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YOUR REF:

15 November 2013

Local Government Team
Independent Pricing & Regulatory Tribunal - NSW
PO Box Q290
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Dear Sir or Madam

Submission - Benchmark Costs for local Council Infrastructure Contributions

Introduction
The following information forms a submission from Shoalhaven City Council in response to an invitation to comment on the following eleven (11) questions detailed in the "Benchmark costs for local Council infrastructure contributions" Information Paper.

In providing this response in the context of the recent release of "the planning system for NSW" White Paper and Planning Bill, Council would like to highlight a shortfall of the White Paper to fully investigate and understand the role and reliance on local contributions in non - metropolitan areas such as the Shoalhaven. Therefore, this submission also highlights such shortfalls.

1. For which infrastructure items would benchmark costs be most useful?

As detailed in the White Paper, the following essential infrastructure can only be levied on future development for local Council infrastructure contributions:

- local roads and transport facilities (land and capital works)
- local open space and embellishment (land and capital works)
- district open space (capital works)
- community facilities (land and capital works)
- capital costs of stormwater drainage (capital works).

To assist Councils undertake costs estimates for the above infrastructure that are deemed reasonable to the development industry, and to provide an opportunity to clarify actual infrastructure costs, a benchmark cost range should be detailed by IPART for all essential infrastructure. These costs should also recognise variations required to provide infrastructure in rural area as well as variations related to land acquisition. This should also

identify that in rural residential areas infrastructure costs are often high and the potential future development yield is low which contributes to a high local contribution rate / levy.

In Shoalhaven, and with the limited detailed information available to comment on in the White Paper, it also appears that the above essential infrastructure list will potentially leave significant funding shortfalls for the following community infrastructure:

- Land purchase and embellishment of district open space (i.e. in a regional / rural context - Shoalhaven has limited opportunity to share such infrastructure / facilities with neighbouring LGAs which are likely to be detailed in Regional Plans developed by Department of Planning and Infrastructure).

- Provision of infrastructure related to providing rural fire service infrastructure which are currently funded by contributions.

In addition to the above, it is unclear how the cost of land for district open space and for stormwater drainage will be funded through the Planning Growth Fund which appears to have more of a metropolitan basis and little consideration has been given to how it will work in regional / rural areas.

2. Is the Austroads classification the best available method for developing a list of essential local road infrastructure items, and what classification of roads should be considered local infrastructure?

Council currently uses the AustRoads classification for its roads network. In this classification system, local roads are considered to be:

- Sub Arterial Roads
- Collector Roads
- Local Roads.

3. Are there any existing hierarchies or typologies to which benchmarks could be applied for playgrounds, stormwater basins or other specific infrastructure items?

The topography, natural environment and road network of Shoalhaven is somewhat unique and has heavily influenced settlement patterns and infrastructure provision. This has lead to the application of a planning hierarchy that is generally applied into the following three tiers for community facilities and open space infrastructure provision:

1. Citywide infrastructure
2. Planning area / district infrastructure
3. Local area / neighbour infrastructure

In general stormwater basins have specific catchments identified and do not have a related hierarchy.

In Shoalhaven and/or other similar regional/rural areas, such benchmarks consider the spatial context/constraints and the limited (or no) ability to share infrastructure with a neighbouring LGA. Therefore this approach does not align with the current regional infrastructure approach which appears to be based on a metropolitan model.

4. What factors contribute to variations in the costs of the same types of infrastructure and how significant are these variations?

The required amount of upfront detailed investigation and design primarily contributes to cost variations of similar types of infrastructure. However, due to many unknowns related to the final infrastructure needs (i.e. will future development proceed at the predicted level, will a variation to development increase / decrease the infrastructure needs, site conditions, etc.) it is not cost or resource efficient for Council's to do all detailed investigations upfront.

Therefore, dependent on infrastructure and development variables; conceptual estimates and designs with relevant contingencies form the basis of most infrastructure cost estimates. It is important to note that Councils are required to fund these upfront investigations with no guarantee when, or if, any associated costs can be recouped from future development.

5. What methods does your Council use to ensure that it estimates efficient cost for 'non-standard' infrastructure?

Council has used a variety of methods to estimate costs for 'non-standard' infrastructure. This has included:

- Developing budget cost estimates with a bottom-up approach (i.e. work up detailed costs)
- Using recent actual costs (i.e. historical costs)
- Using cost estimating publication (eg. Rawlinsons)

As indicated above, developing budget estimates with a bottom-up approach normally requires Councils to provide upfront funding with no guarantee when any associated costs can be recouped and certainty of the final infrastructure needs. Therefore, this is a financial outlay and risk to Council.

A more efficient method for Councils is to provide more conceptual estimates with higher contingencies (i.e. base recent actual costs and/or estimating publication). These estimates can then be refined as the likelihood of receiving contributions becomes more certain and the final infrastructure and development needs are known.

6. What methods should Councils use to cost land?

The methodology used to determine land values is often problematic and difficult for Councils to estimate. This is due to the following factors:

- The value of land previously dedicated to a Council (which could have been subject to a higher value zoning or was based on a different land value mechanism) is not always able to be considered as a value / contribution that a Council provides.

- Land values are often based on raw land value without consideration of future land improvements.

- When Councils go to acquire land which has been improved, and betterment is factored in, it results in a shortfall from the original estimate to the purchase price.

- Developers sometime take advantage of the political systems within Councils and lobby for a value higher than market value.

- To facilitate commencement or finalisation of an essential infrastructure project (often to facilitate development) may require a compulsory land acquisition which is difficult to estimate, etc.

- If in-kind works are proposed (instead of Council receiving a cash contribution) land to be dedicated (because of improvements) is recognised at a higher value than if it was unimproved.

- Land values generally increase higher than the Consumer Price Index meaning that annual indexation of contribution rates cannot keep track with such increases.

Ideally, the land value for infrastructure should be solely based on the land value detailed in the Contributions Plan. This approach would avoid situations where a land value has been costed and included as a contributions charge in numerous development consents however, over time prior to acquisition, the land value becomes significantly higher than the indexed contribution change in the original consent. Such an approach would also give Councils and developers more certainty and also avoid unnecessary amendments to Contributions Plan to keep pace with property value increases and avoid subsequent funding shortfalls for Councils. The agreed upfront land value would require detailed negotiation with affected landowners.

7. What index or indices should be applied to costs for different infrastructure items including land?

Previous advice given to Councils was to only use Consumer Price Index (All groups) in a Contributions Plan. Shoalhaven has subsequently adopted the Consumer Price Index (All groups) as its Contributions Plan index. It is recognised that most costs (especially land values) do not necessarily related to Consumer Price Index.

8. What approach should Councils use to estimate contingency allowances and why?

Dependent on the amount of upfront detailed investigation and design undertaken for an essential infrastructure project, ideally there should be a sliding scale for the application of contingency allowances. A larger contingency should be applied where detailed investigations (which a Council would have to fund upfront) have not been undertaken and there is a potential unforeseen funding shortfall risk to a Council. This contingency should be less as the exact infrastructure needs are known as well as any unforseen risks such as site contamination, encountering unexpected underground utility infrastructure, spikes in demand for labour or interruptions to supplies, etc.

9. What approach should Councils use to estimate its 'client' costs eg, professional fees or project management fees? Will these vary according to infrastructure categories or items?

As mentioned in the response to question 8, a similar sliding scale to estimate 'client' costs should be applied. In general, all essential infrastructure projects have associated "client" costs and certainty of the exact client and infrastructure cost increases as detailed investigation and design progresses.

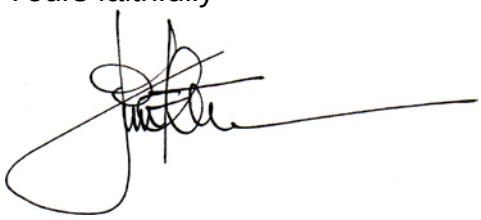
10. Does your Council develop its own technical standards? If so, why does this occur, and what are these standards based on?

Council has not developed its own technical standards and uses AUSPEC and various engineering specifications/design standards.

11. Are there any technical standards that you think are unnecessary or excessive?

Council has not identified any technical standards that it believes are unnecessary or excessive.

Yours faithfully



Tim Fletcher
Director – Planning & Development Services

IPART New South Wales
Independent Pricing and Regulatory Tribunal

FACT SHEET

Draft report on benchmark costs for local infrastructure

Based on *Local Infrastructure Benchmark Costs – Costing Infrastructure in Local Infrastructure Plans - Draft Report*
25 November 2013

IPART has released a Draft Report on benchmark costs for local infrastructure. The report includes estimates of benchmark costs for items of local infrastructure, which will be used to inform local infrastructure contributions in the new planning system for NSW. This fact sheet outlines the key recommendations in our Draft Report.

We are holding a **Public Roundtable** on 3 December 2013 to discuss our recommendations in the Draft Report and to seek feedback and ideas from stakeholders. We are also **inviting submissions** on the Draft Report **until 17 January 2014.**

What are local infrastructure contributions?

Under the new planning system for NSW councils will be able to levy uncapped local infrastructure contributions to fund infrastructure that is essential to support development, defined as:

- local roads and traffic management (land and capital works)
- local open space and embellishment (land and capital works)
- community facilities (land and capital works)
- stormwater drainage (capital works).

The NSW Government intends that local infrastructure contributions could vary across councils, but that they will be based on standardised, benchmarked costs for types of infrastructure. Councils will include the local infrastructure to be levied in a local infrastructure plan, and will need to estimate the cost of the infrastructure and land to calculate infrastructure contributions.

What was IPART asked to do?

We were asked to develop benchmark costs that will be used to standardise the costs of infrastructure in local infrastructure plans. We were also asked to make recommendations on a number of associated issues including how to estimate costs for infrastructure items that could not be benchmarked, how to update the benchmarks, how to value land, how planning and environmental standards and requirements impact costs, and mechanisms for dispute resolution.

How did we undertake this task?

We engaged engineering and construction industry experts, Evans & Peck, to help us develop the benchmark costs. They consulted with a wide range of stakeholders in developing the benchmarks. In developing our report, we have also consulted broadly with the Infrastructure Contributions Taskforce, councils, developers and other industry experts.

How will the benchmarks impact councils and developers?

The Department of Planning and Infrastructure is currently finalising the contributions framework for the new planning system. We consider that councils should use the benchmark costs and methodologies we recommend as a guide when estimating the costs of infrastructure in their local infrastructure plans. This should provide a higher level of consistency in the cost estimates of infrastructure levied on developers through local infrastructure contributions.

The benchmark costs will also be used by the Department of Planning and Infrastructure and IPART to guide reviews of local infrastructure plans prior to the approval of the plans by the Minister. Councils will have to provide justification where they have deviated from the benchmark costs.

It is intended that the Department of Planning and Infrastructure will provide guidelines for the preparation of local infrastructure plans which will include the final benchmarks. These guidelines will require plans to have transparent assumptions and cost estimates.

What items were benchmarked?

The Infrastructure Contributions Taskforce provided us with a list of around 80 infrastructure items to benchmark.

We provided benchmark costs for 'standardised' scopes for the majority of these items, plus a number of sub items (as listed in Chapter 11 of the Draft Report).

At this stage, we have not yet provided benchmark costs for 14 of the items (listed in Box 3.1 of the Draft Report). This is because we considered that the scope of these items could vary significantly. For example, there is significant variation in the sizes, shapes and outlet configurations of stormwater detention basins.

We welcome submissions to the Draft Report on our recommended benchmarks and whether it would be useful to develop benchmarks for any or all of the additional 14 infrastructure items.

What are the benchmark costs?

Chapter 11 of the Draft Report contains a datasheet for each of the benchmark items which outlines:

- the item name and number
- a functional description of the item
- the key assumptions used to specify the configuration of the benchmark item
- the approach used to estimate the cost
- the benchmark base cost.

The benchmark cost of an infrastructure item is made up of the following components:

Benchmark cost	=	Base cost	x	Adjustment factors	+	Contingency allowance

Each component is described below.

At the end of this fact sheet we have included:

- an example of a datasheet
- 2 worked examples of the calculation of a benchmark cost for an infrastructure item.

Base cost

The base cost of an infrastructure item is stated on the datasheet and is made up of:

- **Direct costs:** the cost of supplying and constructing the infrastructure.

  The key scope assumptions used to estimate the direct cost are listed on the datasheet. The direct costs usually include materials (eg, concrete) and labour (eg, carpenters).
- **Indirect costs:** the cost incurred by contractors directly related to the project, such as site office accommodation and equipment, contractor staff wages, and transportation costs.

- **Margin costs:** include contractor's overheads (non-project-specific costs) and profit.
- **Council on-costs:** may include internal staff costs, professional fees (such as design), regulatory compliance costs (such as gaining environmental approval), levies and other government charges.

Adjustment factors

We have recommended adjustment factors to account for the variation in cost of delivering the same item of infrastructure in different regions or development settings.

Adjustment factor for regional variation

An **adjustment factor** is to be applied to the base cost to reflect regional variations in costs across NSW. The adjustment factors are different for different types of infrastructure.

- For **open space and community facilities** the cost of construction is strongly influenced by the distance to suppliers and the available labour market. We recommend using the regional building cost indices from *Rawlinsons Australian Construction Handbook.* This compares construction costs in localities across NSW with costs in Sydney. Costs in western NSW, for example, are typically 28% to 35% higher than in Sydney. By comparison, costs in Newcastle and Wollongong are 1% higher than in Sydney due to their close proximity to suppliers, labour and market size.
- For **roads and traffic management and stormwater facilities** the cost of construction is more affected by haulage costs of raw material from material sources. We therefore recommend using the indices in the table below.

Regional adjustment factors

Type of infrastructure	Distance from raw material source		
	<25 km	25-75km	>75km
Roads	1.00	1.05	1.10
Stormwater	1.00	1.02	1.04

Optional congestion adjustment factor

An optional adjustment factor for congestion-related costs can be applied for roads and traffic management and stormwater. This is to capture costs such as traffic management, site access and off-peak work hours. The upper limits for congestion related costs are in the table below.

Optional congestion adjustment factors

Type of infrastructure	Level of congestion		
	Light	Moderate	Heavy
Roads and Stormwater	1.15	1.25	1.40

- A **light level** of congestion would apply for work on a suburban street, requiring minor and irregular traffic control and with only minor pedestrian movement.
- A **heavy level** of congestion would apply for work on a street within a suburban business district, with substantial and continuous traffic control and significant pedestrian movement.

Contingency allowance

Contingency allowances are to cover the risk of unforeseen events occurring that are not captured in the base cost, such as site contamination or interruptions to supplies. The contingency allowance should be applied to the base cost after applying the relevant adjustment factors.

We recommend that contingency allowances should vary depending on the stage of planning for the project, and the infrastructure type. The following table includes the mid-point of suggested contingency factors provided by Evans and Peck for the strategic review and business case stages of the planning process. Evans and Peck have not identified contingency allowances for the tender stage or later, as councils would use tender costs rather than the benchmarks for cost estimation at those stages of planning or delivery.

Contingency allowance – midpoint of range recommended by Evans and Peck

Type of infrastructure	Project planning stage	
	Strategic review	Business case
Open space	20%	15%
Community	15%	10%
Roads	30%	20%
Stormwater	30%	20%

We consider that these mid-point contingency allowances provided by Evans and Peck may over-estimate the impact of uncertainty when using the benchmark items. We welcome submissions to the Draft Report on what is an appropriate level of contingency allowance to be applied when using the benchmarks.

How should the benchmarks be escalated?

The benchmark costs that we have published are presented in 2012/13 dollars. Councils using the benchmark costs to prepare their local infrastructure plan in future years will need to adjust the benchmark costs to reflect the changes in those costs since 2012/13.

We recommend that councils use relevant construction-based Producer Price Indices (PPIs) published by the Australian Bureau of Statistics (ABS) to escalate the benchmarks costs. These PPIs are outlined in Table 9.1 of the Draft Report.

How often will the benchmarks be updated?

We recommend that IPART should review the benchmark costs within 4 years. The timing of subsequent reviews should be determined at that stage.

How should the cost of items without a benchmark cost be estimated?

We recommend that councils use either a top down or bottom up approach to costing infrastructure items, depending on the type of infrastructure and the information they have available.

In general, councils should use market information (such as a tender or schedule of rates) where available, in preference to historical costs or cost estimating software/publications.

We have also highlighted good practice in estimating infrastructure costs where there is no benchmark eg, determining the strategic scope of the project and ensuring that there is a process in place to review estimates.

How do standards impact local infrastructure costs?

We were also asked to consider the cost impacts of the main planning and environmental standards that councils apply in the provision of local infrastructure. These standards can be imposed on councils by outside agencies or at their own discretion.

The NSW Government intends that local infrastructure contributions reflect the efficient cost of providing infrastructure and be affordable. We are therefore focusing on identifying standards that our stakeholders consider to have an unreasonable impact on the cost of local infrastructure.

We have not yet received sufficient stakeholder feedback to confirm which standards have an unreasonable impact on the cost of local infrastructure, and we welcome submissions on this issue.

How should land for local infrastructure be valued?

Councils purchase land or provide land that they already own to construct infrastructure or to provide open space for new development. The cost of this land is an important component of the amount paid by developers as contributions. It is therefore important that the value of the land included in local infrastructure plans is reasonable.

Our suggested approaches for valuing land, and escalating it, depend on:

- whether or not the council needs to buy the land, or already owns it
- whether or not council-owned land was reserved for public purposes, prior to the land being rezoned for local infrastructure.

We suggest the following land valuation and escalation approaches, and welcome submissions to our Draft Report on these:

- If the council needs to buy the land, its value should be estimated using market value plus an amount for 'just terms' compensation.
- If the council already owns the land, and it is reserved for a public purpose, its value should be its historic purchase price, indexed by CPI (All Groups Sydney).
- If the council already owns the land, its value should be its historic purchase price, indexed by CPI (All Groups Sydney) except:
  - If, in the precinct planning process, the land was not previously reserved for a public purpose before it is rezoned for development. On balance our preferred approach is that it be valued at current market value. This is because the land could be sold for the benefit of all ratepayers.
- The cost of all land already owned by council should be escalated by CPI (All Groups Sydney).
- The cost of land to be acquired by council should be escalated by CPI, or a 'suitable' land value index. We define the characteristics of a suitable land index in Chapter 7 of the report.

How should disputes about the benchmark costs or cost methodologies be resolved?

Councils can minimise the potential for disputes by establishing internal review processes to resolve disputes with developers in the first instance.

If the dispute remains unresolved, it should be referred for independent review, to the council's Independent Hearing and Assessment Panel if it has one, or the Joint Regional Planning Panel. When seeking the Minister's approval for the local infrastructure plan, councils should report on any contentious issues and how they have dealt with a Panel's recommended resolution.

We also recommend that the Minister could refer matters concerning the application of benchmarks and costs methodologies in local infrastructure plans to IPART for advice and resolution.

How can I make a submission?

IPART invites written comment on the Draft Report and encourages interested parties to make a submission.

Submissions are due by **17 January 2014**.

We would prefer to receive submissions electronically via our website: www.ipart.nsw.gov.au/Home/Consumer_Information/Lodge_a_submission

You can also post submissions to:

Benchmarking of local infrastructure
IPART
PO Box Q290
QVB Post Office NSW 1230

Late submissions may not be accepted at the discretion of the Tribunal. Our normal practice is to make submissions publicly available on our website <www.ipart.nsw.gov.au>.

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

What is the roundtable?

We are also holding a public roundtable to provide an additional opportunity for stakeholders to ask questions and comment on our Draft Report.

The roundtable will be held at 9.15am, 3 December 2013, at Lyceum Room, Wesley Centre, 220 Pitt Street, Sydney.

The agenda for the roundtable will be available on our website. We have an online registration facility on our website. Alternatively, to indicate your interest in attending the roundtable, please contact Himali Ranasinghe on 9113 7710.

Want to speak to someone?

If you have any questions about our Draft Report or making a submission, please contact:

Carly Price	(02) 9113 7738
Nicole Haddock	(02) 9290 8426
Narelle Berry	(02) 9113 7722

Benchmark datasheet example

(i)	*[ITEM NAME]*	**New Sub-Arterial Road**
(ii)	*[ITEM NUMBER]*	**ITEM 1.1**
(iii)	*[FUNCTIONAL DESCRIPTION]*	Construction of new, flexible pavement sub-arterial road, covering a range of pavement structures
(iv)	*[KEY SCOPE ASSUMPTIONS]*	- Greenfield environment - consists of medium timbered vegetation and excludes undulating topography Includes: - nominal 1.2 m of excavation with allowance to remove 50% of the spoil to an off-site tip @ $50/T, clearing and grubbing of medium vegetation - K & G - stormwater drainage - subsoil drainage - 100mm diameter corrugated perforated plastic pipe with sock, including drainage filter backfill - 2 x 2.5m reinforced concrete footpath - 2500mm wide x 125mm thick concrete on 125mm thick DGS20 - 2 x 500mm wide turfed grass nature strip - typical signage - 1 small to medium sized sign (eg, speed limit sign) every 50 - 60m - tie-in works to existing lane - linemarking Excludes: - major traffic control - guard rails and guide posts - street lighting and all utility associated work Pavement structure: - 200mm - 300mm SMZ, 200mm to 250mm DGS20, 150mm to 200mm DGB20, two coat bitumen seal (10mm & 14mm), 40mm to 50mm AC wearing course **Sub item 1.1.1 - 4 lane sub-arterial Road** - Road corridor: 4 lane x 3.2m wide carrigeway - Road reserve: 20m - Total carrigeway width: 12.8m - Minimum quantity: >1500m2 (>100m length) **Sub item 1.1.2 - 3 lane sub-arterial Road** - Road corridor: 3 lane x 3.2m wide carrigeway - Road reserve: 17m - Carrigeway width: 9.6m - Minimum quantity: >1200m2 (>100m length)

(v)	*[SUBI TEMS]*	1.1.1	4 lane sub-arterial road
		1.1.2	3 lane sub-arterial road

(vi)	*[PRICING METHODOLOGY]*	First Principles Estimate

(vii)	*[STANDARDS]*	**STANDARD** Austroads - Guide to Traffic Engineering Practice, Parts 1 - 15 - Pavement Design - Guide to the structural Design of Road pavements - Rural road design - guide to the geometric design of rural roads - Roads and Maritime Services - Road Design Guide - Council's relevant work specification - Civil

		#	Sub item	Unit	$/unit
(viii)	*[BENCHMARK BASE COST]*	1.1.1	4 lane sub-arterial road	m	$ 11,330
		1.1.2	3 lane sub-arterial road	m	$ 9,748

Benchmark costing examples

Worked example 1 – 4 lane sub-arterial road

Project description:
- 2 kilometre long, new 4 lane sub-arterial road in Penrith.
- All Key Scope Assumptions are valid.

Base cost		Adjustment factors			Contingency
Sub item 1.1.1 • 4 lane sub-arterial road • $11,330/m • All Key Scope Assumptions are valid Base cost: 2,000m x $11,330/m = $22,660,000	X	Regional factor Distance to source – less than 25km = 1.0	Congestion factor (optional) Moderately congested = 1.25	+	Business case stage: 20% Contingency allowance: $28,325,000 x 20% = $5,665,000

Total adjustment factors

Regional and congestion adjustment factors: 1.25

Adjusted base cost:
$22,660,000 x 1.25 = $28,325,000

Total benchmark cost

$33,990,000

Worked example 2 - library

Project description:
- 985m^2 library in Muswellbrook.
- All Key Scope Assumptions are valid.

Base cost		Adjustment factors			Contingency
Item 4.2 • Library excluding site works • $3,860/m^2 • All Key Scope Assumptions are valid Base cost: 985m^2 x $3,860/m^2 = $3,802,100	X	Regional factor Based on Rawlinsons Australian Construction Handbook = 1.1	Congestion factor (optional) Not applicable	+	Business case stage: 10% Contingency allowance: $4,182,310 x 10% = $418,231

Total adjustment factors

Regional and congestion adjustment factors: 1.1

Adjusted base cost:
$3,802,100 x 1.1 = $4,182,310

Total benchmark cost

$4,600,541