

# ***Costing Property Development Inventories***

(Published by MASB)

**Key terms:** inventory; inventory costing; IAS 2 *Inventories*, property development; public infrastructure; affordable housing; and incurred in bringing the inventories to their present location and condition.

**IFRS Standards referred to:** IAS 2 *Inventories*; IAS 8 *Accounting Policies, Changes in Accounting Estimates and Errors*; IAS 16 *Property, Plant and Equipment*; IAS 37 *Provisions, Contingent Liabilities and Contingent Assets*; IFRS 15 *Revenue from Contracts with Customers*; and the *Conceptual Framework for Financial Reporting*.

## **1. Background**

- 1.1 IAS 2 was first issued in 1975 and has been revised on a number of occasions.<sup>1</sup> However, its fundamental requirements have remained substantially unchanged.
- 1.2 Despite its requirements rarely being in the spotlight, issues occasionally arise about how IAS 2 should be applied in particular circumstances. This article explores the manner in which property developers' inventories are costed under IAS 2 when, as a condition of being granted development permission, developers are required to construct public infrastructure and/or affordable housing.
- 1.3 Property developments typically involve constructing housing, retail, office and/or industrial property for sale to customers with a view to profit. For illustrative purposes and ease of discussion, this article refers to the development of 'premium housing'.
- 1.4 This article uses the term 'public infrastructure' to mean infrastructure that could be constructed independently of the premium housing and will be controlled by government for the benefit of the public, which is a wider group than the developers' customers. That is, public infrastructure is infrastructure that does not need to be completed before the premium housing could function as intended and be sold. [This is in contrast to infrastructure that is integral to the premium housing and necessary for it to function as intended, such as water and sewer systems, power cabling and access paths and roads.]
- 1.5 The term 'affordable housing' is used in this article to mean housing that a developer is required to construct as a condition of being granted development permission and is expected to be sold for less than the cost to construct to customers identified by the government (often the authority that granted permission).

## **2. The objective of IAS 2 and the nature of costs incurred**

- 2.1 The objective of IAS 2 is to prescribe the accounting treatment for inventories. IAS 2.1 notes that a primary issue in accounting for inventories is the amount of cost to be recognised as an asset and carried forward until the related revenues are recognised.

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<sup>1</sup> When issued in October 1975, IAS 2 had the title *Valuation and Presentation of Inventories in the Context of the Historical Cost System*. The change of name to *Inventories* occurred in 1993.

- 2.2 To address this issue, IAS 2 employs the notion of 'incurring' inventory costs in its recognition and measurement requirements, while the related revenue is determined under IFRS 15. For example, IAS 2.10, 12, 13, 15, 16 and 28 all refer to costs being 'incurred'. The notion of costs being incurred is designed to achieve the objective of having the relevant amount of cost recognised in bringing the inventories to their present location and condition no matter when the actual cash related to those costs is expended.
- 2.3 There is no definition of 'incur' or 'incurred' in IFRS Standards. However, the term is widely used in IFRS, including the *Conceptual Framework*. In the context of IAS 2, the costs 'incurred' can encompass:
- (a) cash paid for materials, labour, services and overheads to purchase or produce inventories;
  - (b) consumption of depreciable assets in the process of purchasing or producing inventories
  - (c) liabilities to pay cash in future that arise as a result of purchasing or producing inventories now.
- 2.4 In relation to paragraph 2.3(c), these would often be estimated costs. For example, in the context of IAS 16, the costs of dismantling and removing an item of mining equipment or restoring the site on which it is located are included among the costs incurred in bringing the mining equipment to the location and condition necessary for it to be capable of operating in the manner intended by management [IAS 16.16]. By their very nature these equipment costs are estimates of amounts to be paid in the future. Furthermore, in the context of this example, when the equipment is used to produce inventories, the costs of dismantling and removing that equipment or restoring the site on which it is located are accounted for under IAS 2 and, when relevant, included among the costs incurred to produce inventories [IAS 16.18].

### **3. The nature of inventories**

- 3.1 IAS 2 defines inventories as assets:
- (a) held for sale in the ordinary course of business;
  - (b) in the process of production for such sale; or
  - (c) in the form of materials or supplies to be consumed in the production process or in the rendering of services [IAS 2.6].
- 3.2 In relation to property development, inventories could include:
- (a) materials that have yet to be used in constructing premium housing and affordable housing, including land;
  - (b) premium housing and affordable housing under construction that is intended for sale; and
  - (c) completed premium housing and affordable housing that is for sale.
- 3.3 Even though the developer is only constructing the affordable housing as a condition of being granted development permission, it meets the inventory definition because it is intended for sale.
- 3.4 There will be no sale proceeds from the transfer of public infrastructure into the control of the relevant government. Accordingly, the public infrastructure itself does

not meet the inventory definition at any time (either before, during or on completion of construction).

#### **4. Measuring inventories**

- 4.1 Inventories are recognised as assets prior to being sold and are measured at the lower of cost and net realisable value [IAS 2.9].
- 4.2 If the estimated selling price of inventories in the ordinary course of business is less than the costs incurred to-date plus the estimated costs of completion and the estimated costs necessary to make the sale, the loss is recognised as an expense in the period the write-down or loss occurs [IAS 2.6 and IAS 2.34]
- 4.3 In the context of determining net realisable value, IAS 2.29 says (emphasis added):

*29 Inventories are usually written down to net realisable value item by item. In some circumstances, however, it may be appropriate to group similar or related items. This may be the case with items of inventory relating to the same product line that have similar purposes or end uses, are produced and marketed in the same geographical area, and cannot be practicably evaluated separately from other items in that product line. It is not appropriate to write inventories down on the basis of a classification of inventory, for example, finished goods, or all the inventories in a particular operating segment.*

#### ***Affordable housing***

- 4.4 In some circumstances, the net realisable value of affordable housing would be assessed as a stand-alone group of inventories and any loss recognised immediately as an expense.
- 4.5 In other cases, it would be appropriate to group the affordable housing with other inventories, for example, when affordable housing and premium housing are parts of a wider development master plan for a particular geographical area. If all housing in that master plan is expected to be profitable overall, an immediate expense would not be recognised for the affordable housing. The costing of both the affordable and premium housing would be performed in conjunction with one another. That is, the shortfall would be a cost attributed to premium housing because both the premium and affordable housing are parts of a wider development that is expected to be profitable. The shortfall is like any other cost that necessarily needs to be incurred to achieve the construction of premium housing and be allocated under IAS 2.12.

#### ***Public infrastructure***

- 4.6 As noted above, public infrastructure is not, of itself, inventory.
- 4.7 Similar to the shortfall on affordable housing, the cost of constructing the public infrastructure is an inventory cost that is necessarily associated with constructing premium housing and needs to be allocated under IAS 2.12. That is, from the perspective of costing premium housing inventory, public infrastructure is much like assets made with the sole purpose of facilitating the construction of premium housing. For example, the public infrastructure could be likened in nature to a perimeter scaffolding that is built to facilitate the construction of premium housing. The scaffolding itself is not an end product for the developer and will be dismantled

at the relevant stage of construction, but is a cost that needs to be incurred and should be allocated to premium housing construction.

## **5. Recognising and measuring the costs of inventories prior to sale**

- 5.1 IAS 2 requires that the cost of inventories comprise all costs of purchase, costs of conversion and other costs incurred in bringing the inventories to their present location and condition [IAS 2.10].
- 5.2 Costs of purchase are directly attributable costs [IAS 2.11] such as land and construction materials, including the costs of transporting materials to a construction site.
- 5.3 Costs of conversion include direct labour costs and fixed and variable overheads [IAS 2.12 to 13] such as the depreciation of construction equipment and site security and maintenance.
- 5.4 Other costs are included in the cost of inventories only to the extent that they are incurred in bringing the inventories to their present location and condition [IAS 2.15]. These would include costs that the developer has no choice but to incur in order to ensure the premium housing can be constructed, such as:
- (a) the costs of public infrastructure; and
  - (b) the costs of affordable housing to the extent they cannot be recovered from affordable housing buyers;

when those costs are incurred in bringing the inventories to their present location and condition. They are like any other cost necessarily incurred to produce inventories and need to be allocated to inventories.

### ***Timing of public infrastructure costs and affordable housing shortfalls***

- 5.5 Development permission might be granted on the basis that the developer agrees to construct public infrastructure and/or affordable housing:
- (a) before it constructs premium housing;
  - (b) at the same time that it constructs premium housing; and/or
  - (c) after it constructs premium housing.
- 5.6 Under IAS 2, the timing would not change the requirement to include the costs of constructing public infrastructure and/or the shortfall relating to affordable housing among the costs of premium housing when those costs are incurred in bringing the premium housing inventories to their present location and condition. In the context of IAS 2, the focus is on attributing the relevant costs to inventories as they are produced, not the timing of cash paid to meet costs.
- 5.7 If, for example, the public infrastructure is constructed before the premium housing, the public infrastructure construction costs would be recognised as costs attributable to premium housing inventories as soon as they are incurred.
- 5.8 If, for example, the public infrastructure is constructed after the premium housing, the relevant expected public infrastructure construction costs would still be accrued as costs attributable to premium housing inventories as construction progresses. Correspondingly, as construction progresses, those costs would be accrued as a

provision under IAS 37. When the public infrastructure is subsequently constructed, the actual costs would be set against the provision. This is consistent with the way IAS 16 requires the carrying amounts of property, plant and equipment and inventories to include costs of future dismantling, removal and site restoration, which are accrued over time as construction of the relevant property, plant and equipment and inventories progresses [IAS 16.18].

### ***Public infrastructure required on reaching a threshold***

- 5.9 In some cases, the developer may be required to construct public infrastructure only once some trigger event occurs, such as constructing more than 100 premium houses. The accounting treatment will depend on the facts in each case.
- 5.10 If, for example, the developer is publicly committed to a master plan that involves constructing 250 premium houses, typically a relevant portion of the costs of constructing the public infrastructure would be included in all the premium housing inventories, not just the last 150 premium houses. This is consistent with the objective of IAS 2, which identifies as a primary issue accounting for the amount of cost to be recognised as an asset and carried forward until the related revenues are recognised. That is, the master plan to which the developer is committed would typically support a best estimate that more than 100 premium houses will be constructed and the consequent need to provide over time for the future construction of public infrastructure from the time the developer begins constructing the first house. If the costs incurred to construct the first 100 premium house inventories did not include their relevant share of the costs to construct the public infrastructure, their cost would be understated relative to the revenues to be recognised for those first 100 premium houses.
- 5.11 In the event that circumstances change and, for example, the developer no longer expects to construct more than 100 premium houses, the developer would change its estimates and the provision would be reversed [IAS 37.59]. To the extent that the relevant premium housing inventories are still assets of the developer, they would be written down for the relevant portion of the public infrastructure cost included in their carrying amounts [IAS 8.38]. To the extent that the premium housing inventories had already been sold, there would be an immediate adjustment to profit or loss [IAS 8.37].

## **6. Sale of inventories**

- 6.1 When inventories are sold, their carrying amounts are recognised as an expense in the period in which the related revenue is recognised [IAS 2.34]. Revenue is recognised when (or as) an entity satisfies performance obligations by transferring control of promised goods or services to customers [IFRS 15.31].
- 6.2 In some property development contracts, control of the inventories passes to customers on completion of the inventories, in which case inventories are derecognised from the balance sheet and recognised as cost of sales in profit or loss on completion and sale. Alternatively, if control of the inventories passes to customers over time, they are derecognised from the balance sheet and recognised as cost of sales in profit or loss over time.

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