



HERITAGE WORKS

*Heritage Revolving Fund
Building on heritage value*

MAYLANDS BRICKWORKS FEASIBILITY STUDY

(DRAFT VERSION 0.8)

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EXECUTIVE SUMMARY

This report has been prepared for the City of Bayswater by the Department of Planning Lands and Heritage, investigating the high level feasibility of repairing and reactivating the Maylands Brickworks - vacant since 1983.

The Maylands Brickworks is a State-Registered heritage place located at 22 Swan Bank Road, Maylands. All of the project site is owned or managed by the City of Bayswater.

The Maylands Brickworks has the potential to become a very special place for the residents of the City of Bayswater, and for a wider public. The Brickworks precinct already has much to offer because of the co-location of heritage buildings, parkland and golf course, but its full potential is unrealised.

88% of respondents in the community engagement project of February-March 2016 indicated 'Support' for repair and reactivation; whilst only 6% said 'Oppose'.

Many respondents expressed enthusiasm for the prospect of reactivation which they saw as long overdue, including comments such as these:

'I think this is exciting and I fully support the intention of these proposals. I wish the project team the very best... I look forward to being able to make use of cafe and restaurant amenities in the future.' (Respondent E73)

'We love the beautiful Brickworks buildings and we're delighted they are being saved. We also love the trees and open space (and turtles!) nearby. We're excited that some of these concepts will improve the site for locals and visitors while protecting the environment, POS and heritage buildings. Bravo!' (Respondent 103)

The community engagement project of February-March 2018 elicited a variety of ideas, comments and serious concerns. Major themes included the importance of public access to the Brickworks buildings; the potential for heritage interpretation and museum uses; and concerns about residential development affecting the nearby lake environment, or the quiet enjoyment of the parkland. Additionally, concepts involving residential development on Crown land at the southern carpark site were presented to the Minister for Lands for consideration.

As a result, adjustments have been made to the four reactivation concepts published in February 2018, and two additional concepts have been considered ('E' and 'F'). The two concepts that involved development of the southern carpark - 'B' and 'C' - have been excluded from the report's recommendations, as the Minister for Lands did not support the release of the land for that purpose.

While the Minister for Lands was supportive of the reactivation of the Maylands Brickworks, the proposed residential development on Crown land at the southern carpark site detailed in concepts 'B' and 'C' were not supported. This was on the basis that the land is significantly constrained, as it was previously designated for public use as a condition of subdivision, required rezoning under the City of Bayswater's local planning scheme and previous community consultation indicated a lack of support regarding the potential loss of key recreation areas for the local community.

Several relevant case studies have been examined, to benchmark the costs and other challenges involved in reactivating and then operating comparable places. The evidence is clear that repairing and reactivating a disused industrial heritage place is not a cost-free or simple challenge.

Whilst the Brickworks do present a real challenge, this investigation concludes that at least one solution exists to unlock the long-standing stalemate.

Key findings of the investigation are as follows:

1. There appears to be only one reactivation option that would be cost-neutral or better for the City of Bayswater and therefore fully consistent with the original project brief, that being described in Concept A. Concept A involves adaptation of the Kiln building for residential use, plus construction of new residential dwellings alongside, on the eastern side of the Kiln and Drying Shed. However Concept A received a low level of support in the community engagement process, and would preclude public access to the place.
2. Concept F - involving adaptation of the Kiln as a golf clubhouse - is the second best alternative financially, leaving the City to finance approximately 25% of the project's capital costs (\$1.4 million). It relies on staging the Brickworks reactivation, to secure the repair and reactivation of the Kiln, whilst deferring the Drying Shed to another project which would likely be dependent on securing external grant aid. Beyond the capital costs involved, Concept F is forecast to generate low net operating costs for the City.

3. The largest obstacle to achieving a cost-neutral reactivation of both buildings is the high cost of restoring and adapting the Drying Shed – estimated at between \$1.8 and \$2.8 million depending on the concept selected. For this reason, it is suggested that repair and reactivation of the Kiln and Drying Shed buildings is best managed in stages.

Proceeding to repair and reactivation of the Drying Shed would be dependent on the City obtaining external grant aid or deciding to self-fund the work. If that funding can be found, the Drying Shed is capable of making a strong, complementary contribution to the amenity of the Brickworks precinct.

4. Use of the Brickworks exclusively or predominantly as a Museum/Interpretation Centre is described in this report as Concept E, in recognition of feedback generated by the community engagement. It is the second-most expensive option for the City in terms of capital costs (\$3.9 million) and is 100% unfunded.

It is also the most expensive in recurrent operating costs. Local Government museums in WA incur substantial running costs for their Councils and ratepayers; the case studies indicate that costs of around \$300,000 per annum or more are not uncommon.

Subject to that constraint, the precinct presents excellent opportunities for heritage interpretation to tell the Brickworks' story and enhance the visitor-experience, such as:

- (a) using the Pugmill as the museum and interpretation centrepiece of the site
- (b) restoring some of the brickmaking equipment in the Pugmill to working order
- (c) partially reactivating the historic miniature rail line from the Pugmill to the former claypits area.

Further details about heritage interpretation and museum opportunities are discussed in section 5 of this report.

5. Use of the Kiln as the venue of a revitalised clubhouse including restaurant, bar and function space would represent a public use, more than a private one. It would provide a hospitality facility for local residents and the wider public, not merely for golfers – as do other places in Perth such as the Wembley Golf Course precinct. Public visitation and useage of the Brickworks, appears likely to be much higher if it has a hospitality function rather than a museum function.

The clubhouse land and buildings will remain publicly owned in any scenario: the golf course operator is only a tenant of the City of Bayswater.

The clubhouse use encompasses uses supported by a majority of respondents in the community engagement: bar and restaurant (77% 'Support', 12% 'Oppose') and function space (68% 'Support', 15% 'Oppose'). The clubhouse use itself received support (54% 'Support', 28% 'Oppose').



FIGURE 1: The Maylands Brickworks Kiln, visualisation of the forecourt area.

THE DO NOTHING ALTERNATIVE

The consequences of the Do Nothing Alternative are likely to be as follows:

1. Golf Oracle will invest in the construction of an entirely new clubhouse precinct on the west side of Swan Bank Road, between now and 2020 or 2021, as required by the golf course management agreement. The opportunity for a \$4 million investment in the Kiln will be lost, and that investment will likely be difficult or impossible to replace.
2. Commercial activation of the Brickworks will then become problematic (eg. for a separately operated bar, restaurant, café or function centre), due to the presence of a competing golf course clubhouse with similar facilities directly across the road.
3. Improvements to the localised 'landscape' such as removal of barrier fences, and enhancements to carparking, paving and pathways will not occur.
4. The Brickworks will continue to be vacant and in physical decline, leading either to (a) gradual 'demolition-by-neglect', or (b) an escalating repair and maintenance liability for the City of Bayswater and its ratepayers.

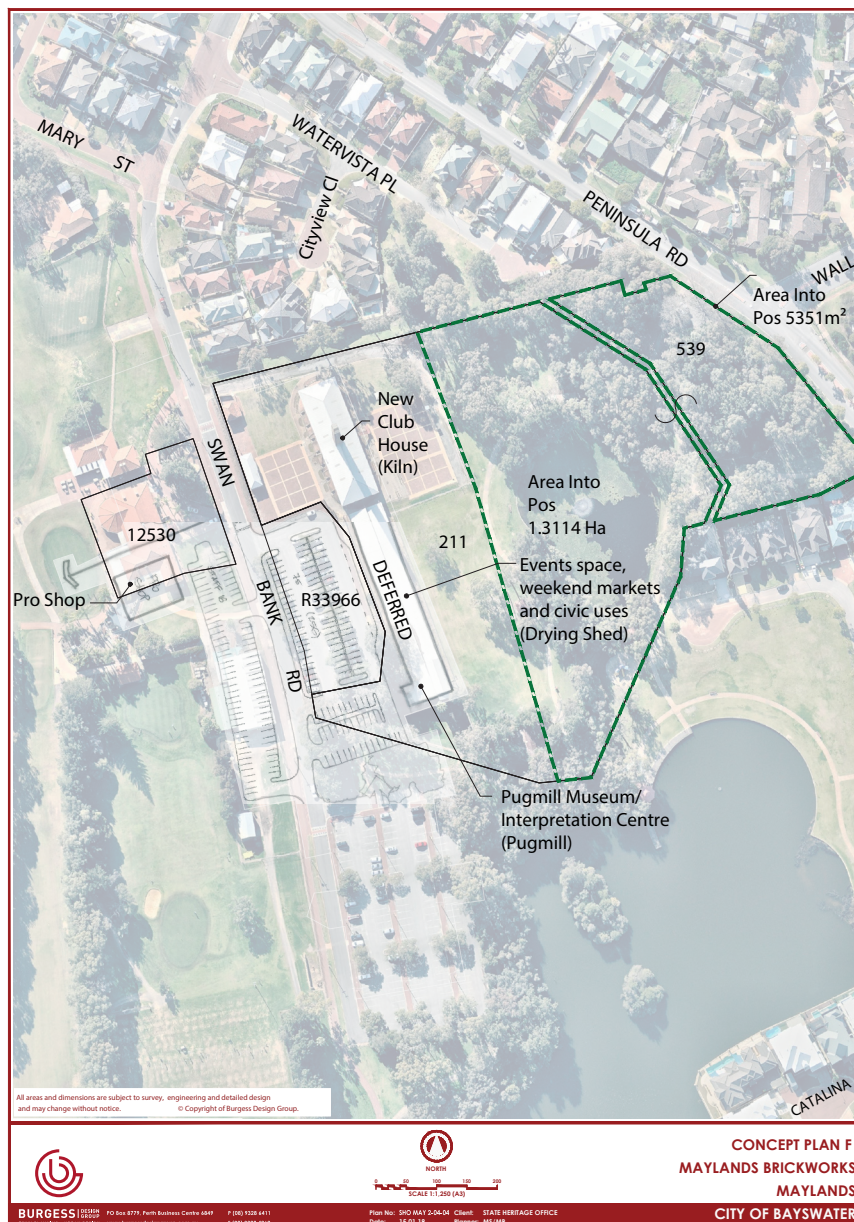
RECOMMENDATIONS

It is recommended that:

1. The City supports Concept F as the most beneficial of the options investigated, weighed against the concept evaluation criteria published in February 2018 (under the headings 'Heritage Impact', 'Financial Feasibility', and 'Planning/Amenity').
2. If Concept F is supported by the City, then the Department and the City should collaborate to prepare a final Business Case and Project Plan, to include among other things:
 - (a) further design of building adaptation, landscaping, traffic management and pedestrian movement, as required
 - (b) financing, scheduling and other project delivery issues.
3. The City considers approaching Lotterywest to discuss possible grant aid for the restoration and adaptation of the Drying Shed.
4. Additional community consultation be considered after completion of the final Business Case, the timing and method to be determined by the City.
5. If Concept F is not supported, the City gives consideration to whether:
 - (a) another option is preferable to achieve reactivation of the Brickworks, or
 - (b) the project should be terminated.

KEY FEATURES:

- Kiln used for relocated Golf Course Clubhouse.
- Existing clubhouse building demolished except for a renovated pro-shop and kiosk.
- New urban square created on west forecourt of the Kiln building.
- Permeability and fencing: all fencing removed from around the Kiln, allowing unrestricted movement between lakes, Brickworks and golf course.
- Brickworks Lake and Lot 539 facing Peninsula rezoned to Public Open Space (instead of current Medium and High Density Residential R40 zoning).



1. INTRODUCTION

Working collaboratively with the City, the Department is seeking to reactivate the former Maylands Brickworks heritage buildings, owned by the City.

The Maylands Brickworks is a State-Registered heritage place located at 22 Swan Bank Road, Maylands. The project site includes the Kiln and Drying Shed and encompasses Lot 211, the adjacent Lot 539 on the eastern side, as well as the golf course clubhouse and carparks. All of the project site is owned or managed by the City of Bayswater, inclusive of the carpark site which is part of Crown reserve 46177, for Recreation.

The project brief agreed between the parties in April 2017 is follows:

1. Assess the repair and maintenance requirements of the Brickworks
2. Prepare options for reactivation of the site to achieve -
 - (a) conservation and adaptive reuse of the Brickworks heritage structures
 - (b) optimal use and development of the site
 - (c) a financial return to the City of Bayswater as the owner.
3. Test and refine reactivation options in consultation with the City, local stakeholders and approval authorities (including the Heritage Council)

Assess the feasibility of the reactivation options, and the economics of the site generally.

Each of the elements of the brief have been addressed by the Department, and the findings are set out in this report.

Where possible, key themes arising from the community engagement project of February-March 2018 are addressed, including the extent of public access to the Brickworks buildings; the potential for heritage interpretation and museum uses; and concerns over residential development on part of the site. Concern expressed by some stakeholders about the possible impact of residential development on the environment of the brickwork lakes, or on local traffic, has largely been obviated by Concepts B and C being withdrawn as seriously entertained options.

This report provides preliminary findings about the feasibility of six reactivation options, including two additional options based on the results of the community engagement ('E' and 'F'), as follows:

REACTIVATION CONCEPT	FUNDING SURPLUS/ DEFICIT	COMMENT
Concept A – Residential adaptation of the Brickworks Kiln, plus new residential alongside (East side); mixed uses in Drying Shed.	Surplus	Not recommended due to low support locally.
Concept B – Residential adaptation of the Brickworks, plus new residential alongside (East side); mixed uses in Drying Shed.	Deficit	Not recommended as carpark site now withdrawn.
Concept C – Golf course clubhouse adaptation of the Brickworks Kiln, plus new residential on the southern carpark site; mixed uses in the Drying Shed.	Deficit	Not recommended as carpark site now withdrawn.
Concept D– Golf course clubhouse adaptation of the Brickworks Kiln, without new residential on the southern carpark site.	Deficit	Not recommended due to high funding deficit
Concept E – Museum and Interpretation centre adaption of the Brickworks with commercial activation limited to Kiln café or wine bar; without residential on southern carpark site.	Deficit	Not recommended due to high funding deficit.
Concept F – Golf course clubhouse adaptation of the brickworks; works to Drying Shed deferred.	Deficit	Second lowest cost of all the options. Long term sustainable use. Recommended.

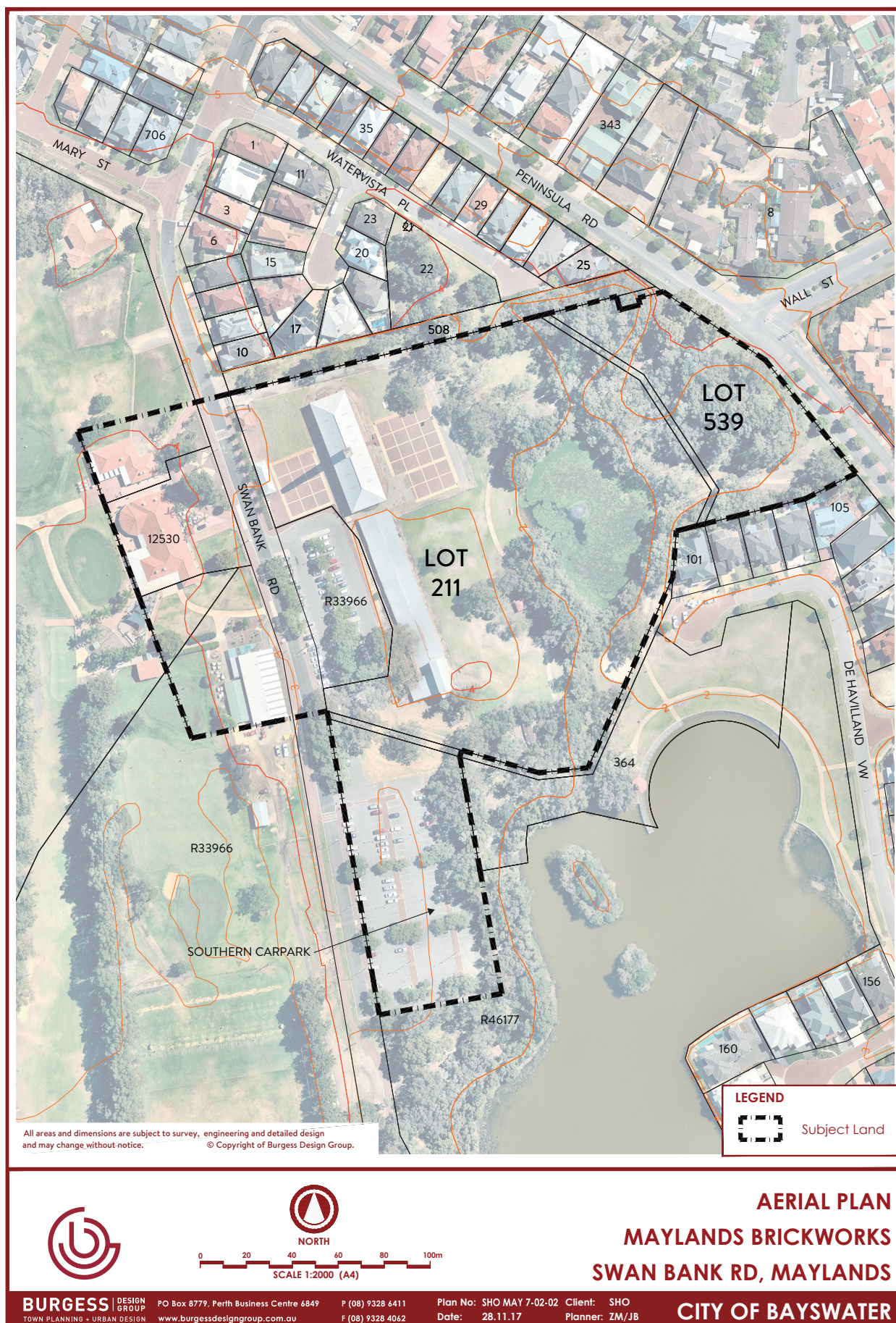


FIGURE 2: The project site.

2. REPAIR AND MAINTENANCE REQUIREMENTS

2.1 RESTORATION AND ADAPTATION REQUIREMENTS - CAPITAL

The costs associated with restoring the Maylands Brickworks, and then adapting them to new uses, would be substantial.

The estimated costs are grouped under two headings:

1. Heritage restoration costs
2. Building adaptation and fitout costs.

The Building Adaptation and Fitout costs have been calculated to achieve conversion of the buildings in multiple future-use scenarios.

Building costs have been estimated by BSM Quantity Surveyors, save for the cost of residential adaptation of the Kiln building which is supplied by Preston Rowe Paterson valuers based on a per-metre standard for residential unit construction. An overhead rate of 8% is added to building costs for Project Management and other professional fees.

The estimated costs are summarised below, categorised by (a) Concept, and (b) building – ie. Kiln vs Drying Shed costs. A more detailed itemisation of the costs involved appears at Appendix 1.

The concepts themselves are summarised in Appendix 3.

Table 1: Restoration & Adaptation Costs Summary

REACTIVATION CONCEPT	RESTORATION	ADAPTATION	PROJECT MANAGEMENT OVERHEAD	TOTAL
	\$	\$	\$	\$
Concept A - Residential	2,628,000	3,510,000	491,000	6,629,000
Concept B - Residential	2,628,000	3,510,000	491,000	6,629,000
Concept C - Golf clubhouse & mixed uses	2,628,000	5,040,000	613,000	8,281,000
Concept D - Golf clubhouse & mixed uses (no residential on carpark site)	2,628,000	5,040,000	613,000	8,281,000
Concept E - Museum	1,802,000	1,821,000	290,000	3,913,000
Concept F - Golf clubhouse in Kiln (Drying Shed deferred)	1,660,000	3,340,000	400,000	5,400,000

Table 2: Restoration and adaptation costs, breakdown by building - CONCEPTS A & B¹

REACTIVATION CONCEPT	RESTORATION	ADAPTATION	PROJECT MANAGEMENT OVERHEAD	TOTAL
	\$	\$	\$	\$
Kiln	1,660,000	1,810,000	278,000	3,748,000
Drying Shed	968,000	1,700,000	213,000	2,881,000
TOTAL	2,628,000	3,510,000	491,000	6,629,000

¹ Adaptation costs for the Kiln arising from Concepts A and B comprise (a) the valuers' estimate of the likely cost of constructing 6 apartments in the Kiln upper floor, plus (b) the cost of installing a lift to the first floor @ \$200,000. Ground floor is assumed enclosed for resident storage (at negligible cost).

Table 3: Restoration and adaptation costs, breakdown by building - CONCEPTS C & D

REACTIVATION CONCEPT	RESTORATION	ADAPTATION	PROJECT MANAGEMENT OVERHEAD	TOTAL
	\$	\$	\$	\$
Kiln	1,660,000	3,340,000	400,000	5,400,000
Drying Shed	968,000	1,700,000	213,000	2,881,000
TOTAL	2,630,000	5,040,000	613,000	8,281,000

Table 4: Restoration and adaptation costs, breakdown by building – CONCEPT ‘E’²

REACTIVATION CONCEPT	RESTORATION	ADAPTATION	PROJECT MANAGEMENT OVERHEAD	TOTAL
	\$	\$	\$	\$
Kiln	954,000	1,007,000	157,000	2,118,000
Drying Shed	848,000	\$814,000	133,000	1,795,000
TOTAL	1,802,000	1,821,000	290,000	3,913,000

Table 5: Restoration and adaptation costs, breakdown by building – CONCEPT ‘F’

REACTIVATION CONCEPT	RESTORATION	ADAPTATION	PROJECT MANAGEMENT OVERHEAD	TOTAL
	\$	\$	\$	\$
Kiln	1,660,000	3,340,000	400,000	5,400,000
Drying Shed	-	-	-	-
TOTAL	1,660,000	3,340,000	400,000	5,400,000

² The Museum option gives rise to lower costs for both Restoration and Adaptation because it assumes:

- in the Kiln -no installation of a new floor in the Kiln's upper level (only a small viewing platform), no food preparation and plant areas, much reduced costs for toilet facilities, no lift in the Kiln etc;
- in the Drying Shed, no enclosure or internal segmentation of any of the space, except for one area at the Pugmill end.

FIGURE 3: The Kiln upper floor. Image taken by DPLH, 2018.



2.2 MAINTENANCE REQUIREMENTS - RECURRENT

Forecasts of future maintenance costs for the Kiln and Drying Shed buildings have been made on the basis of a ratio of the buildings' value (excluding land). A ratio of 2-4% of the building value seems to be widely accepted in facilities management as good practice.

If that ratio is applied to the value of the Kiln and Drying Shed buildings (being the asset value presently ascribed in the City's balance sheet, approximately \$4 million), then these would be the necessary maintenance amounts:

2% - \$80,000

3% - \$120,000

4% - \$160,000.

For the purposes of this report, the lowest figure of 2% is adopted, equating to \$80,000 per annum.

A discounted figure is however adopted in the report for Concepts A and B on the assumption that at least 25% of building maintenance at the Kiln would be paid for by the private strata owners (via strata levies and a Reserve Fund).

All maintenance forecasts are adopted in relation to as-restored buildings, in sound condition. Should the buildings be left unrestored, in their present deteriorated condition, a 'backlogged' repair liability remains, and the cost of carrying out repairs can be expected to accelerate over time.

The future maintenance liability has also been tested with estimates-of-probable-cost prepared by a Quantity Surveyor; details are at Appendix 2. That work indicates that a maintenance forecast of \$80,000 per annum is firmly at the lower end of what might be required.

It is useful to test the maintenance forecast against information available for other historic brickworks, as documented in section 6.4 of this report. In that regard:

- the recent experiences of the City of Sydney at the Sydney Park Brickworks, and the City of West Torrens at the Hallett Brickworks, indicate the sometimes expensive consequences of deferred maintenance;
- the annual building maintenance budget for the kiln at the Galotti Brickworks in Bologna is approximately \$160,000.



FIGURE 4: The Drying Shed. Image taken by DPLH, 2018.

3. REACTIVATION OPTIONS

3.1 REACTIVATION CONCEPTS PUBLISHED IN FEBRUARY 2018

An Information Pack was made available in February 2018 to local stakeholders, and published via the Heritage Directorate's website. It contained four reactivation concepts to prompt community discussion, and to indicate schemes that might be physically and financially feasible. None of the concepts have been endorsed by the City, as spelt out in the Information Pack.

The four concepts are listed below. Concepts C and D are variations on a theme, both involving the relocation of the Maylands Golf Course clubhouse into the Kiln building:

Concept A:	Residential/Mixed Use adaptation of the Brickworks, plus new residential alongside (east side)
Concept B:	Residential/Mixed Use and Recreational adaptation of the Brickworks, plus new residential on the southern carpark site
Concept C:	Golf Course Clubhouse and Recreational adaptation of the Brickworks, plus new residential on southern carpark site
Concept D:	Golf Course Clubhouse and Recreational adaptation of the Brickworks, without new residential

The concepts appear at Appendix 3, as revised.

3.2 PUBLIC ACCESS TO THE KILN AND DRYING SHED

A number of respondents in February-March 2018 expressed concern that the reactivation concepts, if implemented, would prevent or limit public access to the Kiln and Drying Shed.

However the Drying Shed remains publicly accessible in all of the concepts: for weekend markets, function space, an interpretation centre/museum, and 'other civic uses as determined by the City'. In discussions prior to February 2018, the operator of the Maylands Golf Course expressed interest in the possibility of using some of the extensive Drying Shed floorspace for exclusive or shared function space. However that no longer appears to be the case.

In the case of the Kiln building:

1. Maylands Golf Course is a public course, not a private one.
2. In Concepts C and D, the golf clubhouse at the Kiln includes uses supported by most respondents: bar and restaurant (77%), function space (68%), and café. This is not an exclusive private use and its objective is to provide an enhanced hospitality asset for all local residents, not golfers alone.
3. Conversely, in Concepts A and B, loss of public access would clearly occur through the Kiln being converted for residential use.

To emphasise public access to both the Kiln and Drying Shed, some adjustments to Concepts C and D are canvassed in this document, as described in section 3.3 below.

3.3 CHANGES TO THE CONCEPTS FOLLOWING COMMUNITY ENGAGEMENT AND MINISTERIAL CONSULTATION

Following completion of the community engagement, the concepts involving residential development of the southern carpark were presented to the Minister for Lands for consideration, together with a report on the community engagement. Disposal of any Crown land ultimately requires Ministerial approval.

The concepts involving disposal of the carpark site did not receive Ministerial support.

As a result of that process, the following key adjustments to the concepts have been made and are submitted for consideration by the City:

1. No residential development on the southern carpark site

Concepts B and C generated a substantial level of opposition because of the inclusion of an apartment block on the southern carpark site of 4 storeys or higher. A number of respondents did however state that they could support residential development of 2-3 storeys at that location, and that alternative was considered during the feasibility analysis

However Concepts B and C are no longer feasible alternatives given that the land is not available for disposal. They are not offered as recommended solutions.

2. Improved public access to the Kiln and Drying Shed

In Concept C and D as shown in the February 2018 Information Pack, a large area of the Kiln's ground floor was devoted to clubhouse toilets and showers, equipment and service areas etc. The café area was small and located at the southern end.

A revised design has been prepared that makes more than half of the Kiln ground floor publicly accessible, including all of the western side. This could be used as a café overflow area (if required), or simply left open as a casual public rest area during daylight hours. This is shown in the illustrations for Concept F.

3. Heritage Impact reduced

Concern was expressed by the Maylands Historical and Peninsula Association about the heritage impact of constructing a new outdoor deck on the western façade of the Kiln, proposed as part of the golf clubhouse adaptation (Concepts C/D).

An alternative design is canvassed in this report, placing the new outdoor deck on the southern end of the Kiln building, employing a continuation of the same roof configuration. The proposal is illustrated in Figures 5, 6 and 7 below. A similar approach can be seen at the Zhujiadian Brickworks in China, described in section 6.3 of this report.

This approach appears consistent with the conservation policies in the Maylands Brickworks Conservation Plan.³

4. Museum use examined as the primary building use – additional concept

During the community engagement period, various alternative uses of the Brickworks were suggested, although none obtained support from more than 6% of respondents.

An alternative advocated by 6% of respondents is that both buildings be used predominantly or exclusively for a Museum and Interpretation Centre. That idea is canvassed in this report as an additional reactivation option, as Concept E.

Concept E:	Museum/Interpretation Centre adaptation of the Brickworks with commercial activation limited to a café or wine bar in the Kiln building.
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Additionally, extra investigation has been undertaken on the potential for a museum/interpretation centre within the Pugmill at the south end of the Drying Shed. That potential can be realised in any of the reactivation scenarios, regardless of what happens elsewhere on the site. The issue is canvassed in greater depth in section 5 of this report, and is illustrated in Figure 10 below.

³ Palassis Architects (2013), Maylands Brickworks Conservation Management Plan, for the City of Bayswater, Perth WA. See for example policies 110, 111, 114, and Figure 25.
See also Heritage Office NSW (2008), New Uses for Heritage Places: Guidelines for the Adaptation of Historic Buildings and Sites, Sydney NSW.

5. Staging of repair and reactivation – additional concept

An alternative strategy is to stage the reactivation project, beginning with adaptation of the Kiln for a golf clubhouse and other hospitality uses; but deferring adaptation of the Drying Shed for mixed uses including a museum, as a later project. The idea is canvassed in this report as an additional reactivation option:

Concept F:	Golf Course Clubhouse and Recreational adaptation of the Brickworks (staging repair and reactivation of the Kiln first; with the Drying Shed deferred)
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Further details of each of the concepts appear at Appendix 3, including the adjustments and additions described above.

3.4 VISUALISING A REACTIVATED MAYLANDS BRICKWORKS

The Kiln and Drying Shed, once repaired and reactivated would sit very differently within their environment to the way they do today – fenced off and in poor condition.

Several visualisations of the buildings as they might appear in the future, externally and internally, are presented on the following pages.

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FIGURE 5: The Kiln, view of the west facade.



FIGURE 6: The Kiln, view of the firing circuit.



FIGURE 7: The Kiln, view of the pper floor.



FIGURE 8: The Drying Shed and Kiln, view of the eastern facade.



FIGURE 9: Inside the Drying Shed, view looking towards the Kiln.



FIGURE 10: The Pugmill and its machinery, centrepiece of heritage interpretation.

4. COMMUNITY ENGAGEMENT

4.1 COMMUNITY ENGAGEMENT PROCESS

In February-March 2018 the Department undertook, in partnership with the City, a community engagement project to ascertain the level of local support for repair and reactivation of the Maylands Brickworks.

The Department wrote to 2,900 ratepayers owning property within a defined area on the Maylands peninsula. The project was advertised via the media, internet, public signage, flyers in the Maylands Golf Course pro-shop, and two after-hours open days on the heritage site. The open days were attended by two Bayswater Councillors and (on one day) by the Mayor.

The Department received 476 responses to the questionnaire, comprising both responses to the specific questions posed, and extensive written commentary. All of the material was delivered to an accredited market research firm, Paterson Research Group, for data entry and statistical analysis.

In response to the central question, 'Do you support the repair and reactivation of the Brickworks as a heritage place and a local amenity?', 88% said 'Support'; whilst only 6% said 'Oppose'.

The primary message of the consultation project is that a majority of respondents want the Maylands Brickworks site brought back to life.

However, views were very strongly expressed by a substantial number of respondents, on two key themes:

- opposition to residential development as a way of financing repair and reactivation; and,
- a view that the surrounding parkland environment and open space would be threatened by the Brickworks' reactivation, especially by the residential development aspect.

4.2 QUESTIONNAIRE RESPONSES

Key elements of the responses are summarised below.

Table 6: Reactivation Concepts (responses)

REACTIVATION CONCEPT	SUPPORT	OPPOSE	NOT SURE	DID NOT SAY
Concept A	21%	48%	12%	18%
Concept B	22%	46%	13%	19%
Concept C	26%	42%	14%	18%
Concept D	32%	33%	16%	19%
Concept C or D (Supports either C or D; Opposes both C and D)	46%	23%		

Concept A generated a substantial level of opposition (48% of respondents) mainly because of the inclusion of residential development immediately adjacent to the Kiln and Drying Shed. Respondent comments indicated this was mainly due to the inclusion of residential development immediately adjacent to the Kiln and Drying Shed, or residential use of the Kiln itself.

Concept B generated a substantial level of opposition (46% of respondents) mainly because of the inclusion of an apartment block on the southern carpark site of 4 storeys or higher. Respondent comments indicated this was mainly due to the inclusion of an apartment block on the southern carpark site of 4 storeys or higher, or residential use of the Kiln itself.

The responses to Concepts C and D need to be interpreted together. In that context, the number of respondents who support either Concept C or D (including support for the relocation of the golf clubhouse) is 46%, whilst 23% oppose both concepts.

Table 7: Specific Land Uses (responses)

SPECIFIC LAND USE	SUPPORT	OPPOSE	NOT SURE	DID NOT SAY
Golf Course Clubhouse	54%	28%	12%	6%
Residences	27%	53%	14%	7%
Small Local Retail & Services	63%	20%	13%	5%
Offices	26%	44%	22%	8%
Event Space (weddings, conferences, etc.)	68%	15%	12%	5%
Weekend Markets	80%	11%	6%	3%
Small Bar & Restaurant	77%	12%	7%	4%
OTHER USES SUGGESTED	6%			
Museum/ Interpretation Centre	6%			
Brewery/ Pop-Up Bars	6%			
Art Gallery	5%			
Community Garden	2%			
Theatre/ Outdoor Cinema	2%			
Art Workshop/ Classes	2%			
Child Friendly Facilities/ Playground	2%			
Gym/ Pool/ Tennis Court/ other recreation	2%			

Table 8: Residential Development & Height (responses)

REACTIVATION CONCEPT	SUPPORT	OPPOSE	NOT SURE	DID NOT SAY
On the carpark site at 4 storeys	32%	53%	11%	4%
On the carpark site at 8 storeys	6%	79%	9%	5%
Immediately behind the Kiln and Drying Shed, at 3 storeys	23%	60%	13%	4%

The proposed 8-storey development on the southern carpark site received only 6% support.

The figures for 4 storey development on the carpark site need to be read in conjunction with the respondents commentary. A substantial number of respondents advised they could support residential development of 2-3 storeys on that location; for example:

“Sale of a new residential lot on the southern carpark site “is Supported, [but] only for maximum 2 storeys” (respondent #340).

Table 9: Costs & Financial Feasibility (responses)

REACTIVATION CONCEPT	SUPPORT	OPPOSE	NOT SURE	DID NOT SAY
Sale of the Maylands Brickworks to a private investor	17%	61%	17%	5%
Sale of a new residential lot	34%	47%	14%	5%
Other private investment	41%	26%	26%	7%
City of Bayswater subsidy/ investment	65%	12%	18%	5%

A report summarising all aspects of the responses has been supplied separately to the City.

4.3 PETITION TO THE CITY OF BAYSWATER

Separate to the community engagement process, a petition was presented to the City of Bayswater on 16th March 2018, containing 201 signatures. The same petition was re-presented to the City of Bayswater on 12th June 2018 containing another 178 signatures. The promoter of the petition was Warren Lance of 21 Watervista Place Maylands.

The petition reads as follows:

'We the undersigned oppose all four concepts presented by the Department of Planning, Lands and Heritage. We oppose the sale of any/all assets or land on Lot 211, Lot 508 and Lot 539. We also oppose the construction of any residential/commercial dwellings on the aforementioned lots. We oppose any residential/mixed use adaptation of the Maylands Brickworks including the proposed apartment and clubhouse upgrade options.

We therefore ask the Mayor, Councillors and CEO of the City of Bayswater to oppose all four concepts; recommend the Maylands Brickworks Reserve – Lot 211, Lot 539 and Lot 508 to be rezoned from R40 Medium/High Density to Public Open Space; support the assets and land on Lots 211, Lot 539 and Lot 508 remain under the jurisdiction of the City of Bayswater as a community space with the reactivation of the Brickworks itself to meet community needs as a potential museum, historical interpretation centre, art centre etc preserve its historical authenticity and integrity'.

Simultaneously, on 12th June the petition promoter lodged a document entitled 'Alternative Concept – Community Based'. The main elements of the alternative reactivation concept were listed as follows:

Kiln Ground Floor

Clean and repair internal brick walls

New Brick Flooring

Low Impact Track Lighting

Glass windows in arches

Retain a small portion of the ground floor in original condition to enable visitors to [be immersed] in the sense of ...original brick making industry

Kiln First Floor

Arts Space, community functions

Replace existing staircase with a disabled access ramp to enable entry to top floor

Drying Shed

Removable tables and chairs to enable various community spaces

Other

Tea Room/Small Wine Bar – location to be determined

Change Room – aboriginal/colonial heritage interactive area for school groups and young visitors

These elements form the basis of Concept E in this report, except for the non-inclusion of a new floor in the upper level of the Kiln (to achieve a cost saving).

Many of the same elements are also contained in the other concepts, as can be seen from the visualisations in section 3.4, and from section 5 below.



FIGURE 11: Extract from 'Alternative Concept, Community Based' - Vision for the Kiln.



FIGURE 12: Extract from 'Alternative Concept, Community Based' - Vision for the Drying Shed.

5. HERITAGE INTERPRETATION AND MUSEUM USE

The history of the Brickworks deserves to be interpreted and experienced regardless of its future use. It is a State Registered heritage place and therefore significant both locally and to the wider public of Western Australia.

Stakeholder feedback in the community engagement project placed a high emphasis on this aspect of any future reactivation.

Meaningful heritage interpretation can be achieved in association with adaptive reuse; few industrial or commercial buildings will preserve the same original use indefinitely. Museum conversion is not the only way, or necessarily the best way, to conserve and interpret a heritage building long-term.

Heritage interpretation is typically defined as ‘all the ways of presenting the significance of an item. Interpretation may be a combination of the treatment and fabric of the item; the use of the item; the use of interpretive media, such as events, activities, signs and publications, or activities, but is not limited to these’.⁴ The goal of interpretation is to improve and enrich the visitor experience by helping visitors understand the significance of the place, and make connections with their own lives.

The Maylands Brickworks site has a diverse history in the period since European settlement, and offers considerable scope for both interpretation and museum activities.

Potential interpretation themes include:

- settlement of the site by the Methodist passengers onboard the Tranby (1830)
- purchase of the site by the Hardey brothers, and the creation of Peninsula Farm in the 1830’s
- creation of the 1885 Peninsula Brick Company to supply Wright and Patterson Construction with building supplies
- purchase of the Peninsula Brick Company by Mills & Sons for use as a pottery works, from 1905
- the construction and manufacturing process of the Maylands Brickworks from the 1920s to the 1980s.

The extent of remnant buildings and equipment creates opportunities, among them:

1. using the Pugmill as the museum and interpretation centrepiece of the site, taking advantage of the remnant equipment
2. potentially, restoring some of the brickmaking equipment in the Pugmill to working order
3. potentially, partially reactivating the historic rail line from the Pugmill to the former claypits area, and returning some of the original claypit rolling stock from Whiteman Park to the Brickworks
4. making the Brickworks experience appealing to children as well as adults, through interactive experiences such as these.

One small locomotive and several hoppers were relocated from Maylands Brickworks to Whiteman Park in 1983. The small locomotive remains in operation; one passenger carriage was restored to operational service in 2005 on a Maylands chassis; whilst two other hoppers are out of service and derelict in the Whiteman Park storage yard.

The infrastructure and former route of the Maylands Brickworks railway are illustrated in Figures 10-12 below.

⁴ NSW Heritage Office (2005), Interpreting Heritage Places and Items Guidelines, State of New South Wales, Sydney.



FIGURE 13: Maylands Brickworks South Brown Clay Pit, 19 March 1966, photograph taken by Weston Langford.



FIGURE 14: Maylands Brickworks, former tram line leading to the Pug Mill, 19 March 1966, photograph taken by Weston Langford.

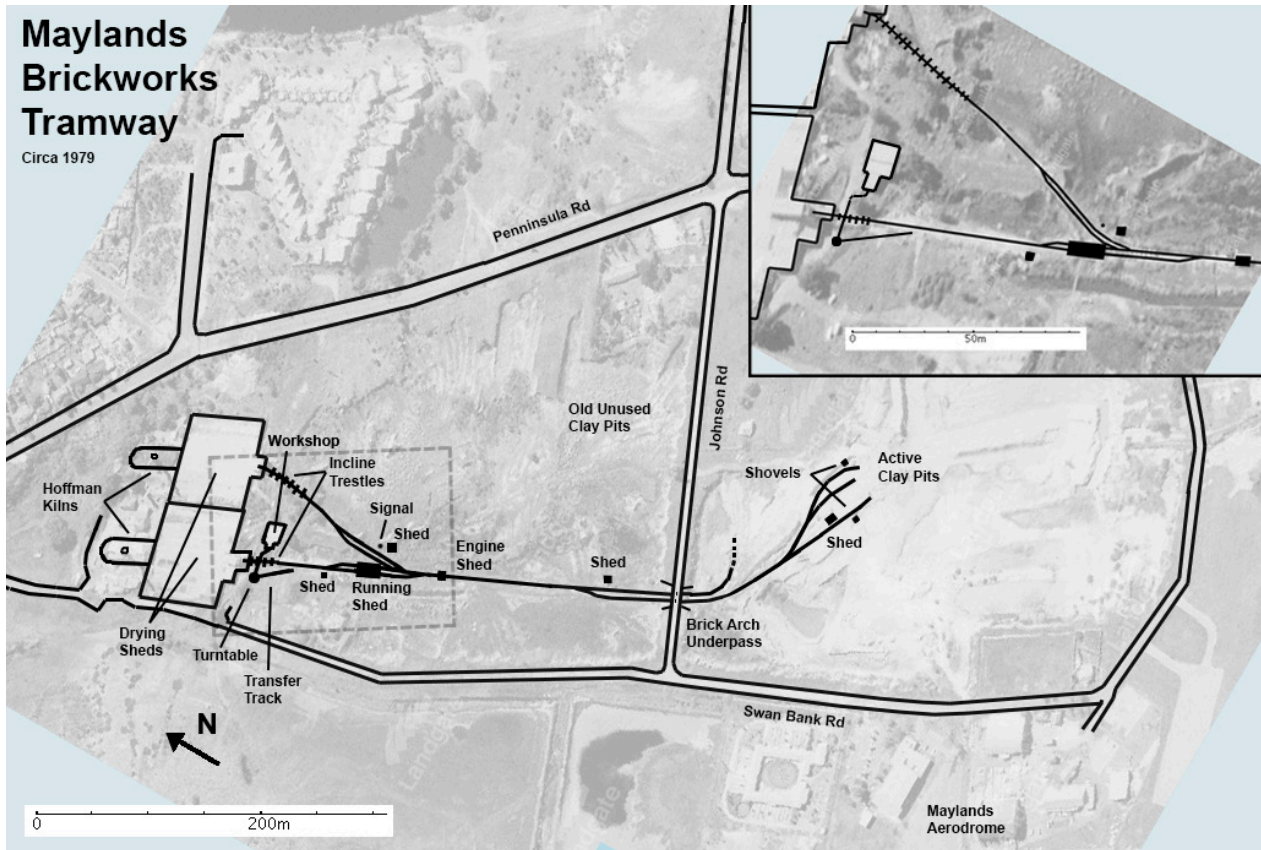


FIGURE 15: Map of the Brickworks in 1979, sourced from the Metropolitan Brickworks website.

A draft Maylands Brickworks Interpretation Plan is provided as a separate document, for illustrative purposes only. If the City decides to pursue the reactivation of the Brickworks, preparation of a more comprehensive plan should be considered.

6. CASE STUDIES/ BENCHMARKING

6.1 BENCHMARKING WITH COMPARABLE PLACES

Comparable places have been examined to ascertain the costs and challenges involved in establishing and operating such places, including:

- Local Government museums in WA including Armadale, Bunbury, Claremont and Subiaco
- Heathcote Hospital heritage precinct in Applecross, held by the City of Melville since 1999
- disused or adapted historic brickworks in Australia and internationally
- the Preston Grange Industrial Heritage Museum, owned by the East Lothian Council in Scotland, which is suggested as a suitable model by the Friends of Maylands Brickworks.

6.2 LOCAL GOVERNMENT MUSEUMS IN WA

Approximately 25 local museums are operated or sponsored by local governments in WA. They incur significant capital and operating expenses for their host local governments.

For example the City of Subiaco's local museum incurs annual operating costs between \$386,000 and \$425,000, and generates revenue of only \$2,300. Personnel costs cover 1 full time, 2 part time and 4 casual staff members (totalling approximately 2.5 FTE), plus volunteers.

The City of Armadale's History House and Bert Tyler Machinery Museum have combined operating costs of \$320,000 per annum, including personnel costs for one full-time curator, a 0.6 FTE education officer, and three casual paid staff; supplemented by 10 volunteers.

The Claremont museum is currently closed whilst a redevelopment is underway, including new toilets, carparking, gallery and storage space, and a café. In the past two years the Town has invested approximately \$700,000 of its own funds in the redevelopment, supplemented by a Lotterywest grant of \$760,000.

The Claremont museum is staffed by five part-time Museum professionals (2.8 FTE) including a Manager/Curator, two museum officers, an historian and two trained school teachers. Operating costs in 2017/18 were \$368,000 in total.

Generally the patronage of local museums is modest. For example the Claremont museum reports annual visitors of approximately 4,000, half of which are from school visits. The City of Cockburn's museum reports visitor numbers of approximately 6,000 per year of which 50% are from school visits, and 30% from seniors; a significant increase has been achieved since 2012 when visitor numbers were less than half the present level. The Subiaco Museum is open Tuesday to Friday from 1pm to 4pm and Saturdays from 10am to 2pm.

The City of Bunbury commissioned a feasibility study in 2012 regarding the establishment of a new local museum, examining multiple possible buildings and sites. As a result the City chose the Paisley Centre heritage building (the former Bunbury Boys School) as the venue. Capital investment in 2015-2016 was \$976,000 for building repair and upgrades, plus \$502,000 for museum design and fitout. The operating cost for the museum budgeted in the City Integrated Financial Plan May 2018, for 15 years from 2018 to 2032, is \$275,000 per annum.

Some of the respondents in the community engagement process advocated a more ambitious museum concept - more than a local museum - although the issue of financial feasibility was generally not addressed:

"Another idea is a State Indigenous Cultural Centre that would provide an authentic experience for local community and tourists alike...Perhaps State/Federal funding could be made available as it has the potential for increased tourism dollars" (Respondent #279).

The total floor area available in the Kiln, Drying Shed and Pugmill of 2,540 m² is large by the standards of local museums in Perth⁵. For example Cockburn's Azelia Ley Museum occupies 225 m², the City of Armadale's museums occupy 360 m² and 156 m² respectively, and the City of Subiaco Museum 140 m².

⁵ The figure of 2,540 m² assumes 860 m² of new floorspace is created on the upper floor of the Kiln. Without that new space, the total potential floorspace would be 1,680 m² (ie 410 m² within the Kiln arches at ground level, and 1,270 m² in the Drying Shed/Pugmill).

In conclusion, using the Maylands Brickworks exclusively or predominantly as a museum, appears likely to be an expensive exercise for the City of Bayswater. Initial capital expenses would be high due to the poor condition of the Brickwork buildings and the extent of adaptation required to make them fit-for-purpose (whereas some other local museums have been established in a venue requiring limited repair or adaptation). Subsequent operating costs would also be significant.

6.3 HEATHCOTE HOSPITAL HERITAGE PRECINCT, CITY OF MELVILLE

Heathcote Hospital (fmr) comprises a complex of heritage buildings dating from the late 1920s, vacated by the State Government in the 1990s. Occupying a spectacular site on the headland, Heathcote has four main buildings, a central clock tower, and some narrow open space facing the Swan River.

The City of Melville was granted possession of the site around 1997 but land title was only transferred in 2001 when a Heathcote Coordination Agreement was signed. The City was granted permanent use and management of the land and buildings, with the City and State Government contributing substantially to the cost of repairs, as follows:

- The City invested \$4.5 million of its own funds on repair and renovation in 1999
- The City invested another \$800,000 in 2003-2004 on base works at Canning House to support a new restaurant tenant (Blue Water Grill)
- The State Government refunded approximately \$4.2 million to the City between 2001 and 2004, drawing on proceeds from the sale of small Crown land parcels elsewhere in the City of Melville, plus sale of land and building on the western side for residential development.

The four main buildings have since been used primarily as a TAFE teaching facility, a day care centre, a restaurant, rented artists studios, and a small museum and gallery. Weddings, barbecues and well-managed market events are held in the outdoor areas, and a substantial childrens' playground has been built on the north-eastern side (one of the City's largest site investments costing over \$2 million).



FIGURE 16: Heathcote Hospital Museum & Gallery, Applecross, photograph taken by Scoop Online.

The City has sought to revitalise the site since 2016, believing it to be falling short of its full potential as a public asset. Two of the four main buildings are now vacant with TAFE and the child care facility having closed.

The City conducted a large visioning and place-making project in late 2016, followed by an invitation for Expressions of Interest in Leasing and Activation Opportunities. As a result a number of parties were short listed to occupy space at Heathcote in 2017. To date, the terms of the 2001 Coordination Agreement have stood in the way of a transition to new uses preferred by the City.

Operating costs presently incurred by the City total \$633,000 per annum, including salaries of about \$165,000. Costs are only partially offset by income from leases and room hire; the operating deficit is around \$390,000 per annum.

6.4 REACTIVATION OF HISTORIC BRICKWORKS IN AUSTRALIA & INTERNATIONALLY

Disused historic brickworks contain unusual industrial structures that do not lend themselves easily to reactivation.

The legacy of disused brickworks in Australia is largely a story of demolition, long-term disuse and dereliction, or in some cases unsympathetic adaptive reuse. Most of the brickworks built in the 19th or early 20th centuries in Australia have been demolished. There have been few if any genuine success stories in Australia.

Internationally, case studies can be found which are arguably more successful, such as the Don Valley Brickworks in Toronto. However in every known case, their success has relied on large public subsidies, at least in the initial capital investment phase.

Examples from Australia and overseas are listed below.

AUSTRALIAN PRECEDENTS

MAYLANDS BRICKWORKS - empty since 1983.

ASCOT KILNS (PERTH WA) – empty since 1982.

SYDNEY PARK ST. PETERS, NSW

Empty since 1970 and now disused within a corner of Sydney Park, St Peters. Remnant structures are essentially conserved as monuments by the City of Sydney, and represent a permanent repair and maintenance liability for the City. The remnant structures are 4 chimneys and 6 kilns of differing types and sizes, including one Hoffman kiln.

In the past four years, two substantial capital works projects have been carried out:

- In 2017 the City spent \$760,000 carrying out conservation works to two of the chimneys, including clearing vegetation from the mortar, repairing and reinforcing cracked bricks and mortar, rebuilding the top section of Chimney 4, installing new chimney capping to prevent water ingress, and other structural improvements.
- In 2014 the City spent \$800,000 to repair perished Kiln arches and install a waterproofing membrane at one of the kilns.

The City undertakes maintenance periodically but generally of a minor nature such as vegetation removal, checking drainage and structural integrity, checking of security barriers etc.

The interiors of the kilns are not publicly accessible, being closed-off at the kiln entry-points, for safety and security reasons. In recent years adaptive reuse of the kilns has been discussed by the City and local ratepayers, but not seriously entertained.

FIGURE 17: Sydney Park Chimney Towers, St. Peters, image sourced from Discover Sydney Differently..



YARRALUMLA BRICKWORKS, ACT

The original site occupies 49 hectares. In early 2015, the ACT Suburban Land Agency announced a large suburban development of 1800 homes leading from the brickworks towards Adelaide Avenue and the entrance to Government House, including eight-storey buildings. The proposal attracted opposition from local residents and the National Capital Authority and was effectively abandoned.⁶

The ACT Government then reduced the development site from 49 ha to 16 ha and building heights to a maximum of three storeys. A new tender process was launched.

In 2017, The Doma Group won the right to develop the site, with up to 380 new homes around the heritage buildings. Doma was chosen from five bidding companies. The former brick quarry will become “Quarry Park” with a small lake, and the railway remnants behind the site bordering the golf course will be open to the public. The development has yet to commence.

BRUNSWICK BRICKWORKS, VIC

Brunswick Brickworks (Melbourne) dates from the 1880's; production ceased in 1983 and the site was purchased by a developer in 1996. All of the Drying Sheds and claypits were replaced by infill housing and a park.

The two Hoffman Kilns were adapted for residential use around 2013; the upper levels contain apartments, whilst the lower level firing chambers, are either empty or contain storage cages for residents' use. Elsewhere on the site other buildings including a pottery have also been adapted for residential use. New buildings have been constructed for residential apartments or town houses, and a café has been constructed along the Dawson Street frontage as part of the new gatehouse building.



FIGURE 18: Aerial view of the Yarralumla Brickworks, Canberra, image provided by Wikimedia Commons.



FIGURE 19: Brunswick Brickworks, Melbourne, image provided by Google Maps.



FIGURE 20: Brunswick Brickworks, Melbourne, image provided by Google Maps.

⁶ See for example: www.canberratimes.com.au/national/act/doma-chosen-to-develop-yarralumla-brickworks-site-20170411-gvig71.html
See also: <https://suburbanland.act.gov.au/canberrabrickworks/>

WEST TORRENSVILLE BRICKWORKS, SA

Hallett Brickworks, West Torrensville – built in 1912 and vacant from 1975, the site was converted into a weekend market in 1983 after the 6.6 ha site was donated to the then Thebarton Council.

The market closed in 2013, and in the following year, 4.4 ha of the site was sold by the City of West Torrens to Woolworths for an undisclosed sum. The brickworks kiln is now on a remnant 2.2 ha site, incongruously positioned at the back of a Woolworths shopping centre carpark.

The City of West Torrens resolved in June 2017 to spend \$70,000 on a new masterplan for the site, having tried unsuccessfully since 2014 to find a private development partner to operate the brickworks for a commercial use.

In the meantime, the Council expended \$1.5 million in 2016-17 on the restoration of the 1912 chimney stack.⁷



FIGURE 21: West Torrensville Brickworks, image taken from the rear of a Woolworths carpark, provided by Google Maps, 2017.

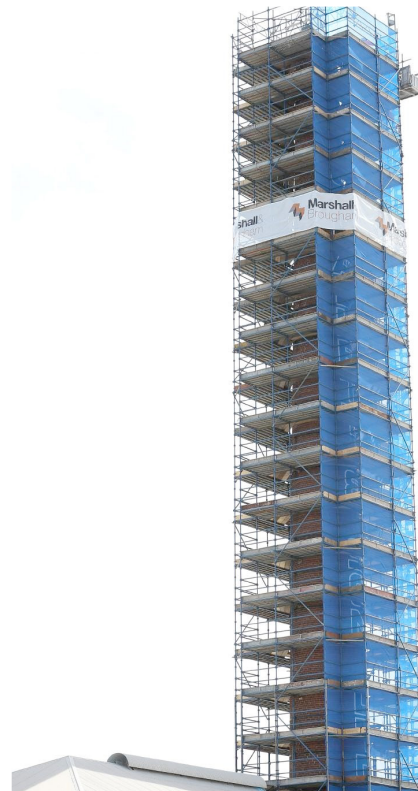


FIGURE 22: West Torrensville Brickworks, image showing chimney under repair, November 2016..

⁷ See for example: <https://www.weeklytimesnow.com.au/news/west-torrens-council-wants-better-deal-for-brickworks-land-sale/news-story/cf8ca4f45574c409e91a2f4fc51239a2>
See also: <https://www.adelaidenow.com.au/messenger/west-beaches/15m-has-been-spent-restoring-the-iconic-stack-at-the-brickworks-site-now-its-hope-new-business-will-move-in/news-story/7d308db6cda029ecf372ec270e41b9f9>

INTERNATIONAL PRECEDENTS

ZIEGELEIPARK BRICKWORKS, MILDENBURG, GERMANY

The former brickworks were built in the 1890s and now sit within a 58 ha park containing two Hoffman kilns, railways and engine workshops, and flooded clay pits that provide a wildlife haven. It's key uses are museums and exhibitions, nature/parkland, rail rides, events and functions including weddings, large events, conventions etc, and a holiday accommodation business.

The brickworks closed down in stages with the final year of operation being 1991.

The Ziegeleipark Brickworks is now owned by the municipal district of Brandenburg an der Havel, and operated in part by a not-for-profit corporation.

The initial capital investment to establish the facility was €20 million (around \$30 million AUS), provided mainly by the municipal district, supplemented by a loan from the state bank of Brandenburg, and a small contribution from commercial tenants.

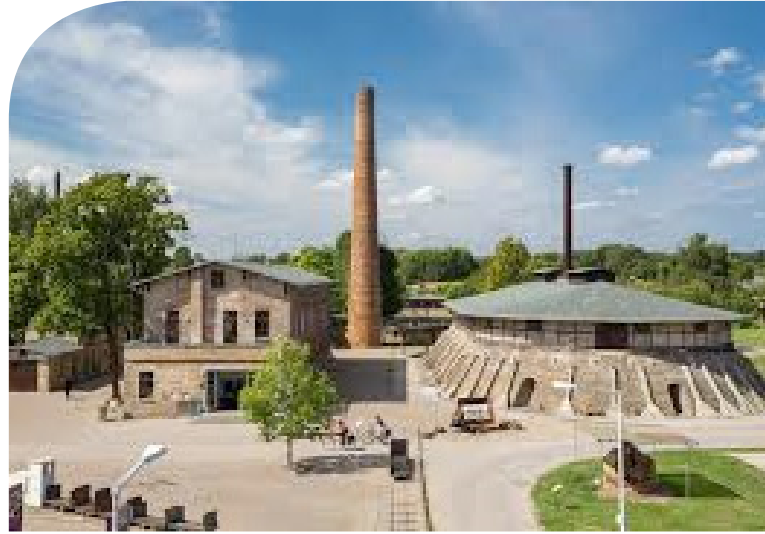


FIGURE 23: Ziegeleipark Brickworks, Mildenburg, Germany, 2017.



FIGURE 24: Ziegeleipark Brickworks railcar, Mildenburg, Germany,



FIGURE 25: Ziegeleipark Brickworks site, Mildenburg, Germany,

DON VALLEY BRICKWORKS, TORONTO

The former brickworks and quarry were established in 1889 and ceased operating in 1984.

The brickworks buildings have been converted for an office 'hub' inside the Kiln, a café/restaurant, gardens, children's play facilities, a farmers market, meeting rooms and event spaces; a 5-storey office building was constructed; and the former quarry was converted to a park with ponds/lakes.

The Toronto and Region Conservation Authority purchased the disused site in 1987 at a cost of \$14 million CAD, after the land had been zoned for residential development by a developer. Funds for the subsequent regeneration project were provided by the Canadian Federal Government (\$20 million), the Province of Ontario (\$10 million), and private sources (\$20 million). Construction began in November 2008, with the new facility opening in September 2010.

The not-for-profit corporation 'Evergreen' secured a peppercorn lease of the site in 2009 for a 21 year period expiring in 2030. The corporation's mission statement is "Inspiring action to green cities".

Evergreen is a substantial enterprise with national goals and a staff of over 100; the annual operating costs of the Don Valley Brickworks program alone are substantial, and on a different scale to anything that might eventuate at the Maylands Brickworks:

Table 10: Don Valley Brickworks Costs⁸

PROGRAM ITEM	EXPENDITURE
Salaries	\$2,208,917 CAD
Sales/ Services, etc.	\$3,011,219 CAD
Property Management	\$1,049,208 CAD
Communications & Marketing	\$288,054 CAD
TOTAL	\$6,557,408 CAD

Evergreen partially offsets costs with revenue from short-term facility rental, parking, workshops, camp, classes and retail sales.

⁸ See the Evergreen Annual 2016 Report and Financial Statements, at www.evergreen.ca/about/annual-reports.



FIGURE 26: External view of the Don Valley Brickworks, image provided by Jamie Sarner Online.



FIGURE 27: Internal view of the Don Valley Brickworks, image provided by Jamie Sarner Online.

**ZHUJIADIAN BRICKWORKS,
KUNSHAN, CHINA**

The City of Kunshan completed a project in 2017 to convert a disused historic brickworks into a local facility, and construct a small hotel/B&B on adjoining land.

The Brickworks Kiln ground floor was converted to a restaurant, bar and wine cellar; the first floor contains a museum exhibition area, a large meeting room and other function spaces. Within the former kiln firing-arches are bars, and rooms for conferences and lectures.

A contemporary addition was constructed at one end of the Kiln employing a continuation of the existing roof structure which gradually changes materials to form an obviously new outdoor balcony structure. The project architects made bold uses of transparent roof tiles for improved lighting and reduced weight, and modular internal partitioning.

The second phase of the project involved construction of a hotel/B&B to one side of the Kiln, comprising 10 small single buildings each with two rooms, echoing the architectural style of the local village.

Whilst the finances of the project are not known, it is worth noting the architectural methods used to adapt the building.



FIGURE 28: External view of the Zhujiadian Brickworks, image provided by Musarq, 2018.



FIGURE 29: External view of the Zhujiadian Brickworks, image provided by Musarq, 2018.



FIGURE 30: Internal view of the Zhujiadian Brickworks, image provided by ArchDaily Online.

BURSLEDON BRICKWORKS, SOUTHAMPTON, ENGLAND

The former brickworks and claypits were established in 1897 and closed in 1974.

The land is owned and managed by Bursledon Brickworks Museum Trust since 2015, having received a Heritage Lottery Fund grant in 2012 of £666,300 (approximately \$1.1 million AUS). The complex has been converted into a museum attraction with a café and venue hire. Bursledon Brickworks Museum Trust is a Private Limited Company-by-guarantee without share capital.

The museum collection includes the original brick making machinery, steam engine and related smaller equipment, such as barrows, shovels and wagons. The steam engine and machinery was restored in the late 1990s and is operated on special days.

It is open to the public from April to October, on Wednesdays, Thursdays and Sundays 11:00am to 4:00pm. Admission price for adults is £5.

The venue is run by four part-time paid staff assisted by 70 part-time volunteer staff. Annual operating costs are approximately £90,000 (c. \$160,000 AUS), met in part by donations and admission fees. The average annual operating deficit is £15,000 (c. \$27,000 AUS).

Visitor numbers are approximately 10,000 per year, including a significant number of seniors and grandparents bringing children.



FIGURE 31: External view of the Bursledon Brickworks, England, image provided by Hampshire Attractions..



FIGURE 32: Interior view of the Bursledon Brickworks machinery, image provided by Hampshire Attractions..

MUSEUM OF INDUSTRIAL HERITAGE, BOLOGNA

The Museum is located in a former brickworks known as Galotti Brickworks, built in 1887. The brickworks closed in 1966; the land and buildings were subsequently acquired and renovated by the City of Bologna in the 1980s, leading to establishment of the museum in 1997.

One floor of the museum focusses on the history of the Galotti Brickworks and brickmaking generally; others focus on the history of industrialisation in Bologna including the silk and automotive industries. Exhibition spaces in the Hoffman Kiln occupy a total area of some 3,000 m² on three floors with museum labels in Italian and English. A separate nearby building houses a temporary exhibition space, offices, the library and the archives.

The capital cost to the City of Bologna for the acquisition and repair of the Brickworks was 12 million euros (approx. \$19 million AUS).

The museum operates with 8 paid employees plus 7 external collaborators for teaching, plus 12 volunteers and other intermittent internees.

Operating costs including staff are approximately 1 million euros per annum (\$1.6 million AUS), to which ticket sales contribute about 20%; the City funds the rest with assistance from a Friends organisation.

On top of this the City has an annual building maintenance budget of approximately 100,000 euros (\$160,000 AUS).

Visitor numbers are approximately 30,000 per annum.⁹

⁹ Information supplied by email by Miriam Masini of the Museo del Patrimonio Industriale Bologna in October 2018. See also <https://www.inbologna.it/museum-of-industrial-heritage-bologna-museums.html>



FIGURE 33: The Kiln exterior, courtesy of 'Paura Non Abbiamo', a blog site devoted to the Bologna of the 1950s.



FIGURE 34: The Kiln interior, courtesy of 'Foursquare', a website providing advice on places to visit.

PRESTON GRANGE INDUSTRIAL HERITAGE MUSEUM, SCOTLAND

The former colliery includes a complex of remaining buildings dating from the 19th century. The colliery closed in 1962, after which a group of enthusiasts and volunteers worked to preserve the site and assemble museum exhibits, leading to the opening of the self-styled 'National Mining Museum' in 1984.

Its operation was taken over by the East Lothian Council in 1992.

Buildings and structures remaining on the site include a pit head winding frame, an engine house with a Cornish engine, powerhouse wagons, a crane, remnants of the railway and rolling stock, the miners' Bath-house, and a visitor centre. An old Hoffman Kiln is also extant but is dilapidated and unused, as is the Bath-house.

The site can be visited all year round but the Visitor Centre, exhibitions, café and other buildings are only open from April to September each year. The grounds are also used intermittently for local events, and theatrical performances.

Preston Grange Museum receives 6,500-7,000 visitors a year, of whom about 35% are children.

The annual operating budget inclusive of direct costs only is £46,000 pounds (approximately \$80,000 AUS), offset in part by annual sales revenue of £8,000. The budget covers front-of-house staff, running the shop and café, and contributing to the cost of events and exhibitions at the site. Additional staff support, education programs, collections management, promotion and site development are covered by a central budget attached to the East Lothian Council Museums Service (which operates six museums altogether).

Preston Grange has 1 permanent staff member, 4 seasonal staff and 2 casual staff, plus 10 volunteers. Additionally, the Councils' Museum Service has 4 members of staff with responsibilities at Preston Grange.

The East Lothian Council's capital budget included £640,000 for capital improvements in 2017/18 and 2018/19, and £55,000 of this was spent on producing a masterplan for the site, but the balance of the funds has been deferred several years until 2022/23.

The site has no programmed maintenance budget.⁹

⁹ Information provided via email by Kate Maynard, Team Manager- Museums, East Lothian Council, July 2018. See also:

- The museum's webpage at www.prestongrange.org/site/
- The Wikipedia webpage at https://en.wikipedia.org/wiki/Prestongrange_Museum
- East Lothian Council budget proposals 2016/17-2018/19 at www.eastlothian.gov.uk/download/meetings/id/17305/



FIGURE 35: Preston Grange Hoffman Kiln. Image courtesy of BikeLove Scotland..



FIGURE 36: Preston Grange, the Engine Shed. Image courtesy of Radiomuseum.org.

7. FINANCIAL ANALYSIS

7.1 VALUATION ADVICE

Valuation advice has been obtained from two licenced valuers regarding all of the reactivation concepts published in the Information Pack (concepts A, B and C/D), as to both the market value of land and buildings, and the potential to generate leasing income.

The valuations provided are adopted in the financial analysis synopsis in section 7.3 below. Key conclusions reached by the valuers include the following.

Regarding development of the southern carpark site for single residential, 21 lots for 2-3 storey dwellings:

“Yes this the predominant density in the Maylands locality and accordingly would be met with good market demand...Of the various scenarios we believe this ...to present the least risk in terms of saleability of the product and construction costs.” (PRP)

Regarding commercial leasing demand and income in this location:

“Catchment and exposure not significant enough to support both Clubhouse and separate café operation”...
“In our opinion [it] would expose the City of Bayswater to unnecessary risk of either extended vacancy and/or a failure of multiple tenants”.

“We note that the Kiln ground floorspace would [potentially] allow for a café/restaurant of 535m² (internal 410m² plus 125 m² alfresco)...A space of this size is [not] sustainable ...If any café space is to be considered, a tenancy size of circa 100m² plus alfresco should be considered.” (PRP)

Regarding function space within the Brickworks:

“Our research has revealed that the market for function space is saturated.

The more successful operations are evident where function spaces are an ancillary offering to a larger operation providing additional sources of revenue. For example, the redevelopment of the Wembley Golf club includes two function centres, combined with a restaurant, bar, mini golf etc.”

“If the Swan Bank Function Centre remains at its present location [but in new facilities from 2020]....this would likely compete directly and affect the viability of both businesses”. (PRP)

A tabulation of the advice appears at Appendix 4; the two valuers’ reports are available to the City in full.

7.2 LAND EXCHANGE OR LAND DISPOSAL CONCEPT

The possibility of a ‘land exchange’ or asset sale contribution was canvassed in the community engagement period involving rezoning and divestment of the land presently occupied by the southern carpark of the Maylands Golf Course. Any such exchange would ultimately require (among other things) the approval of the Minister for Lands.

Canvassed in the form of Concept B and Concept C, it involved the following main elements:

1. The land occupied by the southern carpark would be excised from Crown reserve 46177, and be rezoned for Residential use (5,500-6,100 m² of land).
2. That land parcel would be made available to the market, with some of the sale proceeds contributing to the cost of repairing and reactivating the Maylands Brickworks.

The value of the southern carpark site for development of single housing (~21 lots) was estimated by Preston Rowe Paterson, LMW Valuers and Landgate, the median assessed value being \$3.34 million.

However disposal of the land is not supported by the Minister for Lands and therefore Concept C can no longer be considered as a solution.

7.3 SUMMARY OF FINANCIAL ANALYSIS

The financial information available, including both capital and operating costs and income, supports the indicative analysis summarised in Table 11 below.

The analysis assumes that no external donors of substantial grant aid are available, at this stage.

Key conclusions arising from the financial information are as follows:

- Only one of the original reactivation concepts appear capable of being cost-neutral to the City – Concept A.
- Concept F involves the lowest capital outlay for the City of any alternative (other than the Do Nothing alternative), by activating a substantial private investment in the Kiln whilst retaining the Kiln as the City's own asset any asset sale
- Use of the Brickworks exclusively or predominantly as a Museum/Interpretation Centre appears to be the second-most expensive option for the City in capital costs, and the most expensive in operating costs. The funding deficit for capital investment alone is forecast at \$3.9 million.
- The primary obstacle to achieving an all-encompassing solution that is cost-neutral to the City of Bayswater appears to be high cost of restoring and adapting the Drying Shed; accordingly, the forecast deficit in Concepts D and E is very high, at around \$4 million.
- Should the City decide the Kiln should not be adapted as a golf course clubhouse, the potential for alternative commercial activation of the Brickworks appears to be limited. Commercial uses such as a new bar/restaurant, café, or function space in the Kiln or Drying Shed would be in direct competition with the golf clubhouse (ie. a clubhouse remaining west of Swan Bank Road), and would affect the viability of each venue.

Table 11: Financial analysis synopsis

	CAPITAL INVESTMENT				SOURCE OF CAPITAL				RECURRENT EXPENDITURE			RECURRENT EXPENDITURE	
	RESTORATION	ADAPTATION	PROJECT MANAGEMENT OVERHEAD	TOTAL	PRIVATE INVESTMENT	OTHER	TOTAL	SURPLUS/ DEFICIT	BUILDING MAINTENANCE	OTHER OPERATING COSTS	RATES RESIDENTIAL	LEASING INCOME	
	\$					\$				\$			
Concept A	2,628,000	3,510,000	491,000	6,629,000	1,810,000	5,000,000 Land Sale (Residential)	6,810,000	181,000	60,000	135,000	46,000	85,000	
Concept B	2,628,000	3,510,000	491,000	6,629,000	1,810,000	2,100,000	3,910,000	-2,719,000	60,000	135,000	40,000	85,000	
Concept C	2,628,000	5,040,000	613,000	8,281,000	4,000,000	1,500,000	5,500,000	-2,781,000	80,000	135,000	34,000	85,000	
Concept D	2,628,000	5,040,000	613,000	8,281,000	4,000,000	0	4,000,000	-4,281,000	80,000	135,000	0	85,000	
Concept 'E' (Museum use)	1,802,000	1,821,000	290,000	3,913,000	0	0	0	-3,913,000	80,000	275,000	0	0	
Concept 'F' (Kiln first)	1,660,000	3,340,000	400,000	5,400,000	4,000,000	1,400,000 TBD	5,500,000		80,000	0	34,000	0	

NOTES

1. Capital investment

All capital investment forecasts relate to the Brickwork buildings only; no estimates are given for new construction (which would be 100% privately funded, post sale).

2. Project Management overhead

Typically project management and professional services costs add 7-15% to building costs, depending on the scale and nature of the project. An 8% overhead is assumed here given the project sits in the \$5-10 million category.

3. Land Sale

In Concept A, the land for sale comprises 6 Built-Strata lots within the Kiln's 1st Floor, plus an englobo lot of 6,160 m2 behind the Kiln and Drying Shed.

Concept B also involves sale of 6 Built Strata lots within the Kiln, but the southern carpark land is sold instead of the land behind the Kiln & Drying Shed (the southern carpark site is Crown land).

Concept A produces a higher land-sale return for the City, since all of the land involved is wholly owned in freehold by the City.

In Concepts B and C/D, the land for sale comprises a single subdivisible lot of 5,511 m² zoned, allowing creation of 21 green titles, average lot size c. 250 m² (ie. the concept of developing a 4-storey apartment block with 68 strata units is put aside).

4. Sharing of proceeds of sale from the southern carpark lot

In Concepts B and C, the sharing of proceeds-of-sale from the southern carpark Crown land is assumed 50% to the City, 50% to the State Government. The value of the land is assumed at the middle point of the two valuers' estimates, ie. \$3.6 million.

5. Rates from future residential lots

Concept A: 6 units in the kiln plus 25 new units behind the Kiln; 31 dwellings, average GRV = \$25,000; rating @ 0.0600c per dollar; average annual rate income to the City = \$46,000.

Concept B: 6 units in the kiln plus 21 single units on the southern carpark site as per Concept C; behind the Kiln; 27 dwellings, average GRV = \$25,000; average annual rate income to the City = \$40,000.

Concept C: Single residential on the southern carpark site: 21 dwellings, average GRV = \$27,000; rating @ 0.0600c per dollar; average annual rate income to the City = \$34,000.

6. Commercial lease income to the City of Bayswater

Figures assume the City retains ownership of any floorspace to be used for a commercial purpose. Income projections are low in line with conservative valuation estimates, and derived from use of the Drying Shed, not the Kiln.

The figures exclude City's of Bayswater's income from of golf course fees via the present management agreement.

7. Building Maintenance

A lower figure is shown for Concepts A and B on the assumption that a contribution to building maintenance at the Kiln will be paid for by the private strata owners (as paid via strata levies and a Reserve Fund)

8. Operating costs

Operating costs are confined to the likely cost of operating a museum at the Brickworks. If no museum is established, these costs fall away.

Concept E involves use of both the Kiln and Drying Shed predominantly for museum purposes. It is assumed that operating overheads would be at least comparable in scope to the Armadale, Bunbury, Claremont or Subiaco museums. The lowest annual operating cost of those four museums is \$275,000 (the highest is \$425,000 per annum). The lower figure of \$275,000 is adopted.

Concepts A, B, C and D all assume a smaller museum operation occupying only the Pugmill and perhaps a small adjoining portion of the Drying Shed. Operating a smaller venue is assumed to carry a lower cost and \$135,000 is adopted (being 50% of the cost of the larger venue).

Operating costs for the City of Bayswater to hire out the Drying Shed as a function space and weekend markets are assumed to be nominal.

7.4 EXTERNAL GRANT AID

The possibility of finding external grant aid to contribute to the project's capital costs was raised by a number of respondents during the community engagement period.

The State Government's annual Heritage Grants Program (through the Heritage Council) does not provide grants for local governments. In any case the program is too small to contribute meaningfully to the capital costs at the Brickworks.

The Commonwealth Government does not presently have a heritage-related grants program.

However, a source that may be worth considering is the Lotterywest Grants Program, via the 'Community and Workplace Buildings' pathway:

"Community and workplace building grants can help develop spaces where people can come together to share interests, seek support, or carry out work for community organisations...[Including] Purchase of a building or, construction, fit-out and/or renovations to a building. This can be to house organisations delivering services to the community or providing community meeting places or to co-locate multiple community service organisations."

In this regard, Lotterywest made six grants for museum and interpretation projects in the 12 months from May 2017-May 2018, two of which were substantial grants to Local Governments:

- 'Interpretation of Gwalia Museum and Precinct', Shire of Leonora, \$679,485
- 'Redevelopment of the Freshwater Bay Museum', Town of Claremont, \$760,000.

In the same period, Lotterywest made twenty four grants for heritage projects, mostly small grants of \$10,000-\$20,000. One larger grant of \$102,000 was made for 'Ravensthorpe Community Centre

Conservation Works, for Community Uses'. Two small grants were made for repair and conservation of historic machinery (\$4,000 and \$14,000 each).

The City of Bayswater could consider exploring with Lotterywest the possibility of grant aid to reactivate the Drying Shed as a community venue (including museum, function, and market uses). This could be a way of reducing or overcoming the capital funding deficit for the Drying Sheds.

The minimum grant aid required would be about \$1.8 million in any scenario except Concept A, minus any surplus generated by the City from a land sale.

A grant application to Lotterywest would need to be supported by the following material:

What we need from you

- A completed Lotterywest grant application
- Two written quotes (or one quantity survey/architect's estimation)
- A feasibility study and business case for the proposed building option, including benefits of the proposed approach, and details of other options explored
- Approval from the land and/or building owners and relevant building approvals
- A community usage policy (outlining how community use will be managed), if applicable
- A project management plan (including risk management)
- A formal valuation of the property by a licensed valuer and a building report (outlining the condition of the building), if applicable
- Certificate of title, if applicable
- A memorandum of understanding for shared accommodation (outlining the arrangements for co-location), if applicable
- A minimum three-year management and operational plan including a budget (for requests more than \$100,000)

FIGURE 35: Extract from the Lotterywest grants website, June 2018.

8. PROJECT PRINCIPLES AND MULTI-CRITERIA ANALYSIS

A criticism made by one of the respondents during the community engagement period was that the project methodology was flawed in at least one major respect:

“Decision making selection criteria are narrow at best and myopic at worst. They do not lend themselves to multi-criteria assessment practices that would be usual...for this type of multi-faceted, multi-disciplined land use planning matter.”

Project principles and a set of suggested evaluation criteria were published in the Brickworks Information Pack in February 2018, as follows:

PROJECT PRINCIPLES

1. As a heritage place, the Brickworks should be reactivated, not left permanently vacant and unused.
2. Reactivation of the Brickworks should complement and enhance the use and enjoyment of adjacent recreational open space including the lakes and golf course.
3. If a substantial public investment is necessary to achieve reactivation of the Brickworks, the solution should generate an economic return to offset the reactivation costs and ongoing maintenance costs.

CONCEPT EVALUATION CRITERIA

Heritage Impact

Extent to which the fabric of the Kiln and Drying Sheds would be conserved, consistent with the Brickworks Conservation Plan.

Likely longevity of building reuse, adaptation and fitout (ie ‘sustainability’ as opposed to frequent change and intervention).

Financial feasibility

Extent to which an economic return could be generated sufficient to offset the initial investment required for reactivation.

Likely financial capacity of building users to contribute to the long-term cost of repair and maintenance.

Planning and Amenity

Extent to which reactivation would complement and enhance the use and enjoyment of adjacent recreational open space including the lakes and golf course.

Compatibility of land use with neighbours (eg nearby residents, and the golf course operator).

If the City considers it desirable, these objectives could be reviewed, expanded, or indeed replaced entirely, de novo. However the nature of the Kiln and Drying Shed buildings, valuation advice, and the responses received during the community engagement, suggest that in reality the range of achievable objectives and solutions for the Brickworks is limited.

For the sake of comparison, the objectives adopted in early 2016 for the Yarralumla Brickworks by the ACT Suburban Land Agency, following community engagement, are reproduced at Appendix 5. That project is still to achieve a result.

9. PROJECT DELIVERY

Reactivation of the Brickworks under any scenario will be a complex project, involving further feasibility analysis, a number of design and construction tasks, coordination of multiple land owners or tenants and so on.

This may be best delivered by an experienced project management firm, acting for the City of Bayswater.

The financial analysis synopsis in section 7.3 includes an allowance for the cost of Project Management and other professional services, over and above building costs: priced indicatively as an 8% overhead.

It may be that the extent of this overhead can be contained by the contribution of personnel resources by the City and the Department. For example, it's possible that design, documentation and supervision services for repair/conservation work at the Brickworks could be provided by the Department's Heritage Works branch.

The outsourcing of Project Management was the approach employed by the Town of Cambridge in delivering the third and final stage of its Wembley Golf Course Redevelopment in 2014-16. The Town of Cambridge made the decision to appoint NS Projects as both Project Manager and Works Superintendent, in preference to in-house project management by Council staff (as occurred previously in stage 2). NS Projects' total fee was approximately \$1 million (8% of the cost of works).

The Wembley Golf Course Redevelopment offers an interesting case study for comparison with the Brickworks reactivation project. A history of the Town of Cambridge's Wembley project is provided at Appendix 6.

10. CONCLUSIONS

It remains apparent that the Maylands Brickworks, if repaired and reactivated, has the potential to become a very special place for the residents of the City of Bayswater, and for a wider public.

To achieve that end, a range of possible solutions have been investigated and tested. The reactivation concepts published in February 2018 have been revised and enhanced. The key findings are as follows.

FINANCIAL FEASIBILITY

Capital costs

Finding 1

There appears to be only one reactivation concept that would be cost-neutral or better to the City of Bayswater and therefore fully consistent with the project brief, that being described in Concept A:

Concept A generates a predicted financial surplus of \$181,000 for the City (or better, if the higher of the two valuations were realised - up to \$800,000)

Concept A involves residential development of freehold land owned by the City on the eastern side of the Kiln and Drying Shed (consistent with its present zoning).. However the support for this concept expressed in the community engagement period was low.

Finding 2

Concept F is the second best alternative financially, leaving the City to finance approximately 25% of project costs. It relies on staging the Brickworks' reactivation, to achieve the repair and reactivation of the Kiln, deferring the Drying Shed to another project which would be dependent on obtaining external grant aid.

Recurrent costs

Finding 3

Concepts A and F are the most cost-neutral of the concepts; they are forecast to generate Nil or negligible net operating costs for the City.

Finding 4

Building maintenance costs of at least \$60,000-\$80,000 per annum are projected for all options, and arguably this liability exists whether or not the buildings are reactivated (eg. as a contingent liability).

Finding 5

Whilst the 'Do Nothing' option has not been actively considered in this investigation, selection of that option is likely to lead to either:

1. higher costs long-term for the City due to accelerating repair and maintenance requirements, or
2. the loss of the Kiln or Drying Shed through demolition-by-neglect.

Other financial considerations

Finding 6

The primary obstacle to achieving an outcome that is cost-neutral to the City of Bayswater appears to be the high cost of restoring and adapting the Drying Shed. For this reason it is suggested that repair and reactivation of the Kiln and Drying Shed buildings are best managed in stages, rather than as one project/one solution that attempts to be 'all-encompassing'.

Finding 7

Should the City decide the Kiln should not be adapted as a golf course clubhouse, the potential for alternative commercial activation of the Brickworks appears to be limited. Commercial uses such as a new bar/ restaurant, café, or function space in the Kiln or Drying Shed would be in direct competition with the golf clubhouse (ie. a clubhouse remaining west of Swan Bank Road), and would affect the viability of each venue.

Finding 8

Use of the Brickworks exclusively or predominantly as a Museum/Interpretation Centre appears to be the second-most expensive option for the City in terms of capital costs (\$3.9 million), and the most expensive in operating costs.

Conversely: the whole precinct has high potential for heritage interpretation regardless of its future use, as explained in section 5 of this report. Use of the Pugmill as a museum and heritage interpretation centrepiece for the site is recommended in this report, as a longer-term aspiration and strategy (see section 5).

Heritage Impact

Finding 9

Any reactivation of the site will involve some degree of impact on the significant fabric of the two buildings. That has to be weighed against the likelihood of insufficient funds being available for initial restoration, and then for permanent maintenance.

Finding 10

Concept E, Museum/Heritage Interpretation appears likely to have the lowest initial impact in terms of alteration/ adaptation of building fabric. Conversely it requires a high level of subsidy and is not a strong candidate on sustainability grounds.

Finding 11

The other concepts appear to have low-to-moderate impacts on the building fabric consistent with the Maylands Brickworks Conservation Management Plan (albeit higher than Concept E). They generate income from active uses, and hence are stronger candidates on sustainability grounds.

Planning and Amenity

Finding 12

The adaption of the Kiln for a relocated golf course clubhouse apparently enjoys a degree of local support, but other uses of the Drying Shed are preferred. 54% of respondents expressed 'Support' for the clubhouse use, 28% expressed 'Oppose'.

The adaptation of the Kiln building for a golf course clubhouse encompasses the café and bar/restaurant uses, which appear to enjoy local support.

Finding 13

The most-supported uses for the Drying Shed among local residents appear to be:

- Events space (weddings, art exhibitions, and other community-based activities)
- Weekend markets
- Museum/Interpretation Centre.

The signed Petition lodged at the City of Bayswater on 16th March and 12th June 2018 by Warren Lance of 21 Watervista Place (as promoter of the petition) advocated that the Brickworks should be used:

'As a community space ...to meet community needs as a potential museum, historical interpretation centre, art centre etc'.

Finding 14

Residential development at the site, if supported by the City as a means of funding the reactivation of the Brickworks, appears to enjoy a low level of local support if located on the eastern side of the Kiln and Drying Shed (as envisaged in Concept A).

Project Management

Finding 15

Reactivation of the Brickworks under any scenario will be a complex project, involving further feasibility analysis, a number of design and construction tasks, coordination of multiple land owners or tenants, and so on.

This may be best delivered by an experienced project management firm, acting for the City of Bayswater. Alternatively, PM overheads could be contained by sharing in-house project management between the City, golf course operator and even the Heritage Works branch in the Department.

Funding Sources

Finding 16

At this time, the only known means of funding the capital costs of the project are:

- capital investment in the Kiln by the golf course operator
- capital investment by the City of Bayswater
- sale of land for residential development behind the Kiln and Drying Shed (the latter being City-owned land and already appropriately zoned).

Finding 17

The possibility of external grant aid being found to underwrite the project's capital costs was raised by a number of respondents during the community engagement process, but realistically, opportunities for raising all of the necessary funds in this way may be limited.

The minimum grant aid required would be about \$1.8 million in any scenario, while to fully-fund Concept E (Museum and Art Centre) would require about \$3.9 million in grant aid.

One source that may be worth pursuing is the Lotterywest Grants Program, via the 'Community and Workplace Buildings' pathway. The City of Bayswater could consider exploring the possibility of grant aid to reactivate the Drying Shed as a community venue.

11. RECOMMENDATIONS

It is recommended that:

1. The City supports Concept F as the most beneficial of the options investigated, weighed against the concept evaluation criteria published in February 2018 (under the headings 'Heritage Impact', 'Financial Feasibility', and 'Planning/Amenity').
2. If Concept F is supported by the City, then the Department and the City should collaborate to prepare a final Business Case and Project Plan , to include among other things:
 - (a) further design of building adaptation, landscaping, traffic management and pedestrian movement
 - (b) financing, scheduling and other project delivery issues.
3. The City considers approaching Lotterywest to discuss possible grant aid for the restoration and adaptation of the Drying Shed.
4. Additional community consultation be considered after completion of the final Business Case, the timing and method to be determined by the City.
5. If Concept F is not supported, the City gives consideration to whether:
 - (a) another option is preferable to achieve reactivation of the Brickworks, or
 - (b) the project should be terminated.

RESTORATION & ADAPTATION COSTS: ALL INCLUSIVE

RESTORATION

KILN	COST
Install new timber floor to 1st Floor	\$331,000
Brickwork repairs (replace damaged brickwork, repair pointing including rake-out of intrusive cement mortar)	\$178,000
Perimeter improvements: re-grade and install new paving	\$79,000
Plasterboard lining to 1st Floor ceiling on the rake (trusses exposed)	\$79,000
Plasterboard wall lining in select locations to achieve energy efficiency	\$43,000
Install doors to arched tunnel entrances and glazing to upper floor windows	\$70,000
Clean & trim timber & steel roof beams, battens etc	\$58,000
Perimeter breathing strip (draincoil, filter fabric & pea gravel)	\$34,000
Termite treatment	\$35,000
Other	\$178,000
SUB-TOTAL	\$1,085,000
Builders Preliminaries	\$187,000
Scaffolding	\$83,000
Contingencies (design & construction) @ c. 20%	\$305,000
SUB-TOTAL	\$575,000
TOTAL KILN RESTORATION	\$1,660,000

DRYING SHED	COST
Remove existing roof and prop structure for repair	\$49,000
New roof timbers, sheeting and gutters	\$157,000
Remove timber stalls, steel rails, electrical fittings and temporary bracing	\$76,000
New floor (brickpaving)	\$157,000
Termite treatment	\$23,000
Perimeter breathing strip (draincoil, filter fabric & pea gravel)	\$18,000
Other	\$71,000
PUGMILL	
Termite treatment	\$35,000
Clean and paint steel structure	\$178,000
WORKSHOP (OPTIONAL)	
Repair windows, clean and paint steel frame, replace roof and wall cladding, improve drainage etc	\$0
GATEHOUSE & CHANGING ROOMS	
Minor repair works	\$20,000
SUB-TOTAL	\$672,000
Builders Preliminaries	\$97,000
Scaffolding	\$43,000
Contingencies (design & construction) @ c. 20%	\$157,000
SUB-TOTAL	\$296,000
TOTAL DRYING SHED RESTORATION	\$968,000

ADAPTATION

KILN	COST
Create multiple function spaces on the Kiln 1st Floor including sliding doors	\$901,000
Establish toilets, showers and change rooms on the Kiln ground and upper floors	\$448,000
Create an outdoor dining deck on the west face of the Kiln	\$418,000
Create a food preparation/coolroom area on the Kiln ground floor	\$343,000
Create a bar, restaurant and kitchen on the Kiln 1st Floor	\$289,000
Install a lift to the Kiln 1st Floor	\$200,000
Create a café on ground floor	\$111,000
Create a reception/office on ground floor	\$61,000
Form opening in external wall to connect to outdoor dining deck	\$49,000
Other	\$59,000
SUB-TOTAL	\$2,879,000
Builders Preliminaries	\$165,000
Contingencies (design & construction) @ c. 10%	\$297,000
SUB-TOTAL	\$462,000
TOTAL	\$3,341,000

DRYING SHED INCLUDING PUGMILL	COST
Create function spaces in the Drying Shed including sliding partition screens to segment of the space as required	\$794,000
Install a glazed bi-fold door system around the Drying Shed to allow the building to be used as a flexible indoor/outdoor space	\$322,000
Create a bar area in Drying Shed OR Museum adaptation of Pugmill including ramp repair, safety barriers etc	\$212,000
Create services and amenities OR machinery repair & installation, and museum fitout in the Pugmill	\$133,000
SUB-TOTAL	\$1,462,000
Builders Preliminaries	\$85,000
Contingencies (design & construction) @ c. 10%	\$153,000
SUB-TOTAL	\$238,000
TOTAL	\$1,700,000

MAINTENANCE COSTS

MAINTENANCE REQUIREMENTS

A 10 Year Maintenance Schedule is contained in the Maylands Brickworks Conservation Plan and has been provisionally costed with the assistance of a quantity surveyor.

The schedule assumes a starting point of a restored Kiln and Drying Shed, rather than maintenance of structures in their present state of deterioration.

Costs in the lowest-cost year of the 10 year period are shown below. In other years, forecast costs are far higher, inclusive for example of:

- Painting on a 7 year cycle (\$35,000 in year 7)
- Structural inspections and repairs to brickwork (\$25,000 per annum from year 4)
- Scaffolding requirements in some years (up to \$25,000, forecast in three of the 10 years)
- Cost escalation at 2.5% per annum

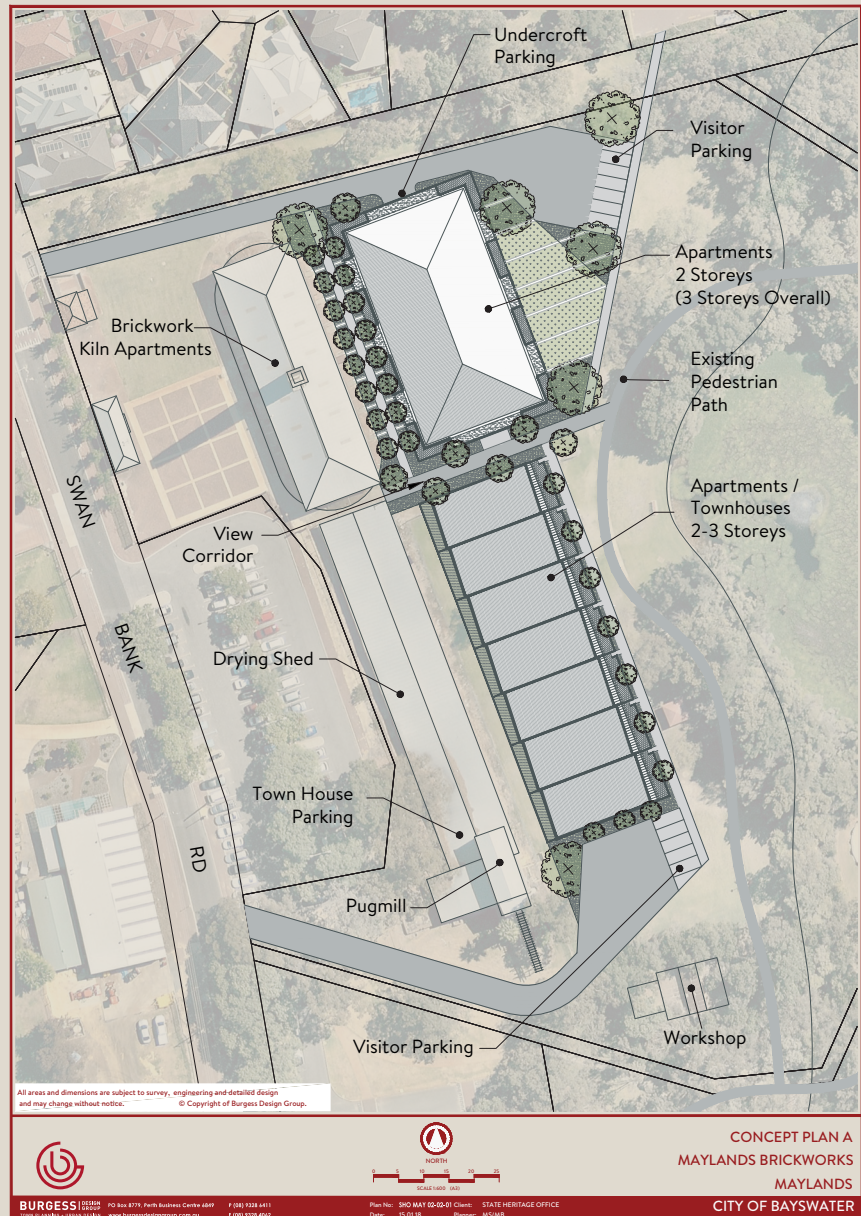
PERIODIC MAINTENANCE	COST
WEEKLY	
Report defects	\$5,200
Check fire fighting equipment	\$2,600
Check windows doors and locks	included
Replace defective light bulbs and electrical faults	\$3,600
QUARTERLY	
Termite and vermin inspection	\$4,000
Inspect roofs and rainwater disposal	\$6,000
Check electrical installations	\$2,000
Check plumbing services	\$2,000
Clean light fittings	\$1,200
Repair joinery and paint defects, clean windows	\$6,000
Check doors for locking and means of escape	\$1,200
ANNUALLY	
Inspect structure for cracks and other failures	\$3,000
Rod all rainwater and soil drainage systems	
Check and oil door and window locks	
Allowance for ongoing repairs to kiln brickwork	
7 YEAR CYCLE	
External painting	
Internal painting	

ON-COSTS	
Preliminaries	\$6,200
Scaffolding	
Contingencies	\$13,600
Escalation (2.5% pa)	\$7,000
GST	\$8,900
TOTAL	\$97,500

CONCEPT A: RESIDENTIAL/MIXED USE ADAPTATION OF THE BRICKWORKS, PLUS NEW RESIDENTIAL ALONGSIDE (EAST SIDE)

KEY FEATURES:

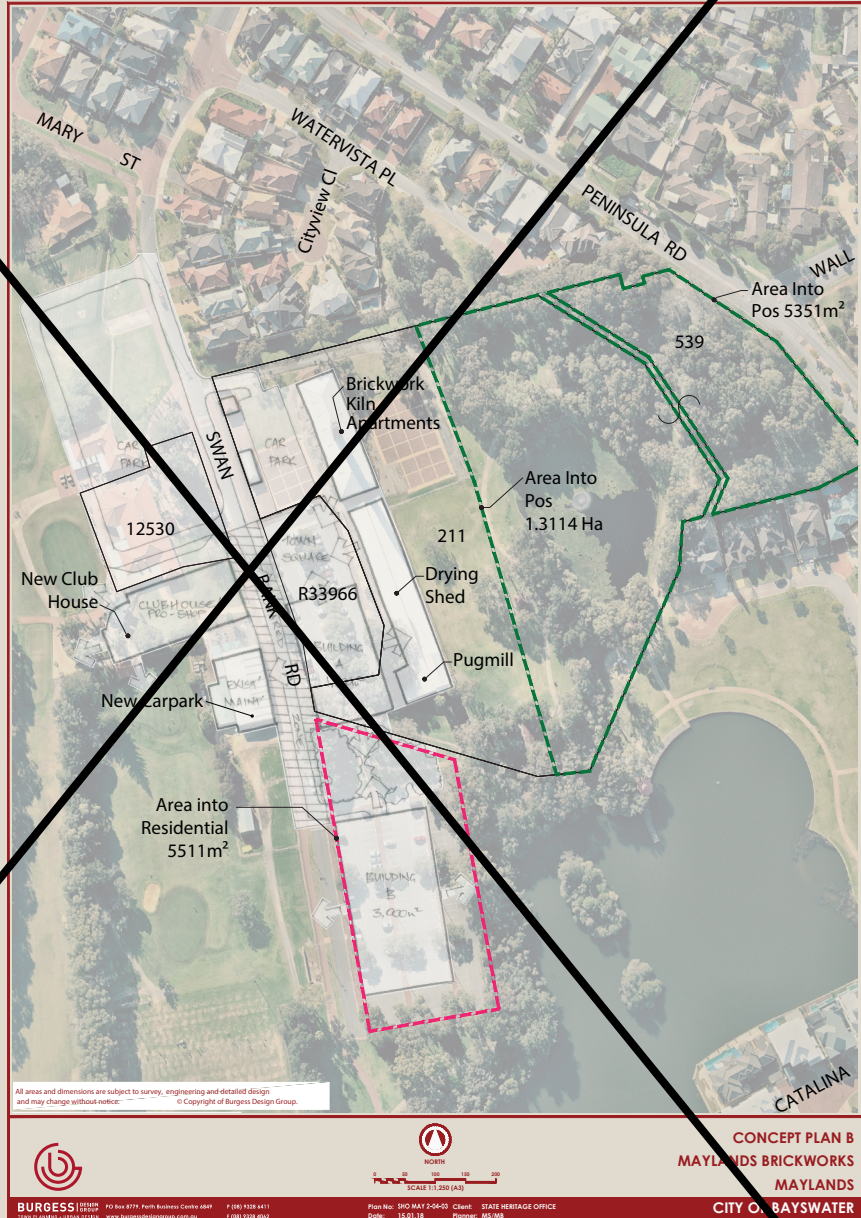
- Kiln used for (a) 6 apartments on first floor and (b) small commercial tenancies in the ground floor arches.
- Drying Shed partially enclosed with glazing as an indoor/outdoor space for mixed uses such as function centre, weekend markets, café.
- Pugmill – possible interpretation centre and children's playground (longer term prospect).
- Residential buildings developed behind (east) the Kiln and Drying Sheds - two buildings of 2 or 3 storeys.
- Number of new dwellings: 20-30 dwellings.
- Permeability and fencing: Fencing removed from west (golf course) side of the Kiln and Drying Shed; new perimeter fencing installed around eastern, north and southern sides of the residential buildings.
- All development self-contained on Lot 211.



CONCEPT A

KEY FEATURES:

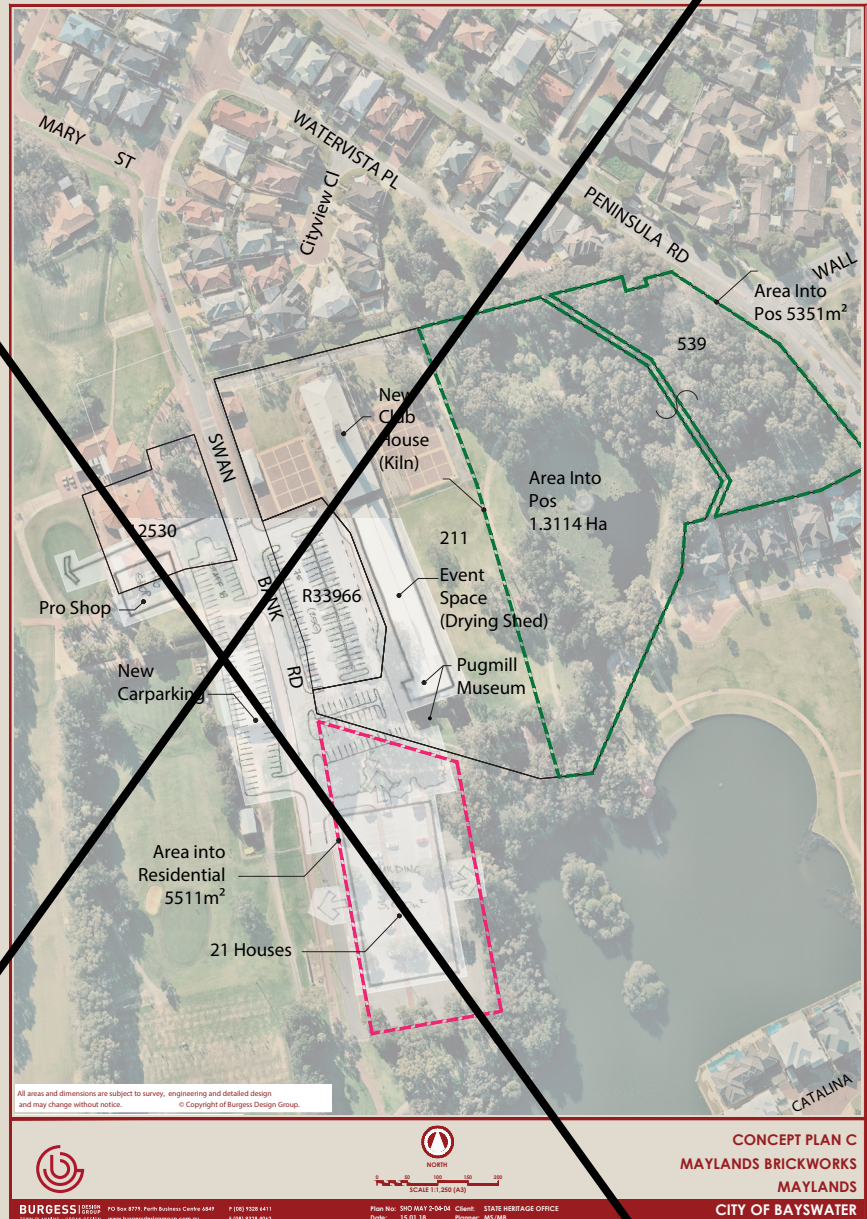
- Kiln used for (a) Apartments on first floor and (b) storage.
- Drying Shed partially enclosed with glazing as an indoor/outdoor space for mixed uses such as function centre, weekend markets, café; portion of shed possibly reserved for parking of Kiln occupiers.
- Pugmill – possible interpretation centre and children's playground (longer term prospect).
- Residential—development on the southern carpark—single residential, 21 lots of c.250m²—
- Number of new dwellings: 21 dwellings, 2-3 storeys.
- Carparking shifted to west side of Swan Bank Road.
- Permeability and Fencing: all fencing removed from around the Kiln and Drying Shed, allowing unrestricted movement between lakes, Brickworks and golf course.
- Brickworks Lake and Lot 539 facing Peninsula rezoned to Public Open Space (instead of Medium and High Residential R40).



CONCEPT C: GOLF COURSE CLUBHOUSE AND RECREATIONAL ADAPTATION OF THE BRICKWORKS, PLUS NEW RESIDENTIAL ON SOUTHERN CARPARK SITE

KEY FEATURES:

- Kiln used for relocated Golf Course Clubhouse.
- Drying Shed partially enclosed with glazing as an indoor/outdoor space for mixed uses including tents space, weekend markets, and other civic uses determined by the City.
- Existing clubhouse building demolished except for a renovated pro-shop and kiosk.
- Pugmill – possible museum and interpretation centre with reactivated railway.
- New urban square created on west forecourt of the Kiln building.
- Residential – development on the southern carpark – single residential, 21 lots of c. 250m².
- Number of new dwellings: 21 dwellings, 2-3 storeys.
- Permeability and fencing: all fencing removed from around the Kiln and Drying Shed, allowing unrestricted movement between lakes, Brickworks and golf course.
- Wedding garden located to the east of the Pugmill.
- Brickworks Lake and Lot 539 facing Peninsula rezoned to Public Open Space (instead of current Medium and High Density Residential R40 zoning).

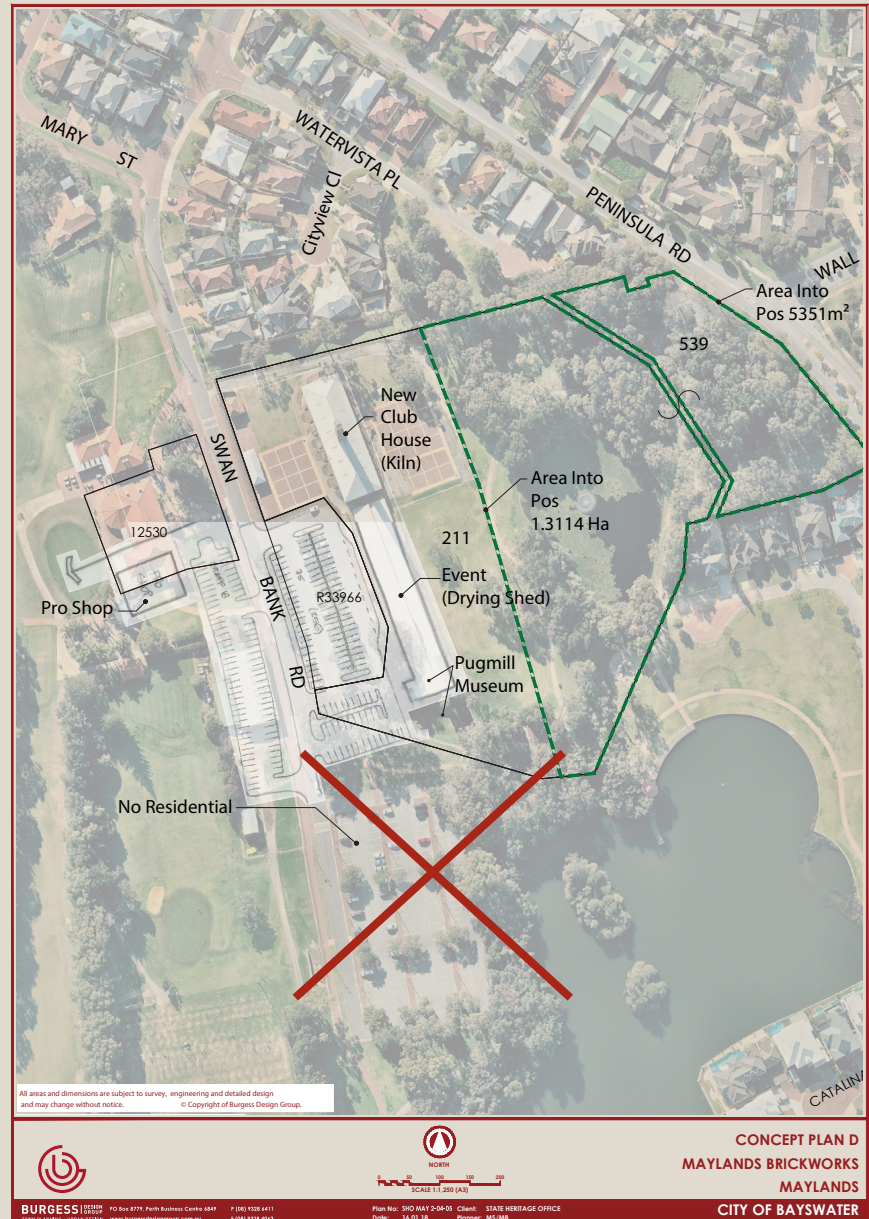


CONCEPT C

CONCEPT D: GOLF COURSE CLUBHOUSE AND RECREATIONAL ADAPTATION OF THE BRICKWORKS, WITHOUT NEW RESIDENTIAL ON SOUTHERN CARPARK SITE

KEY FEATURES:

- Kiln used for relocated Golf Course Clubhouse.
- Drying Shed partially enclosed with glazing as an indoor/outdoor space for mixed uses including event space, weekend markets, and other civic uses determined by the City.
- Existing clubhouse building demolished except for a renovated pro-shop/ kiosk.
- Pugmill – possible museum and interpretation centre with residential railway.
- New urban square created on west forecourt of the Kiln building.
- Permeability and fencing: all fencing removed from around the Kiln and Drying Shed, allowing unrestricted people - movement between lakes, Brickworks and golf course.
- Wedding garden added to east of Pugmill.
- Brickworks Lake and Lot 539 facing Peninsula rezoned to Public Open Space (instead of Residential R40).

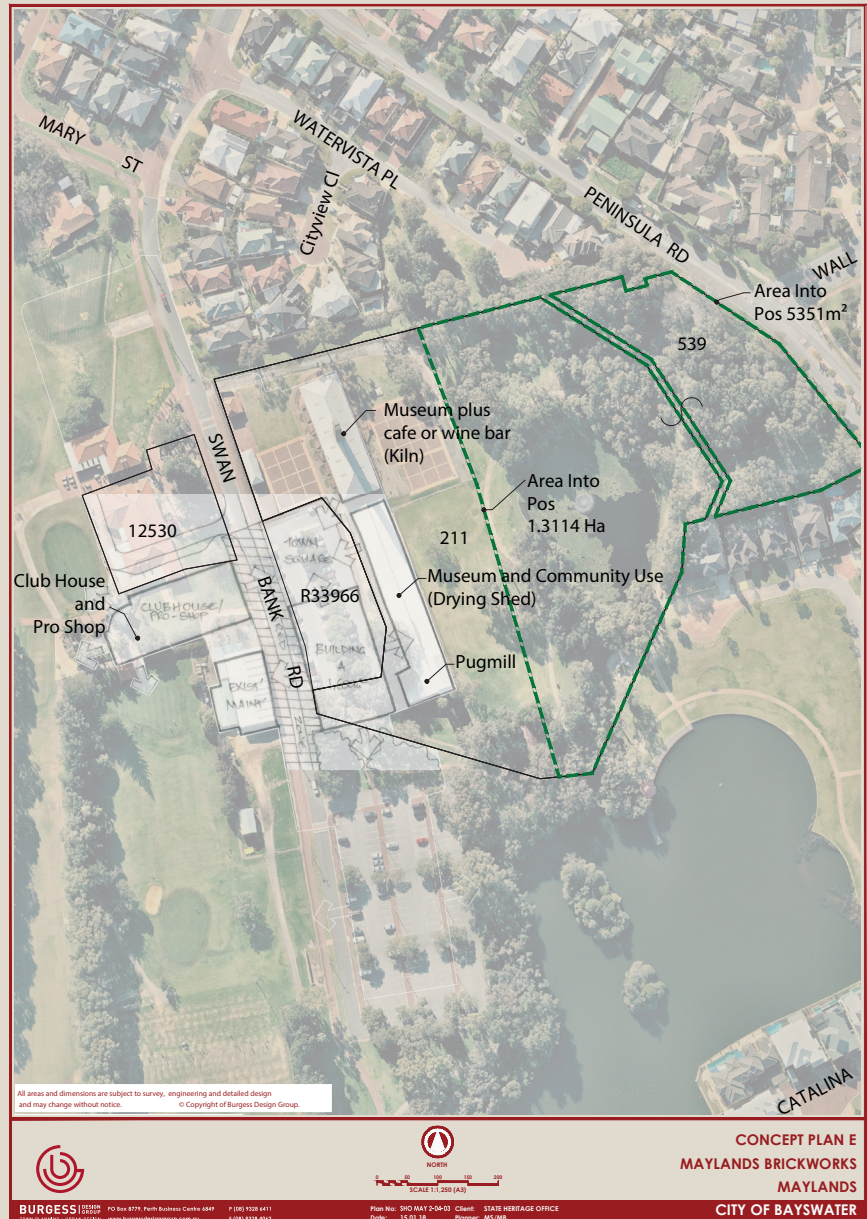


CONCEPT D

CONCEPT E: MUSEUM & INTERP. CENTRE ADAPTATION OF THE BRICKWORKS, WITH COMMERCIAL ACTIVATION LIMITED TO KILN CAFE OR WINE BAR, WITHOUT NEW RESIDENTIAL ON SOUTHERN CARPARK SITE

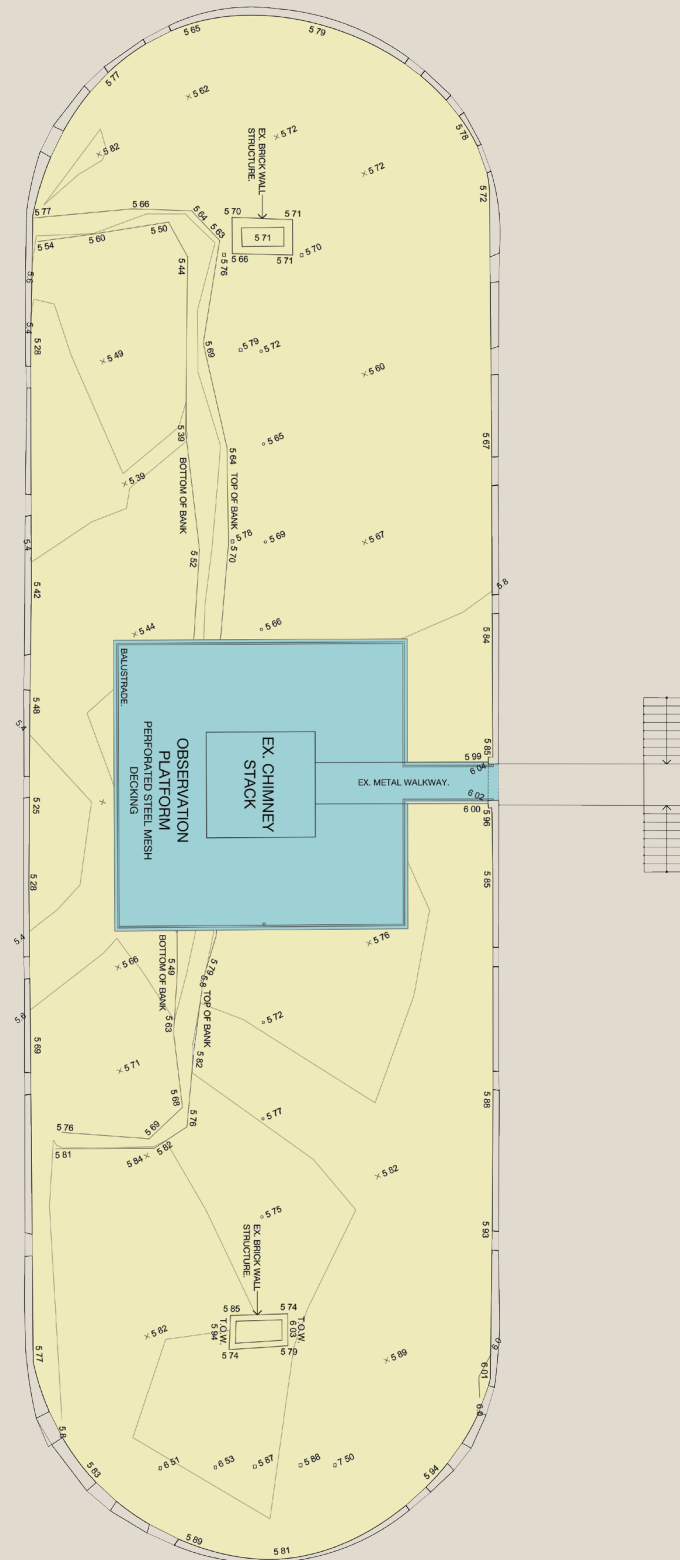
KEY FEATURES:

- Kiln used for Museum.
- No new timber floor in upper level of kiln.
- Drying Shed partially enclosed with glazing as an indoor/outdoor space for museum and community uses.
- Existing Locker Room building converted to a public bathroom facility.
- Pugmill – possible interpretation centre.
- Wedding garden located to the east of the Pug Mill.
- Continued fencing of the site likely to be required, at least around the Drying Shed (to prevent squatting).



CONCEPT E

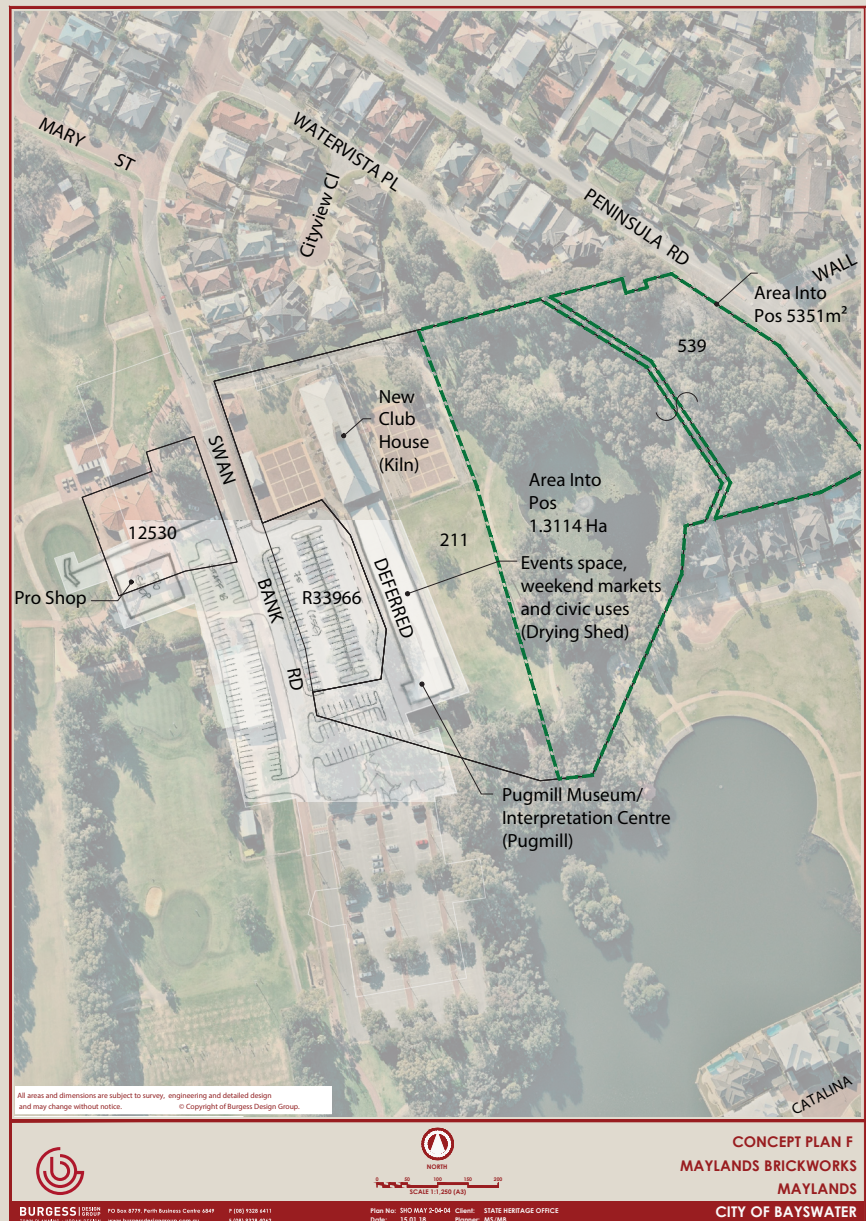




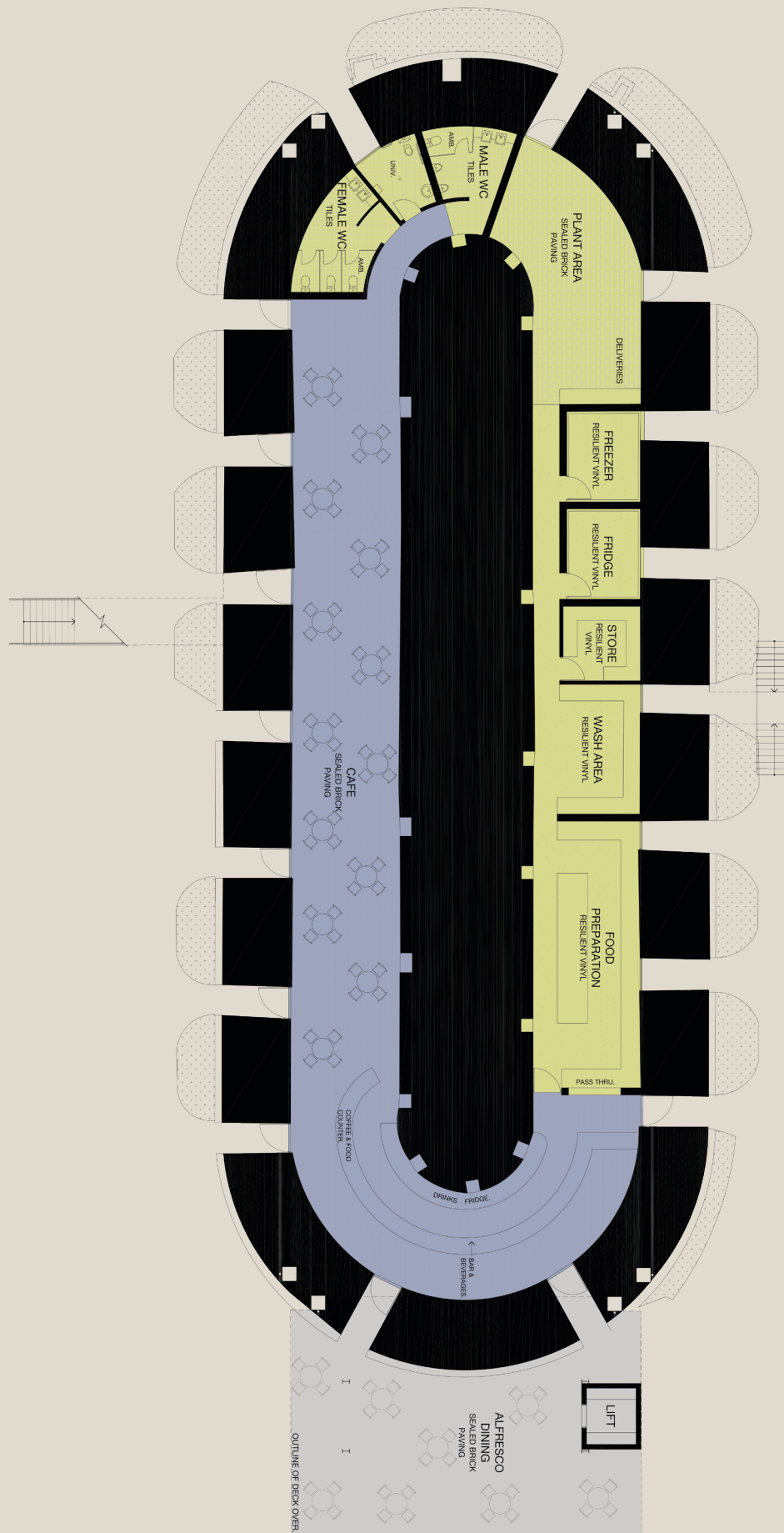
CONCEPT F: GOLF COURSE CLUBHOUSE ADAPTATION OF THE BRICKWORKS KILN. WORKS TO PUGMILL/ DRYING SHED DEFERRED

KEY FEATURES:

- Kiln used for relocated Golf Course Clubhouse.
- Existing clubhouse building demolished except for a renovated pro-shop and kiosk.
- New urban square created on west forecourt of the Kiln building.
- Permeability and fencing: all fencing removed from around the Kiln, allowing unrestricted movement between lakes, Brickworks and golf course.
- Brickworks Lake and Lot 539 facing Peninsula rezoned to Public Open Space (instead of current Medium and High Density Residential R40 zoning).

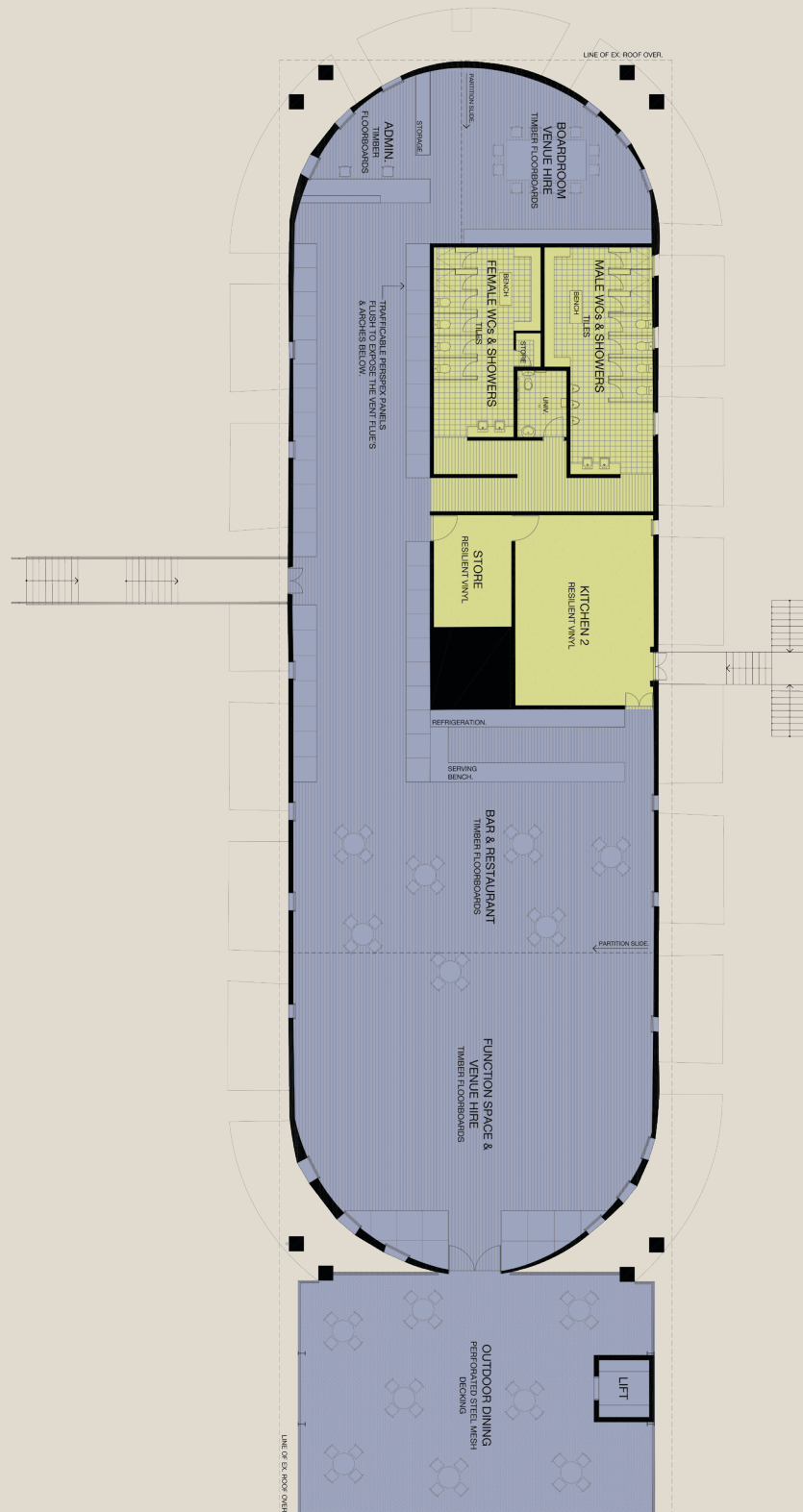


CONCEPT F



KILN - GROUND FLOOR PLAN

CONCEPT F



KILN - FIRST FLOOR PLAN

CONCEPT F

MARKET VALUE, LAND & BUILDINGS

VALUATION QUESTION	VALUER 1 ADVICE	VALUER 2 ADVICE
Concept A		
Residential/Mixed Use adaptation of the Brickworks, plus new residential alongside (east side)		
Upper floor of the Kiln (vacant floor plate), to accommodate 6 residential units.	<p>“Low demand anticipated due to largely untested [product] in this market”.</p> <p>Valuation: \$600,000 only.</p>	<p>“Having regard to various factors, it is my opinion that creating residential units within the Kiln is likely to be problematic”.</p> <p>Valuation: \$500,000 only</p>
Vacant land on the eastern side of the Kiln and Drying Shed, to accommodate 20-30 two storey apartments (6,160 m2 englobo lot).	<p>“Constrained development timeframe (no land banking) will reduce market size. Modest demand anticipated”.</p> <p>Valuation: \$3,700,000 - \$4,000,000</p>	<p>“Overall the unique and relatively attractive locational attributes are likely to result in reasonable demand for apartments in this location”.</p> <p>Valuation: \$5,170,000</p>
Concept B		
Residential/Mixed Use and Recreational adaptation of the Brickworks, plus new residential on the southern carpark site.		
Upper floor of the Kiln (vacant floor plate), to accommodate 6 residential units.	<p>“it is our view the demand for the apartments would be hindered by allowing commercial uses on the ground level”....The ground level could be [better] utilised as part of communal facilities or storage to service the [residential] strata development.”</p>	<p>“I am concerned that the design limitations imposedwill make it difficult to create a sense of separation between the commercial uses [below] and the residential uses above. I believe this will detract from the appeal of the apartments”.</p>
4 storey apartment block, 68 apartments (6243 m2 englobo lot, SOUTHERN CARPARK SITE)	As per Concept C below.	As per Concept C below.

VALUATION QUESTION	VALUER 1 ADVICE	VALUER 2 ADVICE
Concept C		
Golf Course Clubhouse and Recreational adaptation of the Brickworks, plus new residential on southern carpark site		
4 storey apartment block, 68 apartments (6243 m2 englobo lot, SOUTHERN CARPARK SITE)	<p>“Presently low demand for apartments. This market is saturated. Englobo site: constrained development timeframe (no land banking) will reduce market size. Modest demand expected.”</p> <p>Valuation: \$3.9-\$4.2 million</p>	<p>“I have already touched on the attractive nature of the location, which...is likely to be even more sought after by developers than brickworks’ [eastern side]” (p. 46).</p> <p>”The location is an attractive one from a residential perspective, being positioned within a quiet part of Maylands and cut off from the busier and inferior parts of the suburb. The location is further enhanced by the golf course to the west and the landscaped lakes to the east” (p. 41).</p> <p>“In the residential sector the market is generally oversupplied, yet the location of the subject development is fairly unique and, on the assumption the apartments are designed to capitalise on the attributes of the location and fall within the price range acceptable to the market, it is likely that demand will be stronger than average even in a soft market” (p. 7).</p> <p>Valuation: \$6,243,000</p>
Single Residential, 21 lots of ~250m2 (5511 m2 englobo lot, SOUTHERN CARPARK SITE)	<p>“Englobo site – constrained development timeframe will reduce market size, however given the price point ... and improvement in the sector, stronger demand anticipated for this site.”</p> <p>Small lots [after subdivision]</p> <p>“Yes this is the predominant density in the Maylands locality and accordingly would be met with good market demand”.</p> <p>“Of the various scenarios, we believe this ...to present the least risk in terms of saleability of the product and construction costs” (p. 45).</p> <p>Valuation: \$3.7-\$4.0 million</p>	<p>“I believe there would be demand for small lots in this area given the sought after position, which will benefit from an outlook to the lake, natural bushland, undeveloped land to the south and the golf course” (p. 52).</p> <p>As per the apartments commentary, adding that “it is likely that demand for townhouses in this location will be fairly strong. It is my opinion that this is an attractive location and there are few sites of this size and quality available currently” (p. 7).</p> <p>Valuation: \$3,306,000</p>
Aged Care development (6243 m2 englobo lot, SOUTHERN CARPARK SITE)	<p>“Yes we believe there would be sound demand. We however don’t believe this is the best land use to activate the space”.</p> <p>Valuation: \$3.5 million</p>	<p>“I believe there would be strong demand for aged care in this locality...this is a growth area given the aging population. Aged care providers are also showing a trend towards infill sites over the last few years”.</p> <p>Valuation: \$5,511,000</p>

LEASING DEMAND & INCOME

VALUATION QUESTION	VALUER 1 ADVICE	VALUER 2 ADVICE
Cafe	<p>“Catchment and exposure not significant enough to support both Clubhouse and separate café operation”...“In our opinion [it] would expose the City of Bayswater to unnecessary risk of either extended vacancy and/or a failure of multiple tenants”.</p> <p>...“We note that the Kiln ground floorspace would [potentially] allow for a café/restaurant of 535m2 (internal 410m2 plus 125 m2 alfresco)...A space of this size is only sustainable in first rate food and beverage locations with high foot traffic...If any café space is to be considered, a tenancy size of circa 100m2 plus alfresco should be considered”.</p> <p>But if a small café were established separate to the Golf Course (despite the risk):</p> <p>Lease income suggested at a low \$30-\$40/m2 over 100m2 to mitigate the risk, ie. \$30,000-\$50,000 per annum.</p>	<p>“The reactivated space...is likely to achieve rental rates of between \$250/m2 and \$300/m2, with the space likely to be most attractive to food and beverage, rather than specialist retailers”.</p>
Office	<p>“Office accommodation is not considered viable in this location. There is simply too much competition from superior office locations”.</p> <p>If however tenants could found, then:</p> <p>Leasing rate predicted of \$200-\$250 per m2, yielding gross income of \$107,000-\$134,000 per annum.</p>	<p>“My opinion is that the office/retail ground level of the Kiln should not be considered a favoured option in circumstances where it was competing with the golf course”.</p> <p>“There is likely to be low demand; it is difficult to imagine a scenario in which there is no demand”</p> <p>Lease income: as per Café above.</p>
Retail	<p>“The property’s location ...makes for a challenging environment in activating retail uses, with the catchment constrained to the immediate locality without [an accompanying] commercial precinct which is a drawcard and destination”.</p>	<p>As per Office above.</p>

VALUATION QUESTION	VALUER 1 ADVICE	VALUER 2 ADVICE
Function space (in the Kiln, or Drying Shed, or both)	<p>“Our research has revealed that the market for function space is saturated.</p> <p>The more successful operations are evident where function spaces are an ancillary offering to a larger operation providing additional sources of revenue. For example, the redevelopment of the Wembley Golf club includes two function centres, combined with a restaurant, bar, mini golf etc.”</p> <p>“Whilst providing a practical function space, we would suggest that the existing Swan Bank Bar and Function Centre offers a far inferior space when compared with a future revitalised Drying Shed with heritage appeal enjoying a direct aspect across the reserve and lake”.</p> <p>The Drying Shed has a large floor area and “a design allowing for smaller split function areas is recommended”.</p> <p>“If the Swan Bank Function Centre remains at its present location [but in new facilities from 2020].... this would likely compete directly and affect the viability of both businesses”.</p> <p>Maximum potential gross leasing income: \$130,000-\$150,000 per annum.</p> <p>(Assumes minimum 10 year lease of the whole Drying Shed, with a minimum incentive of c. \$250,000 by way of fitout contribution).</p>	<p>“Leasing information related to buildings of a similar type with areas as large as the Drying Shed has been very difficult to source.... In this case is likely that rental income from the reactivated building would be achieved as a result of a either daily or hourly charges as is common with many halls and other community-based facilities run by Local Governments or community groups.</p> <p>There appear to be some consistency with charge out rates at between \$30 and \$100 per hour on this basis whether or not the use is ‘commercial’ or ‘community based’ and the size of the property involved”.</p> <p>Leasing rate adopted: \$30-\$40 per m2 (\$38,000-\$50,000 per annum)</p>
Weekend Markets	<p>“A highly compatible commercial use is the development of community weekend markets [which] have proven to be popular throughout the Perth metropolitan area in more recent times. These market concepts also have the potential to morph into higher capital return operations if correctly delivered and managed. Examples include the Bunbury and Fremantle Markets. [However] this concept will unlikely provide the required capital return in the short term and there would likely be a need for a mixture of residential within the Brickworks site to maintain financial targets”.</p>	As per Function Space above.

WEMBLEY GOLF COURSE REDEVELOPMENT

The Wembley Golf Course redevelopment was planned and undertaken by the Town of Cambridge as a result of concept planning initiated in 2002. The clubhouse, greens and machinery and irrigation had all become run-down. The Business Case was premised on:

- providing a high quality family friendly hospitality precinct for both local residents and golfers.
- generating increased rental from improved food and beverage, and more corporate days, to pay off capital costs over time.

The revitalised golf course now contributes a dividend to the Town of Cambridge of \$1.6 million per annum, and the dividend continues to steadily grow year-on-year.

The project was undertaken in three stages:

Stage 1 – Irrigation

Stage 2 – Driving Range/Golf Shop

Stage 3 – Hospitality facilities (Clubhouse precinct) and Mini Golf.

Stage 1, Irrigation (2004-2006)

The old system was outmoded and cost \$100,000 per annum to run. New irrigation was key to improving the golf course.

New Infrastructure installed: 1300 sprinklers, over 100km of pipes, 2 lakes and a pump station.

Work carried out May 2004-August 2006 at a cost of \$2.8 million, financed with a 20 year Treasury Corporation loan.

Stage 2, Driving Range (2005-2009)

The old driving range known as the 'cattle shed' was 40 years old; gave poor weather protection and caused queues on weekends.

Feasibility analysis was carried out by the Town of Cambridge's General Manager including a US study tour in 2006; Council subsequently engaged Pitcher/PartnersDTZ for detailed financial modelling in May 2007.

Construction work on new driving range facilities: March 2009-February 2010.

Result: new facility with patronage increased from 4 million ball-hits per year to 11 million.

Total expenditure \$13.5 million, financed with a 20 year Treasury Corporation loan.

Stage 3, Hospitality/Clubhouse (2011-2016)

Pre-existing golf course tavern was 50 years old with structural issues; kitchen inadequate; facilities too small for larger corporate events. This final stage produced a modern restaurant and bar, kiosk, function centre, upgraded change rooms, mini-golf course, and children's playground.

Town of Cambridge took back control of all the golf course facilities from the golf course operator, except the existing tavern.

Since opening, two function rooms at Wembley have been opened and operated by the Spicer Group: the Ambrose Room has an operating capacity of 280 seated or 350 cocktail, with a large balcony; the Swingview Room has an operating capacity of 60 seated or 100 cocktail. The 300 Acres restaurant and bar seats 200.

Project Delivery in Stage 3, Hospitality/Clubhouse

An architect was chosen via an EOI issued May 2011; Gresley Abbas was selected in October 2011 from 4 bidders. Gresley Abbas undertook all the design work and prepared construction drawings.

Construction work was carried out May 2014-December 2016.

The Town of Cambridge made the decision to appoint an external Project Manager and Works Superintendent, in preference in-house project management by Council staff (as occurred previously in stage 2). NS Projects was appointed as the project manager in 2013; their total fee was approximately \$1 million (calculated at 8% of the cost of works).

CANBERRA BRICKWORKS PRECINCT OBJECTIVES

1. To conserve, redevelop and integrate the Land's heritage elements to create a unique and distinctive heritage, cultural and recreation destination that provides a diversity of activities for the broader community, by:
 - (a) Provides appropriate and sympathetic conservation, restoration, adaptive and sustainable reuse of structures and areas in accordance with the provisions of the endorsed Conservation Management Plan (2010) or its endorsed successor and considers the Burra Charter and the TICCIH Charter for Industrial Heritage.
 - (b) Including the Railway Remnants and the Quarry as publicly accessible and connected parklands, integrating the Land's heritage, cultural and geological heritage elements, and preserving the physical and historical connection to the Brickworks buildings.
2. Provide a range of high quality, diverse, innovative and socially inclusive uses in within the Land while targeting global best practice measures and outcomes for sustainability, community focus, and resilience, including:
 - (a) If housing is included in the proposal, provide diverse housing options, up to a maximum of 380 dwellings and an environment that is easy and delightful to live within;
 - (b) Ensure community amenities such as shops and other services are accessible, matched to the proposed uses of the Precinct and provide opportunities for positive formal and informal interpersonal interactions.
 - (c) Demonstrate commitment to zero (or negative) net:
 - i. greenhouse gas emissions (including contributing to the ACT's self-sufficiency in renewable energy and not providing any infrastructure for use of fossil gas as a fuel),
 - ii. pollutants,
 - iii. nutrients,
 - iv. water,
 - v. waste
 from the development and the Precinct
 - (d) Demonstrate commitment to mitigate against impacts of climate change;
 - (e) Incorporate global best practice such as required to achieve, as a minimum, top ratings for Green Star certification (all categories), Living Building Challenge 3.0 certification, Livable Housing Australia certification, NatHERS and NABERS; HIA Greensmart Accreditation; and Water Sensitive Urban Design; etc.;
 - (f) Plan development to minimise disturbance to the Precinct's current terrain, soil structure and hydrology, and to ensure protection of critically endangered Golden Sunmoth and temperate grasslands nearby.
 - (g) Demonstrate how active and public transport will be the attractive, safe (and perceived to be safe) and accessible transport choice in the Precinct
 - (h) Demonstrate commitment to triple bottom line.
3. Development in the Precinct harmonises with the character of the Brickworks, Canberra's Garden City Principles and the context of broader planning for Canberra:
 - (a) Harmonise new buildings with the Precinct's and surrounding built form, landscape and streetscape (through selection of materials, wide verges and large street trees);
 - (b) Minimise disturbance to the current terrain, geological features and landscape scale assets and enhance the woodlands as significant assets and as a windbreak and sound barrier;
 - (c) Ensure the development minimises visible impact from the south or west of the ridgeline that runs from Denman Street to Dunrossil Drive.

4. Integrate Precinct open space, active travel and recreation connections and facilities into existing networks:
 - (a) Retain and improve the continuous woodland loop, part of which is the Old Uriarra Track, in its natural state with mature trees and groundcover and without requiring people who are walking, cycling or using other active travel and recreation to cross a primary access road.
 - (b) Install shared paths in all streets, and connect the Precinct with existing paths, including with paths around Lake Burley Griffin and near Novar/Kintore Streets.
 - (c) Ensure connections between Precinct parklands including Railway Remnants parkland, the Brickyard area and the Quarry.
5. Minimise adverse impact of development on the surrounding community in terms of traffic, parking, noise, light, odour and privacy etc.:
 - (a) Propose measures to minimise traffic volume and rat-running impacts on the currently existing built areas of Yarralumla and Deakin.
 - (b) Ensure the primary access into the Brickworks Precinct is shared by visitors to the Brickworks/Quarry and any new residential development.
 - (c) In addition to standard mandated parking requirements for intended uses, ensure adequate parking for motor and active travel, and to meet projected future needs for people visiting the Brickworks, Quarry Park, and Railway Remnants;
 - (d) Ensure adequate infrastructure is provided in the Precinct to accommodate active travel and public transport – paths, sites suitable for public transport.
 - (e) Provide a landscaped “green” buffer of at least 20 metres’ width to the north and east of the project area that protects the privacy of adjacent residential blocks and presents an attractive visual treatment from the Precinct.
 - (f) Ensure no new structures have sight lines into the gardens and living areas of residential blocks ;
 - (g) Design a development in the Brickworks and Quarry that will mitigate potential noise, odour and light pollution impacts on residential, community and commercial blocks;
 - (h) Minimise duration of construction phase, develop a transport management plan in collaboration with the community, and ensure adequate protection to residential, community and commercial blocks, residents, workers and visitors from any asbestos, dust and other contaminants during construction.
6. Development is financially viable and sustainable over the long term, minimises the ongoing Precinct management costs to the ACT Government, and provides value to the Territory:
 - (a) Provide a transparent, costed plan for the Brickworks conservation, preservation and adaptive reuse, including upfront repairs as specified in the Conservation Management Plan, and other Precinct management costs;
 - (b) Propose a planned structure for ongoing management and financing of the Precinct.
7. Demonstrate in the response to the RFP and RFT that the parameters in the Community Parameters and Perspectives report in Annexure X have been and will continue to be addressed comprehensively.
8. Demonstrate ongoing engagement with the community, including the Community Panel, during the RFP and RFT and subsequent planning, design, approval, development, construction and post-construction processes are addressed through a Community Engagement Plan:
 - (a) Respond to the Community Parameters and Perspectives Report in Annexure X in the Community Engagement Plan and factor it into the Precinct development program and timeline.
9. Development demonstrates compliance with relevant and current ACT and Commonwealth legislation, strategies, policies, plans, programs and projects.