

Application for assessment of a local infrastructure contributions plan – Part A

The Hills Shire Council Draft Contributions Plan No. 17 – Castle Hill North

Application Local Government

Version 5 April 2018

ii IPART Application for assessment of a local infrastructure contributions plan - Part A

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1 Instructions

1.1 Who should fill in this application form?

This form is for NSW councils that are submitting a **local infrastructure contributions plan** to IPART for assessment. A separate application must be submitted for each contributions plan.

Councils are encouraged to discuss information requirements or other queries relating to the contributions plan assessment process with IPART prior to submitting an application.

Call IPART on 02 9290 8400 to speak to the Local Government Contributions Plan Team.

1.2 How should a council submit an application?

Councils should complete this Application Form Part A and submit it to IPART, along with the contributions plan and all relevant supporting documentation (see Checklist in section 5) by email, post or in person. We require an electronic copy of all documents.

Email	Post	In Person
Attention: Local Government Contributions Plan Team	Attention: Local Government Contributions Plan Team	Attention: Local Government Contributions Plan Team
localgovernment@nsw.gov.au	Independent Pricing and Regulatory Tribunal PO Box K35	Independent Pricing and Regulatory Tribunal Level 15
	Haymarket Post Shop Sydney NSW 1240	2-24 Rawson Place Sydney NSW 2000

1.3 What other information is available?

Please refer to IPART's website <https://www.ipart.nsw.gov.au/Home/Industries/Local-Government/Local-Infrastructure-Contributions-Plans> for further information on our assessment process, including current and completed assessments. The website also has copies of:

- Application Form Part B (optional)
- Section 94E Ministerial Direction for Local Infrastructure Contributions 2012, as amended (Ministerial Direction), and
- Local Infrastructure Contributions Practice Note, January 2018.

2 Preliminary Information

2.1 All applications

A. Council information

Council name	The Hills Shire Council
Primary council contact details	Brent Woodhams – Forward Planning
(Provide name, position, phone number, and email	Coordinator
address)	02 9843 0443
	bwoodhams@thehills.nsw.gov.au
Secondary council contact details	Alicia Iori – Senior Town Planner
(Provide name, position, phone number, and email	02 9843 0396
address)	aiori@thehills.nsw.gov.au

B. Information about the plan

What is the name of the plan?	Draft Contributions Plan No. 17 – Castle Hill North
Which clause of the section 94E Ministerial Direction for Local Infrastructure Contributions (Ministerial Direction) applies to this plan (ie, clause 6, 6A, 6B or 6C)?	6 Maximum Amount of Monetary Contributions under Section 94
What is the current maximum contribution amount (per lot or dwelling) for this plan under the Ministerial Direction?	\$20,000
In the absence of any cap imposed by the Ministerial Direction, what are the indicative contribution amounts (per lot or dwelling) for each type of residential development in the catchment area?	Dwelling / Lot: \$46,493.65 Medium and High Density Residential: 4 Bedroom: \$45,040.73 3 Bedroom: \$36,323,17 2 Bedroom: \$26,152.68 1 Bedroom: \$24,699.75
When was the plan publicly exhibited?	The draft Plan was first exhibited from Thursday 17 August 2017 to Friday 15 September 2017. The plan was re-exhibited from 11 December 2018 to 1 February 2019.

Has the council adopted the plan? If so, when was it adopted and when did it come into force? To what extent was the Department of Planning & Environment (DPE) involved in the development of this plan?	The plan has not yet been adopted. The Plan has been publicly exhibited on two occasions and considered by Council post exhibition. It will be submitted to Council for further consideration following the outcome of IPART's assessment. The Department of Planning and Environment prepared the North West Rail Link Corridor Strategy in 2013 which identified substantial growth across the Sydney Metro Northwest Precincts. Subsequent master planning of the Castle Hill North Precinct by Council identified the potential for 3,283 additional dwellings in this precinct, consistent with the overall growth identified in the North West Rail Link Corridor Strategy. To achieve the identified growth, a planning proposal, draft development controls, a draft Public Domain Plan and draft Contributions Plan were prepared by Council. A Gateway Determination for the planning proposal was issued by the Department of Planning and Environment on 2/11/16. Draft Contributions Plan No. 17 – Castle Hill North has been prepared by Council to support the growth of the Castle Hill North Precinct. It will levy new residential development to collect the necessary funds for the provision of local infrastructure required to support the additional population. The draft Plan identifies upgrades and new facilities including roundabouts, road widening, intersection re-alignment, new playing fields, upgrade of local open spaces and new stormwater management facilities.
Over what period will development in the catchment area of the plan occur?	20 years
What proportion of the total projected development in the catchment area of the plan has been approved and/or constructed?	The plans that will facilitate the anticipated residential uplift are yet to come into force. Accordingly, no development envisaged within the draft Contributions Plan has occurred to date.
What planning instruments (SEPPs, LEPs, or DCPs) apply to land in the catchment area of the plan?	The Hills Local Environmental Plan 2012 The Hills Development Control Plan 2012
Has the Minister referred this contributions plan to IPART for review? If so, provide details.	No – Pursuant to the Ministerial Direction Council is required to submit the plan to IPART for review prior to it being adopted.

Т

2.2 For contributions plans previously reviewed by IPART

Councils only need to complete these three questions for plans that IPART has previously reviewed.

C. Information about revisions to the plan

Why is the council submitting the revised plan for IPART's review?	N/A
 Briefly explain how the plan has been revised in response to: recommendations made in IPART's assessment report on the previous version/s of the plan, and any directions from the Minister for Planning in relation to IPART's assessment. 	N/A
Briefly explain any other revisions to the plan such as updated costings, revised apportionment of costs, or amended delivery timeframe.	N/A

3 Assessment Criteria

We will assess the contributions plan against the criteria listed in the *Local Infrastructure Contributions Practice Note,* issued by the Department of Planning and Environment (DPE) in January 2018 (Practice Note).

Your responses to the questions in this section will assist us in understanding how the plan, including the proposed cost of land and works, has been prepared.

- If the information in your proposed response is clearly set out in the contributions plan or a separate report or document, it is sufficient to refer to the appropriate sections/pages.
- Any referenced reports and documents will need to be attached to this application (see Checklist in Section 5).

3.1 Criterion 1 – the Essential Works List

The public amenities and public services in the plan are on the Essential Works List

We are required to assess whether the land and works in the contributions plan are on the Essential Works List (EWL). Refer to the Practice Note for the most recent version of this list, including a definition of base level embellishment of open space.

Checklist for the contributions plan

Does the contributions plan		Contributions plan page reference(s)
Include land or works not on the EWL	Yes 🗆 No 🖂	N/A
Include costs for any land or works not on the EWL in the calculation of contribution rates	Yes 🗆 No 🖂	N/A

1. If the plan includes costs for land and/or works not on the Essential Works List:

- a) list these items below, and
- b) indicate how their costs are to be met.

N/A

Only the land component for community services is on the Essential Works List. However, we require details of the community services that are intended to be provided on this land, so we can determine what proportion of the land costs can be recovered through development contributions.

2. List the community services that will be provided on the land that is to be acquired for community services (eg, youth centre, library) and indicate the floor space area allocated to each.

N/A

3.2 Criterion 2 – Nexus

The proposed public amenities and public services are reasonable in terms of nexus (the connection between development and the demand created).

Nexus ensures that the land and works included in the contributions plan are required to meet the increased demand for facilities generated by the anticipated development.

Does the contributions plan			Contributions plan page reference(s)
Incorporate a map showing the geographical catchment area of the contributions plan	Yes 🛛	No 🗆	4
Detail the types of development that will occur in the catchment area(s) of the plan, and the approximate area of each land use	Yes 🛛	No 🗆	14
Include information about:			42
 the existing population in the catchment area the projected residential population and/or workforce 	Yes ⊠ Yes ⊠	No □ No □	13 14
Include details about how the need for land and works was determined	Yes 🛛	No 🗆	16-30
Refer to design and construction standards used in determining the works in the plan	Yes ⊠	No 🗆	16-30

Checklist for the contributions plan

3. Explain the process used to determine the need for all land and works in the plan.

List any supporting studies relied on and explain any deviations from recommendations in those studies.

a) Transport land and works

The proposed transport works have been determined having regard to the following studies:

- Traffic and Accessibility Study prepared by Brown Consulting (May 2014)
- Capacity of Proposed Intersection of Old Northern Road with McMullen Avenue & Brisbane Road prepared by Gennaoui Consulting Pty Ltd (October 2010)

The proposed works are considered necessary to meet future demand, whilst ensuring an acceptable level of access, safety and convenience for all street and road users within the Castle Hill North Precinct. Further discussion of the transport facilities to be provided under the plan is provided below.

Traffic Signals and Realignment

The intersection of McMullen Avenue/Old Northern Road is one of the principal points at which vehicles generated from within the Caste Hill North Precinct will access the arterial road network. The additional traffic volume resulting from the future development, coupled with the broader increase in regional traffic volume, will necessitate an upgrade to this intersection. The intersection will be realigned with Brisbane Road to provide a four way signalised intersection with McMullen Avenue. This will provide a much safer intersection for traffic accessing and departing both McMullen Avenue and Brisbane Road.

A report has been prepared by Gennaoui Consulting Pty Ltd 'Capacity of Proposed Intersection of Old Northern Road with McMullen Avenue & Brisbane Road'. This report identified that the total number of cars turning from Old Northern Road onto McMullen Avenue and Brisbane Road and from McMullen Avenue and Brisbane Road onto Old Northern Road was 2,227 cars during the PM peak which equates to a daily traffic volume of 22,270 cars.

Assuming the regional traffic volume increases by 3% per year over the coming 20 years, the total number of cars making these movements per day will increase to 40,022 (+17,952) in the 20th year. It is noted that this figure is only regional increases in volume and assumes that there will be no additional development within the Castle Hill North Precinct.

There will be approximately 3,283 additional dwellings within the Castle Hill North Precinct. Based on the RTA Guide to Traffic Generating Development, the average peak hour traffic generation for a high density unit is around 0.29 trips per unit. When applied to the 3,283 additional dwellings within the precinct, this would result in around 952 peak trips. It is estimated that around 40% of these movements (380) would pass through the McMullen Avenue/ Old Northern Road intersection. The remaining cars would travel to the arterial road network via Old Castle Hill Road or the Pennant Street/Showground Road or Castle Street/Rowallan Avenue junction.

Over the next 20 years the total number of cars turning cars turning from Old Northern Road onto McMullen Avenue and Brisbane Road and from McMullen Avenue and Brisbane Road onto Old Northern Road during the peak period will increase by 1,623 cars (+1,243 regional and +380 from Castle Hill North). Of these approximately 380 cars (24% of the overall increase) will be generated by future development within the Castle Hill North Precinct. Accordingly, it is considered reasonable that future development within the precinct be levied for 23-24% of the cost of the upgrade.

The cost estimate for this upgrade is based on an 'Estimate of Cost for Civil Infrastructure Works' prepared by Diversi Consulting for McMullen and Old Castle Hill and Brisbane Roads dated 30 June 2015 plus 7.5% for project management, 7.5% for design and 30% contingency.

Roundabouts

Upgrades to key intersections within the Precinct are required to support the forecast population growth. The need for these facilities is not principally linked to the level of service at these junctions, but rather the projected 'Environmental Capacity' of these roadways. The Environmental Capacity (EC) is a measurement of the number of vehicles (including moving and parked) that is considered to be acceptable within an area or individual street, with respect to the impacts on such environmental indicators as pedestrian risk, pedestrian crossing delay, noise and accessibility.

Traffic volumes have been assessed in the following four local streets that provide access to the Development Precinct as follows:

Road	Classification	Existing Vehicles per hour	Environmental Capacity	EDI
Old Castle Hill Rd- South of Gilham St	(Major Collector)	973	380	2.6
Carramar Road between Gilham and Castle St	Local Road	265	350	0.8
Gilham St at Carramar Rd	Local Road	84	350	0.2
Castle Street between Carramar Rd	Major Collector	774	3,801	2.0

Traffic Volumes and Environmental Capacity

Carramar Road and Gilham Street are below their respective Environmental Capacities however

the full development scenario in this area will increase the traffic volumes to near or over their capacity. These two streets provide the primary access points for most of the traffic to be generated from the residential redevelopment.

The proposed roundabouts at the intersections of Castle Street/Carramar Road, Carramar Road/Gilham Street, Garthowen Crescent/Old Castle Hill Road and Gilham Street/Old Castle Hill Road will ameliorate the impacts of that additional traffic in three ways:

- The additional traffic will have safe ingress/egress into the local road network via Castle Street and via Old Castle Hill Road where traffic safety will be an issue because of the existing high traffic volumes.
- Residential amenity of the adjacent area will be enhanced for the new residents as
 pedestrian access at the intersections will be greatly improved by the central median
 island treatments required for the roundabouts.
- Traffic speeds at the intersections will be controlled to acceptable limits.

The full cost of these roundabouts will be levied through the draft Contributions Plan. This approach is justified on the basis that the demand for intersection control is created by traffic going to and from the proposed development within the side streets. Existing traffic volumes along both Castle Street and Old Castle Hill Road are not directly relevant to the traffic demand using the side streets at the two locations on the periphery of the development area, and there are separate Local Area Traffic Management Schemes for these two Major Collector Roads that are being implemented in stages for their full lengths.

The cost of each roundabout is based on IPART Benchmark rates.

Road Upgrades and Widening (Castle Street and Old Castle Hill Road)

Road profiles have been prepared for all roads within the Castle Hill North Precinct. These new profiles will ensure that sufficient road reserve is provide to facilitate safe and efficient traffic flow, on-street parking (where required) and improved pedestrian verge widths which are reflective of their intended use. In order to accommodate the road profiles along Old Castle Hill Road and Castle Street, road widening will be required. The existing reservations for these two roadways, being around 19 metres along Castle Street and around 19.5m-21 metres for Old Castle Hill Road, are insufficient and would result in inadequate traffic lane widths, parking lane widths and smaller verge widths.

As the widening and upgrade of the roadways are necessary to both support the intensification of residential densities and assist in the transition of Castle Hill North into a transit oriented centre, it is proposed that the cost of acquiring the roadway be included within this Contributions Plan.

The proposed road profiles for Old Castle Hill Road and Castle Street and Road concepts and land acquisition plans are included in the following figures.



Enhanced Collector Road (Old Castle Hill Road Profile)



Enhanced Collector Road (Castle Street Profile)



Castle Street - Road Widening Plan (West)



Castle Street - Road Widening Plan (East)



Old Castle Hill Road - Road Widening Plan

Pedestrian Bridges

It is envisaged that the Castle Hill North Precinct will develop into a high density transit centre. Transit Oriented Development (TODs) are defined as mixed use communities within walking distance of a transit node that provide a range of residential, commercial, open space and public facilities in a way that makes it convenient and attractive to walk, cycle or use public transport. The benefits of TODs are more compact urban areas, a reduced reliance on private vehicles and creation of liveable, walkable neighbourhoods.

In order to improve pedestrian movement from the proposed high density residential development to the Castle Hill commercial area and Castle Hill Station, two pedestrian bridges are proposed. These will both improve the pedestrian experience and will minimise traffic movement being restricted at-grade pedestrian crossings which would interfere with traffic flow.

Without the proposed development there would be no need for the bridges. The need to get pedestrians totally off the main road is because of the extra load from new residential development. Details regarding the proposed bridges are provided below.

- <u>Pedestrian Bridge 1 (Northern Bridge)</u> The northern pedestrian bridge will cross Pennant Street, from Eric Felton Reserve to the Castle Towers site, on the eastern side of the junction of Pennant Street, Old Castle Hill Road and McMullen Avenue.
- <u>Pedestrian Bridge 2 (Southern Bridge)</u> The southern pedestrian bridge will cross Pennant Street, on the northern side of Castle Street, near the current Castle Hill Police Station.

The locations of the pedestrian bridges are identified on the following figure.

Proposed Pedestrian Bridges



b) Stormwater land and management works

Land within the Castle Hill North Precinct drains in a westerly direction.

The area is characterised as a 1960's subdivision in which the catchment was developed across major overland flow paths in an era when the consideration given to planning was limited. As a consequence, flooding of properties is likely when catchment runoff from storm events exceeds the capacity of the piped drainage system.

A number of overland flowpaths are present within the Precinct. Overland flowpaths are initiated when catchment runoff exceeds the capacity of the existing stormwater drainage system. These flowpaths are a considerable constraint to future development between Les Shore Place and Larool Crescent, and from Carramarr Road to Castle Street. Accordingly, upgrades and enlargements to the stormwater drainage system are required to ease the impacts of overland flowpaths on affected land. Similarly, sensitive management of the remnant flows through innovative design will reduce identified hazards.

Compliance with Council's Flood Controlled Land Development Control Plan, On-Site Stormwater Detention Policy and application of the principles of Water Sensitive Urban Design (WSUD) will facilitate further development in the study area.

Proposed Stormwater Drainage Facilities

Upgrades to the local pipe network are required to reduce the impact of flooding as a result of new development in the vicinity of Garthowen Crescent, Les Shore Place, Larool Crescent, Carramar Road and Castle Street.

Stormwater drainage upgrade works have been identified based on preliminary estimates of pipe system upgrades required to ease the impacts of overland flowpaths on affected land within the Precinct. The delivery of these upgrades will reduce the identified hazards to future development.

Cost estimates for the pipe infrastructure are based on IPART benchmark rates. The cost of drainage pits are based on recent drainage projects within The Hills Shire. As the upgraded stormwater drainage facilities are required to address the impact of new development within the catchment, future residential development within the Castle Hill North Precinct will be subject to the full costs of providing these drainage facilities.

As part of the planning for the Stormwater Management Upgrades Council will be undertaking a Stormwater Network Asset Upgrade Report which will involve the preparation of a detailed flood investigation report, and the development of detailed concept designs and plans for the upgrade of Council owned stormwater assets within the study area. Further refinements to the concept or cost estimates would necessitate a future amendment to the plan.

c) Open space land and works (embellishments)

The additional population will increase demand for both active and passive forms of open space. Given that Castle Hill North Precinct is located within an existing urban area there is limited opportunity for the provision of new open space areas.

Based on standard benchmarks for greenfield locations an additional population of 6,045 people would generate demand for approximately 17.1 hectares of both active and passive open space. Castle Hill North Precinct is located within an established urban area and is already serviced by a number of local parks and playing fields including:

- Fred Caterson Reserve;
- Castle Hill Heritage Park Reserve;
- Bert Parkinson Reserve; and
- Maurice Hughes Reserve.

Achieving a higher amount of open space will present challenges due to the highly urbanised context and the cost of land. Alternative solutions for meeting the expected increase in demand for active open space have been investigated.

The small pocket parks located within the Precinct including Eric Felton Reserve and Larool Crescent Reserve, currently have minimal levels of embellishment and, as a result, are underutilised. The focus for these areas is increasing the range of activities through the use of improvements such as play equipment, picnic facilities and additional landscaping and seating. The aim is to transform these spaces into more usable urban facilities rather than open spaces.

Passive recreation activities including walking, jogging and cycling will be met through the provision of a network of high quality pedestrian paths and cycleways. Improvements and additions to the pedestrian paths and cycleways will be provided as part of the plan.

District Open Space

District open space traditionally accommodates a wider range of recreational opportunities and greater flexibility than local open space, and incorporates both active and passive open space

functions. These include sports fields, sport complexes, and district parks incorporating less structured recreation including informal play, picnicking, walking, and cycling.

As a consequence it has a greater distribution pattern than local parks and is often accessed by car in addition to pedestrians and cyclists.

The precinct has access to one major district park being Fred Caterson Reserve. It is a large multisport facility covering a total of 58 hectares. There are six picnic tables, two barbecues and a junior children's playground. Public toilets (including disabled access toilet) are open during daylight hours. The reserve features five soccer fields or three cricket fields, cricket practice nets, baseball field, ten tennis courts, a BMX track, remote control car track and a basketball stadium. There are also several walking tracks in the reserve (featuring concrete pathways and bush tracks), as well an extensive cycleway.

Local Open Space

Currently the precinct contains the following passive open space areas totalling approximately 18,696m²:

- Eric Felton Reserve (2,879m²): The reserve functions as passive open space with minimal embellishment;
- Larool Crescent Reserve (1,259m²): The reserve functions as a passive open space with limited embellishment. The park provides a footpath which provides a link between Larool Crescent and Castle Street;
- Maurice Hughes Reserve (14,558m²): This reserve also functions as passive open space located behind Castle Hill Primary School. The land also contains Sydney Turpentine Ironbark Forest.

Open Space Links

Currently there are open space links within and connecting to Castle Hill North, being Larool Crescent Reserve and Bert Parkinson Reserve. Larool Crescent Reserve is primarily used to provide pedestrian connection between Larool Crescent and Castle Street and adds to the pedestrian network.

Bert Parkinson Reserve connects to Maurice Hughes Reserve and provides wider pedestrian and cycle connections.

Proposed Open Space and Recreational Facilities

Active Open Space

An additional population of around 6,045 people will generate demand for 1.64 playing fields and 1 cricket oval. As the existing playing fields are already at capacity there is limited potential to accommodate the additional demand within these facilities. Additional playing fields will be required to ensure that the future population is provided with appropriate active open space facilities, and not simply provided with a sub-standard level of service due to the difficulties associated with acquiring open space.

It is proposed that Council pursue an expansion of facilities at the existing Holland Reserve, off Holland Road in Glenhaven. Overall, the expansion would include the construction of 3 additional playing fields, just over half of which (55%) would address growth within Castle Hill North. The remaining 45% could address some of the demand generated by future growth in the remaining part of Castle Hill Precinct.

The cost of delivering the facility equates to approximately \$23.3 million of which \$12.8 million would be levied through the Castle Hill North Contributions Plan. Holland Reserve is already zoned RE1 Public Recreation and under Council ownership, so no planning proposals would be required to rezone the land, and no additional land acquisition would be required.

The proposed expansion will necessitate upgrades to Holland Road and Glenhaven Road to facilitate safe access and egress, removal (offsetting) of approximately 3 hectares of bushland and relocation of two telecommunication towers to an alternative location within the reserve.

In preparing the draft Contributions Plan, preliminary assessment was undertaken to identify road upgrades required to enhance vehicular and pedestrian permeability, safety and amenity. Works identified include upgrades to Holland Road and Glenhaven Road including minor expansion of the carriageway, establishment of kerb and gutter and amendments to the road centreline at the Glenhaven Road/Holland Road intersection to ensure that cars turning right from Glenhaven Road onto Holland Road will not block through traffic along Glenhaven Road.

In light of the concerns raised within submissions, measures have been further investigated to increase safety and improve vehicular access to the future playing fields and surrounding residential properties.

Holland Road is the only vehicular access point for Holland Reserve. It is anticipated that the expanded facility could generate in the order of 300 vehicular trips per hour during peak times for the playing fields, which will increase traffic volumes on the surrounding road network. To address the increased traffic volumes it is considered reasonable that traffic signals be installed at the intersection of Holland Road and Glenhaven Road. This treatment is already being considered in the design for improvement to Glenhaven Road. The proposed signalisation will greatly improve safety for vehicles and pedestrians entering and exiting Holland Road. It is anticipated that the signals can generally be accommodated within the existing road reserve, however this would be subject to further detail design.

Council has undertaken significant work investigating potential playing field sites to meet growth within the Sydney Metro Northwest Corridor. Investigation of 21 alternative sites was undertaken to provide playing fields for Castle Hill North including urban land within the 2km catchment, acquisition of rural land within Glenhaven and Dural, and expansion of existing playing field facilities. Unfortunately locating suitable land within the established precincts has been particularly challenging given the existing urban character and low availability of land within these areas. Given the high cost of land and desire to achieve the most efficient use of land in proximity of the stations, the majority of sites investigated have been found to be cost prohibitive.

Based on the investigation of 21 alternative sites, the options which involved the acquisition of urban land within the 2km catchment resulted in a cost of around \$30-40m per playing field. Furthermore options involving the acquisition of rural land in Glenhaven and Dural resulted in a cost of around \$14-18m per playing field. Both approaches are substantially higher than the Holland Reserve expansion approach which results in an average cost of around \$7.6m per playing field. Accordingly, the recommended approach is considered to be the most cost effective to meet the demand generated by the future population within the Precinct.

It is noted that Holland Reserve is located around 4.5km from the Castle Hill Precinct and as such is outside of the typical rule of thumb catchment for playing fields, which is approximately 2km from the source of the demand (source: Recreation and Open Space Planning Guidelines for Local Government). Whilst the identified site at Holland Reserve would not strictly comply with the recommended distance as per the Recreation and Open Space Planning Guidelines for Local Government, the location is still considered to be within the service catchment of the Castle Hill Precinct and as such is within a reasonable distance to demonstrate sufficient nexus. Being an existing public reserve, within a semi-rural area, the location will also minimise potential interface issues and amenity impacts.

Local Open Space

The purpose of local open space is to provide informal play space and opportunities for supervised play within convenient walking distance from any given residence.

An additional population of around 6,045 people will generate demand for approximately 10ha of passive open space, based on the traditional method of determining open space provision. However, achieving a higher amount of passive open space will present challenges due to the

highly urbanised context and the cost of land. Accordingly, the approach which is proposed is to improve the function and capacity of the existing passive open space areas within the Precinct. The following Reserves will be embellished to create more urban park spaces and encourage short and medium stay usage:

- Maurice Hughes Reserve;
- Larool Crescent Reserve; and
- Eric Felton Reserve.

The small pocket parks located within the Precinct, Eric Felton Reserve and Larool Crescent Reserve, currently have minimal levels of embellishment and as a result are under-utilised. The focus for these areas is increasing the range of activities through the use of improvements such as play equipment, picnic facilities and additional landscaping and seating. The aim is to transform these spaces into more usable urban facilities rather than open spaces. The proposed capital cost of embellishing local open space within the precinct is detailed below.

Maurice Hughes Reserve

- Passive open space embellishment including cycleway, BBQs, planting, bins, cycle racks, drinking fountains, seating, tables, turfing, security lighting, softfall playground, fencing, gate, playground equipment and shade structure;
- The cost estimates for the upgrade are based on IPART Benchmark rates (IPART Local Infrastructure Benchmark Costs).

Larool Crescent Reserve

- Passive open space embellishment including cycleway/pedestrian pathway, paving, drinking fountain, tables, planting, security lighting, turf, and fencing;
- The cost estimates for the upgrade are based on IPART Benchmark rates (IPART Local Infrastructure Benchmark Costs).

Eric Felton Reserve

- Passive open space embellishment including demolition of concrete slab and light structure, clearance of vegetation, cycleway/pedestrian pathway, paving, drinking fountain, seating, planting, turf, security lighting and fencing;
- The cost estimates for the upgrade are based on IPART Benchmark rates (IPART Local Infrastructure Benchmark Costs).

The full cost of these upgrades will be levied through the draft Plan.

Open Space Links

Pedestrian and cycle links are an important element of the open space network within the Castle Hill North Precinct. Landscaped links will improve scenic and landscape quality and allow future residents to move easily to parks, the train station and Major Centre. Therefore these links have an important amenity and recreation value as well as increasing the effectiveness of all parks and reducing car dependence.

Embellishment works for links will typically consist of paths and cycleway construction, tree and shrub plantings, lighting and fencing. The links include Larool Crescent Reserve and Eric Felton Reserve.

d) Community services land

N/A

4. Were any supporting studies prepared for the catchment area but not relied on? If so, explain why they were not used.

5. How has non-residential development been considered in determining the need for infrastructure in the plan.

The key focus for Castle Hill North is to provide additional residential opportunities in close proximity to a future train station and existing commercial centre. Given this focus and the proximity of the precinct to employment, shops and services within Castle Hill centre only a small amount of non-residential development is expected within the precinct. This is predominantly along Old Castle Hill Road where land is zoned R1 General Residential. Non-residential development is not considered likely to create a significant demand on local infrastructure and therefore is not proposed to be levied under the plan.

6. In determining the need for infrastructure in the plan, what consideration was given to:

- a) the existing population in the catchment area
- b) any existing or projected population outside the catchment area
- c) the capacity of existing infrastructure in the catchment area, and/or
- d) any existing or proposed infrastructure outside the catchment area.

a) the existing population in the catchment area

Existing development within the Castle Hill North Precinct consists predominantly of residential land uses. There are currently 292 dwellings within the Castle Hill North Precinct with a population of around 934 based on an occupancy rate of 3.2 persons per dwelling.

The infrastructure planning undertaken by Council and documented by this Contributions Plan is based upon the demands which would be generated by the additional population expected within the Castle Hill North Precinct, over and above the existing population of approximately 934 people.

b) any existing or projected population outside the catchment area

Costs are apportioned to new development/additional population within the catchment area. It is expected that future development within the remainder of the Castle Hill Precinct will fund a portion of some of the identified infrastructure, specifically the intersection upgrade of McMullen Avenue/Brisbane Road and the expansion of facilities at Holland Reserve.

c) the capacity of existing infrastructure in the catchment area

Discussion on capacity of existing infrastructure is included within Part C of the draft Contributions Plan. A summary is also provided below.

Transport and pedestrian facilities

Analysis was undertaken of the existing road network and transport/pedestrian infrastructure to assess the likely impact of the proposed additional residential development and identify measures to mitigate against any impact through improvements that will facilitate the orderly development of the Precinct. Capacity of existing transport infrastructure was considered within supporting studies including:

- Traffic and Accessibility Study prepared by Brown Consulting (May 2014)
- Capacity of Proposed Intersection of Old Northern Road with McMullen Avenue & Brisbane Road prepared by Gennaoui Consulting Pty Ltd (October 2010)

N/A

Stormwater facilities

Land within the Castle Hill North Precinct drains in a westerly direction.

The area is characterised as a 1960's subdivision in which the catchment was developed across major overland flow paths in an era when the consideration given to planning was limited. As a consequence, flooding of properties is likely when catchment runoff from storm events exceeds the capacity of the piped drainage system.

A number of overland flowpath are present within the Precinct. Overland flowpaths are initiated when catchment runoff exceeds the capacity of the existing stormwater drainage system. These flowpaths are a considerable constraint to future development between Les Shore Place and Larool Crescent, and from Carramarr Road to Castle Street. Accordingly, upgrades and enlargements to the stormwater drainage system are required to ease the impacts of overland flowpaths on affected land. Similarly, sensitive management of the remnant flows through innovative design will reduce identified hazards.

District Open Space

The precinct has access to one major district park being Fred Caterson Reserve. It is a large multisport facility covering a total of 58 hectares. There are six picnic tables, two barbecues and a junior children's playground. Public toilets (including disabled access toilet) are open during daylight hours. The reserve features five soccer fields or three cricket fields, cricket practice nets, baseball field, ten tennis courts, a BMX track, remote control car track and a basketball stadium. There are also several walking tracks in the reserve (featuring concrete pathways and bush tracks), as well an extensive cycleway.

Local Open Space

Currently the precinct contains the following passive open space areas totalling approximately 18,696m²:

- Eric Felton Reserve (2,879m²): The reserve functions as passive open space with minimal embellishment;
- Larool Crescent Reserve (1,259m²): The reserve functions as a passive open space with limited embellishment. The park provides a footpath which provides a link between Larool Crescent and Castle Street;
- Maurice Hughes Reserve (14,558m²): This reserve also functions as passive open space located behind Castle Hill Primary School. The land also contains Sydney Turpentine Ironbark Forest.

Open Space Links

Currently there are open space links within and connecting to Castle Hill North, being Larool Crescent Reserve and Bert Parkinson Reserve. Larool Crescent Reserve is primarily used to provide pedestrian connection between Larool Crescent and Castle Street and adds to the pedestrian network.

Bert Parkinson Reserve connects to Maurice Hughes Reserve and provides wider pedestrian and cycle connections.

d) any existing or proposed infrastructure outside the catchment area

Additional works are being undertaken in the vicinity of the Precinct as part of wider traffic improvements. These traffic works are not being levied through the draft Castle Hill North Contributions Plan. In particular, the upgrade of Showground Road which includes improvements to the Pennant Street and Showground Road intersection are likely to be delivered in the near future. These works are the responsibility of NSW Roads and Maritime Services. While the Precinct will benefit from these wider traffic upgrades, the need for them is not directly attributed to the development within Castle Hill North.

Investigation was undertaken into a number of potential playing field sites including urban land within the 2km catchment, acquisition of rural land within Glenhaven and Dural, and expansion of existing playing field facilities. The result of this analysis was that Holland Reserve was identified as the most suitable option for the provision of additional active open space required to service the Castle Hill North Precinct.

3.3 Criterion 3 – Reasonable costs

The proposed development contribution is based on a reasonable estimate of the cost of the proposed public amenities and public services.

IPART must advise whether the proposed development contributions are based on a *reasonable* estimate of the cost of the proposed public amenities and public services. This includes how the base costs of land and each item of infrastructure are derived and the method used to calculate the contribution rates and escalate them over time.

Does the contributions plan			Contributions plan page reference(s)
Explain how the proposed cost of works was derived (eg, quantity surveyor or other consultant advice, standard costs used by the council)	Yes 🛛	No 🗆	Supporting Infrastructure Cost Spreadsheet and Part C of Plan
Explain how the proposed cost of land was derived	Yes 🛛	No 🗆	Supporting Infrastructure Cost Spreadsheet and studies provided and Part C of Plan
Include a schedule of the contributions rates (eg, \$/ha, \$/person, \$/dwelling)	Yes 🛛	No 🗆	2
Explain how the contribution rates will be adjusted for inflation/ changes in costs	Yes 🛛	No 🗆	9-10
Provide details of accounting arrangements for contribution funds (eg, is pooling of funds permitted, will internal borrowings be used to deliver infrastructure projects?)	Yes 🛛	No 🗆	7-9
If using a Net Present Value (NPV) approach, include assumptions made in the modelling of costs and revenue	Yes 🛛	No 🗆	9-10

Checklist for the contributions plan

7. What is the base period for costs in the plan (eg, June 2017)?

July 2018

8. Explain the process used to estimate costs for works for each infrastructure category.

Refer to matters such as:

- Use of consultant or QS estimates
- Use of council costs
- Use of benchmark costs
- Any allowances included, such as professional fees and contingencies
- Details of any indexation of cost estimates to the base period of the plan, including the index used

Sources of costs for all infrastructure items within the draft Contributions Plan are detailed within the spreadsheet 'CP17 Infra Cost Support'. A summary of sources is also provided below. Project management and design fees at 7.5% of cost (total 15% for both project management and design) and 30% contingency applied for all infrastructure items.

a) Transport works

Road widening (land) Costs determined based on valuation report prepared by MJ Davis (June 2017)

<u>Road upgrades (capital)</u> Based on Council rates schedule and past Council projects

Roundabouts Based on IPART benchmarks

<u>Traffic Signals</u> Based on report prepared by Diversi Consulting (June 2015)

Pedestrian Facilities

Based on estimates for similar structures in The Hills Shire

b) Stormwater management works

<u>Stormwater Pipes</u> Based on IPART benchmarks

<u>Stormwater Pits</u> Based on past Council projects

c) Open space works (embellishments)

Passive Open Space Based on IPART benchmarks

Playing Fields

Based on IPART benchmarks, past Council projects, Council rates schedule and draft Biodiversity Development Assessment Report prepared by UBM (October 2018)

9. Explain the process used to estimate the cost of plan preparation and administration.

1.5% of capital costs as per IPART benchmarks.

10. What, if any, land has the council already acquired to provide local infrastructure for development in the catchment area? How has the cost of this land been included in the plan?

N/A

11. Explain the process used to estimate the cost of land yet to be acquired by the council.

Refer to:

- Details of any inclusions for just terms compensation
- Details of any indexation of cost estimates from the base period of the plan, including the index used

Refer to valuation report prepared by MJ Davis (June 2017). These have been indexed as per CPI to 2017/2018. Values will be indexed as described in Section 2.19 of the draft Contributions Plan.

12. If contributions rates in the plan are calculated using an NPV model,

- a) Does the model use real or nominal values?
- b) If the model uses nominal values, what indexation assumptions are applied to costs and revenue?
- c) What discount rate does the model use, and why?
- a) The model uses nominal values
- b) Based on IPART's Information Paper (April 2018) and Local Infrastructure Benchmark Costs (April 2014). Average growth for the past 15 years to 30 June 2018:
 - Revenue 2.5%
 - Open Space Capital Works 3.41%
 - Drainage and Transport Capital Works 3.37%
 - Land 5.5%
- c) 1% Based on IPART's latest local government discount rate (August 2018)
- 13. What measures have been taken to minimise costs in the contributions plan (eg, adjustment to design or alternative engineering solutions)?

Use of existing zoned open space land to provide playing fields and passive open space

Removal of public domain upgrades following public exhibition

Reduced project management fees following public exhibition from 10% of cost to 7.5% of cost

3.4 Criterion 4 – Reasonable timeframe

The proposed public amenities and public services can be provided within a reasonable timeframe

Checklist for the contributions plan

Does the contributions plan			Contributions plan page reference(s)
Include details of the anticipated rate of development in the catchment area and how this was determined	Yes 🛛	No 🗆	Supporting dwelling and population projection spreadsheet
Include a program for infrastructure delivery and explain how it relates to the anticipated timing of development	Yes 🖂	No 🗆	11 and supporting dwelling and population projection spreadsheet
Include a statement regarding potential revision of the scheduled timing for infrastructure delivery	Yes ⊠	No 🗆	11

14. How has the council determined the timing of infrastructure provision?

Provide details of the program for delivery of infrastructure in the contributions plan and explain its underlying rationale.

Refer to supporting information including works schedule for program of delivery.

Timing is based on anticipated rate of development (refer projection spreadsheet) and reasonable assumptions regarding planning, approval and construction timeframes for infrastructure items.

3.5 Criterion 5 – Reasonable apportionment

The proposed development contribution is based on a reasonable apportionment of costs between existing and new demand, and also demand generated by different types of development.

Apportionment is about ensuring the allocation of costs equitably between all those who will benefit from the infrastructure or create the need for it. While nexus is about establishing a relationship between the development and demand for infrastructure, apportionment is about quantifying the extent of the relationship.

Checklist for the contributions plan

Does the contributions plan		Contributions plan page reference(s)
Include details of apportionment calculations	Yes 🛛 No 🗆	Part C

15. How does the plan apportion costs?

Provide details of calculations made, and explain how the apportionment takes into consideration demand arising from (as relevant):

- new and existing development in the catchment area
- different stages of development
- different sub-catchments
- residential and non-residential development
- different residential development densities
- new and/or existing development outside the catchment area

Discussion on apportionment is included within Part C of the draft Contributions Plan. A summary is also provided below.

a) Transport land and works

The need for proposed roundabouts, road widening, and pedestrian bridges is generated by the residential development of the Castle Hill North Precinct. It is therefore appropriate that residential development within the Castle Hill North Precinct be subject to the full costs of providing these facilities.

Approximately 24% of the cost of upgrading the McMullen Avenue/ Old Northern Road intersection will be funded by future development within the Castle Hill North Precinct. This infrastructure item may also be funded through contributions levied from development in the Castle Hill South Precinct.

b) Stormwater management land and works

Upgraded stormwater drainage facilities are required to address the impact of new development within the catchment. Future residential development within the Castle Hill North Precinct will be subject to the full costs of providing these drainage facilities.

c) Open space land and works (embellishments)

The need to provide the open space identified in the plan is generated by the residential development. The demand for the local open space will be fully funded by future development within the Castle Hill North Precinct as the need for the embellishment is a direct result of future growth within the Precinct.

With respect to the active open space (playing fields at Holland Reserve) approximately 55% of the cost of this facility will be funded by the future population within the Castle Hill North Precinct. It is anticipated that the remaining cost will be funded by future development within the remainder of the Castle Hill Precinct and other proposals which will add demand for future playing fields.

a) Community services land

N/A

b) Plan preparation and administration

100% apportioned to Castle Hill North

3.6 Criterion 6 – Appropriate community liaison

The council has conducted appropriate community liaison and publicity in preparing the contributions plan.

We require evidence that the plan has been exhibited and publicised in accordance with the statutory requirements and that submissions received during the exhibition period have been taken into account. The post-exhibition version of the plan should not differ so significantly from the exhibited version that it requires re-exhibition.

It is not necessary that the relevant information is included in the contributions plan itself.

16. When was the plan publicly exhibited?

The draft Plan was exhibited from Thursday 17 August 2017 to Friday 15 September 2017. The draft Plan was re-exhibited for a second time from 11 December 2018 to 1 February 2019.

17. In developing the contributions plan, was any publicity and community liaison undertaken outside the mandatory exhibition period?

N/A

18. How has the council taken into account submissions received on the draft plan placed on exhibition?

Actions as a result of submissions are detailed in the Post Exhibition Council Reports dated 27 November 2018 and 26 March 2019. Submissions primarily related to active open space proposed under the Plan.

19. Does the council intend to undertake any further publicity or community liaison?

No further public consultation is required unless there are substantial changes to the plan following IPART's review.

3.7 Criterion 7 – The plan complies with other matters IPART considers relevant

IPART may take into consideration other matters relevant to our overall assessment of the contributions plan.

These matters may include compliance with the statutory requirements for making local infrastructure contribution plans and with the Practice Note, whether the plan uses up-todate information, as well as issues of transparency and accountability in the council's proposed arrangements for the levying and collection of contributions under the plan.

20. Is there any other information relating to the contributions plan (such as use of VPAs) which may assist us to assess it against this criterion?

N/A

21. Is the council aware of possible changes to any underlying assumptions used in preparing the plan which may be relevant to our assessment?

Such matters could include:

- revised population projections
- potential rezoning or changes to dwelling yields
- other changes to the applicable LEP, SEPP or DCP
- changes to NSW government policy for infrastructure delivery

A revised draft Biodiversity Assessment Report was provided to Council in December 2018. Following further surveys, the December 2018 report revised the cost of biodiversity offsetting from \$2.2 million to \$1.5 million. This change has not yet been reflected in the works schedule as further adjustment to the costs is anticipated following additional surveys anticipated to be undertaken in mid-2019. These final surveys will confirm the presence of species currently assumed to be present. Should it be determined that these species not be present the total offset cost will reduce thereby reducing the overall costs of the facility and rates under the plan. Delaying review of the plan until these final surveys are undertaken is not considered to be warranted as the outcomes will not add any additional costs to the plan.

22. Provide any other information which you consider would assist or expedite our assessment.

N/A

4 Quality assurance

We also request that council undertake a quality assurance (QA) check of the contributions plan before it is submitted to IPART for review.

The purpose of the council's QA check is to identify and address any errors or inconsistencies within the work schedules and also between the contributions plan and relevant supporting information to ensure that the plan, as submitted, is accurate. This should reduce the risk that our assessment is delayed by the need for corrections to be made, or our report unnecessarily include recommendations to correct what are, in essence, calculation errors.

Checklist for the contributions plan

Has the contributions plan been checked for …	
Typographical errors	Yes 🛛 No 🗆
Calculation errors (including checking infrastructure and land cost calculations)	Yes 🛛 No 🗆
Use of the most up-to-date- data and information	Yes 🛛 No 🗆

Note: further review to occur following second exhibition

23 Explain the quality assurance process undertaken for the contributions plan prior to submitting it to IPART for review.

Normal Council Quality Assurance process involving the review of work by senior staff members.

5 Attachment checklist

Please complete the checklist below to ensure that all information necessary for IPART's assessment is submitted.

Councils should complete and attach Application Form Part B,¹ or provide IPART with spreadsheets (.xls files) that:

- detail all infrastructure items included in the plan, with references to the studies that support their inclusion in the plan as relevant
- detail the cost of each infrastructure item (including source and date of costings, and any indexation of cost estimates)
- list all parcels of land required for infrastructure in the plan
- detail the cost of any land that has already been acquired and land that the council is yet to acquire
- show how the total cost of land and works for each infrastructure category (or subcategory) have been apportioned
- show how the contributions rates in the plan have been calculated (including net present value modelling if this approach is used), and
- show indicative contribution amounts for each type of residential dwelling.

Checklist for council application

Application attachment		
Work schedules and calculation of contribution rates		
Application form Part B or	Yes 🗆	No 🖂
spreadsheets that provide the information listed above	Yes 🛛	No 🗆
Contributions plan		
Version of contributions plan incorporating any post exhibition changes	Yes 🗵	No 🗆
Version of contributions plan publicly exhibited	Yes 🖂	No 🗆
Version of contributions plan previously submitted to IPART for review	Yes □	No 🗆 N/a 🖂
Public consultation		
Copy of all submissions to publicly exhibited contributions plan (significant no. of submissions not related to CP. Can be provided upon request)	Yes 🗆	No 🛛 N/a 🗆
Summary of submissions and council's response (significant no. of submissions not related to CP. Can be provided upon request)	Yes 🗆	No 🛛 N/a 🗆
Technical studies and consultant documents		
Land valuation report/s	Yes 🖂	No 🗆 N/a 🗆
Supporting studies for stormwater management infrastructure (eg,	Yes 🗆	No 🗆 N/a 🛛

¹ Application Form Part B is available on IPART's website.

Application attachment		
Flooding and Water Cycle Management report)		
Supporting studies for transport infrastructure (eg, Traffic and Transport Assessment report)	Yes ⊠	No 🗆 N/a 🗆
Supporting studies for open space infrastructure (eg, Demographic and Social Infrastructure report)	Yes ⊠	No 🗆 N/a 🗆
Supporting studies for community services (eg, Demographic and Social Infrastructure report)	Yes □	No 🗆 N/a 🖂
Maps		
Plan catchment map/s	Yes 🖂	No 🗆 N/a 🗆
Final Indicative Layout Plan	Yes 🖂	No 🗆 N/a 🗆
Zoning map/s	Yes 🖂	No 🗆 N/a 🗆
Land acquisition map/s	Yes 🖂	No 🗆 N/a 🗆
Constrained land maps/s	Yes 🗆	No 🛛 N/a 🗆
Other documents		
VPAs	Yes □	No 🗆 N/a 🖂
Details of other funding agreements for state or local infrastructure in the area covered by the plan (including draft agreements)	Yes □	No 🗆 N/a 🖂
Council business papers or meeting minutes related to the preparation of the contributions plan	Yes ⊠	No 🗆 N/a 🗆
Any other documents that you think could be useful in IPART's assessment of the contributions plan	Yes ⊠	No 🗆 N/a 🗆