FEASIBILITY GUIDELINES FOR HERITAGE DEVELOPMENT APPLICATIONS
FEASIBILITY GUIDELINES FOR HERITAGE DEVELOPMENT APPLICATIONS FINAL REPORT

A Report Prepared on Behalf of The Property Research Centre at University of Western Sydney

By Colin Dominy

for

The NSW Heritage Office

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This report has been produced in response to instructions received from the NSW Heritage Office, for the formulation of systematic guidelines in respect to the feasibility process associated with heritage-listed property development projects.

Its underlying objective is to assemble a series of procedural guidelines which will assist in a better, more comprehensive understanding of the property development feasibility process in scenarios where heritage-listed projects are the subject of specific redevelopment proposals, submitted by intending developers.

This report draws much of its impetus and directional thrust from a prior document published by English Heritage in 1999, entitled *Enabling Development and the Conservation of Heritage Assets*.

The Main Body of this report consists of seven (7) Parts.

Part One provides an overview of the Heritage / Development interface. It describes the nature of the essential inter-se relationship between property development and the conservation principles which are embodied within the statutory heritage system. This section of the report elaborates upon the potential benefits for developers in heritage-protected built environments, and provides support for dispelling the myth of heritage conservation as being anti-development in nature.

Part Two comprises a description and analysis pertaining to the basic principles of Development Appraisal and Financial Feasibility techniques, centred upon what is known as the *Profit Residual Approach*. These financial feasibility principles are equally applicable to both heritage and non-heritage development schemes. In this sense, a heritage-listing of a property asset requires no adjustment to the inherent conceptual principles, and is taken to be merely one of a wide number of possible, potential variables which the principles can ably accommodate.

Part Three deals exclusively with the issue of *Sensitivity Analysis*, where an explanation is provided of the wide range of Sensitivity Factors which can potentially affect the profitability of development proposals. Once more, no distinction is made here between heritage-listed and non-heritage-listed assets - the underlying Sensitivity Analysis principles remain the same. Notably, however, this section of the report includes two working examples which serve to demonstrate how the financial calculation of development profit can be affected - in spectacularly volatile fashion - by the application of Sensitivity Analysis Techniques.

Part Four comprises an overview of *Risk in the Property Development Process*, and describes the manner in which Development Risk can surface at all of the various stages and phases throughout the entire Development Process. An
explanation and analysis of potential Risk Management Techniques is provided herein.

Part Five provides a combined packaged treatment of a series of important subsidiary issues associated with the key report objective. Here, the issues of the Different Categories of Property Developers, Hurdle Rates, and the Diversity of Property Sub-Markets are explained and analysed.

Part Six consists of a Recommended Template for the assessment of Project Profitability, in scenarios where Heritage Assets are the subject of redevelopment proposals. The template is based upon an orthodox, traditional Residual Valuation pro-forma. However, in this case the pro-forma is specifically customised to provide for a number of heritage-specific elements in the Project Costing Schedule, which would not normally be expected to be present in a non-heritage Financial Feasibility Analysis schedule.

The report finishes with a Part Seven section entitled Conclusions and Recommendations. Here, the writer links the subject report-contents and research findings with those of the prior 1999 English Heritage Enabling Development and the Conservation of Heritage Assets report, referred to at the outset.

This writer’s chief research finding and recommendation is that Australian Heritage Authorities should consider making appropriate use of independent outsourced property advisory services, in certain scenarios where intending developers of heritage assets submit financial information as the basis of a claim for public subsidy - on the grounds of alleged unprofitability of a subject redevelopment proposal.

In particular, this strategy should be applied:

(i) where the stakes are high in respect to potential harm to the heritage integrity of the asset,

(ii) where the asset concerned is large and complex in scale and magnitude, and consequently, where the financial sensitivities at issue are very sizeable in character.
Client Instructions

The following report has been prepared by Colin Dominy, a Property Academic and Registered Practising Valuer employed by the University of Western Sydney, under the auspices of the Property Research Centre within the School of Construction, Property & Planning and College of Law and Business, based at the university’s Blacktown Campus.

This report has been compiled in response to an Instructional Brief received in 2003 from the NSW Heritage Office, for the formulation of systematic guidelines associated with the property development feasibility analysis process, in scenarios where heritage-protected built-environment assets are the subject of redevelopment proposals submitted by intending property developers.

The Instructional Brief, having been first prepared in a short written format, was further clarified to more refined, precise parameters via additional consultations which were conducted with Mr Michael Collins, Chair of the NSW Heritage Council, in September 2003, and with Ms Susan Macdonald, Assistant Director of the NSW Heritage Council, in December 2003.

The consultant, Mr Dominy, was provided with a series of documents by Ms Macdonald which provide invaluable guidance for the thrust and focus of this report. The central most relevant document in this regard comprises a Policy Statement and Practical Assessment Guide published by English Heritage in June 1999, entitled Enabling Development and the Conservation of Heritage Assets.

Accordingly, this Consultancy Report attempts to provide a guidance framework which takes the overwhelming bulk of its direction from that already contained within the above document.

The Objective of This Report

The underlying objective of this report is to assemble a series of procedural guidelines, supported by a detailed volume of relevant related background information, customised to the specific heritage / redevelopment interface, which will further assist in an understanding of the property development feasibility process, and the identification of key economic-performance indicators which point to the underlying financial feasibility, or otherwise, of heritage-specific redevelopment proposals submitted by property developers.

From the standpoint of the heritage approving authority, one of the key considerations comprises an identification of the extent to which a conservation deficit may or may not exist, in respect to a submitted heritage
redevelopment proposal. If, in essence, the Added Cost of redevelopment exceeds either the Value to the Owner or the Realisable Market Value of the heritage asset upon completion of the redevelopment scheme, then a Conservation Deficit is said to exist - in which case some form of public subsidy for the redevelopment scheme may be necessary to secure the desirable future of the heritage asset.

In the course of this identification process a raft of potentially complex problems can arise, from both the financial feasibility and heritage integrity perspectives - all of which require solution. This is where the following report seeks to provide further clarification and assistance, with a view to helping solve the problems arising in the identification process, in more effective ways.

Key Considerations in the Heritage Development Interface

The preliminary discussions held with Mr Michael Collins and Ms Susan Macdonald highlighted a number of commonly-experienced difficulties encountered by heritage approving authorities in their dealings with intending developers.

As emphasised by Mr Collins, central to the decision-making process for a heritage redevelopment application is the adequate provision of financial information on the part of intending developers. Past experience has disclosed a pronounced reluctance, in many instances, on the part of intending developers to disclose such information to the heritage consent authority, on the grounds of confidentiality and business-related sensitivity.

This issue is also the subject of focus within the 1999 English Heritage Enabling Development Policy and Guidance document, already cited above.

In particular, the said document describes the problem of confidentiality and lack of disclosure as follows (sub-heading 2.8.1, under 2.8 Confidentiality, p. 25):

Applicants may well be reticent about providing financial information which is commercially sensitive, or claim that information that they would prefer not to provide is commercially sensitive. However, confidentiality cannot outweigh the need for proper financial information where the financial case is at the heart of the applicant’s submission.

This writer is compelled to state that he is in complete agreement with the above statement.

Further, the said English Heritage Enabling Development document then goes on at 2.8.2 to point out that the applicant must decide whether the success of the heritage redevelopment proposal justifies releasing the necessary financial data, and that a failure to disclose such data may well render the redevelopment application unsuccessful. The English Heritage authors also point
out that in the event of a court appeal by the intending developer against a
development refusal, all relevant financial feasibility data must then in any
case be divulged. Moreover, the developer would, in the normal course of
legal process in the court, be made subject to intense scrutiny, questioning and
cross examination concerning the financial nature of the case made.

These are strong arguments indeed, and eminently sensible ones, in support for
the principle that intending developers should in fact muster a willingness to
disclose the relevant financial feasibility data to the heritage consent authorities
in the very first instance - that is, preferably at the stage where pre-
application discussions take place between the developer and the consent
authority, and certainly at the stage where a formal development application is
submitted for approval.

Applications By Heritage Developers For
Public Subsidy Assistance

In cases where an intending developer seeks either direct financial assistance,
or related use-rights concessions, or other heritage-related incentives, all of
which are tantamount to a form of public subsidy for a heritage redevelopment
proposal, this writer also sees the scenario confronting the heritage approving
authority as being similar to that which confronts a financier.

By way of background explanation, it is commonplace within the property
industry for intending developers to seek project funding, either on a debt or
equity basis, from providers of finance who are positioned completely outside
of the developer’s company structure. While developers frequently inject some
degree of personal or company-based (i.e. internal) equity finance into
development schemes, such sums usually comprise only a limited proportion of
total project funding. The majority of project funding tends to be derived from
external debt or equity based sources.

Likewise, where an intending heritage developer seeks some level of publicly-
funded subsidy, on the argument that it is necessary to support the financial
feasibility of the intended heritage redevelopment scheme, then, in effect, the
heritage consent authority is placed in a very similar position to that of an
externally-based provider of finance.

When confronted with such funding applications from intending developers,
prudent financiers in a current-day context submit both the intending developer
and the development proposal to the utmost scrutiny, by applying well-
developed Due Diligence processes which are very exacting in nature. In
particular, prior to the final funding decision and as a matter of normal market
practice, astute financiers invariably call upon independent consultancy advice
and advisory services which stem from external third-party providers, so as to
objectively and impartially examine the validity of the financial data furnished
in respect to the development proposal.
This writer sees the very real potential for similar Due Diligence processes to be adopted by heritage consent authorities, in situations where intending heritage developers pursue claims for public subsidies in order to underwrite the financial feasibility of heritage redevelopment proposals. This writer also sees opportunities for external, independently-based property advisory service providers to perhaps act as *advisors* to the relevant heritage authority, where the financial-feasibility data particulars are subject to differing possible interpretations.

**The Format of this Consultancy Report**

The Main Body of this report is assembled under seven (7) discrete parts.

The essential nature of the topic-treatment of each part has already been briefly summarised within the opening Executive Summary of this report.

**Limitations of the Research Conducted and the Advice Provided**

No provision for a custom-designed computer spreadsheet program was included in the Client Instructions associated with this report.

This writer recommends, however, that the next evolutionary step in the Research & Development process, under the same theme of *Feasibility Guidelines For Heritage Development Applications*, which has in fact commenced with the furnishing of this report, should be to provide for the creation of a suitable on-disk spreadsheet model incorporating drop-down menus.

Such a model would build upon the preliminary work undertaken herein, and in the opinion of this writer could readily be achieved by engaging the services of a suitable consultant derived from the private-sector of the property industry - one who possesses the necessary specific necessary expertise in computer software applications.
1.1 The Essential Relationship.

Statutory-based heritage protection has made considerable inroads into the broad-based operation of the property development industry throughout Australia since the late 1970’s.

The nature of statutory-based heritage protection and conservation of the built environment shares some similarities with other forms of statutory environmental protection, when viewed exclusively from the ‘purist’ internal perspective of the Property Development Process, and from within the sector of the property industry which conducts development activity. On the other hand, nonetheless, heritage conservation is also in some ways unique, when viewed from the same internal developer’s perspective.

The essential, fundamental difference in the heritage / property development interface, compared to non-heritage development scenarios, is that statutory heritage protection, by its very raison d’etre, seeks to retain and conserve inherent heritage significance in nominated built-environment assets by fundamentally seeking to prevent the demolition and destruction of those assets, either wholly or in substantial part, which have been systematically identified as having Heritage Value.

This factor has the unchallengeable potential to place considerable constraints on the developer’s normally-accepted scope for freedom of action and operation. In redevelopment scenarios, the heritage significance of buildings, identified in the original pre-emptive heritage inventory-listing process, invariably translates into mandatory requirements, to various possible degrees, for a subject building to be retained and conserved, sometimes wholly and sometimes partly, to very definitive and sometimes expensive, highly-individual heritage-related specifications.

Because the degree of heritage-specific design and construction work required is linked directly to the Statement of Heritage Significance which is embodied in the Inventory Listing, it is imperative for an intending developer to identify the precise nature of the subject Heritage Listing, together with the Statement of Heritage Significance which is embodied within it. By necessity, this research and identification process must constitute one of the very first steps in the development feasibility process, if development risk is to be successfully managed and minimised.

As one of the very next steps, the developer must begin to assess exactly to what extent these conservation-related Heritage Listing and Significance requirements might translate into additional Project Costs. As an extension of the ‘Added-Conservation-Costs’ analysis during the Preliminary Feasibility Stage, the astute developer will also begin to explore what financial incentives and compensation mechanisms might be available, should they be deemed
necessary or desirable, as a means of offsetting and reducing conservation-related Added Costs of any significant magnitude which might arise.

Both of these functions will entail close pre-development-application liaison and negotiation with the heritage professionals within the ranks of local government, and, depending on the specifics of the case, often with the relevant state-level Heritage body as well.

Another key factor which sets the major development of heritage items apart from ordinary non-heritage environments is the preferred, and sometimes mandatory requirement, for the developer to prepare a comprehensive Heritage Conservation Management Plan for the subject property, in situations where the developer’s intentions are likely to impact significantly on the heritage integrity of the subject asset, and the Heritage Value / Significance criteria which have already been established in respect to the property.

In such cases, the Conservation Management Plan must in fact comprise part of the Development Application, and on some occasions, can also involve an additional process prior to lodgement of the application. This process can frequently entail considerable extra expense and professional consultancy advice, particularly for large projects.

Invariably, the notions of Heritage Value which underpin the Statement of Heritage Significance are essentially non-economic in nature - thus setting up, at least potentially, the environment for a possible dichotomy to arise between heritage value-systems and the typical developer’s economic-rationalist value-system which drives normal non-heritage development activity and feasibility processes. At the end of the day, after all, in a capitalist economy, and rightly or wrongly, the typical developer is most of all interested in bottom-line profit, relative to the perceived risk exposure.

On the surface of the heritage / development interface at least, the somewhat narrow and individualistic notion of shorter-term economic return from a property development enterprise has very little, if any, direct relationship with the much wider and longer-term socio-cultural and ‘humanist’ public-good concepts which underpin the notions of Heritage Value, where the conservation of nominated parts of the built environment for the benefit of future generations figures so prominently.

This is not to infer any criticism of either of these two diverse value-systems - for they are both essential to the greater well-being of the quality of life which we as Australian citizens so cherish. But it does signify that in heritage redevelopment scenarios, it is invariably necessary for both sides - i.e. heritage conservationists and developers - to enter into a relationship based on the ‘win / win’ principles of mutual respect and compromise. And, to be frank, in this context there may well frequently be occasions arising where a sacrifice of optimum desired or vested-interest goals might be required by both parties, to some degree.
When this kind of conflict-resolution approach is employed, freely and willingly on an up-front basis, then the potential for successful heritage / development outcomes is considerably enhanced. In effect, both sides contribute to and then jointly own the beneficial outcome. Most importantly of all, in a heritage context, the public at large will have secured an outcome which constitutes a clearly identifiable improvement, compared to what had most likely unsatisfactorily prevailed prior to the redevelopment scheme having taken place.

One of the most prominent features of contemporary heritage policy is the principle that conservation of the built environment, and of individual heritage items, does not prevent future development and conservation options being exercised.

1.2 Heritage Development - Potential Benefits For Developers.

It is eminently possible for astute and knowledgeable developers to reap considerable economic benefits from a heritage-listed project. Often, more opportunities are in fact presented than might first be imagined by those classes and categories of developers who are either uninitiated in the principles and practice of heritage conservation, or who might be blinded to such opportunities by personal bias, ignorance, or some other obstructive or emotive vested interest.

For the developer, the presence of a Heritage Listing does not mean that the subject improvements on a site need necessarily remain ‘frozen’ or unaltered in either use or building specification. On the contrary, in many cases, very substantial degrees of partial demolition are permitted. Often, the use of the subject heritage property can be significantly altered, for the economic betterment of the developer, via a policy approach known as Adaptive Re-Use.

Likewise, the subject improvements can frequently be comprehensively re-designed, refurbished, added to, and re-fitted with totally new and modern building services - particularly from the internal perspective. In many instances, it is predominantly only the external forms, fabrics, and structural elements of a heritage building which may require retention and restoration.

The notion of property development as an entrepreneurial enterprise, at least in theory, is underpinned by the principle of positive change - that is, change for the better. A number of highly-credentialed authors on the topic of property development have expressed this principle over past years. For example, Professor A.F. Millington (2000, Chapter 1) describes property development as being any process or activity which involves changing the state of land - together with any retained existing improvements on the land - in a way which improves its economic performance and, in a wider sense, also the economic benefits to the community.
Upon closer scrutiny, these notions of ‘change’ and economic benefit to the community in property development activity in fact sit quite comfortably with the notions of change and community benefit embodied in heritage conservation principles. Consider the following commentary by McDonald (1994, p. 94):

> In general, the purpose of heritage conservation areas is not well understood. A common reaction is for people to complain that nothing can change and believe that nothing new can be built. My understanding of the purpose of conservation areas is that they provide mechanisms to control and guide change - to ensure that it does not detract from the qualities which make these areas special. Change is possible within a conservation area, and in a certain sense it is healthy as a part of the organic process of the evolution of human settlements.

These heritage and redevelopment parameters are still very much in direct opposition to what is popularly viewed, on the surface at least by an often uneducated public, as the common desire of developers to engage in total demolition-and-rebuild activity, where old and often outdated, obsolete, dormant buildings - in pure economic terms, it must be emphasised - are completely replaced with more contemporary market-related property uses and with bigger, better, completely new buildings in which to house those uses.

The commonly-held public perception of property development being linked almost solely and exclusively to a demolish-and-rebuild scenario is also very much a misguided and mythical one however, when held up to closer scrutiny. It is a fact that the overwhelming majority of property development activity in Australia, even in non-heritage situations, is comprised of alterations, additions, refurbishment, re-design and change of use in respect to existing buildings - that is, where the existing improvements are consciously retained by the developer, but then made to perform in more efficient economic ways.

This ‘real-world’ truer representation of property development activity also sits most comfortably with the principles of heritage conservation.

The traditional notion of legally-permissible highest and best use, which underpins the very core of the development feasibility process in non-heritage building environments, can in some cases be rendered unrealisable in heritage-affected environments. This can sometimes occur by virtue of an old building being present on a site, which frequently constitutes a significant under-utilisation of the site in terms of an otherwise permissible Floor Space Ratio.

However, in heritage environments, the development consent for a property use that is granted in light of preserving the Heritage Value and Significance of the asset, in fact then becomes the highest and best use. Moreover, floor-space considerations aside, a favourable change of use in the context of an Adaptive Re-Use which lies outside the normal range of permissible uses under the surrounding background or underlying zoning, can often bring substantial economic benefits to the developer - in a manner which would not have been possible had the statutory Heritage Listing been absent.
To help compensate for shortfalls which might arise in respect to unrealisable site-related floor space rights, and to help offset the often substantial extra design-and-construction costs which can sometimes be associated with heritage preservation, a wide range of financial inducements and economic incentives have been created and developed over the last three decades by the state governments and the heritage authorities who serve them.

In particular, certain types of offsetting Floor-Space heritage-related financial incentives have a very real potential to confer positive economic-development outcomes of the highest order. All of the available range of incentives, in any case, are fundamentally designed to encourage the pro-active redevelopment of heritage-affected assets, in situations where it becomes desirable on economic feasibility grounds to invoke them.

Thus, in a financial feasibility work-out on a heritage-listed property, a series of non-orthodox financial debits and credits and inflows / outflows will invariably enter into the calculations. Regardless of their particular nature (and they can indeed be many) these capital inflows and outflows can ultimately be categorised down into extra heritage-related capital development costs, countermanded by financial offsets and / or direct income benefits.

The challenge, and the inherent feasibility risk for the developer, is concerned with factoring in, identifying and sizing up the following factors and characteristics which inherently come into play into heritage redevelopment scenarios:

- the nature of a building’s Heritage Significance.
- the essential use to which the heritage-listed property can be legally put.
- the formulation of a sound Heritage Conservation Management Plan, in relevant circumstances where such plans become necessary by virtue of a high impact on of redevelopment proposals on Heritage Value and integrity.
- the associated nature and cost of any mandatory retention / restoration and conservation works.
- any offsetting financial incentives which may be presented.
- the possibility of additional time delays which can sometimes occur in heritage development (at both the planning approval and the design & construction stages).
- and then assessing what impact, if any, all of these factors may place on a property’s redevelopment potential, its initial affordability as a development opportunity, its market-positioning / revenue opportunities, and its eventual estimated financial return.
It can thus be seen from the foregoing introductory précis that a complex set of dynamics is at work in the heritage / development interface, and that the types of feasibility considerations which exist are often unarguably unique, when compared to typical non-heritage development environments.

1.3 Dispelling The Myth of Heritage as Being ‘Anti-Development’.

Since the mid 1990’s the state governments and heritage authorities throughout Australia have demonstrated a considerable appreciation of the needs of developers in heritage environments. For example, then-NSW Planning Minister Dr Andrew Refshauge (2000, www.heritage.nsw.gov.au), in a major Heritage Directions Policy statement, declared:

*Heritage and development are not natural enemies. There is an appropriate balance we can strike to protect our past and progress our future. It’s not a question of heritage versus development but rather of finding the right equilibrium between the two. Heritage and development can work together for everyone’s benefit. The community benefits when good adaptive re-use of heritage takes place.*

This accommodating and inclusive approach towards developers is further demonstrated in the literature by comments made in mid 2002 by the then-newly-appointed Chair of the NSW Heritage Council, Mr Michael Collins - himself a Valuer and property practitioner of over 34 years’ standing. Mr Collins, cited by Larsen (June 2002, in the Property Council of Australia’s Property Australia journal, p. WS15) states:

*The Heritage Council and the Government are very keen to ensure that the preservation of the state and economic development go arm-in-arm in a non-contentious and balanced way.*

Mr Collins also acknowledges that relations in the early days of the heritage system between developers and heritage authorities on occasion tended to be somewhat more adversarial in nature (Larsen, August 2002). But then he goes on to describe the current relationship as* educated and respectful *(p. 12).

Similar sentiments are also expressed by Petty (Property Australia journal, August, 2002) where she refers to a contemporary relationship between the parties which is more inclined towards goodwill and mutual co-operation.

Intending property developers in the heritage-listed built environment can take great confidence from remarks such as the above. Moreover, it is now commonplace to hear senior personnel in statutory heritage management environments expressing the view that there is nothing wrong with making a profit in the redevelopment of socially-valuable heritage-protected assets.

The bottom-line message which emerges from the body of contemporary evidence is that there are in fact significant opportunities for intending
developers within those parts of the built environment which are heritage protected - if only developers can muster the astuteness and open-mindedness to identify them and then pursue them, in an appropriately responsible manner.
2.1 The Difference Between a **Conceptual** Feasibility Study and a **Financial** Feasibility Study.

In the world of property development it is generally recognised and accepted that the *financial analysis* of a development investment proposal depends upon a preliminary development CONCEPT first being determined.

Having arrived at a preliminary Product Concept, the Developer - or the Valuer, acting as either a Feasibility Consultant for the Developer or as a Consultant for a Financier - can then thoroughly scrutinise the development proposal in terms of its investment viability and profitability.

It is important to realise that the process of *financial* feasibility analysis constitutes the *end-phase* in an extensive train of activities embodied in the *wider overall* process of development feasibility - which begins with the identification of the preliminary *conceptual* elements applicable to the particular development proposal at hand. It should always be remembered that the *conceptual* analysis MUST precede the *financial* analysis.

To put the situation simply, it is first necessary to possess a sound idea of the desired or legally-permitted Development Product before one can hope to begin an assessment of its financial merits.

When viewed from this perspective, the importance of identifying the exact nature of the Development Product, *as early in the Preliminary Feasibility Process as possible*, becomes clear. It is incumbent upon the intending developer to make all necessary enquiries as to statutory development-consent requirements, and to eliminate as many doubts and areas of uncertainty as possible in this regard, as quickly and as early as possible.

To this end, it is also incumbent upon the statutory planning and heritage conservation authorities, particularly at the *local government level*, to do all that is possible in providing reliable data, guidance, advice and any relevant documentation to the developer, promptly and fully, so as to permit an accurate financial feasibility study to proceed.

It is a time-honoured maxim in property appraisal that permissible use underpins market value. The very first question which either the Valuer or the Developer seeks to answer is *To what optimum use can this property (the subject of the development proposal) be put?*
2.2 The Basic Ingredients - Cost, Value and Profit.

All Development Financial Appraisal Methodology can be reduced down to the same basic ingredients. These ingredients comprise:

COST

END - VALUE

PROFIT

The various sub-components which make up these basic ingredients can be summarised as follows:

(i) the estimated value (i.e. realisable selling price) of the completed development.

(ii) the cost of acquiring the land on which the project is built - or, in heritage environments, the total property, inclusive of the heritage structures existing upon the land.

(iii) the cost of design and construction of the overall scheme.

(iv) the cost of borrowed funds needed to finance the project (i.e. the interest costs).

(v) the cost of ancillary development functions and activities (various internal development firm overheads, carrying and holding costs of the project during the development period, acquisition costs associated with initial site purchase, demolition of any existing unwanted improvements on the site, development consent fees, statutory charges & other associated costs, and marketing, sales & leasing costs of the completed product).

(vi) the level of indicated investment profit arising from the development project, on the basis of a given concept, design, and use. The Profit can be expressed on a number of possible different desired bases - the most common of which tend to be (i) the Initial Development Profit (measured back against total project costs) and (ii) the Internal Rate of Return (measured from a cash-flow calculation applied over the total development period, thereby capturing the time-value of money).

2.3 The Three Essential Appraisal Methods.

There are only three (3) commonly recognised fundamental appraisal methods in property development financial analysis and valuation, these being:

(a) The DIRECT COMPARISON Method

(b) The RESIDUAL Method

(c) The DISCOUNTED CASH FLOW (DCF) Technique
Taken individually, these three main valuation methods each involve somewhat separate mechanics and dynamics to one another. Nevertheless, the fundamental PRIMARY valuation technique of Direct Comparison underpins ALL of the financial inputs which go into the Residual and Discounted Cash Flow Techniques.

INTERNALLY, each of these three main valuation methods contain slightly differing versions, derivatives and applications which can operate within their basic framework. These differing internal application opportunities provide a considerable degree of flexibility to the financial analyst, allowing the individual needs of the CLIENT (i.e. normally the Developer or the Financier) to be met, and to whatever degree of analytical depth may be required.

The same principle also applies to the statutory heritage authority, should it require the financial feasibility indicators to be scrutinised in respect to a redevelopment proposal for a built-environment asset which possesses Listed Heritage Significance. In other words, a number of different, flexible approaches can be applied to the issue of financial analysis and development economics.

2.4 The Use of the DIRECT COMPARISON Approach in Property Development Appraisal.

The concept of comparison underpins ALL valuation methodology and ALL investment analysis techniques, regardless of their individual and particular nature. Wherever possible, the various financial inputs which are injected into Residual, DCF and other Cashflow-based analyses should be based on comparable market evidence - IF the evidence in fact exists, and is available in sufficiently abundant quantities and quality-levels to make the comparison process a meaningful one.

Comparable evidence will not always be available in certain property classes and sub-market sectors. This may also well often be the case in heritage development scenarios - given that each case in heritage conservation is to a very significant degree unique - at least potentially, if not factually.

Moreover, there may particularly be an absence of comparable evidence at certain times in the generic property cycle (especially at the depth of a recession, for example). An absence of adequate present-day comparable evidence will automatically add an additional overlay of doubt, risk, uncertainty and highly-challengeable ‘guesswork’ to any financial estimates and forward forecasts which might be attempted.

The following examples comprise a schedule of the types of comparable evidence which can potentially be applied in the Development Appraisal and Financial Feasibility Process:

* Capital Sales - used to establish the estimated Value on Completion of the subject development scheme.
* **Vacant Undeveloped Land Sales**, and also **Development Site Sales** - used to establish the affordable Purchase Price of the subject development site, in non-heritage development scenarios. In heritage cases, the purchase price of other comparable heritage properties, prior to redevelopment, may sometimes be utilised for comparison purposes.

* **Current Market Rentals**, either on a *Gross* or *Net* basis - used to establish the cashflow estimates of the completed end-product in the subject development scheme, and also (on a Net basis) the estimated Value on Completion of the subject scheme in commercial investment scenarios, using the Capitalisation Method.

* **Current Market Yields** - i.e. the interplay between Capital Value & Current Annual Net Income. The yield is also commonly referred to as the *Capitalisation Rate*, and in property environments, is the equivalent to the *Price to Earnings Ratio* used in Share Market Valuation and Pricing. The yields from sales of commercial investment properties of a similar nature to the subject development scheme are adjusted where necessary and applied onto the subject scheme to determine the estimated Value on Completion.

* **Building Operating / Outgoings Costs** - extracted from existing investment assets of similar nature to the subject development scheme, and used to establish *NET* cashflow estimates (on an investment-income basis) of the completed end-product in the subject development scheme, plus the *NET* rental on a Present-Value basis, which is then capitalised at the appropriate yield rate to produce the estimated Value on Completion of the subject development product.

* **Construction Costs** - extracted from recently-completed new buildings or existing refurbishments of a similar nature to the subject development scheme, and used to establish the estimated construction costs in the subject development scheme. Where possible, in this category, reliable costing data should be sought directly from reputable Quantity Surveyors or Master Builders.

* **Other Ancillary Development Costs** - legals, commissions, holding costs, statutory-approval fees and charges, marketing, sales & leasing costs etc. Used in the same manner as Construction Costs.

* **Developer’s Profits** - from other comparable projects similar in nature to the subject development proposal. Often, in practice however, this tends to remain an undisclosed, confidential element, and so is usually difficult, if not outrightly impossible to obtain with a finely-tuned desirable degree of accuracy.

* **Development Time – Lines** - i.e. the Total Development Period for the subject scheme can sometimes be estimated using evidence of other, similar comparable schemes which have been recently completed.
The above list merely comprises a schedule of ‘possibilities’ only. In the ‘real world’ of complex market dynamics, not all of these types of opportunities for comparison may always be present. However, it serves to demonstrate how widely the fundamental process of Direct Comparison can sometimes be applied in Property Development Appraisal, IF market conditions are amenable.

The use of Direct Comparison Methodology is fraught with inherent dangers, however, when attempts are made by inexperienced and ill-qualified would-be financial analysts to use and apply it. Any evidence used, of course, MUST in fact be obtained from properties which are sufficiently comparable in nature to the subject development scenario.

As has been stated repeatedly in past judicial interpretation of and commentary on the application of Property Appraisal Methodology, the matter of comparability is one of fact and degree - to be decided by the expert and suitably-qualified Property Analyst, Property Economist, Advisor, Developer, or Valuer.

In normal practice, the most common applications of the Direct Comparison Method relate to the estimate of the Value on Completion of a development proposal - using Direct Sales Comparison in residential scenarios and Capitalisation of Net Annual Income in commercial investment scenarios.

2.5 The Use of the PROFIT RESIDUAL METHOD in Property Development Appraisal.

The Profit Residual approach seeks to determine the indicated development investment PROFIT, measured back, usually, against Total Project Costs. Other means of measuring the indicated Profit can be determined using the Profit Residual method as well - for example, the Profit against End Completion Value, or the Developer's indicated Return on Equity.

However, the Profit-Against-Total-Project-Costs approach tends to be the most widely used profitability test which is used by Developers themselves - particularly on the developer's in-house basis, and notably in cases where the subject developer’s scale of business operations and / or development projects are only of a smaller to medium-scale magnitude. The rationale for this choice of benchmark-measurement of investment return is quite simple and logical. The amount of Total Project Costs constitutes the 'real' capital outlay which is expended on a given development project. Just as other orthodox investors prefer to measure their financial return against their 'real' capital investment outlay, so it is with developers as well.

2.6 The Recommended Sequence of STEPS in the Profit Residual Approach.

The recommended sequence of steps in the Profit Residual approach is as follows:
1. An initial Product Concept and preliminary Design for the subject project must first be established.

2. Establish an estimated Total Development Period for the conduct of the subject development scheme.

3. Establish the estimated Value of the Completed Product.

4. Identify the sum total of estimated TOTAL PROJECT COSTS and deduct this from the Value of the Completed product. This is done by first adding up the cumulative total of the various sub-components of Total Project Costs, using the following commonly-adopted schedule and sequence of activities, which are progressively added together as the format proceeds down the page:
   - Land & Acquisition Costs
   - Design & Construction Costs
   - Holding Costs
   - Marketing, Sales & Leasing Costs associated with the disposal of the Completed End Product.
   - Total Interest Costs - using various sub component interest calculations for each of the above main cost categories, as and when they may apply in a given scenario.

5. The resultant DIFFERENTIAL between End Value and Total Project Costs is then measured back against the sum-total for ALL Project Costs (i.e. the 'Total Project Costs' result already obtained). This discloses a percentage, which, if in the POSITIVE mathematical range, indicates the level of investment return provided by the given development scenario - on the basis of the financial figures and inputs so used. IF the percentage result calculates out at ZERO, then the project is deemed to be 'Profit Neutral' - i.e. it produces NO PROFIT, since End Value is equivalent to the Total Project Costs. IF the percentage result calculates out in the NEGATIVE, then the project represents a LOSS-MAKING proposal.

It is IMPERATIVE that a process of refinement known as Sensitivity Analysis should be applied to the Profit Residual Method. This is because the indicated Development Investment Profit constitutes the most important ‘measuring-stick’ and reference point for determining financial development feasibility - particularly, of course, from the Developer’s own in-house perspective.
Moreover, the financial inputs which are injected into a Profit Residual work-out are really only best-estimates of development functions and project activity which still lay in the future.

Even relatively minor variations in the financial inputs can have remarkably dramatic impacts on the developer’s land-affordability price and profitability forecasts. A number of trial ‘what if’ work-outs should thus be attempted, and then the most likely combination of financial inputs then adopted as the most reliable indicator of a project’s likely economic performance.

Part 3 of this report, immediately following, highlights and illustrates the importance of Sensitivity Analysis in development appraisal methodology, in further detail.

2.7 The Profit Residual Method - A Summary Framework.

The following hypothetical set of workings provides a summarised example of the standard type of format and break up of the major financial inputs in respect to a Profit Residual development feasibility format. For the purposes of this demonstrative example, a commercial-investment project of relatively low to moderate capital magnitude is envisaged.

Total Project Value : $30 million
(TPV - also known as Gross Realisation)

Project Costs

Land & Acquisition Costs : $6.5 million
Design & Construction Costs : $14 million
Holding & Ancillary Costs : $700,000
Marketing, Leasing & Sales Costs : $800,000
Interest Costs (all categories) : $2 million

TOTAL PROJECT COSTS $24 million

The foregoing example is considered by this author to constitute a very representative depiction of the inter-se relationship between the five principal and separate categories of Project Cost. This proportional inter-relationship between the five different costing categories has significant ramifications from the standpoint
of Sensitivity Analysis - a factor which will be further examined within Part 3 of this report.

From the above data set, it can be seen that the Design & Construction costing element constitutes by far the most expensive capital outlay exposure out of all five main costing categories. In this author’s professional experience, this has, virtually without exception, always been found to hold true in ‘real-world’ development projects. Because the Design & Construction costing component is invariably the greatest capital outlay in terms of magnitude, it therefore becomes the most sensitive cost component in terms of Interest Cost volatility, and is susceptible to negative impacts due to time delays during construction.

The second most expensive capital outlay in the schedule of Total Project Costs is invariably the Land & Acquisition Cost category. While in some instances the Land & Acquisition costing component can approach the Design & Construction costing element in terms of magnitude and importance, it is nonetheless the norm that, in the majority of cases, it still occupies second place on the ladder of magnitude of capital exposure. However, because interest charges in this category are usually incurred relatively early within the overall Development Period, they are thus carried forward for a considerably long period over the course of the remaining life of the project. For this reason, there is a considerable sensitivity attached to this costing category from the debt-based funding perspective.

The Interest Cost category is, by customary practice within the property development industry, usually calculated on the basis of a 100% debt exposure. In ‘real-world’ development scenarios, the developer invariably injects some degree of equity funding into the project - thus lowering the ‘real-world’ percentage-calculation of debt exposure in actual terms (for example, to perhaps 70% or 75% instead of 100%). But the 100% hypothetical debt-exposure assumption for financial feasibility purposes has long been the established, customary approach for both Residual and also Cashflow financial feasibility calculations. Part of the rationale is that if the project financials work out as being viable on the basis of a 100% debt exposure, then the likelihood is high that the project will also be viable on the basis of a less than 100% debt exposure. In this sense, the hypothetical 100% debt assumption acts as a build-in safety-margin or de-facto contingency allowance.

The remaining two costing categories, viz Holding & Ancillary Costs and Marketing, Leasing & Sales Costs, are relatively minor capital outlays in terms of magnitude, compared to the considerably greater outlays involved in the three largest costing elements of Land Purchase, Design & Construction, and Interest Costs. The ‘rule of thumb’ in development feasibility analysis is that these remaining two low-echelon cost categories can often be calculated out on a preliminary ‘rough-in’ basis at a percentage factor which falls into the region of approximately 5% to 6% of Design & Construction Costs.
In the example provided above, the Initial Development Profit calculates out at a sum of $6 Million, or some 25% of Total Project Costs. The $6 Million sum is derived simply from subtracting Total Project Costs from the Total Project Value as a completed development product, the differential of which is then measured back against Total Project Costs.

In the broadest sense, and at the risk of over-generalising, in the *commercial-investment* scenario which is hypothesised in the given example, an Initial Development Profit in the order of 25% would usually be considered by a typical developer to be handsomely adequate and acceptable, under most normal prevailing market circumstances and conditions, where the market cycle is positive enough and hence conducive enough to development activity actually taking place.

It must also be emphasised, however, that there is no one, single level of Development Profit which can, at any time, be absolutely or categorically set down as the ONLY acceptable level of profit. A range of market-based acceptable Development Profit levels, across all property markets at any one time, may possibly extend from, say a lower-end of perhaps 12% to 15%, all the way through to 30% or more (against costs).

This is because different property market sectors and individual properties and uses can attract quite differing levels of development risk, at various times during the course of fluctuating economic and property-market cycles. Moreover, different *categories* of developers will tend to accept differing levels of acceptable profit, depending on their scale of operations, their organisational structure, and their personal attitudes and perceptions of Development Risk.
3.1 The Importance of Sensitivity Analysis.

Sensitivity Analysis should be employed on a regular basis, both at the outset of and also throughout the physical implementation of any significantly-sized development project, regardless of whether a simple ‘straight-line’ Residual Approach, or any kind of Cashflow Approach (including DCF) is used.

The rationale which underpins the use of Sensitivity Analysis is driven by the developer’s desire (or the Valuer’s, acting as the financial analyst and consultant for the developer or the financier) to ascertain and assess the various ‘what if’s’ in the development appraisal and financial work-out process. In other words, what other possible combination of or potential changes in the key financial inputs of Value and Cost might also be likely or possible within a development scenario, additional to merely a single data set of financial calculations. And, most importantly, what impact on End Profit and Site Affordability will any such possibilities and input-changes make.

It is important to understand that anticipated profits, estimated at the outset of a development proposal, may not in fact be realised at all, come the time when the project is actually physically developed and completed. In the most generalised sense, there are TWO main reasons for this. Either:

1. there may be a shortfall in the END VALUE of the completed product, in ‘real time’, as at the project completion date, compared to what was originally envisaged at the initial feasibility stage.
2. there may be an increase in the estimated COSTS of development, at any time along the way, during the overall development period.

It is entirely possible for these two types of risk exposure to surface in any kind of property development scenario, regardless of whether an individual property is heritage listed or not. Moreover, this risk may arise due to the sometimes volatile nature of market dynamics - through no fault, one should add, of the individual developer in the majority of cases.

A shortfall in the End Value of the Completed Product may result from any number of possible factors which might foreseeably (or equally, which might unforeseeably) occur between the time of project commencement and project completion. Commonly-occurring examples might comprise:

- a lower demand for the completed product than was originally anticipated.
- miscalculation or misjudgment of the Gross Realisation inputs and associated market-based estimates in an original commercial investment project valuation (e.g. commercial rents, yields, tenant demand etc).
• an increase in the cost of interest throughout the economy in general, which when translated through as increased mortgage costs may reduce the ability of purchasers to buy the completed end-product.

• a shortage of mortgage funds (which has the same result).

• competition from other developments, either foreseen or unforeseen.

• the onset of a recession or downturn in the *local economy* between the initial feasibility analysis and the end-completion date, OR a similar downturn (and / or recession) in the local *property sub-market sector* in which the subject project is positioned (i.e. an adverse negative trend in the economic or property cycle).

**An increase in the Costs of Development** of a project may result from any number of possible events. Common examples might comprise:

• an increase in building costs which may be caused by factors such as unexpected problems in preliminary SITE WORKS and building-foundations - possibly caused for example by the discovery of unstable ground, poor load-bearing capacity of sub-soil and geology, underground water, site contamination problems previously unidentified, old drains or inadequate site drainage, or, in *heritage-specific cases*, the discovery of artifacts or archaeological remains (or the possibility of their existence) below ground level - thus requiring often-expensive investigation and subsequent management in the Heritage Value context.

• an increase in the wages paid to building-construction workers, or the onerous cost of other related working conditions insisted upon by building unions (pension contributions, on-site facilities etc).

• an increase in operational overheads associated with the employment of building workers and the construction process in general, but completely unrelated to the *union* end of the spectrum - e.g. the cost of *insurances* (perhaps caused by corporate collapses and unethical conduct in the insurance industry, as exemplified by the HIH / FAI ‘scandals’ in the early New Millennium).

• an increase in the cost of building materials during the construction period.

• an increase in the rate of interest charged on borrowed money allocated to the construction phase of the project.

• an extension of the building construction period due to unforeseen time delays, which causes increased interest carrying costs on borrowed construction funds. Time delays during construction may possibly be caused by such factors as inclement weather, union-led strikes, a shortage of supply of building materials, interruptions and
delays in the ‘train-of-construction’ (provision and assembly of building materials both TO the site, and ON the site, caused by inefficiencies in the sub-contract system, or by the master builder, or by poor project management), or delays and inefficiencies in progress inspections or progressive approvals during the construction process on the part of statutory environmental-planning authorities or private certifiers.

Moreover, the developer or the valuer may wish to conduct multiple ‘try-outs’ with differing combinations of the COST of building materials, relative to the QUALITY of the building materials, fitouts and finishes envisaged in the completed end-product. In particular, they may seek to discover what degree of IMPACT and CHANGE such alterations may have on the VALUE of the completed end-product. In other words, the utilisation of a higher standard of quality in building construction may well lead to an increase in value of the end-product, where the benefit of added value over added cost may well be significantly superior, and accordingly, very viable.

There is always a potential danger that over-capitalisation may occur, however. By this we mean that there comes a point where the FEASIBLE COST LIMIT is reached between an increased quality, standard and cost of building materials, fitouts and finishes, compared to a restricted level of Added Value, or NO ADDED VALUE, which such extra cost outlays will add to the the value of the finished development product.

The REVERSE can also occur - if building materials, fitouts and finishes are TOO basic, or too low-grade or poor in their standard and quality, then this may possibly DECREASE the End Value of the Completed Product to unfeasibly LOW levels.

In addition, there is the possibility that poor workmanship during any part of the construction process may lead to structural defects, which may require rectification BEFORE the end of construction, or before the next stage of progress inspections can be approved - which once more might lead to unsustainable time delays, increased construction costs, and reduced end-profits.

Clearly, anything which either decreases the End Value or increases Construction Costs is likely to jeopardise the viability of any development scheme, because the prospect of adequate profits being made will be threatened.

The stronger the probability of factors moving against the development, the more likely it will be that the developer will not get involved with a particular project. One would, for instance, be reluctant to enter into development activity in localities where market demand is weak for nominated uses. Similarly, one might be possibly inclined to avoid local government environments where histories of excessive planning delays exist, and where other public-sector mal-administration or adverse political situations are likely to arise.
In short, where uncertainties exist in property development scenarios, then, as a matter of principle the Development Risk tends to increase - thus making development less attractive to the developer.

3.2 Altering The Sensitivity Factor Mix.

If on a ‘first try-out’ basis a subject development proposal DOES NOT appear to measure up as a financially feasible proposition in terms of indicated End Profit, then the various Sensitivity Factors in the financial analysis can be altered so as to produce an alternate ‘mix’ of sensitivity inputs. Such a process can be repeated many times over, and each result analysed in terms of the impact upon the Profit or Site Affordability outcome.

Using a commercial investment development proposal as an example, the following strategies might be possible in an attempt to ‘test-out’ ALTERATIONS to the Sensitivity Mix, if a poor profitability profile shows up on an initial try-out:

- increasing the achieveable rentals in the completed End Product (realistically!).
- decreasing the yield at which the net annual rentals are capitalised, so as to increase the capital value of the completed end-product (again, realistically, being mindful of the automatic extra risk which is generated in adopting such an optimistic viewpoint).
- the acceptance by the developer of a lower Hurdle Rate (i.e. the minimum acceptable level of economic return - measured as a percentage Profit Against Costs, or alternatively the Internal Rate of Return).
- lowering the costs of construction by the incorporation of cheaper building materials and finishes (being mindful, of course, that adopting such a course of action will tend to lower the End Value of the completed development product).
- finding ways of shortening the overall development period, and internal to this, the actual physical construction period.
- seeking means and vehicles for obtaining cheaper borrowed funds.
- the contribution of more equity into the project by the developer, thus lowering the debt exposure, and in turn, the cost of interest charges.
- the elimination of Contingency Allowances in the financial calculations - principally in respect to Construction Costs.
- the reduction of other Project Cost factors - Holding, Marketing, Sales and Leasing Costs, for example.
Any of the above alterations in the financial sensitivity mix can ALTER the inherent risk exposure.

In this sense, the developer or valuer must also be mindful that the alteration of any single major sensitivity factor will in all likelihood also impact on the risk adjustment required ELSEWHERE within the overall financial calculation, via the required consequent alteration of other sensitivity factors.

Sensitivity Analysis is rarely a simple process, and it calls upon the expert judgement and innate skill of the developer and valuer to retain a sense of perspective and ‘reality’ when applying such alterations to the financial input factors.

The above examples serve yet again to demonstrate that developers are frequently faced with TRADE OFF decisions when sizing up the financial feasibility of development proposals.

3.3 Sensitivity & Volatility Analysis - A Demonstrative Example.

The set of workings which were depicted in Section 2.7 of this report can also be used as the basis for a demonstration of Sensitivity Analysis.

Consider the table which is provided overleaf. The left hand side set of workings contains the same costing estimates as those provided in Section 2.7.

The right hand side set of workings contains alterations to each of the three main costing inputs (i.e. Land & Acquisition, Design & Construction, and Interest Costs) for the same hypothetical project.

**Table 1. Amended Data Set No. 1**

<table>
<thead>
<tr>
<th>PROJECT COSTS</th>
<th>PROJECT COSTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land &amp; Acquisition : $6.5 Million</td>
<td>Land &amp; Acquisition : $5.5 Million</td>
</tr>
<tr>
<td>Design &amp; Constr’n : $14 Million</td>
<td>Design &amp; Constr’n : $12.5 Million</td>
</tr>
<tr>
<td>Holding Costs : $700,000</td>
<td>Holding Costs : $700,000</td>
</tr>
<tr>
<td>Mktg, Sales, Leasing : $800,000</td>
<td>Mktg, Sales, Leasing : $800,000</td>
</tr>
<tr>
<td>Interest Costs : $2 Million</td>
<td>Interest Costs : $1.5 Million</td>
</tr>
<tr>
<td>TOTAL Project Costs $24 Million</td>
<td>TOTAL Project Costs $21 Million</td>
</tr>
</tbody>
</table>

PROFIT : $6 Million (25%) PROFIT : $7 Million (33.33%)
Note the enhanced performance in the PROFIT result, when expressed as a Percentage of Total Project Costs.

Now - consider the second example below. In this instance the left hand column of the table contains the same original data set as was provided above. Only this time, in the second data set in the right hand column, the end-value and main costing inputs have been altered in a different manner.

Table 2. Amended Data Set No. 2.

<table>
<thead>
<tr>
<th>Total Project Value : $30 Million</th>
<th>Total Project Value : $27 Million</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROJECT COSTS</td>
<td>PROJECT COSTS</td>
</tr>
<tr>
<td>Land &amp; Acquisition : $6.5 Million</td>
<td>Land &amp; Acquisition : $7 Million</td>
</tr>
<tr>
<td>Design &amp; Constr’n : $14 Million</td>
<td>Design &amp; Constr’n : $15 Million</td>
</tr>
<tr>
<td>Holding Costs : $700,000</td>
<td>Holding Costs : $700,000</td>
</tr>
<tr>
<td>Mktg, Sales, Leasing : $800,000</td>
<td>Mktg, Sales, Leasing : $800,000</td>
</tr>
<tr>
<td>Interest Costs : $2 Million</td>
<td>Interest Costs : $2.5 Million</td>
</tr>
<tr>
<td>TOTAL Project Costs $24 Million</td>
<td>TOTAL Project Costs $26 Million</td>
</tr>
</tbody>
</table>

PROFIT : $6 Million (25%) PROFIT : $1 Million (3.84%)

The point of emphasis here is that these altered financial input projections are entirely within possible parameters. But the impact of what sometimes appear to be perhaps relatively minor alterations to each major costing item, or to the end-value, in isolation, becomes dramatically compounded when all costing components and value inputs are combined into the total data set calculations.

3.4 The Possible Implications of Sensitivity Analysis.

Consider the two following possible scenarios.

An intending developer, if left to their own unfettered devices, might well attempt to present the amended data set in Table No. 1, generated on an entirely in-house basis, to a prospective financier, with the objective of securing project acceptance and an advance of buoyant debt-based project funding levels. This amended data set shows an indicated Profit Level of some 33.33%, and would portray a most handsome ‘image’ of project feasibility to a prospective financier. It is entirely possible that the developer may do this even innocently or subconsciously, so as to present the project viability in the best possible light by naturally ‘leaning’, on an emotive basis, towards the data set which bests suits that developer’s objectives and vested interest.

In a specific heritage development scenario, on the other hand, an intending developer may well attempt, even perhaps innocently or subconsciously, to present the amended data set in Table No. 2 to the statutory heritage bodies, with the objective of securing financial assistance for the heritage redevelopment project,
on the argument that it was not financially viable to undertake without some kind of direct financial subsidy-injection, monetary grant, or additional planning/use benefit.

The above two hypothetical scenarios are deliberately portrayed as somewhat extreme examples. But they are framed in such a manner in order to demonstrate the need for impartial, objective, third-party outside advisory services in circumstances where developers seek external project funding.

It is for the primary reasons of objectivity, third-party independence and probity, that the providers of debt-based project finance have for many years now maintained panels of professional property advisory firms to conduct independent appraisals of development viability in non-heritage environments.

For similar reasons, this writer recommends that, in heritage-specific redevelopment scenarios, the relevant heritage authority should give consideration to the policy of appointing a panel, comprised of independent property economist firms, who can supply advisory services in respect to the true nature of indicated project viability in heritage development environments.

A distinct parallel can be drawn here between the circumstances faced by an orthodox financier, and those faced by the statutory heritage authority. In both instances, the developer, in essence, approaches the respective third parties for the purposes of seeking externally-based project funding assistance.

So, a case then exists, in this writer’s view, for the adoption by heritage authorities of the same basic independently-based development-viability scrutiny process as that employed by financiers.
4.1 Introduction.

The image of Property Developers and the Development Process held by the great uneducated majority of the Australian community seems to be one where the activity of property development is seen as a license to print money.

Like a number of other aspects in the real-world of property development, this impression is very much a mythical one.

It needs to be emphasised in no uncertain terms that, in fact, property development is an inherently RISKY undertaking, and that as a property investment activity geared to producing a profit, it particularly abounds in development risks of various kinds, especially when compared to other, more orthodox, alternate longer-term forms of property investment which confine the injection of funds into the ‘mere’ purchase and operation of pre-existing property assets which are already fully operational, and where no demolition, new design / refurbishment / additions / alternate use activities are carried out on the property.

The purpose of Part 4 of this report is to enable a firm appreciation to be gained of how and why PROJECT RISK manifests in so many different ways in property development activity, and then to examine the ways in which such risks can be managed and controlled.

Property development in the most generalised sense is a relatively short-term form of property investment. It is difficult to envisage a minimum development period of anything less than, say, 9 to 12 months, for even the simplest of ‘new development’ (demolish and re-build) schemes. Even the most complex and largest commercial development schemes would (apart from projects which are deliberately 'staged', of course, over many years) only involve, say, a 4 or 5 year development period at most.

Nevertheless, such is the volatility often associated with property market dynamics - particularly during the ‘boom’ end of economic and property-market cycles, when the volume of property development activity tends to be at its greatest - that conditions can change remarkably quickly in relatively very short periods of time.

It is the short-term potentially ‘volatile’ nature of property market and development activity (in times of economic & property ‘booms’, when booms can turn to busts), and the inherent (usually considerable) alteration of a given parcel of real estate, coupled with the sheer multitude of different sub-functions which go into the property development process, which impart the essential RISK for developers.
All significant property development undertakings involve the **creation** of a completed end-product which **DOES NOT yet physically exist** at the **outset** of the development project and the development period. During the course of the development process, throughout all of its many stages and phases, a multitude of activities and events can and frequently do ‘go wrong’, sometimes in ways which were completely unable to be initially foreseen. This fundamental difference in property development investment, compared to orthodox longer-term investment in **pre-existing, fully-operational** property assets, is what lies at the heart of **risk exposure** in the development process.

It is very often the case in the Property Development Process that **TIME** is of the essence - in other words, the **duration** of the Total Development Period (from initial idea to full project completion) is usually established within very finite Time Targets. This is normally so that the completed project can come on-line at a suitable time to coincide with researched and anticipated favourable cyclic positions in the relevant market - and most importantly, that the optimum **market demand** for the project and its inherent adopted use can be captured.

Any event, any activity, any function throughout the entire Development Process which causes **undue delays** (either singularly or in combination with other time-delay factors) can critically impact on the overall project timing. Timing delays can often lead to the erosion of anticipated end-profits to alarming degrees - by virtue of unsustainable increases in holding costs and interest carrying-costs associated with the project, or by missed opportunities in market cycles, or by competing development products coming on-line in the marketplace earlier than the subject project.

In worst-case scenarios, timing delays can lead to completion dates which extend **well past** the **peak** of property cycles - which means a reduced realisable selling price for the completed development product, and consequently, reduced profits or even outright financial losses.

### 4.2 Project Risk Analysis.

**(i) Risks in the Pre-Commitment Phase**

**Market Research & Feasibility Risks.**

The possibility is potentially ever-present that the level of **market demand**, or various **financial sensitivity factors** such as rents, yields, project costs and end-sale prices may change adversely during the development period, compared to original market research and financial feasibility forecasts. If such changes occur, then end-profit may be seriously threatened. Detrimental changes in property and economic cycle movements can occur, sometimes remarkably quickly in short periods of time, compared to original project feasibility forecasts. Developers should also guard against the possibility of **inadequate** market research and **poor consultancy advice**, at this initial feasibility stage.
Statutory Planning Approval & Social Approval Risks.

Extensive time delays can arise in the Statutory Approval process. The possible range of problems are wide-ranging - for example, local council bureaucratic inefficiencies, a failure by the developer to properly adhere to environmental planning codes or other approval process requirements, political intrusions by councillors who might over-ride and overturn merit-based Development Approval decisions, the possible need for Land & Environment Court determinations in a bid to overturn Development Refusals, can all cause unforeseen time delays and add onerously to Project Costs.

The inability or failure of the developer to secure social approval for the development scheme can also cause time delays and cost blowouts, due to opposition from local Resident Action Groups, for example.

Finance Risks.

The need to secure a continuous line of funding at a cost-effective interest rate is paramount, as is the need for favourable lending terms & conditions. The developer needs to be able to inspire confidence and to secure project acceptance by the financier - this applies in respect to both debt and equity contributors. Both developers and financiers must carefully consider the appropriate debt-to-equity ratio mix, and the developer’s ability to service the debt, particularly where Land Purchase and Construction Loans are advanced at high Loan-to-Value ratios. Developers should also select an astute, well-established financier of good responsible competency, good repute, and who possesses at least some workable familiarity with property market dynamics and the property development process (SOME financiers, sadly, do not possess these required characteristics).

(ii) Risks at the Site Identification / Site Assembly Phase

The developer needs to ensure that the correct site location is selected, relative to market demand. A best-preferred location may sometimes not be possible to secure, due to an absence of supply in the land market. Alternately, a poor choice of location may possibly arise out of imprudent preliminary market and feasibility analysis. Problems may arise in site assembly and the amalgamation of several small sites into a single agglomerated parcel, which may sometimes be necessary before larger projects can proceed. Poor initial site analysis work by the developer, the consultants, or even the local statutory approval authority can mean that site defects, or other site-related problems such as the need for heritage archaeological investigations, which remained unidentified initially, may possibly manifest later in the development period or during construction - thus causing time delays and cost escalations of possibly unbearable magnitude. In addition, the possibility of site contamination can cause similar delays.

(iii) Risks During The Construction Phase

A poor initial building design, due to inadequate market research or attention to detail, can sometimes exist from the outset. While a poorly-researched design may well be approved without problems in statutory terms, it may not meet the
expectations or desirability standards of the market-place when it comes to selling off the finished product. Similarly, the use of inferior-grade building materials, fitouts and finishes which are of excessively poor-quality, in an attempt by the developer to cut Construction Costs, may possibly end up resulting in structural building defects and / or may not meet market desirability standards and expectations at the end-purchase phase.

Poor quality workmanship in erecting the building can have a similar effect. These types of problems can result in reduced Sale Prices for the finished Development Product, relative to original Gross Realisation income projections, thus eroding Profits, and / or the developer’s capacity to service the debt on borrowed development funds.

The choice of a particular type of building contract over another alternative type by the developer can also present possible risks.

During construction, unforeseen time delays and cost escalations may possibly be incurred as a result of industrial & union problems - union-led strikes, the possible requirement for costly extra or specialised on-site building workers’ provisions & working conditions during the construction period, set by union leaders, for example. On the other hand, union strikes & industrial problems can sometimes be caused by unreasonably harsh project management & poor human resources management practices (poorly executed approaches to the employment of labour as a resource, on the part of the developer as the capitalist entrepreneur).

The possibility of time delays due to wet weather can also often present a common risk, particularly where development timelines are particularly tight from the outset.

(iv) **Risks During The Marketing, Selling & Leasing Phase**

The developer’s decision whether to pre-sell or pre-lease part or all of the development project ‘off the plan’ at the outset of the construction phase, or at any other point during physical construction, can raise possible risks, depending on the strength of the market and associated magnitude & speed of market price movements. Often, the developer might have little say in the matter, since the financier will dictate to the developer that, as a condition of development debt funding being advanced, certain pre-agreed percentages of the development project must compulsorily be pre-sold or pre-leased.

For example, if the market is moving forward & upwards quickly, an over-use of pre-selling / leasing can result in a loss of gross realisation - and reduced profits - compared to that which may have been reaped at a later stage in the development timeline. Consumers who commit to pre-leasing or pre-buying agreements, where the development product does not yet even physically exist, can face product-completion risks of their own. They may require a discount in price of some magnitude or degree, in compensation for the risk they face or perceive.

Alternately, in other situations, longer sale and leasing-up periods at the end of the development timeline, relative to those originally envisaged, can also increase
costs and reduce profits. The possibility of a poorly planned and executed agency marketing campaign can also present problems for the developer, in terms of loss of maximum price realisation potential and time delays, relative to those originally envisaged.

4.3 Risk Exposures of the Major Participants & Financial Stakeholders in the Development Process.

Additional to a classification of Project Risks according to the different phases of the development process, it is also relevant to investigate risk and risk management from the standpoint of the risk exposure of the major participants and financial stakeholders in the development scheme - i.e. the developer, financier and the end-purchaser. The more obvious areas of potential risk in this regard are summarised below:

**Developer’s Risks.**

* The adequacy of the feasibility study & market analysis, both on a present-value and future-forecast basis.
* The selection of consultants, who make up the membership of both the Design and Development Teams. Good, skilled, professional consultancy advice is essential from the developer’s perspective.
* The adequacy of the Development Brief and the Design Brief.
* Statutory Planning & Development Approval risks, as already discussed.
* Project Finance - security and adequacy of finance, in both a debt and equity context, on terms & conditions favourable to the developer.
* Leasing and Sale of the project - when to lease/sell, what proportions of total floor area should be pre-leased and pre-sold, and at what stage along the construction timeline it should occur.
* The amount of profit arising out of the development scheme is subject to potentially significant reduction, due to any one or a combination of major events and activities ‘going wrong’, in the context of the above domains.

**Financier’s Risks.**

* The marketability of the project, both in terms of leasing and selling.
* The quality of collateral - i.e. the various lending securities which may be required, which may well include items additional to the lending security of the project itself.
* The ability to take title if foreclosure becomes necessary or to recover invested monies if the developer becomes bankrupt - the presence of other liens, caveats and legal interests in the property may hinder the security of
full title. For example, a lender offering mezzanine finance will have a subordinate claim against the property, relative to a senior mortgagee. Similarly, equity investors in a development project must subordinate their recoverable interests to any prior debt-related interests.

* The adequacy and correct pricing of the interest rate charged on the development loan, in terms of reflecting the risk exposure of the financier in the particular project.

* How the developer (and his guarantor, if present) measures up as a risk in the eyes of the financier. Matters such as the developer’s level of expertise, past development experience & project track record, the quality & reputation of the management personnel in the development company, past instances of insolvency and bankruptcy if any, the level of equity injection into the project, the possible inability of the developer to fund any cost over-runs, the focus, direction and magnitude of the development company, any concurrent projects - may all possibly come into consideration here. Note also that a similar risk analysis may be carried out by the financier in respect to the Master Builder.

**Investor’s (End-Purchaser’s) Risks.**

* The sensitivity of the purchase price of the completed end-product, compared to the risk profile & exposure, and the commensurate required financial return on the purchase price - in other words, the entire investment and risk analysis position, from the end purchaser’s viewpoint, NOT the developer’s.

* The investor’s own financial analysis of the end-project as an orthodox property investment - as opposed to that of the developer or the financier - i.e. the investor’s analysis of cashflows, leasing structure, rental levels, required yield, quality of tenants, building design, quality of construction, materials, fitouts & finishes, location, prospects for future income & capital growth, future market appeal & saleability, likely future vacancy levels, and operating costs of the asset.

* Issues connected with the ongoing management of the asset as an orthodox property investment - e.g. life cycle costing, future refurbishments, capacity for future additions, leasing structure, operational efficiency, outgoings control.

**4.4 Risk Management Techniques And Options.**

The basic tools for risk management in property development are quite straightforward and largely rotate around the following broad, fundamental measures:
(i) the necessity for thorough research - both at the initial feasibility study stage and also ongoing monitoring during the entire course of development. The original financial feasibility study and sensitivity factors should be updated and altered during the development period, if the monitoring process shows it to be necessary, and the likely impact on end-profit identified and addressed.

(ii) the need to ensure that skilled, professional consultants are hired, and that the consultancy advice received in all relevant project stages & development-activity domains is diligent, astute, accurate, and reliable.

(iii) the maintenance of quality work throughout the project, but particularly during the Construction Phase. Highly efficient operational standards within the development organisation, and best Project Management practice during the course of the entire development timeline, should be maintained from start to finish of the project. Efficient management and operational practice in respect to running the development company as a business entity should be pursued, particularly in the interpersonal dealings with employees and consultants - it is advisable for developers to treat people as ‘real human beings’, not merely as just another production ‘resource’ or ‘factor of production’ in the capitalist economic environment.

(iv) the need for good, accurate, diligently-prepared and fully-detailed documentation is paramount in the property development process. This applies particularly in respect to the Development Application & the Building Application which are submitted to local council, and also in respect to the Building Contract which sets out the legal relationship between the Developer and the Master Builder.

In more detailed terms, there is a whole series of possible options and devices for reducing and managing risk which may be available to the developer. While the following schedule is by no means intended as a totally conclusive or comprehensive one, the more common and obvious risk management devices include:

* Only carrying out development projects in limited, well-known geographical areas - which enables developers to specialise in localities and markets with which they are already very familiar and in which they have already accumulated substantial expertise.

* Conducting development activity only within those property classes, types of buildings and market sectors - e.g. residential, office buildings, retail, industrial, or special-use categories - where the developer has acquired specialist expertise and long-standing market experience. This is particularly advisable in commercial investment scenarios such as office-building, retail, industrial, and recreational / leisure / special use property sectors. These individual market sub-classes demand specialist expertise due to their inherent complexity and additional inherent risks, particularly when compared to more ‘simplistic’ residential market sectors and market dynamics.
If a ‘cross-over’ venture into unknown specialist commercial investment (or even some types of residential) markets is contemplated by a newly fledged developer, it should perhaps initially be conducted in conjunction with other long-standing developers or development organisations who possess a well-established track record in that property arena - via joint-venture schemes, to start out with, to help build up a ‘learning curve’.

Only developing within clearly defined **Project Cost limits** and a **magnitude & scale of operation** by the development company which can comfortably be accommodated by the size and resource base of that firm (in other words, ‘not biting off more than the company can chew’). There are inherent dangers in developers associating themselves with projects which are either over capitalised, too costly or which are too highly geared. Attempting to take on too many projects, all at the one time, can sometimes over-extend the financial and material resources of a development firm, and can possibly send the company into financial ruin.

Seeking debt-based finance at a fixed rate of interest to avoid problems caused by interest rate fluctuations - although it is possible that such fixed-rate arrangements may sometimes end up costing more than a variable-rate loan, if market interest rates end up falling - so one has to tread warily here.

Seeking to secure a form of building contract - out of a number of possible contract types - which is favourable to the needs of the particular developer. Some types of building contract have the effect of transferring construction risk from the developer to the builder, for instance.

Securing substantial proportional pre-leasing and pre-selling arrangements for the end-development-product at an early stage in the construction timeline can be very advantageous for the developer, when early cashflow generation and debt-repayment / serviceability considerations are of critical importance. However, this may well also result in the developer sacrificing some degree of profit due to tenants or purchasers requiring discounts and concessions in price, in return for early commitments.

Moreover, if the prevailing market is experiencing strong capital growth during an extended construction phase, the developer may have to accept the loss of increased rents & sale prices (and consequently, reduced end-profits), which might have been realisable if selling and leasing was delayed until later towards the end of the development program. This demonstrates the critical issue of **TIMING** sales and leasing-up at various points in the construction / market continuum. Basically, the developer is faced with a trade-off decision here.

Additionally, any lender’s requirements regarding proportional pre-commitments (pre-lease and/or pre-sell) may be excessive and onerous for the developer in a rapidly rising market, and may require negotiation between the parties.
* Entering into a joint venture (or other partial interest partnership) with other parties such as pre-existing land owners or major institutional equity investors, can be advantageous for the developer, since it enables the overall project risk exposure to be shared between the parties to the development scheme. Note, however, that again a trade-off has to be decided upon from the developer’s point of view, since end-profits will also need to be apportioned between the parties.

* Taking out insurance cover against certain specified risks in the development process can constitute an effective risk management option in some instances - however, recent internal upheavals in the insurance industry has had the effect of actually increasing the cost-risk exposure for many developers in this domain, due to unforeseen rises in some types of premiums and the relative scarcity of available insurers.

* Incorporating cost-contingency loadings (on a percentage basis of say, 5% to 10% of elemental cost, e.g. on Design & Construction or Finance Costs) into Financial Feasibility Workings can provide a margin of safety and comfort for developers, in a pure financial context. Such decisions must be made, however, on the proviso that by so doing, the project profitability levels still remain uncompromised, and viable and acceptable to the individual developer.

Provided that they can be comfortably and affordably inserted into financial feasibility calculations, the great benefit here is that should such on-paper contingency loadings remain unspent in practice, when physical project implementation occurs, then such loadings become instantly convertible into additional profits.

In conclusion, it should be noted that in general, many options and devices which attempt to reduce risks also have the potential to either increase costs or to reduce profits, so there will almost inevitably be a degree of trade-off and a price to bear by the developer, as a result of risk control, risk reduction and risk management techniques.

### 4.5 Closing Comments.

In preparing for this consultancy project, this writer has been provided, by courtesy of Ms Susan Macdonald, Assistant Director of the NSW Heritage Office, with a series of documents which pertain to an analysis of many of the issues which are the subject of coverage within this report.

These documents consistently maintain that it is NOT the function of the statutory heritage authorities, nor of the heritage asset itself, to subsidise uneconomic property development dynamics which can be identified as having arisen by virtue of inexperience, incompetency or lack of astuteness and prudence on the part of a particular developer.
This writer is compelled to signify and to state that he is in complete agreement with the principle stated above.

Indeed, it can be seen that in the foregoing explanations of Project Risk Analysis, many mistakes can be attributed to a developer’s inability to conduct the development process in a fully competent and astute professional manner.

When such causes of poor economic performance in property development economics can be identified as being attributable specifically to a given developer’s professional or personal inadequacies, then it is good and proper that the developer NOT be subsidised for mistakes which may, with greater personal prudence, have been avoidable.

On the other hand, it should be equally obvious that by the very nature of property development, external-based problems can arise throughout any stage of the Development Process - problems which, by any reasonable standard, are completely incapable of being foreseen by the developer (or any other party to the scheme) at the commencement of the development period.

Moreover, there are times when onerous impacts on the financial performance of a development scheme can possibly occur through the negligent actions and inadequate advice of a wide range of outside parties whose unsatisfactory professional performance and lack of care and due diligence are beyond the ability and capacity of the individual developer to influence or control. These impacts can emanate from both private sector sources (for example, by virtue of poor professional advice on the part of outsourced development consultants) and from public sector sources (government or semi-government agencies).

The possible influence of what might be termed purely expedient ‘non-merit-based’ political intrusion into particular development schemes, which might possibly emanate from any of the three tiers of Australian government, should similarly also not be overlooked. However, depending on the circumstances which might be at issue, any politically-based influences might on occasions operate in a negative fashion in terms of development feasibility and financial dynamics, while on other occasions they may possibly end up benefiting the individual developer in a final analysis.

Such influences can come into play, of course, irrespective of whether a heritage or non-heritage development scheme is the subject of attention.

Caution should therefore be exercised when investigating the exact causes and contributing factors of poor economic performance and unsatisfactory levels of financial viability in individual development scenarios.

Based upon the treatment contained here within Part 4 of this report, however, it is a demonstrated truism that property development, by nature, is indeed a risky undertaking - despite what may seem to many on the surface at times to be apparent, temporary evidence to the contrary.
5.1 The Different Categories of Developers.

The basic philosophy of developers is that development proposals have to be financially viable, otherwise they will have nothing to do with them. Developers cannot afford to become involved with proposals which are likely to result in losses.

In terms of business structure and industry positioning, developers come in all shapes and sizes, both big and small, and everything in between. A great many developers start out in suburban residential markets as strictly small-magnitude players, in terms of their financial, operational and project capacity.

So-called 'merchant' or 'trader' developers are those who involve themselves in property development as their chief (and often their sole) means of making a living. In this respect, the 'merchant' class of developer can be either a big or a small business entity. Similarly, many developers start out in the industry by confining their activities to 'develop and sell' schemes only. It is often the case that, progressively over time, smaller development business entities who exhibit success and aptitude can grow into much larger business entities.

Ultimately, development companies can grow and evolve to the point where they can afford to engage in 'develop and on-hold' schemes, by virtue of their then-more massive financial and operational capacities. While it is true, for example, that even smaller-scale residential developers can afford to retain perhaps one out of, say, 10 apartments in a project they might develop, as a form of ongoing personal property-asset investment, they will not generally engage in 100% self-generated investment retention regimes until their business magnitude has reached very substantial levels.

Large development organisations may also branch out into ancillary property activities such as commercial asset management. A good example of such a firm can be found in the massive Lend Lease organisation.

Such is the specialised nature of many property markets - particularly commercial property markets - that astute developers, as a general rule, often tend to confine their activities to those market classes in which they have a sound background of experience and expertise. Commercial markets, in particular, are very risky propositions to tackle, if they are entered into on a 'cold' basis by inexperienced or untrained developers. Again - slowly, year by year, it is indeed possible for development organisations to 'build up' a learning-and-experience curve which spans different market sectors, thus enabling a progressively greater potential scope and magnitude of business operations over time.
On the other hand, many institutional investors, whose primary investment regime is a 'passive' one, will from time to time venture into the development markets, by way of engaging in significant refurbishment programs for major property assets which they hold within their established investment portfolios. Asset managers, for example, working for large institutional investors, either internally or externally to the institution, will often provide the 'kick-start' mechanism for such refurbishment strategies, by virtue of their specialised market knowledge and investment analysis skills. Such refurbishment activity constitutes a legitimate form of Property Development.

Property developers and orthodox 'passive' property investors can frequently very much enjoy a so-called 'symbiotic' relationship with one another in the various property sectors and sub-markets. This is particularly pronounced in commercial property markets, where large Institutional-grade assets are concerned. On the one hand, property developers (particularly developers of large commercial property assets) require top-end Institutional-level purchasers for their products. Very often, large passive property investors provide such a purchaser base for developers.

Likewise, passive investors - particularly those in the top-end Institutional stratum of the property industry - are constantly on the lookout for new investment opportunities in prime or A-grade, newly completed, or intended commercial-building development schemes. Often, both classes of property investor will work closely with one another (as supplier and purchaser, respectively) from the outset of a development scheme, in what are clearly 'win / win' business and investment relationships.

5.2 The Shortcomings of Some Developers.

Unlike a great many other professional disciplines which exist within the operational sphere of the built environment, property developers are not as a matter of necessity required to be licensed or formally professionally-accredited in order to practice. This means that virtually any member of the public is entirely free to 'have a go' at being a property developer - without proper any automatic or mandatory requirement for pre-emptive training, experience or tertiary qualifications. Many such aspirants are, in reality, entirely ill-equipped to become involved in the profession of property development.

It is an observable fact that during buoyant periods of the market cycle, many 'would-be' 'amateur' developers enter the property development market, in pursuit of what they erroneously and ignorantly perceive to be 'easy profits'. Clearly, such market participants are completely unsuited to the rigorous and specialist demands which the Property Development Process places upon its practitioners in order to survive in business over the medium to long term. The property market is at least efficient enough such that, eventually, these kinds of unknowledgeable market 'players' will be weeded out of existence by the sheer force of market competition. The problem is however, that it may frequently take some elapsed time for this process to occur. In the meantime, over shorter time periods - particularly during so-called 'property boom' periods - such ill-equipped 'would-be' developers can wreak great damage in the market-
place. They can create significant problems for other, entirely legitimate, fully experienced, well-qualified, professional developers who are forced to compete in the same markets for what is often a limited supply of properties which possess redevelopment potential.

Financiers have long recognised these kinds of imperfections within the sphere of property development markets and property development activity. Accordingly, astute financiers, as part of their own internal risk management practice, routinely conduct a rigorous examination of a developer’s professional credentials, industry background, and track record of past success, in the consideration of applications for development funding.

Once again, similar parallels can be drawn between the position of financiers and that of the statutory heritage authority, when faced with approaches from developers for financial assistance. Accordingly, similar processes of scrutiny are by all means advisable in the heritage development context.

5.3 The Issue of Hurdle Rates and Acceptable Levels of Profit.

The Hurdle Rate is an in-house property development industry term which simply refers to the minimum acceptable level of profit which any given developer will be willing to accept, when undertaking a development scheme.

The profitability factor can be measured by a variety of possible means. Many small to medium-sized development firms utilise the Profit-Against-Costs mechanism. However, the adoption of the annualised Internal Rate of Return (IRR) measurement tool has tended in recent years to be increasingly adopted by most larger development organisations - particularly those which are publicly-listed companies. One of the benefits of the IRR approach is that it more suitably captures the time value of money, both in terms of capital inflows and outflows, over the life of the development project. The IRR approach also readily permits a comparison of investment return across differing capital markets.

Since the mid 1990’s in particular, the advent of increasingly more sophisticated proprietary software computer cashflow spreadsheet programs has facilitated the adoption of the IRR approach as the preferred Profit measurement tool for ‘top-end’ participants in the property development industry.

The Hurdle Rate is NOT a ‘fixed’ percentage return - on the contrary, it will VARY (sometimes quite considerably), depending on the nature of the individual developer’s particular situation - such as their scale of operations, the financial and resource capacity of the development firm, the market position occupied by the development firm, whether the firm comprises a ‘small-time’, perhaps ill-equipped and inexperienced player or a large, ‘top-end’ property firm with the highest credentials and standards of professionalism, expertise and astuteness.

For a given development scenario, say a relatively simple, low-risk residential project for example, one developer might be willing to accept a hurdle rate of
Other more conservative developers, faced with the exact same proposal, may, for their own personal or internal company reasons, accept no less than 20%. Those who are more 'desperate' for a 'piece of the action' in the market might possibly even accept an indicated return of only, say, 10% against Project Costs.

Often, this level of proportionate return will be directly affected and measured by the LAND PRICE which any given developer is prepared to pay. In other words, paying TOO MUCH for the development site will have the potential effect of drastically reducing the realisable PROFIT.

Once again, the potential for intense competition for a limited market supply of development sites may well often come into play. The dynamics of high competing demand by developers for sites, coupled with a limited market supply of suitable sites, may well mean that larger, more conservative, responsible developers might be ‘priced out’ of the race to acquire a given site by less responsible and less astute ‘would-be’, amateur developers.

It will sometimes be the case that newly-fledged ‘small-scale’ residential or commercial developers, who are new to the industry and wish to increase their market-share and level of development activity, will resort to accepting very low, marginal hurdle rates for a given project scenario - compared to the normal ‘market’ range of return acceptable for that given scenario to most mainstream developers.

Such a practice basically amounts to a ‘desperation’ measure, and can be prevalent in highly-competitive, co-called 'cut-throat' market environments, especially during buoyant times when the industry is already over-supplied with an excess of ‘would-be’ developers. Such an approach can often be potentially highly dangerous, since the inherent risk involved in property development may operate to negate what is already a marginal, borderline ‘REAL’ Profit Margin anyway.

The issue of Hurdle Rates is thus very important from the developer's in-house perspective. Developers should never forget that the Investment Return in property development is supposed to adequately reflect the fact that property development is an inherently RISKY business. The acceptable return MUST adequately reflect the risks faced.

5.4 The Range of Development Profit Levels Across Different Market Sectors.

In line with the above concept of Development Risk, a natural pattern of investment returns can readily be discerned across the spectrum of the Australian property development industry. The market-derived 'band' of acceptable and reasonable Percentage Profit, either on an IRR or a Profit-Against Costs basis, can be seen to vary considerably across different property markets - depending on the nature and characteristics of the market sector, and the particular property
class into which the subject project falls. One market sector may be ‘booming’ at any given point in time; another may experience a dormant void in buoyancy at the very same time.

The key determinant and the chief arbiter comprises the level of perceived Market Demand at any given point in time, relative to available supply. This can be broken down into demand for the subject property type; demand for the subject use; demand in a specified location; the background nature of the sub-market property cycle at any given point in time; the general health of the background economy at any given point in time; the level of prevailing supply; and the level of imbalance between demand and supply. These market dynamics can operate together in very complex ways, and are subject to an inbuilt element of volatility. Hence they feed into the Development Risk Exposure in very significant ways.

Thus, for example, where, say, simple low-risk residential projects might attract investment returns of around 15%, a commercial investment project might well attract a return of no less than 25% in order to be acceptably viable in the context of current development economics. In other, even more riskier property environments, returns may well be significantly higher again than that.

The investment return in property development should also reflect the PERIOD of development. Often, for example, large complex projects will span several years from start to finish. The subject investment return for such a project should accommodate and reflect this. After all, the risk exposure and the financial return in such cases is not confined merely to a single annual 12 month period only. The financial return may have to tide the developer over for several years.

Thus, when comparing investment returns from other available capital markets or ‘passive’ property investment opportunities (most of which are expressed simply as an annual percentage return only), this has to be borne in mind. Taken in this light, a 25% Development Profit-Against-Costs, for example, when spread over, say, two full years, starts to lose a little of its initial ‘face-value’ gloss and glamour.

The investment return in property development will also be governed by the prevailing economic and property fundamentals which are in place at any given time - e.g. the rate of inflation, the underlying level of interest rates, the prevailing level of bond rates, yield rates for orthodox existing types of commercial investment property etc. In short, it is the market dynamics of the property sub-sector, and the market forces which are in operation at any given point in time, which should rightfully and properly dictate the level, or band, of acceptable Development Profit.

It is the common viewpoint of practitioners who operate at the internal level, within the property markets and not outside of them, that it should be left to the forces of the market to determine what is, and what is not, an acceptable ‘band’ of development profit level for any nominated sub-market sector or use-category. There is a considerable degree of validity to this viewpoint.
PART 6 – Recommendations for a PROFIT RESIDUAL TEMPLATE in Heritage Development Scenarios

Introduction

The Profit Residual approach to development appraisal and financial analysis consists simply of a measurement of END VALUE of the Completed Development Product against the TOTAL PROJECT COSTS - where the differential between the two is usually expressed as a percentage return, measured back against Total Project Costs.

Gross Realisation

In the template provided overleaf, a simplified summary schedule for Gross Realisation is set out. A considerably more detailed Gross Realisation will be calculated by the developer beforehand, prior to entry of figures on this summary schedule, using either or both of the following two Valuation Methods:

- Direct Comparison - for most Residential classes of developments.
- The Capitalisation of Net Income Approach - for most Commercial Investment classes of developments.
* A Combination of both Methods for Mixed-Use development schemes.

Project Costs

The following template provides for a SUMMARY PRESENTATION only of a wide range of possible Development Costs. Essentially it constitutes a finely-tuned extension of the simplified and summarised Profit Residual format which was depicted in Part 2 of this report (see Section 2.7). Moreover, the following template has been customised to provide for a range of possible Heritage-Specific Project Costs. Many of these cost categories would not normally be expected to be present in a Non-Heritage Financial Schedule. It is assumed that spreadsheet cashflow calculations would normally be applied on an in-house basis by the developer, prior to the presentation of the Summary Data on the template overleaf.
PROJECT COSTS

Initial Property Purchase & Acquisition Costs $

- Subject Heritage Property Purchase Price - on the basis of Fair Market Value & in existing condition.
- Purchase Price of Adjoining Non-Heritage Site(s) (if applicable)
- Cost of Obtaining Vacant Possession (if applicable)
- Stamp Duty
- Agents Fees (if applicable)
- Legal Fees
- Present Value of Ground Lease over Whole or Part of the Total Holding (if applicable).

Site Works - Associated With The Project $

- Demolition of Existing Non-Heritage Improvements (if applicable).
- Partial Demolition of Existing Heritage Improvements (if applicable).
- Site Contamination Remediation (if applicable).
- Compulsory Archaeological Investigations and / or Relic Management (if applicable).
- Site Excavation Works - basement carparks, foundations etc (if applicable).
- Post-Construction Landscaping Works
- Other ‘One-Out’ Special Site Requirements - per the Development Consent.

Design & Construction Costs $

- Construction / Restoration Cost of the Heritage Building
- Construction of Other New Non-heritage Building(s) on the Heritage Site (if applicable).
- Construction of Other New Non-Heritage Buildings on Land Adjoining the Heritage Site (if applicable).
- Design Fees - All-up, Related Directly to Construction
- Rise & Fall
- Construction Contingency Loading


### Holding & Ancillary Costs

- Rates & Taxes - Duration of the Development Period
- Easements, ROW's, Drainage Fees (if applicable)
- Section 94 Contributions
- Development Management (if applicable)
- Development Approval / Planning Fees
- Heritage Conservation Management Plan (if applicable)
- Heritage Architect’s Fees (if applicable)
- Other Consultants & Market Research (if applicable)

### Marketing, Leasing & Sales Costs

- Commissions
- Legal Fees
- Marketing & Advertising Costs
- Lease Incentives (if applicable)
- Rental Guarantees (if applicable)

### Interest Costs

- Interest on Land Costs
- Interest on Design & Construction Costs
- Interest on Holding & Ancillary Costs (if applicable)
- Interest on Marketing, Leasing & Sales Costs (if applicable)
- Loan Administration & Valuation Fees
- Contingency Loading (if applicable)

### LESS Value of Any Heritage-Related Incentives

- Direct Grants For Specific Heritage-Related Construction
- Loans For Specific Heritage-Related Construction
- Sale of Heritage Floor Space

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**TOTAL NET PROJECT COSTS**

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**GROSS REALISATION**

$
- Market Value of Completed Scheme
  - Subject Heritage Building.
- Market Value of New Additional Non-Heritage Building(s) forming part of the SAME project (if applicable).

**TOTAL GROSS REALISATION**

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross Realisation <strong>less</strong></td>
<td></td>
</tr>
<tr>
<td>Total Net Project Costs</td>
<td>$</td>
</tr>
<tr>
<td><strong>Surplus or Loss</strong></td>
<td>$</td>
</tr>
<tr>
<td><strong>Surplus</strong></td>
<td></td>
</tr>
<tr>
<td>Total Net Project Costs</td>
<td>%</td>
</tr>
</tbody>
</table>

**Indicated Initial Development Profit** : %

**Notes**

1. Interest Costs should preferably be calculated beforehand via a full cashflow spreadsheet work-out.
2. No allowance is provided for GST charges or input credits reclaimed. Most financial spreadsheet packages include provision for GST adjustments.
3. EXPLANATIONS of the various PROJECT COST items are provided in *ANNEXURE No. 1*, accompanying this report. *(WRITER'S NOTE - this Annexure is presently ABSENT, but will be provided in the final, fully-bound, completed report)*
4. The terms ‘if applicable’, appearing in the schedule, MAY NOT necessarily be relevant to ALL individual cases. All other items should normally apply, however, to virtually every envisaged project.
Summary Statements

7.1 Preamble.

This writer has thoroughly analysed the contents of the 1999 Policy Statement and Practical Guidelines to Assessment document, published by English Heritage, which is entitled *Enabling Development and the Conservation of Heritage Assets*.

It will be recalled from this writer's comments made in the Introduction to this report under the opening heading of *Client’s Instructions* that this consultancy report has been centrally framed, to a significant degree, on a parallel basis to that which is already contained in the said 1999 English Heritage document.

Having thoroughly scrutinised and absorbed the contents of that document, this writer finds himself in virtually complete agreement with its Policy Statements, Practical Guidelines, and Recommendations therein.

In the professional opinion of this writer, the 1999 English Heritage *Enabling Development* document comprises a most impressive and well prepared high-quality body of work. In particular, from the property economics and development feasibility perspective (which comprises this Australian writer's chief domain of experience and expertise), the acumen, erudition and expertise of the English Heritage authors shine through in the content, commentaries and recommendations made therein.

In terms of the thrust of the policy stance by English Heritage in respect to:

- enabling development, and that permission for same should only be granted on the basis of specific needs-based criteria, as expressed in the opening policy statement on pages 6 and 7 of that document, and

- the necessity for quantifying the need, as expressed in summary form on page 10 and in more detail in Section 5, pages 45-60 of that document,

this writer finds himself in complete agreement with the comments and recommendations made therein.

The writer of this subject consultancy report makes the following recommendations, many of which overlap with those already published by English Heritage in 1999, but several of which also originate from the research conducted by this writer exclusively for this specific consultancy report undertaking.
7.2 RECOMMENDATIONS.

1. Developers’ Responsibilities in Heritage Development Scenarios.

This writer is in complete agreement with the principles embodied in the Statement of Developers’ Responsibilities contained within the 1999 Policy Statement and Practical Guidelines to Assessment document, published by English Heritage, and entitled *Enabling Development and the Conservation of Heritage Assets*.

The said Statement appears under section 1.4 at page 19 in the *Enabling Development* document.

This writer finds, simply, that the said Statement cannot be improved upon, in any practical sense, in terms of its adaption and application for use under Australian conditions.

Accordingly, this writer recommends that the 1999 Statement prepared by English Heritage should be adopted in Australia as a Heritage Management and Policy Guideline in respect to applications by developers for redevelopment proposals of heritage-protected built-environment assets.

2. Understanding the Heritage Asset and Mitigating Impact.

The 1999 *Enabling Development* Policy and Guidelines document published by English Heritage contains a flowchart which appears at page 29 of that report, under Section 3 therein, pertaining to the above.

Once again, this writer finds that this flowchart represents an excellent guideline as to the process which should ideally be targeted in respect to pre-application engagement between the heritage consent authority and the redevelopment applicant.

Accordingly, this writer recommends that the said flowchart prepared by English Heritage should be adopted, per se, for application in the Australian heritage management environment.

3. The Use of Independent Outsourced Property Advisory Services.

It is recommended that heritage consent authorities in the Australian heritage management environment should make appropriate use of independent outsourced property advisory services in situations where the circumstances so warrant.
In particular, this policy should apply to the assessment of financial information submitted by intending developers, where a specified set of financial feasibility workings forms the basis of a developer’s case, and where the developer has submitted an application or argument for the award of public subsidies.

The developer’s presumed argument would typically be that an award of a public subsidy should be advanced, in favour of the developer, on the grounds of alleged adverse economic and viability, as a result of meeting mandatory heritage requirements for the property.

In particular, where the stakes are high in respect to potential harm to the heritage integrity of the asset, or where a case by the developer for exceedingly poor and insufficient development-profitability is concerned, then in the opinion of this writer, the need for such outsourced independent assessment of the developer’s case becomes critical.

As a minimum consideration, outsourcing should definitely be employed in large and complex heritage redevelopment scenarios, where the sheer scale and magnitude of the property asset gives to financial sensitivities which are very sizeable in character.
REFERENCES


NSW Heritage Office 2003 website  www.heritage.nsw.gov.au

PERSONAL COMMUNICATIONS

Interviews and Consultations

Mr Michael Collins, Chair of the NSW Heritage Council.

Ms Susan MacDonald, Deputy Director, NSW Heritage Office.

Mr Theo Pasialis, self-employed Property Developer, and principal of Hyperbuild Pty Ltd.