

ACCOUNTING STANDARD AASB 116

DEFINITION OF RESIDUAL VALUE

Supplementary Submission by

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2 February 2015



DEFINITION OF RESIDUAL VALUE

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INTRODUCTION

This firm made a submission dated 2 June 2014 arguing that for certain not-for-profit entities (specifically for local governments) the definition of residual value should include, where an asset is replaced, cost savings arising from the salvage and re-use of materials in the construction of the replacement asset, net of costs of salvage.

Our submission has been considered at length by the Board, for which we express our thanks.

At its February 2015 meeting, the Board made a tentative agenda decision "that neither an Interpretation nor an amendment to a Standard was necessary. Consequently, the AASB [decided] not to add this issue to its work program."

What we take to be the key to the AASB's reasoning is expressed in the following paragraph:

"The AASB noted that the definition of residual value in AASB 116 refers to the estimated amount that an entity would currently obtain from disposal of the asset at the end of its useful life. That is, if significant values attach to in-situ materials, and they are expected to be recycled, the materials have not reached the end of their useful lives. Accordingly, the AASB considered that a residual value would only be recognised when an entity expects to receive consideration for an asset at the end of its useful life.

We submit that this decision should be further reviewed, on the grounds set out below.

THE ORIGINAL SUBMISSION

Our original submission gave the following example:

An open surface road was constructed on the natural surface on level ground. The wearing surface construction (sheeting) was of 200 mm thick crushed gravel of 8 metre width for a 1 kilometre length. (The 1600 cubic metres of gravel required for the construction was carted from a nearby pit, and graded, compacted and rolled on site.)

The wearing surface is now in poor condition, has reached the end of its useful life and the road will be re-surfaced. (The road is seriously pot-holed and is showing the natural ground surface, particularly in the "channels" where vehicles tend to track, and many of the pot-holes have joined up. Despite this, there is a certain amounts of the previous sheeting remaining in the areas where pot-holes have not developed.)

In the process of reconstructing the wearing surface, the remnant sheeting from the original construction was graded up and mixed with additional gravel from the nearby pit, and graded, compacted and rolled as in the original construction.

The new wearing surface is in all respects identical to the original wearing surface when that was originally completed.

However, due to the salvaged materials from the original wearing surface, it was only necessary to cart 1050 cubic metres of new gravel from the nearby pit.

We contend that the residual value of the original wearing surface is the cost saving realised (or expected to be realised) from the re-use of salvaged materials, less the cost of salvage.

In our example, this would be the cost of carting 550 cubic metres of new gravel from the pit, less the cost of grading up the salvaged material.



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THE ASSET

We contend that the asset (component) under consideration in our example is the **wearing surface**, not the gravel of which it is built, in the same way as a motor vehicle is the asset, not the steel from which it is made. At the point of sale or trade-in, the materials of which a motor vehicle is made have not reached the end of their useful lives. We submit that the AASB should revisit this portion of their considerations.

At 30 June 2003 there were some 312,500 km of open surface (gravel) roads throughout Australia¹, and except for the north of South Australia and far north-west of New South Wales, all are under local government control. Using the construction values from the IPWEA submission 2 (which are not inconsistent with the costs indicated in the other submissions) suggests a gross new construction cost in the order of \$10 billion, with approximate residual value of \$2.5 to \$3 billion.

A road may be made of a number of components, and for an open surface (usually gravel) road these components may include

- wearing surface
- sub-base
- formation
- drainage - culverts, pipes etc.
- road furniture - guide posts, signs, etc.

Our example deliberately referred to a situation where only the wearing surface is present in order to avoid confusion with other potential road components which may or may not be present in any given instance.

COMPONENTISATION OF THE WEARING SURFACE

We contend that it is not possible to further componentise the wearing surface.

Our definition of component is as follows:

component

A noun 1 ... Only in M16

2 A constituent part; spec.: (a) any of the separate parts of a motor vehicle, machine, etc.: (b)

MATH. & PHYSICS ... (c) CHEMISTRY ...²

We contend that this definition requires that components be separately identifiable. Each component must be able to be separately identified (as with tyres on a motor vehicle) throughout the useful life of the asset.

As stated in our example, the “new wearing surface is in all respects identical to the original wearing surface when that was originally completed.” It was implied, but not explicitly stated, that both the new and the old wearing surfaces were homogenous throughout.

Should an attempt be made to further componentise the wearing surface, it would not be possible to separately identify the individual components due to the homogeneity of the materials used in its construction.

This has obvious implications for the process of revaluing the asset during its useful life - and all jurisdictions except the Northern Territory require at least that all material asset classes adopt the fair value model in accordance with AASB 116.

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1. Year Book Australia 2004, Australian Bureau of Statistics, publication 1301.0 appears to be the most recent publication of these statistics.
 2. Shorter Oxford English Dictionary, Fifth edition, p469.



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AVAILABILITY OF AUDITABLE EVIDENCE

The resheeting of open surface road wearing surface is a frequent ongoing activity of all Councils with roads of this type. Ample audit evidence is available from the actual records of past works to provide adequate substantiation of the average salvage recovery and re-use of materials. (All Councils maintain accurate records of materials carted, usually for royalty payment purposes. Accordingly, both the new materials used, and the total materials in the new wearing surface are known with some accuracy.)

SUBMISSIONS FROM TARGETED OUTREACH

Of the 4 submissions received, those from Central NSW Councils (Centroc) and Orange City Council, together with an earlier submission received from Intentus Chartered Accountants¹, all supported our proposal. We therefore deal in detail with the contents of the 2 submissions that did not offer support.

IPWEA Submission 1

This document is set out as follows:

1. Background
2. Role of IPWEA
3. Use of Residual Value for Infrastructure Valuations
4. Examples of Recognition of Residual Value

The following examples are given, none of which match the circumstances referred to in our original example:

- Road spray (flush) seal surfacing
- Recycling of sealed road pavements
- Lining of stormwater and sewerage pipelines
- Building roof components

5. Review of use of Residual Value

This largely consists of excerpts from reports of the Tasmanian Auditor General to Parliament. The conclusion reported was that there should be “reduced reliance on residual values to affect the depreciable amount of infrastructure assets”. Effectively, this is to deny the inclusion of salvage values in the residual value.

6. Applying the Tasmanian Auditor General’s Recommendations

This section discusses methods for applying the Tasmanian Auditor General’s recommendations (i.e. for the denying of salvage values) in the example circumstances in section 4. It assumes that the AASB has made a decision not to support our proposal.

7. Summary

We draw to your attention that paragraph 7.4 acknowledged that “[o]f the four examples, only one, recycling of sealed road pavement assets could be considered as a recyclable asset.”

The claim that “[t]he fact that there is a value to the organisation from the recycling of sealed road pavement assets is also better accounted for by greater componentisation rather than recognising a residual value” is unsubstantiated, and does not address the practical issues as to how separate components of a homogeneous asset can be identified.

1. AASB September meeting, Agenda paper 17.4



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8. Recommendation

We comment on the various parts of the recommendation in the table below:

AASB retain the definition of residual value in AASB 116 Property, Plant and Equipment and encourage greater use of appropriate componentisation and revaluation as modern equivalent assets.	We support the greater use of appropriate componentisation.
The componentisation should be based on renewal strategies and estimated costs rather than construction costs.	Components must be separately identifiable irrespective of replacement strategies.
This will allow: <ul style="list-style-type: none">• Compliance with AASB 116	The purpose of our original submission was to ascertain the correct interpretation of AASB 116.
<ul style="list-style-type: none">• Increased justification and substantiation based on renewal/replacement strategies and expenditure projections in asset management plans and funding in long-term financial plans	Irrelevant to the point at issue, but we support continuous improvement in asset management planning.
<ul style="list-style-type: none">• Improved financial reporting from more accurate asset register data	We argue that omitting the salvage value as a component of residual value will result in less accurate asset register data. However, we acknowledge that there is a general requirement in local government for improvement in the accuracy of asset register data.
<ul style="list-style-type: none">• Reduced risk of obsolescence effects where assets recognised as unlimited life assets are subject to replacement/disposal.	Irrelevant to the point at issue. Obsolescence - from whatever cause - must always be taken into account in assessing <i>useful life</i> .

IPWEA Submission 2

The first paragraph of this submission reads:

"IPWEA acknowledges that there can be instances where it is cost effective and appropriate for entities to re-use components of existing assets to reduce asset renewal/replacement costs. Where this is so, **it is appropriate to recognise that such components had value at the point in time that renewal was undertaken.**" [our emphasis]

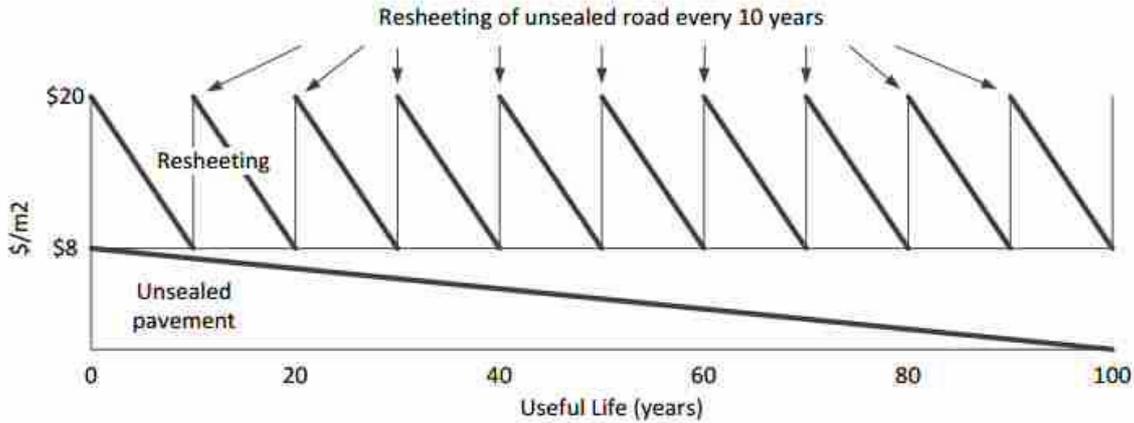
The submission then suggests that it considers that there are more appropriate methods rather than recognising this value as *residual value*. The submission includes the following diagram based on the identification of components:



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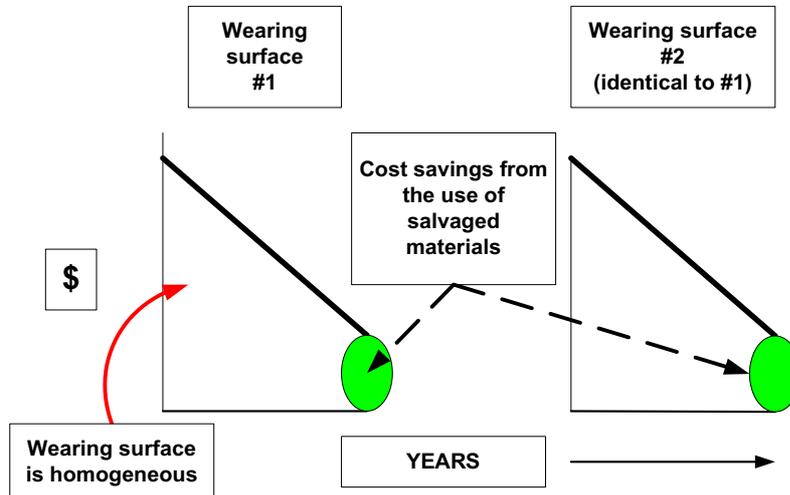
Figure 1: Depreciation of Unsealed Roads with Resheeting of Wearing Surface



We submit that the diagram is faulty, in that it ignores the fact that the wearing surface, as constructed (and throughout its life) is homogeneous - there is no way to physically identify the "resheeting" and "unsealed pavement" components of the wearing surface as depicted.

Further, the wearing surface is not an asset with a continuous existence - it has a finite useful life. What has actually been depicted in the diagram is the useful lives of 10 separate wearing surfaces. Certainly, the composition of each wearing surface is identical, but the dimensions are not necessarily so - during the 40 years during which we have been associated with local government, we have seen 3 different standard widths for road construction.

We suggest that the following is a more appropriate representation:



(At the risk of being facetious, we have known many occasions when ratepayers have complained that the gap between the end of the useful life of wearing surface #1, and the construction of wearing surface #2, has comprised too great a period.)

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The gap between the 2 wearing surfaces is a period during which little additional loss of material occurs because, as explained in the example, no gravel wearing surface remains in the vehicle tracks. Wear *is* occurring on the natural surface (in our example) or to the formation if there is one, but that is a separate component, with its own useful life and potentially its own residual value.

Again, the submission does not address the key issue of the identification of the separate components that they have created out of the homogeneous wearing surface.

Valuation

The submission pays lip service to the need to periodically revalue the asset:

“The components are valued using the modern equivalent assets as:

- Unsealed pavement long life component – estimated cost of pavement replacement less estimated cost of planned resheeting
- Resheeting short life component - estimated cost of planned resheeting

We are not valuers and profess no special expertise in this area. However, we would have expected that a valuation on the depreciated current replacement cost basis would involve at least the following steps:

1. Identify each component of the asset.
2. *For each component*, assess its current condition from its life-to-date in relation to anticipated total useful life, and adjust useful life accordingly.
3. *For each component*, estimate residual value.
4. *For each component*, estimate gross current construction cost (in as new condition).
5. *For each component*, calculate accumulated depreciation for whole of life-to-date using the method adopted by Council.

Indeed, this description is simplified, as roads are also *segmented* into sections that are usually maintained or reconstructed as a unit. In urban areas, these segments are usually from one intersection to the next; in rural areas a range of other criteria are used. Thus any given road will be made up of a number of segments, each of which may comprise several components.

Each of the above steps in the valuation process is auditable, and an auditor can follow through the process and test a sample in the normal manner.

Staff Issues Paper - Agenda paper 8.2

Paragraph 7(a) states that some NFP entities are “recognising residual values for recyclable infrastructure assets in order to reduce the depreciable amount of those assets”.

While we have no doubt that this is the prime motivation of some practitioners - just as we have no doubt that there are other practitioners seeking to interpret the various Financial Instruments standards to conceal losses - the reduction in *depreciable amount* is an automatic consequence of the definition of *depreciable amount* in AASB 116:

“*Depreciable amount* is the cost of an asset, or other amount substituted for cost, less its residual value.”



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When the source of this report is tracked down, it is revealed as an individual's opinion of the reasons for the use of residual value. However, it can equally validly be explained as an honest attempt to ascertain **the actual amount of the loss in value of the economic benefits of the asset throughout its useful life.**

AASB 116 paragraph 60 requires that the "depreciation method to be used shall reflect the pattern in which the asset's future economic benefits are expected to be consumed by the entity." The **quantum** of the economic benefits consumed is the *depreciable value*.

For the most types of assets, the quantum of economic benefits consumed is ascertained by deducting the economic benefits received on sale at the end of its *useful life* from the economic benefits consumed in its acquisition.

In the case of the wearing surface under consideration, at the end of its *useful life* not all of the economic benefits consumed in its acquisition have been exhausted. Indeed, they tend to stay "preserved" until the materials are salvaged and used in the construction of the next wearing surface as explained at the head of the previous page.

It is our contention that those "preserved" economic benefits should be recognised as part of the residual value of the asset. Further, we contend that it is only by so doing that an accurate estimation of the depreciation of the asset can be made.

We have particular difficulty in interpreting paragraph 32 of this paper:

"For example, in relation to the fact pattern within the original submission, an unsealed road subject to recycling at the end of its 'service' life, if the useful life of the in-situ material extends beyond its service life, dependent on the nature of the intervention, the carrying amount at the time of intervention may be similar to the cost savings arising from the recycling of the gravel. In contrast, if the useful life is limited to the service life of the road, the remnant gravel would be fully depreciated and the entity would not recognise the remaining economic benefits embodied in the asset.

There appears to be some confusion as to whether the asset is the *road*, the *wearing surface* or the *gravel* of which it is composed.

In fact, the asset (component) under consideration is the **wearing surface**.

The paragraph seems to suggest that the *service life* of the gravel would exceed the *useful life* of the asset, a proposal that conflicts with our interpretation of the definition of *useful life*.

Taken to its logical conclusion, the following situation would result:

Composition of wearing surface #1	% of total materials used
Short life component	75%
Long life component	25%
Composition of wearing surface #2	
Short life component #2 gravel	75% of 75%
Short life component of reused #1 gravel	75% of 25%
Long life component #2 gravel	25% of 75%
Long life component of reused #1 gravel	25% of 25%



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Composition of wearing surface #3	
Short life component #3 gravel	75% of 75%
Short life component of reused #2 gravel	75% of (25% of 75%)
Short life component of reused #1 gravel	75% of (25% of 25%)
Long life component #3 gravel	25% of 75%
Long life component of reused #2 gravel	25% of (25% of 75%)
Long life component of reused #1 gravel	25% of (25% of 25%)
<i>and so on ad infinitum</i>	

Summary

We submit that the AASB should review its tentative agenda decision, giving specific consideration to the following points:

- The asset (component) under detailed consideration is the **wearing surface**.
- The asset (component) in each of its various constructions is **homogenous**.
- That where an asset is componentised, each component must be specifically identifiable.
- The total investment of Australian local governments in (gravel) wearing surfaces is significant.
- That inclusion of the salvage value (net of salvage costs) of recycled materials in the residual value of an asset will necessarily result in more accurate depreciation calculations.
- There is a statutory requirement in all jurisdictions except the NT that material asset classes be carried using the fair value model, and hence that periodic revaluations be undertaken. (In some jurisdictions, *all* asset classes are required to be carried using the fair value model.)
- There are a range of other infrastructure assets where the salvage and recycling of materials regularly occurs.

