

Airport Link

Phase 2 – Detailed Feasibility Study

CHAPTER 13

CULTURAL HERITAGE

■ October 2006

Contents

13. Cultural Heritage	13-1
13.1 Approach	13-1
13.2 Description of Existing Environment – Non-Indigenous Cultural Heritage	13-1
13.2.1 Historical context.	13-1
13.2.2 Archaeological context.	13-3
13.2.3 Current Heritage Listings	13-4
13.2.4 Sites and Places recognised as Local Heritage	13-6
13.2.5 Unregistered Sites and Places	13-10
13.2.6 Heritage Precincts	13-10
13.3 Potential Impacts and Mitigation Measures for Non-Indigenous Heritage	13-10
13.3.1 Nature of Impact	13-10
13.3.2 Sites Directly Impacted by the Proposal	13-11
13.3.3 Areas of Potential Impact	13-12
13.3.4 Opportunities	13-14
13.3.5 Mitigation and Monitoring Studies	13-15
13.4 Indigenous Heritage Assessment	13-17
13.4.1 Description of Existing Heritage Environment	13-17
13.4.2 Turrbal Philosophy and Approach	13-18
13.4.3 Jagera Philosophy and Approach	13-18
13.4.4 Risks and Mitigation Measures	13-18
13.5 Conclusions	13-20

13. Cultural Heritage

This chapter addresses Section 5.9 or the Terms of Reference. It describes the existing values for Aboriginal and non-indigenous cultural heritage areas and objects that may be affected by the Project activities. A Cultural Heritage Report was undertaken by ARCHAEO Cultural Heritage Services, and the report is provided in full as Technical Paper No. 10a – Cultural Heritage in Volume 3 of the EIS. The study included a review of Commonwealth and State registers, review of relevant literature and systematic surveys to locate and record cultural heritage places. Reference was also made to the BCC Cultural Heritage Manual and the City Plan Heritage Register Planning Scheme Policy.

Both Jagera Daran Pty Ltd and the Turrbal Association Inc undertook cultural Heritage Surveys and associated assessments as registered Native Title Claim Groups under the Native Title Act 1993 (Cth) and recognised Aboriginal parties in accordance with the Aboriginal Cultural Heritage Act, 2003 (Qld) (Aboriginal Parties).

Recommendations are made concerning appropriate means of mitigating any negative impacts on indigenous and non-indigenous cultural heritage values and enhancing any positive impacts.

Recommendations for the development of a cultural heritage management plan for both indigenous and non-indigenous places are put forward. The Indigenous cultural heritage management plan is developed through consultation with relevant Aboriginal parties.

13.1 Approach

Cultural heritage relates to peoples' perspectives of place and sense of value, within the context of history, environment, aesthetics and social organisation. Cultural heritage may be divided into two areas of investigation in Australia: Aboriginal or indigenous cultural heritage; and non-indigenous cultural heritage, being the heritage of the historic period of Australian culture since non-indigenous settlement commenced.

Research into cultural heritage was undertaken with the assistance of the extensive library and database held by ARCHAEO, and in public library facilities including, John Oxley, University of Queensland, and Fryer Libraries. In addition, searches were conducted of the Register of National Estate (RNE), Queensland Heritage Register, National Trust and Brisbane City Council Heritage Register, the Commonwealth Heritage List and the National Heritage List. An inspection was made of Brisbane City Council records and reports held by the Heritage Branch of the Environmental Protection Agency. It is assumed that places on the Register of the National Trust of Queensland reach, at least, the local threshold of significance set out in City Plan.

Sites and places listed on the Queensland Heritage Register, Commonwealth Heritage List, and National Heritage List are accorded a high level of protection under relevant State or Commonwealth laws. These laws generally seek to protect heritage values of such sites and places. Places listed by the National Trust and the Register of the National Estate are not by that listing protected by law. Places listed as having heritage values in City Plan 2000 in certain circumstances, and subject to certain conditions, may be disturbed or removed. Where a place is listed as having heritage values in City Plan 2000 and is subject to potential disturbance or removal, impact management and mitigation measures will be necessary.

13.2 Description of Existing Environment – Non-Indigenous Cultural Heritage

13.2.1 Historical context.

All of the suburbs through which the study corridor passes are part of the earliest development of Brisbane. As such, they provide examples from each of the eras of growth, construction and expansion in Brisbane, some of

which are considered to have high levels of heritage significance, for example, the Windsor Shire Council Chambers and War Memorial. The historical context demonstrates the range of activities, projects, industries, residential developments, and events that have shaped these suburbs.

Early settlement of Windsor was characterised by large estates, subdivided into smaller blocks as population increased. Many of the original large homes, such as Rosemount, Oakwal and Kirkston, were sited on hills and rises in the vicinity of the study corridor. In Swan Hill, the original residential estate between Lutwyche Road, Newmarket Road, Northey Street and Green Terrace, larger homes were built on the higher slopes, while the more flood prone lower areas were associated with workers' cottages and also open spaces and recreation areas.

The first bridge on a road to the north out of early Brisbane town was the crossing of Breakfast Creek in Bowen Hills (Abbotsford Road / Hudson Road area), and initially access to the Lutwyche area was via this bridge, Sandgate Road and a track approximately where the Albion Overpass lies today. Fording Enoggera Creek further to the west with Bowen Bridge in 1860 was the precursor of Lutwyche Road's development as the major thoroughfare, and the rapid urbanisation of the Windsor and Lutwyche areas. Lutwyche Road has been the main thoroughfare through Windsor and Lutwyche since the opening of the bridge and the tram system that provided public transport until 1969.

Within the study corridor, defined character precincts are present, particularly in the Windsor area where evidence still exists of it being a separate township to Brisbane. Lutwyche village also remains identifiable though it has been more highly modified as it has been the retailing centre of the district.

Advent of the train line through Windsor stimulated denser residential settlement and the associated infrastructure such as the Council Chambers, schools, churches and a war memorial. Windsor was originally the centre for a town council later absorbed into the greater Brisbane local government. The township of Windsor, spilling out into Lutwyche, Woolloowin and Kalinga, had its own retail and commercial centre, local government offices, and industries, as well as residential estates. Many early Windsor houses are constructed of bricks or stone from local quarries, demonstrating the significance of local natural resources. Windsor's heritage is reflected in places and sites such as the Windsor Town Council Chambers, Windsor State School with its row of associated fig trees, and a number of houses and shops in Lutwyche Road. Windsor also has a number of significant heritage listed houses, from grand examples like "Kirkston" (State Heritage and Register of the National Estate), through to modest workers' cottages such as those of Bess Street (Queensland Heritage Register). Collectively, they demonstrate the socio-economic and demographic development of Windsor and each has specific significance.

Lutwyche evolved into a residential area more slowly. Initially divided into several large estates, most notably, Judge Lutwyche's Kedron Lodge. Lutwyche received public transport later than Windsor (1925 for the tram as distinct from 1914 for Windsor) and retained a more commercial focus including several brickworks. The increase in transportation infrastructure and the overall growth in the population of Brisbane substantially aided the urbanisation of Lutwyche. Early subdivision in the area included the Brookhill (1880), Village of Lutwyche (1881), and Lutwyche Hill (1890) Estates. The laying of railway lines in 1882 saw the population of Albion and Nundah increase and the opening of a Thorroltown stopping place between Albion and Woolloowin known as Lutwyche in 1885.

The development of Lutwyche was greatly assisted by the extension of the tramline in 1925. As it "was primarily located along the arterial road system, which meant that people relying on public transport lived close

to this service”¹ the area around Lutwyche road saw the earliest and largest growth in population and commercial use. The area around Lutwyche Road continues to form the central nucleus of the suburb. During the 1950s and 1960s Lutwyche became a substantial shopping district servicing both the inner North Eastern suburbs and surrounding areas.

Kalinga’s initial urban development was retarded by the lack of mass public transport infrastructure servicing the area at the time when nearby suburbs such as Clayfield and Woolloowin were experiencing substantial development. Although the extension of the Sandgate railway line into the area in 1882 was a spur to development of the Shire of Toombul, the line did not directly service Kalinga. The closest stations to what became Kalinga were German Station (now Nundah) and Albion. The first significant residential housing development in the area was the advertisement of Kalinga Estate close to Eagle Junction station in 1900.

Today, the study corridor is mostly devoted to residential use with small pockets of commercial activity along main roads, areas of social infrastructure including churches and schools, and some remnant light industry along Enoggera creek. The green belt along Kedron Brook is an extensive open space element of this urban environment, which includes significant association with local heritage values and places.

The Soldiers’ Honour Gates that provide access to Kalinga Park through Park Avenue were officially opened in 1920 to commemorate fallen soldiers in World War I. For many decades afterwards, ANZAC services in Kalinga occurred in proximity to the memorial gates. In 1924, Diggers’ Drive was opened by Sir Matthew Nathan, Governor of Queensland, as an additional memorial to the soldiers who had fallen in World War I. Tallowood trees, each one representing a specific fallen soldier, were planted along a section of Diggers’ Drive in a zig-zag pattern, each tree being approximately 20 yards from its neighbours. The pathway that was called Diggers Drive ran from the memorial gates, then approximately paralleling Kedron Brook, under the rail corridor, and then eastwards to Sandgate Road.

During World War II the influx of Allied personnel and operations also saw the location of a large Army Staging Camp at Kalinga Park in the vicinity of Bertha Street. In the 1950s, further plantings occurred in Kalinga Park including further tallowwoods and also hoop pine and other species. During the latter years of the 1960s, considerable improvements were carried out in Kalinga Park by Brisbane City Council and the section of Diggers’ Drive that extended eastwards of the railway corridor was covered and turfed.

13.2.2 Archaeological context.

No archaeological excavations appear to have taken place within the boundaries of the study corridor. Sufficient work has been undertaken in the inner Brisbane area to indicate that potential exists for an archaeological record to be associated with those areas where modification by filling has occurred. There is a higher potential for archaeological material to be present under fill episodes in the lower parts of the study corridor where early drains were built to control local creeks and drain swampy ground. Potential for archaeological discoveries exists at:

- Windsor Quarry where evidence of quarrying technology and associated machinery may be buried beneath the fill that formed the present-day parkland.
- A drainage system that was installed to harness small creeks in the Windsor area has the potential to be of heritage significance. It is known that significant drainage works were carried out in Windsor after 1900 in the low-lying areas between the hills that tended to flood readily

¹ Blake and Brisbane (Qld) Council, 1990:14, Brisbane’s urban development and heritage: an assessment (BCC)

- Shaw Park, Kalinga where, depending on levels of modification, it is possible that evidence still exists of the World War II camp; and
- Kalinga Park, which as a part of the very early Nundah Mission, could still harbour relics of that earliest non-indigenous era of the district.

13.2.3 Current Heritage Listings

The listings of recognised places and sites of national and state heritage significance, being those places listed on the Register of National Estate (10) and Queensland Heritage Register (24), within or closely associated with the study corridor, are shown in **Table 13-1**. No places within the study corridor are listed on the Commonwealth Heritage List or the National Heritage List. The reference numbers used are those referred to on **Figures 13-1, 13-2 and 13-3**.

Table 13-1 RNE and/or Queensland Heritage Register listings in the study corridor

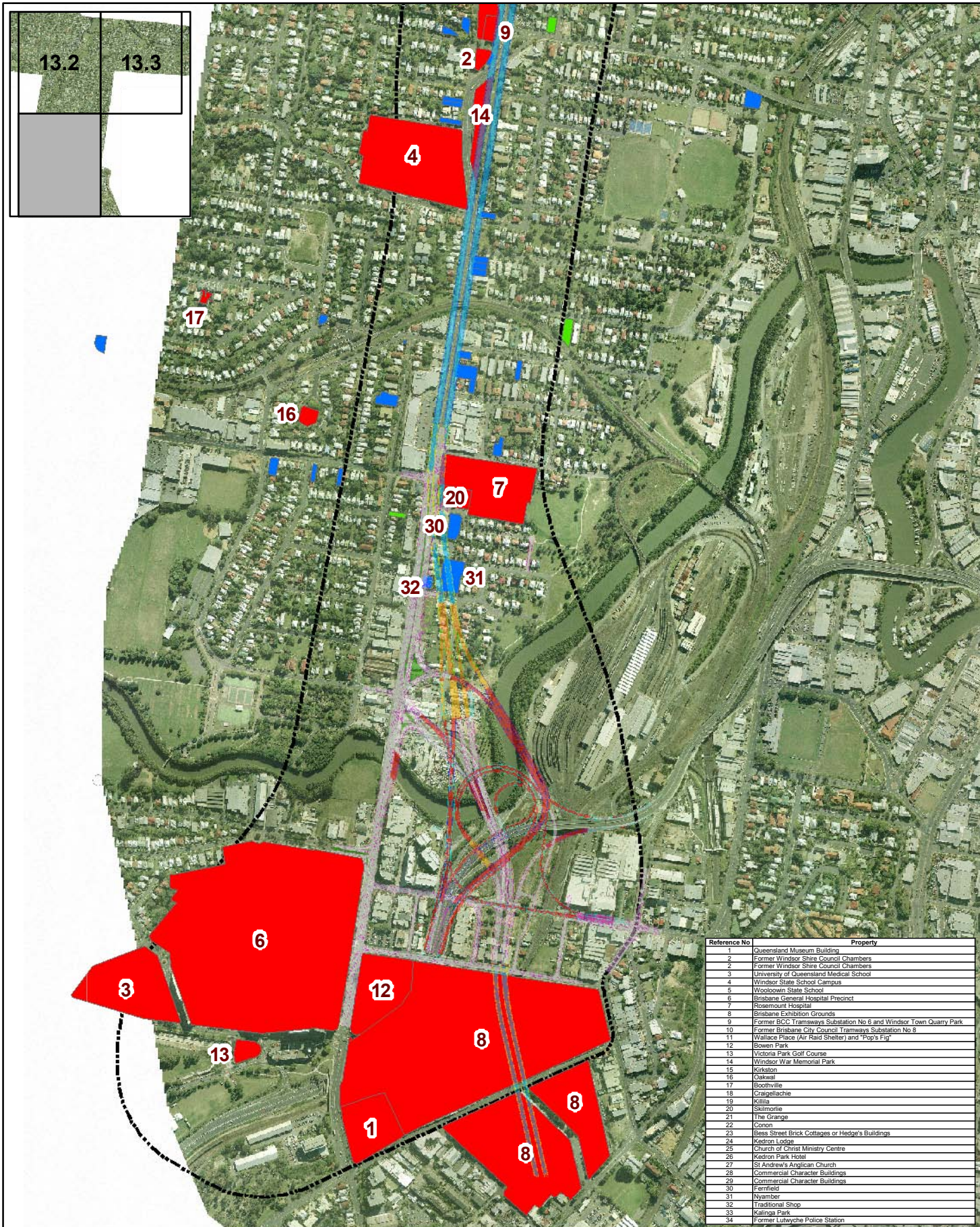
Place	Location	Ref	Register of National Estate	Queensland Heritage Register
Institutions				
Old Museum Building	Gregory Terrace	1	Yes	Yes
Fmr Windsor Town Council Chambers	356 Lutwyche Road, Windsor	2	Yes	Yes
Schools				
Univ. of Queensland Medical School	288 Herston Road	3		Yes
Windsor State School	270 Lutwyche Road, Windsor	4	Yes	Yes
Woolloowin State School	663 Lutwyche Road, Lutwyche	5	Yes	Yes
Hospitals				
Brisbane General Hospital Precinct	30 Bowen Bridge Road	6	Yes	Yes
Rosemount Hospital	189 Lutwyche Road, Windsor	7		Yes
Infrastructure				
Brisbane Exhibition Grounds	Gregory Terrace	8		Yes
Former BCC Tramways Substation No 6 and Windsor Town Quarry	356 Lutwyche Road, Windsor	9		Yes
Former Brisbane City Council Tramways Substation No 8	134 Kedron Park Road, Woolloowin	10		Yes
Windsor Air Raid Shelter	Cnr Lutwyche Road and Stoneleigh Street, Windsor	11		Yes
Parks / Memorials				
Bowen Park	O'Connell Terrace	12		Yes
Victoria Park Golf Course	309 Herston Road	13		Yes
Windsor War Memorial Park	311 Lutwyche Road, Windsor	14	Yes	Yes
Private Homes / Estates				
Kirkston	23 Rupert Street, Windsor	15	Yes	Yes
Oakwal	50 Bush Street, Windsor	16	Yes	Yes
Boothville or Monte Video	43 Seventh Avenue, Windsor	17	Yes	Yes
Craigellachie	10 Fosbery Street, Windsor	18		Yes
Killila	100 Stoneleigh St, Windsor	19		Yes
Skilmorlie	12 Bryden Street, Windsor	20		Yes
The Grange	38 Crowther Street, Windsor	21		Yes
Conon	29 Conon Street, Lutwyche	22	Yes (pre 1900 sections)	Yes
Bess Street Brick Cottages or Hedge's Buildings	22, 25-27 Bess Street, Lutwyche	23		Yes
Kedron Lodge	119 Nelson Street, Kalinga	24		Yes

13.2.4 Sites and Places recognised as Local Heritage

The Brisbane City Council's Brisbane City Plan 2000 adopts similar criteria to the *Queensland Heritage Act 1992* when identifying sites of heritage value in Brisbane, but applies the criteria to a local significance threshold. A considerable number of properties within the study corridor are recognised in Brisbane City Council listings. These properties include residences, commercial character buildings, churches and features, e.g., specific trees, certain bus shelters. Most of these properties or items are not listed with the Register of National Estate or Queensland Heritage Register. Areas of identified local heritage significance that are also listed on either the Queensland Heritage Register or the Register of the National Estate are identified in **Table 13.2** below. The table also includes items or places of local heritage significance that are adjacent to proposed surface works associated with the project. A full list of places recognised by Brisbane City Council listings is found in Technical Report 10 – Cultural Heritage in Volume 3 of this EIS.

■ **Table 13-2 Brisbane City Council schedule of local heritage in the Airport Link corridor**

Place	Location	Ref
Local significance as well as on State and National lists		
Former Windsor Shire Council Chambers	356 Lutwyche Road, Windsor	2
Woolloowin State School	663 Lutwyche Road, Lutwyche	5
Rosemount Hospital	189 Lutwyche Road, Windsor	7
Wallace Place (air raid shelter) and fig tree (Pop's Fig)	423 Lutwyche Road, corner Stoneleigh Street	11
Windsor War Memorial Park	311 Lutwyche Road, Windsor	14
Kirkston	23 Rupert Street, Windsor	15
Oakwal	50 Bush Street, Windsor	16
Boothville or Monte Video	43 Seventh Avenue (No 37 in RNE), Windsor	17
Craigellachie	10 Fosbery Street, Windsor	18
Skilmorlie	12 Bryden Street, Windsor	20
The Grange	38 Crowther Street, Windsor	21
Conon	29 Conon Street, Lutwyche	22
Local Significance		
Church of Christ and Ministry Centre	219 Gympie Road	25
Kedron Park Hotel	695 Lutwyche Road	26
St Andrew's Anglican Church	673 Lutwyche Road	27
Commercial Character Buildings	649 Lutwyche Road	28
Commercial Character Buildings	643 Lutwyche Road	29
'Fernfield'	11 Bryden Street	30
'Nyamber' Former Marooma Nursing Home	12 Federation Street	31
Traditional shop	139 Lutwyche Road	32
Kalinga Park	48 Kalinga Street	33



Reference No	Property
1	Queensland Museum Building
2	Former Windsor Shire Council Chambers
2	Former Windsor Shire Council Chambers
3	University of Queensland Medical School
4	Windsor State School Campus
5	Woolloowin State School
6	Brisbane General Hospital Precinct
7	Rosemount Hospital
8	Brisbane Exhibition Grounds
9	Former BCC Tramways Substation No 6 and Windsor Town Quarry Park
10	Former Brisbane City Council Tramways Substation No 8
11	Wallace Place (Air Raid Shelter) and "Pop's Pad"
12	Bowen Park
13	Victoria Park Golf Course
14	Windsor War Memorial Park
15	Kirkston
16	Oakwell
17	Boothville
18	Craigellachie
19	Killila
20	Skilmorie
21	The Grange
22	Conon
23	Bees Street Brick Cottages or Hedge's Buildings
24	Kedron Lodge
25	Church of Christ Ministry Centre
26	Kedron Park Hotel
27	St Andrew's Anglican Church
28	Commercial Character Buildings
29	Commercial Character Buildings
30	Ferrifield
31	Nyamber
32	Traditional Shop
33	Kallioa Park
34	Former Lutwyche Police Station

Legend

Airport Link Corridor

Heritage Sites

National Estate and/or State Heritage Register

National Trust and/or Brisbane City Council Register

Not Listed but may have Local Historical Significance

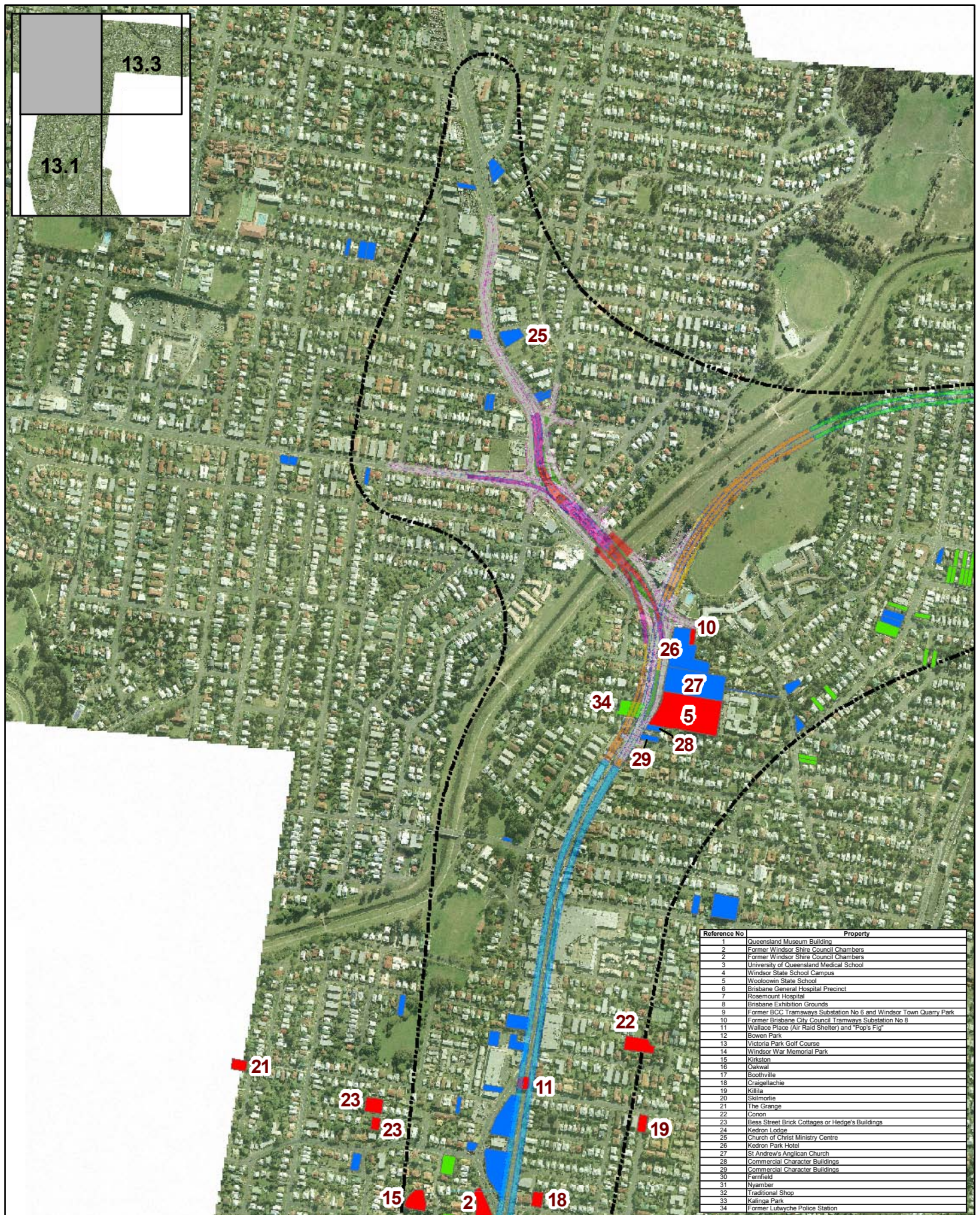
AIRPORT LINK - Figure 13-1

Heritage - Southern Connection

0 0.05 0.1 0.2 0.3 0.4
Kilometers



SKM Connell Wagner
JOINT VENTURE



AIRPORT LINK - Figure 13-2
Heritage - North Western Connection

Legend

Airport Link Corridor

Heritage Sites

National Estate and/or State Heritage Register

National Trust and/or Brisbane City Council Register

Not Listed but may have Local Historical Significance

0 0.05 0.1 0.2 0.3 0.4
Kilometers



Airport Link

SKM Connell Wagner
JOINT VENTURE



Reference No	Property
1	Queensland Museum Building
2	Former Windsor Shire Council Chambers
2	Former Windsor Shire Council Chambers
3	University of Queensland Medical School
4	Windsor State School Campus
5	Woolloowin State School
6	Brisbane General Hospital Precinct
7	Rosemount Hospital
8	Brisbane Exhibition Grounds
9	Former BCC Tramways Substation No 6 and Windsor Town Quarry Park
10	Former Brisbane City Council Tramways Substation No 8
11	Wallace Place (Air Raid Shelter) and "Pop's Pad"
12	Bowen Park
13	Victoria Park Golf Course
14	Windsor War Memorial Park
15	Kokkaton
16	Oakval
17	Boothville
18	Craigallachie
19	Killara
20	Skilmorie
21	The Grange
22	Conon
23	Bess Street Brick Cottages or Hedge's Buildings
24	Kedron Lodge
25	Church of Christ Ministry Centre
26	Kedron Park Hotel
27	St Andrew's Anglican Church
28	Commercial Character Buildings
29	Commercial Character Buildings
30	Fernfield
31	Nyamber
32	Traditional Shop
33	Kallina Park
34	Former Lutwyche Police Station

AIRPORT LINK - Figure 13-3
Heritage - North Eastern Connection

Legend

Airport Link Corridor

Heritage Sites

National Estate and/or State Heritage Register

National Trust and/or Brisbane City Council Register

Not Listed but may have Local Historical Significance

0 0.05 0.1 0.2 0.3 0.4
 Kilometers



13.2.5 Unregistered Sites and Places

One place that has not been acknowledged in any heritage register, including at the local level, is the Police Citizens Youth Welfare Association Headquarters (PCYC) at 654-656 Lutwyche Road. Assessment of the property, which was once part of the former Windsor Police Station, concluded that the building has not retained sufficient integrity to meet any of the criteria for entry in the Queensland Heritage Register. It is of sufficient heritage value however to meet a number of the Brisbane City Council's Heritage Register heritage values as a local heritage feature. The PCYC has local heritage significance, and is considered an important component of the local Lutwyche Village precinct.

Another item of potential heritage significance is the original drainage system of the area around Constitution Road, Grafton and Bowen Streets, just south of the War Memorial Park on Lutwyche Road, with evidence of brick lined drains from this area to Enoggera Creek. It is known that significant drainage works were carried out in Windsor after 1900 in low-lying areas that tended to flood regularly. Maps from this period indicate the drain is brick lined and may have heritage significance demonstrating engineering indicative of early development in the area.

13.2.6 Heritage Precincts

Heritage precincts are areas where there is a density of heritage sites and places of significance interrelated by common historical themes or design. They are generally recognised within local area plans and policies under City Plan and include:

- Windsor Precinct – a density of sites, some of which are heritage listed, connected by the common theme of the Windsor townscape. This precinct centres on the Windsor War Memorial Park and the Windsor Council Chambers and includes a number of significant early residential buildings, shops, Windsor Primary School and the row of fig trees along Lutwyche Road contributing to the heritage streetscape of Windsor.
- Lutwyche Village – the retail and commercial precinct servicing the local community since the 1920's. While the fabric of the precinct as a whole has changed in appearance and content through time, individual buildings may be of significance and the heritage value lies largely in its on-going role as a retail, service and commercial centre.
- Residential Precincts – as transport to Windsor improved, large properties were subdivided into residential estates, including Rosemount, Oakwall, Swan Hill and O'Connell Town. Each of these estates is still apparent as distinct residential precincts in which the Brisbane "wood and tin" type of housing predominates on relatively large allotments with front and back yards.

13.3 Potential Impacts and Mitigation Measures for Non-Indigenous Heritage

13.3.1 Nature of Impact

Avoidance of heritage sites, where possible, was incorporated into the development of the reference design for the project. Apart from direct land take or site demolition, vibration and settlement effects are considered the main potential impacts from tunnel construction. A "rule of thumb" approach has been adopted that a building with heritage significance within 30 metres of the tunnel construction should be viewed as potentially requiring management recommendations. Based on modelled vibration effects anticipated during construction, this is a very conservative approach. Other forms of indirect impact are visual impact, especially around the tunnel portals and connecting road structures.

13.3.2 Sites Directly Impacted by the Proposal

The sites directly impacted by the works proposed in the reference design for the project are shown in Table 13.3:

■ Table 13-3 List of direct impacts

Place	Significance	Location	Impact
Residential estate – Swan Hill	Character Housing - planning level	Earle Street Windsor	Loss of character through removal of blocks of housing in early residential estate
Police Citizens Youth Welfare Association Headquarters	Not listed – Considered to be of local significance	654 - 656 Lutwyche Road	Direct impact through demolition
Kalinga Park	Local significance	Between Kalinga Street and Sandgate Road	Direct impact on parkland, associated uses and the eastern alignment of Diggers Drive (between the North Coast Railway and Sandgate Road).

Swan Hill Residential Estate

The original Swan Hill Estate was developed between Rosemount and Enoggera Creek. Its fringe along Lutwyche Road has already been impacted by the encroachment of industrial and commercial development connected with a major thoroughfare, which has been developed through widening over time. The major portion of the Swan Hill Estate however is intact, and on the eastern side of Lutwyche Road, Byrne, Addison, Federation, Gallway and Bryden Streets, have retained their historic character and residential status. The proposed reference design for Airport Link will result in the removal of several blocks of residential houses, reducing what remains east of Lutwyche Road to a remnant of the former residential estate. The Swan Hill Estate section to the west of Lutwyche Road will remain intact.

Police Citizens Youth Welfare Association Headquarters

While the building is testament to its role as the local police centre in the early development of the Lutwyche village, the site was substantially modified for widening of Lutwyche Road in the 1970s. As such, it no longer fulfils its original function. Its value as a constituent building within the village of Lutwyche will be lost if the building is removed. However, the significance of the village of Lutwyche lies not in its constituent buildings, but the fact that it has continued to be the commercial and retail service centre since its inception, and the maintenance of this role. Change to the nature of constituent buildings has not diminished this role.

This building is an important link with the time when police stations were a feature of many suburban centres. For this reason, removal of the building is an adverse impact, as it will remove this connection with a time when an early police station was an important element of the development of Lutwyche as a suburb.

Kalinga Park

In 2002, Kalinga Park was the subject of a conservation management study by Brisbane City Council, resulting in the park being added to Brisbane City Plan 2000 for its heritage values.

Kalinga Park is a recreational reserve formed in the 19th century, and associated with the early development of the district. The conservation management study found that Kalinga Park has a range of associations including:

- Originally a portion of the former Nundah German Mission in the earliest period of Brisbane settlement, and a low potential exists that an archaeological record from this period may be present;

- Valued by the district as an open green space;
- Supports many sporting and recreational organisations, including the Kalinga Scout Hall, playing fields for tennis, cricket, football and hockey, and the Queensland Miniature Race Car Club track;
- An important visual element in the suburban landscape;
- The Soldiers Honour Gates and Fence on Park Avenue, as well as the Diggers' Drive and associated memorial plantings as a memorial to the soldiers who fell during World War I.

Diggers Drive was constructed by unemployed returned servicemen of the district and was opened in 1924 by the Governor of Queensland. It ran from the Soldiers Honour Gates off Park Avenue, beside Kedron Brook and under the railway line to Sandgate Road. Records suggest that some 111 tallowwood trees were originally planted along Diggers' Drive in 1924 (ARCHAEO July 2006). Each memorial tree was planted to represent a particular fallen soldier with trees planted some 20m apart on either side of Diggers Drive to form a zigzag pattern.

Physical evidence of the original alignment of Diggers Drive between the North Coast Railway and Sandgate Road relies on a straight row of tallowwood trees that appear to have been planted in the 1950s when additional plantings were undertaken throughout Kalinga Park. There is no evidence of remaining memorial plantings from the 1920's along the alignment of Diggers Drive east of the railway line. The eastern extent of Diggers Drive between the railway line and Sandgate Road has been covered and turfed, possibly during the latter years of the 1960's, with the final removal of the timber bridge across the significant drainage tributary into Kedron Brook during the 1974 flood. A significant element of the original alignment is now occupied by the Airtrain which does however provide for access underneath.

Of the original memorial plantings from the 1920s there appear to be only thirteen (13) remaining of a size that would indicate being over 80 years old. All of these are west of the railway line and not directly impacted by the proposed reference design for the Airport Link.

Levels of heritage significance have not yet been specifically studied for the Soldiers Honour Gates and Fence and Diggers' Drive, as this would require an extensive research program of comparison to other similar memorials and avenues in the State. However, a reasonable assumption is that these heritage features are, at the least, of local significance, and are an important aspect of the community significance of Kalinga Park.

The open parkland to the west of the North Coast Railway will be impacted by construction in this area. There is no specific area or item of historic heritage that would be impacted on this side of the railway line. No work is proposed on the section of Diggers Drive and associated remaining memorial plantings, west of the railway line. On the eastern side of the North Coast Railway line the area of Kalinga Park, including the unseen area of Diggers Drive and the majority of the remaining plantings and original native vegetation will be removed by the construction works or occupied by the construction area. There is a very large Iron Bark tree estimated to be over 300 years old on the bank of Kedron Brook between the Airtrain and the North Coast Railway.

13.3.3 Areas of Potential Impact

Potential impacts on significant heritage sites and structures, are considered possible where:

- New roadways connect the Airport Link Project and other roads, bypasses, or tunnels;
- Tunnel portals may impact visually on heritage sites and places; and
- Tunnelling (cut and cover and/or boring) is within 30 metres of the heritage structure.

Potential always exists in Brisbane for an historical archaeological record to be present where modification by filling has occurred. The open space adjacent to Kedron Brook has been filled and highly modified. Recommendations will be provided in the event that an historical archaeological record is discovered during construction in this area.

Areas of potential impact based on these criteria are:

- Southern Connection: where roadways are required to connect with the North South Bypass Tunnel and the Inner City Bypass, as well as local roads. This area lies between Campbell Street in Bowen Hills and the corner of Federation Street and Lutwyche Road, Windsor.
- North-western Connection: between the corner of Lutwyche Road and Isedale Street, where the transition between bored tunnel and street level commences, the finalisation of the project in Gympie Road, and the entrance to the east-west driven tunnel.
- North-eastern Connection: between the east-west driven tunnel in Kalinga Park east beyond Sandgate Road and Widdop Street.

The sites with potential to be indirectly impacted due to their proximity to the proposed works are shown in **Table 13.4**.

■ **Table 13-4 List of potential or indirect impacts**

Place	Significance	Location	Impact
Bowen Park	Queensland Heritage Register	Bowen Bridge Road and O'Connell Terrace	Low potential for impact from adjacent roadworks.
Brisbane General Hospital Precinct	Register of the National Estate and Queensland Heritage Register	Bowen Bridge Road	Low potential for impact from adjacent roadworks.
Nyamber	Local significance	12 Federation Street Windsor	Within 30 metre rule for vibration Low potential for impact from vibration and settlement
"Fernfield"	Local significance	11 Bryden Street	Low potential for impact from vibration and settlement
Skilmorlie	Queensland Heritage Register	16 Bryden Street	Low potential for impact from vibration and settlement
Rosemount Bldgs 20 (Dental Hut); 21 (Medical Officer's Res); stone lined drive; mango tree	Queensland Heritage Register	189 Lutwyche Road Windsor	Within 30 metre rule for vibration Low potential for impact from vibration and settlement
Commercial Character Building	Local significance	643 Lutwyche Road	Low potential for impact from adjacent roadworks.
Commercial Character Building	Local significance	649 Lutwyche Road	Low potential for impact from adjacent roadworks.
Woolloowin State School	Register of the National Estate and Queensland Heritage Register	663 Lutwyche Road	Low potential for impact from adjacent roadworks.
St. Andrew's Church	Local significance (potential for State significance)	673 Lutwyche Road - Lutwche	Low potential for impact to Lych Gate and front walls from adjacent roadworks.
Kedron Park Hotel	Local significance	695 Lutwyche Road	Low potential for impact from adjacent roadworks.
Commercial Character Buildings	Local significance	185, 187 and 206 Gympie Road	Low potential for impact from adjacent roadworks.

Nyamber

Nyamber is a two storey brick building and was initially a home built for the family of George Byrne, one of the first to settle in the area. It has since been modified and used as flats, a psychiatric hospital, a private nursing home and is currently for sale. It is one of several surviving 19th century homes which originally had grounds extending to Bowen Bridge Road, as it was then called. Nyamber is of local significance because it is one of a group of houses along Lutwyche Road which provides evidence of the development of this area of Windsor as an upper middle class residential suburb during the second half of the 19th century.

Rosemount

Rosemount now consists of a number of buildings, of which some have been determined to have heritage significance to levels that justify inclusion on the Queensland Heritage Register. Of these buildings, two adjacent to the western boundary of Rosemount are closest to the proposed alignment of the tunnel, namely Building 20, the Dental Hut, and Building 21, the Medical Officer's Residence.

The Dental Hut was constructed in approximately 1918 for use as a dental clinic, with subsequent additions made in 1922. It is a single storey weatherboard building with enclosed verandahs, raised on stumps. The roof is terracotta tile gambrel with finials. It has also been used as the Assistant Officer's Quarters during the late 1940s; as a residence of live-in orderlies during the 1960s and as a medical store during the 1980s. Building 21 is known as the Medical Officer's Residence. It was constructed during 1922 as part of the Repatriation Hospital. The verandahs have been enclosed, but apart from this, the building has remained virtually unchanged since construction. It is a single storey chamfer board cottage with hipped corrugated iron roof. It has been raised on cement stumps. Situated in close proximity to these two buildings is a large camphor laurel tree, which is believed to have an association with the original Rosemount residence.

St Andrew's Church, Lutwyche

The original St Andrew's Church was constructed in 1866 on land that had been donated by Judge Alfred James Peter Lutwyche, first Supreme Court Judge of Moreton Bay. On his death in 1880, Judge Lutwyche was buried in the grounds of St Andrew's and his wife, Mary, erected a celtic cross in remembrance. The front stone wall and Lych Gate were erected in 1924 as a World War One Memorial. A lych gate was traditionally used as a temporary resting place for the body before it was moved to the church. A small honour roll has been erected on one of the posts. Stones could be donated by someone who had lost a relative in the war as a way of remembrance.

St. Andrew's meets the criteria for inclusion on the Queensland Heritage Register although it is only identified in City Plan 2000. Its front fence and lych gate are important elements of the significance of the church and its grounds. A cautious approach is recommended to protect the front fence and gate from road works associated with the proposed reference design.

13.3.4 Opportunities

Opportunities for positive impacts are also provided by the Airport Link Project. These are identified in Table 13.5.

■ **Table 13-5 Heritage Opportunities**

Place	Opportunity
Windsor Town precinct	The historically significant Windsor Town precinct is maintained by the use of bored tunnel in this area, resulting in no impact on any of the heritage sites and places, or the precinct of Windsor Town.
Lutwyche Village	The commercial village of Lutwyche, which has historically been the shopping area for the suburbs of Lutwyche and Windsor will be enhanced by less through-traffic. Potential for commercial urban renewal and development will assist in maintaining the historical use of the village as a commercial, service and retail centre
The significant heritage character and visual amenity of Kalinga	The residential nature of Kalinga, and its heritage character and visual amenity will be maintained by the used of bored tunnel as a construction technique.
Archaeological record of Nundah Mission	If, during cut and cover construction in Kalinga Park, an archaeological record associated with the Nundah Mission is found, potentially this record could be highly significant, and may lead to greater knowledge of this important historical period.

No archaeological record from the Nundah Mission has been found. As this was a phase of very early Moreton Bay European history and also of the early contact period between Aboriginal people of the area and non-indigenous settlers, the significance of a surviving archaeological record from this era to provide information about that time is considerable. Because of levels of local modification, the potential is low for an archaeological record in Kalinga Park. However, since the area was part of the very early Nundah Mission, if an archaeological record from the time is found, it has the potential to be highly significant. For this reason, management recommendations will be made.

13.3.5 Mitigation and Monitoring Studies

As far as possible, significant heritage sites and places should be protected from any impact during and after construction. Significant heritage sites and places should be maintained in their original and undamaged condition. The significance of heritage structures may be contained in the fabric of the structure, and this fabric should be protected. To this end, existing environment reporting was supplied to the concept design team sufficiently early to provide data for consideration. Avoidance of heritage sites and potential impacts was incorporated into the proposed reference design of the Project wherever possible.

Apart from the obvious direct impact of the project requiring the land on which a significant heritage site or structure occurs, visual, vibration or settlement impacts during construction and/or operation of the project could diminish the heritage value of a site or structure.

Cultural Heritage Management Plan

Detailed Cultural Heritage Management Plans (CHMPs) for the construction phase of the project will be developed. The aim of the CHMP is to provide instructions to contractors and project owners on obligations for the protection of cultural heritage values in the study corridor.

The CHMPs will cover both Indigenous and non-indigenous components. The Indigenous CHMP(s) will be prepared in consultation with the Aboriginal Parties for the Corridor, and will follow the requirements of Part 7 of the *Aboriginal Cultural Heritage Act 2003*.

The CHMP for non-indigenous historical heritage will consist of generic instructions for management for the entire corridor, and may also include site-specific CHMPs as recommended below.

Swan Hill Residential Estate

Part of the early residential estate between Federation Street, Lutwyche Road and Enoggera Creek would be required for the southern portal area and general construction area as shown on the proposed reference design. While individual houses that are components of this estate are not specifically significant, the overall loss of a substantial part of this “tin and timber” precinct will remove forever its residential nature and connection with the early spread and development of Brisbane. Only a remnant of this precinct would potentially be retained.

It is recommended that should elements of this precinct be required that an archival quality photographic recording of the area be undertaken. Archival recording should follow *Guidelines for Photographic Recording of Heritage Items* (NSW Heritage Office, 2005) and be lodged with the State Library of Queensland and the Heritage Branch of the Environmental Protection Agency.

Police Citizens Youth Welfare Association Headquarters

The reference design as proposed would require the demolition or removal of this building. It is recommended that a detailed archival recording of the building and its local surroundings be undertaken. Archival recording should follow *Guidelines for Photographic Recording of Heritage Items* (NSW Heritage Office, 2005). The archival recording should be lodged with the State Library of Queensland and the Heritage Branch of the Environmental Protection Agency.

An investigation should be made of the feasibility of removing those buildings within the grounds that can be moved to another location, possibly one associated with another police station.

Kalinga Park

From the heritage perspective, Kalinga Park’s local significance is based on its association with human habitation of the locality both before and after the arrival of free settlers to Queensland. There is significant association with World War I memorials to local soldiers who enlisted from Kalinga including the Honour Gates, Diggers’ Drive, and the memorial plantings. There is also a significant history of recreational use of the parklands.²

It is recommended that the parkland areas affected by the Airport Link Project be rehabilitated following construction including suitable landscape works to provide screening of infrastructure, where possible, from the rest of Kalinga Park. The 300 year old Iron Bark tree between the Airtrain and the railway, while outside the construction area, should be physically protected and isolated from any direct impacts.

The unseen section of Diggers’ Drive between the Airtrain and Sandgate Road will be impacted by the construction works and its location within the construction area as identified in the reference design. A cultural heritage management plan should be developed covering monitoring and documentation during construction and operation recognition such as through new access provision and advisory signage.

Nyamber

A heritage structural engineer should undertake a visual inspection of Nyamber before construction begins to:

- Record the condition of the building, so that its existing structural state is understood. Condition reporting should also take into account if timber in the building shows evidence of decay or termite activity, as these can reduce structural adequacy.

² from the Statement of Significance in the “Historical Appraisal Kalinga Greenspaces” prepared by the Nundah and Districts Historical Society Inc for Brisbane City Council, 1999

- Decide if there are any elements of the building that are particularly vulnerable to vibration, e.g., chimneys or parapets.
- Develop a monitoring regime in line with the conditions laid down in the EIS and emphasizes any elements that are particularly vulnerable.

No intervention in the building fabric should be carried out as part of this inspection, unless there is good evidence to suggest concealed structural damage.

Rosemount

A heritage structural engineer should undertake a visual inspection of significant component buildings in Rosemount near Lutwyche Road to: record the condition of buildings identifying any vulnerable elements and develop an appropriate monitoring regime. No intervention in the building fabric should be carried out unless there is good evidence to suggest concealed structural damage.

St. Andrew's Church, Lutwyche

The Airport Link Project will not impact directly on St. Andrew's Church or its grounds. However, the project will involve construction immediately outside the church grounds, in Lutwyche Road. A low potential exists that damage may inadvertently be caused to the boundary wall and/or lych gate during construction. This potential will largely be managed by the requirement to fence off the work site. However, to maximise management of St. Andrew's Church and its grounds, it is recommended that construction crews working in this area be informed of its heritage significance, and required not enter its grounds for work related reasons.

Archaeological Record

Throughout earlier suburbs of Brisbane, the potential exists for an archaeological record, especially where land has been filled. To manage any archaeological values that may exist, it is recommended that all construction crews involved with road and cut and cover tunnel construction be advised in their induction training of the nature of historical archaeology. They are to be provided with advice, through the CHMP(s), on the line of communication to follow if any objects or material that may be of an archaeological nature is noted. It is recommended that a heritage archaeologist be appointed during construction of the Airport Link Project, so that a call-out can be made as soon as potential archaeological material is noted.

13.4 Indigenous Heritage Assessment

The potential for Aboriginal cultural material being present in the archaeological record was addressed in the Assessment for the Proposed Airport Link, April 2006, (Technical Paper No 10b – Cultural Heritage in Volume 3 of the EIS).

13.4.1 Description of Existing Heritage Environment

To describe the existing Aboriginal cultural heritage environment the Brisbane City Council (BCC) engaged both registered Native Title Claimant groups (as defined in the Native Title Act 1993 (Cth)), for the project area:

- The Turrbal, via the Turrbal Association Inc; and
- The Jagera, via the Jagera Daran Pty Ltd.

Both groups are recognised as Aboriginal Parties to conduct cultural heritage surveys and produce reports for the project area.

Dr Jon Prangnell through the University of Queensland Archaeological Services Unit (UQASU) was appointed, as agreed by both Turrbal and Jagera to produce an assessment based on the cultural heritage surveys and reports provided by the Aboriginal Parties. The aim of the assessment was to provide the proponents with an understanding of Aboriginal cultural heritage risks and strategies for their on-going management in regard to the project.

Dr Jon Prangnell independently and separately identified the methods each Aboriginal Party used to undertake their respective surveys and produce their respective reports, the issues raised by each group, the levels of significance they ascribed to areas, and the strategies they proposed to manage the cultural heritage aspects of the project. The results were compiled in the Assessment for the Proposed Airport Link, April 2006. (Cultural Heritage Technical Paper No 10b).

13.4.2 Turrbal Philosophy and Approach

The Turrbal Association Inc report states clearly that Turrbal cultural heritage is an integral part of Turrbal traditional laws and customs and their 'spirit'. Spirit is intertwined in all aspects of life (including the physical world) and gives meaning and coherence to Aboriginal life. The method used by the Turrbal Association Inc. to develop their report was to analyse ethnohistorical accounts of the broader region around the project area and to hold discussions with a Turrbal elder and a Turrbal songwoman. The results of these discussions revealed that:

- Cultural heritage has a strong spiritual component and it is this spirit that provides the 'continued and unbroken relationship of the Turrbal people with places such as those affected by the proposed project'.
- The Study Area is part of an interconnected series of pathways. In particular the project area follows a pathway that began near the present site of the Roma Street Railway Station and follows the route of Bowen Bridge Road and Herston Road, with branches to various campsites.

13.4.3 Jagera Philosophy and Approach

Jagera Daran Pty Ltd Environmental and Cultural Heritage Services used a two-fold approach to the cultural heritage of the proposed Airport Link project. They undertook a field survey of the three proposed portal sites in March 2006 and also interviewed Jagera elders. No archaeological materials were identified during the surveys, however this does not mean that the areas hold no cultural heritage value. The interviews with the elders indicated that the area around all three proposed portals would have been important resource places. They also noted the previous work that had been conducted at the general location of the Bowen Bridge Road portal for the previous NSBT study.

13.4.4 Risks and Mitigation Measures

Eleven risks that relate to the conduct of the proposed Airport Link project have been identified from the reports of the cultural heritage surveys produced by the Aboriginal Parties. Four of these risks generally apply to the conduct of the entire project whereas seven apply to specific parts of the project area. In each of the following tables (**Table 13-6**, **Table 13-7** and **Table 13-8**) the identified risk is presented, the management strategies proposed by the Aboriginal Parties and the combined management strategies that the project proponents should adopt to precede with its cultural heritage planning for the proposed Airport Link project.

Table 13-6 Project-wide Risks

Risk	Jagera Management Risk	Turrbal Management Risk	Recommended Actions
Under Section 23(1) of the <i>Aboriginal Cultural Heritage Act 2003</i> (Qld), a person who carries out an activity must take all reasonable and practicable measures to ensure the activity does not harm Aboriginal cultural heritage.	Incorporate ongoing consultation with the Jagera people throughout future planning and development stages of the project Inclusion of cultural heritage inductions as part of standard on-site induction package	BCC continue discussions and negotiations with Turrbal representatives regarding cultural heritage management, particularly related to: <ul style="list-style-type: none"> ■ Cultural awareness training; ■ Ground breaking; ■ Management of any artefacts; and ■ Removal of vegetation 	All reasonable and practicable measures must be taken to ensure that no activity that occurs during this development harms Aboriginal cultural heritage On-going contact is maintained between the proponents and both Aboriginal Parties about the progress of the project Monitoring of specified areas be included in discussions for establishment of the CHMP – see below A cultural heritage induction/awareness program for all on-site project staff be organised
Under Section 13 of the <i>Aboriginal Cultural Heritage Act 2003</i> (Qld) no provision of the Act will operate to prejudice native title rights or interests		BCC opens discussions and negotiations with Turrbal representatives regarding native title matters	Project proponents to be aware of the native title implications of the project Undertake all work in accordance with the <i>Native Title Act 1993</i> (Cth), and any notifications required by that Act The proponents to continue any native title discussions
On-going management	Development of a CHMP	Turrbal representatives to be involved in monitoring various activities, delivering cultural awareness training Any Aboriginal artefacts identified during the project be kept in a neutral keeping place	Although no archaeological places were identified during the surveys, the area has identified cultural significance to both Aboriginal Parties as well as the some potential for artefacts to be identified. Therefore a CHMP should be developed for the project that encompasses these recommended actions and is flexible enough to allow that additional cultural heritage information may become available as the project progresses
Revegetation of the portal areas		Native species should be used for revegetation purposes	Consultation on the revegetation plan be included in discussions for establishment of the CHMP

■ **Table 13-7 Category 4 – Areas previously subject to Significant Ground Disturbance**

Risk	Jagera Management Risk	Turrbal Management Risk	Recommended Actions
Groundbreaking		Turrbal personnel to monitor all ground breaking activities at any stage of the project	Monitoring of earthworks will be included in discussions for establishment of the CHMP
Removal of vegetation		Turrbal personnel to monitor all vegetation removal activities at any stage of the project	Monitoring of vegetation removal will be included in discussions for establishment of the CHMP

■ **Table 13-8 Category 5 – Activities causing additional surface disturbance**

Risk	Jagera Management Risk	Turrbal Risk Management	BCC Recommended Actions
Groundbreaking	Jagera personnel to monitor the removal of the top 30cm of sediment	Turrbal personnel to monitor all earthworks	Monitoring of the removal of the topsoil will be included in discussions for establishment of the CHMP
Removal of vegetation		Turrbal personnel to monitor the removal of any vegetation at any stage of the project	Monitoring of vegetation removal will be included in discussions for establishment of the CHMP
Impact on Kedron Brook	Disturbance of the Creek should be kept to a minimum		Monitoring of any activities associated with disturbance to the creeks will be included in discussions for establishment of the CHMP
Artefact potential at Sandgate Road portal	Jagera personnel to monitor the removal of the top 30cm of sediment	Turrbal personnel to monitor all ground breaking activities that may impact on Turrbal cultural heritage values Any Aboriginal artefacts identified during the project be kept in a neutral keeping place	Monitoring of earthworks at the portals will be included in the CHMP The location and management of a neutral keeping place be included in discussions for establishment of the CHMP
Cultural significance of the area around the Sandgate Road portal	Kedron Brook contains numerous culturally important resources	Turrbal personnel to monitor all ground breaking activities that may impact on Turrbal cultural heritage values	On-going consultation with Jagera and Turrbal

Management of these risks will be addressed primarily in the development of a Cultural Heritage Management Plan under Part 7 of the *Aboriginal Cultural Heritage Act 2003* (Qld), in consultation with Aboriginal Parties.

13.5 Conclusions

Non-Indigenous Heritage

Potential impacts associated with non-indigenous heritage comprise:

- The loss of the PCYC (former Lutwyche Police Station) (unlisted but considered to be of local significance) and green space and vegetation within Kalinga Park (local significance).
- The loss of some character housing between Federation Street, Lutwyche Road and Enoggera Creek associated within the Swan Hill residential area (not listed but recognised as character housing in City Plan 2000);

- Low potential to impact on four listed structures (2 Queensland Heritage Register – Rosemount and Skilmorlie and 2 local significance – Nyamber and Fernfield) through vibration during construction. Impacts may be considered possible with regard to identified elements of Rosemount and Nyamber which fall within 30m of the proposed reference design alignment of the tunnel;
- Low likelihood of impacts on heritage items such as Bowen Park, Brisbane General Hospital Precinct, Woolloowin State School and St Andrew’s Church; and
- Possible effects on sub-surface archaeological records if they exist.

Mitigation measures will include:

- Preparation of site specific cultural heritage management plans for each place of State significance likely to be affected;
- Establishment of monitoring programs for buildings of both State and local significance (Rosemount, Skilmorlie, Nyamber and Fernfield) to assess building movement, condition and groundwater drawdown;
- Management plans and induction training to recognise and protect sites of heritage significance adjacent to roadworks, such as St Andrews Church, from construction related activity;
- Induction training of construction crews and appointment of heritage archaeologist during construction to manage any archaeological discoveries during construction; and
- Further studies, as required. These may include archival recording of the houses within the Swan Hill Residential Estate and the PCYC (former Lutwyche Police Station) should elements of this precinct and/or the PCYC be required for the project as proposed in the reference design. Archival recording should follow *Guidelines for Photographic Recording of Heritage Items* (NSW Heritage Office, 2005) and be lodged with the State Library of Queensland and the Heritage Branch of the Environmental Protection Agency.
- An investigation of the feasibility of removing those buildings within the grounds of the PCYC that can be moved to another location, possibly one associated with another police station.
- A management plan for Kalinga Park to recognise and protect remaining parkland within Kalinga Park and guide the rehabilitation of construction areas. Particular park landscape features that can be retained, such as Diggers Drive, native tree plantings and remnant natural features such as the 300 year old Ironbark between the Airtrain and the north coast railway are to be identified and protected during construction of the proposed works.

Indigenous Heritage

The Indigenous heritage surveys and reports indicated that although the archaeological record may have been removed by more recent land use, the remaining areas still have high levels of cultural significance for both registered Native Title Claim Groups as defined in the *Native Title Act 1993* (Cth).

Mitigation measures include:

- On-going consultation with the Jagera and Turrbal;
- All work to be undertaken in accordance with statutory requirements, set out in the *Native Title Act 1993* (Commonwealth) and the *Aboriginal Cultural Heritage Act 2003* (Qld); and
- The preparation of a CHMP in consultation with Aboriginal Parties. Discussions for the establishment of the CHMP to include requirements for monitoring of construction and other disturbance in the vicinity of the project and cultural heritage induction programs for construction teams.