



Draft Assessment of Austral Leppington North Contributions Plan

Liverpool City Council

Draft Report

April 2023

Local Government >>

Acknowledgment of Country

IPART acknowledges the Traditional Custodians of the lands where we work and live. We pay respect to Elders, past, present, and emerging.

We recognise the unique cultural and spiritual relationship and celebrate the contributions of First Nations peoples.

Local Government Contributions Plan Committee

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Invitation for submissions

IPART invites comment on this document and encourages all interested parties to provide submissions addressing the matters discussed.

Submissions are due by Friday, 9 June 2023

We prefer to receive them electronically via our [online submission form](#). You can also send comments by mail to:

Austral and Leppington North Contributions Plan Assessment
Independent Pricing and Regulatory Tribunal
PO Box K35
Haymarket Post Shop, Sydney NSW 1240

If you require assistance to make a submission (for example, if you would like to make a verbal submission) please contact one of the staff members listed above.

Late submissions may not be accepted at the discretion of the Tribunal. Our normal practice is to make submissions publicly available on our [website](#) as soon as possible after the closing date for submissions. If you wish to view copies of submissions but do not have access to the website, you can make alternative arrangements by telephoning one of the staff members listed above.

We may decide not to publish a submission, for example, if we consider it contains offensive or potentially defamatory information. We generally do not publish sensitive information. If your submission contains information that you do not wish to be publicly disclosed, please let us know when you make the submission. However, it could be disclosed under the *Government Information (Public Access) Act 2009* (NSW) or the *Independent Pricing and Regulatory Tribunal Act 1992* (NSW), or where otherwise required by law.

If you would like further information on making a submission, IPART's [submission policy](#) is available on our website.

The Independent Pricing and Regulatory Tribunal

IPART's independence is underpinned by an Act of Parliament. Further information on IPART can be obtained from [IPART's website](#).

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Executive Summary

New development is essential to provide housing for NSW's growing population and more commercial, retail and industrial space for employment. When development occurs, local councils need to provide additional infrastructure to support both the development and the new community– for example, new roads, stormwater management and open spaces. In NSW, councils can require developers to contribute to the cost of providing that infrastructure.

Contributions plans set out the local infrastructure required to meet the demand from new development, and the contributions a council can levy on developers to fund the necessary land and works.^a Currently, a contributions plan that propose a level of contributions above a threshold of \$30,000 per lot or dwelling in identified greenfield areas and \$20,000 per dwelling in other areas must be submitted to IPART for review to ensure it complies with essential works list (EWL) and other criteria set out in the Infrastructure Contributions Practice Note (2019 Practice Note) published by the Department of Planning and Environment (DPE).

The Austral and Leppington North Precinct contains 1,175 ha of Net Developable Area within the South West Sydney Growth Area. The precinct will accommodate a projected 57,000 residents and up to 13,000 additional workers.

The *Austral and Leppington North 2021 Contributions Plan* (the ALN contributions plan) was submitted by Liverpool City Council to IPART for assessment in April 2021. The ALN contributions plan seeks to levy funds to support the development by setting out the transport, open space, stormwater and community infrastructure requirements over the next 2 decades.

We have assessed the ALN contributions plan against the criteria listed in the document titled *Practice Note Local Infrastructure Contributions, Department of Planning and Environment, January 2019*, (Practice Note). We found the ALN contributions plan does meet the criteria listed in the practice note but make 6 draft recommendations. See our [Information Paper](#) for more detail on our assessment approach.

Our assessment summary

Essential Works List As per 3.2 of the practice note	Nexus Connection with new population	Reasonable cost	Reasonable timetable	Consultation	IPART considers relevant
					
Supported	Supported	Partially Supported	Supported	Supported	Partially Supported
Evidence Provided	Evidence Provided	Recommendations	Evidence Provided	Evidence Provided	Recommendations

^a Section 7.11 of the *Environment Planning and Assessment Act 1979* allows councils to levy contributions towards the cost of providing local infrastructure.

Our draft recommendations

We are seeking your feedback on our draft recommendations for this review. Submissions are due by Friday 9 June 2023. More information on how to make a submission is set out on page 2 of this report.

Recommendations

- | | | |
|----|---|----|
| 1. | Liverpool Council should comprehensively review all works costs in the ALN contributions plan within the next 2 years. The review should include: | 14 |
| | a. any changes to assumptions or strategies within the plan, | 14 |
| | b. actual costs of delivering land and works within or near the precinct (where available), | 14 |
| | c. site specific estimates, recent benchmarks or other relevant sources. | 14 |
| 2. | Following the review of the ALN contributions plan, Liverpool Council should submit the plan to IPART for assessment within 3 years from the date that the plan becomes an "IPART reviewed contributions plan" within the meaning of the Minister's 2019 Direction. | 14 |
| 3. | Liverpool Council should clarify the apparent double counting of street trees in its submission to the draft report or remove \$261,227 of street tree costs, as these have been double counted, before the Final Report. | 14 |
| 4. | Liverpool City Council should explore options to increase open space provision in order to meet industry standard benchmarks in a future review of its plan. | 33 |
| 5. | In its submission to this draft report Liverpool City Council should clarify whether a cycling path will be provided under the current ALN contributions plan. If so how it will be funded and if not, remove references to the cycling path from the ALN contributions plan. | 39 |
| 6. | In its submission to this draft report Liverpool City Council should clarify how trees for stormwater management purposes (bio-filtration trees) have been costed within the ALN contributions plan. | 40 |

Have your say

Your input is critical to our review process.

[Submit feedback »](#)

You can get involved by making a submission or submitting feedback

1 Overview

This report presents our draft assessment the *Austral North Leppington Contribution Plan* (the ALN contributions plan) against the assessment criteria and guidance outlined within the [Practice Note](#) issued by the Department of Planning and Environment (DPE).¹

Our assessments are intended to bring greater transparency and accountability to setting local development contributions, as we make sure that each item of expenditure in a contributions plan is explained and justified

We evaluate if the ALN contributions plan includes only Essential Works Infrastructure (transport, stormwater, open space land and works) that is necessary to service the development precinct at a reasonable cost and within a reasonable timeframe.

Our [Information Paper](#) sets out our assessment approach in greater detail. The analysis in this report elaborates on our review of all items included in ALN against the assessment criteria in the Practice Note.

The Practice Note outlines the following assessment criteria which IPART uses to review a contributions plan:

1. the public amenities and public services in the plan are on the essential works list as identified within the Practice Note
2. the proposed public amenities and public services are reasonable in terms of nexus (the connection between development and the demand created),
3. the proposed development contribution is based on a reasonable estimate of the cost of the proposed public amenities and public services,
4. the proposed public amenities and public services can be provided within a reasonable timeframe,
5. the proposed development contribution is based on a reasonable apportionment between:
 - a. existing demand and new demand for the public amenities and public services, and
 - b. different types of development that generate new demand for the public amenities and public services (e.g. between different types of residential development such as detached dwellings and multi-unit dwellings, and between different land uses such as residential, commercial and industrial).
6. the council has conducted appropriate community liaison and publicity in preparing the contributions plan,
7. any other relevant matters. This includes how often the plan should be reviewed.

IPART also considers whether the contributions plan complies with the legislative framework, including whether it contains the required information set out in clause 212 of the *Environmental Planning and Assessment Regulation 2021*.

1.1. Overview of our assessment findings

We have assessed that the ALN contributions plan contains works which are consistent with the Essential Works List (EWL). Our analysis is that nexus (a link between the items in the plan and projected demand) is established for the infrastructure in the ALN contributions plan. The ALN contributions plan outlines a reasonable timeframe to deliver infrastructure over the next 20 years as the development progresses.

Overall, costs across stormwater, transport and open space works are based on a reasonable estimate but are likely to be low.

We recommended several measures to improve the estimates of infrastructure costs. In particular:

- We consider that the cost estimates of infrastructure delivery may be further refined with actual data as development progresses and site-specific information becomes available. A comprehensive review of costs and the underlying assumptions should be completed by council within the next 12-24 months. Following the review by council the plan should be resubmitted to IPART for assessment within the next 3 years.
- Our review has also identified some instances of double counting as well as spreadsheet errors which we recommend removing from the total cost of infrastructure delivery. This draft recommendation would result in a slight reduction to total contributions of 0.03%.
- In its review Liverpool council should also review the options to increase open space provision.
- We also consider Liverpool council should clarify its provision of a cycle path under this plan as well as provision of stormwater trees before we finalise our assessment.

We found that the costs have been appropriately apportioned and that Liverpool Council plans to deliver infrastructure within a reasonable timeframe.

Council exhibited the draft ALN contributions plan from 18 March to 14 April 2020.

1.2. Overview and context of the ALN contributions plan

In March 2013, the NSW Government rezoned the precincts making up Austral and Leppington North for urban development (See Figure 1.1).

The Austral Leppington North Precinct covered by the ALN contributions plan spans approximately 1500 ha (with approximately 1175 ha Net Developable Area).² It is one of 17 precincts in the Southwest Growth Area. The town centre in Leppington will be the largest of 10 new town or village centres planned for the region serving a combined, projected population of 300,000. The infrastructure covered by the plan will support development within the area including:

- The construction of over 16,000 new dwellings which will result in a total residential population of the Austral and Leppington North Precincts of almost 58,000 people.
- Commercial, light industrial, business parks, human services and entertainment areas that are expected to create an additional 13,000 jobs within the area.

-
- A town centre in Austral with approx. 42,000m² of retail floor space.
 - Three neighbourhood centres with additional retail floor space of approximately 10,000m².
 - 4 primary schools and 2 high schools.
 - 66 hectares of light industrial and bulky goods land for local jobs and services.
 - A new TAFE college and regional Integrated primary health care centre.
 - Regional level community and cultural facilities.

The ALN contributions plan seeks to meet the needs of the future and current residents and workers of these precincts for transport, stormwater, open space infrastructure and land for community facilities. The ALN contributions plan will deliver:

- new town centres for Austral and Leppington.
- 106 ha of open space including 42 local parks, 11 district parks, 9 local sports fields and 1 district sports field
- 12.6 km of new or upgraded roads and associated infrastructure for pedestrian movement
- stormwater infrastructure that will ensure that major rain and flood events are managed effectively.



Liverpool Council originally adopted the Liverpool Contributions Plan in 2014. This enabled Liverpool Council to commence collecting contributions up to the \$30,000 cap which applies in the area. Amended versions were adopted in May 2015 and June 2020. Finally in 2021 to reflect changes in State Government policy and legislation that apply to the plan.

Development in the ALN Precinct is expected to occur over 20 years. Development within the precinct commenced in 2015 and recent correspondence from Council indicates at least 15% of the area has obtained development approval to date.

1.3. Summary of costs in the ALN contributions plan

The total value of land, works, and plan administration included within the ALN contributions plan is approximately \$1.01 billion (\$Dec2020). This comprises:

- \$492.09 million (48.9%) for land acquisition
- \$506.7 million (50.35%) for works
- \$7.6 million (0.78%) for plan administration.

Table 1.1 summarises the costs in the plan by infrastructure category.

Table 1.1 Costs in the ALN contributions plan (\$ millions, \$Mar2021)

Infrastructure category	Land	Works	Administration	Total
Transport	26.4	87.6	-	114.0
Stormwater management	144.2	290.5	-	434.7
Open space	314.1	128.6	-	442.7
Community facilities	7.4	-	-	7.4
Plan administration	-	-	7.6	7.6
Total	492.0	506.7	7.6	1,000.0

Source: Liverpool City Council, *Draft ALN contributions plan (2021)*.

Table 1.2 Indicative residential contributions per lot and dwelling sizes

Type of residential development	Number of dwellings	Occupancy rate per dwelling	Indicative contribution (\$Dec2020)
Environmental living	834	3.4	\$60,576
Low density residential	12,350	3.4	\$60,576
Medium density residential	3,798	2.6	\$52,026

Source: Liverpool City Council, *Draft ALN contributions plan (2021)*.

Table 1.3 sets out a condensed summary of our assessment of the contributions plan against our criteria. This report is accompanied by an [Information Paper](#) outlining IPART's general process for reviewing contributions plans. It includes information such as the context, rationale, terms of reference, methodology and timeline.

1.4. Reasonable estimates of costs

The Practice Note requires contributions plans to demonstrate:

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

In this report we present our draft assessment of whether the council has made a reasonable estimate of costs for each item on the essential works list.

We consider that ensuring a contributions plan includes a *reasonable* cost estimate of essential land and works, increases the likelihood that the '*impactor pays*' principle is conserved. This means that developers (and ultimately the residents or commercial landowners of the new development), will pay for the services they require. It minimises the chance that general ratepayers of the local government area will need to pay for the services in the new area, while at the same time ensuring that developers do not pay too much for the services delivered.

All estimates have a level of uncertainty associated with them. Estimates may be incorrect for many reasons including using a method that prioritises simplicity over accuracy, using general rather than site specific information, incomplete information at the time of the estimate, or unexpected events. Estimates can also become less accurate over time. A reasonable estimate is one that falls within a reasonable band of uncertainty. That is, one that is close to the actual cost of delivering infrastructure but may be higher or lower.

Across stormwater, open space and transport works we found that the Council's estimates were consistently lower than those calculated by IPART using either our benchmarks or the advice of consultants (See chapters 2, 3, and 4 for our detailed analysis). IPART's estimates range from 10% to 61% higher than the estimates included by Council in the ALN contributions plan.

Our view is that the Council's approach to estimating costs is reasonable but likely to be low. We consider that in the early stages of a project, such as for the current stage of the ALN contributions plan, the band of reasonable uncertainty is wider than the later stages of a project when more recent and detailed information on design, circumstances and construction rates is available.

We consider that the proposed level of contributions in the plan will be reasonable and won't over recover for services. We consider that costs across all major infrastructure categories of the ALN contributions plan are more likely to be underestimated than overestimated. We have provided recommendations on how council should review its costs soon (12 to 24 months) and achieve a greater level of certainty on the rate of contributions included in the plan. This includes carefully monitoring the actual costs of infrastructure delivery within the precinct and using this information within a future review.

A summary of our assessment of the ALN contributions plan is presented in Table 1.3

Table 1.3 Assessment summary

Criteria	Traffic and Transport	Stormwater	Open Space
Essential Works List	Demonstrated	Demonstrated	Demonstrated
Nexus	Largely Demonstrated	Demonstrated	Demonstrated
Reasonable Cost	IPART Recommendations	IPART Recommendations	IPART Recommendations
Timing	Demonstrated	Demonstrated	Demonstrated
Apportionment	Demonstrated	Demonstrated	Demonstrated
Consultation	Demonstrated	Demonstrated	Demonstrated
Other	IPART Recommendations		

Source: IPART Analysis

1.5. IPART's assessment of the ALN contributions plan

The ALN contributions plan was initially submitted for assessment in late 2021.

During our preliminary review of the application and supporting documents we requested clarifications and additional information from the Council. We were unable to complete our assessment without the requested information.

We recommenced our assessment in October 2022 when Council provided a partial response to the outstanding information requests. Further information was received between November 2021 and December 2022 allowing us to complete our draft assessment and issue this draft report.

Figure 1.2 Progress timeline of ALN contributions plan assessment



Source: IPART


2 Transport

The projected substantial population increase in the ALN Precincts has necessitated significant increases in transport infrastructure. The predominantly rural Precincts are expecting a net population increase of 55,000 over the next 2 decades, from a current population of less than 3,000. This necessitates a large-scale expansion of transport infrastructure in the area.

2.1 Overview of our assessment

1. **Essential works** – Transport management works are consistent with the essential works list.
2. **Nexus** – There is nexus between the proposed transport items and development in the Precincts.
3. **Reasonable cost (works only)** – Costs are reasonable but are likely low. These should be reviewed in future.
4. **Timing of delivery** – Timing of infrastructure delivery is reasonable at this stage.
5. **Apportionment** – Costs are appropriately apportioned completely to new development. The plan also apportions costs appropriately between residential and non-residential development.
6. **Community Liaison** – The council conducted appropriate community liaison and publicity in preparing the ALN contributions plan and responded to one submission it received at this time.
7. **Other matters** – no other transport specific matters.

Draft Recommendations

1.  Liverpool Council should comprehensively review all works costs in the ALN contributions plan within the next 2 years. The review should include:
 - a. any changes to assumptions or strategies within the plan,
 - b. actual costs of delivering land and works within or near the precinct (where available),
 - c. site specific estimates, recent benchmarks or other relevant sources.
2. Following the review of the ALN contributions plan, Liverpool Council should submit the plan to IPART for assessment within 3 years from the date that the plan becomes an "IPART reviewed contributions plan" within the meaning of the Minister's 2019 Direction.
3. Liverpool Council should clarify the apparent double counting of street trees in its submission to the draft report or remove \$261,227 of street tree costs, as these have been double counted, before the Final Report.

2.2 Transport works in the plan

The transport infrastructure set out in the ALN contributions plan will deliver transportation services for residents, businesses and visitors in the area. This includes substantial provision for new or upgraded roads to accommodate the increased traffic movements of the proposed development. The local transport infrastructure to be delivered under the ALN contributions plan are³:

- 12.6 km of new or improved collector roads
- 1,200 new street trees
- 19 creek crossings
- 11 pedestrian bridges
- 10 roundabouts and 1 signalised intersection
- 42 bus shelters
- 50 street level pedestrian crossings

The land and works for these roads are proposed to cost \$114 million, or 11% of the total ALN contributions plan cost. Land purchases account for \$26 million, and \$88 million for road works and construction.

AECOM's *Austral and Leppington North Precincts Transport Assessment* August 2011 identified major upgrades to arterial roads to accommodate the increased traffic generated by the increased population. However, these have not been included in the ALN contributions plan as the NSW state government is required to pay for upgrades to major arterial roads under *Road and Maritime Services* (RMS) management.

Developers will be required to provide the half-road fronting the development as a part of contributions payments⁴. This is how most of the local roads within the ALN precinct will be delivered.

Table 2.1 Transport management land and works in ALN contributions plan (\$millions, \$Mar21)

Item	Total cost
Land Acquisition	26.4
Local Roads	15.6
Collector Roads	25.1
Street Trees	0.2
Pedestrian Crossings	1.5
Road Segments Over Creek Culverts	33.6
Intersections	3.0
Pedestrian Refuge Crossings	1.7
Bus Shelters	1.2
Construction Contingency	4.7
Total	114.0

Source: Liverpool City Council, *Liverpool CP 2021 – Austral and Leppington – Draft IPART Submission*, and IPART analysis.

2.3 Criterion 1: Essential works

The items proposed in the ALN contributions plan include roads, intersections, bridges, roundabouts pedestrian crossings, street trees and bus shelters. These items are all consistent with the Essential Works List outlined in part 3.2 of the practice note.

2.4 Criterion 2: Nexus

Significant expansion of local roads and transport infrastructure is required to provide access for the future residents of the Precincts. AECOM's *Austral and Leppington North Transport Assessment* serves as the basis for expansion of roads and transport infrastructure in the ALN contributions plan. This assessment was supplemented by a Post Exhibition Addendum to the report in July 2012, which made minor adjustments based on community feedback. We assess that these documents establish nexus for the transport infrastructure items included in the ALN contributions plan. The works are located entirely within the ALN contributions plan area, with the exception of one road which has been partially costed to the Rossmore Precinct^b to reflect this.

Our review of the ALN contributions plan transport infrastructure identified additional intersection controls and roundabouts^c not explained through AECOM's *Post Exhibition Transport Report (Addendum)*.

Liverpool Council has justified the inclusion of these items saying that AECOM's study provided a broad overview for the Precincts and these allowances have been made based on Council experience and staff local knowledge of the needs of the area⁵. We conclude that nexus has been largely established for transport works within the ALN contributions plan.

Table 2.3 Technical studies for transport works in the ALN contributions plan

Author	Title	Date
AECOM	Austral and Leppington North Precincts Transport Assessment	August 2011
AECOM	Post Exhibition Transport Report (Addendum).	July 2012

2.5 Criterion 3: Reasonable cost

The methodology used to calculate transport costs in the ALN contributions plan involved estimating base rates by type of transport works on a square meter basis and extrapolating this to different roads and areas for each of the type of works. At an early stage of the ALN contributions plan we consider that this methodology will produce a reasonable estimate. However, we note that our independent estimates are generally higher than those presented by the ALN contributions plan. We estimate transport works costs at \$100 million, whereas Liverpool Council estimates \$91 million when adjusting to June 2022 CPI. This is a difference of around 10%.

^b Half of the cost of road BR12 has been allocated to the Rossmore Precinct based on an estimate than half of anticipated demand is generated from that Precinct.

^c This refers to items IN5-IN11 and PC1 in the Works Schedule

Table 2.4 Council transport cost estimates compared with IPART benchmarks (\$millions, \$Jun2022)

Item	ALN contributions plan Cost Estimate	IPART Benchmark Estimates
Local Roads (New and Upgraded)	18	20
Collector Roads (New and Upgraded)	28	35
Street Tree Planting	<1	N/A (See below)
Pedestrian Crossings	2	7
Intersections	4	1
Pedestrian Refuge	2	1
Bus Shelters	1	1
Culverts ^a	36	37
Total	91	101

a. The unique nature and cost calculations for culverts in the ALN contributions plan make them difficult to calculate with IPART benchmarks.

Note: Totals may not add due to rounding.

Source: Liverpool CP2021 – *Austral and Leppington North Works Schedule – March 2021*, IPART [Local Infrastructure Benchmark Costs](#) and IPART analysis

The potential sources of difference between the cost estimates are the following:

- The time passed since the cost estimates and supporting assumptions were initially produced in July 2011.
- Differences in the methodology (with benchmarking being a less detailed approach to estimating costs).

2.5.1 Council should review costs in future


Although we have concluded that the cost estimates are reasonable, our view is they are more likely lower than the actual costs the council will eventually face. A low-cost estimate in a contributions plan risks under collecting contributions which could lead to the under provision of transport items for future residents or an increase in costs to all rate payers.

We consider that the implementation of the ALN contributions plan over 2 decades will allow costs to be examined and adjusted as the infrastructure is delivered. We recommend that the Council conduct a comprehensive re-examination of costs within three years and resubmit the plan to IPART for review.

2.5.3 Calculation error in the schedule of work

Our review identified a minor error in the cost of street trees. The transport workbook lists the price at \$261,277 (Indexed to 2019). However, the cost of trees appears to have already been accounted for in the per m² cost of roads. The overall value of the error is in the order of 0.03% of transport costs and will not materially impact the rate of contributions. We have contacted the Council regarding this issue and seek clarification before we issue our Final Report.

Draft Recommendations

1.  Liverpool Council should comprehensively review all works costs in the ALN contributions plan within the next 2 years. The review should include:
 - a. any changes to assumptions or strategies within the plan,
 - b. actual costs of delivering land and works within or near the precinct (where available),
 - c. site specific estimates, recent benchmarks or other relevant sources.
2. Following the review of the ALN contributions plan, Liverpool Council should submit the plan to IPART for assessment within 3 years from the date that the plan becomes an "IPART reviewed contributions plan" within the meaning of the Minister's 2019 Direction.
3. Liverpool Council should clarify the apparent double counting of street trees in its submission to the draft report or remove \$261,227 of street tree costs, as these have been double counted, before the Final Report.

2.6 Criterion 4: Reasonable timeframe

Liverpool Council has established differing levels of priority for the delivery of transport infrastructure, with roads to be developed as needed. Construction of roads has been prioritised to coincide with development, with lower priorities being directly related to the construction of relevant nearby infrastructure such as parks. This is a reasonable approach considering the early stage of the ALN contributions plan and its implementation timeline over 2 decades.

2.7 Criterion 5: Apportionment

Upgrades and expansion of the current transport network will be necessary to accommodate the new residents of the ALN area. Costs have been apportioned 93% to residential development and 7% to non-residential, reflecting the % of NDA being apportioned to dwellings and for commercial activities. The costs of transport related expenses in the ALN contributions plan have been ascribed entirely to the ALN contributions plan, with one exception. Half of the costs of the BR12 Kemps Creek Gurner Road upgrade have been apportioned to the Rossmore Precinct. This road will provide benefit to residents of Rossmore and is partially located in the Precinct. We consider this cost apportionment and apportionment in the rest of the ALN contributions plan reasonable.

2.8 Criterion 6: Community liaison

The Council exhibited the ALN contributions plan from March 18 to April 14, 2020. The Council received one submission regarding transport items. Vantage Property identified costs for roundabouts and pedestrian crossings that were above those called for in AECOM's report and its addendum. The Council responded to this concern stating that AECOM's study represents a high-level overview of infrastructure delivery and that the study is based on intersections running at minimum required traffic efficiency. The Council further notes that an allowance has been included for local infrastructure needs as identified by staff and that this is the source of the additional infrastructure inclusions. We consider this response reasonable.

2.9 Criterion 7: Other Matters

We have not identified any other matters relevant to the transport works proposed in the plan.


3 Stormwater management

Stormwater works in the ALN contributions plan will seek to manage stormwater quantity and quality. These works are particularly critical to the ALN contributions plan as the Precincts are flood prone and lie in a valley where most hills are sloped less than 10 degrees. Due to the costs involved and the complicated nature of the stormwater plan, we engaged J Wyndham Prince (JWP) to aid our analysis of stormwater in ALN.

3.1 Overview of our assessment

1. **Essential works** – Stormwater management works are consistent with the essential works list.
2. **Nexus** – There is nexus between the proposed stormwater items and development in the Precincts.
3. **Reasonable cost (works only)** – Costs are reasonable but are likely low. These should be reviewed in a future review.
4. **Timing of delivery** – Timing of infrastructure delivery is reasonable at this stage.
5. **Apportionment** – Costs are apportioned appropriately completely to new residents.
6. **Community Liaison** – Several concerns were submitted regarding the Council's stormwater strategy. These have been reasonable addressed.
7. **Other matters** – Identified safety concerns have been responded to.

Draft Recommendations

1.  Liverpool Council should comprehensively review all works costs in the ALN contributions plan within the next 2 years. The review should include:
 - a. any changes to assumptions or strategies within the plan,
 - b. actual costs of delivering land and works within or near the precinct (where available),
 - c. site specific estimates, recent benchmarks or other relevant sources.
2. Following the review of the ALN contributions plan, Liverpool Council should submit the plan to IPART for assessment within 3 years from the date that the plan becomes an "IPART reviewed contributions plan" within the meaning of the Minister's 2019 Direction.

3.2 Stormwater works in the plan

The preliminary stormwater strategy for ALN was initially prepared by Cardno in 2011 and provided a high-level strategy for the management of rainwater and stormwater as part of a larger planning process⁶, prior to rezoning of the area by the state government. The plan sought to design controls for the management of stormwater quality and quantity. Liverpool City Council hired SMEC to revise the stormwater strategy in 2019 from an entirely traditional 'end of pipe' solution to a hybrid solution supplementing end-of-pipe infrastructure with streetscape controls^d. Liverpool City Council opted for this hybrid approach as it requires less land to be acquired compared to the end-of-pipe solution, given the topography of the area.

did so based on the finding that the topography of the area required the acquisition more land for a traditional end of pipe solution than the hybrid option and Liverpool City Council's preference not to acquire more land.

SMEC provided higher cost estimates than the Cardno plan, by adjusting the planned infrastructure to avoid acquiring more land.

The ALN contributions plan includes \$290.5 million of stormwater infrastructure costs comprising:

- 21 gross pollutant traps
- 15 bioretention facilities
- 1 sedimentation pond
- a network of 86 piped sections
- 8 creek culverts
- 1,519 streetscape raingardens.

Table 3.1 Stormwater management land and works in ALN contributions plan (\$millions, \$Mar 2021)

Item	Total cost
Land Acquisition	144
Streetscape Raingardens	64
Drainage Systems with 1% AEP Basins	103
Drainage Systems with 50% AEP Basins	98
Drainage Systems without Basins	14
Creek Culverts	10
Total	434

Note: Totals may not add due to rounding.

Source: Liverpool CP2021 – *Austral and Leppington North Works Schedule – March 2021*.

^d End-of-pipe solutions refers to stormwater management systems that gather untreated stormwater from many locations and treats it at a centralised location before discharge into a waterway. SMECs model has added multiple streetscape treatment nodes to this design paradigm.

3.3 Criterion 1: Essential works

The items included in ALN's stormwater management costs include drainage systems with accompanying basins, gross pollutant traps, sedimentation ponds, pipes, creek culverts and streetscape raingardens. Land acquisition costs are also included. These items are consistent with the essential works list criteria identified by the Practice Note.

3.4 Criterion 2: Nexus

The Austral Leppington North Precincts' detailed concept design and stormwater management plans were prepared by SMEC. The stormwater infrastructure proposed in the detailed concept designs is designed to prevent flooding in the region and ensure post development stormwater quality is adequately managed. The infrastructure was designed on the results of hydrological and hydraulic modelling to determine stormwater runoff in pre and post development scenarios. The plans recommend infrastructure designed to manage additional runoff generated by the topography of the development. We therefore consider that these plans establish nexus for stormwater infrastructure listed in the ALN Contributions Plan. Our consultants JWP confirmed our analysis⁷.

Table 3.3 Technical studies for stormwater works in the ALN contributions plan

Author	Title	Date
Cardno	Austral & Leppington North Precincts Water Cycle Management WSUD Report WCM and WSUD Report	April 2011
SMEC	Austral and Leppington North Design of Water Management Infrastructure Detailed Concept Design Report	March 2019
SMEC	Development of Streetscape Raingarden Master Plan for Austral and Leppington North	February 2021

3.5 Criterion 3: Reasonable cost

IPART understands that the stormwater strategy was created to adequately provision stormwater infrastructure without needing to acquire more land. We note costs of the plan are very high, of both in total and on a per hectare basis. This reflects the Precincts' relatively small net developable area (NDA) available for stormwater works and the high proposed cost for the implementation of the hybrid raingarden strategy. Land acquisition costs come to \$144 million, raising the total cost of stormwater land and works in ALN to \$434 million.

Liverpool Council also expressed concern about a decrease in the supply of housing that would result if further land acquisition was required⁸. The council has performed adequate options analysis⁹ and has accepted that maintenance costs for its proposed strategy will be higher than under an entirely end-of-pipe solution.

SMEC prepared a memo responding to the concerns raised by IPART and JWP. This memo indicated that maintenance costs under the current plan would be around \$2 million more expensive per year when compared with an entirely end-of-pipe solution. However, an end-of-pipe solution would require at least \$39 million of additional land be acquired¹⁰. The Council has chosen to absorb this higher maintenance cost, citing the high upfront capital costs of land acquisition and the desire to avoid a reduction in housing supply.¹¹

3.5.1 Costs are reasonable but likely low

JWP's analysis indicated that costs in the proposed stormwater plan are underestimated by about 62%¹². The primary factor JWP identified was SMEC's analysis of raingarden costs using a Melbourne-based price of \$1,000m². JWP consider that a more appropriate cost can be found in the 2020 *Western Sydney Engineering Design Manual*, recommending a cost of \$1,400-1,500m² based on Blacktown's most recent infrastructure programs¹³. JWP's report calculated Council's construction costs are underestimated by \$179 million.

Table 3.5 Council stormwater cost estimates compared with JWP estimates (\$millions, \$Mar2021)

Item	Council Cost Estimate	JWP Cost Estimate
Streetscape Raingardens	64	165
Drainage Systems with 1% AEP Basins	103	134
Drainage Systems with 50% AEP Basins	99	130
Drainage Systems without Basins	14	25
Creek Culverts	10	16
Total	290	470

Note: SMEC's Memo addressed that its costs were underestimated in various areas, but did not provide exact new estimates for most items. The costs proposed in the original plan have therefore been used for consistency.

Note: Totals may not add due to rounding.

We consider the stormwater infrastructure costs presented within the contributions plan are reasonable. However, we consider it likely that the council's estimates are more likely to be lower than higher than its actual costs. If this is the case, the council may set developer contributions lower than needed to reflect the actual infrastructure costs of meeting the needs of residents and businesses. If this were to be material enough, Liverpool City Council may be forced to fund land and works from general revenue, resulting in a higher burden on ratepayers in future to recover the shortfall.

3.5.2 We recommend the Council review costs soon


Based on the analysis of JWP we consider it likely that works costs are underestimated. The Council has chosen to maintain its original cost estimates, with the potential to index these costs in the future.

Liverpool City Council has noted that the ALN contributions plan will be implemented over the course of 2 decades and that this will present multiple opportunities for re-evaluation of costs. We note that once the construction of the stormwater system has commenced, Council will have the opportunity to analyse actual cost data to improve its estimates.

We see no material benefit to further delay the implementation of the ALN contributions plan to refine cost estimates at this point.

We consider this the lowest risk approach at this stage of the application. We consider it likely that costs will increase in the future. As with other works items, we expect the Council will improve its estimates with actual data as it becomes available as the works within the contribution plan are delivered.

Draft Recommendations

1.  Liverpool Council should comprehensively review all works costs in the ALN contributions plan within the next 2 years. The review should include:
 - a. any changes to assumptions or strategies within the plan,
 - b. actual costs of delivering land and works within or near the precinct (where available),
 - c. site specific estimates, recent benchmarks or other relevant sources.
2. Following the review of the ALN contributions plan, Liverpool Council should submit the plan to IPART for assessment within 3 years from the date that the plan becomes an "IPART reviewed contributions plan" within the meaning of the Minister's 2019 Direction.

3.6 Criterion 4 Reasonable timeframe

Stormwater works are to be delivered in tandem with development; priority will be based on the pace of development in a given area. We consider this a reasonable approach to stormwater infrastructure delivery timeframe.

3.7 Criterion 5: Apportionment

Costs have been 100% apportioned to new development of the ALN contributions plan area. We consider this is appropriate as the upgrades to the stormwater system have demonstrated nexus to the development. The upgrades are required to adequately manage the increased stormwater quantity that will be generated from the post development changes in land uses. It's also required to adequately manage the quality of stormwater to be discharged to local water courses. Between the new development types, costs have been apportioned 93% to residential developments and 7% to non-residential. This reflects the ratio of NDA being apportioned for residential and commercial purposes.

There is very limited benefit of the works to existing residents and nearby areas. We therefore consider the ALN contributions plan's apportionment reasonable.

3.8 Criterion 6: Community liaison

Several concerns were raised by developers regarding the Council's adopted stormwater strategy. These concerns primarily regarded the use of streetscape raingardens in the plan. The Council responded to all the issues raised in submissions in a manner IPART considers reasonable. Greater elaboration on the submissions and Council responses has been provided in Section 8.6.

3.9 Criterion 7: Other Matters

Our consultant JWP identified issues that indicated the proposed streetscape raingardens were inadequate for their prescribed role and may not meet Council standards¹⁴. These include that in its view:

- The raingardens proposed in the strategy are unlikely to meet appropriate street drainage design safety standards.
- More pipes and pits in the street network are likely required to ensure gutter flow widths that comply with Council safety standards.
- Increased streetscape control capacity is also needed to ensure flow depth and velocity are safe for pedestrians and vehicles during a 1% AEP storm event.
- JWP consider that a greater number of streetscape raingardens would be required to adequately deal with 1% AEP storm events.

We presented these findings to the Council during our meeting in May 2022 and followed up with correspondence in July and December 2022.

The Council considered the views of JWP but confirmed its preference for its proposed strategy following our meetings and correspondence on the issue. The Council prepared a response dated 9 December 2022 outlining its view that¹⁵:

- SMEC's analysis found that an entirely end-of-pipe solution is not viable given the topography of the area.
- Kerb inlets and underground pipes will be placed between raingarden intersections to manage runoff and overflow. This supplements the raingarden system and will allow it to accommodate 20% AEP events.
- All residential and commercial area stormwater systems (excluding RE1, SP2 drainage and C4) will be designed to meet the requirements of a 1% AEP event.
- The Council has a requirement the 1% AEP flood depth over the street is limited to 200mm and velocity depth to 0.4 m²/s. This meets Council standards to avoid vehicles being swept away during a 1% AEP event.

3.9.1 The Council should consider safety issues in their stormwater strategy

We are satisfied that Liverpool City Council has considered safety and performance issues in developing its proposed strategy. Councils are responsible for determining whether designs meet performance and safety standards and this is not a focus of IPART's assessments of contributions plans. Informed by the view of our consultants and the Council's response we note the view of JWP and the alternate view of Liverpool City Council. We also urge Liverpool City Council to further consider all aspects of stormwater infrastructure including safety and performance of the stormwater strategy in its next review of ALN contributions plan costs over the next 2 years.

The future review of the ALN contributions plan should re-examine the assumptions of the strategy and incorporate any actual performance data of infrastructure delivered. The Council can then test the viability of its chosen plan in practice.

Safety standards are primarily an issue for the Council's considerations. A change of strategy driven by safety, performance or other drivers, could have cost implications for the delivery of the stormwater system and IPART would examine any cost implications of a revised strategy in a future review of the stormwater works component of the ALN contributions plan.


4 Open space

The ALN contributions plan seeks to provide open space for a projected future population of over 57,000 residents. This includes parks and sporting fields at the local and district level.

4.1 Overview of our assessment

1. **Essential Works** – The land and embellishment for open space are consistent with the essential works list
2. **Nexus** – Nexus is established for the open space works
3. **Reasonable timing** – Delivery timeframe of infrastructure is reasonable
4. **Reasonable Cost** – Costs are reasonable but likely low
5. **Community liaison** – The council conducted appropriate community liaison and publicity in preparing the ALN contributions plan. No submissions raised open space issues.
6. **Apportionment** – Apportioned reasonably to new residential developments on a per person basis
7. **Any other matters** – Overall provision of open space is low.

Draft Recommendations

1.  Liverpool Council should comprehensively review all works costs in the ALN contributions plan within the next 2 years. The review should include:
 - a. any changes to assumptions or strategies within the plan,
 - b. actual costs of delivering land and works within or near the precinct (where available),
 - c. site specific estimates, recent benchmarks or other relevant sources.
2. Following the review of the ALN contributions plan, Liverpool Council should submit the plan to IPART for assessment within 3 years from the date that the plan becomes an "IPART reviewed contributions plan" within the meaning of the Minister's 2019 Direction.

4.2 Open space embellishment in the plan

The ALN contributions plan proposes to provide 120.1 hectares of open space for an estimated future population of 57,737 residents. The items to be provided, either through construction of new areas or upgrades of existing areas include:

- 46 local parks
- 11 district parks
- 5 local sportsgrounds

- 1 district sportsground

Table 4.1 Open space management land and works in ALN contributions plan (\$millions, \$Mar2021)

Item	Total cost
Open space land costs	314
Local park embellishment	36
District park embellishment	40
Local sporting field embellishment	37
District sporting field embellishment	9
Construction contingency	7
Total	443

Note: Total may not add due to rounding.

Source: Liverpool CP2021 – Austral and Leppington North Works Schedule – March 2021

4.3 Criterion 1: Essential works

The items included in the ALN contributions plan include park, sportsgrounds and dual use riparian corridor embellishment. Included in the embellishment are playgrounds, picnic facilities, pathways and park furniture. These items all fall under the category of essential works for open space embellishment and are necessary to improve quality and quantity of open space for the future residents.

4.4 Criterion 2: Nexus

Elton Consulting's *Social Infrastructure and Open Space Assessment* of the Precincts examined open space needs based on the projected demographics of the ALN Precincts. The infrastructure requirements are based on Liverpool Council standards and consultation with the Department of Planning and Environment. The study by Elton Consulting identified a need for district level parks and sportsgrounds in addition to local open space due to the large population projected for the ALN precinct. This study establishes nexus for the open space infrastructure in the ALN contributions plan.

Table 4.2 ALN contributions plan open space nexus studies

Author	Title	Date
Elton Consulting	Social Infrastructure and Open Space Assessment	August 2011

4.5 Criterion 3: Reasonable cost

The cost of open space works in the ALN contributions plan is \$129 million (25% of total works costs). Total open space provision costs are \$442 million. This reflects the very significant increase in population projected in the Precincts.

Table 4.3 Open space works costs in ALN contributions plan (\$millions, \$Mar2021)

Item code ^a	Infrastructure item	Costs in ALN contributions plan
LP2-LP66	Local Passive Open Space Embellishment	36
DP2-DP12	District Local Open Space Embellishment	40
LS1-LS9	Local Sporting Fields Embellishment	37
DS1	District Sporting Field Embellishment	9
	Contingency	6
Total		129

^a These are the item codes in the Works Schedule for local parks, district parks, local sportsgrounds and district sportsgrounds

Note: Totals may not add due to rounding.

Source: Liverpool CP2021 – Austral and Leppington North Works Schedule – March 2021

4.5.1 The Council's methodologies are reasonable

Liverpool Council have based their open space cost estimates in the ALN contributions plan on cost per sqm basis. Costs for groundworks, planting, turf, paving and walkways/cycleways, and individual item costs for furniture and playgrounds have been calculated at a per sqm rate. This rate has then been taken and used to estimate open space infrastructure costs based on the projected area need for each item.^e

The estimates then use these rates to determine embellishment costs for each open space location. A document of indicative costs was prepared by Elton Consulting in 2011. This calculated open space embellishment costs based on the following:

- Data from the Australian Construction Handbook (Rawlinson's Edition 29, 2011)
- Cost experience from Blacktown Council's contributions plan in Alex Avenue and Riverstone Precincts
- Information provided by Liverpool and Camden Councils on previous projects.

These costs were then further revised by WT Partnership (WTP) who created a Cost Review document in 2012. In calculating open space embellishment, the Council has chosen to use figures from both documents and a small number of costs were derived from internal or Camden Council experience. Numbers from both WTP and Elton have been used to calculate open space costs, although in most instances the differences are marginal.

This is a reasonable approach considering the early stage of the ALN contributions plan, but in future the plan should be updated with actual costs obtained from implementation of the ALN contributions plan, quotes or quantity surveyor reports.

^e For instance, groundworks cost \$14.3m² and are required for 100% of the land for delivery of a local park, therefore a 3,500m² (median sized) local park would require \$50,120 of groundworks.

4.5.2 Estimates are likely low

In our analysis of open space embellishment cost estimates we have prepared a representative cross-section of the works to compare to our 2014 benchmarks. Below are two tables which compare the cost of several local and district parks to estimates prepared by IPART.

Table 4.4 Local passive space embellishment costs in ALN contributions plan (\$millions, \$Jun2022)

Item Code	ALN contributions plan Cost Estimate	IPART Benchmark Estimates
LP2	2.0	3.9
LP12	1.5	1.9
LP22	1.6	3.7
LP32	2.5	4

Table 4.5 District passive space embellishment costs in ALN contributions plan (\$millions, \$Jun2022)

Item Code	ALN contributions plan Cost Estimate	IPART Benchmark Estimates
DP2	4.7	6.8
DP5	2.9	5.8
DP10	11.4	19.1

Source: Liverpool CP2021 – *Austral and Leppington North Works Schedule – March 2021*, IPART [Local Infrastructure Benchmark Costs](#) and IPART analysis.

Compared to IPART benchmarks, the council estimates for the items in Table 4.4 and Table 4.5 are low. The risk of low-cost estimates is that the ALN contributions plan will not raise sufficient funds to deliver open space embellishments, or the existing ratepayers will be required to provide the funds to fund adequate open space provision and base level embellishments.

Table 4.6 District passive space embellishment costs in ALN contributions plan (\$millions, \$Jun2022)

Item	ALN contributions plan Cost Estimate	IPART Benchmark
District Open Space Embellishment	7.7	11.7
District Park Furniture	0.1	0.1
District Park Picnic Facilities	0.1	0.1
District Park Outdoor Courts	0.1	0.2
District Park Playground	0.4	0.4
District Park Parking	0.2	0.6
On Costs	2.3 (27% of works)	-
Congestion	-	1.9 (15% for light congestion)
Demolition Costs	0.1	0.2
Contingency	0.6 (7% of works)	3.0 (20% of works)
Total	13.0	18.2

Note: Totals may not add due to rounding.

Source: Liverpool CP2021 – Austral and Leppington North Draft IPART Submission – Apr 2021, IPART [Local Infrastructure Benchmark Costs](#) and IPART analysis

4.5.3 Council costs are reasonable but likely low

Overall, we find the Council has likely underestimated costs of open space embellishment in ALN when compared to IPART benchmarks. IPART's analysis also applies a larger portion for the contingencies.


Where costs are further from our estimates, such as parking and local and district park embellishment, we consider there is a risk that the ALN contributions plan will not deliver on these items for the residents of the Precincts. This would result in either reduced liveability in the ALN precinct for residents or a future increased cost to ratepayers to meet the shortfall.

4.5.4 Liverpool Council should re-examine costs

As with the other elements of the ALN contributions plan we have assessed, we recommend the Council revise cost estimates for any future review. This issue is likely further compounded by the use of a generic cost per sqm approach rather than individual cost estimates for each park and sports field. Quality Surveying reports or quotes on detailed concept designs would provide more accurate cost estimates.

Actual data obtained from site specific examples of completed infrastructure or quotations on detailed designs would be a better approach to estimating costs. We therefore conclude that open space costs are reasonable, although likely low. These should be re-examined in a future review of the ALN contributions plan as it is implemented.

Draft Recommendations

1.  Liverpool Council should comprehensively review all works costs in the ALN contributions plan within the next 2 years. The review should include:
 - a. any changes to assumptions or strategies within the plan,
 - b. actual costs of delivering land and works within or near the precinct (where available),
 - c. site specific estimates, recent benchmarks or other relevant sources.
2. Following the review of the ALN contributions plan, Liverpool Council should submit the plan to IPART for assessment within 3 years from the date that the plan becomes an "IPART reviewed contributions plan" within the meaning of the Minister's 2019 Direction.

4.6 Criterion 5: Apportionment

Contributions for open space in the ALN contributions plan have been levied entirely on new developments and exclusively to residential development. The contributions rates are based on a per person demand. The Council assumes that demand for open space is generated only by the residential development in the Precincts. We consider this approach is reasonable given the nature of the embellishment proposed.

4.7 Criterion 6: Community liaison

Liverpool City Council conducted appropriate community liaison using its exhibition process. No submissions raised concerns about Council's proposed provision of open space

4.8 Criterion 7: Other matters

The provision of open space in the ALN contributions plan is notably low at 2.08 ha per 1,000 people, below the Growth Centre's benchmark of 2.83 ha.¹⁶ Furthermore, many of the Council's own internal benchmarks for open space have not been met, as shown in Table 4.7 below.

Table 4.7 ALN contributions plan compared with Liverpool open space guidelines

Guideline	Quantity in ALN contributions plan
2.83 ha space per 1,000 people	1.94 ha per 1,000 people
Minimum local park size = 2,000m ²	41 of 46 local parks > 2,000m ²
Local park to be within 5-minute walk of most residents	Likely achieved for majority of 46 parks
District parks to be minimum size of 3 ha	5 of 11 parks >3 ha
One district park per 5 or 10K people	5,007 people per district park
Local sporting field >4ha	3 of 4 fields >4h
One local sports field per 10K people	13,769 people per local sports field
District sports field >6ha	District sports field is 6ha
One district sports field per 60K people	1 district sports field for 55,078 people (est. future pop. ALN Precinct)

Source: Liverpool City Council *RECREATION, OPEN SPACE AND SPORTS STRATEGY 2018-2028*, *Liverpool CP2021 – Austral and Leppington North Draft IPART Submission – Apr 2021* and *IPART Analysis Tribunal Briefing – ALN CP draft decisions – 21 December 2022*

Our comparison presented in Table 4.7 of guideline rates of open space against that proposed under the ALN plan indicates that the proposed level of open space provision under the ALN contributions plan is low. A lack of open space means decreased liveability for residents of the Precincts, and reduced accessibility and connectivity to local parks. These are most pronounced in the South-West and North-East areas of the ALN precinct. The provision of guideline levels of open space can be challenging for many contribution plans. Liverpool City Council has noted the challenges of providing open space¹⁷.

The Council has also stated that local space in ALN will be supplemented by access to the Western Sydney Parklands directly next to the Precincts. Liverpool Council has discussed options to further increase residents' access to open space, these include:

- Further embellish or purchase additional open space in the ALN contributions plan boundaries (within nexus parameters).
- Continue discussions with local schools for use of open space outside school hours or during the holiday period.
- Continue dialogue with Camden Council regarding shared access to open space.
- Provide additional pathways and bridges to allow better access to open space inside and outside of the CP boundaries. This is especially relevant for the North-East and South-West areas to address accessibility.

We note there is opportunity to further consider improving the provision of open space and access in the ALN contributions plan in a future review of the plan.

Draft Recommendations



4. Liverpool City Council should explore options to increase open space provision in order to meet industry standard benchmarks in a future review of its plan.

5 Plan administration

The ALN contributions plan includes \$7.6 million for plan preparation and administration. This amount is 1.5% of works costs, which is our recommended benchmark for Contributions Plans.

5.1 Overview of our assessment

8. **Essential works** – Plan preparation and administration costs are consistent with the essential works list.
9. **Nexus** – There is nexus between plan administration costs and development in the Austral and North Leppington Precincts.
10. **Reasonable cost** – Costs are based on industry standard.
11. **Reasonable timeframe** – The timely delivery of works and land has been established in previous sections of this report. An allowance for plan administration is required over the approximately 20-year life of the plan to enable timely delivery of land and works.
12. **Apportionment** – The Council's approach to the apportionment of plan administration costs is reasonable.
13. **Community liaison** – No concerns raised at exhibition.
14. **Any other matters** – No other relevant matters.

5.2 Criterion 1: Essential works

Plan preparation and administration costs are on the essential works list. The Practice Note states:

"Plan administration costs are those costs directly associated with the preparation and administration of the contributions plan. These costs represent the costs to a Council of project managing the plan in much the same way as the project management costs are incorporated into the cost estimates for individual infrastructure items within a plan."

Plan administration costs may include:

- Background studies, concept plans and cost estimates that are required to prepare the plan.
- Project management costs for preparing and implementing the plan (e.g. plan coordinators).¹⁸

5.3 Criterion 2: Nexus

There is nexus between the plan preparation and administration activities and the proceeding developments in Austral and Leppington North.

5.4 Criterion 3: Reasonable cost

The ALN contributions plan includes costs of \$7.6 million for plan administration, which is 1.5% of the total cost of works in the plan. IPART's benchmarks recommend this cost level for plan administration.

We therefore consider \$7.6 million in plan admin costs in the ALN contributions plan to be reasonable. We note however, that this cost is likely to significantly increase in any future review of the CP.

5.5 Criterion 5: Apportionment

Contributions payments for plan administration are apportioned entirely to new developments. In general, the size of a development will be proportional to administration costs. This approach reflects the work involved in delivering the level of infrastructure created based on residential and non-residential development size. We consider this approach reasonable for calculating contributions to administration of planned infrastructure in the ALN contributions plan.

6 Land costs

The Council requires significant amounts of land to accommodate the works of the ALN contributions plan. The works will require 186.3ha, representing 16% of the available NDA for the Precincts. Land valuation costs are the same across all CP items and therefore addressed collectively by our assessment. The CP includes \$492.09 million for land acquisition, which represents 48.9% of total costs.

6.1 Overview of our assessment

Land costs in ALN represent the total cost of acquiring land for open space, transport, stormwater management and community facilities (including land value, conveyancing costs, compensation etc).

Table 6.1 Land costs in CP18 (\$millions, \$Jun2020)

Category	Total area (ha)	Total cost
Transport	6	26
Stormwater	73	144
Open space	107	314
Community services	1	7
Total	186	492

Note: Totals may not add due to rounding.

Source: Liverpool Contributions Plan 2021 – Austral and Leppington North Precincts

6.2 Land costs in the plan

Land value rates were calculated by MJ Davis Valuations in July 2019 on a per m² basis for various zoning types. Pricing based on zoning type allows a standard methodology to be applied across the ALN contributions plan for estimating land costs.

Table 6.2 Land costs per m² in CP18 (\$/m², \$Jul2019)

Underlying zoning	Average value
R2 Low Density Residential	340
R3 Medium Density Residential	430
B5 Business Development	450
B1 Neighbourhood Centre	400
E4 Environmental Living	135
E2 Environment Conservation	35
RU6 Transition	65

Source: Civic MJD Land Valuation Report

6.2.1 Land cost valuations and methodology are reasonable

The market values in Table 6.2 were determined by MJ Davis based on examining recent property purchases in the area and an analysis of local conditions. The costs have been indexed to the Council's Land Value Index (LVI), an index which measures the underlying changes in land values over time. Liverpool City Council publishes a quarterly update to this LVI. This approach is consistent with other areas of the Liverpool LGA in the past.

The Council has applied an allowance for heads of compensation (types of compensation required for each property) under the *Land Acquisition (Just Terms Compensation) Act 1991*. The median costs per m² are broad estimates for the budgeting of the CP. Value assessments involving two evaluating professional parties will be conducted for individual properties being acquired later.

6.2.2 The cost allowance is reasonable at this stage

The Council has applied a 12% land acquisition allowance for heads of compensation under the *Land Acquisition (Just Terms Compensation) Act 1991*. This is the same allowance included in the July 2016 Valuation Report for the Camden Growth Areas contributions plan (CGA-CP). This allowance is in place as the Council does not yet know which properties it will need to compulsorily acquire and subsequently which additional costs it will incur as part of compensation.

IPART prefers that compensation costs in CPs be based on fixed costs rather than a percentage of market value. This is because reasons for compensation usually comprised fixed costs while market values can fluctuate significantly over time. We consider the 12% allowance reasonable as it is informed by the opinion of an external professional land evaluator and recent experience in neighbouring LGAs.

We consider the underlying methodologies used by the Council to be reasonable for determining land value. Professional valuations that are pegged to an appropriate LVI have been used and land values estimates are more recent than those used for most of the CP's work costs, we therefore consider that the estimates are likely to reflect accurate values. We therefore conclude that land costs in the ALN contributions plan are reasonable.

6.2.3 Land costs should be regularly reviewed

We note that the valuation data is 3 years old and changes in land values since 2019 may have a material impact on future land costs. Because land value estimates are more recent than those used for works costs and an appropriate LVI has been adopted as an index, we have concluded that the estimates for land are reasonable. Therefore, we consider the risk of under recovery in this area to be low. Land values can change quickly over time and should be kept under regular review. Council should monitor actual land acquisition costs as compared to the estimates and use this information to increase the reliability of the land valuation estimates. We recommend the Council review its baseline land valuations every 3-4 years.

6.3 Land to be acquired is generally consistent with CP requirements

For the delivery of stormwater works, SMEC reports identified that area within the ALN contributions plan consists mainly of flat topography. This limits the hydraulic capacity to convey stormwater flows that reduce the risk of flood. The Council adopted its current strategy involving many streetscape raingardens to circumvent this issue. The amount of land required for stormwater works fell from the 103 ha initially indicated by Cardno in 2011 in the ILP to 73 ha in the adopted 2021 plan. SMEC's strategy reduces the need to acquire more land while leading to longer maintenance costs in the long-term. The Council has accepted this cost trade-off. The provision of land in the CP being significantly lower than the ILP's 73 ha recommendation is reasonable considering the strategy adopted by the Council.

AECOM's transport study concluded that 5.2 ha of land is required for new and upgraded infrastructure. The ALN contributions plan includes 5.6 ha to be acquired, representing a reasonable alignment between the CP and the conclusions of the transport study. Council GIS data shows all items are wholly within the CP area except for the BR12 Kemps Creek Gurner Road upgrade, where half of the work costs have been allocated to Rossmore Precinct.

The plan includes 120ha of open space, 106ha of which is yet to be acquired. This is lower than the benchmark rate of (2.84/per 1000 people) of the Liverpool Council which would require 154 ha to meet the projected population requirements and Elton's *Social Infrastructure and Demographics Assessment* which recommended 135 ha. This will be expanded upon further in Section 7. Council GIS data shows all items are within the CP area.

The levels of land to be acquired in the CP are consistent with the provisions called for by the Council's studies, except in the case of open space where provision is lower. This will be further addressed in the next section.

7 Cross category issues

This chapter discusses our analysis of issues that apply across infrastructure categories, including:

- methodology for escalating works cost estimates
- areas where the means to provision infrastructure is unclear
- elaboration on community liaison
- assessment of the ALN contributions plan against EPA regulations and requirements.

7.1 Timing of infrastructure delivery

The Council has provided varying priority levels for the delivery of infrastructure. Stormwater infrastructure is to be delivered as land is developed. Open space and transport items have been given varying priority levels, ranging from when the local area is developed to some items to be delivered coinciding with other relevant items.

A 20-year timeframe is assumed for the delivery of infrastructure in the ALN contributions plan area. The Council intends to monitor the plan, which will allow for review and adjustment of population projections, and the works schedule, as required. A more specific timeframe on the delivery of items can be delivered as the CP progresses. We consider that the Council's timing of infrastructure is reasonable at this stage.

7.2 Provision of cycling pathway

The adopted ALN contributions plan states:

"A comprehensive bicycle network is proposed for both the Austral and Leppington North Precincts, which will link the centres, schools, transport nodes and various residential neighbourhoods with key strategic routes and onward destinations"¹⁹

However, no allowance has been made in the schedule of works spreadsheet for shared paths or cycle paths. The Council should confirm whether this pathway has been accounted for in the costs of the CP and if so, how.

Draft Recommendations



5. In its submission to this draft report Liverpool City Council should clarify whether a cycling path will be provided under the current ALN contributions plan. If so, how it will be funded and if not, remove references to the cycling path from the ALN contributions plan.

7.3 Biofiltration street tree provisions

Some clarification is required from council about the tree planting costs that appear in the transport costs and those that appear within the stormwater costs. Raingardens within street intersections are proposed as a measure to manage water quality, by diverting stormwater into tree filtration pits. The street tree costings currently in the transport section of the ALN contributions plan are for tree planting as a part of road construction and upgrades. It is unclear if trees as part of stormwater management are incorporated into the Council's raingarden costs.

Draft Recommendations



6. In its submission to this draft report Liverpool City Council should clarify how trees for stormwater management purposes (bio-filtration trees) have been costed within the ALN contributions plan.

7.4 Data entry errors and spreadsheet practice

During our preliminary analysis of the ALN contributions plan we found some instances of calculation errors or incorrect data inputs being used by the Council. we highlighted some improvements the council should address:

- Clarifying street tree costs which appear to be double counted under Transport items.
- Improving consistency of road lengths provided. E.g. road upgrade CR8 has a length of 240m in the Works Schedule while the public GIS system lists the length at 460m.
- There are instances of incorrect or unclear cell references in the works schedule.
- Improving the format of the work schedule spreadsheet layout using good spreadsheet practice principles (e.g. identifying inputs, using clear descriptions and units, using colour coding or font formatting to distinguish working, inputs, outputs default values calculation checks assumptions.), organising columns and rows consistently, and simplifying formulae) would likely result in reduced likelihood of errors.

We consider that the magnitude of the errors is low, however they should be corrected or clarified prior to issuing our Final Report.

7.5 Consultation

IPART must assess if Liverpool Council has conducted appropriate community liaison and publicity in preparing the ALN contributions plan.

The Council exhibited the current draft of the ALN contributions plan from 18 March to 14 April 2020. Submissions relating to the plan were mostly provided by various property developers including:

- Infrastructure and Development Consulting on behalf of Vantage Property
- Vantage Property

- Crownland Developments

Most public agencies did not provide objections and instead were limited to general comments and considerations. DPE's Environment, Energy and Science Group (EES) also noted an objection.

Table 7.3 Exhibition submissions and Council responses

Stakeholder	Comment	Council response
Utility firms	Sites owned to be acquired by utility companies should be rezoned to SP2 Infrastructure	Plan amended for utility company sites to be zoned as SP2
EES	Council did not provide a Biodiversity Consistency Report with their exhibition	The Biodiversity Consistency Report was provided to the EES
Property developers	Roundabouts and pedestrian crossings, which were not identified by the traffic study have been included in the CP	The AECOM study is a high-level layout for roads while Council staff identified a need for these items at the local and Precinct level.
	The required filtration area for residential uses was very similar to the commercial and industrial area (usually it is considerably lower).	Raingardens are to be located at intersections, as such there will be fewer in commercial and industrial areas. As such, residential catchments would have to make up for the lower filtration of commercial areas
	Will raingardens require retrofitting in existing developments?	No, raingardens will be built in new development areas of the CP.
	A handful of developers objected to the proposal to introduce streetscape raingardens, preferring a traditional end-of-pipe solution	SMEC's studies identified considerable topographic difficulties with an end-of-pipe solution. Streetscape raingardens minimise the need for additional land acquisition as a solution.

7.6 Assessment against EPA regulations and requirements

As part of our assessment, we have checked the ALN contributions plan contains the information required by clause 212 of the *Environmental Planning and Assessment Regulation 2021*. This clause requires certain information to be included in a contributions plan for the purposes of establishing scope and location. A summary of this analysis is provided in Table 7.4 below. We found that the ALN contributions plan sets out the information required by the regulation.

Table 7.4 Assessment against information requirements in the EP&A Regulation

Subclause		Location in CP
1(a)	Purpose of the plan.	Section 2.4
1(b)	Land to which the plan applies.	Section 2.3
1(c)	The relationship between the expected types of development in the area to which the plan applies and the demand for additional public amenities and services to meet that development.	Sections 3.1, 3.2, 3.3 & 3.4
1(d)	The formulas to be used for determining the section 7.11 contributions required for different categories of public amenities and services.	Sections 4.2.2, 4.3.2, 4.4.2, 4.5.2 & 4.6.2
1(e)	The section 7.11 contribution rates for different types of development, as specified in a schedule in the plan.	Section 1.2.1
1(f)	A map showing the specific public amenities and services proposed to be provided by the council,	Section 5. Infrastructure location map is available separately.

1(g)	a works schedule that contains an estimate of their cost and staging (whether by reference to dates or thresholds).	Section 2.11.3
1(h)	If the plan authorises monetary section 7.11 contributions or section 7.12 levies paid for different purposes to be pooled and applied progressively for those purposes, the priorities for the expenditure of the contributions or levies, particularised by reference to the works schedule.	Sections 2.13 & 5.
2(b)	If a contributions plan authorises the imposition of a development levy condition, the plan must contain the method, if any, of adjusting the proposed cost of carrying out the development, after being determined by the consent authority, to reflect quarterly or annual variations to readily accessible index figures adopted by the plan between the day of the determination and the day by which the levy must be paid.	Section 2.8.5
3	A contributions plan must contain information about the council's policy about the following— (a) the timing of the payment of monetary development contributions, (b) development levies, (c) the imposition of development contribution conditions or development levy conditions that allow deferred or periodic payment.	Section 2.9.1, 2.7 and 2.9.3
4	A contributions plan that provides for the imposition of development contribution conditions or development levy conditions in relation to the issue of a complying development certificate must provide that monetary payments in accordance with the conditions must be made before the commencement of the building work or subdivision work authorised by the certificate	Section 2.13
5	In determining the section 7.11 contribution rates or section 7.12 levy percentages for different types of development, the council must take into consideration the conditions that may be imposed under section 4.17 (6)(b) of the Act or section 97 (1)(b) of the Local Government Act 1993.	Section 2.7
6	A contributions plan may authorise monetary development contributions or development levies paid for different purposes to be pooled and applied progressively for the different purposes only if the council is satisfied that the pooling and progressive application will not unreasonably prejudice the carrying into effect, within a reasonable time, of the purposes for which the money was originally paid.	Section 5.3

¹ Department of Planning and Environment *Practice Note: Local Infrastructure Contributions* 2019 p.14

² *Liverpool Contributions Plan 2021 – Austral and Leppington North Precincts*

³ AECOM ALN Precinct Master Plan Road Cost Assessment

⁴ Liverpool Council *Liverpool Contributions Plan 2021 – Austral and Leppington North Precincts* p.59

⁵ Liverpool Council *IPART Application ALN CP April 2021* p.36

⁶ Cardno *WCM and WSUD Report* April 2011

⁷ *JWP Review of Stormwater Works - Nexus and Costs* March 2022 p.6

⁸ Liverpool Council *IPART Application ALN CP April 2021*

⁹ SMEC *Memorandum Responding to IPART Queries* p.5

¹⁰ SMEC *Memorandum Responding to IPART Queries* p.5

¹¹ SMEC *Memorandum Responding to IPART Queries* p.6

¹² *JWP Review of Stormwater Works - Nexus and Costs* p.6

¹³ *JWP Review of Stormwater Works - Nexus and Costs* p.24

¹⁴ *JWP Review of Stormwater Works - Nexus and Costs* p.26-27

¹⁵ Liverpool Council *IPART RFI – Liverpool City Council - Austral Leppington North Contribution Plan* p.2

¹⁶ Department of Planning and Environment *Priority Growth Areas Open Space Audit*

¹⁷ Email 2022 01 10 *Council Response on Open Space*

¹⁸ Department of Planning and Environment, *Local Infrastructure Contribution Practice Note*, January 2019, p 15.

¹⁹ *Liverpool Contributions Plan 2021 – Austral and Leppington North Precincts* p.57

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