Intersection         \$ 380,000         Town centre           Roundabout         \$ 150,000         Fraser Drive preci- tighting         \$ 150,000           Land Value         900         18.5         85         \$ 1,415,250         Low volume conn- tow remain connector           1260         20.9         85         \$ 2,238,390         Normal connector           Environmental         \$ 300,000         \$ 300,000         \$ 300,000         \$ 300,000         \$ 300,000         \$ 300,000         \$ 58% contingency road project, base           Design (10%)         \$ 1,316,228         \$ 58% contingency road project, base         \$ 58%	<u>n (</u> 1	m)	Width (m)	Rate \$/m2	Sub	ototal	Comments
1260         13.4         160         \$ 2,701,440         Drive intersection           Bridge Construction         40         11         4000         \$ 1,760,000         Major flow path to           15         13.2         4000         \$ 792,000         Minor flow path to           10         13.2         4000         \$ 528,000         precinct           Signalised Intersection         \$ 380,000         Town centre         \$ minor flow path to           Roundabout         \$ 380,000         Fraser Drive prec         \$ 150,000         Fraser Drive prec           Lighting         2160         145         \$ 313,200         \$ 100 volume conn           Land Value         900         18.5         85         \$ 1,415,250         Low volume conn           1260         20.9         85         \$ 2,238,390         Normal connector           Environmental         \$ 300,000         \$ 300,000         \$ 300,000         \$ 300,000         \$ 300,000         \$ 58% contingency road project, base           Design (10%)         \$ 1,316,228         \$ 58% contingency road project, base         \$ 58% contingency road project, base	ad Construction	900	11	160	\$	1,584,000	Low volume connector road from Mahers Lane to Town Centre
15         13.2         4000         792,000         Minor flow path to           10         13.2         4000         \$ 792,000         Minor flow path to           Signalised Intersection         10         13.2         4000         \$ 528,000         precinct           Signalised Intersection         \$ 380,000         Town centre         \$ 380,000         Town centre           Roundabout         \$ 150,000         Fraser Drive prec         \$ 150,000         Fraser Drive prec           Lighting         2160         145         \$ 313,200         \$ 1415,250         Low volume conn           Land Value         900         18.5         85         \$ 1,415,250         Low volume conn           1260         20.9         85         \$ 2,238,390         Normal connector           Environmental         \$ 300,000         \$ 300,000         \$ 300,000         \$ 300,000         \$ 300,000         \$ 508,000         \$ 58,0		1260	13.4	160	\$	2,701,440	Normal connector road from towen centre to start of Fraser Drive intersection works
10         13.2         4000         \$ 528,000         Minor flow path F precinct           Signalised Intersection         \$ 380,000         Town centre           Roundabout         \$ 150,000         Fraser Drive precinct           Lighting         2160         145         \$ 313,200           Land Value         900         18.5         85         \$ 1,415,250         Low volume connector           1260         20.9         85         \$ 2,238,390         Normal connector           Environmental         \$ 300,000         \$ 300,000         \$ 300,000         \$ 300,000         \$ 50,000         <	lge Construction	40	/ / 11	4000	\$	1,760,000	Major flow path town centre
10         13.2         4000         \$ 528,000         precinct           Signalised Intersection         \$ 380,000         Town centre           Roundabout         \$ 150,000         Fraser Drive precinct           Lighting         2160         145         \$ 313,200           Land Value         900         18.5         85         \$ 1,415,250         Low volume conn           1260         20.9         85         \$ 2,238,390         Normal connector           Environmental         \$ 300,000         \$ 300,000         \$ 500,000         \$ 13,162,280         \$ 13,162,280         \$ 13,162,280         \$ 58% contingency road project, base         \$ 58% contingency road project, base		15⁄	∕13.2	4000	\$	792,000	Minor flow path town centre
Roundabout         \$ 150,000         Fraser Drive prec           Lighting         2160         145         \$ 313,200           Land Value         900         18.5         85         \$ 1,415,250         Low volume conn           1260         20.9         85         \$ 2,238,390         Normal connector           Environmental         \$ 300,000         \$ 300,000         \$ 500,000         \$ 13,162,280         \$ 13,162,280         \$ 1,316,228         \$ 58% contingency road project, base		10	∕	4000	\$	528,000	Minor flow path Fraser Drive precinct
Lighting         2160         145         \$ 313,200           Land Value         900         18.5         85         \$ 1,415,250         Low volume conn           1260         20.9         85         \$ 2,238,390         Normal connector           Environmental         \$ 300,000         \$ 300,000         \$ 300,000         \$ 300,000         \$ 500,000	nalised Intersection				\$	380,000	Town centre
Land Value         900         18.5         85         \$ 1,415,250         Low volume conn           1260         20.9         85         \$ 2,238,390         Normal connector           Environmental         \$ 300,000         \$ 300,000         \$ 300,000         \$ 300,000         \$ 1,000,000         \$ 1,000,000         \$ 13,162,280         \$ 2,238,390         \$ 13,162,280         \$ 1,316,228         \$ 394,868         \$ 394,868         \$ 58% contingency road project, base	undabout	$\sim$			\$	150,000	Fraser Drive precinct entry
1260         20.9         85         \$ 2,238,390         Normal connector           Environmental         \$ 300,000         \$ 300,000         \$ 300,000         \$ 1,000,000         \$ 13,162,280         \$ 13,162,280         \$ 1,316,228         \$ 1,316,228         \$ 394,868         \$ 58% contingency road project, base	nting	2160		1,45	\$	313,200	
Environmental         \$ 300,000           Geotechnical         \$ 1,000,000           SUBTOTAL         \$ 13,162,280           Design (10%)         \$ 1,316,228           Supervision (3%)         \$ 394,868           58% contingency road project, base	id Value	900	18.5	∕ /85	\$	1,415,250	Low volume connector road
Geotechnical         \$ 1,000,000           SUBTOTAL         \$ 13,162,280           Design (10%)         \$ 1,316,228           Supervision (3%)         \$ 394,868           58% contingency road project, base		1260	20.9	85	\$	2,238,390	Normal connector road
SUBTOTAL         \$ 13,162,280           Design (10%)         \$ 1,316,228           Supervision (3%)         \$ 394,868           58% contingency road project, base	vironmental		/		\$	300,000	<u></u>
Design (10%)         \$ 1,316,228           Supervision (3%)         \$ 394,868           58% contingency road project, base	otechnical		_		\$	1,000,000	
Supervision (3%) \$ 394,868 58% contingency road project, base	BTOTAL				\$	13,162,280	~
58% contingency road project, base	sign (10%)			$\sim$		1,316,228	$\sim$
road project, base	pervision (3%)				\$	394,868	
construction and					<		58% contingency for strategic road project, based on RTA matrix, applied to road construction and bridge costs
Contingency         \$ 4,761,011         only.           TOTAL         \$ 19,634,388							oniy.

Notes

Amaroo Drive intersection, inlcuding acquisition of land remains in TRCP (CP4) pool

Terranora Area E



Item	Length (m)	Width (m)	Rate \$/m2	Sul	ototal	Comments
Road Construction	600	11	47.5	\$	313,500	Widen on eastern side only to No.43 Mahers Lane
	780	11	95	\$	815,100	Widen to 11m formation remaining length
Lighting	890		145	\$	129,050	
Land Value				\$	-	No acquisition planned
SUBTOTAL				\$	1,257,650	
Design (10%)		)		\$	125,765	
Supervision (3%)				\$	37,730	
				¢	405 000	43% contingency for strategic road project, based on RTA matrix, applied to road
Contingency		A		\$	485,298	construction costs above.
TOTAL				\$	1,906,443	

#### Notes

Mahers Lane - Terranora Road intersection already completed

	a interocontent and a y completed
	$\rightarrow$ / / $\sim$ $\sim$ / $\sim$
ROADS TOTAL	\$ 21,540,830
	· / / ~
	$\sim$



# Schedule 2 - Structured Public Open Space

#### CP 31 Area E structured open space costing

ided in CP31 61,100
61,100
ment
L/cricket field & structure. An
ional <b>7,000m2</b>
ated to casual
space (see
t field No. 1
tangle field &
structure. An ional <b>10,400m2</b>
ated to casual
space (see
t field No.2 park)
• •
tangle field &
structure &
0m2 used as
acated
ocated sfield space

Terranora Area E



# Structured Open Space

# Field 1: Oval sport - AFL/Cricket

Gross Area	4.17	ha
Total level area available Field 1	37,000	m2
Area required Field 1		
Field and safety buffer area	21,000	m2
Practical buffer area	6,000	m2
Ancillary items - clubhouse, amenities & carpark)	2,000	m2
Dead space, spectator area	1,000	m2
Balance for overflow/training/mini field	0	rm2
Total	30,000	m2
Balance available Casual OS	7,000	/m2/

Land	Unit	Quantity	Rate	Cost	Group Total	Comment
Acquisition of land	ha	3.47	\$850,000	\$2,949,500	\$2,949,500	
Earthworks		$\sim$		$\vee$ / /		
Cut to fill	m3	15,000.00	\$25	\$375,000		$\sim$
Retaining (soil nails and shotcrete)	m2	1,800.00	\$300	\$540,000	\$915,000	
Frontage Road				$\langle / \rangle$	$\sim$	$\langle \rangle$
Purchase half road	m2	700.00	\$85	\$59,500		
Construct half width road	m	100.00	\$500	\$50,000	\$109,500	
Stormwater					$\langle /$	
Channel (7m x 3m) includes exclusion fencing, maint access & landscaping	m	300.00	\$3,300	\$990,000		
Energy dissapator	each	1.00	\$400,000	\$400,000		
Diversion bank	m	100.00	\$1,200	\$120,000	\$1,510,000	
Playing fields						
Construct playing surface & safety buffer	m2	21,000	\$20	\$420,000		160m x 130m plus 4m safety buffer = 21,000 m2
Practical buffer	m2	6,000	\$12	\$72,000		30m end & 10m side buffer = 6,000 m2
spectators & dead space	m2	1,000	\$12	\$12,000		
Balance of area for overflow/training/mini field	m2	7,000	\$20	\$140,000	\$644,000	Actual use to be identified
Lighting						
sportslights				\$280,000	\$280,000	
Irrigation						
Irrigation				\$140,000	\$140,000	Excludes connection fees
						1 ET per 1,000 ha @ 11,571 per ET
Parking	1					
Carparks	m2	1,500	\$100	\$150,000	\$150,000	50 sealed carparks
Amenities						



## Terranora Area E

Total			$\square$		\$8,842,720	
		$\land$				
plus design and project management			0.15	\$1,153,398	\$1,153,398	
Subtotal					\$7,689,322	
telephone etc					\$280,822	
water fees				\$264,976		canteen, toilets & showers & irrigation
sewer fees				\$15,846		canteen, toilets & showers
Services						
fencing	m	500	\$125	\$62,500	\$62,500	1.2m chain wire
Field fencing						
Clubhouse/amenity			1	\$648,000	\$648,000	

Field 2: Mahers Lane square sport - rugby/soccer

Gross Area	2.89	ha
Total level area available Field 2	25,000	m2
Area required Field 2		
Field and safety buffer area	9,600	m2
Practical buffer area	2,000	m2
Ancillary items - clubhouse, amenities & carpark	2,000	m2
spectators & dead space	1,000	m2
Total	14,600	m2
Balance available Casual OS	10,400	m2

Land	Unit	Quantity	Rate	Cost	Group Total	Comment
Acquisition of land	ha	1.85	\$850,000	\$1,572,500	\$1,572,500	
Earthworks						
Cut to fill	m3	24,000	\$25	\$600,000		
Retaining (soil nails and shotcrete)	m2	2,400	\$300	\$720,000		
Safety fence above batters	m	650	\$100	\$65,000	\$1,385,000	
Frontage Road						
Purchase half road	m2	4,900.00	\$85	\$416,500		
Construct half width road (except Mahers Ln)	m	700	\$500	\$350,000	\$766,500	
Stormwater						
	Item			\$50,000	\$50,000	
Playing fields						
Playing surface & safety buffer	m2	9,600	\$20	\$192,000		120m x 70m surface plus 6m safety buffer
Practical buffer	m2	2,000	\$12	\$24,000		Additonal 4m buffer (total will be 10m all round)



## Terranora Area E

spectators & dead space	m2	1,000	\$12	\$12,000	\$228,000	
Lighting						
sportslights				\$180,000	\$180,000	
Irrigation						
Irrigation				\$70,000	\$70,000	
Parking						
Carparks	m2	1,350	\$100	\$135,000	\$135,000	45 sealed carparks
Amenities						
Clubhouse/amenity				\$612,000	\$612,000	Excludes connection fees
Field fencing		$\land$				
fencing	m /	500	\$125	\$62,500	\$62,500	1.2m chain wire
Services		$\land$				
sewer fees		) /	$\wedge$	\$14,178		
water fees				\$130,753	\$144,931	
telephone etc			$\land$			
Subtotal					\$5,206,421	
plus design and project management			0.15	\$720,215	\$780,965	
			/			
Total		$\sim$ /		$\Lambda$	\$5,987,396	

Field 3: Square sport rugby/soccer

Gross Area	2.09	ha
Total level area available Field 3	16,500	m2
Area required Field 3		
Field and safety buffer area	9,600	m2
Practical buffer area	2,000	m2
Ancillary items - clubhouse, amenities & carpark	2,000	m2
Spectators & dead space	1,000	m2
Balance of area for overflow/training	1,900	m2
Total	16,500	m2
Balance available Casual OS	0	m2

Land	Unit	Quantity	Rate	Cost	Group Total	Comment
Acquisition of land	ha	2.09	\$850,000	\$1,776,500	\$1,776,500	
Earthworks						
Cut to fill	m3	24,000	\$25	\$600,000		
Retaining (soil nails and shotcrete)	m2	2,800	\$300	\$840,000		
Safety fence above batters	m	560	\$100	\$56,000	\$1,496,000	
Frontage Road						
Purchase half road	m2	4,620.00	\$85	\$392,700		
Construct half width road (except Mahers Ln)	m	660	\$500	\$330,000	\$722,700	
Stormwater	Item			\$50,000	\$50,000	
Playing fields						
Playing surface & safety buffer	m2	9,600	\$20	\$192,000		120m x 70m surface plus

Terranora Area E



						6m safety buffer
Practical buffer	m2	2,000	\$12	\$24,000		Additonal 4m buffer (total will be 10m al round)
spectators & dead space	m2	1,000	\$12	\$12,000		
Balance of area for overflow/variations	m2	1,900	\$12	\$22,800	\$250,800	
Lighting						
sportslights				\$180,000	\$180,000	
Irrigation	$\wedge$					
Irrigation				\$70,000	\$70,000	
Parking	$\wedge$					
Carparks	m2	1,350	\$100	\$135,000	\$135,000	45 sealed carparks
Amenities	/ /					
Clubhouse/amenity	m2/ /	1,350	\$100	\$612,000	\$612,000	
Field fencing		$\langle \rangle$				
fencing	m	500	\$125	\$62,500	\$62,500	1.2m chain wire
Services				/		
sewer fees	$\sim$ /		Λ	\$14,178		
water fees			$\langle    $	\$130,753	\$144,931	
telephone etc		$\langle \rangle$	~ /			
Subtotal		$\sim$	$\mathbf{S}$		\$5,500,431	
plus design and project management		1	0.15	\$825,065	\$825,065	
		Ì	$\bigvee$	/	$\rightarrow$	
Total				Ň	\$6,325,496	

Section 94 Plan No. 31 Terranora Area E







# Schedule 3 - Casual Open Space

Summary				
Population	3,782			
OS area	Rate	Required (m2)	Proposed in DCP (m2)	Provided in CP31 (m2)
Casual OS	1.13ha/1000 ppn	42,737	52,143	42,110
	$\land$			
Assumed land value	\$850,000	per ha		
Casual OS summary		Area (m2)	Cost	Comment
	Altitude Aspire			
Park 1	Nørth	/5,500	\$1,170,217	
/	Altitude Aspire			
Park 2	South /	5,570	\$1,181,524	
				Does not meet DCP-A5
				subdivision standards,
	Altitude Aspire	$\wedge$ /		so not included in casua
Park 3	Central 🤇 🖊	0	\$0	OS calculations
Park 4	Parkes Lane	/ / 3,640	/ \$853,885	
Park 5	Central East	4,500	\$1,138,976	
Park 6	Central West	5,500	\$1,439,950	
Sport field no.1 park	Village Centre	7,000	\$1,228,338	
		$\sim$	$  / / \langle \vee \rangle$	Same land parcel as
Sport field no.2 park	Mahers Lane	10,400	\$1,692,586	Sportsfield 2
				4 WC, location to be
Public toilet			\$201,858	
Total		42,110	\$8,907,333	$/$ $\vee$
				/

Terranora Area E

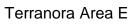


Park 1 - Altitude Aspire North	,	5,500 m2				
	Unit	Quantity	Rate	Cost	Group Total	Comments
Land						
Purchase land	ha	0.55	\$850,000	\$467,500	\$467,500	
Earthworks						
Fill	m3	1,250	\$35	\$43,750		
Retaining walls	m2	300	\$200	\$60,000		
Safety fence above batters	m	100	\$100	\$10,000	\$113,750	
Frontage Road						
Purchase half road	m2	700.00	\$85	\$59,500		
Construct half width road	m	100	\$500	\$50,000	\$109,500	
Stormwater	$\wedge$					
As required	ltem			\$40,000	\$40,000	
Landscaping						
/	$\land$					5,500m2 x 0.8 =
topsoil & seeding	m2)	4,400	\$12	\$52,800		4,400m2
						approx 1 advanced tre
advanced trees		22	\$140	\$3,080		per 250m2
		$/ \land$				5,500m2 x 0.2 ie 20%
Garden beds	m2//	1,100	\$85	\$93,500		of area
				~		\$75/m2 = \$113/m for
paths 1.5m wide	m /	100	\$113	\$11,300	\$160,680	1.5 path
Furniture	$\langle /$	/ )		/		
2 x park shelter, seats, table &	$\sim$	/ /		/ /	~	
slab		2 / /	\$15,500	\$31,000		1 shelter per 2,000m2
Playground with shade or				/ /		
exercise equip			\$45,000	\$45,000	$\land$	
1- 1						2 seats/playground + 2
seating		4	\$1,200	\$4,800	$\sim$	seats/2000m2
Drink fountain		1	\$3,500	\$3,500	$\rightarrow$	
					$\checkmark$	4m2 slab plus shleter
BBQ & shelter with slab		1	\$14,000	\$14,000		plus bbg
Rubbish bin		1	\$3,500	\$3,500		1 bin when install bbq
			, ,,	, ,,		60m lighitng @ 1 pole
Amenity lighting	each	3	\$3,500	\$10,500		per 20m
Bollards	m	200	\$38	\$7,600	$\backslash$	
Fencing	m	50	\$125	\$6,250	\$126,150	
Subtotal				+ 5,200	\$1,017,580	
plus design and project					,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
management			0.15		\$152,637	
Total					\$1,170,217	

Terranora Area E

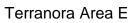


Park 2 - Altitude Aspire South	5,570	m2				
	Unit	Quantity	Rate	Cost	Group Total	Comments
Land						
Purchase land	ha	0.57	\$850,000	\$484,500	\$484,500	
Earthworks						
Cut to fill	m3	1,400	\$25	\$35,000		
Fill	m3	1,800	\$35	\$63,000		
Retaining walls	m2	300	\$200	\$60,000		
Safety fence above batters	m	100	\$100	\$10,000	\$168,000	
Frontage Road						
Purchase half road	m2	630	\$85	\$53,550		
Construct half width road	m 🔨		\$500	\$45,000	\$98,550	
Stormwater						
As required	Item			\$40,000	\$40,000	
Landscaping	$\land$					
						5,570m2 x 0.8 =
topsoil & seeding	m2 /	4,456	\$12	\$53,472		4,456m2
		/				approx 1 advanced tree
advanced trees		10 🔿	\$140	\$1,400		per 250m2
			)			5,570m2 x 0.2 ie 20%
Garden beds	m2 /	1,114	\$85	\$94,690		of area
		ñ.	/ /			\$75/m2 = \$113/m for
paths 1.5m wide	m /	50	\$113	\$5.650	\$155,212	1.5 path
				<i>40,000</i>		
Furniture				+0,000	$\wedge$	
		1				1 shelter per 2,000m2
Furniture 1 x park shelter, seats, table & slab			\$15,500	\$15,500		1 shelter per 2,000m2
Furniture 1 x park shelter, seats, table & slab Playground with shade or			\$15,500	\$15,500		1 shelter per 2,000m2
Furniture 1 x park shelter, seats, table & slab						
Furniture 1 x park shelter, seats, table & slab Playground with shade or exercise equip		1	\$15,500 \$45,000	\$15,500 \$45,000		2 seats/playground + 2
Furniture 1 x park shelter, seats, table & slab Playground with shade or			\$15,500 \$45,000 \$1,200	\$15,500 \$45,000 \$3,600		
Furniture 1 x park shelter, seats, table & slab Playground with shade or exercise equip seating		1	\$15,500 \$45,000 \$1,200 \$3,500	\$15,500 \$45,000 \$3,600 \$3,500		2 seats/playground + 2
Furniture 1 x park shelter, seats, table & slab Playground with shade or exercise equip seating Drink fountain Rubbish bin		1 1 3 1 1	\$15,500 \$45,000 \$1,200 \$3,500 \$3,500	\$15,500 \$45,000 \$3,600 \$3,500 \$3,500		2 seats/playground + 2
Furniture 1 x park shelter, seats, table & slab Playground with shade or exercise equip seating Drink fountain Rubbish bin Bollards	m	1 1 3 1	\$15,500 \$45,000 \$1,200 \$3,500 \$3,500 \$38	\$15,500 \$45,000 \$3,600 \$3,500 \$3,500 \$3,800	\$81,150	2 seats/playground + 2 seats/2000m2
Furniture 1 x park shelter, seats, table & slab Playground with shade or exercise equip seating Drink fountain Rubbish bin	m	1 1 3 1 1 100	\$15,500 \$45,000 \$1,200 \$3,500 \$3,500	\$15,500 \$45,000 \$3,600 \$3,500 \$3,500	\$81,150	2 seats/playground + 2
Furniture 1 x park shelter, seats, table & slab Playground with shade or exercise equip seating Drink fountain Rubbish bin Bollards Fencing Subtotal	m	1 1 3 1 1 100	\$15,500 \$45,000 \$1,200 \$3,500 \$3,500 \$38	\$15,500 \$45,000 \$3,600 \$3,500 \$3,500 \$3,800	\$81,150 \$1,027,412	2 seats/playground + 2 seats/2000m2
Furniture 1 x park shelter, seats, table & slab Playground with shade or exercise equip seating Drink fountain Rubbish bin Bollards Fencing	m	1 1 3 1 1 100	\$15,500 \$45,000 \$1,200 \$3,500 \$3,500 \$38	\$15,500 \$45,000 \$3,600 \$3,500 \$3,500 \$3,800	/ / /	2 seats/playground + 2 seats/2000m2



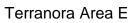


Park 4 - Parkes Lane	3,640 m2					
	Unit	Quantity	Rate	Cost	Group Total	Comments
Land					-	
Purchase land	ha	0.364	\$850,000	\$309,400	\$309,400	
Earthworks						
Cut to fill	m3	500	\$25	\$12,500		
Fill	m3	100	\$35	\$3,500		
Retaining walls	m2	200	\$200	\$40,000		
Safety fence above batters	m	65	\$100	\$6,500	\$62,500	
Frontage Road						
Purchase half road	m2	896	\$85	\$76,160		
Construct half width road	m 🔨	128	\$500	\$64,000	\$140,160	
Stormwater						
As required	Item			\$40,000	\$40,000	
Landscaping	$\land$					
						3,640m2 x 0.8 =
topsoil & seeding	m2 /	2,912	\$12	\$34,944		2,912m2
						approx 1 advanced tree
advanced trees		15 🔨	\$140	\$2,100		per 250m2
			)			3,640m2 x 0.2 ie 20%
Garden beds	m2 /	728	\$85	\$61,880		of area
		$\hat{D}$				\$75/m2 = \$113/m for
paths 1.5m wide	m. /	75	\$113	\$8,475	\$107,399	1.5 path
Furniture	$\sim$				~	·
1 x park shelter, seats, table &	[					
slab		Μ//	\$15,500	\$15,500		1 shelter per 2,000m2
Playground with shade or					$\land$	
exercise equip		1	\$45,000	\$45,000	$\langle \ \backslash / $	
				/	$\sim$	2 seats/playground + 2
seating		3	\$1,200	\$3,600		seats/2000m2
Drink fountain		1	\$3,500	\$3,500		$\rangle$
Rubbish bin		1	\$3,500	\$3,500		$\wedge$
Bollards	m	150	\$38	\$5,700		~
Fencing	m	50	\$125	\$6,250	\$83,050	1.2m chain wire
Subtotal		İ	1		\$742,509	-
plus design and project				1	$\mathbb{N}$	
management			0.15		\$111,376.35	
Total					\$853,885	



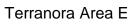


Park 5 - Central East	4,500	m2				
	Unit	Quantity	Rate	Cost	Group Total	Comments
Land						
Purchase land	ha	0.45	\$850,000	\$382,500	\$382,500	
Earthworks						
Cut to fill	m3	1,000	\$25	\$25,000		
Fill	m3	200	\$35	\$7,000		
Retaining walls	m2	300	\$200	\$60,000		
Safety fence above batters	m	100	\$100	\$10,000	\$102,000	
Frontage Road						
Purchase half road	m2	1,540	\$85	\$130,900		
Construct half width road	m 🔨	220	\$500	\$110,000	\$240,900	
Stormwater						
As required	Item			\$40,000	\$40,000	
Landscaping	$\land$					
						4,500m2 x 0.8 =
topsoil & seeding	m2 /	2,912	\$12	\$34,944		3,600m2
						approx 1 advanced tree
advanced trees	/ / /	18 🔨	\$140	\$2,520		per 250m2
						4,500m2 x 0.2 ie 20%
Garden beds	m2 /	900	\$85	\$76,500		of area
			/ /	$\sim$		\$75/m2 = \$113/m for
paths 1.5m wide	m /	100	\$113	\$11,300	\$125,264	1.5 path
Furniture	$\sim$			1 /	~	
1 x park shelter, seats, table &					$\langle \ $	
slab		2	\$15,500	\$31,000		1 shelter per 2,000m2
Playground with shade or					$\land \land$	
exercise equip		1	\$45,000 /	\$45,000	$\langle \ \backslash / \rangle$	
					$\overline{}$	2 seats/playground + 2
seating		4	\$1,200	\$4,800		seats/2000m2
Drink fountain		1	\$3,500	\$3,500		
Rubbish bin		1	\$3,500	\$3,500		
Bollards	m	150	\$38	\$5,700		· · · · · · · · · · · · · · · · · · ·
Fencing	m	50	\$125	\$6,250	\$99,750	1.2m chain wire
Subtotal					\$990,414	
plus design and project						
management			0.15		\$148,562.10	
Total					\$1,138,976	





Park 6 - Central West	5,500 m2					
	Unit	Quantity	Rate	Cost	Group Total	Comments
Land		· · ·				
Purchase land	ha	0.55	\$850,000	\$467,500	\$467,500	
Earthworks				, <u>, , , , , , , , , , , , , , , , , , </u>		
Cut to fill & spoil	m3	3,000	\$35	\$105,000		
Retaining walls	m2		\$200	\$60,000		
Safety fence above batters	m	100	\$100	\$10,000	\$175,000	
Frontage Road						
Purchase half road	m2	1,820	\$85	\$154,700		
Construct half width road	m	260	\$500	\$130,000	\$284,700	
Stormwater	$\wedge$					
As required	ltem			\$40,000	\$40,000	
Landscaping						
/	$\land$					5,500m2 x 0.8 =
topsoil & seeding	m2)	4,400	\$12	\$52,800		4,400m2
						approx 1 advanced tre
advanced trees		22	\$140	\$3,080		per 250m2
		/				5,500m2 x 0.2 ie 20%
Garden beds	m2//	1,100	\$85	\$93,500		of area
		$\sim$		~		\$75/m2 = \$113/m for
paths 1.5m wide	m /	100	\$113	\$11,300	\$160,680	1.5 path
Furniture	$\langle /$	/ )				
2 x park shelter, seats, table &				/	~	
slab		2 / /	\$15,500	\$3/1,000	$\langle \$	1 shelter per 2,000m2
Playground with shade or			$\sim$			
exercise equip		1 🔨 📈	\$45,000	\$45,000	$\land$	
			$\sum$	/ .	$\langle \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \$	2 seats/playground + :
seating		4	\$1,200	\$4,800	$\langle \rangle$	seats/2000m2
Drink fountain		1	\$3,500 /	\$3,500		
			$\sim$		Y /	4m2 slab plus shleter
BBQ & shelter with slab		1	\$14,000	\$14,000		plus bbg
Rubbish bin		1	\$3,500	\$3,500		1 bin when install bbq
						60m lighitng @ 1 pole
Amenity lighting	each	3	\$3,500	\$10,500		per 20m
Bollards	m	150	\$38	\$5,700	$\square$	
Fencing	m	50	\$125	\$6,250	\$124,250	
Subtotal					\$1,252,130	
plus design and project						
management			0.15		\$187,820	
Total			1		\$1,439,950	





Sportsfield No.1 Casual Park	7,000	7,000 m2				
•	Unit	Quantity	Rate	Cost	Group Total	Comments
Land						
Purchase land	ha	0.7	\$850,000	\$595,000	\$595,000	
Earthworks						(included in Sportsfield No. 1 costs)
Frontage Road						(included in Sportsfield No. 1 costs)
Stormwater						
As required	ltem			\$40,000	\$40,000	
Landscaping						
topsoil & seeding	m2	5,600	\$12	\$67,200		7,000m2 x 0.8 = 5,600m2
advanced trees	$\square$	28	\$140	\$3,920		approx 1 advanced tree per 250m2
Garden beds	m2	1,400	\$85	\$119,000		7,000m2 x 0.2 ie 20% of area
paths 1.5m wide	m /	150 /	\$113	\$16,950	\$207,070	\$75/m2 = \$113/m for 1.5 path
Furniture						
4 x park shelter, seats, table & slab		4)	\$15,500	\$62,000		1 shelter per 2,000m2
Playground with shade or exercise equip	$\sim$	1	\$45,000	\$45,000	~	
seating	<	7	\$1,200	\$8,400		2 seats/playground + 2 seats/2000m2
Drink fountain		2	\$3,500	\$7,000	$\land$	
BBQ & shelter with slab		3	\$14,000	\$42,000		4m2 slab plus shleter plus bbq
Rubbish bin		3	\$3,500	\$10,500		1 bin when install bbg
Amenity lighting	each	6	\$3,500	\$21,000	× /	60m lighitng @ 1 pole per 20m
Bollards	m	300	\$38	\$11,400		· ·
Fencing	m	150	\$125	\$18,750	\$226,050	
Subtotal					\$1,068,120	
plus design and project						
management			0.15		\$160,218	
Total					\$1,228,338	

Terranora Area E



Sportsfield No.2 Casual Park	10,400					
	Unit	Quantity	Rate	Cost	Group Total	Comments
Land						
Purchase land	ha	1.04	\$850,000	\$884,000	\$884,000	
Earthworks						(included in Sportsfield
						No.2 costs)
Frontage Road						(included in Sportsfield
						No.2 costs)
Stormwater						
As required	ltem			\$40,000	\$40,000	
Landscaping						
	$\wedge$					7,000m2 x 0.8 =
topsoil & seeding	m2	8,320	\$12	\$99,840		5,600m2
						approx 1 advanced tree
advanced trees	$\frown$	42	\$140	\$5,824		per 250m2
	/ )					7,000m2 x 0.2 ie 20%
Garden beds	(m2 /	2,080	\$85	\$176,800		of area
						\$75/m2 = \$113/m for
paths 1.5m wide	m / )	200 🔨	\$113	\$22,600	\$305,064	1.5 path
Furniture						
5 x park shelter, seats, table &		$\sim$				
slab		5	\$15,500	\$77,500		1 shelter per 2,000m2
Playground with shade or	$\langle /$	/ )		. /		
exercise equip	$\sim$	/1 /	\$45,000	\$45,000	~	
						2 seats/playground + 2
seating		8	\$1,200⁄	\$9,600		seats/2000m2
Drink fountain		2	\$3,500	\$7,000	$\land$	
		~	$\rightarrow$ /		$\langle \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \$	4m2 slab plus shleter
BBQ & shelter with slab		3	\$14,000	\$42,000	$\backslash$	plus bbq
Rubbish bin		3	\$3,500	\$10,500		1 bin when install bbq
					ř /	60m lighitng @ 1 pole
Amenity lighting	each	6	\$3,500	\$21,000		per 20m
Bollards	m	300	\$38	\$11,400		·
Fencing	m	150	\$125	\$18,750	\$2,42,750	
Subtotal					\$1,471,814	
plus design and project						
management			0.15		\$220,772	
Total					\$1,692,586	

Public Toilet	location to	location to be identified				
	Unit	Quantity	Rate	Cost	Comment	
4 Unisex WC - installed				\$170,000	2 WC facility	= \$85,000,
					includes desig	gn & project mgt
sewer connection fees	ET	2.40	\$5,560	\$13,344	1 WC = 0.6 E	T, 1 ET = \$5,560
water connection fees	ET	1.60	\$11,571	\$18,514	1 WC = 0.4 E	T, 1 ET = \$11,571
Total				\$201,858		
Total costs all casual OS & p	ublic toilet				\$8,907,333	
** Excludes walking tracks in r	atural areas					



### **Schedule 4 - Stormwater and Flooding Facilities**

Aca	uisition	of	Ease	ment
AUY	uisition		Laser	none

Acquisition of Ease	ements				
	Length	Width	Rate		
	(m)	(m)	\$/m2	Subtotal	Comments
Flood Levee	1450	15	2	\$ 43,500	Provides for acquisition of E2 zoned land to contain levee and adjacent open channel
Stormwater Drain	2000	12	2	\$ 48,000	Provides for acquisition of E2 zoned land, 3m wide drain plus 3m wide access track
SUBTOTAL				\$ 91,500	
/					

### Levee Upgrade Works - Scope:

Provide 300mm clay capping layer to exclude king tides Provide clay key through centre of levee

Fit new tidal controlled gate on existing culvert to replace manual sluice gate Install two new high level culverts to allow/release of stormwater to bay

		/ `		
Flood levee		Qty		Cost
Materials	Clay Fill Key	2500	m3 🔨 🗸	\$ 11,250
	Clay Fill Capping	2900	m3/	\$ 13,140
	Turf	4350	Vm2 /	\$ 13,050
	Gravel	1050	m3/	\$ 33,600
	Topsoil	217	m3 /	\$ 6,600
	Clearing and site establishment			\$ 5,000
Machinery	12t Excavator (dig)		· · ·	\$ 13,500
	Track truck			\$ 9,000
	5x12t trucks (clay)			\$ 47,250
	5x12t trucks (gravel)			\$ 18,900
	Compactor 3005/blade			\$ 3,000
	12t Excavator (load)			\$ 13,500
	3 x labourers (turf)			\$ 2,700
	3 x labourers (construction)			\$ 13,500
	Ute hire			\$ 1,200
	Bobcat			\$ 7,500
	Erosion sed control			\$ 2,000
	5x12t trucks (topsoil)			\$ 3,150
Culverts	Floodgates x 2 sets			\$ 30,000
	Eastern culverts			\$ 30,236
	Western culverts			\$ 27,703
	Franna (culverts)			\$ 4,800
	12t excavator (culverts)			\$ 7,200
	Concrete			\$ 10,000
	Tidal floodgate on existing culvert			\$ 10,000

Terranora Area E



Fraser Drive				
Access				
Road				\$ 10,000
Mahers Lane				
Access				
Road				\$ 10,000
Planning				
approvals				
and studies				\$ 30,000
Geotechnical	$\sim$			\$ 10,000
			SUBTOTAL	\$397,779
			Design and	
		$\frown$	supervision (10%)	\$ 39,778
			Contingency (15%)	\$ 59,667
		$\wedge$	TOTAL	\$497,224
		$\bigcirc$		
	ND OTODAWATED CAOUL	TIE6		

FLOODING AND STORMWATER FACILITIES	
TOTAL	\$588,724
$\sim$ $\rightarrow$ $/$ $/$ $\sim$ $/$	
	$\sim$



### **APPENDIX F - COMPLYING DEVELOPMENT CERTIFICATES**

Contributions will be levied according to the estimated increase in demand. In assessing the contribution of proposed development, the following calculation shall be used:

 For commercial and industrial development:

 Rate x Unit or Lot
 = Total Charge

 Total Charge – Credit
 = Contribution

 For dwellings:
 (Dwelling type persons x rate per person x number of dwellings of that type)

 = Total Charge
 Total Charge – Credit

### Notes:

### Credit

A credit amount equivalent to the contribution attributable to any continuing (or approved) development on the site of a proposed new development will be allowed for in the calculation of contributions. The credit is equal to the rate (number of lots or units x rate) already paid for as evidenced in a previous development consent. For dwellings and tourist development, the credit is 1 ET which is equivalent to **2.4** persons or any approved existing persons/bedrooms onsite. Where a development consent does not exist for a continuing development, or the total rate charged for cannot be determined, they shall be determined by calculating the current chargeable rate based on existing floor area or existing households / lot.

Rate - Is specified in Table 1.1

Lots, Units and Persons – Are specified in Table 1.1

### **Concessions**

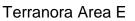
Concessions may be applied in accordance with this plan if applicable.

### Council Assistance

Should a certifying authority choose not to calculate contributions, Council officers are able to undertake calculations at the cost of Council's Enquiry Fee.

### Contribution Fee Sheet

The certifying authority shall attach to the complying development certificate, a fee sheet which details calculations (including persons, credits and total ETs) undertaken to determine the applicable contributions.





The contribution fee sheet should use a format showing all of the details in the table below:

S94 Plan	Sector	Persons	Credit (Persons)	ETs (minus credits)	Total \$
S94 Plan No 31	CP 31	Ххх	Ххх	Ххх	\$xxx

### Condition Template

The condition must be imposed in the following format:

# Section 94 Contributions Payment of the following contributions pursuant to Section 94 of the Act and the relevant Section 94 Plan. The complying development shall NOT commence unless all Section 94 Contributions have been paid. A CURRENT COPY OF THE CONTRIBUTION FEE SHEET ATTACHED TO THIS COMPLYING DEVELOPMENT CERTIFICATE MUST BE PROVIDED AT THE TIME OF PAYMENT. These charges include indexation provided for in the S94 Rlan and will remain fixed for a period of 12 months from the date of this consent and thereafter in accordance with the rates applicable in the current version/edition of the relevant Section, 94 Plan current at the time of the payment. A copy of the Section 94 contribution plans may be inspected at the Civic and Cultural Centres, Tumbulgum Road, Murwillumbah and Brett Street, Tweed/Heads. « Contribution type: XXX Persons @ \$xxxx per person \$xxxx S94 Plan No. XX Sector xxxx



### APPENDIX G - CONTINGENCIES FOR STRATEGIC ROAD PROJECT ESTIMATES

When preparing strategic estimates for major road infrastructure projects, Tweed Shire Council has adopted the NSW Roads and Traffic Authority's Project Estimating Manual (Version 2.0, March 2008) as the basis for contingency allowances. The following schedule is reproduced from the Manual, and is used as the basis for calculating appropriate contingencies taking into account the level of risk or uncertainty associated with the strategic estimates. Calculations for road components of the works program are provided in the body of the contribution plan.

Non-road infrastructure and road projects that have progressed beyond the strategic design stage generally utilise lower contingencies of 10-15%.

Project estimating



Appendix B

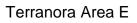
# 19.2 Appendix B – Contingency for strategic estimates

Chapter 19

Contingency for Strategic Estimates that have been derived using TYPICAL rates such as the ones indicated below should be in the range of 40-70% depending on the confidence and reliability of the of the information used in preparing the estimate. Please note that the estimating manual recommends a range of 35-70%, the 35-40% should be used only if the project has been advanced to concept but for some reason is titled strategic.

One way to derive a contingency % is by testing the reliability and confidence there is in different aspects of the information used to generate the estimate:

Task/activity	Comments	Highly confident and reliable	Reasonably confident and reliable	Not confident and not reliable	Contingency
Project scope	<ul> <li>Is it well defined? No†Yes↓</li> <li>Is there room to vary the works? No↓Yes↑</li> <li>Are there many options? No↓Yes↑</li> </ul>	9%	12%	15%	
Risks	<ul> <li>Are there significant risks with this Project? No↓Yes↑</li> <li>Political</li> <li>Community</li> <li>Technical</li> <li>Financial</li> <li>Has a detailed risk analysis been undertaken? No↑Yes↓</li> </ul>	9%	12%	15%	
Constructability	<ul> <li>Has a constructability review been under taken? No↑Yes↓</li> <li>Is constructability a problem? No↓Yes↑</li> </ul>	6%	8%	10%	





Task/activity	Comments	Highly confident and reliable	Reasonably confident and reliable	Not confident and not reliable	Contingency
Key dates	<ul> <li>Are the Projects dates known? No↑Yes↓</li> <li>Is the project planned for the distant future? No↓Yes↑</li> </ul>	3%	4%	5%	
Information	<ul> <li>Has any investigation been undertaken (include desk top studies)? No↑Yes↓</li> <li>Geotechnical</li> <li>Heritage</li> <li>Environmental</li> <li>Technical</li> <li>Hydraulic</li> </ul>	9%	12%	15%	
Length of the project	<ul> <li>Is the project short? No↓Yes↑</li> <li>&lt;1km - short project</li> <li>&gt;25km - long project</li> </ul>	4%	7%	10%	
				Total:	

#### Notes:

- No↓ denotes that if the answer is No, decrease contingency.
- No<sup>↑</sup> denotes that if the answer is No, increase contingency.
- Yes† denotes that if the answer is Yes, increase contingency.
- Yes denotes that if the answer is Yes, decrease contingency.

If it is required to project the prices into the future, use an escalation factor:

- During construction, adopt a 6% per year linear escalation.
- For time frames of 0-5 years into the future, adopt a 10% per year linear escalation prior to construction.
- For time frames in excess of 5 years into the future, adopt a 15% per year linear escalation prior to construction.

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