This Conservation Management Plan (CMP) & Special Area Plan (SAP) document is hereby submitted to the World Heritage Committee, UNESCO, for:

MELAKA AND GEORGE TOWN,
HISTORIC CITIES OF THE STRAITS OF MALACCA

by

THE GOVERNMENT OF MALAYSIA

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PART 1
Vision and Management Strategies
1 Introduction

1.1 Background

1.1.1 In 2008, the World Heritage Committee in its 32nd annual session held in Quebec City, Canada inscribed both Melaka and George Town as a World Heritage Site, known as Melaka and George Town: Historic Cities of the Straits of Malacca. The two historic cities, situated along the Straits of Malacca, have developed over 500 years as trading centres and settlements, benefitting from the cultural exchanges between East and West. The influences of Asia and Europe have endowed the cities with an intrinsic multicultural heritage imbued with both intangible and tangible values.

1.2 The Need for A WHS Management Plan

1.2.1 The preparation of the Conservation Management Plan and the Special Area Plans for Melaka and George Town World Heritage Site are in accordance with the requirements of the World Heritage Committee at its meeting in Seville, Spain. The Conservation Management Plan falls under the general requirements of the World Heritage Committee on conservation management. The Special Area Plans on the other hand, are intended to ensure that the guidelines and recommendations of the Conservation Management Plan are implemented under the Malaysian law.
1.3 Purpose of the Plan

1.3.1 The management plan shall serve to guide the promotion of conservation, preservation, rehabilitation, restoration and reconstruction in the WHS. Its broad objective is to facilitate the proper management of the WHS including the use and development of all buildings and lands and measures that would enhance the integration of the physical environment with the sociocultural and economic well-being of its people, and the demands of growth.

1.3.2 The management plan outlines the much needed strategies and guidance that would enable and allow changes to take place within a framework of conservation and protection. It would give recognition to the people and communities that live within the WHS and enable them to continue to live and follow their cultural and social practices. It would address threats and issues that would hamper heritage conservation of the heritage and identify emerging risks to enable monitoring.

1.3.3 The management plan serves as a long term comprehensive framework to guide heritage conservation of the heritage areas of Melaka and George Town. Its principles, objectives and policies are long term, but its strategies and measures are flexible, allowing for change and further improvements.
objectives of the management plan

1. To formulate the vision and policies for the WHS under the Conservation Management Plan, and the Special Area Plans;

2. To propose management strategies and action plans to protect the outstanding universal value significance of the World Heritage Site;

3. To review the existing site management plans in George Town and Melaka in order to enhance the protection and conservation of the cities and their significance heritage values;

4. To collect and examine existing data using the Geographical Information System (GIS) and to build up new databases of tangible and intangible indicators which will become the cornerstone to the management and monitoring of both properties in the WHS;

5. To acknowledge and safeguard the intrinsic values of the WHS, and understand the emerging issues with regards to opportunities, threats and constraints;

6. To identify current conservation issues and challenges of the physical, social and cultural development which could threaten and undermine the outstanding universal values of the WHS;

7. To prepare planning controls, regulations and guidance for the core and buffer zones of the WHS;

8. To formulate a regulatory urban framework plan that will address form, scale of development as well as public nodes and open spaces in the conservation area;

9. To formulate guidelines on traffic management plan;

10. To improve physical access and interpretation, encouraging all people to enjoy and understand World Heritage Sites;

11. To create and improve public awareness and create the interest and involvement in the world heritage sites of Melaka and George Town to its local communities.

12. To draft an action plan between the relevant agencies, the time frame, methods involved and allocation of resources,

13. To develop short, medium and long term action plan for implementation at all levels,

14. To suggest incentives for support and compliance for all quarters,
1.4 Preparation of The Management Plan

1.4.1 The management plan adopts a participatory approach, taking into consideration the views of communities and stakeholders. Through a series of focus group discussions held in George Town and Melaka, where the views of different interest groups and non-governmental organizations were sought. Perceptions and opinions on issues related to buildings, landscaping, traffic, developments, environment degradation, and cultural and social aspects were discussed. These views and perceptions were taken into consideration during planning and the formulation of management strategies and guidelines.

1.4.2 Consultations were also undertaken at both national and state level to ensure a holistic approach towards plan preparation. The Department of National Heritage, through the steering committee, gave their views and suggestions to improve the conservation management plan and to ensure that the plan meets the requirements of the World Heritage Committee of UNESCO. The draft conservation plan was further taken to the state and local authorities for their views.

1.4.3 As George Town and Melaka are located in different states, the State Planning Committees (SPC) of the respective states was consulted. Within the SPC, representatives from the local authorities where the properties are located, together with representatives from various government department and agencies were given the opportunity to express their views and make recommendation to further improve the CMP.

1.4.4 The CMP that is presented here has incorporated the views, opinions and recommendations obtained at the different stage of consultations.

1.4.5 Further public consultations would be undertaken for the Special Area Plans. In line with the statutory requirements, the Special Area Plans would be exhibited in the respective properties to seek public opinion. A minimum time line of 1 month is to be given to allow for public feedback, and if deemed necessary, further discussions would be held to inform and explain the Special Area Plans to the general public before the Special Area Plans are finalized and approved.
1.5 User of the Plan

1.5.1 It is for the authorities to refer and use in carrying out its implementation and to ensure that the guidelines are adhered. It is for the community, the building owners and the general public, especially those living within the properties who constantly encounter changes in their physical, social and cultural environment. For the building owners, especially the owners of heritage buildings, the CMP shall serve as a guide and a reference which would enable them to manage and care for their buildings for now and for the future generations.

1.6 Monitoring of the Plan

1.6.1 The CMP is a flexible plan. It is a rolling plan although it covers a period of six years. The proposed implementation program allows for change as more information is made available and the database is expanded. The Plan has a monitoring strategy, with a given set of initiatives, each having a time line, and indicators that allow for regular monitoring and tracking on their progress. The indicators facilitate monitoring as well as scope for change and medications, if strategies are found to be ineffective or lacking. The database would be further strengthened by enhancing the GIS for both areas to enable monitoring.
1.7 Reviewing the Plan

1.7.1 This Conservation Management Plan has a lifespan of six years during which a sizeable number of programmes are expected to be carried out. In addition, there are also a number of programmes and elements that would extend beyond the six-year period. Nevertheless, the lifespan of the programmes proposed within this management plan depend very much on the extent of commitment of all parties involved in implementing the programmes.

1.7.2 Within the review period of six years on the Conservation Management Plan, annual reviews will be carried out to ensure that the Conservation Management plan is updated to be as relevant as possible to the circumstances facing the World Heritage Site. Annual reviews will focus on Implementation Plans rather than the content of this Conservation Management Plan. The annual review of the implementation plan will offer short-term updates towards ensuring a better management of the World Heritage Site.

1.7.3 The review process becomes the responsibility of the State Party whom will be assisted by the Chief Executive Officer (CEO) of the World Heritage Offices. A Steering Committee will be set up to assist in the review and to provide feedback of the Plan’s implementation.

1.8 Structure of the Document

1.8.1 The following outlines the structure of the Management Plan:

Part 1:
VISION AND MANAGEMENT STRATEGIES
- This part contains nine chapters which deliberates the significance of the WHS, the challenges it faces, the opportunities and potential and its vision for conservation practices. It highlights strategies for management of the site, institutional as well as financial institutional for its implementation.

Part 2 and 3:
DEVELOPMENT GUIDE PLAN FOR MELAKA WHS & GEORGE TOWN WHS
- This part contains seven chapters giving details actions, planning control and guidance for the inscribed property and its buffer zone. Such detail treatment includes zoning and use control, heritage building control, view and vista protection, public realm proposals, access and circulation measures, and proposals for improving utility and infrastructure.

Annexure A and B:
GUIDELINES FOR THE CONSERVATION AREAS AND HERITAGE BUILDINGS (MELAKA & GEORGE TOWN)
- The annexure provides details guidelines for conservation of heritage buildings and conservation areas.

Annexure C:
HERITAGE BUILDINGS FORM AND STYLES FOR GEORGE TOWN WHS
- The annexure provides details on building styles for heritage buildings in George Town.
2. Description of the Property

2.1 Location

Name of Property
2.1.1 Melaka and George Town, Historic Cities of the Straits of Malacca.

Country: Malaysia
2.1.1 Both the Historic City of Melaka and the Historic City of George Town, Penang are located on the west of Peninsular Malaysia, and are bordered by the historic Straits of Malacca to their west.

Figure 2.1: Map showing location of Melaka and George Town

Figure 2.2: Map showing location of Malaysia and the Straits of Malacca
2.2 Identification of the Property: The Historic City of Melaka

**Region:** Peninsular Malaysia
**State:** State of Melaka, Malaysia
**Province:** Melaka Historical City Council (MBMB)

2.2.1 The Historic City of Melaka is located in the State of Melaka (Negeri Melaka), 125 kilometers south of Kuala Lumpur. Located on the west coast of central Peninsular Malaysia, Melaka state is bordered by the Straits of Malacca to the west, State of Negeri Sembilan to the north and State of Johor to the south. The State capital, Melaka, extends from the nominated area at the mouth of Melaka River inland to the new administrative center at Ayer Keroh.

**Boundary and Coordinates of Core and Buffer Zones**

2.2.2 The Historic City of Melaka can be identified by the geographical coordinates at:

- **Longitude:** 2° 10’ 36.3929” N, 2° 12’ 18.3289” N
- **Latitude:** 102° 14’ 10.6314” W, 102° 15’ 48.06” W

The site corresponds to the oldest part of the historic centre of Melaka, including the Melaka River that passes through the site, and encompasses St. Paul’s Civic Zone and Historic Residential and Commercial Zone.

2.2.3 **Core Zone: 45.3 hectares (15.7%)**
The Core Zone of the Historic City of Melaka comprises of two major areas: First is St. Paul’s Hill Civic Zone which has a number of government buildings, museums, churches, urban square and original fortress town from the 16th Century Portuguese and Dutch Period. Second is The Historic Residential and Commercial Zone which has more than 600 shophouses, commercial and residential buildings, religious buildings and tombs on four main streets: Jalan Tun Tan Cheng Lock (Heeren Street), Jalan Hang Jebat (Jonker Street), Jalan Tokong/Tukang Emas/Tukang Besi and Jalan Kampung Pantai; as well as on four perpendicular streets of Lorong Hang Jebat, Jalan Hang Kasturi, Jalan Hang Leiku and Jalan Hang Lekir.

2.2.4 **Buffer Zone: 242.8 hectares (84.3%)**
The Core Zone is being protected by 285.9 hectares of Buffer Zone, bounded by Jalan Merdeka, Taman Kota Laksamana, Jalan Ong Kim Wee, Jalan Tan Chay Yan, Jalan Munshi Abdullah, back lots of Kampong Banda Kaba, Jalan Chan Koon Cheng and Jalan Merdeka. Bukit China, a hill located north east of the historic inner city of Melaka also makes up the Buffer Zone.
Figure 2.3: The Historic City of Melaka, boundary of Core and Buffer Zone and coordinates.
2.3 Justification Changes of Boundary

2.3.1 The boundary of the Core and Buffer Zones of Melaka as found in the Dossier contains some anomalies which require attention. In reviewing the boundaries, it was decided that the boundaries should follow physical features such as street edge, river alignment and fencing to facilitate on site management as well as legibility.

Figure 2.4: Boundary Inscribed by UNESCO According to Dossier

Melaka and George Town: Historic Cities of the Straits of Malacca.
There are 13 changes of the boundaries in Melaka as follows:

2.3.2 **Buffer Zone:**
1. Bukit China (Major changes)
2. Melaka River Mouth (Major changes)
3. Malacca High School Field
4. Tengkera Police Station
5. Hang Tuah Stadium
6. Jalan Merdeka (Road alignment)
7. Jalan Munshi Abdullah (Road alignment)

2.3.3 **Core Zone**
8. Melaka Tengah Police Station, Jalan Kota
9. Melaka District Police Station, Jalan Banda Kaba
10. Kampung Ketek
11. Kubu Fire Station
12. Dataran Pahlawan Mall
13. Jalan Laksamana 5 (Road alignment)

All the changes proposed have effectively increased the area of Core as well as Buffer Zone of WHS.
Figure 2.6: Proposed Amendment Boundary

Table 2.1: Inscribed Boundary vs Proposed Amendment Boundary

<table>
<thead>
<tr>
<th>Boundary</th>
<th>Core Zone</th>
<th>Buffer Zone</th>
<th>Total Area (Hectares)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inscribed</td>
<td>38.62</td>
<td>134.03</td>
<td>172.65</td>
</tr>
<tr>
<td>Proposed Amendment</td>
<td>45.3</td>
<td>242.8</td>
<td>288.10</td>
</tr>
</tbody>
</table>
Changes in Buffer Zone

Bukit China

2.3.4 The first major amendment is the inclusion of Bukit China to the WHS as part of Buffer Zone. The change was required by the ICOMOS Assessor during his visit in 2007. The basis of this request to incorporate Bukit China as part of the Buffer Zone is premised upon the fact that it is one of the oldest and largest Chinese burial grounds outside China. The hill was bought in 1622 by Kapitan China Lee Wei King, one of the early Trustees of Cheng Hoon Teng Temple and donated the hill to the Chinese of Melaka for their burial ground. Bukit China had been referred to since the earliest days of Melaka. It is commonly assumed that the entourage which accompanied the bride of Parameswara, Hang Li Po, settled on this hill. It had also been suggested that Zheng He used this site as a base for his crew.

Justifications:
1. Required by ICOMOS Assessor during 2007 visit.
2. The oldest and largest Chinese burial grounds outside China.

Figure 2.8: Bukit China

- Inscribed Boundary (Buffer Zone)
- Proposed Amendment Boundary (Buffer Zone)
2.3.5 The second major change for the boundary is at the estuary of Melaka River. The original Buffer Zone was identified along the river bank before the construction of the barrage and bypass as part of the river rehabilitation works. It was also noted that there were reclamation works at estuary since the initial drawing up of the boundaries was done. The new boundaries take into account the new alignment of the river at this stretch and extend an additional 1 kilometer in a funnel shape, from the edge of Jalan Syed Abdul Aziz.

This is to protect the river mouth from any further reclamation and structures on the reclaimed land that can obstruct the view towards the WHS from the Straits of Malacca and vice versa.

Justifications:
1. To protect the river mouth from any further reclamation and structures on the reclaimed land.
2. To protect the view towards the WHS from the Straits of Malacca.
3. To protect the view from WHS towards the Straits of Malacca.

Figure 2.9: Melaka River Mouth
2.3.6 The existing boundary in the Dossier runs in the middle of the playing field of Malacca High School in the Buffer Zone. The error occurs as the cadastral plans had not captured the extension of the playing field by the purchase of a vacant piece of land in 1973. The new boundary of the Buffer Zone is now physically identifiable by the fencing between the schools.

Justifications:
1. The existing boundary in the Dossier runs in the middle of the playing field of Malacca High School in the Buffer Zone.
2. The new boundary of the Buffer Zone is physically identifiable.
Tengkera Police Station

2.3.8 The northern boundary of the Buffer Zone at Jalan Tengkera runs in the middle of the rows of shophouses halfway between Jalan Ong Kim Wee and Jalan Gajah Berang. The access road to Tengkera Police Station is used as the new delineation of the Buffer Zone.

Justification:
1. Boundary of the Buffer Zone at Jalan Tengkera runs in the middle of the rows of shophouses.
2.3.9 The inscribed boundary in the Dossier dissecting Hang Tuah Stadium and Universiti Teknikal Melaka (UTEM) into two, thus the proposed amendment is to follow the cadastral and physical boundary on the site.

Justification:
1. To avoid dissecting buildings and lots.

Figure 2.12: Hang Tuah Stadium

- Inscribed Boundary (Buffer Zone)
- Proposed Amendment Boundary (Buffer Zone)
2.3.10 The principle of using physical features to demarcate boundary makes it imperative that Jalan Merdeka to the east of the annexe of Dataran Pahlawan Mall form the boundary of the Buffer Zone instead of the cadastral boundary in the middle of the property next to the road.

**Justification:**
1. The principle of using physical features to demarcate boundary.
2. Inscribed boundary follows cadastral that runs in the middle of the property next to the road.

**Figure 2.13:** Jalan Merdeka

- **Inscribed Boundary (Buffer Zone)**
- **Proposed Amendment Boundary (Buffer Zone)**
Jalan Munshi Abdullah

2.3.11 The amendment is to standardise the boundary following the inner side of the road (on the property boundary of the Buffer Zone)

Justification:
1. To standardise the boundary following the inner side of the road.
Changes in Core Zone

Melaka Tengah Police Station, Jalan Kota

2.3.12 The original boundary from the Dossier includes the main building only, while other buildings within the compound in the complex remain in Buffer Zone. The proposal is to include the whole complex of Melaka Tengah Police Station into the Core Zone.

Justification:
1. To avoid dissecting buildings and lots.

Figure 2.15: Melaka Tengah Police Station, Jalan Kota

Inscribed Boundary (Core Zone)
Proposed Amendment Boundary (Core Zone)
Melaka District Police Station, Jalan Banda Kaba

2.3.13 The original Portuguese Fort was laid approximately as on the map. The proposal is to include the whole complex of Melaka District Police Station into the Core Zone.

Justification:
1. The site has historical significant (Portuguese Fort).

Figure 2.16: Melaka District Police Station, Jalan Banda Kaba
Kampung Ketek

2.3.14 Kampung Ketek is one of the residential enclaves in Core Zone. However only some parts of Kampung Ketek include in Core Zone while the other in Buffer Zone. The boundary used is based on cadastral and there are no physical features to identify these two different Zones. The proposed boundary is to follow the physical boundary of Jalan Masjid on the north, straight towards the river alignment on the east and extended to Jalan Portugis on the west side of Kampung Ketek. This revision will incorporate the whole area of Kampung Ketek and also a row of shophouses along Jalan Kampung Hulu.

Justification:
1. To follow the physical boundary for easier identification on site.

Figure 2.17: Kampung Ketek
The proposed boundary follows the fencing of SJKC Pay Teck at Jalan Portugis, straight to the west towards Jalan Kubu, and includes Kubu Fire Station to the south. The physical boundary indicated is clearer on the ground compared to the cadastral boundary before.

Justification:
1. To follow the physical boundary for easier identification on site.
Dataran Pahlawan

2.3.16 The inscribed boundary in the Dossier dissecting Dataran Pahlawan Mall, thus the proposed amendment is to follow the cadastral and physical boundary on the site.

Justification:
1. To avoid dissecting buildings and lots.

Figure 2.19: Dataran Pahlawan

Inscribed Boundary (Core Zone)
Proposed Amendment Boundary (Core Zone)
Jalan Laksamana 5

2.3.17 The cadastral indication for the Core Zone along Jalan Laksamana 5 (at the back of Jalan Tun Tan Cheng Lock) is not identifiable on the site because some of the shophouses along this road have done extensions at the back. The proposed boundary for this area is to follow the road alignment which is identifiable on the site.

Justification:
1. To follow the physical boundary for easier identification on site.
### 2.4 Identification of the Property: The Historic City of George Town

<table>
<thead>
<tr>
<th>Region</th>
<th>Peninsular Malaysia</th>
</tr>
</thead>
<tbody>
<tr>
<td>State</td>
<td>State of Penang, Malaysia</td>
</tr>
<tr>
<td>Province</td>
<td>Municipal Council of Penang Island (MPPP)</td>
</tr>
</tbody>
</table>

#### 2.4.1 The Historic City of George Town

The Historic City of George Town is located in the State of Penang, 325 kilometers north of Kuala Lumpur. The State of Penang comprises of Penang Island and its mainland component of Seberang Perai (formerly known as Province Wellesley); and is situated off the coast of northern Peninsular Malaysia.

George Town, the State capital located on Penang Island, is the heart of the metropolitan area that is the second largest urban conurbation in Malaysia, served by a sea port, North-South highway, as well as an international airport.

#### Boundary and Coordinates of Core and Buffer Zones

The Historic City of George Town can be identified by the geographical coordinates at:

- **Longitude**: 5° 25' 31.5042” W, 5° 25' 30.7870” W
- **Latitude**: 100° 19' 48.8852” N, 100° 20’ 53.20” N

The site corresponds to the historic inner city of George Town, the first British port town along the Straits of Malacca. The city comprises a rich collection of historic buildings, vernacular, administrative and religious - constructed by the European trading settlers under the British East Indian Company and later the British colonists and migrants from various parts of the India-China trading route.

#### Core Zone: 109.38 hectares (42.16%)

The Historic City of George Town covers an area of 109.38 hectares bounded by the Straits of Malacca on the north-eastern cape of Penang Island, Love Lane to the north-west and Gat Lebuh Melayu and Jalan Dr Lim Chwee Leong to the south-west corner. There are more than 1700 historic buildings within this Core Zone align on four main streets of Pengkalan Weld, Lebuh Pantai, Jalan Masjid Kapitan Keling and Love Lane and several perpendicular streets of Jalan Tun Syed Sheh Barakbah, Lebuh Light, Lebuh Bishop, Lebuh Gereja, Lebuh China, Lebuh Pasar, Lebuh Chulia, Lebuh Armenian and Lebuh Aceh.

#### Buffer Zone: 150.04 hectares (57.84%)

The Core Zone is being protected by 150.04 hectares of Buffer Zone (this does not include sea buffer), bounded by stretch of sea area around the harbour, Jalan Prangin to the south-west corner and Jalan Transfer to the north-west corner.
Figure 2.21: The Historic City of George Town, boundary of Core and Buffer Zone and coordinates
2.5 Total Number of Buildings

2.5.1 The total number of buildings in these zones are as follow:

<table>
<thead>
<tr>
<th>Sites</th>
<th>Total Number of Buildings</th>
<th>Total Buildings</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Core Zone</td>
<td>Buffer Zone</td>
</tr>
<tr>
<td>Historic City of Melaka</td>
<td>1,075</td>
<td>1,975</td>
</tr>
<tr>
<td>Historic City of George Town</td>
<td>2,344</td>
<td>2,321</td>
</tr>
<tr>
<td>Total</td>
<td>3,419</td>
<td>4,296</td>
</tr>
</tbody>
</table>

2.6 Description of the Historic City of Melaka

2.6.1 The character of the Historic City of Melaka is strengthened by the unique townscape qualities of the streets and the buildings that shaped the quality of space created by these streets. In comparison to other towns in Malaysia, Melaka’s townscape is quite distinctive in character because of its sense of enclosure and mixture of houses, shops and places of worship. Along the narrow streets of Melaka, align on both sides are rows of shophouses, mainly two and three storey height. The buildings ranged from simple two storey structures with plain facades to more elaborate three storey edifices in different styles and influences. The streetscape of these shophouses are punctuated by a number of religious buildings, mainly the Malay mosques, churches, Chinese and Indian temples and dialect group and clan association buildings.

2.6.2 There is a strong element of surprises created by narrow and deflected streets that entice a person to wander through the alleys endlessly. The skyline is broken by tiny intrusive structures on the roofs to form an interesting silhouette. Added to that is the unique blend of façade, creating a sense of variety within uniformity – with each building along the streets being different than the others, yet giving a sense of unity.

2.6.3 The townscape of Melaka is reminiscent of the medieval European cities which were designed to fit a society that was ruled by feudal lords, where streets were designed to confuse the enemy. This makes Melaka unique to the world as an example of a medieval townscape in this part of the region. The naming of the streets according to the various artisans that lived here such as goldsmiths, blacksmiths, temple etc accentuates the character of medieval cities that tend to locate craftsmen and traders according to their guilds. The character of the Historic City of Melaka is strengthened by the unique townscape qualities of the streets and the buildings that shaped the quality of space created by these streets. In comparison to other towns in Malaysia, Melaka’s townscape is quite distinctive in character.
Figure 2.22: Eredia’s map of Melaka in 1600
2.7 Description of the Historic City of George Town

2.7.1 George Town is situated at the cape or promontory at the north-eastern tip of the island, between the hills and the sea. The hills provide a stunning backdrop to the city, which is built up to the foothills. The settlement that Francis Light, the British country trader, had originally created (1786) and named did not have any grand design as it was not intended to be a “settlement colony”. Light had neither resources nor staff to develop the town. The development of George Town during the first century after its founding could be attributed to the courageous and entrepreneurial spirit of early migrant communities who found in George Town a place to make a living and begin a new life.

2.7.2 The Popham’s 1798 map shows the early topography and morphology of the settlement. From the map, it can be seen that the town had to be built on land that had to be cleared of vegetation, levelled and filled. These early settlers formed their own neighbourhoods or quarters. The boundaries of these ethnic quarters are not clearly demarcated but centre on certain streets or intersections. The cultural practices and preferences of the different ethnic groups appear to have created an impact on the development of the town, particularly in relation to the sitting of important religious and institutional buildings, the European or colonial quarter is to the north, close to Fort Cornwallis, the administrative centre, and clustered around St. George’s Anglican Church (Farquhar Street), Catholic Church and Armenian Church (which no longer exists) at Bishop Street.

2.7.3 The Chinese town is located within the grid of early George Town, with China Street as the primary axis and King Street as the secondary axis. An analysis of the Chinese settlement and the location of key buildings suggest that the early Chinese settlers built their houses on a grid pattern laid out by Francis Light’s administration, surrounding freestanding kongsi temples. The Chinese community thus formed not only a “city within city” but also lived in the closed society that Victor Purcell described as “imperium in imperio”. The Chinese were also particular in choosing the site based on social economy and feng shui principles. First they segregated among respective dialect groups and built their associations, kongsi or temples as social centres. The four major dialect groups, Hokkien, Cantonese, Hakka and Teochew were originated from Guangdong and Fujian provinces in China. Each of these sub-groups had their regional tradition in terms of dialect, customs, cuisine as well as arts and architecture. Secondly, for major buildings to be built, the basic feng shui followed would be “turn away from Yin and embrace Yang”. That means the building is backed by all or high land and faces the sea.

This was indeed the best location as it was cooled by the sea breeze from the north. The presence of the fort and police station in this area also provided security to the Europeans. A Christian burial ground established in 1786 is sited on the north-western side of Penang Road, on a site that was slightly elevated and overlooking the north beach.
Figure 2.23: Popham’s Map of George Town in 1798
2.7.4 The character of the Historic City of Melaka is strengthened by the unique townscape qualities of the streets and the buildings that shaped the quality of space created by these streets. In comparison to other towns in Malaysia, Melaka's townscape is quite distinctive in character because of its sense of enclosure and mixture of houses, shops and places of worship. Along the narrow streets of Melaka, align on both sides are rows of shophouses, mainly two and three storey height. The buildings ranged from simple two storey structures with plain facades to more elaborate three storey edifices in different styles and influences. The streetscape of these shophouses are punctuated by a number of religious buildings, mainly the Malay mosques, Chinese and Indian temples and Dialect group and clan association buildings.

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2.8 Urban Morphology of Melaka

2.8.1 Melaka began as a fisherman’s village along the Melaka River. The rise of the Malay Sultanate marked the beginning of Melaka as an important regional empire. A bridge was built on the river to accommodate the influx of migrants from its surroundings. The river, together with the hill forms two important geographical elements defining the town of Melaka. Upon the colonisation by the Portuguese, the A Famosa was constructed at the foot of St. Paul’s Hill. During the Dutch era, the urban structure of Melaka town became more planned. Streets were clearly defined and it was also during this period that the construction of brick shophouses and townhouses began. When the town of Melaka and its fortress was temporarily handed over to the British in 1795, the demolition of the fort under the directive of William Farquhar took place.

2.8.2 Today, the Porta Santiago remains the only standing physical reminder of the fort of Melaka. Under the Straits Settlements, Melaka rapidly expanded during the early 19th Century. The streets became linear and wider to accommodate the rise of private vehicles, and consequently the blocks of shophouses have also become increasingly orthogonal. Today, Melaka continues to grow as a series of reclamations ensued, causing the historic city to lose its original relationship to the sea.

Figure 2.27: Jonker Street, 1890 and 2010

Figure 2.28: Views of Melaka river mouth in 1910 and 2010
2.8.3 1980s had brought rapid changes to Melaka’s urban fabric. Emphasis was given to tourists’ related development, as it was clear that Melaka offers a significant attraction to both domestic and foreign visitors. A large area at Ayer Keroh next to the new highway became the focus of hotels, theme parks, restaurants and anything that can persuade the tourism industry to attract tourists instead of just relying on one source of attraction that was generally focused on Melaka’s rich heritage resources. The city centre’s role as seat of administration and most of the government department around St. Paul’s Hill for over 500 years came to an end when they moved to another administrative centre at Jalan Hang Tuah in 1980’s and later in the 21st Century to Ayer Keroh. In 2010 this administrative centre was hived off to form the heart of a new administrative municipality called Hang Tuah Jaya and thereby effectively ending the historic ties with the old trading port as an administrative centre.

2.8.4 The coastal setting at Banda Hilir where the fishing communities settled started to be affected. By mid-1980’s, the original location of Melaka by the sea was severed and the city’s historic waterside setting changed forever. The new area called Melaka Raya was introduced with large-scale commercial buildings, shops and offices created unsympathetic edge to the historic town.
Figure 2.29: St. Paul’s civic zone and its relationship to the Straits of Malacca
2.9 Urban Morphology of George Town

2.9.1 George Town was built on swampy land on the northeastern tip of the island. The 1798 Popham’s map shows the position of the early settlements in George Town, with administrative buildings scattered to the west of Fort Cornwallis and the town centre to its south. The town centre, bounded by Light, Beach, Chulia and Pitt streets, continues to function as the main commercial district within the George Town WHS. The town then continues to expand inwards. A series of reclamations and canalisations ensues, with the ghauts extending towards Weld Quay as the new waterfront as well as the construction of the piers and jetties. The development of the Ferry Terminal, KOMTAR and the Penang Bridge symbolise Penang as a rapidly developing and industrialised state. Today, the footprint of the George Town WHS has remained relatively intact despite the scarcity of land on the island and the intense pressure to redevelop.

2.9.2 The hills and the Straits remain strong topographical features that frame and identify George Town’s sense of place. Nonetheless, the surroundings of the city have since experienced rapid developments. The proliferation of skyscrapers and modern buildings now dominate the skyline, in particular the 232-metres tall KOMTAR which is the symbol of a modern, industrialised Penang.

Figure 2.30: Panorama of George Town, taken from the Penang Postcard Collection 1899-1930s and 2010 (Nasution, Wade, 2003)
Figure 2.31: Urban morphology of George Town

Figure 2.31: Urban morphology of George Town
2.9.3 Comparing old photographs from postcards and current street photographs enables us to understand the morphology of the streets of George Town, not only in terms of physical change but also the evolution of the way of life brought upon by modernisation. On Pengkalan Weld, the colonial administrative building on the right side of the image was damaged during the war, and has since been replaced with a modern building. The tram tracks have been sealed and Weld Quay to this day has become a very busy vehicular passageway connecting to the ferry terminal and expressway.

2.9.4 Further south along Pengkalan Weld, the old photograph shows the vibrant trading activities occurring along the street, illustrating George Town as a bustling trade port. Today, parts of the waterside have been reclaimed for car parking and landscaping. The buildings fronting the waterfront are currently vacant and trade activities have since been replaced with vehicular traffic movement.
2.9.5 Nevertheless, many streets of inner George Town remained historically intact, for instance the five temples along Lebuh King. For the most part, the built structures along King Street have been preserved. Modernisation has unavoidably impacted the streetscape character of this historic city, for instance the installations of lamp posts and electrical cables on facades brought upon by introduction of electricity. Today, roadside parking (often illegal) and modern utilities such as electricity substations and bins make up part of the visual character of the street.

Figure 2.34: Lebuh King looking into the five Cantonese temples
3. The History and Development of the Straits of Malacca

3.1 Straits of Malacca: Geographical Position

3.1.1 The Straits of Malacca is situated between Peninsular Malaysia and the island of Sumatra, extending approximately about 800 kilometers from north to south. It is one of the longest stretches of waters in the world. The widest stretch which of about 120 nautical miles, can be found in the north, around Penang Island which opens out to the Indian Ocean. This area served as the entrance and exit for ships from India and the Middle East (West Asia). The narrowest stretch which is only about 9 nautical miles, is near the southern tip of Singapore joining the Singapore Straits. This end became the gateway for ships from China, the Far East and the rest of the islands in Southeast Asia. Being surrounded by countries that were rich in various natural products such as spices from Moluku (the Moluccas), resins, aromatic woods from Sumatra and minerals from the Malay peninsula, the Straits served (still is) as a very important highway for maritime traders and merchants.

3.1.2 Since the beginning of the Common Era, especially during the days when shipping played very important roles in economic and political expansions, the Straits of Malacca was one the busiest highways. Any power that was able to wrest authority on this highway also became the super power of the region, controlling both the wealth and economy of the surrounding territories. Hence, there emerged powerful kingdoms and port cities along the Straits of Malacca, such as Srivijaya (7th – 13th Centuries) and its port cities such as Palembang and Jambi; the Melaka empire (14th -16th Centuries) with the growth of Melaka entrepot; the Aceh kingdom (16th – 19th Centuries), and the emergence of the Straits Settlements (1826 – 1957) with the port cities of Penang, Melaka and Singapore.

3.2 The Traditions of the Straits of Malacca

3.2.1 The maritime tradition that started in the early years of the Common Era was the catalyst of multi-culturalism. This was followed by immigration and settlement in both Melaka and Penang by peoples from all over Asia and Europe. Melaka and Penang situated respectively on the southern and northern parts of the western coast of the Malaysian peninsula, are ports on the Straits of Malacca which grew from around the end of the 14th Century through today.

3.2.2 The Straits of Malacca, however, could have been known much earlier by maritime traders throughout the world, especially those from India and China. The Malays from the south (probably from the present Indonesian archipelago) were already reputed seafarers. They were renowned for their junks which were small, speedy and efficient that they were able to avoid pirates who infested the seas along the trade routes. These traders had introduced Southeast Asian products such as camphor, sandalwood, gharuwood and spices which were exchanged for goods from the Mediterranean, Middle East and Africa, such as frankincense and myrrh and other plant resins used in the manufacture of perfume and incense. As a result of these activities, small coastal polities emerged. In the 7th Century the
most important of these was Srivijaya which was located in Sumatra, halfway between the Straits of Malacca and the Sunda Straits. It was a member of the royal family from this kingdom who later founded Melaka in the late 14th Century or early 15th Century when Srivijaya was on the decline.

3.3 Founding of Melaka (c 1386)

3.3.1 The Melaka founder prince was said to be Parameswara, which meant 'prince consort', was the husband of a Majapahit princess in Java. He was a prince from Palembang, the capital of Srivijaya, and who was involved in the war of succession before fleeing to Tumasek (Singapore). There he was reported to have killed the Siamese regent who ruled the island, and was driven by armies from Pahang or Patani, which were vassals of Siam. He wandered around until he reached the estuary of a river, later known to be the Melaka River, and rested under a tree. While resting he was said to have noticed a mouse deer being chased by a dog, but the former retaliated back, notwithstanding its smaller size, and managed to chase the dog away. This demonstration of steely courage was taken by Parameswara as a symbol of fortune for him. He asked around for the name of the place. Since none knew, he named it after the tree under which he was resting, the Melaka tree. Thus Melaka was founded. Under Parameswara’s rule this small fishing settlement became a thriving port.

3.4 Melaka the Genesis of Malaysian Traditions and Culture

3.4.1 Melaka which was strategically situated at one of the narrowest spots on the Straits and geographically blessed as the area where the northeast and southwest monsoons meet, became the heir of the Srivijayan traditions. The maritime traders who had been plying the sea routes between India and China and had converged at ports of influential kingdoms of Srivijaya in Sumatra and Majapahit in Java, began to call at the port of Melaka which was then only a small fishing village. With the help of the Orang Laut or sea-rovers, Parameswara was rapidly able to build up a large settlement by forcing all vessels passing through the Straits to obtain a clearance from him. Melaka began to make its presence felt.

3.4.2 It was also able to provide traders with fresh water and the harbour was situated such that it could easily be defended, especially against the marauding pirates.

3.4.3 Right from the start Parameswara’s political ambition had contributed to the multicultural characteristic of Melaka. He had opened his doors to Chinese envoys as a hedge against Siamese and Majapahit designs to claim suzerainty over his new kingdom. This coincided with the period of the Ming Dynasty which was restoring Chinese control over states in Southeast Asia. Therefore, when the Chinese envoy, Yin-k’ing or Yi Ching, visited him around 1403, Parameswara seized the opportunity to apply for recognition from the Ming emperor and to request support against the Siamese. Two years later he established an embassy to China which was well received and his position as ruler of Melaka was duly recognised. That was the beginning of
Melaka-China relationships which were strengthened by mutual regular visits by both parties led by the newly installed Melaka rulers or their regents on the Melaka side and by influential Chinese officers of the court of China on the other.

3.4.4 Parameswara and the rulers after him surrounded themselves with powerful bureaucrats whose titles carried Indian terminologies, e.g., Bendahara, Laksamana, Syahbandar, etc., showing Indian/Srivijayan influence in the Melaka sultanate tradition. It is also well recorded that some members of the royal families of Melaka intermarried with Indian women. According to Sejarah Melayu (The Malay Annals), a sultan of Melaka had also married a Chinese princess called Hang Li Po. The princess’ retinue which consisted of several hundred Chinese youths and maidens were settled on a hill which was then named Bukit China or China Hill which still exists today. Hence, even the royal traditions draw from the customs of different royal houses. Melaka’s rapid growth further enhanced the multicultural characteristics of the people. Malay traders from the island of Moluku (Moluccas) and other islands which produced cloves, nutmegs and mace, now stopped at Melaka before continuing to India. Many, however, waited here and exchanged their products with textiles brought down by Indian counterparts from Gujarat, Coromandel, Malabar and Bengal. Chinese traders also began to throng Melaka with the well sought after Chinese porcelain and silk. These goods were usually exchanged for aromatics and perfumes from the Middle East, and spices, corals, sandalwood and other exotic products from the Malay archipelago that fetched very high prices in the East and West. Soon Melaka began to overshadow the ports of Palembang or Jambi in Srivijaya. These latter two ports only remained as ports of export for pepper, whereas Melaka became an emporium. It had wrested the spice trade route from the Straits of Sunda in the south to the Straits of Malacca. The busiest season in Melaka was between December and March when the south westerly monsoon brought traders from the Far East and the West Asians to Melaka. Between the months of May and September the winds brought traders from Java and the eastern archipelago here. About 2,000 ships were reported to anchor at Melaka at any time during the height of her glory.

3.4.5 Melaka’s success was also attributed to the well administered government and trading facilities. The Melaka Maritime Laws were introduced to ensure the rights of ships’ captains and their crew. There were four different ports to cater for traders from different countries, each headed by a harbour master or syahbandar. The most important was the one in charge of traders from Gujarat, as they formed the largest group of traders. The second was from those from the rest of India, Burma, and North Sumatra. The third was for traders from island Southeast Asia, as well as from China and Indo-China.

3.4.6 Since all of them had to take a time off in Melaka to wait for the respective monsoons to take them home, they mingled together in the markets and the ports, though their places of domicile were accordingly allotted. It was reported that about 80 different languages were spoken on the streets of Melaka every day. The presence of various ethnic groups; Indian, Chinese, Malay, Siamese, Burmese, Indo-Chinese, Arab, and others, germinated a multi-cultural and highly cosmopolitan society in Melaka.
3.5 Islamic Tradition and the Malay Sultanate

3.5.1 In addition to trading with China, Melaka had commercial connections with Sumatera, Pasai and Perlak. In 1414, Parameswara married the daughter of the Muslim ruler of Pasai. After embracing Islam he changed his name to Mohammad Iskandar Shah. Once it was known that Islam became the main religion of the state, Muslim traders from India, Persia and Arabia also converged in Melaka, not only to trade but also to spread the religion. Melaka became the centre of learning for Islam. The Arabic script was adopted leading to the absorption of Arabic vocabularies into the Malay language. The language which was already used as the lingua franca in the Malay archipelago and some other parts of Southeast Asia became more sophisticated with the existence of the Jawi script.

3.5.1 Official letters and agreements between rulers, bureaucrats, traders and merchants were written in Malay. Mosques began to be built and religious functions were regularly observed. In Melaka, and the rest of the Malay States, the Malays became synonymous with Islam. The traditions were further enriched by Muslims from the Middle East, India, China and other parts of Southeast Asia who came as envoys, traders and missionaries. Their life began and ended in Islamic culture, from birth (naming of the child), marriage, till death (burial traditions). Islamic tradition is one of the major features of the multi-cultural society in the Malay archipelago and the rest of Southeast Asia.

3.6 Portuguese Influence

3.6.1 Melaka’s glory under the Malay sultanate ended in 1511, when the Portuguese captured the ‘fabulous eastern empire’, under the command of Alfonso de Albuquerque. The reputation of Melaka must already have reached them much earlier. In 1509 a group of traders led by De Sequeira had landed in Melaka, but were attacked and some were killed. De Albuquerque who had succeeded in capturing Goa in India, decided that it was the best opportunity for him to rescue and avenge his fellowmen and capture Melaka and the famous spice trade. By controlling it, Portugal became the new power to be reckoned with in Europe. About Melaka, a Portuguese had once said, “Whosoever holds Malacca, had his hands on the throat of Venice, for the goods that were transacted in Malacca had very high values in Europe.” They were also keen to spread their Catholic religion against the Muslims who were fighting against them in the wars of the Crusades.

3.6.2 After the conquest, the Portuguese quickly began to work. By using hundreds of workmen, including slaves and captives (probably Malays), they built A Famosa, the fortress, that surrounded the present St. Paul’s Hill. This fortress was made of stones broken down from mosques and tombs of royal families and nobles. Within the walls were, “the castle, palaces of the Governor of the State, the palace of the Bishop, the Hall of the Council of the Republic, the Hall of the Brothers of Mercy, together with five churches, namely the Cathedral of Our Lady of the Assumption, with its chapter and the Episcopal see, the Church of Mercy of Our Lady of Visitation, the Church of Our Lady of the Annunciation in the College in the Company of Jesus at the top of the hill, the Church of St. Domingo in the Convent.
of the Dominicans, and the Church of St. Antonio in the Convent of St. Augustino; [and] there were two hospitals.” A famous French Jesuit, St. Francis Xavier “Apostle of the Indies”, started St. Paul’s College in 1548. On another hill opposite the China Hill, the Portuguese also built a chapel dedicated to St. John the Baptist, and the hill was thus named after him as St. John’s Hill or Bukit Senjuang (the corrupted Malay name for the hill).

3.6.3 The destruction of mosques and tombs of nobles was a clear indication of Portuguese intention to weaken the Muslims and the influence of Islam. Missionary works were carried out and a number of people were converted, though not very successfully, for, in the 1st decade of the 17th Century (almost 100 years after the Portuguese had landed in Melaka), not more than 8,000 people were converted. Muslim traders in Melaka were being prejudiced. Consequently many left to seek other more favourable ports, a development that proved disadvantageous to the Portuguese themselves. But trade did not stop in Melaka, especially with Indian textile traders who remained to be more dominant than the Portuguese themselves. Records also mentioned that chettis (chettiars) had partnered with the Portuguese in such trade. The latter had also encouraged these traders, especially those from the Coromandel ports, to settle down in Melaka. They were promised great privileges. This then was the first colonial policy of settlement that became a major feature from the 18th Century onwards.

3.6.4 However, the Portuguese allowed certain local tradition to continue. People from different ethnic communities remained to live in their own sections as had been started by the Malay rulers. There were Kampong Java (Javanese village), Kampong Keling (Indian village) and Kampong China (Chinese village). It is also noted that the first Kapitan Cina (Head of the Chinese) was appointed by the Portuguese. The appointment of this position was continued later by the Dutch and the British. Thus multi-culturalism continued to flourish in Melaka.

3.7 Dutch Influence

3.7.1 In the 17th Century other European traders were actively plying the sea routes between India and China through the Straits of Melaka. Two of the most important traders were the Dutch and the British. The Portuguese influence at this juncture had begun to decline. Its empire had become too large and their home base was too far away. Melaka had repeatedly been attacked by the Malay neighbours, such as the former Melaka Malay sultans who had settled in Johor in the south of Melaka, the upcoming Achenese (Achenese) rulers who were contending as the new heir to the Malay Muslim power in the archipelago, and the Dutch who had succeeded in subjugating Java. Between the Dutch and the British, the former were more advanced as they were able to ally with the local rulers. In the attack of Melaka, the Dutch received support from the Malays in Johor. After a five-month siege, the Portuguese surrendered in 1641, 130 years after they had forever removed the Malay sultanate from Melaka.

3.7.2 Batavia (Jakarta) in Java was the new Dutch capital in the East (they had defeated Java in 1619), and the Dutch were not about to allow Melaka to compete with her. Dutch aim was to gain paramountcy in the spice and India-China trade, without any other European rivalry. Thus far they had been able to keep the
British at bay, and with the defeat of the Portuguese, the Dutch had realised their dream. But they could not retard the trade in Melaka. In the Malay Peninsula, Melaka became the main base for the Dutch who also concluded treaties with other Malay states, such as Perak and Selangor, which were rich in tin. In fact, at the end of the 18th Century, Melaka rose again as a Southeast Asian entrepot of par excellence. More Asian traders, especially Chinese and Bugis traded here again. Although the Dutch continued to monopolise the trade in the Straits of Malacca, they were less restrictive than the Portuguese. In fact, they resented the Portuguese more, for the European wars between the Catholics and Protestants to which the Portuguese and Dutch respectively were adherents, were also continued here.

3.7.3 After the conquest of Melaka, the Dutch merely took over the infrastructure left behind by the Portuguese. They occupied the fortress, A Famosa and renamed it Porta de Santiago. The coat of arms of the Dutch East India Company and the date 1670 were engraved on the gate. St. Paul’s College was used as part of the fortress and later as a burial ground for high ranking Dutch officials. The Dutch later built their own fortress on St. John’s Hill which was armed with eight cannons. In 1650 the former Governor’s residence was converted into the red terracotta Stadthuys (Government House) for the Dutch Governor and his retinue.

3.7.4 The Dutch were more interested in trade than in religion. They introduced tax farming system, and heads of the different communities were appointed to help Dutch officers administer the state. The penghulu (Malay headman) system was continued, so was the Kapitan Cina system. It was probably at this time that the Kapitan China system was associated with the triad society or the Thian Ti Hui. China was defeated by the Manchus and Chinese patriots who were repressed fled their country to neighbouring states, including Melaka, formed secret societies and aimed to gather enough support to drive away the Manchus. Thus, Melaka also became a haven for Chinese patriots who became successful in wealth and influence, so that they could help regain China from their enemies. This tradition was to continue when China fought for the 1911 revolution.

3.7.5 Christianity continued to spread during the Dutch period. Surprisingly it was the Catholic Church, St. Peter’s Church, which was first built in Melaka. The Dutch government allowed a Dutch Catholic to construct it in 1710 on a piece of land given by the government. The Dutch Protestants only built their own church, Christ Church, in 1753. This became the oldest Protestant Church in Malaysia. Jalan Gereja (Church Street) where it stands today was named after it. The church which was built of red bricks specially imported from Holland had tall slender windows with arched heads, massive walls and heavy wooden ceiling beams. Today the church is still in service and devotees still use the original pews during Sunday prayers.

3.7.6 Events in Europe also changed the history in Melaka. Holland was defeated by Napoleon and the Dutch king had to take refuge in England. The monarch then agreed to hand over Melaka and other possessions in the East to the British for protection until the Napoleonic wars were over. Thus, Melaka came into British hands between 1795-1818. By this time (1786) the British had already occupied Penang which was named the Prince of Wales Island.
3.8 Founding of Penang/English Influence

3.8.1 Situated at the northern end of the Straits of Malacca, Penang became a British possession in 1786 (specifically they landed at is where George Town is). Earlier, the British had attempted several times to occupy a base in the Malay archipelago in order to participate in the lucrative spice trade as well as have a share in the trade with China, but without much success. The opportunity came when, in the middle of the 18th Century, the Sultan of Kedah (a Malay sultanate in the north of the peninsula), who had allowed some British country traders to trade in his ports, had requested for help against the Siamese and some of his squabbling relatives. Francis Light, a British military officer, was able to conclude a treaty with him, promising the help needed by the Sultan. This treaty was later endorsed by The East India Company (EIC). He was also able to convince the Governor General of the EIC in India that Penang could serve as a naval base for the British in Bengal. After the Agreement, Light landed on the island full of hope as he had indicated in his letter to his company, Jourdain, Sulivan and de Souza, “…European ships can easily stop there. There is plenty of wood, water and provisions; there they may be supplied with tin, pepper, beetle-nut, rattans, birds’ nests; and the Macao ships will be glad to stop there, and all other vessels passing through the straits may be as easily supplied as at Malacca [by the Dutch]…” Hence Penang became the first leg for the British who gradually stepped into Malay Peninsular in the 19th Century.

3.8.2 Unlike the Portuguese and Dutch in Melaka who held monopoly on trade, the British EIC exercised the policy of free trade. They encouraged people from all over the world to settle and trade in Penang. They were also encouraged to produce export crops such as pepper, gambier, coffee, sugar, etc. To administer the island, a Presidency was set up under the jurisdiction of the EIC in Bengal. In 1826 Penang became part of the Straits Settlements when Singapore had also become a British possession (occupied in 1819) together with Melaka (being exchanged with Bencoolen with the Dutch after the 1824 Anglo-Dutch Treaty) were brought under a single British administration.

3.8.3 During the period when Dutch Melaka was placed under the protection of the British, the latter did not foresee that political events would eventually unite Melaka with Penang. Penang definitely did not intend to allow Melaka to rival it when the latter would be returned to the Dutch after the Napoleonic wars. The Penang Council ordered the British Resident in Melaka, William Farquhar, to effectively level down the city,”…the whole of the fortifications, arsenal, store houses and public buildings of all denominations in Melaka except Bukit China and St. John’s Hill.”

3.8.4 The British action prompted the famous local writer, Abdullah Abdul Kadir Munsyi to lament in his journal, “The Fort was the pride of Melaka, and after its destruction the place lost its glory like a woman bereaved of her husband, the luster gone from her face…The old order is destroyed. A new world is created, and all around us is changed.” The only part that remained of A Famosa and Porta de Santiago was the gate which now still stands. Further destruction was timely stopped by Thomas Stamford Raffles, agent of the EIC, who happened to be visiting Melaka. His report on Melaka to his superiors stated that, “…the name carries more weight to a Malay ear than any new settlement could,” and
indeed, “…with the assistance of Malacca, the whole of the Malay rajas in the Straits and to the Eastward might be rendered not only subservient but if necessary tributary”, was almost prophetic in relation to later expansion of British influence in the Malay States.

3.8.5 Under the single government of the Straits Settlements in 1826, the British EIC began to put the administration of Melaka and Penang in order. In Melaka, the EIC took over the Dutch administrative structure and continued with it, and the traditional Malay system of administration was thus continued. For example, the penghulu (headman) who was normally appointed from ancestral bureaucrats was absorbed into the colonial administrative bureaucracy. Under the British EIC, different communities were allowed to administer themselves, led by their respective headmen. However, to avoid direct confrontation from the local Malays, the British were more protective towards them. In addition, the position of Kapitan China (Chinese Headman) and Kapitan Keling (Indian Headman) were chosen from the most prominent and influential personalities of the communities. In Penang, Francis Light reported that a Kapitan China from Kedah had visited him with boat-loads of Chinese to settle down in Penang. He was Kapitan Loh Lay Huan whom Light had him appointed as the first Kapitan China in Penang. The position of Kapitan China became an institution in the British EIC administration of the Straits Settlements.

3.8.6 Like the two European predecessors in Melaka, the British EIC also set out to spread Christianity in the newly found settlements through European missionaries. In Penang, in 1787, Arnold Garnault, a French who was the Bishop of Bangkok, was the first to build the Assumption Church. In 1817 another church was built not far from the first. It was the Anglican Church of St. George. The man responsible was the Chaplain of the EIC, Rev. Robert Sparke Hutchings. In Melaka, a twin-towered Gothic church dedicated to St. Francis Xavier was built in the mid 1880’s by the French Father P. Fabre. Hence Penang and Melaka became centres of European Christian missionaries in the East.

3.8.7 In 1867 Penang officially became a British colony, which brought about the introduction of a British administration as well as a public works department. The Public Works Department engineers began to canalise streams and rivers, build hospitals gaols and police stations and plan for the reclamation of Weld Quay. Accordingly, the engineers are followed by the establishment of private architecture companies that bring in new architectural forms to accommodate the change in the increasing importance of the car.
4. Significance

4.1 Statement of Outstanding Universal Value

Inscription of Melaka and George Town as a World Heritage site was made by the World Heritage Committee in 2008 during its 32nd seating session in Quebec City, Canada.

The inscription adopts the following statement of Outstanding Universal Value:

Melaka and George Town, Malaysia are remarkable examples for historic colonial towns on the Straits of Malacca that demonstrate a succession of historical and cultural influences arising from their former function as trading ports linking east and West. These are the most complete surviving historic city centres on the Straits of Malacca with a multi-cultural living heritage originating from the trade routes from Great Britain and Europe through Middle East, the Indian subcontinent and the Malay Archipelago to China. Both towns bear testimony to a living multi-cultural heritage and tradition of Asia, where the many religions and cultures met and coexisted. They reflect the coming together of cultural elements from the Malay Archipelago, India and China with this of Europe, to create a unique architecture, culture and townscape.

The site was inscribed as a World Heritage Site with the following statements of Outstanding Universal Value:

Criterion (ii) : Melaka and George Town represent exceptional examples of multi-cultural trading towns in East and Southwest Asia, forged from the mercantile and exchanges of Malay, Chinese and Indian cultures and three successive European colonial powers for almost 500 years, each with its imprints on the architecture and urban form, technology and monumental art. Both towns show different stages of development and the successive changes over a long span of time and are thus complementary.

Criterion (iii) : Melaka and George Town are living testimony to the multi-cultural heritage and tradition of Asia, and European colonial influences. This multi-cultural tangible and intangible heritage is expressed in the great variety of religious buildings of different faiths, ethnic quarters, the many languages, worship and religious festivals, dances, costumes, art and music, food, and daily life.

Criterion (iv) : Melaka and George Town reflect a mixture of influences which have created a unique architecture, culture, townscape without parallel anywhere in East and South Asia. In particular, they demonstrate an exceptional range of shophouses and townhouses. These buildings show many different types and stages of development of the building type, some originating in the Dutch or Portuguese periods.
4.2 The Influence of the Civilisation Exchanges

The Malay Community

4.2.1 The Malay community was the earliest settlers in Melaka. They formed the earliest administration in Melaka and after the introduction of Islam which was embraced wholeheartedly by the Malays, the Malay culture and identity began to crystallize leading anthropologists to conclude that it was in Melaka when the definition of the Malay as a race and culture took form. Their influence in the development of the cultural and built landscape can be seen in the adoption of significant parts of their practices as well as language by the uniquely Straits of Malacca community of the Peranakans or Babas (especially in Penang, Melaka and Singapore) and the uniquely Melakan Chitty community. The Malay language which was the *lingua franca* of the Archipelago initially used the Arabic script itself, is a testament of the primary role Melaka played in the development of the Malay culture, since it was Melaka of the Sultans that played a leading role in the spread of Islam and the Arabic script in the Malay world. The adoption of the Roman alphabet to write the Malay language was said to be initiated by Francis Xavier a Jesuit priest working from Melaka in the early days of the Portuguese administration.

4.2.2 In George Town, the Muslim population was clustered in distinct but contiguous neighbourhoods. The Masjid Melayu, or Acheen Street Mosque, was founded by Tengku Syed Hussain, who came with his clan and settled in George Town in 1792. He was the patron of the Arab, Malay and Sumatran community along Acheen Street, many of whom were involved in the pepper trade between George Town and Aceh. This community in the mid-19th Century included a colony of about 300 Acehnese traders. Other Sumatrans here were Mandailing, Rawa, Minang, Malay, Batak and Batu Bara.

4.2.3 Ibrahim Munshi, the State Secretary of Johore and the son of Abdullah Munshi, who visited Penang in 1872 and “went exploring all the lanes of Penang town” gave a vivid description of the ethnically mixed Muslim society. He stayed with a friend in Kampong Masjid Melayu, where he was entertained by Penang-born Indians performing refined Hindustani songs, soul and ghazal. He feasted at the house of wealthy Indian Muslim *kain pulicat* traders Dalbidal and Yahya Marican - likely to be their home in Market Lane, a large early 19th Century brick bungalow. Ibrahim Munshi remarked that some of the Malays are shoe-makers.

Criteria (ii): exhibit an important interchange of human values, over a span of time or within a cultural area of the world, on developments in architecture or technology, monumental arts, town-planning or landscape design.

"Melaka and George Town: Historic Cities of the Straits of Malacca " represent exceptional examples of multi-cultural trading towns in East and Southeast Asia, forged from the mercantile and civilization exchanges of Malay, Chinese, Indian and European cultures."
The Indian Community

4.2.4 From the founding of the Melakan Sultanate in the early 14th Century, the Indian influence became apparent. Some of the court officials in the Sultanate are Indians and many of the royal ceremonies were of Indian origin. It should also be noted that the Indians at this stage of Melaka history were not predominantly Hindu; they were just as likely to be Muslim or a Gujerati. Unlike Indians in other parts of Malaysia the Indians in Melaka are more likely to be involved in commerce than as coolies in the plantation or railways. This is a reflection of their historical role in helping to establish Melaka as a major entrepôt port between the Far East and India and the west. There was always a sizeable Indian community in Melaka and this is exemplified by the fact a Kampung Keling had existed in one location or another on the right bank of the river since the Sultanate days. The unique Chitty community referred to later in this chapter predates the Baba community and is essentially Indian origin.

4.2.5 The Chulias or South Indian Muslims who came with the East India Company were among the earliest settlers in George Town. A small group of Chulias long settled in Kedah and other Southeast Asian ports, also formed part of the early Penang community. Up till the mid-19th Century they outnumbered the Chinese. The Captain of the Kelings founded the Kapitan Keling Mosque in Lebuh Chulia. The street boasts a number of Indian Muslim mosques and keramats representing the different groups of Indian Muslims, such as the Nagore shrine (early 1800s) and the Noordin tomb (1870s). The Kapitan Keling Mosque remained the focus of the Indian Muslim trading community of jewellers, shippers, textile merchants and petty traders.

4.2.6 South Indian Hindus established the Mariamman temple at Lebuh Queen by 1833. Many of them initially worked around the waterfront. The Chettiars came in the early 19th Century and were involved in the textile trade and money-lending; they established their lodge at Jalan Penang. Later waves of Hindu migrants recruited for the plantations also passed through the Penang port.

4.2.9 Apart from Tamils, those of Indian origin included Malabaris from Kerala, Punjabis and Pathans from northwest India, Bengalis who first came as soldiers and camp followers, Biharis, the ‘UP-wallahs’ from Uttar Pradesh (United Provinces), Sindhis, Gujeratis and so forth.

The Chinese Community

4.2.10 Chinese migration to Melaka began very early in Melaka’s history. The visit of Zheng He is epochal and the visit of a sultan of Melaka to the Ming court in China on a return trip by Zheng He cemented the ties with China until this day. The sultan was said to have been bestowed a Chinese princess as his bride and the entourage which accompanied the princess said to numbered by some accounts 500 men and women, were recorded to be given a hill outside Melaka as their settlement. This hill is known to be Bukit China today.

4.2.11 Records of Chinese settlement during the colonial period were consistent in the major role they played on the cultural and commercial stage in Melaka. The existence of a Kampung China in an early map by Eredia during the Portuguese era, the establishment of Cheng Hoon Teng Temple in 1640 and the preeminent role this temple played in the cultural and religious life of the Chinese community in Melaka today speaks volume of the influence of the...
Chinese migration to the Nanyang and in particular to Melaka and George Town took off in a significant manner during the British administration which coincide with the turbulent period in China’s history and the development of the tin and later the plantation industry especially the rubber industry. Chinese entrepreneur and compradors played a pivotal role in the development of the rubber industry; something not always appreciated by history. The central role played by statesmen like Tun Sir Tan Cheng Lock Tan, his son Tun Tan Siew Sin, and Mr. Tay Boon Seng in the events leading to independence speaks volume for the influence of the Chinese in their new homeland especially Melaka and George Town.

4.2.12 More than 60 families, led by Koh Lay Huan from Kedah, founded the Chinese community in George Town. Thus the earliest Chinese permanent settlers were Hokkien, who were shopkeepers who later controlled the coastal shipping. The Hokkien became the core of the Straits Chinese or peranakan Chinese, who were the Chinese elite of the Straits Settlements.

4.2.13 The Cantonese and Hakka formed Landsmannschaft, that is, associations for migrants from the same county or prefecture in China. Successive waves of these migrants established no less than 12 temples and associations along Lebuh King alone; three in Jalan Penang and one on Lebuh Chulia. In contrast, the Hokkiens set up temples based on clan village affiliations, most of them to the south of Lebuh Chulia. The temple courtyards of the Five Big Clans, surrounded by clan housing, are an important and intact cultural complex within the WHS.

4.2.14 By the mid-19th Century, occupational guilds such as associations of goldsmiths and carpenters were also formed, especially by the Cantonese. The ‘black-and-white’ domestic servants who came to work in Penang in the 1930s located their shared quarters (kongsi pang) at Love Lane, Muntri Street, Market Lane and Chulia Lane - in the neighbourhood of the Goddess of Mercy Temple. The Hainanese mainly came in the late 19th Century and established their temple, school and coffeeshop association on the western end of Muntri Street.

4.2.15 The Hakkas were always an important minority, but in the late 19th Century, Cheong Fatt Tze and other Hakka elite became prominent in Penang society, building their mansions along Leith Street.

The Malay Sultanate Legacy

4.2.16 Although the physical evidence of the Melaka Malay Sultanate is not obvious, ancient graveyards and tombstones dating from that period and some of which are that of the warriors of the Sultan such as Hang Jebat and Hang Kasturi found in the Core Zone of Melaka are physical legacy of that period. The cultural legacy of the sultanate also survives to this day in the existing monarchies of various Malaysian states, and the lifestyle and traditions of the Malay communities.

The Portuguese Legacy

4.2.5 The legacy of the Portuguese includes a unique Eurasian community who speaks an ancient dialect of the Portuguese language called Kristang and profess the Roman Catholic faith. They also left behind the ruins of the church on St. Paul’s Hill, and the remains of Fortaleza de Malaca in the foundations that surround the old civic centre of the City. Culturally the Portuguese language loan a good number of words to the Malay vocabulary such as almari for cupboard and baldi for pail.
**The Dutch Legacy**

4.2.6 The Dutch legacy can be seen in the design of the town square, surrounded by architectural masterpieces in the form of the old Dutch administrative building called The Stadthuys, the Christ Church and an office/warehouse complex in Jonker Street. The Dutch also left behind a unique array of townhouses in Heeren Street and Jonker Street as well as a unique urban pattern that is the result of the manner in which property taxes are levied according to the width of the frontage of the property onto the street.

**The British Legacy**

4.2.7 Penang was originally established by the East India Company (EIC) as the Prince of Wales Island in 1786, upon negotiations with the Sultan of Kedah, in exchange for protection against the Kingdom of Siam. In 1826 Penang became a part of the Straits Settlement, two years after the possession of Singapore and Melaka by the British EIC. The three towns were then brought under a single British administration. The British, who ruled Penang and Melaka until the country’s independence in 1957, left behind a significant physical and cultural imprint, manifested in the colonial architecture and the administrative and legal system used by independent Malaysia.

**St. Paul’s Hill as the Seat of Power of Melaka**

4.3.2 St. Paul’s Hill Civic Zone has always been the seat of the governing bodies from the time Melaka was founded to recent times. The establishment of a kingdom at this location was due to its commanding position facing the river mouth and the Straits of Malacca and protected from the interior by a vast swampy area. Known as Bukit Melaka during the Malay Sultanate era, it was a royal abode as well as the seat of power of the Sultans. The Portuguese simply called the area as Oteiro or Hill. They built a fortress around this hill, which was completed in 1548 and stayed within the walls. On top of it, they also built a church. The Portuguese administered the place from within the castle known as the A Famosa.

4.3.3 The Dutch, who took over the church on the hill, turned it into a Protestant church and named it St. Paul’s Church. The hill was renamed St. Paul’s Hill and remained so ever since. The Dutch also built their administrative buildings known as The Stadthuys and their Governor’s quarters on the western part of this hill. The hill therefore served as the seat of government during the Dutch era as well. The hill also continued to be the seat of power of the British-Melaka government and the State government of independent Melaka.

**Centres of Historic Administration**

4.3.4 At the foot of St. Paul’s Hill facing the sea, several large British plantation enterprises including Dunlop Estates, and Sime Darby established their head offices to conduct their business affairs. These companies were related to the plantation industry especially the rubber industry and reflect the role played by local Peranakan Chinese especially Tan Chay Yan (who in 1895 planted the first rubber plantation in Tiang Dua outside Melaka Town) and...
Tun Sir Tan Cheng Lock in pioneering the rubber industry. These imposing corporate buildings are now restored and adapted as Museums.

Fortaleza de Malaca, Melaka

4.3.5 The Fortaleza de Malaca was once an imposing part of Melaka urban environment of which the Porta Santiago and part of the foundations are visible today. The moniker, A Famosa, is often used to describe the Porta Santiago or even the entire fortress itself. The misconception arises from Alfonso D’Albuquerque’s plans immediately after the conquest of Melaka and the completion of a timber fortress, to build more substantial fortifications known as the A Famosa or The Famous. In fact what was the A Famosa was a Castle and Keep, square in plan, with walls eight-foot thick, built on the left bank of the river close to the estuary on what was the site of the ruins of the Great Mosque of Melaka. Work by 1,500 forced labourers began on the fortress in September 1511 and was completed the following January. A sketch reproduced in Gaspar Correa’s Lendas da India shows in 1550’s that the square structure of the A Famosa square and crenellated edifice was about the only masonry building in Melaka and the town was walled in nothing more than a timber palisade.

4.3.6 It is recorded that soon after 1550 and certainly by 1580, the Portuguese had doubts about the adequacies of the fortifications. The union of the Iberian monarchies in 1580 led to the fear that their overseas possessions might come under attack from the mortal enemy of the Spain; The Netherlands; which was beginning to strike out especially to the East in search of the very same spice that inspired the Portuguese. Eredia recorded the visit of Joao Batista, an Italian military engineer tasked with surveying and improving the defenses of Portuguese territories overseas, in 1588 and reported the fortifications had already been completely transformed. By 1588 Melaka was already a walled city and the citadel within the walls previously identified as the A Famosa was referred to as the Fortaleza Velha or Old Fortress. The seaward and riverside part of the city was walled in stone while to the northeast and east, roughly along the Jalan Banda Kaba and southward towards the Porta Santiago gate and the sea, was a timber palisade.

4.3.7 The Fortaleza da Malaca had then assumed its basic plan until its final destruction by William Farquhar in 1807. The Portuguese built a total of 4 bastions which were open air gun platforms and the angling of these bastions utilised the philosophy that had radiated out of Italy during the Renaissance. Dutch improvements to these fortifications included the renovation of the northeast
and east palisade into a full stone curtain wall of some 20-foot high, additional bastions and the remodeling of existing bastions and improvements to the city gates. The Dutch expertise in hydro engineering saw the introduction of a moat from the river near Padang Nyiru; controlled with sluice gates so as to ensure that the water in the moat is always fresh; running roughly along what is now Jalan Banda Kaba and southwards along Fort Terrace towards the sea. This effectively made the fortified area into an island and on paper a highly defensive site.

4.3.8 The *Fortaleza da Malaca* took its final shape during the governorship of Balthasar Bort (1665-1678). As impressive as these defenses are on paper, the entire fortress fell to the British under the command of Major Brown and Captain Newcome after token resistance in 1795. The British, loathe having such an impressive fortifications remaining when they are obliged to return Melaka to the Dutch; decided to raze the structures to the ground and orders were also given to transfer the trade and capital of Malacca, together with the most valuable part of its inhabitants to Penang. Raffles’ intervention was too late to save the fortress but he and William Farquhar did manage to persuade the East India Company that Malacca’s residents could trace their local roots back several centuries while Penang was “still an island of transitory adventurers”.

4.3.9 Abdullah bin Abdul Kadir better known as Munshi Abdullah recorded the last moment of the grand old Dame, the *Fortaleza da Malaca*;

“Mr. Farquhar appeared on horseback holding a slow-match in his hand. He sent men to clear out everyone on the Fort and they ran away in all directions. Then he touched off the fuse and at once spurred his horse away. After about ten minutes the gunpowder exploded with a noise like thunder, and pieces of the Fort as large as elephants, and even some as large as houses, were blown and cascaded into the sea. Some went right over the river and struck the houses on the other side. Everyone was startled when they heard the noise, their surprise all the greater because never in their lives had they heard such a sound or seen how the power of gunpowder can lift pieces of rock as big as houses. At last they realized that the Fort could be destroyed by the English, and they shook their head saying ‘Great indeed is the skill and ingenuity of these white men but what a pity that a building as fine as this should be brought low in an instant of time. For if they wished to repair it there’s not knowing how many years it would take before it was finished.’ For the Fort was the pride of Malacca and after its destruction the place lost its glory, like a woman bereaved of her husband the luster gone from her face. But now by the will of Allah it was no more, showing how ephemeral are the things of this world”.

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Figure 4.2: Porta Santiago, A Famosa.
Town Square, Melaka

4.3.10 The Town Square or referred locally to as the Dutch or Red Square is the hub of the town since its foundation. It housed the key buildings during the Dutch period in the form of The Stadthuys (1660-1700) and the Christ Church (built 1753) forming the edge of the square with the curtain walls of the fortress along the river bank; between Middleburgh Bastion and Ernestus Bastion. The square was increased visually when the British under William Farquhar demolished the fortress. A fountain was built in 1904, paid for by public subscription, to commemorate the reign of Victoria and a Clock Tower was built in 1886 as a civic duty by one of the town notable, Tan Jiak Kee in his father’s (Tan Beng Swee) memory. The strategic location of the town square with adjacent important public buildings such as The Stadthuys, is testimony of its significance. The composition of the buildings in this square reflects the character of the townscape typical of a European town, where the civic ambience of the place was heightened by the presence of major civic buildings.

Fort Cornwallis as the Government and Administrative Centre, George Town

4.3.11 As with most colonial towns, George Town is defined by a fort at its waters edge. Fort Cornwallis was constructed in 1876 on the island of Penang. Functioning not only to protect the town from attacks, but also housed some administrative functions.

4.3.12 Immediately south of Fort Cornwallis and west of Swettenham Pier are the government offices and administrative buildings. This area was known as the “Government’s Quadrangle” or King Edward Place. King Edward Place ends with the Victoria Memorial Clock tower, built in 1897 by a prominent Chinese business man, Cheah Chen Eok, to commemorate Queen Victoria's diamond jubilee. The Tower now stands on a small roundabout that opens to Beach Street on its south, Light Street on its west, Jalan Tun Syed Sheh Barakah on its north and King Edward place on its east. A 12-storey government office built by the Public Works Department replaced the former building destroyed during the World War II. The remaining section of the government quadrangle now houses the Syariah Court. Among the major public buildings are the State Legislative Assembly building (formerly the Magistrates Court), Municipal Council buildings, Town Hall and City Hall (at the Esplanade), Supreme Court Building at the end of Light Street; Dewan Sri Pinang (Penang's first auditorium) and Bank Negara (Central Bank). The Esplanade, an open field facing the north beach, and its promenade was George Town’s main social and recreational centre.

4.4 Important Ports of the East-West Trade Along the Straits of Malacca

The Melaka River and Bridge

4.4.1 The mouth of the Melaka River divides the historic city into two. On the left bank, the previously fortified St. Paul's Hill and its surrounding is the administrative enclave, while on the right bank, the residential and commercial enclaves are located.

4.4.2 The nearby Tan Kim Seng Bridge across the Melaka River marks the site of the original 14th Century timber bridge, which was attacked and occupied by the Portuguese before they conquered the palace ground. This was also the location of the Portuguese bridge, the Dutch drawbridge and the British cast
iron bridge before it was replaced by the present concrete bridge. This bridge is the principal and only physical link for a long period between the two sides of the city.

**Upeh - the Historic Residential and Commercial Precinct of Melaka**

4.4.3 The settlement on the right bank of the river roughly encircle by the river and the sea and what is Jalan Kubu today was known as Upeh in the Portuguese period. The area roughly correspond with the part of the Core Zone on the right bank of the river. This was the area that was used during the Sultanate era as a market place as well as residence for the transitory inhabitants.

4.4.4 The name Upeh was first used during the Portuguese period to refer to this part of the WHS. Eredia identified four ethnic quarters in Upeh, namely Kampung Java in approximately the same location as the square in Jalan Kampung Pantai today up to the river bank at Lorong Hang Jebat, a Kampung China just north of this area, and a Kampung Keling running parallel with the coast. At the northern end of what is Jalan Tun Tan Cheng Lock today was the Bendahara residence and in the triangle between Kampung China, Kampung Keling and the earthen ramparts (tranqueira -Portuguese ) lies the Malay settlement or Kampung Bendahara. It should be recognised that while the Bendahara was the chief Malay official, his status was nowhere equal to the Bendahara of the Malay Sultanate.

4.4.5 While Upeh is to a lesser extent fortified, the fortifications are far from satisfactory. It had been recorded that during some of the sieges by more powerful forces the residents of Upeh was fled to find refuge within the Fortaleza da Malaca.

4.4.6 Upeh reemerged as Bandar Melaka during the Dutch period and became the place as Governor Bort described in his report of 1678 “where the richest inhabitants and foreigners lived”. Francis Valentijn’s view of Melaka for the sea circa 1720 appears to confirm his report. The street pattern of Bandar Melaka is by now quite recognisable. The Dutch burghers had settled in what used to be Kampung Keling and Heeren Street (Jalan Tun Tan Cheng Lock) and Jonker Street (Jalan Hang Jebat) had been laid out and the area including the occupationally specialised lanes behind Jonker Street Goldsmith Street, Blacksmith Street and Kampung Kuli came to be known as Kampung Belanda. The Indian Muslims relocate further inland to the area known as Kampung Pali roughly corresponds with Kampung Kekek today. The Javanese had been displaced by the Kelings or south Indians and relocated themselves across the river just north of Jalan Bunga Raya today. To date the northern end of Lorong Hang Jebat is dominated by the Indian community and the local Chinese refer to this street as “Keling Road” No mention was made of a Kampung China although it is recorded that Chinese burials were beginning to spread over Bukit China. By 1678 it was recorded that there were no less than 310 buildings of which no less than 128 were made of bricks in Bandar Melaka.
The settlement of Melaka expanded beyond the confines of the Fortaleza da Malaca and the Upeh district or Bandar Melaka in the Dutch and British period. To the north of the Fortaleza da Malaca Eredia recorded 38 buildings at Bunga Raya and another 20 as far north as Panckelaran (Pengkalan Rama). To the north west along the coast beyond the earthen ramparts or tranqueira of the Portuguese another 40 buildings were noted including two in brick. South of the Fortaleza at Banda Hilir 40 houses (2 in brick) and along the axis to Bukit China along what is Jalan Temenggong now were 47 houses.

4.4.8 Jalan Kampung Pantai, Lorong Hang Jebat and Jalan Kampung Hulu are streets that run parallel to the river and housed many retailers, merchants, wholesalers and warehouses. In addition, there were also many traditional retailers and craftsmen located here and in the streets leading to these roads. This stretch of road is evidence of the role of Melaka and in particular the river played in the past as a port and trading post. In the past, the river was the main means of communication and thus goods that arrived via ships and boats were unloaded and stored into the back of the buildings that backs onto the river bank. Padang Nyiru across the river from Lorong Hang Jebat was the location of the Customs and Immigration offices and the location of these offices would be a convenience for the entrepot trade that went on almost non-stop along the river until the 1980’s. Property values of properties with their backs onto the river had always been higher than their counterpart across the road except for a short period in the 1980’s and 1990’s when the river slowly declined as a conduit for the transportation of goods and before its rejuvenation as leisure and tourist resource. Today, the loading and unloading activities still occur but at the front of the buildings and these streets are congested with trailers and trucks from the wholesalers’ activities.

4.4.9 Jalan Kampung Pantai located at the centre of this stretch of roads dominates the trading activities. Jalan Kampung Pantai displays the character of a traditional Chinese street that opens up to a square addressing a Chinese temple. A narrow lane and foot bridge links up this square with a tiny mosque on the other side of the river. It is noteworthy that part of the area fronting Jalan Kampung Pantai was formerly known as Kampung Jawa which is the name of the settlement around the afore-mentioned mosque. The decline of trading activities along the river at these streets are expedited by the relocation of the customs and immigration functions on reclaimed land at the mouth of the river as well as the construction of larger warehouses there. The relocation of all barter trade activities to Kuala Linggi deliver the coup de grace to the river as a conduit of commerce.

The Harbour and Jetties of George Town

4.4.10 The Penang harbour in its heyday, had a number of piers: Victoria Pier (1888), Church Street Pier/ Railway Jetty (1897)
and Swettenham Pier (1904). The Raja Tun Uda Pier (Ferry terminal) was opened only in 1959. During the 1880s, a stretch of seafront was reclaimed and named after Sir Frederick Weld, Governor of the Straits Settlements (1885-87). Offices and godowns were built on the new waterfront in the distinctive Straits Eclectic style typified by colonnaded arcades. They housed the offices of European firms like Boustead, Behn Meyer, Macalister & Co. and Paterson Simons who were shipping agents, general importers and tin refiners. During the World War II, many of the fine buildings near the port were bombed and destroyed, including Government offices at Beach Street and Downing Street (a section of it survived), Victoria Pier and Railway Pier.

Weld Quay and the Ghauts, George Town

4.4.11 Weld Quay extends from Swettenham Pier to Prangin River, linking ghauts that provided jetties at each end. A ghaut is the stone or wooden jetty along the water front that is constructed as an extension of the street that runs inland from the shore. Several Chinese clan jetties later sprouted along Weld Quay. These jetties served as landing bases for the traditional entrepot trade, that is, trade dealing in import, redistribution and re-exporting of products from the hinterland and neighbouring countries. This trade was normally handled by small scale Asian traders. Today, the traditional cargo-handling business by the Weld Quay jetty community has dwindled considerably due to the use of containers at the Butterworth port on the opposite side of the channel.

4.5 Cities of Migrants and Multiculturalism

4.5.1 The importance of the historic cities of Melaka and George Town as trading ports meant that they were able to attract large number of traders from the northern region of Sumatera, the Malay Peninsula, the Indian subcontinent and China. Trade became the unifying factor bringing people from various cultural backgrounds to settle in Melaka and George Town, creating a mosaic of multicultural communities. The historic cities of Melaka and George Town is a testament to a vibrant multi-cultural living heritage.

4.5.2 The early migrant population was largely male. The fortunate few who could afford to take wives quite often took wives not of their own ethnicity. Due to the shortage of Chinese women, many early Chinese took slave women (Batak, Balinese, orang asli) or local women (especially Siamese) as wives. Thus cultural hybridity was common. For example, J.D. Vaughan wrote in the 1850s: “The mixed races, namely the offspring of Kling, Bengali and Chinese fathers and Malay mothers, adopt portions of the costume worn by both parents so that a description of the dress worn by all natives in the Straits Settlements that are classified as Malays would be a description of the apparel of Klings, Bengalis and Chinese…” People mixed in the market-

Figure 4.5: Swettenham Pier, taken from the Penang Postcard Collection 1899-1930s (Nasution, Wade, 2003)
place or socially to various degrees, and among the permanent settlers, attendants and dependants were commonly of different cultural origins were often considered part of the same household. Cultural eclecticism could be seen in architecture, interior furnishings, dress, food and other elements of lifestyle.

Goldsmith Street. The stretch of Jalan Hang Kasturi between Jalan Tukang Besi/Tukang Emas and Jalan Kampung Pantai is referred to in Chinese as Tofu Street and there was once a thriving food processing trade involving soya beans which also gave rise to the tinsmith and barrel makers. The latter is now confined to a singular old man practicing the craft learnt from his father and who had in turn had learnt from his father in the back lane between Jalan Hang Kasturi and the graveyard of Hang Jebat. Several tinsmiths and traditional sign and seals carvers still survive till today. There were no less than three traditional Chinese timber clogs shops along Jalan Hang Lekir; employing no less than 20 men at various level of skills turning logs of wood into timber clogs using nothing more than a short adze and tiny timber plane. None of the three establishment is in business today.

4.6 Eclectic Architecture as a Fusion of Migrants’ Influences

4.6.1 Various cultures have traded and settled in Melaka and George Town, and have marked a significant influence in the eclectic and unique architecture of the cities. The early architecture is an amalgamation of cross cultural values, ideas, traditions and the memories of immigrants and indigenous builders, and the adaptation to the availability of building materials, skills, transportation and the appropriateness to the tropical climate. Juxtaposition of different building styles and typologies from those built by the Portuguese, the Dutch, the British, the Malay, the Chinese and the Indian mainly, had created a rich mixture of urban fabric in Melaka and George Town.

Ethnic Trades

4.5.3 The distribution of trade activities in the historic cities of Melaka and George Town are typically concentrated along the lines of ethnic dominance of an area. Different ethnic traders, such as the Chinese (Hokkiens, Cantonese, Hakkas), Hindu-Tamils, the Javanese, the Arabs, the Achenese and Indian Muslims would associatively assemble together to trade on particular streets or area. The existence of trade societies based on ethnic differences further reinforces the strong ethnic divisions between the trades. Collectively this concentration of identities formed strong characters of these places.

Crafts and Products

4.5.4 Names of places often reveal their origin. Blacksmith Street or Jalan Tukang Besi had one of the highest concentration of blacksmith forges in Melaka. Two remain today but as recent as the 1960’s there were less than 8 within that 100 metres stretch. Similarly there were gold and silver smiths working in the vicinity of Goldsmith Street.
Architectural Types

4.6.2 The Malayan bungalow emerges during the 19th Century, a mixture of European and local features, such as timber posts and thatched roofs as well as the shophouses and temples built by the Chinese immigrants who were mainly brought in by the British to help open-up the mining lands, and later the Indian temples built by the Indians who came to Malaya to help the British in rubber plantation and in building up infrastructure works. Together this mix of cultural influences has created an architecture that is unique in its eclecticism and adaptation to local climate and values. A list of architecture types available in Melaka and George Town is outlined below:
1. Traditional Malay houses
2. The Malayan bungalows
3. Shophouses and townhouses
4. Mosques
5. Churches
6. Chinese temples
7. Hindu temples
8. Administrative buildings from the periods of Portuguese, Dutch and British
9. Commerce buildings
10. Godowns
11. Water villages (clan jetty)

4.7 Cities for Commerce and Living

4.7.1 Early settlers of different ethnicities formed their own neighbourhoods, where the boundaries are not clearly demarcated but concentrated on certain streets and intersections. Neighbourhoods are typically situated adjacent to religious structures, for example a Chinese settlement behind Kuan Yin temple and a Malay settlement near Acheen Street Mosque in George Town. Kampong Kling (Indian Village), Kampong Hulu (Arab Village), Kampong Jawa (Javanese Village) and Kampong Serani (Eurasian Village) are examples of ethnic settlements in Melaka. The outcome of this integration of compact settlements, commercial districts, as well as religious and civic zones, led to the evolution of the cities’ urban structures to accommodate the lifestyles and cultural practices of their inhabitants.

4.7.2 An interesting development in Melaka is the lack of ethnic consciousness in the settlement and land use pattern. Here in Jalan Tukang Emas there is a mosque sharing a party wall with the preeminent Hindu temple in Melaka which are by any standards one of the oldest functioning mosque and Hindu temple in Malaysia. Just behind the ceremonial opera stage of the oldest Chinese temple in Malaysia lies Kampung Ketek which is an old Malay settlement.

Figure 4.7: Heeren Street in 1910

Figure 4.8: Jonker Street in 1890
Historic Commercial Centre, George Town

4.7.3 The original grid of George Town is framed by Light Street, Beach Street, Chulia Street and Jalan Masjid Kapitan Keling. These streets defined the city’s main commercial district, where banks, shipping companies, import export trade, and wholesalers are located. According to a survey conducted in 1818, Beach Street was the busiest street in George Town, where the majority of the brick shophouses were located. Warehouses, godowns, shops and offices owned by European merchants were concentrated on the northern end of Beach Street near the Customs House, while the southern end of the street contained shops owned by the Chinese, Indian and Malay traders. Chulia Street was the second busiest street, owned mainly by Chulia merchants who came from the Coromandel Coast and Bengal. China Street and King Street were dominated by Chinese merchants, while Market Street and Penang Street are known as Little India. Within the commercial district is a high concentration of coffee shops catering for office workers.

The Chinese Kongsi, George Town

4.7.4 The Kongsi is a Chinese association based on clan, particular dialect group or people from the same district in their original country, or an occupational or mutual benefit society. The Kongsi institution is a distinctive outcome of the 19th Century migration of the Chinese to Southeast Asia (nanyang). For more than a century these institutions have influenced to a great extent the socio-economic life of the Chinese community in George Town and created important landmarks.

4.7.5 Outside the main historic commercial centre, are largely residential quarters of terrace houses and shophouses, interspersed with bungalows. On particular area at the southern section of Beach Street stands out for the network of clan houses (kongsi) which include the Cheah Kongsi, two Khoo Kongsi, Lim Kongsi, Tan Kongsi and Yeoh Kongsi, representing the five Hokkien kongsi. These kongsi buildings are set within a courtyard or compound by residential or shophouses. The layout and network of narrow alleyways, a legacy of the 19th Century, are reminiscent of the feuding secret societies. This urban geography of clan temples and houses is a unique feature of George Town.
**Clan Jetties, George Town**  

4.7.6 The timber jetty housing, numbering some 249 premises, are built on stilts on the sea shore and are spread over an area of approximately 16.8 acres. The houses are arranged in a fishbone layout with the jetty built of timber planks serving as the major spine for access and communication. Typically a temple, housing the deity brought from the clan’s home village in China, is sited at the front or rear of the jetty. Each of the jetty clan communities has set up a system of self-management to look after the security, maintenance of common areas and movement of heavy vehicles.

4.7.7 The godowns near the waterfront extend from Beach Street to Weld Quay with two street frontages. The warehouses are located behind the offices that front the main street. Stone paved through the warehouse cum office buildings connect Beach Street and Weld Quay. The streets extend from the waterfront jetties into the town’s commercial centre. The clan jetties represent a unique form of settlement unlike similar water villages elsewhere as each community from each jetty comprises members of the same clan with the same surname, such as the Lim, Chew, Tan, Lee and Yeoh jetties. Since 1969, the residents have been given special permission by the state government to occupy the site in the form of “Temporary Occupation Licence” for each of the premises they occupy.
4.8 Exchanges of Civilisations, Cultures and Religions

4.8.1 The Historic Cities of Melaka and George Town represent exceptional example of a multi-cultural trading towns in East and Southeast Asia, forged from the mercantile and civilisation exchanges of the Malay, Chinese, Indian and European cultures.

Coexistence of Different Ethnic Groups

4.8.2 The different cultural groups and traditions have helped to enrich further the beautiful traditions and customs of these historic cities. The fact that these various communities are living side by side with one another while practicing their own individual traditions, customs and religion, making both Melaka and George Town, as vibrant living multi-cultural heritage towns.

Persistence of Cultures and Lifestyles

4.8.3 Despite the threats brought over by history and changes in governance, the living heritage and lifestyles of the cities of Melaka and George Town have evolved and persisted, and continue to be practiced by the different communities. The continuity of these unique cultural traditions stemmed from centuries of multi-cultural traditions, manifested in religions, cultural practices, trades, crafts, cuisine, languages and inter-ethnic assimilations.

Criteria (iii): bear a unique or at least exceptional testimony to a cultural tradition or to a civilisation which is living or which has disappeared.

“Melaka and George Town: Historic Cities of the Straits of Malacca” are living testimony to the multi-cultural heritage and tradition of Asia, where the greatest religions, and cultures met. The coexistence of distinct faiths - both tangible and intangible - in particular the different religious buildings, is a testament to the religious pluralism of Asia.

Festivals

4.8.3 The communities of Melaka and George Town celebrate many festivals throughout the year. Many of these festivals, while having religious connotations, are often joined in celebration among the different ethnic groups. These festivals create an unparalleled atmosphere of a society that is deeply entrenched in their own cultures, and the sharing of their joy to the rest of the communities. Some of the festivals are commemorated publicly and in great splendour, with processions and stage performances. Figure 4.12: Chingay Festival, George Town
events, among others. There are two kinds of such celebrations: those which are also celebrated throughout the country, and those which have originated and are typical only in the Straits Settlements, especially in Melaka and George Town. The first kind includes such as the Maulud-ar- Rasul, Chingay, the Nine Emperor Gods Festival and Thaipusam, and the second are, the Chap Goh Meh, the Bangsawan, Dondang Sayang, Wang Kang and Boria.

Food

Food is a very important facet in the lifestyle of the people of Melaka and George Town. The evolution of the local cuisine encapsulates the multi-cultural communities and their wealth of gastronomical flavours. Some of the food came about from socio-economic consequences, such as Char Kuay Teow, Nasi Kandar and Teochew Porridge which was originally intended to feed the working population of the city. While communities like the Baba-Nyonyas have also created their own specialities that represent the finest of their cultures.

Streets of Harmony

In Melaka, community quarters, which were established based on ethnicities, still exist today but no longer reflect the racial composition of the populace. For examples, Kampong Kling (Indian Village), Kampong Hulu (Arab Village), Kampong Jawa (Javanese Village), Kampong Serani (Eurasian Village) and Kampong China (Chinese Village). Their proximity reflects the coexistence between different ethnic groups. A mosque, Indian temple, Chinese temple and a church are located closely along the Jalan Tukang Emas, Jalan Tukang Besi and Jalan Tokong.

4.8.6 Similarly, in George Town, religious pluralism was established from the early days of the East India Company trading post. As the new settlement had attracted 10,000 people of various creeds and nations, Captain Francis Light proposed that ‘each race has a right to preserve its civil and religious peculiarities’. Today, the St. George’s Church (1818), the Goddess of Mercy Temple (1800), the Mahamariamman Temple (1833), the Kapitan Kling Mosque (1800), the Khoo Kongsi (1851) and the Acheen Street Mosque (1808) are found on the Jalan Mesjid Kapitan Keling and Cannon Street axis.

4.9 Inter-ethnic Assimilation

4.9.1 As important trading ports, Melaka and George Town brought in an influx of migrants from the Malay Archipelago, the Middle East, the Indian subcontinent, China and others. Consequently unique groups formed by inter-ethnic assimilation emerged, representing this cultural interchange.

Straits Chinese

4.9.2 The Straits Chinese also known as Baba-Nyonya, or Peranakan, were born in the Straits Settlements. Their lineage did not go beyond the early 19th Century. They were of Chinese origin but had few ties with China. They enjoyed Straits Chinese cuisine and the Melaka. Baba-Nyonya speak Baba-Nyonya Malay, which is a Creole language. In George Town, the Straits Chinese speak a dialect closely related to Hokkien (Fujian).

4.9.3 The female members wear the Nyonya costumes, sarong kebaya (Malay traditional attire), slippers which are specially designed and sewn in glass
beads and jewellery. Their culture is neither Chinese nor Malay, but a charming combination of both. Generally this community is not the result of inter-marriages, for the community practiced strict segregation. They sent their children to English schools, and became government officers and professionals. In Melaka and George Town they are distinct from the other Chinese communities.

**Jawi Peranakan**

Another community such as the Baba but of Indian origin, is the Jawi Peranakan of Penang. They were locally born, the result of the union between South Indian Muslim men and Malay women. Most of the men were from Malabar and were traders, merchants and settlers, who had arrived in the late 18th and early 19th Century. Although the community still retained some South Indian customs and lifestyles, they assimilated rapidly into the Malay society, spoke Malay as their first language and identified themselves with Malay concerns. Reputed for their intelligence and language ability, they were often employed by the British as clerks, translators, interpreters and as munsyi (Malay teachers) to the European communities. Some of the well known families were the Merican or the Marakayar. They were wealthy and ranked second to the Arabs as leaders within the Malay-Muslim community. One such example was Kader Mydin, the Kapitan Kling who built the Masjid Kapitan Kling.

**Chitty**

Another sub-culture of the Indian community is the Chitty. They were born in Melaka and their generations might have been present since as far back as the days of the Melaka sultanate in the 15th Century. During this period the majority of the immigrants were males, and some of them settled down and married local women. However, they remained staunch Hindus but spoke Malay and adopted much of the Malay culture. They have their own Hindu temples and shrines.

**Arab-Malays**

Distinct from the Jawi Peranakan were the Arabs who had come to the Straits Settlements directly from Hadhramaut, or indirectly from India and other parts of the Malay archipelago, and became more significant in the 19th Century. They were known by their honorific titles, Sayyid (Syed) or Sheikh, and were held highly by the local Malay community. Although there were intermarriages between them and local women, they preferred to distinguish themselves and their children as Arabs, yet they also affirmatively considered themselves as Malays. Their sons were often sent to Arabia or other Middle Eastern countries for their education, the girls were married off to Arabs. In George Town, most of them were wealthy traders and merchants involved in inter-island trade in batik and other textiles, spices and tobacco of the Archipelago, brassware and haberdashery of England and India and honey and religious literature of Arabia. Over the years, this group also has identified themselves more with the Malays and speak the Malay language.

**4.10 Religious Pluralism in Melaka and George Town**

Within the Core and Buffer Zones of Melaka and George Town there are 57 (20 in Melaka and 37 in George Town) places of worship, mainly the mosques, Chinese temples, Indian temples and churches. Many of these religious buildings are located on the same road, for instance on Jalan Masjid Kapitan Kling in George Town.
Town and Jalan Tokong, Jalan Tukang Emas and Jalan Tukang Besi in Melaka, or only a couple blocks away from each other. All are still functioning, as they were hundreds of years ago, where the communities perform prayers and other religious activities.

**Kampung Hulu Mosque, Melaka**

4.10.2 Kampung Hulu Mosque is the third oldest mosque in Melaka and also one of the oldest mosque in Malaysia. Built in 1728, was one of the first mosques built primarily of masonry construction and possesses the distinctive Chinese-Pagoda like roof form. The mosque was one of the bustling centres of Islamic missionary activities during the days of the Dutch occupation. The design of the mosque is simple which is on square plan and surmounted by two or three stepped pyramidal roof covered with Marseilles tiles. The columns and minarets adopted Renaissance decorations. The Melaka mosque appears to have numerous structural affinities with the mosque at Bantam. The general principles of this tradition may have been brought from western India at the time of the Islamisation of Java in the 14th.

**Kampung Keling Mosque, Melaka**

4.10.3 The present Kampung Keling Mosque was built in 1748 on the foundation of its original timber construction. It was related by the locals that the Kampung Keling Mosque was founded because the local Malay community was not on the best of terms with the Keling (Indian Muslim) people. The Malays were centered around the Kampung Hulu Mosque while the Keling community established their own mosque on a piece of land endowed by a Malay-Muslim to them.

*Figure 4.13: Kampung Hulu Mosque in early 20th Century*

*Figure 4.14: Photograph of Kampung Keling Mosque in 2010*
Kapitan Kling Mosque, George Town

4.10.4 The Kapitan Kling Mosque along Jalan Masjid Kapitan Keling was named after Caudeer Mohudeen, the head of the Indian Muslim community credited to have built it around 1800. The name “Kapitan Keling” is used to denote the headman or leader of the South Indian Muslim community. He was the first Superintendent of the mosque, and brought in builders and materials from India. The mosque was remodelled in 1916 to its present appearance. The exterior is ochre yellowed while the interior had white marble floors and a high ceiling. The interior aisles are formed by a series of horseshoe arches, crowned with King Edward’s plaques. The façade of the building and its interior were decorated with geometric designs.

Figure 4.15 Kapitan Keling Mosque, Today

Acheen Street Malay Mosque, George Town

4.10.5 Acheen Street Malay Mosque is located in the Malay Settlement between Prangin River and the south part of Lebuh Chulia. This mosque was founded in 1808 by Tengku Syed Hussain, a wealthy Arab merchant prince who became Sultan of Aceh. In the old days when the Muslim pilgrimage to Mecca was by sea rather than by air, Acheen Street was the centre of haj travel. Pilgrims came from Northern Sumatra, Southern Thailand and the northern states of peninsular Malaysia to purchase their tickets, shop and attend religious classes while waiting for the Haj ships. Acheen Street Malay Mosque has an octagonal-shaped minaret following the 16th century Moghul architecture common in old mosques in Aceh. The 1798 Popham’s map marked this mosque as a landmark of the Malay settlement.

Cheng Hoon Teng Temple, Melaka

4.10.6 The Chinese contribution to Melakan architectural styles, as has been mentioned before, is most strongly exemplified in commercial and religious buildings, namely the shophouses and the temples. The Cheng Hoon Teng Temple or the temple of the Evergreen Clouds in Melaka was built in 1645 and completed in 1704 after several extensions and additions. It is the oldest temple in the country. The decoration of the temple applied in physical and visual form of the orthodox elements of Southern Chinese architecture, with the color, symbolism and fineness of detail and materials. It is home to the three religious philosophies of Buddhism, Taoism and Confucianism.

Christ Church

4.10.7 Located at the northern end of the town square, Christ Church is an important part of the urban morphology of Melaka. It was built as a place of worship by the Dutch in 1741 and completed in 1753. The building construction is unique in that each of the roof beams are cut from a single tree and measured 48-foot (14.6metres) long and 12-foot square. The walls are equally massive, brick walls sitting on a plinth of laterite stone. It is tiled in the Dutch pan tiles. Although it was completed in 1753 the records of the Church dates back to 1641 indicating that the congregation that worship here had been using another building which was the former Catholic church on top St. Paul’s Hill. The British
consecrated the building as an Anglican Church in 1824 after assuming permanent possession of Melaka by the Treaty of London.

St. Francis Xavier’s Church
4.10.8 Built in 1849 by a French priest, Father P. Fabre, and on the site of an earlier church called “Church of our Lady of the Rosary” by a Father Gaspar de Cruz. Name after St. Francis Xavier, the Patron Saint of the East, it is the principal Catholic Church in Melaka. The church stands partly over the foundation of the Fortaleza da Malaca. The disparate foundation used by the two towers had resulted in one of the towers developing a slight tilt. The fortress foundations are visible in the undercroft of the church. The 1970’s Bangunan Madonna adjacent to it and the early 20th Century priest house to the rear with this church forms an important community meeting place in Melaka.

Tamil Methodist Church
4.10.9 At the end of Temple Street on the northern corner with Jalan Kubu is the Tamil Methodist Church. Built in 1908 this is a church where protestant Christians of Tamil descent worship.

St. Paul’s Church
4.10.10 Probably Melaka’s oldest and most visited church, this building now served as reminder of the Portuguese era in Melaka. It is vacant, having fallen into disrepair after the removal of the Dutch Protestant congregation to Christ Church in 1753. It was built out of laterite stone and bricks and roof in clay tiles with the eastern end which is the altar, roofed with a plastered brick vault. The roof had now fallen down except for the vault which had to supported by steel columns. The body of Francis Xavier was temporarily interred in a tomb at the altar end before it was removed to Goa in India.

4.10.11 It was named The Church of our Lady of Assumption when it was used as a Catholic Church and was one of the two surviving Catholic houses of worship to survive the Dutch siege.

St. George’s Church
4.10.12 St. George’s Church is one of the oldest Anglican Church in Southeast Asia, built in 1816 with the help of the EIC during Colonel J. A. Bannerman’s term as British Governor of Penang. It features a Grecian columns and pediments on its front facade. The brick structure has a solid plastered stone base, a gable shaped roof for the tropical climate, and an octagonal-shaped steeple.

4.10.13 A rotunda was erected across the main building in 1886 to commemorate Sir Francis Light. Underneath the dome is a marble plaque framed by two columns, dedicated to Light. The inscription reads “In his capacity as Governor the settlers and natives were greatly attached to him and by his death had to deplore the loss of one who watched over their interests and cares as a father”. The mahogany trees

Figure 4.16: St. George’s Church, George Town
in the lawn, which came from India as seedlings, were planted by A.B. Mackean in 1885. The ones still remaining today are survivors from the destruction wreaked by World War II.

**Kuan Yin Temple, George Town**

4.10.14 The most important building for the Chinese communities in George Town is the Kong Hock Keong, also known as the Kuan Yin (Goddess of Mercy) Temple. It is situated at the end of China Street on a slightly elevated site as depicted in the 1798 Popham's map. The temple is sited with its back towards the central hills on the island and facing the sea with the hills on the mainland in the distance across the channel. Stone tablets according to Yin Yang (feng shui). Its position on the upper centre of the city grid on Jalan Masjid Kapitan Keling and facing China Street axis indicates the importance of the building. Founded around c1800, this temple architecture features a sweeping roof with ornate decorated copings and ridges. Oracle sticks are a special feature of this temple. Chinese opera or puppet theatre is performed on the granite-paved forecourt on feast days, three times a year.

**Sri Poyyatha Vinayagar Moorthi Temple, Melaka**

4.10.15 The Sri Poyyatha is a Hindu temple standing on the same street as Kampong Hulu Mosque and Cheng Hoon Teng Temple. Erected in 1781, this temple enshrines the deity Vinayagar. In the back room is a sculpture of the deity with the head of an elephant and the body of a man with four hands. The deity is believed to be capable of removing obstacles in one's life.

**Sri Mahamariamman Temple, George Town**

4.10.16 Situated at Queen Street, Sri Mahamariamman Temple was built in accordance with the saiva agamas with an antechamber, a hall, circumambient dome, surrounding walls and an entrance. The complexity of Hindu mythology is reflected in the sculpture gopuram, which is over 23-feet high and features 38 statues of gods and goddesses and four swans over the entrance. It is from this temple that the Navarathri procession starts every year. Built in 1833, this temple is dedicated to the Hindu goddess Sri Maha Mariamman. Historically, it catered to the Tamil community of traders and stevedores originating from South India.
Criteria (iv): be an outstanding example of a type of building, architectural or technological ensemble, or landscape which illustrates (a) significant stage(s) in human history.

“Melaka and George Town: Historic Cities of the Straits of Malacca” reflect the coming together of cultural elements from elsewhere in the Malay Archipelago and from India and China with those of Europe to create a unique architecture, culture and townscape without parallel anywhere in the East and South East Asia. In particular a range and exceptional architecture of shophouses and townhouses.

4.11 The Shophouse as An Outstanding Example of An Architectural Type

Shophouse
4.11.1 The dominant building type within the Core Zones of Melaka and George Town is the shophouse. There are more than 2,000 shophouses, mostly two and three storeys, in WHS. The term ‘shophouse’ here refers to a building form that is unique to the settlements of the Straits of Malacca. Typically the shophouses function as both residence and shop, with the ground floor used for commercial purposes, while the top floor(s) are for residential purposes. However, they may also refer buildings of the same form that function exclusively as residences.

(Refer to Annexure B for a more comprehensive description of the shophouses)

Evolution of the Shophouse
4.11.2 The shophouses can be traced to the Dutch terrace buildings in Melaka and the Chinese immigrants from the southern coastal provinces of China. They brought with them both knowledge and methods of building construction which then adapted to the Malaysian urban shophouses. The resultant building type is one that features a combination of vernacular, Chinese and European influences. It is a response to the availability of building materials, skills, transportation and the tropical climate.

Construction and the Shophouse
4.11.3 The shophouses in the Historic Cities of Melaka and George Town share similar construction materials, techniques, ornamentations and elements. Most of the buildings used soft burnt clay bricks as the main construction material. The load bearing walls at both sides of the shophouse support the roof load through timber joists which span across the width of the building. The upper floors, of local timber planks, were placed on timber joists spanning between the party walls.
### Five-footways

4.11.4 Five-footways are shaded public walkways along the shophouses of the Straits Settlements, giving shelter from the heat of direct sunlight and tropical downpours. They were first legislated in Singapore by Sir Stamford Raffles as part of the Jackson Plan of 1822. In George Town, the five-footways is a significant feature of the streetscape and its continuity generally still exists. In Melaka however, the continuous five footways were not traditionally part of the urban structure during the Dutch period. It was only implemented during the rule of the British era. There is, however, a covered verandah five-footways to the shophouse during the Dutch period.

![Figure 4.20: Five-footway covered walkways](image)

### Urban Form and Roofscape

4.11.5 The large number of surviving shophouses in both Melaka and George Town retain the historically intact townscape. The pitched terracotta roofscape is one of the strongest distinctive of the two cities. In George Town, the early timber and brick buildings used easily available attap, palm leaf, roof. A series of devastating fires finally led to the prohibition of its use in 1887. Unglazed terracotta roof tiles were introduced in George Town possibly as early as 1787 as can be seen in Trapaud's painting of Fort Cornwallis of that year. These tiles were ideals in hot wet conditions for their ability to absorb moisture, cooling the air space beneath. These tiles came in variety of forms, the rounded pan-tiles, possibly influenced by the roofs found in what was Portuguese governed Melaka and India; the Indian equal sized V-shaped tiles used mainly on the shophouses; and the Chinese temple tiles. The more common Indian tiles continued to be favoured until after the World War II, though Marseilles tiles became popular with their introduction in the 1900s. Post-war Indian tiles tended to be thinner than their pre-war counterparts most likely in the interest of economy and scarcity of materials.

![Figure 4.21: Typical roofscape of the historic cities of Melaka and George Town](image)

### Open Air Well

4.11.6 In China and India the open courtyard with trees and bushes is an essential element in a building. When this concept was brought to historic cities of Melaka and George Town as open air well shophouses. The open air well also functions to retain rainwater from flowing immediately into the street drains.
Feng Shui, Vashtu Shastra and Other Beliefs

4.11.7 Feng Shui, Vashtu Shastra and other beliefs do play important part in the orientation and internal design of the shophouse.

Eclectic Mix of Ornamentation

4.11.8 The multi-cultural heritage was contributed to the eclectic mix of ornamentation. Such examples include the carved wood panels and fascia boards of the indigenous and Indo-Malay, the elaborate and superstitious images of the Chinese, the arches of Mogul India, the neo-classical elements of British architecture of the Georgian and Regency periods, and the modernism of art deco and modern architecture. Roof shapes and gable ends were also ornamented according to the tradition and culture of building ownership. Over the decades, the development of these shophouses in term of their design and styles have evolved from simple plan with plain façade introduced by the Dutch to more elaborate facades that features the Malay, the Chinese and the European motifs are mixture of these.

Figure 4.20: The eclectic mix of ornamentation (Source: Centre for Conservation Studies and Records, University of Malaya)
5. Analysis of Strength, Opportunities, Challenges and Threats

The analysis identifies the key strengths of the two properties in the WHS, and the opportunities to be further strengthened and used effectively to sustain the integrity of the Outstanding Universal Value’s of the WHS. As there are strengths, there will also be challenges and threats that would undermine the values and integrity of the sites. All these require constant vigilance from the authorities as strengths can easily slip into challenges and opportunities into threats if they are not understood, and managed effectively and efficiently.

5.1 Strengths and Opportunities

5.1.1 The inscription of both Melaka and George Town as a WHS is based on a collection of strengths the two cities have as examples of historic colonial trading cities that continue to grow past the colonial era and today remain as living historic cities at the Straits of Malacca. These strengths are reiterated as a testimony of the thriving, living cultures of the two cities within the WHS.

Living and Working Population

5.1.2 The WHS still has a relatively large number of people residing in the Core and Buffer Zones. The dominant ethnic group is the Chinese intermingled with the Indians and Malays living alongside the dominant ethnic group. The presence of people living and working in these areas is significant, especially in the conservation of the cities’ multi-cultural aspects, both tangible and intangible. The different communities such as the Malays, Chinese, Indians, Arabs, Baba-Nyonya Peranakan and Eurasians, each practicing their own cultural and beliefs, enrich the WHS, and create a vitality and vibrancy that are unique to them.

5.1.3 The living population has a way of life that allows them to adapt to the city working environment; many tend to work in business or trade-related jobs, and some have moved into tourism which is the emerging economic activity of the two cities. Trading and related businesses like import and export, banking, and storage are linked to the cities’ historic role as trading ports in the past centuries. Some are practicing traditional trades, of which food preparations are among their main interests. The two cities are well known for their array of food that is unique to them, and this has formed the cornerstone of the tourism industry here.

5.1.4 Tourism, especially heritage tourism, is relatively new but the two cities have long engaged in tourism before their nomination for inscription. George Town has been internationally recognised as a beach tourism destination and its array of local food has been a national attraction for decades. Melaka is also well known as a local tourism destination and its local food also has its attraction. Cultural tourism is now emerging as the most recent tourism attraction for both cities. This new activity has created various development pressures on the two properties in the
WHS, with shophouses being turned into boutique hotels and commercial premises, and this, in turn, would impact upon the living population who may be uprooted. The residential population in the WHS would now have new opportunities to enhance their livelihood but at the same time, they could find that their homes being converted to other uses that threaten their way of life, their families, and their living space.

5.1.5 The prospects of urban regeneration can contribute towards retaining the living population in the Core Zone of the two cities. However, urban regeneration would likely change the characteristics of the residential population, attracting younger people to move into such places to live and work. At present, the Core Zone are characterised by a large proportion of aging population particularly in George Town which could deplete the living population eventually and erode the underlying values of these places as living space for a multi-cultural society. The potential for change to attract younger population into the WHS should be harnessed and organised, taking into consideration the sensitive heritage values of the cities through the careful nurturing of its urban landscape to sustain the vitality and vibrancy of the WHS for its present and its future generations.

**Multi-culturalism and Religious Pluralism**

5.1.6 The historic cities of Melaka and George Town combine a unique blend of architecture, culture and townscape that reflects their historic past as trading settlements in Southeast Asia. Their role as trading ports in the Straits of Malacca had brought together various communities, living in shared space, and practicing the same cultural traditions as their ancestors used to do. Different communities with different cultural beliefs and customs continue to live together, often along the same streets or in close proximity in small enclaves in the cities. In the Core and Buffer Zones of Melaka and George Town, it is common to find the Chinese, Indians, Eurasians, and the Malays living together, sharing common places and understanding but yet each follows its own customary and cultural practices and religious beliefs.

5.1.7 Religious pluralism is rife in the WHS and is acceptable among the different communities. It is common to find along the same street, the presence of different religious buildings such as mosques, Chinese and Hindu temples, and churches. The architecture of their places of worship often reflects a blend of the cultural influences of the cultures of the communities living nearby. There is interactions and acceptance among the people of their religious pluralism in the WHS. Sometimes, such pluralism spills over onto active shared places like the streets and open space. However, these practices are often received with sensitivity and understanding. For example, religious festivals of different communities in George Town like Thaipusam, the Feast of the Hungry Ghost, the Festival of the Nine Emperor Gods or Wesak Day entail road closures at certain times of the year to allow for road processions. These practices have been ongoing for decades without causing any problems among neither the people nor the authorities who would take careful measures to accommodate these processions.

5.1.8 Multi-culturalism and religious pluralism are among the major attractions of the two cities of Melaka and George Town. They have become key attractions for cultural tourism into the WHS. It is the blend of multi-culturalism and religious pluralism.
in these small spaces in both cities which make them vibrant and interesting and turn them into star attractions for tourists. To further add to their cultural and religious attractions, many of their religious buildings which continue to serve the communities have on their own become iconic architectural buildings, with the strong tourism appeal.

**Architectural Landscape Remains Relatively Intact**

5.1.9 Elements of the Malay, Indian, Chinese and European influence are built into the architectural landscape of Melaka and George Town. Among them are a relatively large pool of shophouses built by the Chinese immigrants in the 18th and 19th Century. The Chinese brought with them their knowledge and methods of house construction which they adapted to their new homes, blending the influences from the Dutch, Malay and British with their own culture to create this unique architecture.

5.1.10 In the Core and Buffer Zones of Melaka and George Town, the pool of shophouses is relatively large. Most are privately owned and concentrated in the hands of few owners. The shophouses are two or three storeys high and share common characteristic. They align main streets, have internal courtyards. They were constructed using brick with lime plaster, wooden timber structures and clay roof tiles. The shophouses in the cities continue to function as they were originally planned, playing a dual role as a place of commerce and that of residence. The ground floor is usually used for commercial purpose while the upper floor serves as a residence. A significant strength is that most of these shophouses are still in good state of conservation.

5.1.11 The opportunities to make effective use of these shophouses are abundant, especially in response to a growing, vibrant local economy in Melaka and George Town. That these large numbers of buildings are held by a small pool of private owners would likely make it easier for the local authorities and agencies charged with heritage conservation to bring about change in a more sustainable manner and to monitor such changes. Already, the local authorities have put in place guidelines and procedures to allow such changes to take place that would conform to the cultural values and heritage integrity of these two places. The authorities have also begun to create inventories of these buildings and to build up planning data to facilitate monitoring of future restoration and conservation works in the WHS.

5.1.12 One of the positive characters of the large number of shophouses is their green features which make them the most ideal places for living in the cities centres of Melaka and George Town. For this reason, restoration and renovation should always take due cognizance of the intrinsic values of the heritage buildings and their suitability to the hot and humid climate here.

5.1.13 Some building owners have shown interest to regenerate their building and find alternative uses that have helped to revitalises some parts of the Core and Buffer Zones of Melaka and George Town. Investors are moving into the cities to become new owners of these buildings. The potential for change and accommodation of emerging uses and new economies exist in the large pool of shophouses in the two cities. However, the pursuit of the potential use of the shophouses must conform to the guidelines and management plans of the cities, especially their respective carrying capacity.
Historic Port Cities with Thriving Local Economy

5.1.14 As historic port cities, Melaka and George Town have strong traditions in trading and commerce. Developments and economic growth have brought about industrialisation and changed some parts of the local economy but the people living in the WHS have largely kept their traditional businesses in trading, import and export, banking, and commerce. Some continue to provide services to support the main trading activity, and port operations. For example, in George Town, the people living in the water villages next to the port were originally fishermen who have shifted away from fishing to providing services to the ships in port. Today, they are looking forward to participating in the tourism industry.

5.1.15 As a result of their strong colonial ties, these cities have also built up a strong educational base, and these are reflected in the presence of many religious educational institutions in both cities, some of which have become iconic monuments. The culture of emphasising education as a part of their way of life under their colonial past is still maintained among the people in the two cities. Private education is now emerging as a new economic activity in the WHS, with the adaption and conversion of some heritage buildings in the two cities to accommodate such uses. The change reflects how the historic port cities continually adapt and respond to economic changes in order to survive and thrive.

5.1.16 The local economy within both properties in the WHS continues to thrive, adapting to new challenges through a change in the urban landscape and reuse of heritage buildings into hotels and restaurants. Food business is an important mainstay of the local economy. It is now a major tourist attraction in both cities. Tourist pamphlets not only highlight historical and religious iconic monuments in the two cities, they also show food trails with location of food stalls and restaurants. The blend of different cultures has resulted in a wide array of food, served in formal restaurants and street stalls that dot both cities. Involvement in the food business provides jobs for the people living in the WHS. Working in tourism-related activities such as hotels and other forms of accommodations is another source of jobs for the local people. Alongside tourism, there is a spillover into retailing and businesses that support the food industry such as the production of ingredients for the food industry.

5.1.17 The potential for cultural tourism for the WHS is tremendous. It could impose considerable pressures to change the building use in the two cities to cater to the expected influx of tourists. The desire to regenerate to meet the emerging demands of the tourism industry is in accordance with the desire to sustain and keep the local economy thriving and jobs for the people. The goals in supporting the local economy and create jobs and protecting the cultural heritage of the sites should not be in conflict but are seen to be in tandem with each other to ensure the WHS continues to be there for the benefit of future generations.
5.2. Challenges and Threats

5.2.1 The state and local authorities responsible for the day to day management of conservation of the two cities constantly face development pressures. These challenges are acknowledged in the dossiers to the UNESCO but the authorities are meeting these challenges head on and working towards resolving them for the benefit of all who are involved. Of particular significance is the fact that premises and buildings in both cities are largely owned by the private sector. They must be made fully aware that the cultural values and integrity of the site depend very much on how they care and manage their buildings in the WHS in the long term. Cooperation and partnership between the authorities charged with the responsibility over the WHS and the private building owners form the basis of a good working relationship that is vital to keep the values of the WHS intact for future generations.

The Challenge of Managing Large WHS Area

5.2.2 Unlike most other WHS, Melaka and George Town WHS is a large area, with many buildings and narrow streets and negligible large vacant spaces for recreation and open spaces. Combined, there are more than 4,000 buildings to manage, a large proportion in George Town. Daily, the WHS faces traffic congestion, especially during peak hours. It has no green field sites to plan for change and to meet the needs of the community. It faces constant development pressures. As the city centres of the two largest cities and state capitals in Peninsular Malaysia, there are frequent demands to demolish buildings and rebuild with higher plot ratios to extract the most values out of the urban land in the cities. As living cities, the WHS constantly face problems with pollution from the cities’ economic activities. Water, air, and noise pollution have to be contained and managed. Urban utilities and services are under pressures from developments and population growth.

5.2.3 The state and local authorities have drawn plans to manage the city centres and to protect the heritage values here as early as in the 1980s. The pressures continue to exist as the city centres in the WHS have to adapt to change and grow with times while trying to conserve their heritage values.

Displacement and Loss of the Residential Population in the WHS

5.2.4 Whilst the two historic cities still have a relatively large pool of residential population, the threat of displacement and loss of the population is real and has to be contained before it gets into a state of beyond control. Already in George Town, a survey of the area has shown a 30% decline in population since 2000. In Melaka, the gentrification of certain streets in the Core Zone has also resulted in the displacement of residential population, partly because of the emergence of mass tourism that is believed to impact negatively on the residential population through loss of privacy and traffic congestion.

5.2.5 The presence of an aging population is another threat to the WHS. An aging population has a different lifestyle that not only changes the cities’ economies but their use of space. Retail business that thrives on consumer-oriented society is challenged into trying to survive; schools that cater to young children find difficulty
in filling up spaces; and landlords have difficulty in finding tenants who are willing to pay the rents they think they deserve. There are also other indirect impacts as the aging population lacks the necessary occupational skills to engage in new businesses, and to attract a wider range of new investments into the city Core Zones.

5.2.6 The loss of residential population is compounded by the lack of living spaces to attract younger people, especially those with families to live in the WHS. Most of the younger people who work in the city centre do not live there; those who do stay with their parents but they have lower skills and are not able to afford places of their own.

5.2.7 The potential negative effects from displacement and aging population are follow:

- the slow out migration of traditional businesses away from the Core Zone due to a lack of business,
- the closure of schools that are part of the cities’ heritage,
- the declining number of population to sustain the vibrancy of the cities,
- the loss of multi-culturalism, and
- the gradual decline of traditional skills and crafts from the lack of available replacement from existing population.

Mass Tourism and its Threats

5.2.8 A major threat to the WHS is the pressures generated by the onslaught of mass tourism. The key strength of both sites is their strong tourism attraction and potential and yet if they are not managed properly, mass tourism could bring with it undue pressures and challenges that may undermine the long term sustainability of the WHS.

5.2.9 Mass tourism is believed to raise traffic congestion in the WHS. Both Melaka George Town, like many growing cities, have encountered difficulty with their increasing traffic generated from a rise in private vehicle ownership over time. As such, the local authorities in the respective areas have been taking various measures to manage traffic congestion generated internally. Special attention has been given to WHS Melaka and George Town because of their narrow streets and lack of parking spaces.

5.2.10 However, with the rapid expansion of tourism in the two cities, traffic congestion has increased and at times, it threatens the livability of the site. The narrow streets of the WHS would have to now cope with tourist buses, more private motorcars, and haphazard parking. The traffic problem is further compounded by inadequate public transportation and pedestrian connectivity in the WHS. Attempts have been made by the different levels of authorities to address these two problems in the WHS but their progress remained slow and difficult. Even the use of buses in the Core Zones of both cities has resulted in damages to the heritage buildings. In this respect, there is a need for a comprehensive appraisal of the approach to tackle the traffic problem in the WHS.

The Challenge of Gentrification in the WHS

5.2.11 Another threat is gentrification as building owners respond to new demands for their buildings to cater to tourism and other new needs. Whilst, urban regeneration is welcomed, uncontrolled gentrification of the Core and the Buffer Zones without proper research and sufficient information and knowledge could undermine the architectural integrity and cultural values of the WHS. Gentrification is known to bring about a change that is alien
to the living cultural landscape. Poorly executed restoration and renovation, and sometimes, illegal works would damage integrity and authenticity of the WHS.

5.2.12 Gentrification can bring about a displacement of the original communities and their multicultural lifestyles. The replacement of living spaces with commercial and business uses brings about a change of the original character of streets in the WHS and destroys the intrinsic value created from multiculturalism of the site. The development of hotels, with restaurants and shops could induce a major transformation in the cities that may not always be positive on the urban landscape and is not always welcomed by the communities living there. Such changes have to be guided and monitored so that they do not undermine the core values of the WHS.

Strong Presence of Dilapidated and Vacant Premises

5.2.13 Although there is a relatively large pool of heritage buildings in a good state of conservation in the WHS, the presence of many dilapidated and vacant building in the Core and Buffer Zones is worrying. Upon nomination of inscription of Melaka and George Town as WHS, there has been a growing interest in buildings and land located within the WHS as their investment potentials have risen. However, although some of these premises have changed ownership, they have not been restored or improved but are left vacant.

5.2.14 The change of owners has also impacted negatively on tenancy with rents moving upwards and becoming expensive for the existing residential population, especially those who are from the lower income groups.

5.2.14 Leaving the heritage premises vacant and in dilapidated conditions undermines the integrity and safety of the area. Empty and vacant buildings are often vulnerable to thefts of parts and squatting by undesirable parties such as drug addicts and vagrants. They are fire hazards not only to themselves but also to the surrounding neighbourhood. The presence of these premises has to be monitored and controlled, and if possible, to be acquired by a third party and restored for the benefit of the entire community and WHS.

An Absence of an Effective Monitoring System and Funding

5.2.15 It is understood that in a living heritage city, buildings are constantly in use, being adapted, repaired, and remodelled by tenants and owners according to their needs and resources. Such modifications require permission and approvals of the authorities, without which, these modifications could threaten the living heritage in the area.

5.2.16 There are statutory requirements in place for managing changes and modifications. The local authorities have relied on a set of statutes and guidelines for renovation and restoration. Rules and guidelines are being tightened by the authorities to try to plug loopholes in laws and statutes on restoration and renovation to heritage buildings. Owners, on the other hand, have claimed a lack of knowledge and absence of information to cause them to do a poor job of renovations and restoration. In both areas, the authorities are facing challenges.

5.2.17 Research on buildings and materials is an ongoing task and some efforts are made to help owners with available information but there are still gaps. Monitoring and enforcing are weak. All these require manpower and resources among the
authorities and these have yet to be effectively in place.

5.2.18 Many owners in the WHS do not have the financial resources to undertake repairs and restoration. One of challenges is the lack of available incentives. Some are in place but they appear insufficient to stimulate and motivate owners to do more. The Department of National Heritage offers financial assistance to owners in the WHS who are willing to list their buildings in the National Heritage Registry. The Federal Government has allocated funds for grants to help individual owners and is studying to introduce a loan scheme specially for building owners in the WHS who want to restore. The state and local authorities have also stepped in to provide assistance but the size of the WHS requires a concerted effort of all levels of government in order to have a wider reach.
6. Vision and Conservation Principles

Dynamic Historic Living City

A city that is capable of accepting changes that comes with the contemporary epoch, and assimilating these new dynamics into its existing historical built fabric, injecting new life into the city without compromising the integrity of its outstanding universal values.

A city that safeguards and protects both its cultural and built heritage, maintain and strengthen the integrity of its components and builds its value on heritage.

A city with vibrant, established communities, grounded in their cultural traditions, with access to amenities for living, working and recreation.

6.1 Vision

6.1.1 A central theme of the management plan is to address and acknowledge the transformations that a living city experiences; continuous changes in functional use, social structure, political context and economic development. The key is in establishing a vision statement that integrates the drive for compatible economic progress, sustainability, and the conservation of the historic city’s authenticity and integrity. The aim is to enhance the quality of life and production efficiency without compromising existing values derived from the character and significance of the historic urban fabric and form.

6.1.2 The vision is to create a dynamic historic living city. A city that is capable of accepting changes that comes with the contemporary epoch, and assimilating these new dynamics into its existing historical built fabric, injecting new life into the city without compromising the integrity of its outstanding universal values. A city that safeguards and protects both its cultural and built heritage, maintain and strengthen the integrity of its components and builds its value on heritage. A city with vibrant, established communities, grounded in their cultural traditions, with access to amenities for living, working and recreation.

Figure 6.1. Dynamic Historic Living City
6.2 Conservation Objectives

The preservation and conservation activities in the WHS of Melaka and George Town aim to achieve the following objectives:

6.2.1 To preserve the originality and authenticity of the multi-cultural living landscape;

6.2.2 To optimise and revitalise the use of cultural heritage for future economic, social, cultural and educational development;

6.2.3 To preserve and transmit the continuity of the significant values of the living and built cultural heritage as a life education tool and resource of knowledge for the young and for future generations;

6.2.4 To preserve the close relationship of communities and their social cultural ties and further enhance a sense of belonging and pride of place; and

6.2.5 To offer visitors the unique opportunity to experience an authentic multi-cultural living and built cultural landscape and its diverse manifestations.
6.3 Framework for the Conservation of Historic Dynamic Cities

6.3.1 A comprehensive approach is adopted in formulating the framework for the protection and conservation of the Built and Living Culture of the World Heritage Site of Melaka and George Town. This framework defines that urban heritage conservation is an integrated component of the broader urban context and that the overall urban design policies and development programmes take account conservation as a fundamental factor.

6.3.2 This framework shall be embedded in future interventions or developments within the World Heritage Site.

6.3.3 Some concepts and tools from the UNESCO Preliminary Report on the Draft Recommendation on the Historic Urban Landscape are integrated into the framework with intention to pave the way for a more integrated, long-sighted, realistic and inclusive approach to managing conservation in the site:

i) An overall Sustainability Framework

ii) A Landscape Approach to Conservation

iii) Observing the Connectivity between Built and Living Culture

iv) Comprehensive Protection and Development

v) Multi-cultural and Historical Layering as the Fabric and Form

I. An Overall Sustainability Framework

6.3.4 Principles of sustainability shall be used in assessing development or intervention within Melaka and George Town WHS. Application of these principles of sustainability adds value and supports public and private actions aimed at preserving and enhancing the quality of the human environment. The use of the mechanism is aimed at infusing a culture where the sustainability considerations become a fundamental value in planning, design, policy making etc.

6.3.5 It is recommended that any private or public, commercial or philanthropic development project on site, be subject to a cultural sustainability assessment. This translates into applying the sustainability principles in a simple, or in depth manner to assess the cultural, social, environmental and economic impact of development on the site.

Figure 6.2: Sustainability Lens
II. A Landscape Approach to Conservation

6.3.6 The Outstanding Universal Values of both towns are intricately tied to their historic urban landscape (HUL). The conservation framework recommends the use of a landscape approach for identifying, conserving and managing the historic areas.

6.3.7 The definition of Historic Urban Landscapes as per Item 1- HUL Draft Recommendations:

“The Historic Urban Landscape is the urban area understood as a historic layering of cultural and natural values, extending beyond the notion of ‘historic centre’ or ‘ensemble’ to include the broader urban context and its geographical setting.”

6.3.8 Item 2 of the HUL Draft Recommendations, describes what comprises the historic urban landscape from the built/physical perspective:

“this wider context includes the site’s topography, geomorphology and natural features; its built environment, both historic and contemporary; its infrastructures above and below ground; its open spaces and gardens; its land use patterns and spatial organization; its visual relationships; and all other elements of the urban structure....”

6.3.9 It is important to note that the WHS site of Melaka and George Town is a UNESCO ‘cultural site’, a dynamic city kept alive by a living culture. Thus, the historic urban landscape of the two towns are very much determined by human activity i.e. “...

The landscape approach requires new perspectives to conservation of areas:

- To look at land use patterns and spatial organisation of the city as a whole (historical and contemporary) to determine the complex use of space and the urban flow of human traffic.

- To reveal historic and modern urban rhythms of pedestrian and vehicular traffic (domestic, social and commercial) in relation to space (physical landscape) and time.

- To uncover visual sightlines and vistas that reveal the relationship of the urban settlement to the geographical landscape and to the spiritual and cultural expressions of town planning.

- To reveal the layering of urban structures and built environment as expressed in historical and modern enclaves and townscape and its relationship to socio-cultural and economic expressions.

- To reveal historic and contemporary building methods and materials (historic and modern) that relate to the geology, geography, settlement patterns, and settlers’ knowledge.

- To reveal the historic layering and accumulation of culture and tradition as seen in traditional and modern settlement patterns, gathering spaces, cultural/religious enclaves, commercial enclaves.

- To reveal the morphology and land-use within cultural/religious/commercial enclaves (both historic and contemporary) where ‘monuments’ ‘groups of buildings’ and ‘streetscape’ are intertwined with socio-cultural, religious and commercial activity.

- To unveil sacred, commercial and social navigation pathways such as festival routes, five footways and backlanes and its relationship to domestic, religious or commercial activity.

- To reveal the permeability between geographical and spiritual space and between personal and public space as manifested through human activity (cultural, social and economic), temporary and mobile structures etc.
III. Comprehensive Protection and Development

6.3.10 A comprehensive and integrated planning of the historic urban cultural landscape is critical, where human, social and commercial elements are given equal recognition as key elements in the urban landscape. This also means giving equal recognition to the living and the built aspects of the urban landscape and recognition to the tangible and intangible components of each.

6.3.11 The identification and categorisation of the elements of the historic urban cultural landscape constitutes an important preliminary step in the protection and conservation of the Outstanding Universal Values of Melaka and George Town.

6.3.12 The chart below uses keywords/phrases to encapsulate the elements that comprise both the living and built culture in an urban landscape.

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**A Historic Urban Cultural Landscape**

An inhabited site displaying historic layering of built, cultural, social and economic values resulting from reciprocity over time between humans, the geographical

<table>
<thead>
<tr>
<th>Living Cultural Heritage</th>
<th>Built Cultural Heritage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Intangible Living Culture</strong></td>
<td><strong>Intangible Built Culture</strong></td>
</tr>
<tr>
<td>- Commercial/social/cultural activity</td>
<td>- Land use patterns</td>
</tr>
<tr>
<td>- Space use patterns</td>
<td>- Building use patterns</td>
</tr>
<tr>
<td>- Expressions (Oral/performative/ manners/customs)</td>
<td>- Expressions (Architecture/ streetscape/townscape)</td>
</tr>
<tr>
<td>- Belief systems</td>
<td>- Sense of place</td>
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<td>- Sense of identity</td>
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</tbody>
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<table>
<thead>
<tr>
<th>Tangible Living Culture</th>
<th>Tangible Built Culture</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Items for religious/cultural use</td>
<td>- Single/group of buildings</td>
</tr>
<tr>
<td>- Items for domestic use (food, dress, household items)</td>
<td>- Public parks and gardens</td>
</tr>
<tr>
<td>- Products for industrial use</td>
<td>- Monuments and structures</td>
</tr>
<tr>
<td>- Domestic/cultural/religious artefact</td>
<td>- Archaeological sites</td>
</tr>
</tbody>
</table>

**Skills and knowledge**

**Design Elements**

**Creative Technology**

**Building Methods**

**Transmission Methods**

**Organisation and Management**

**Documents / Records**

**Materials and equipment**

**Communities / Human Resource**

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**Figure 6.3**: Historic Urban Cultural Landscape
IV. Observing the Connectivity between Built and Living Culture

6.3.13 The historic urban cultural landscape has shaped modern society and has great value for our understanding of how we live today. The interconnectedness of the built and living elements is complex and collectively contributes towards the cultural sense of place. When looking at long-term sustainability of the values of the site, it is important in planning to retain the strong sense of the connectivity between working, living and recreational opportunities in the city. This connectivity is manifested in the mixed building use (residential and commercial), accessibility to public amenities such as parks, post office, places of worship etc and commercial chains connecting wholesale, retail and service.

V. Multi-cultural and Historical Layering of Fabric and Form

6.3.14 Framework 5 emphasises, as per the Hoi An Protocols, “the need to draw from different sources of authenticity and overlay various dimensions to understand the historic palimpsest”. This is in contrast to the view that historical narrative could be understood simply in linear form.

6.3.15 The conservation of the Outstanding Universal Value of a trading centre that is multi-cultural, historically layered, and encouraging of cultural exchange, requires an in-depth understanding of the many forces that have shaped both Melaka and George Town’s social history and continue to shape its society today.

6.3.16 The maintenance of these Outstanding Universal Value will itself require a collaborative, multi-disciplinary, multi-lingual and multi-cultural team.

Figure 6.4: Dynamics of a Historic Urban Cultural Landscape
6.4 Conservation Principles

6.4.1 Conservation Principles provide a fundamental guideline for the assessment, management and preservation/conservation of cultural heritage. It provides direction for community stakeholders, managers and related agencies before commencing on conservation or development plans, decisions or interventions.

Conservation Principles
- Retaining Cultural Significance of a Place
- Maintaining Authenticity and Integrity
- Retaining Association and Meanings
- Compatible Use/Functionality
- Significance of Setting/Location
- Engaging Stakeholders and Community
- Interpretation of Significance
- Co-existence of cultural values

Principle 1
Retaining Cultural Significance of a Place

6.4.1 Places of cultural significance should be conserved.
6.4.2 The aim of conservation is to retain the cultural significance of a place.

Principle 2
Maintaining Authenticity and Integrity

6.4.3 Local practices and cultural preferences should guide conservation decisions, and be considered before intervention, as these practices and preferences impact on the authenticity and integrity of a site or cultural asset.
6.4.4 Authentic refers to the genuineness or originality of expression/activity/object or site.

For example, if a community is bent on commodifying a traditional activity for the visitor, it may well loose its authenticity and contextual meaning when adapting to suit visitor needs. It is no longer a part of the tradition or culture that created it.

6.4.5 Integrity refers to completeness or intactness of an expression/activity/object or site and its attributes.

6.4.6 To maintain the authenticity and integrity of intangible and tangible cultural heritage, it is important to retain the associations and meanings related to the heritage in the conservation decision making process and intervention process.

Principle 3
Retaining Association & Meanings

6.4.7 Association means the special connection between people and place. Associations may be include social or spiritual values.
and cultural responsibilities for the cultural assets. They may relate to people living or dead, and to groups, organisations and other communities.

6.4.8 Significant association between people and the cultural heritage should be respected, retained and not obscured.

6.4.9 Meanings denotes what a place signifies, indicates, evokes or expresses. Meaning generally relate to intangible aspects of a place such as symbolic qualities, memories, traditional practices and events.

6.4.10 Significant meanings should be identified as part of understanding the cultural heritage, and may require research.

6.4.11 Opportunities for interpretation, commemoration and celebration of these associations should be documented and preserved.

6.4.12 Interpreting associations should be approached with respect for the associated people. Issues may arise about who owns, and who has the right to interpret people’s history.

Principle 4
Compatible Use/Functionality

6.4.13 The significance of cultural heritage is directly related to their use, present or past. The use or function of the cultural heritage item/practice/place/expression is based on its cultural significance. Its continued use may reflect the cultural identity and religious importance of a specific cultural individual or group.

6.4.14 A use is often of heritage significance where the use of the site/artifact and the related activity is the original use or a use of long standing, and where the site/cultural asset has historical or social value because of that use.

6.4.15 Continuing, modifying or reinstating a significant use may be appropriate and a preferred form of conservation. It may require changes to significant fabric but this should be minimized.

6.4.16 Use is a major component of the value and meaning of cultural heritage to a community and should be continued. Sometimes, but not always, a change allowing entry and use by another community may still allow for some of the meaning to be continued.

Principle 5
Significance of Setting/Location

6.4.17 To identify the setting, establish how the place functioned in the past, and how its setting has changed; examine the visual connections and views back and forth; identify features that are historical characteristic of the setting.

6.4.18 The reasoning behind the setting, and the values it encompasses should be described and the related places identified.

6.4.19 The physical location of a place is part of its cultural significance. A building, work or other component of a place should remain in its historical location. Relocation is generally unacceptable unless this is the sole practical means of ensuring its survival.

6.4.20 If a component of a place is moved, its characteristics and values should be respected. An appropriate use is one that retains significance fabric, is similar to previous significant uses, and allows associations and meanings to continue.
Tangible Content (Related places and objects in Setting):

Contents, fixtures and objects which contributed to the cultural significance of cultural heritage assets should be retained at its setting/location. Their removal is unacceptable unless it is the sole means of ensuring their survival and preservation; on a temporary basis for revitalization; for cultural reasons; for health and safety; or to protect the setting/location. The setting/location should be returned where circumstances permit and it is culturally appropriate.

Intangible Content in Setting:

Related content, such as oral history, cultural routes, traditions and practices are part of the story of the use, associations and meaning to people. Those related objects, individual and groups of people have led to the recognition of the significance of the cultural assets.

Principle 6
Engaging Stakeholders & Community

6.4.21 Conservation, interpretation and management of the living cultural heritage should provide for the participation of people for whom the cultural assets has special associations and meanings, or who have social, spiritual or other cultural responsibilities for the cultural assets.

6.4.22 Conserving cultural assets requires acknowledgement of and sensitivity to the values and interest of all associated cultural groups.

6.4.23 The process for participation should be developed in conjunction with associated people and other people who may have an interest.

Focus on consultation and negotiation with communities.

Community involvement in identifying significance.

Participation of associated communities.

Conservation initiated by community.

Principle 7
Interpretation of Significance

6.4.24 The cultural significance of the cultural heritage assets should be explained by interpretation. Interpretation should enhance understanding and enjoyment, and be culturally appropriate.

6.4.25 The key principles of Interpretation:

- Should increase public respect and understanding of the significance of the site and communicate the importance of conservation.
- Should allow communities, visitors and stakeholders to participate in the process.
- Should be based on authentic evidence gathered through appropriate research methods.
- Should explore the significance of a site in its multi-faceted artistic, historical, social, political and spiritual contexts. They should consider all aspects of the sites’ cultural and environment significance.
- Should respect and distinguish between the contributions of all periods and all associated communities to the significance of a site.
Principle 8
Co-existence of Cultural Values

6.4.26 In Melaka and George Town, it is important to note that co-existence of cultural values should be recognised, respected and encouraged, especially in cases where conflicts and contestation may arise.
7. Management Strategies and Actions

7.1 Introduction

7.1.1 This section outlines the strategies and actions that will be undertaken in ensuring that the OUVs of WHS is conserved and transmitted to future generations, whilst at the same time supporting the vision for sustainable growth of the heritage cities.

This chapter also frame out responsibility for implementations of proposed actions. Whilst the proposed action are wide-ranging, implementation will require close coordination between different agency. As such, a lead agency has been identified in order to spearhead the implementation within the framework of this Conservation Management Plan.

7.1.2 The management strategies are structured into the following:
1. Management of the WHS
2. Use of Land and Buildings
3. Conservation of the Cultural Landscape
4. Built Heritage Conservation
5. Compatible Development
6. Understanding WHS, Education and Information
7. View and Vistas
8. Public Realm
9. Access and Circulation
10. Risk Management
11. Urban Infrastructure

7.2 Management of the WHS

7.2.1 Since WHS inscription in 2008, there exists a number of interim measures to set up institutional and management mechanism for both WHS. These interim set ups and arrangements will be strengthened further so as to carry out the necessary implementation programmes more effectively and efficiently in a more coordinated manner.

7.2.2 Whilst, the Department of National Heritage is the custodian of the WHS, the day to day management of both Melaka and George Town WHS lies with the local agencies of the respective cities. In order to institutionalise a more effective implementation of the Management Plan, a Special Purpose Vehicle (SPV) in the form of a World Heritage Office (WHO) is being set up for the respective property. WHO will be responsible in providing professional and technical inputs for application of planning permission and building plan approval (see Chapter 8). WHO will also be called upon to give advice, guidance and recommendations on heritage matters particularly in ensuring the integrity and authenticity of the OUVs.

7.2.3 Section 16B of the Town and Country Planning Act 1976 (Act 172) states the provision for a preparation of a Special Area Plan (SAP) which amongst others may include conservation or management practice for a specified area, in this case for the WHS. The Conservation Management Plan (CMP) will be prepared using this proviso.
Strategy
A1
To strengthen and formalise management of WHS to ensure coordinated implementation of actions and programmes locally

Actions
A1.1
Formation of a WHO as Special Purpose Vehicle undertaking specific non-statutory function of conserving and managing the WHS in partnership with local authorities (see Chapter 8).

A1.2
Strengthen capacity of local authorities (MBMB and MPPP) at both WHS to carry out their statutory functions more effectively in close partnership with the WHOs (see Chapter 8).

A1.3
Increase role and participation of WHO in the control and regulation of development and building works in the WHS.

Strategy
A2
To effect the Conservation Management Plan into Special Area Plan (SAP) in order to ensure appropriate statutory protection for the WHS

Actions
A2.1
To ensure that preparation and endorsement of the Conservation Management Plan is undertaken following the process required as provided under the Town and Country Planning Act 1976 (Act 172).

A2.2
To inform the public and local stakeholders of the Conservation Management Plan and Special Area Plan using provision of Section 16B of the Town and Country Planning Act 1976 (Act 172).

A2.3
To gazette the Special Area Plan in compliance Section 16B of the Act 172. This is to ensure that sufficient legal powers are entrusted into the implementation of the Conservation Management Plan.

A2.4
Until the Special Area Plan is gazetted, the local authority and WHO may carry out programmes to educate the public and stakeholders.
7.3 Use of Land and Buildings

7.3.1 Uses that may impact the OUVs will be subject to requirement for submission for change of building use. The Special Area Plan defines activities prohibited and permissible within the WHS (see Part 2 and 3 under Control on Use of Buildings).

7.3.2 Swiftlet breeding in WHS is not only a threat to OUVs but also to safety and sustainability, making living in WHS difficult and uncomfortable. Restoring buildings formerly used for swiftlet breeding is also costly and time consuming. Thus, it is critical to ensure that the existing farms do not proliferate.

7.3.3 The Malaysian National Council of Local Government has issued a directive that swiftlet farming would be prohibited in George Town and Melaka WHS. At the local level, implementation of the above-mentioned directive would be carried out in phases with complete removal by December 2013.

Strategy

B1 Ensure removal of activities or building use that would potentially affect OUVs

Actions

B1.1 To institute control on building use in the Special Area Plan (use classes) (see Part 2 and 3 on Managing Use of Land and Buildings). The control include barring the issuance of licence to operate swiftlet breeding the in WHS.

B1.2 To remove swiftlet breedings from WHS.

7.3.4 In keeping to authenticity of a site, ideally the best use will very often be the use for which the building was originally designed for. The continuation or reinstatement of that use should certainly be the first option when the future of that building is considered. However, not all original uses will now be viable or necessarily appropriate. A compatible or adaptive re-use of heritage buildings may be permitted to ensure survival of such buildings. Approval of new use, therefore, must take into consideration the suitability of the use within cultural landscape which is the OUV of the WHS. A Cultural Impact Assessment will help local authorities in making decision on the suitability of the proposed use.

Strategy

B2 Ensure that new use of heritage building takes into consideration the suitability of the use within the cultural landscapes

Actions

B2.1 To enforce incorporation of a Cultural Impact Assessment within a Heritage Impact Assessment report submitted for change of use application to ensure that new use reflect authenticity of OUVs.

7.3.5 Information is key to ensure systematic monitoring of use of buildings within WHS. A monitoring system using GIS to track change of use and permits/approval granted for each buildings will allow easier tracking of illegal activities within WHS and thus faster enforcement. This will help local authorities to manage changes within WHS.
Strategy

**B3**

**Ensure systematic monitoring of change of use of buildings within WHS**

**Actions**

**B3.1**

To create and maintain a database on building use; matching the use with valuation information, licensing permits given (including their expiry dates) and planning approvals granted for each building in WHS.

For George Town WHS, a socio-economic and land use survey was commissioned in 2010. The survey which focus on business and population within the WHS can become starting base for regular updating of database on economic activities and population of George Town WHS. Future survey should include data collection on license permit and planning approval granted, which would be useful in regular monitoring of building use in WHS.

Similar survey should also be carried out for Melaka WHS for consistency with George Town WHS.

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7.4 Conservation of the Cultural Landscape

**7.4.1**

The intangible heritage and cultural associations of both WHS is of enormous significance and is an important link to the authenticity and integrity of OUVs for Melaka and George Town. Appreciation of these intangible and cultural values require in-depth understanding which in turn requires systematic mapping and identification of the assets. Local communities are important resources and their participation would be more meaningful and beneficial towards developing a clear strategy for conservation of cultural landscapes.

**Strategy**

**C1**

**Promote interaction with an understanding of the unique intangible heritage of the WHS**

**Actions**

**C1.1**

7.4.2 Develop technical tools for cultural inventory, cultural mapping and cultural asset categorisation.

**C1.2**

Mapping and categorisation of cultural assets and identification of maps on:-

a. Micro mapping and categorisation of traditional use of the cultural landscapes which includes religious clusters, cultural clusters, socio-economic clusters and residential clusters. Also included are assets like traditional festivals, hawkers coffee shops, markets, places of worship and five-footways and the street.

b. Assisting communities and local groups with inventory, mapping and defining significance.
C1.3 Training and technical assistance for local groups and the community concerns on identification of their cultural landscape.

C1.4 Undertake pilot projects for conservation of cultural landscape involving community and local groups participation.

7.4.3 Presently, understanding of cultural meaning and its association to a place within the WHS has not been given due attention. However, the conservation principles set out in this Conservation Management Plan emphasises on retaining cultural significance of a particular place and that it is being considered before any intervention is made for any particular place in the WHS.

Strategy

C2 Protect and enhance the cultural landscape which includes protecting the living communities and their connectivity to the cultural landscape

Actions

C2.1 Engage stakeholders and community in identifying significance of a place and encourage conservation initiated by community.

C2.2 Include requirement for Cultural Impact Assessment as part of Heritage Impact Assessment report submitted to local authorities.

C2.3 Develop a manual to guide preparation of Cultural Impact Assessment report.

7.5 Built Heritage Conservation

7.5.1 Melaka and George Town WHS have already formulated and implement their own guidelines on conservation of heritage buildings. For George Town, this guideline was renamed regulation as per World Heritage Committee's decision. Further knowledge and information of heritage buildings in both cities will facilitate review of existing guidelines and to take account of recent principles for conservation of both built and living heritage.

7.5.2 The heritage buildings identification map for George Town previously submitted to the World Heritage Committee with the nomination Dossier has been reviewed. New data which provide a more accurate information on each of the buildings in George Town WHS has been incorporated so as to rectify some of the earlier errors made on the plan (see Part 3, Chapters 2).

7.5.3 For Melaka, the Heritage Building Identification map is a new map prepared during the course of the Special Area Plan preparation (see Part 3, Chapters 2). This map is to be read together with new guidelines on heritage buildings and building styles (see Annexure 1 and 2).

7.5.4 With Special Area Plan, the heritage buildings guidelines for both WHS will form part of the Special Area Plan which will be a legal document upon its acceptance by the State Government.

Strategy

D1 Ensure that heritage buildings are conserved and restored in a manner that would preserve their authenticity
D1.1 Improve and update heritage building identification map to ensure accuracy of categorisation of heritage buildings, incorporating new findings and historical information (see Part 2 and 3, Chapters 2).

D1.2 Review existing heritage building guidelines to further strengthen protection of heritage buildings.

D1.3 Carry out regularised monitoring. Education and awareness programmes should be carried out to enhance voluntary compliance.

7.5.5 Incentives and financial grant aid are presently available for eligible conservation projects within the WHS from various agencies at national and local levels. The existing incentives are relatively attractive and can be further expanded to stimulate more restoration (see Chapter 9 on Incentives and Fundings for WHS).

D2 Ensure that heritage buildings are adequately repaired and maintained

Actions
D2.1 Provide grants to fund initiatives and technical assistance to building owners for restoration and repair works.

D2.2 Improve monitoring of heritage buildings restoration and repair works by increasing capacity of local authorities through provision of additional resources, training, awareness programmes and knowledge sharing workshops with other specialists.

7.6 Compatible Development

7.6.1 Development on infill and replacement sites in the WHS should be a stimulus to imaginative, high quality design and to be seen as an opportunity to enhance the area. They should make positive contribution to the overall setting of the WHS and designed with respect for their context, as part of a larger whole.

Strategy
E1 Reinforce the need to protect OUVs for all compatible development (infill and replacement)

Actions
E1.1 Ensure all conservation works for infill and replacement be undertaken in accordance to the guidelines.

E1.2 Provide examples and advice to developers, owners and designers on good design and construction practice for sites and buildings identified as infill and replacement in the Special Area Plan.

E1.3 Commission historical research on infill and replacement sites to aid developers and owners.

E1.4 Periodic monitoring of works done to ensure compliance to approved plan and that conservation works employ the right technique and use the right materials.
7.7 Understanding WHS, Education, and Information

7.7.1 Understanding and appreciation are vital to meaningful conservation management. As the WHS covers large areas, with a total collection of more than 7,000 buildings, there are still many areas where improved knowledge would benefit the management of the WHS and the appreciation of the WHS. Additional research on all aspects on significance and management of WHS, both tangible and intangible, will be encouraged. Active links between research institutions, professionals and community will be explored.

7.7.2 A living city such as Melaka and George Town will benefit more from a co-ordinated, multi-disciplinary understanding of its significance rather than isolated initiatives. An archive section will be set up within the organisation of WHO for both Melaka and George Town whose functions will be to co-ordinate, undertake and disseminate research outcome and information.

7.7.3 With modern technology, digitalisation of heritage resources will be useful for dissemination of information on heritage. Digitalisation also helps to preserve knowledge that has been recorded through particular heritage elements. This process has to be carefully planned. Existing heritage artefacts should be digitised and processed in such a way that allows information to be retrieved by different users’ criteria.

Strategy
F1 Provide a foundation of knowledge about the built landscape

Actions
F1.1 Setting up an archive section in WHO to coordinate and undertake information gathering/research and dissemination of information.

F1.2 Develop research strategies and frameworks coordinating aspects on cultural living heritage and built heritage.

F1.3 Produce a detailed cadastral base map for WHS to the quality of old maps of 1891 or 1960 which contain not only information on property/lot boundary, but also building footprints, sidewalks and other information relevant and important for work regarding buildings in WHS.

F1.4 Commission production of measured drawings and schedule of finishes for:

a. All Category I buildings; and
b. Specific Category II buildings and/or objects of additional interest such as corner buildings, cast iron fountains, granite pathways etc.

Strategy
F2 Assist in the understanding of traditional ways of building for conservation work

Actions
F2.1 Produce information for the public on traditional ways of building and repairing.
F2.2 Disseminate research findings through website, exhibitions, pamphlets, and site visits to sites of commendable heritage conservation or restoration.

F2.3 Offer awards for good conservation or new design projects.

Strategy

F3 Empowering participation of local community in conservation

Actions

F3.1 To involve community in mapping and defining their cultural assets.

F3.2 To engage community associations to manage their cultural assets/properties/sites.

F3.3 To strengthen communities's organisational capacity to manage own festivals, spaces, cultural events etc.

F3.4 To promote and publish WHO's activities for greater appreciation of heritage by communities and younger generation.

7.8 Views and Vistas

7.8.1 People orient themselves by remembering certain features that include unique public views, defined entries, and landmarks. These features also can set apart one place from another and are part of what defines the unique character of a place. Preserving these key features contribute significantly to the preservation of the OUV of the WHS.

Strategy

G1 Preserve legibility of historic townscape and important views

Actions

G1.1 Identify important vistas and focal points within the WHS in the Special Area Plan (see Parts 2 and 3, Chapter 3).

G1.2 Ensure that all development in WHS respect important vistas and focal points and that visual study be carried out and included as part of the Heritage Impact Assessment.
7.9 Public Realm

7.9.1 The streets of the WHS are traditionally shared spaces where changing pattern, performances, rituals and festivals are some of the elements that contribute to the unique character of the cities.

**Strategy**

**H1** Design streets with comfortable spaces for casual encounters and gatherings, utilising excess and unused street spaces to create landscaped or usable spaces

**Actions**

**H1.1** Implement green open space and public access network master plan, with community consultations integrated into the planning process.

**Strategy**

**H2** Create a high quality, functionally designed streetscape that enhances the experience of the WHS

**Actions**

**H2.1** Ensure consistency and continuity in the design of streetscape elements.

**H2.2** Enforce the use of high quality, sustainable, durable material in the design of streetscapes.

**H2.3** Include and integrate public art improvements into street improvement projects.

**H2.4** Ensure that streetscape and pedestrian projects meet universal design principles.

**Strategy**

Create a non-distracting design aesthetics that do not compete with the heritage structures in the design of new architecture and streetscape elements

**Actions**

**H3.1** Provide an orderly streetscape environment that minimises visual clutter such as utility, signages, etc.

**H3.2** Ensure conformity of new developments to the scale of historic urban structure and respect for the historic context (following the Heritage Building Guidelines).

**H3.3** Technical Review Panel to also assess streetscape projects.

**Strategy**

Facilitate wayfindings and legibility of the WHS and ease of movement

**Actions**

**H4.1** Draft design guidelines on street signages, information nodes, and other physical wayfinding elements on the WHS.
7.10 Access and Circulation

7.10.1 Upon the inscription of Melaka and George Town, Historic Cities of the Straits of Malacca, the World Heritage Committee has requested that measures in decreasing motor traffic in the cities be formulated.

7.10.2 Solutions for traffic congestion in both Melaka and George Town WHS rely heavily with the overall traffic and transportation network and system for the whole of Melaka town and for the whole island of Penang for George Town. Being the centre of commerce and administration of the state, traffic issues for both cities are very much interconnected with travelling pattern into the cities. This coupled with poor public transport services in the past and high number of visitors coming into the cities for various purposes have proliferated traffic congestion in the cities.

7.10.3 The State Governments for both cities have embarked on a public transport study to resolve traffic problem not only within the WHS, but covering bigger catchment. Main objectives of these studies are to improve public transport services and network to the cities.

7.10.4 With overall and holistic transport solution currently being studied by the government, solutions for traffic in the WHS focus on traffic demand management with priority given to pedestrians and residents. The SAP accompanying this Conservation Management Plan highlights proposed solutions to deal with traffic issues. These solutions will be integrated within the overall traffic study once the study completes.

**Strategy**

**I1** Develop traffic demand management plan based on objective to reduce private vehicle dependency

**Actions**

I1.1 Implement proposals for access management strategies indicated in the Special Area Plan (see Chapter 6 in Part 2 and Part 3).

**Strategy**

I2 Facilitate the continuity of pedestrian access and connectivity where possible

**Actions**

I2.1 Remove barriers on select stretches of footways.

I2.2 Implement backlane connectivity, landscaping and lighting plan for pedestrian use (see Part 2 and 3, Chapter 5).

I2.3 Enable shared streets that prioritize pedestrians but accommodate vehicles at slow speeds.

**Strategy**

I3 Maximise pedestrian security and giving pedestrian right of way priority on streets in WHS

**Actions**

I3.1 Ensure adequate lighting and quality pedestrian space.

I3.2 Plan safe, convenient crossings on surface streets wherever possible, instead of using pedestrian bridges or tunnels.
I3.4 Minimise the impact of loading on pedestrian oriented street through the use of marked loading zones, restricted loading hours and other loading management strategies.

7.11 Risk Management

7.11.1 A fire prevention strategy can reduce the potential for damage to both Melaka and George Town WHS. While full-fledge risk management plan is yet in place, interim solutions for fire protections are being implemented.

Strategy
J1 Implement interim measures for fire protection

Actions
J1.1 To maintain pillar hydrant pressure by separating water supply from domestic supply.
J1.2 Installation of underground pillar hydrant to avoid damaged by vehicles.
J2.3 Regulating installation of decorative lighting across light pillars.
J2.4 Regulate and enforce guidelines on signage and advertising board.

J2 Develop property-specific strategy to improve risk-preparedness

Actions
J2.1 Set up working committee to undertake preparation of risk management plan for fire prevention strategy for each cities.

7.12 Urban Infrastructure and Utility

7.12.1 Improving urban infrastructure of WHS is a critical component in improving livelihood of the cities for their residents and visitors. Presently, some of the areas within the WHS needs improvement particularly in the aspects of sewerage and drainage.

7.12.2 Key issue for sewerage in Melaka and George Town WHS is that many of the properties in the cities are not connected to centralised sewerage system. In certain areas, individual septic tanks and pour flashes are still being used and maintained by owners of premises.

7.12.3 Clogged drains have been cited to be one of the cause for urban flash floods especially in George Town WHS. Highly built up area of the WHS reduces permeability of the surface thus leading to a high quantity water run-off.

Strategy
K1 Implement proposals for improving urban infrastructure specified in the Special Area Plan

Actions
K1.1 Coordinate with the relevant agencies responsible for infrastructure and utility provision in implementing proposals in the Special Area Plan.
## 7.13 Summary Implementation of Strategies and Actions

<table>
<thead>
<tr>
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<td>A2</td>
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### USE OF LAND AND BUILDINGS

**B1** Ensure removal of activities or building use that would potentially affect OUVs

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<td>A2.3</td>
<td>To gazette the Special Area Plan in compliance to section 16B of the Act. This is to ensure that sufficient legal powers are entrusted into the implementation of the Conservation Management Plan</td>
<td>TCPD Melaka and TCPD Penang</td>
<td>MBMB MPPP</td>
<td>2011-2012</td>
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<td>A2.4</td>
<td>Until the Special Area Plan is gazetted, the local authority and WHO may carry out programmes to education the public and stakeholders</td>
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**B1.1** To institute control on building use in the Special Area Plan (use classes) (see Part 2 and 3 on Managing Use of Land and Buildings)

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<td>MBMB/ MPPP funded</td>
<td>2011-2013 3 years</td>
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<td>B1.2</td>
<td>To remove swiftlet breedings from WHS (see Part 2 and 3 on location of swiftlet breeding in WHS)</td>
<td>MBMB MPPP</td>
<td>WHO</td>
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**B2** Ensure that new use of heritage building takes into consideration the suitability of the use within the cultural landscapes

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**B3** Ensure systematic monitoring of change of use of buildings within WHS

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<td>C1.1 Promote interaction with an understanding of the unique intangible heritage of the WHS</td>
<td>Develop technical tools for cultural inventory, cultural mapping and cultural asset categorization</td>
<td>MBMB/MPPP WHO</td>
<td>P1 P2 P3 P4</td>
<td>2011-2012 2013-2014 2015-2016 &gt;2016</td>
<td>Continuous</td>
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<tr>
<td>C1.3 Training and technical assistance for local groups and the community concerns on identification of their cultural landscape</td>
<td>WHO MBMB MPPP</td>
<td>WHO MBMB MPPP WHO &amp; DNH</td>
<td>P1 P2 P3 P4</td>
<td>2011-2012 2013-2014 2015-2016 &gt;2016</td>
<td>Continuous</td>
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<tr>
<td>C1.4 Undertake pilot projects for conservation of cultural landscape involving community and local groups participation.</td>
<td>WHO MBMB MPPP</td>
<td>WHO DNH MBMB MPPP</td>
<td>P1 P2 P3 P4</td>
<td>2011-2012 2013-2014 2015-2016 &gt;2016</td>
<td>Continuous</td>
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<tr>
<td>C2 Protect and enhance the cultural landscape which includes protecting the living communities and their connectivity to the cultural landscape</td>
<td>Engage stakeholders and communities in identifying significance of a place and encourage conservation initiated by community</td>
<td>MBMB/MPPP WHO</td>
<td>P1 P2 P3 P4</td>
<td>2011-2012 2013-2014 2015-2016 &gt;2016</td>
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**CONSERVATION OF CULTURAL LANDSCAPE**

**C2**

- Protect and enhance the cultural landscape which includes protecting the living communities and their connectivity to the cultural landscape.
  - **C2.1** Engage stakeholders and communities in identifying significance of a place and encourage conservation initiated by community.
  - **C2.2** Include requirement for Cultural Impact Assessment as part of Heritage Impact Assessment report submitted to local authorities.
  - **C2.3** Develop a manual to guide preparation of Cultural Impact Assessment.

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**Melaka and George Town: Historic Cities of the Straits of Malacca**
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<th>Strategy</th>
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<td><strong>BUILT HERITAGE CONSERVATION</strong></td>
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<tr>
<td><strong>D1</strong></td>
<td>Ensure that heritage buildings are conserved and restored in a manner that preserve their authenticity</td>
<td><strong>D1.1</strong> Improve and update heritage building identification map to ensure accuracy of categorisation of heritage buildings, incorporating new findings and historical information</td>
<td>WHO</td>
<td>MBMB/ MPPP</td>
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<td>MBMB/ MPPP</td>
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<tr>
<td><strong>D2</strong></td>
<td>Ensure that heritage buildings are adequately repaired and maintained</td>
<td><strong>D2.1</strong> Provide grant to fund initiatives and technical assistance to building owners for restoration and repair works</td>
<td>WHO</td>
<td>MBMB/ MPPP</td>
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<td>MBMB MPPP</td>
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<tr>
<td>E1</td>
<td>Reinforce the need to protect OUVs for all compatible development (infill and replacement)</td>
<td>E1.1 Ensure all conservation work for infill and replacement be undertaken in accordance to the guidelines</td>
<td>MBMB MPPP</td>
<td>WHO</td>
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<tr>
<td></td>
<td>E1.2 Provide examples and advice to developers, owners and designers on good design and construction practice for sites and buildings identified as infill and replacement in the Special Area Plan</td>
<td>MBMB MPPP</td>
<td>WHO</td>
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<tr>
<td></td>
<td>E1.3 Commission historical research on infill and replacement sites to aid developers and owner</td>
<td>WHO</td>
<td>Research organisation either local or international</td>
<td>WHO</td>
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<td></td>
<td>E1.4 Periodic monitoring of works done to ensure compliance to approved plan and that conservation works employ the right technique and use the right materials</td>
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<tr>
<td>F1</td>
<td>Provide a foundation of knowledge about the built landscape</td>
<td>F1.1 Setting up an archive section in WHO to coordinate and undertake information gathering/research and dissemination of information</td>
<td>WHO</td>
<td>WHO</td>
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<td></td>
<td>F1.2 Develop research strategies and frameworks to co-ordinate aspects on cultural living heritage and built heritage</td>
<td>WHO</td>
<td>MBMB MPPP</td>
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<td>F1.3</td>
<td>Produce a detailed cadastral base map for WHS to the quality of old maps of 1891 or 1960 which contain not only informations on property/lot boundary, but also building footprints, sidewalks and other information relevant and important for work regarding buildings in WHS.</td>
<td>WHO</td>
<td>Research organisation</td>
<td>WHO</td>
<td>2011-2012</td>
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<tr>
<td>F1.4</td>
<td>Commission production of measured drawings and schedule of finishes for:-</td>
<td>WHO</td>
<td>Research institutions such as university etc</td>
<td>MBMB MPPP</td>
<td>2011-2012</td>
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<td>a. All Category I buildings; and</td>
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<td>b. Specific Category II buildings and/or objects of additional interest such as corner buildings, cast iron fountains, granite pathways etc.</td>
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<td>F2.2</td>
<td>Disseminate research findings through web-site, exhibitions, pamphlets, and site visits to sites of commendable heritage conservation or restoration.</td>
<td>WHO</td>
<td>MBMB MPPP</td>
<td>WHO</td>
<td>2011-2012</td>
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<tr>
<td>F2.3</td>
<td>Offer awards for good conservation or new design projects.</td>
<td>MBMB MPPP</td>
<td>WHO</td>
<td>MBMB MPPP</td>
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<td>Strategy</td>
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<td>F3</td>
<td>Empowering participation of local community in conservation</td>
<td></td>
<td>2011-2012</td>
<td>P1 P2 P3 P4</td>
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<tr>
<td></td>
<td>F3.1 To involve community in mapping and defining their cultural assets.</td>
<td>WHO</td>
<td>2013-2014</td>
<td>&gt;2016</td>
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<tr>
<td></td>
<td>F3.2 To engage community associations to manage their cultural assets/properties/sites.</td>
<td>WHO</td>
<td>2015-2016</td>
<td>&gt;2016</td>
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<td></td>
<td>F3.3 To strengthen communities’s capacity organisational capacity to manage own festivals, spaces, cultural events etc.</td>
<td>State Government</td>
<td>2016-2017</td>
<td>&gt;2016</td>
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<td></td>
<td>F3.4 To promote and publish WHO’s activities for greater appreciation of heritage by communities and younger generation.</td>
<td>WHO</td>
<td>Continuous</td>
<td>Enhance on Web Info</td>
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**VIEWS AND VISTAS**

<table>
<thead>
<tr>
<th>G1</th>
<th>Preserve legibility of historic townscape and important views</th>
<th>Identify important vistas and focal points within the WHS in the Special Area Plan</th>
<th>WHO</th>
<th>2015-2016</th>
<th>Identified in the Special Area Plan</th>
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<tbody>
<tr>
<td>G1.2</td>
<td>Enforce that all development in WHS to respect important vistas and focal points and that visual study be carried out and included as part of the Heritage Impact Assessment.</td>
<td>Respective Local Authorities</td>
<td>WHO</td>
<td>2016-2017</td>
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**PUBLIC REALM**

| H1       | Design streets with comfortable spaces for casual interactions and gatherings, utilising excess and unused street spaces to create landscaped or usable spaces | Implement green open space and public access network master plan, with community consultations integrated into the planning process. | Respective Local Authorities | 2016-2017 | 2015-2016 |

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<tr>
<td>H2</td>
<td>Create a high quality, functionally designed streetscape that enhances the experience of the WHS</td>
<td>H2.1</td>
<td>Ensure consistency and continuity in the design of streetscape elements</td>
<td>MBMB</td>
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<td>H2.3</td>
<td>Include and integrate public art improvements into street improvement projects.</td>
<td>MBMB</td>
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<td>MBMB</td>
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<td>H2.4</td>
<td>Ensure that streetscape and pedestrian projects meet universal design principles</td>
<td>MBMB</td>
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<td>H3</td>
<td>Create a non-distracting design aesthetics that do not compete with the heritage structures in the design of new architecture and streetscape elements</td>
<td>H3.1</td>
<td>Provide an orderly streetscape environment that minimizes visual clutter such as utility, signages, etc.</td>
<td>MBMB</td>
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<td>H3.2</td>
<td>Ensure conformity of new developments to the scale of historic urban structure and respect for the historic context (following the Heritage Building Guidelines)</td>
<td>MBMB</td>
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<td>H3.3</td>
<td>Technical Review Panel to also assess streetscape projects.</td>
<td>WHO</td>
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<td>H4</td>
<td>Facilitate wayfindings and legibility of the WHS and ease of movement</td>
<td>H4.1</td>
<td>Draft design guidelines on street signages, information nodes, and other physical wayfinding elements on WHS</td>
<td>MBMB</td>
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**ACCESS AND CIRCULATION**
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<td>I1</td>
<td>Develop traffic demand management plan based on objective to reduce private vehicle dependency.</td>
<td>State Government</td>
<td>MBMB MPPP</td>
<td>State Government</td>
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<tr>
<td>I1.1</td>
<td>Implement proposals for access management strategies indicated in the Special Area Plan.</td>
<td>MBMB MPPP</td>
<td>WHO</td>
<td>MBMB MPPP</td>
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<tr>
<td>I2</td>
<td>Facilitate the continuity of pedestrian access and connectivity, where possible</td>
<td>MBMB MPPP</td>
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<tr>
<td>I2.1</td>
<td>Remove barriers on select stretches of five footway</td>
<td>MBMB MPPP</td>
<td>WHO</td>
<td>MBMB MPPP</td>
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<tr>
<td>I2.2</td>
<td>Backlane connectivity, landscaping and lighting plan for pedestrian use (see Part 2 and 3. Chapter 5).</td>
<td>MBMB MPPP</td>
<td>WHO</td>
<td>MBMB MPPP</td>
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<td>I2.3</td>
<td>Enable shared streets that prioritize pedestrians but accommodate vehicles at slow speeds.</td>
<td>MBMB MPPP</td>
<td>WHO</td>
<td>MBMB MPPP</td>
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<td>I3</td>
<td>Maximize pedestrian security and giving giving pedestrian priority right of way on streets in WHS</td>
<td>MBMB MPPP</td>
<td>WHO</td>
<td>MBMB MPPP</td>
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<tr>
<td>I3.1</td>
<td>Ensure adequate lighting and quality pedestrian way</td>
<td>MBMB MPPP</td>
<td>WHO</td>
<td>MBMB MPPP</td>
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<tr>
<td>I3.2</td>
<td>Plan safe, convenient crossings on surface streets wherever possible, instead of using pedestrian bridges or tunnels</td>
<td>MBMB MPPP</td>
<td>WHO</td>
<td>MBMB MPPP</td>
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<td>I3.3</td>
<td>Minimise the impact of loading on pedestrian oriented design through the use of marked loading zones, restricted loading hours and other loading management strategies</td>
<td>MBMB MPPP</td>
<td>WHO</td>
<td>MBMB MPPP</td>
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<td>RISK MANAGEMENT</td>
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<td>J1</td>
<td>Implement interim measures for fire protection</td>
<td>J1.1</td>
<td>Separate fire hydrant water supply line from that of domestic supply line.</td>
<td>Fire Department</td>
<td>WHO PBAPP</td>
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<td></td>
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<td>J1.2</td>
<td>Installation of underground pillar hydrant to avoid damage by vehicles</td>
<td>Fire Department</td>
<td>WHO PBAPP</td>
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<td></td>
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<td>J1.3</td>
<td>Regulating installation of decorative lighting across light pillar</td>
<td>MBMB MPPP</td>
<td>WHO</td>
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<td></td>
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<td>J1.4</td>
<td>Regulate and enforce guidelines on signage and advertising board</td>
<td>MBMB MPPP</td>
<td>WHO</td>
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<tr>
<td>INFRASTRUCTURE AND UTILITY</td>
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<td>K1</td>
<td>Implement proposals for improving urban infrastructure specified in the Special Area Plan</td>
<td>K1.1</td>
<td>Co-ordinate with relevant agencies responsible for infrastructure and utility provision in implementing proposals in the Special Area Plan</td>
<td>MBMB MPP</td>
<td>State Government</td>
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8. Management and Implementation Mechanism for WHS

8.1 Introduction

8.1.1 This Chapter looks into how the strategies and proposals of the plan for the conservation of the Melaka and George Town World Heritage Site (WHS) are to be implemented and monitored. It discusses the legal provisions and the government and institutional set-ups for the implementation of the plan. This Chapter also examines the problems in and weaknesses of the existing set-up and procedural systems and subsequently recommends some proposals to improve further the efficiency and effectiveness of the legal framework and institutional set-up and procedures for the better management and safeguarding of the WHS and the Outstanding Universal Values (OUV).

8.2 Levels of Government Involved in Heritage Conservation in the WHS

8.2.1 Malaysia exercises a three tier government system, with the Federal Government being at the core of the national administration that is governed by the Federal Constitution. The second tier is the State Government and the third is the Local Government. Based on the parliamentary democratic system, the people exercise their rights in electing their representatives to the Parliament and the State Assemblies. The Ninth Schedule of the Federal Constitution specifies the jurisdictions of the federal and the state governments in the country, but there are also some functions that are shared by both the federal and state governments (known as the concurrent list). At the national level, the federal government administration is governed by the legislative, judiciary and the executives. Major laws and national policies as well as those which govern the local areas are passed by the Parliament.

8.2.2 Although local government falls under the purview of state government, the federal government could still influence local government policies through the National Council for Local Government which under the Ministry of Housing and Local Government. Land matters and land administration fall under the jurisdiction of the state governments, while town and country planning and heritage are in the concurrent list. With this, the planning and management of heritage sites became conjoint activities between both the state and federal governments.

8.2.3 Under the Town and Country Planning Act (TCPA), the local authority is the main planning authority responsible for the day to day planning and control of development and use of land, while the State Planning Committee oversees planning at the state level, and the National Physical Planning Council at the national level. Major physical planning and development in the local government areas will involve the state and federal governments. With the implementation of the National Heritage Act (NHA), heritage matters are under the purview of the Federal Minister in charge of heritage, which presently is the Minister of Information, Communications and Culture. He is aided by the Commissioner of Heritage at the national level. The location of the UNESCO World Heritage
Site in the capital cities of the states of Melaka and Penang has also resulted in greater interest and intervention by both the state and federal governments. On top of that, local governments, as well as the states, are likely to depend on the federal government for financial grants for development and heritage conservation. Under these circumstances, involvement of all the three tiers of government is imperative to the successful planning and management of growth, development and heritage conservation of the WHS of Melaka and George Town, and this will certainly be influenced by the working relationship among these governments.

8.3 Legal Provisions for Heritage Conservation in the WHS

8.3.1 The major Federal laws which can be used for heritage conservation planning and management in the WHS of Melaka and George Town are as follows:

- Town and Country Planning Act 1976 (Act 172),
- Street, Drainage and Building Act 1974 (Act 133),
- National Heritage Act 2005 (Act 645),
- Local Government Act 1976 (Act 171)

8.3.2 Besides the Federal laws, the respective states and local governments have enacted State Laws and adopted several by-laws under the main acts. The enactments and by-laws that are relevant for conservation management in the heritage areas include:

- The Melaka Historical City Council (MBMB) By-laws under the Street, Drainage and Building Act and the Local Government Act:
  - Uniform Building By-laws 1986 (with amendments until August 2010)
  - Earthworks By-law (MPMT) 1982 Advertisement By-law
  - (MPMT) 1983, and (MPMBB) 1995
- The Municipal Council of Penang Island (MPPP) By-Laws under the Street, Drainage and Building Act, and the Local Government Act:
  - Uniform Building By-laws 1986 (with amendments until August 2010)
  - Petty Traders By-law 1979 (with amendments in 1987)
  - Food Establishments By-Law 1991
  - Trade, Business and Industrial Establishments By-Law 1991
  - Advertisement By-law 2000,
  - Entertainment and Entertainment Places By-law 1998
- Existing Rules prescribed under the Town and Country Planning Act 1976:
  - Town and Country Planning Act 1976, Planning Control (General) Rules 1990, of Penang
- Existing Regulations prescribed under the National Heritage Act 2005:
  - National Heritage (National heritage Register) Regulations 2007,
  - National heritage (Prescribed Forms) Regulations 2008
8.3.3 A Heritage Enactment is also being drafted by the State Authority of Penang to provide sufficient powers to state agencies in implementing the conservation plan of the WHS of George Town.

8.3.4 Together these laws provide the necessary powers to the authorities to prepare plans and to control works and activities that can affect the conservation areas, heritage buildings and other heritage items in the WHS, as well as to provide funds and carry out conservation projects and other necessary remedial works.

**Planning Control under the Town and Country Planning Act 1976 (TCPA)**

8.3.5 The Town and Country Act of 1976 (Act 172) and its amendment acts of 1993, 1995, 2001 and 2005, provide a comprehensive system for the planning and control of the development and use of land in Peninsular Malaysia, including the conservation of urban heritage.

**Provisions for planning control**

8.3.6 An important aspect of the Act is planning control. Under section 19 of the Act, any person intending to carry out any development has to obtain a planning permission from the local planning authority (LPA). The definition of development is very wide and includes such works as:

- demolition, erection, re-erection, extension, roofing or re-roofing of a building or any part of a building,
- any addition or alteration of a building that is likely to materially affect the building in any manner,
- the making of any material change in the use of any land or building or any part of a building.

8.3.7 An important provision that can be applied for the protection and conservation of intangible cultural heritage is the control of material change of building and land use. Under this provision, the proposed Special Area Plan (SAP) will incorporate a system of classification of building uses and activities that will reflect the type of building uses and activities that define the OUVs of the WHS. The change of use from one use or activity classification to another will constitute a development and will require a planning permission. Indirectly in this way certain traditional heritage uses can be regulated and protected.

8.3.8 In addition, section 18 of the TCPA states that “no person shall use or permit to be used any land or building otherwise than in conformity with the local plan”. Local Plans include Special Area Plans and hence the SAP can provide measures to regulate and control activities and the use of buildings and land in the WHS.

8.3.9 Under the TCPA, the local government is the LPA of its area, while the State Director of Town and Country Planning is the LPA of any area outside the area of the local government. In the case of George Town, the Municipal Council of Penang Island (MPPP) is the LPA, and for Melaka, the City Council of Historic Melaka (MBMB). The LPAs hence play a key role in the conservation and protection of heritage areas. On top of that the State Planning Committee (SPC), which is formed under the TCPA and which is chaired by the Chief Minister of the state, can make policies and give directions to his respective LPAs in relation to the planning and control of development in their areas.
8.3.10 **Procedures and requirements in the application and processing for planning permission under the TCPA**

An application for planning permission is made to the LPA in a format prescribed by Rules (The MPPP is using the Town and Country Planning Act 1976, Planning Control (General) Rules 1990). The One Stop Centre (OSC) of the LPA provides administrative assistance to the LPA in the processing of the applications.

8.3.11 Under section 21A (1), the applicant has to submit a Development Proposal Report (DPR) which may contain, among other information, particulars of the building which may be affected by the development, a land use analysis and its effect on the adjoining land, layout plans, and other matters as may be prescribed by rules, and, if specified by the State Authority, a social impact assessment.

8.3.12 The Layout Plans, which are required to be submitted together with the application, have to show the proposed measures for the improvement of its landscape, particulars of the character and appearance of buildings located in the surrounding area, and where the development is in respect of a building with special architecture or historical interest, particulars to identify the building including its use and condition, and its special character, appearance, make and feature and measures for its protection, preservation and enhancement. (section 21B(1)).

8.3.13 The LPA can give directions to an applicant in respect of matters concerning his layout plans as the local planning authority considers necessary. (section 21B(2)).

8.3.14 Under this section, the LPA can impose the requirement to submit the Heritage Impact Assessment as an item of the Development Proposal Report and the layout plans. This provision and other requirements can be strengthened by spelling them out in the Rules and the statutory development plans such as the Special Area Plan.

8.3.15 If the proposed development is located in an area where there is no approved local plan or special area plan, the LPA has to inform the owners of the neighbouring lands of their right to object to the application, and if objections are received, and if so requested, the LPA has to conduct a hearing of the objections.

8.3.16 The LPA, in dealing with an application for planning permission, has to take into consideration such matters as are in its opinion expedient or necessary for proper planning, and in particular:

- the provisions of the development plan, if any, ie, the State Structure Plan, the Local Plan, and the Special Area Plan (SAP);
- the direction given by the State Planning Committee, if any;
- the provisions that it thinks are likely to be made in any development plan under preparation or to be prepared, or the proposals relating to those provisions;
- the development proposal report
- the objections.
8.3.17 The LPA will also take into consideration the requirements of the relevant technical departments and government agencies including the Department of National Heritage.

8.3.18 The LPA can use the proposals in a SAP that is still under preparation as a basis for the consideration of applications for planning permission if it thinks it is relevant and important. The SAP under preparation is hence an important instrument for the WHS conservation.

8.3.19 The State Planning Committee directions can provide guidance with regard to heritage conservation for the consideration of the LPA. This can be in the form of detailed Guidelines that may not be incorporated in the SAP.

8.3.20 Under section 22(4)(a) the LPA cannot grant planning permission if the proposed development would contravene any provision of the development plan (local plan or structure plan or SAP).

8.3.21 Once approved, the SAP is hence to be strictly complied with before the planning permission can be granted by the LPA. The SAP is hence a very strong instrument for the control of works in the WHS.

8.3.22 Under section 22(5), in granting a planning permission, the LPA can impose conditions such as:

- conditions to ensure that the new building or its extension is compatibility with the architecture, character or appearance of the buildings located in the surrounding area, which the LPA intends to protect, preserve or enhance;
- where the development involves any addition or alteration to an existing building with special architecture or historical interest, conditions to ensure that the facade and other external character of the building is retained; and
- where the development involves the re-erection of a building with special architecture or historical interest or the demolition thereof and the erection of a new building in its place, conditions to ensure that the facade and other external character of the demolished building is retained.

8.3.23 These are some of the treatments required for conservation of heritage buildings and areas. The conditions can include not only the control of physical appearance and character of new buildings and extensions, but also the type of building materials. Here the LPA can impose the requirements for the submission of the Dilapidation Survey Report with the Building Plan submission, and the Progress Report when works are being carried out.

**Building Control under the Street, Drainage and Building Act (SDBA)**

8.3.24 The Street, Drainage and Building Act 1974 (Act 133) provides powers to local authorities for the management and control of street, drainage and building works in their areas. Under section 70 of the Act, any person who intends to carry out any building works has to submit a building plan to the relevant local authority and obtain its approval.

8.3.25 Such works include erection of a new building or part of a building, extension or increasing the height of an existing building, external major renovation to an existing building, converting to other...
purposes a house originally constructed as a dwelling-house or into a dwelling-house a building not originally constructed for human habitation. In considering the application for building plan approval the Local authority can give directions to the applicants. Such directions can include the class, design and appearance of the building is to be erected in a locality or street in which only buildings of a certain class, design or appearance may be erected.

8.3.26 Section 79 requires a person who erects any partition, compartment, gallery, loft, roof, ceiling or other structure within a building to obtain permission, normally called a building permit, from the local authority.

8.3.27 The SDBA is supported by a set of Uniform Building By-laws which the local authorities have adopted to provide the detail format, procedures and specifications for the implementation of the Act with respect to the control of building works.

8.3.28 There are certain works and activities that do not require any approval or permission from the authorities under either the TCPA or the SDBA. These include works such as maintenance, repairs, re-plastering, and change of materials, that may nevertheless affect the integrity and authenticity of the heritage property. In such cases, other approaches have to be taken by the authorities such as giving incentives to property owners to encourage them to apply and consult the relevant authorities. This will be discussed in a later part of this chapter.

**Formulation of Development Plans, Policies and Guidelines under the TCPA**

8.3.29 In the consideration by the LPA of the applications for planning permission, building plan approval, or building permit there is a need for development control plans and guidelines to assist and guide the officers and authorities in the processing and consideration of the applications. The TCPA requires the preparation and adoption of a hierarchy of development plans, ie,

- the National Physical Plan at the national level,
- the Structure Plan at the state level and
- the Local Plan and Special Area Plan at the local government level.

8.3.30 These statutory plans together with other non-statutory guidelines form the basis for the consideration and the making of decisions by the authorities on applications for proposed works.

**The National Physical Plan (NPP)**

8.3.31 The NPP is prepared by the Federal Direct General of Town and Country Planning under the direction of the National Physical Planning Council under section 6B of the TCPA. It is a long term strategic plan that contains written statements accompanied by indicative plans formulating strategic policies for the purpose of determining the general directions and trends of the physical development and conservation of Peninsular Malaysia. The NPP proposals are to be refined by the State Structure Plans and the Local Plans. The goal of the present NPP is “to create an efficient, equitable and sustainable national spatial framework to guide the overall development of the country towards achieving a competitive developed nation status by 2020”

8.3.32 In the NPP, it is stated that “local planning shall be sensitive to the conservation of historical, cultural and architecturally outstanding areas to enhance the
character and uniqueness of individual cities." The present NPP is being revised at the moment to incorporate more strategies and measures for the conservation of the WHS of Melaka and George Town.

8.3.33 The State Structure Plan (SSP)
The SPP of a state is prepared by the State Director of the Town and Country Planning Department (SDTCP), under section 8 of the TCPA. It is a written statement, accompanied by indicative maps, diagrams and illustrations, formulating the policy and general proposals of the State Government in respect of the development and use of land in the state, including measures for the improvement of the physical living environment, the improvement of communications, the management of traffic, the improvement of socio-economic well-being of the people of the state, and the promotion of economic growth, and for facilitating sustainable development.

8.3.34 Before the preparation of the draft structure plan by the State Director, the TCPA requires that a comprehensive survey of the state be instituted by the State Director, examining all the matters that may be expected to affect the development of the state, and a report of the survey be prepared, which is to be given publicity in order to allow an opportunity for the public to make representations to the State Director in respect to the findings of the survey and to the matters he proposes to include in the draft structure plan. After the draft structure plan has been prepared by the State Director, it is to be submitted to the State Planning Committee (SPC), which is chaired by the Chief Minister of the state, for consideration and approval. At the same time the draft structure plan is to be made available for inspection by the public, who is again given another opportunity to make objections to the draft plan to the SPC, and then to be heard, either privately by a sub-committee of the SPC, or in a local inquiry or hearing, before the draft plan is approved by the SPC, after consultation with the National Physical Planning Council. The plan comes into effect after the SPC’s approval and the State Authority’s assent.

8.3.35 It is the duty of the State Director of Town and Country Planning to review the approved structure plan every five years in tandem with the State’s five year development plans, and the NPP, but if the State Director so feels, and if so directed by the SPC, the structure plan, may be reviewed or altered at any time.

Local Plans (LP)

8.3.36 A Local Plan is prepared, under section 12 of the TCPA, by the LPA. It contains a detailed map, and a written statement, accompanied by diagrams, illustrations and descriptive matters, formulating the LPA’s proposals for the use and development of land in its area, including the protection and improvement of the physical environment, the preservation of the natural topography, the improvement of the landscape, the preservation and planting of trees, the making up of open spaces, the preservation and enhancement of character and appearance of buildings, the improvement of communications, and any other matters specified by the State Planning committee or as prescribed under rules made under the TCPA. The local plan, which has to conform to the general intentions of the national physical plan and the structure plan proposals, will apply and work out in detail the structure plan strategies. In particular it will serve as the basis for all
decisions on planning permissions and development projects in the local planning authority area.

8.3.37 Again at the local plan preparation stage, the TCPA requires that adequate public participation is incorporated in the preparation process. Even before the LPA commences to prepare the draft local plan, it has to ensure that publicity is given to the draft local plan that is to be prepared, its objectives, the purpose of its preparation, and the matters that the LPA proposes to include in the plan, so that the public is given the opportunity to make representations and recommendations to the LPA to be considered in its formulation of the draft local plan. After the draft local plan has been prepared it has to be made available for inspection by the public, which is given another opportunity, this time to object to the draft plan in writing to the LPA, and, if so considered desirable by the LPA, to be heard in a local inquiry or hearing by a committee appointed by the SPC. After considering the objections and other representations, the LPA submits the draft local plan, with or without modifications, to the SPC for consideration. After the approval of the SPC and the assent given by the State Authority, the Local Plan comes into effect. (Sections 12A, 13, 14 and 15).

8.3.38 The LPA may make proposals on its own, or, if so directed by the SPC, shall make such proposals in accordance with the directions, for the alteration, repeal, or replacement of the approved local plan. The procedures for the public to make objections to the proposals have to be adhered to as in the preparation of the original local plan. If the LPA has failed to take steps to prepare its draft local plan, or proposals for the alteration, repeal, or replacement of the approved local plan, the SPC may direct the State Director of Town and Country Planning to do so on behalf of the LPA. (Sections 16 and 16A).

8.3.39 A Special Area Plan (SAP) is an area planned for special and detailed treatment by development, redevelopment, improvement, and/or conservation. The plan can designate the agency or agencies to carry out the development and spell out the manner in which it is to be implemented. A Special Area Plan is hence a more detailed local plan for an area that has been earmarked for immediate or urgent development. The comprehensive management and protection of the heritage buildings and tangible objects in the WHS under the TCPA will hinge a lot on the Special Area Plan.

8.3.40 Under section 16B, the LPA or the State Director of Town and Country Planning (SDTCP) on its or his own initiative or if directed by the State Planning Committee (SPC) can prepare the SAP, which is prepared in the same procedure as a Local Plan.

8.3.41 The main components of a SAP is the proposals map accompanied by written statements, diagrams and illustrations, which incorporate detailed guidance for the implementation and management of the plan.

8.3.42 Before commencing the preparation of the SAP, the LPA or Director has to take steps to give publicity to the preparation of the plan, its objectives, purpose and matters that are to be included in the plan, and to give the public the opportunity to give their views and comments. (section 12A)
8.3.43 When the SAP has been drafted, copies of the draft SAP have to be shown to the public to give the public an opportunity to raise objections or give comments. The public is to be informed by notices in a local newspaper, stating the places where the copies are available for inspection and the period for objections to be made. (section 13)

8.3.44 A local inquiry or hearing or objections may be held by a committee of 3 persons appointed by the SPC. (section 14)

8.3.45 The draft SAP, together with the objections, is then submitted to the SPC for consideration for approval with or without modifications, or rejection. If approved by the SPC, the plan is then submitted to the State Authority for assent and after the assent the plan comes into force. (section 15 (1), (1C))

Existing Statutory Plans

8.3.46 The statutory plans that have been prepared in the MBMB area include:

(i) Majlis Perbandaran Melaka Bandaraya Bersejarah Structure Plan (1993)
(ii) State of Melaka Structure Plan (Review) 2002
(iii) Local Plan Block 1 and 2, Majlis Perbandaran Melaka Bandaraya Bersejarah (1994)

8.3.47 For George Town, the related statutory plans are:

- Penang State Structure Plan 2020 (gazetted on 28 June 2007)
- Penang Island Draft Local Plan (currently awaiting approval)

Existing Non-Statutory Plans and Guidelines

8.3.48 Other than the statutory plans enforced under part III of the TCPA, both the cities are also using several non-statutory plans and documents which have been either adopted by the LPAs themselves, or as directions from the respective State Planning Committees under section 4 (5) of the TCPA. These instruments can be in the form of policies, guide plans and guidelines, and the LPA has to follow these directions in its processing and consideration of applications for planning permission and building plan approval. The term non-statutory is used to mean those plans and documents that are not prepared under the main sections of the acts. However if instituted and adopted formally at either the local authority level or through the respective State Authorities or relevant Committees, these instruments can validly be used to guide and control decisions on applications, as the TCPA and SDBA leaves entirely to the discretion of the local authorities in their considerations and decision-making, even where there is no statutory guide pans.

8.3.49 The non-statutory plans, policies and guidelines being used include:

MBMB:
- Development Plan for the Conservation Zone in Melaka Historic City (1994),
- The Urban Conservation Guidelines for Historic City of Melaka Municipal Council’s Conservation Zone, 2002, which is a revised version of the 1994 guidelines covers the entire conservation area of Historic City of Melaka
- Melaka River Rehabilitation for Majlis Perbandaran Melaka Bandaraya Bersejarah (2002)
• Conservation Management Plan for the Historic City of Melaka, adopted by MBMB on 30 Jan 2008

MPPP:
• Policy Plan for the Planning and Control of Development 1996. This is a landuse zoning and guide plan for the whole island of Penang, which incorporates a list of guidelines for the land use, densities and plot ratios of new development, height control, etc.
• Regulations/Guidelines for Conservation Areas & Heritage Buildings 2007
• Heritage Management Plan for the Historic City of George Town, adopted by the SPC on 12 Feb 2008.

8.3.50 The TCPA is hence a useful act which can be applied in the conservation planning and management of heritage assets in the WHS. Although it is generally an instrument for the spatial and physical aspects of development, it also applies in the control of the use of land and buildings, which to a certain extent can be used to protect intangible cultural heritage in the WHS, such as traditional trades. For this purpose, this can be more specifically defined and spelt out in the Rules made under the Act and in the development plans, especially the Special Area Plans. However there are still many areas which are beyond the ambit of the TCPA, particularly in respect of the intangibles. This has to be covered under the National Heritage Act 2005.

8.3.52 The Department of National Heritage was set up under the Ministry of Culture, Arts and Heritage (now taken over by the Ministry of Information, Communications and Culture) to implement the Act. The Minister is responsible to formulate policies and issue directives with regards to heritage protection and activities, and to appoint the Commissioner of Heritage.

8.3.53 The tasks of the Commissioner of Heritage include establishing and maintaining the National Heritage register for the designating and registering of heritage items, establishing liaison and cooperation with State Authorities and Local planning Authorities in respect of conservation and preservation of heritage matters; advising the Minister, National Heritage Council and other bodies at all levels for the purpose of safeguarding, promoting and dealing with any heritage. In carrying out his duty, the Commissioner is assisted by Deputy Commissioner(s), Assistant Commissioners and other officers, and are all appointed by the

Heritage Protection under the National Heritage Act 2005 (Act 645)

8.2.51 The National Heritage Act 2005 (NHA) provides “for the conservation and preservation of National Heritage, natural heritage, tangible and intangible, cultural heritage, underwater cultural heritage, treasure-trove and for related matters”. It became effective on 1 March 2006. This Act incorporates all the provisions of the Antiquity Act 1976 and Treasure Trove Act 1957 and replaces them. It includes provisions for the formation of a National Heritage Council, the appointment of a Commissioner of Heritage, the setting up of a Heritage Fund, and the establishment of a National Heritage Register in which are registered heritage items such as heritage sites, heritage objects, National Heritage, treasure troves, and provides for licensing, appeal, and enforcement of offences.
Minister.

The National Heritage Council consists of members appointed by the Minister and serves to advice the Minister and the Commissioner on all matters relating to heritage.

8.3.54 A Heritage Fund is established under the Act, which is to be controlled by the Commissioner for the purposes of purchasing heritage and conservation areas, expenses incurred for conservation and preservation including organizing campaigns, research, study, publication of materials etc. and giving of grants and loans.

8.3.55 The Commissioner, in consultation with the National Heritage Council, is responsible to prepare the Conservation Management Plan for the purposes of—

(a) promoting the conservation, preservation, rehabilitation, restoration or reconstruction of a heritage site;

(b) ensuring the proper management of a heritage site including the use and development of all buildings and lands in the heritage site and the preservation of the environment including measures for the improvement of the physical living environment, communications, socio-economic wellbeing, the management of traffic and the promotion of economic growth; and

(c) promoting schemes for the education of, or for practical and financial assistance to, owners and occupiers, and for community involvement in decision making.

8.3.56 Under section 112, a person has to obtain the approval of the Commissioner if he wishes to carry out any works or activity that may cause damage in the heritage areas or sites. This is a powerful section, and the works that can be controlled include any demolition, disturbance, destruction, modification or removal of any monument in the heritage site. This covers all repair and modification works of a heritage building, which are not covered under the TCPA or SDBA. The maximum fine for offences, however, is only RM 50,000, compared to RM 500,000 under the TCPA.

8.3.57 The National Heritage Act, 2005 is a very powerful and effective instrument for the conservation of the WHS, and gives powers to the Commissioner to protect, manage, plan, promote and provide funds for the heritage conservation areas and heritage buildings, monuments and objects, including the intangible cultural heritage. However the process of declaring, designating and registering the heritage items are tedious and time consuming. The cost factor is also a big deterrence, as the cost of renovation and restoration of heritage buildings and monuments for example, not to mention of acquiring heritage properties will be huge.

Regulating of Activities through Licensing Under the Local Government Act 1976 (Act 171)

8.3.58 The Local Government Act 1976 (Act 171) provides for the administrative and
management powers and conduct of business of the local authority in managing its area, specifically on matters necessary or desirable for the maintenance of the health, safety and well-being of the inhabitants or for the good order and government of the local authority area.

8.3.59 Section 102 of the Act gives powers to the local authority to make by-laws with regard to these matters. The matters that are relevant for the management of the WHS include:

- to control and supervise, by registration, licensing or otherwise, including in proper cases by prohibition, a trade, business or industry which is of an obnoxious nature or which could be a source of nuisance, (subsection s)
- to define the streets or areas within which shops, warehouses, factories or business premises may not be erected, or within which specified trades, businesses or callings may not be established or carried on, (subsection i)
- to regulate, license, restrict, prevent or remove the exhibition of advertisements (subsection c)
- to provide for the establishment, regulation, inspection and licensing of places of entertainment, public recreation or public resort, and to make regulations governing the means of ingress to and egress from such places and for providing adequate parking space adjacent or in reasonable proximity thereto, (p).

8.3.60 Under section 73 (g), the local authority can make by-laws to regulate, supervise and license pedlars, hawkers and street traders and to prescribe streets or areas in which peddling, hawking or street trading shall be prohibited.

Section 107 empowers the local authority to revoke at any time or renew or refuse to grant any license without assigning any reason, and in the granting of licenses, to impose any condition or restriction as it may think fit.

8.3.61 Although the provisions under the LGA are not directly related to heritage conservation, some of the provisions can be used to regulate and control uses and activities that may affect the OUVs of the WHS, including certain intangible cultural and traditional trades. However clear guidelines have to be prepared to guide decision-making on applications of licenses and the SAP will be useful for this purpose.


8.3.62 The Enactment on Conservation and Restoration of Cultural heritage of Melaka was adopted in 1988, to safeguard and preserve buildings of historical significance and cultural heritage of the State of Melaka. It provides for the setting up of the Committee on Conservation and Restoration to advise the State Authority about matters relating to the conservation and restoration of cultural heritage resources in the state of Melaka. The main functions of the committee are as follows:

i). to gazette areas or premises that are to be conserved and restored.
ii). to prepare plan towards improving the physical infrastructure of the specific site of heritage significance.
iii). to ensure that the preservation of the original identity of the premises of heritage significance are maintained especially in the context of their physical appearance.
iv). to process the planning applications submitted by owners of premises for

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alterations and renovations.

v). to enforce the rules in the enactment to the affected property owners.

vi). To administer the fund that was established under the Funding Programmes in this enactment.

8.3.63 However the problem of funds has restricted the giving of substantial grants or support for the property owners, or to acquire the property as provided in the enactment. Nevertheless the 1988 Enactment is an advantage to the Historic City of Melaka as it provides additional coverage for the protection of heritage properties together with the TCPA and the SDBA. Amendments to the Enactment are being drafted by the State Authority to strengthen its provision for heritage conservation and protection in line with the inscription of the WHS.

Public Participation under the TCPA and the NHA

8.3.64 The participation and involvement of the public is a crucial element in the process of preparing plans especially where the plans and proposals will affect the people’s living environment and their socio-economic standard. Heritage conservation has always been a touchy subject, and where the conservation visions and strategies of the government are looked upon as creating uncalled-for restrictions to the people’s aspiration of creating wealth through the enhancement of their property values through new and modern development, the objections of the people towards the conservation plans are understandable. To allure these fears, the government authorities have to engage the public and the stake holders in every step of the process, to educate and invite them to participate in the preparation of and hopefully to support the conservation plan.

8.3.65 The TCPA requires that even before the SAP is drafted by the LPA under the TCPA, the public has to be notified and invited to give their views and ideas on the plan proposals. When the draft plan has been prepared, another round of publicity is made where the people can examine the draft and raise objections or give suggestions, and the State Planning Committee has to take into consideration of all the objections and views before the plan can be approved.

8.3.66 In a similar vein, all applications for planning permission are referred to neighbouring land owners for them to raise objections in writing, if they have any, to the proposed development applied for. If the objectors so request, they are given the opportunity voice their objections in a hearing. All objections raised are to be considered before the planning permission is granted. If the application is approved in spite of the objections, the objectors can appeal to an Appeal Board formed under the TCPA.

8.3.67 Under the NHA, an owner or any other person affected or likely to be affected by the designation of a heritage site may make an objection to the designation of the site, and where an objections has been made, the Commissioner of Heritage has to conduct a hearing of the objection, before deciding to continue with the designation and registration of the site.

Present Procedures adopted in Melaka and George Town for the Processing of Applications for
Planning Permission and Building Plan Approvals in the WHS Areas

8.3.68 The procedures adopted in MBMB and MPPP are almost the same as they follow the TCPA. An application for planning permission or building plan approval is submitted to the One-Stop Centre (OSC) set-up in the LPAs, through the consultants. The OSC then circulates the application, together with the layout or building plans, and other documents, to the various relevant government technical departments or agencies for their comments and requirements. For major projects, either in terms of scale or impact, the application is also referred to the Department of National Heritage. The plan is then sent back to the consultant to be amended to comply with the departmental requirements, before being tabled by the Town Planning Department for planning permission applications or the Building Department for building plan applications, to the LPA One-Stop Centre (OSC) Committee for approval or rejection. In the case of Melaka, a preliminary consideration is made by a Technical Committee which is chaired by the President of the LPA, to see whether the proposed development complies with the development plans and conservation guidelines. The application is rejected if there is non-compliance or given an approval-in-principle and then the application referred to the technical departments for their comments and departmental requirements.

8.3.69 For minor works or simple building plans, the applicant through his consultant can table direct to the OSC Committee for on-the-spot approval. For simple renovation and repair works, the Director of Buildings can give a repair permit. The various procedures are shown in Figure 8.1

8.4 Existing Institutional and Organisational Set-up for Heritage Conservation

8.4.1 The institutional framework that supports the heritage conservation works of the government can either be statutory that is required under the laws, or non-statutory that is set-up administratively.

Statutory Institutional Set-up

8.4.2 Following the present laws, the main statutory key players with the authority and responsibility of heritage conservation (and the laws they operate under) are:

At the federal level,
- the Federal Minister in charge of heritage (NHA),
- the Commissioner of Heritage (NHA)
- the National Heritage Council (NHA)
- the National Physical Planning Council (TCPA)
- the Director General of Town and Country Planning, who is also the secretary of the National Physical Planning Council (TCPA)

At the state level,
- the State Authority (TCPA, SDBA, LGA,)
- the State Planning Committee (TCPA)
- the State Director of Town and Country Planning, who is also the secretary of the State Planning Committee (TCPA),
- PERZIM Melaka (Melaka Heritage Conservation Enactment)

And at the local level,
- the local authorities (TCPA, SDBA, LGA, NHA).
Figure 8.0.1. Chart Showing Control of Works and Activities in the WHS Under TCPA and SDBA

Note:
TCPA - Town and Country Planning Act, 1976
SDBA - Street, Drainage and Building Act, 1974
Administrative Set-up

8.4.3 Each of these authorities has set up its own machinery and administrative support system to carry out its responsibilities and functions. These include:

At the federal level,
- the Department of National Heritage whose present Director-General is the Commissioner of Heritage,
- the Federal Department of Town and Country Planning;

At the state level,
- the State Heritage Committees to advice their respective State Planning Committees and State Executive Councils. (In Melaka the Committee on Conservation and Restoration was formed under the Enactment on Conservation and Restoration of Cultural Heritage),
- the State of Melaka Museum Corporation (PERZIM) in Melaka;

At the local planning authority level,
- the Town Planning Departments and the Building Departments,
- the heritage conservation units, (In MBMB the Conservation Unit is a unit in the Town Planning Department while in MPPP the Heritage Unit is in the Building Department),
- the Technical Renew Panels to help in the evaluation and consideration of planning and building applications,
- the One Stop Centres (OSC) in the LPAs to assist in the administrative processing of applications,
- the One Stop Centre Committee

The Department of National Heritage

8.4.4 The Department of National Heritage (DNH) is the key department at the national level in the safeguarding of natural, cultural and archeological heritage.

The DNH was established with the enforcement of National Heritage Act 2005 on 1 March 2006. Prior to this, it was a division under the then Ministry of Culture, Arts and Heritage. The objectives of the Department is to conserve, maintain and protect the nation’s cultural, natural and archeological heritage through research, documentation, enforcement and raising awareness of heritage by means of:

- maintaining the National Heritage Register
- conservation of heritage items
- dissemination of knowledge on heritage,
- enhancing expertise in various heritage fields.

8.4.5 However, the current scope of DNH is very much on the conservation of monuments, sites and others that comes under the national interest.

The head of the DNH is the Director General, who is also the Commissioner of Heritage.

The Federal Town and Country Planning Department

8.4.6 Town planning is a matter that is the responsibility of both the Federal and State Governments. Under the TCPA, the local government and the Federal and State Directors of Town and Country Planning are responsible for the planning of development and use of land in their areas. The local government is however the approving authority for applications of planning permission on a day-to-day basis, but they have to abide by the plans and policies made at Federal and State levels, and for major projects have to obtain the
clearance from the higher levels, which are monitored by the Directors, by virtue of them being secretaries of the planning councils and planning committees at their respective levels. This can be viewed as a check-and-balance system for the monitoring of development at the local level.

Melaka State Conservation and Restoration Committee

8.4.7 The Melaka State Conservation and Restoration Committee was established under the State Heritage Enactment of 1988 to advise the state government on policies, administration and management of the cultural heritage and designation of heritage areas. The committee is chaired by the Chief Minister of Melaka and members include the State Director of Town and Country Planning Department, State Legal Officer, State Financial Officer, General Manager of Museums, Director of State Public Works Department, and five other members who have the expertise and experience in heritage conservation and history. The State Director of Town and Country Planning is the secretariat of the committee.

Penang State Heritage Committee

8.4.8 The State Heritage Committee acts as the highest level of state government to monitor the implementation of the heritage management plan in the state. Its jurisdiction covers areas that include UNESCO designated heritage area and those outside this area. The Committee is chaired by the Chief Minister while the secretary is the State Director of Town and Country Planning. Members in the Committee include State Executive Council members, heritage experts, local community leaders and technical agencies of the state and the DNH.

State of Melaka Museum Corporation (PERZIM)

8.4.9 The State of Melaka Museum Corporation or PERZIM was established under the Preservation and Conservation of Cultural heritage Enactment for the State of Melaka 1988. Under the enactment, PERZIM is the authority in charge of cultural heritage for the whole state. PERZIM works with local authorities in the conservation of heritage sites in their respective areas under the TCPA and the SDBA. It is also empowered to designate and declare cultural heritage sites in Melaka. Its function includes the protection of 'antiquity, historical object, historical site, works of art, coins, special architectural, aesthetic, historical, cultural, scientific, economic and any other interest or value'.

MBMB Conservation Unit

8.4.10 The MBMB Conservation Unit has been established under the Development Control Division of the Planning and Development Control Department of MBMB. Its main role is to act on applications for development in heritage areas, and to liaise with PERZIM on heritage conservation matters. In addition, it manages development applications and enforcement of regulations under its heritage areas. Its role is hampered by the shortage of officers who have full-fledged expertise in the management of cultural heritage, and so relies on PERZIM for local heritage management matters.

MPPP Heritage Unit

8.4.11 The MPPP Heritage Unit has been established under the Building Department of MPPP. Its main role is to check on applications for development in heritage areas, and to advise the council and the state government on heritage conservation matters.
Technical Review Panel

8.4.12 Technical Review Panels have been set up in both MPPP and MBMB. The panel meets to assist the local authority in the evaluation of proposed development projects submitted in planning permission and building plan applications. The panel is chaired by the City Mayor/Municipal Presidents and the members include knowledgeable professionals.

The role of the Civil Society in conservation efforts in the WHS

8.4.13 The Civil Society and Non-Government Organisations (NGOs) have been playing a major role in the conservation activities in both George Town and Melaka. The Civil Society acts as a watch dog on the activities of the government and the private sectors that affect the heritage matters in their areas. Besides lobbying the State and Local Governments over their concern on heritage issues, NGOs like the Penang Heritage trust run their own programmes to create awareness, educate the public and children, raise funds and carry out research and projects on heritage conservation. Besides NGOs, Civil Society in George Town and Melaka include:

- local communities,
- local leaders, community representatives,
- local associations,
- clan associations,
- trades associations,
- workers groups,
- nature and environmental protection societies,
- consumer societies,
- resident associations,
- rate payers associations,
- children and women groups,
- professional groups,
- human rights societies,
- concerned individuals.

8.4.14 Being a democratic country, the governments at both the federal and state levels are aware of the power and the driving force of concerned groups and citizens, and are always eager to engage them on all matters related to heritage conservation.

Weaknesses of existing institutional and administrative set-up

8.4.15 The implementation of the management plan and the Special Area Plan and its monitoring will require a strong administrative set-up, adequate staff strength, personnel competency, access to information and knowledge, and efficient procedural and management systems. There are, however, still many weaknesses in the existing government institutional and administrative set-up. These include shortage of staff, lack of experience, expertise, competency, bureaucracy and red tape that hampers the efficiency of the government machinery, lack of cooperation and coordination among the departments and workers, lack of information, lack of guidance and leadership, lack of adequate equipment, among other problems.

8.4.16 The decision-making process is often unduly tedious and long. This is due often to the government bodies being sometimes unsure of the best planning options, proposals and strategies. The use of more sophisticated computer soft wares and the geographic information system (GIS) will facilitate and hasten the process of data compilation, analysis, mapping, presentation and decision-making. There is a need to keep up to date all the information that has been compiled.

8.4.17 The procedures in the approval of planning permission and building plans are sometimes unnecessary tedious and time consuming. There are many causes of these delays, including:

- unclear development plans and guidelines;
- unclear and imprecise recommendations on the part of the planning officers;

• indecisions in the consideration of the applications;
• too many irrelevant and unnecessary, and sometimes, conflicting requirements and comments from the technical departments;
• too many departments and committees processing and considering the applications;
• unclear system and procedures of processing of applications, some steps are unnecessary, overlapping and/or redundant;
• the applicants and their agents are not competent.

8.4.18 There is no adequate method to assess the heritage impact of proposed development. A more precise set of criteria and indicators for heritage impact assessment should be formulated, and a more precise and quick method of evaluating the impacts, These will be invaluable for responsible and effective decision-making in the development control process.

8.4.198 This is inadequate monitoring of offences and lack of enforcement taken under the planning and building laws. Reasons for the delays and inefficiencies include:

• Some parts of the law and by-laws are not clear,
• Insufficient supervising officers and inspectors,
• The charging and conviction of offenders through the court of law are tedious and time consuming,
• The fines and penalties are not high enough to create a significant deterrence to potential offenders.
• There are often interferences by politicians.

8.5 Strengthening the Administrative Set-up and Legal Provisions

8.5.1 Steps have been initiated both in Penang and Melaka to strengthen the institutional framework and management mechanisms so as to carry out the necessary implementation programmes more effectively and efficiently, and in a more coordinated manner, as proposed in the Melaka Conservation Plan 2008 and the George Town Heritage Management Plan 2008. These steps include enhancing the role of the State Heritage Committees, institutionalising and enlarging the World Heritage Office, upgrading the Heritage / Conservation Units in the 2 local authorities to full-fletch departments, increasing the role of the DNH and the Commissioner of Heritage at the State and Local Authority levels, and improving coordination and collaboration between the 2 cities in their conservation management efforts. At the same time the main laws, the TCPA and the NHA are being reviewed to strengthen them further and to make them more effective in the conservation and protection of the WHS and their OUVs.

Enhancing the Role of the State Heritage Committee (SHC)

8.5.2 The SHC has being formed in Penang to act as the main body to monitor the management of the WHS and of other conservation areas and heritage buildings in the state. It will oversee the implementation of the Conservation Management Plan and act as a forum
for the discussion of issues concerning management of the Site in its state among the different levels of government. It gives directions to the Local Authorities and other implementing departments through the State Planning Committee and the State Executive Committee for which it acts as the advisor on heritage matters. The Penang SHC is the counterpart of the State Conservation and Restoration Committee of Melaka, which was established under the State Heritage Enactment of 1988. The committees are chaired by the respective Chief Ministers and members include the relevant State Executive Councillors, the respective State Director Town and Country Planning, State Legal Officer, and State Financial Officer.

8.5.3 In Melaka the other members include the General Manager of Museums, the Director of State Public Works Department, and five other members who have the expertise and experience in heritage conservation and history, whereas in Penang the other members include the State Secretary, the Director of State Economic Planning Unit, the President of MPPP, and representatives from the Department of National Heritage, the National Heritage Trust (Badan wWarisan Negara) and the Penang Heritage Trust, and no more than three individual heritage experts or representatives of local business and community, with a total of not more than 15 members. Whereas in Melaka, the State Director of Town and Country Planning is the secretary of the committee, in Penang the General Manager of the World Heritage Office is the secretary.

8.5.4 Broadly the committee’s tasks include:

i) To advice the State Planning Authority and the State Planning Committee on all heritage conservation matters in the state,

ii) To steer and monitor the preparation of the Heritage Conservation Management Plan, the Special Area Plan, the Heritage Conservation Guidelines, and the review of the existing laws, and the making of new enactments, rules, regulations and by-laws for the purpose of conservation management of the WHS and other conservation areas in the state,

iii) To liaise and coordinate with the (National) Commissioner of Heritage, and the partner city on the conservation of the WHS,

iv) To monitor the implementation, and to ensure the smooth progress of implementation, of the CMP, the SAP, and other conservation plans projects by all the relevant authorities and agencies,

v) To keep under review the achievements of the objectives and the vision of the CMP and the SAP and propose amendments and alterations to these plans to better achieve the desired results,

vi) To formulate principles, policies, proposals and programmes and give directions for heritage conservation,

vii) To over-see and monitor the works of the World Heritage Office,

viii) To advice and over-see fund raising programmes and projects for heritage conservation,

ix) To approve all budgets, including
those for major conservation, restoration and preservation projects, and other programmes and projects undertaken by the WHO,
x) To adjudicate on disputes on heritage conservation and management.

Up-grading the Heritage / Conservation Units in the two Local Authorities to Heritage Departments

8.5.5 With the inscription of the two cities as UNESCO WHS, the increase in the importance and the volume of work and responsibility for the conservation of the historic cities warrants the up-grading of the Local Authorities’ units in charge of conservation to the level of a department on par with other departments in the MBMB and MPPP. The Heritage Departments will be responsible for the evaluation and recommending on all planning and building plan applications, and the inspection and monitoring of physical development in the Site. It will report to the SHC through its representation as an ex-officio member of the SHC.

8.5.6 The Heritage Department will be headed by a Director and supported by a full team of professional, technical and clerical staff. The Director of the Heritage Department can come from any of the related built environment disciplines, preferably an architect or town planner, and must have knowledge and experience in cultural heritage management.

8.5.7 In particular the functions of the Heritage Department include:

i) To process and monitor the applications of planning permission and building plans of proposed works in the World Heritage Site, and in the process to evaluate the plans, design, and the heritage impact,

ii) To prepare and keep in review the Conservation Guidelines for conservation of heritage buildings and sites and to implement these Guidelines,

iii) To carry out periodic inspections and undertake surveys on heritage buildings for compliance with Conservation Guidelines and best practice standards,

iv) To maintain and up-date the data bank and inventory of heritage sites and properties, including of intangible cultural heritage,

v) To provide advice and consultation to property owners, consultants, developers and the general public on the planning, design, renovations, amendments, additions, extensions, reconstruction, change of use, repairs, maintenance and other matters pertaining to heritage conservation of heritage buildings,

vi) To undertake programmes to raise awareness and educate public, members of the community, owners and residents on conservation standards and practice,

Enlarging the Organisation and Functions of the World Heritage Office

8.5.8 World Heritage Offices are set up in as an assurance to the World Heritage Committee that the World Heritage Sites can be adequately protected. In spirit of the setting up of the Heritage Departments in the Local Authorities, there will still be weaknesses and problems for the Departments and the Local Authorities to fully carry out the demands for good and successful conservation and safeguarding of the WHS. Local Authorities have their limitation, which include the lack of expertise and experienced staff, lack of incentive and motivation, financial
constraints, and the bureaucratic constraints to hire and reward good staff or punish wayward ones, that will form a stumbling block in the efforts on heritage and conservation management.

8.5.9 The need to set up a special purpose vehicle to assist the state and local governments in the conservation of their historic cities has long been felt. This was the reason PERZIM had been formed in Melaka. The Penang State government has moved to set up such an organization in 2010 and is currently in operation with a skeletal organizational set-up. The George Town World Heritage Incorporated (GTWHI) was established under the Company Act 1965. Melaka state government has agreed to set up a special propose vehicle in he form of a state owned company under the Company Act, 1965. It is important that both state governments establish the required WHO to support the institutions, especially the local governments concerned, towards heritage and conservation management at the Sites.

8.5.10 The primary function of the WHO will be to manage and liaise with the local authorities as well as State and Federal agencies on all matters pertaining to the Site which are currently outside the purview of the statutory system, including branding, promotion, tourism and liaison with State, Federal and International organisations and agencies for betterment of the Site. Bearing in mind that this is a living site, the WHO also liaises with the community that lives and work there. Issues that arise could include matters pertaining to public transportation, security, research, impact studies, site interpretation, public awareness and community liaison.

8.5.11 Essentially, the WHO will ensure unified management and implementation of the Conservation Management Plan, and it will play the role of the de facto site manager. The WHO is headed by a General Manager who must be knowledgeable in matters related to the conservation and management of heritage sites.

8.5.12 The WHO compliments, assist and supports the Local Authorities in carrying out all the functions necessary for the efficient and effective management of the WHS. These functions can be divided into statutory and non-statutory functions, and the non-statutory tasks can be outsourced to the WHO. The legal scope of the local authority and the WHO is shown in Table 8.1. The WHO must also have the ability to hire and fire as freely as possible, and not be saddled with bureaucracies and red tape in making decisions and taking actions, like that the public agencies.

8.5.13 The divided functions of the local government and the WHO are shown in Table 8.2 below. As the WHO is to co-exist with the local authority in managing heritage sites of the respective cities, the WHO should have the right structure to administer and provide services to ensure the non-statutory functions are taken care of in the management of heritage sites. This takes the view that statutory functions will continue to be function of the local government.

8.5.14 The organisational structure that would befit WHO at both Melaka and George Town is as shown in Figure 8.3. This structure incorporates the proposed guidelines of the Department of National Heritage as per Guidelines to the Establishment of World Heritage Office for Melaka and George Town World Heritage Sites, formulated by DNH under consultation with both state authorities in 2010.
8.5.15 In addition, the structure incorporates the need to have a technical advisory section which would provide assistance and guidance on heritage matters to individuals and developers besides attending to request for opinions from local government concerned on applications received from the heritage sites. In addition, an Archives Section is deemed necessary for the WHO to function as a Depository System at the site, and one that can have a formal linkage with the National Archives Department and the Department of Museums and Antiquities.

8.5.16 The George Town World Heritage Incorporated (GTWHI) has already been incorporated as a corporate body under the Companies Act, 1965 in the form of a company limited by guarantee and not having a share capital. This however, has not been set up in Melaka.

**Table 8.1 :** Statutory and Non-statutory functions of the Local Authorities and the WHO in Heritage Management

<table>
<thead>
<tr>
<th></th>
<th>Local Authority</th>
<th>WHO</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Heritage Management Local Level</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organisation</td>
<td>Local Government</td>
<td>WHO</td>
</tr>
<tr>
<td></td>
<td>(1) MBMB</td>
<td>(1) Melaka WHO</td>
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<tr>
<td></td>
<td>(2) MPPP</td>
<td>(2) George Town WHO</td>
</tr>
<tr>
<td></td>
<td>Federal authority</td>
<td>(i.e. World Heritage Incorporated Office,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>GTWHI)</td>
</tr>
<tr>
<td>Scope of Functions</td>
<td>Statutory</td>
<td>Non-Statutory</td>
</tr>
</tbody>
</table>
**Table 8.2: Functions of Local Government and WHO**

<table>
<thead>
<tr>
<th>Local Government (Statutory functions)</th>
<th>WHO (Non-statutory functions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Planning and building control</td>
<td>1. Education and awareness</td>
</tr>
<tr>
<td>2. Urban services</td>
<td>2. Monitoring the implementation of CMP</td>
</tr>
<tr>
<td>3. Enforcement</td>
<td>3. Monitoring the heritage premises</td>
</tr>
<tr>
<td>4. Licensing</td>
<td>4. Maintenance of the registry</td>
</tr>
<tr>
<td>5. Infrastructure development</td>
<td>5. Provide incentives</td>
</tr>
<tr>
<td>6. Legal services</td>
<td>6. Implement projects (enhancement, cultural, maintenance and landscaping)</td>
</tr>
<tr>
<td>7. Formulation and Adoption of Policies</td>
<td>7. Raise funds</td>
</tr>
<tr>
<td>8. Sourcing development funds (from state and federal government).</td>
<td>8. Reporting of performance and activities</td>
</tr>
<tr>
<td>10. Road construction and management and utility works</td>
<td>10. Publicity</td>
</tr>
<tr>
<td></td>
<td>11. Conduct Studies and Research</td>
</tr>
<tr>
<td></td>
<td>12. Manage Heritage Trust Fund</td>
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<tr>
<td></td>
<td>13. Capacity building</td>
</tr>
</tbody>
</table>

**Figure 8.3 Figure 3: Organisational Structure of WHO**
<table>
<thead>
<tr>
<th>Section</th>
<th>Key Functions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cultural Development</td>
<td>- Promote and manage socio-economic development of local communities</td>
</tr>
<tr>
<td></td>
<td>- Develop sustainable cultural tourism and manage visitor facilities and services.</td>
</tr>
<tr>
<td>Communications &amp; Corporate</td>
<td>- Public relations and publicity</td>
</tr>
<tr>
<td></td>
<td>- Complaints, and participation</td>
</tr>
<tr>
<td></td>
<td>- Information management and production of materials</td>
</tr>
<tr>
<td></td>
<td>- Encourage community awareness and public participation in conservation management</td>
</tr>
<tr>
<td></td>
<td>- Liaising with federal, state and international organizations and agencies</td>
</tr>
<tr>
<td></td>
<td>- Communication with international WHS offices</td>
</tr>
<tr>
<td>Technical Advisory</td>
<td>- Provide avenues for public consultation</td>
</tr>
<tr>
<td></td>
<td>- Provide professional advisory services to applicants</td>
</tr>
<tr>
<td>Administration &amp; Finance</td>
<td>- Administration</td>
</tr>
<tr>
<td></td>
<td>- Raising and managing funds</td>
</tr>
<tr>
<td></td>
<td>- Develop proposals and funding packages for major projects</td>
</tr>
<tr>
<td></td>
<td>- Prepare budgets and to manage, monitor expenditures</td>
</tr>
<tr>
<td>Research &amp; Development</td>
<td>- Encourage and facilitate research</td>
</tr>
<tr>
<td></td>
<td>- Establishing baseline data and information on built and cultural elements</td>
</tr>
<tr>
<td>Archives</td>
<td>- Managing documents on heritage site</td>
</tr>
<tr>
<td></td>
<td>- Seeking, collecting and purchasing archiving information</td>
</tr>
<tr>
<td></td>
<td>- Ensuring an effective mechanism on archives and its protection</td>
</tr>
<tr>
<td></td>
<td>- Depository system about the Site</td>
</tr>
<tr>
<td>Education &amp; Training</td>
<td>- Strategizing policies</td>
</tr>
<tr>
<td></td>
<td>- Capacity building</td>
</tr>
<tr>
<td></td>
<td>- Raising awareness</td>
</tr>
<tr>
<td></td>
<td>- Instrument and tool development</td>
</tr>
<tr>
<td></td>
<td>- Teaching and learning in formal and non-formal aspects</td>
</tr>
<tr>
<td>Monitoring</td>
<td>- Supervising the monitoring of the site</td>
</tr>
<tr>
<td></td>
<td>- Ensuring conservation of built and living heritage</td>
</tr>
<tr>
<td></td>
<td>- Monitoring threats to OUV on the site</td>
</tr>
<tr>
<td></td>
<td>- Risk management</td>
</tr>
<tr>
<td></td>
<td>- Coordinating with various agencies and authorities</td>
</tr>
</tbody>
</table>
8.5.17 The functions of the WHO at both Melaka and George Town would include the following:

- To supervise respective heritage sites in line with the need of CMP
- To develop and manage a heritage database for effective implementation and monitoring
- To support research and development in heritage
- To promote sustainable development of cultural tourism and manage tourist services and facilities
- To support local community involvement in conservation of their cultural heritage
- To promote socio-economic development of local residents
- To promote awareness on heritage by implementing programmes
- To recommend, implement and fund projects and programmes in relation to heritage conservation.
- To prepare, manage and control the finances of the organization
- To seek funding
- To prepare and present reports on the implementation of the CMP
- To function as the secretary to the State Heritage Steering Committee, and coordinate meetings towards effective management of the CMP.

8.5.18 The functions of the Sections in the WHO of both cities are as shown in Table 8.0.3. With the designated functions for the sections, the General Manager will have to be able to carry out the following key functions:

- Manage, promote and administer the WHO,
- Chair meetings at WHO level,
- Seek participation of experts and citizens on specific areas/topics,
- Organize workshops and seminars for information dissemination, training and capacity building,
- Managing the Trust Account,
- Administer incentives,
- Seeking financial resources,
- Facilitate and coordinate local citizen meetings,
- Represent the state government on heritage matters,
- Prepare periodical reports,
- Publishing information,
- Promoting local heritage area,
- Monitor heritage site.

8.5.19 To help perform its duties, the following are to be established whenever the need arises at respective WHO:

(i) Technical Review Panel (TRP). Until the Special Area Plan is approved by the state government, it is important that 2 TRPs are established under each WHO, one is to provide expertise on funding and incentive matters; and the other to advise WHO on planning and control applications and related matters. In addition, the WHO may establish any other TRP as need be. The TRP cannot make decisions but may advises and make recommendations to the WHO or the local authority on heritage matters. For TRPs, each of the WHO is to establish a directory of experts who could fit into the TRPs. Each TRP meeting may be convened with different combination of experts, of at least three experts on a rotational and availability basis.
(ii) Working Committee with Local Authorities and Technical Departments. There is a need for WHO to convene a periodical meeting with local authorities; and with other technical departments in relations to heritage management.

(iii) Stakeholder groups. Each WHO may convene stakeholder meetings to work towards getting opinions and public participation on heritage conservation and preservation initiatives. These meetings can be held as frequent as possible depending on the needs as viewed by WHO.

(iv) Topic-based Working Groups. These groups could be formed to address issues that emerge and to seek expert opinions. These experts could be players in the trades and economic activities concerned. For example, hoteliers could be requested to attend to provide their input on tourist accommodation in heritage areas. Similarly, petty traders, tinsmiths, ironsmiths, goldsmiths and others alike could be specific groups who can be requested to participate in relation to continuing their traditional trades.

(v) Staffing and Training. It is important that sufficient numbers of staff are hired by the WHO and stringent measures are undertaken to ensure they are able to perform multi-tasking and reduced number of staff so as to reduce wastage of public funds. To begin with, each WHO may employ about 30 persons and this number can be increased over time depending on the availability of funds. In addition, it is necessary that each staff is highly trained to provide their professional services to WHO and the parties that require their inputs.

(vi) Trust Account and the Finance Advisory Committee at WHO. A Trust Account can be set up by the WHO to fund its expenses on its heritage conservation management. The Finance Advisory Committee will become a tool in the management of the Trust and to advise the CEO on financial matters including raising funds for the Trust. It is important for members of the Advisory committee to have knowledge of finance. The Finance Advisory Committee may propose the Trustees for the Trust Account. Members of the TRP committees may be considered as Trustees for the Trust Account.

(vii) Charging fees. WHO may impose fees on some of the services to cover its costs. For example, the Technical Advisory Section in WHO may charge a fee to advice applicants.

(viii) Finance Advisory Committee. This committee is to assist the WHO in matters pertaining to financial matters including that of the Heritage Trust Fund under respective WHIs. It is also to serve as an internal financial audit under WHI. For this purpose, it is imperative that a qualified accountant’s service is required under this committee to perform with two other members from the Board of Directors.

(ix) Empowering WHO. In order to facilitate WHO to perform the roles above and to call for meetings, it is important that sufficient power is conferred upon the WHIs. Towards this end, the state enactments will need to make necessary amendments/ incorporation of related clauses.
The role of the WHO in the development planning and control process in WHS

8.5.20 The WHO will play a key role in the preparation of the SAP by the LPA and in the control and regulation of development and building works and activities in the WHS. As shown in Figure 8.0.4 below, the WHO will be providing crucial technical, professional and administrative advice, support and assistance to the LPA in every step in the preparation, providing public education and obtaining public participation, and advising the SPC in the consideration of the draft SAP before approval. Major projects in the WHS will also need the consent of the Department of National Heritage.

8.5.21 Similarly the WHO will be needed to ensure that the processing of applications for planning permission and for building plan approvals for proposed development work and change of use in the WHS will be effectively and efficiently carried out towards the protection and management of heritage and the OUVs. Even at the
early stage the WHO can provide valuable advice and directions to land owners and developers and their consultants in the planning and design of their development and in the preparation of plans, drawings and documents for submission of applications. All applications will have to be vetted by the WHO which will be empowered to ensure that the proposed development complies with the SAP before they are approved, as shown in Figure 8.05 below. As will be pointed out in the next section, he (National) Director of Heritage will be entrusted with the checking of major projects in the WHS and her clearance will be needed. The WHO will also be called upon to give guidance, advice and recommendations on heritage matters to the local approving authority, the SPC State Planning Committee and the State Heritage Committee in their consideration and making of decisions on these applications.
Increasing the Roles of the Department of National Heritage and the Commissioner of Heritage at the State and Local Authority Levels

8.5.22 The Commissioner of Heritage (CH) plays an important role in the heritage conservation of the WHS of Melaka and George Town. Under the NHA, her main functions, besides maintaining the National Heritage Register and designating and registering heritage sites and other heritage items, include overseeing the conservation, preservation, restoration, and maintenance of heritage, to advise and co-ordinate with the local planning authority, the National Heritage Council and other bodies and entities at all levels for the purpose of safeguarding, promoting and dealing with any heritage, and to advise the Minister with regard to any matter in respect of conservation and preservation of heritage.

8.5.23 To facilitate her task in the protection of the WHS of Melaka and George Town, the Commissioner of Heritage should be a member of the State Heritage Committees of Melaka and Penang. She is a member of the National Heritage Council, and hence she can coordinate the heritage conservation efforts not only between the national bodies and the states, but also between the two states of Melaka and Penang. A “Joint” Heritage Committee at the National Level has been formed under the National Heritage Council for the purpose of coordination and collaboration of the works in the WHS of the two states, and the Chief Ministers of the states should be members of this “Joint” Committee. The Commissioner is also an important source of funds for heritage conservation, promotion and research in the states. She is at the moment heading the Department of National Heritage and it is has also been proposed that the Department sets up branches in the two states to assist in the conservation efforts of the states and the local authorities better.

8.5.24 Her role in the WHS becomes more crucial as more and more buildings and areas are in the WHS are registered in the National Heritage Register.

Amending the laws to strengthen them for the conservation in the WHS

8.5.25 Both the TCPA and the NHA are at the moment being reviewed and amended to incorporate more specific provisions for the conservation of heritage sites and buildings in general and in the WHS in particular. These amendments and additions should, among others, include:

i) Amending the definition of “development” or amending the definition of “material change of use” to include change from “traditional” use, for the protection of intangible heritage;

ii) Requirements for the Heritage Impact assessment, Progress Report, and Dilapidation Survey Report for major works in the Heritage Areas that may affect the heritage values.

8.5.26 Other the main acts, amendments can also be made to the subsidiary acts or new subsidiary acts be made, (in the form of Rules under the TCPA, By-laws under the SDBA and LGA, and Regulations under the NHA) to provide clearer powers and provisions for the planning and control, promotion, protection and funding of heritage and conservation efforts. For example, the Fire Requirements, the strict building specifications can be waived for the restoration and maintenance of old heritage buildings.
8.6 Implementing the Management Plan

Introduction

8.6.1 While the implementation mechanism has been established at the local and state government level (as discussed in Section 8.3), it is important to define the hierarchy of reporting progress and performance of CMP, and establishing the responsibilities of CMP management by different authorities and by different tiers of the government.

Hierarchy of Responsibility

8.6.2 Figure 8.0.6 shows the hierarchy of responsibility of the CMP beginning from the collaboration between the WHO and the local authority concerned at both Melaka and George Town WHS. Both organizations are set to the most critical implementers of the CMP. The CMP/Special Area Plan was submitted to both state governments on 17 January 2011 (Penang) and 18 January 2011 (Melaka) for approval. This endorsement was subsequently submitted to the Ministry of Information, Communications and Culture through the National Heritage Commissioner’s office at the Department of National Heritage on for approval and onward submission to the World Heritage Centre.
Partnership and Commitment to Implement CMP

8.6.3 At local levels, WHO will need to collaborate with the following in its operations and decision-making:

- Stakeholder groups such as local residents, businessmen, hotel operators, academicians, heritage and conservation experts
- Specific target groups, such as hawkers, food operators, business operators, printers and others
- Local government
- Inter-WHO coordination meeting to be coordinated by Department of National Heritage
- International bodies

8.6.4 Partnership with these groups will be able to enhance the deliverables and capacity building of the WHO. Such partnership will be necessary to ensure that heritage and conservation efforts are sustainable in the long-run, i.e. will be able to coerce the stakeholders and owners to conserve their heritage assets on their own.

8.6.5 The working arrangement of the WHO with other agencies on heritage and conservation can be seen in Figure 8.0.7. The diagram illustrates the relationship between all three tiers of government in the heritage management of Melaka and George Town WHS in the country.

8.6.6 At the Ministry of Information, Communications and Culture, the Minister chairs a Management Committee for World Heritage Sites of Melaka and George Town, which is represented by the Secretary of State of both Melaka and Penang.

Figure 8.7: CMP Management by Tiers of Government
8.6.7 The agencies shown in Figure 8.6 carry out their functions according to legal powers enshrined in some of the legislations. While the municipalities involved, i.e. MBMB and MPPP, are empowered by Act 172 and Act 133 as well as the Uniform Building By-Law, and other by-laws, WHO requires a legal backing to support its operations, especially that of non-statutory functions. By history, Melaka already has had its enactment on heritage management and conservation established in 1988 which was further amended in 1993 and in 2008. Similar enactment will be required in Penang to support its WHO at George Town. However, all enactments, including existing and future ones must not contravene with the contents of National Heritage Act 2005 which is currently being amended. Given there exists a conflict between the federal and state laws on heritage matters, the federal law on heritage will prevail.

8.6.8 It is also understood that depending on the type of organisation that WHO takes, some statutory functions may also be transferred to the WHO. For example, enforcement functions can also be carried out by WHO, provided there is a clause on it in the enactment, in parallel with the powers of local government and the DNH on enforcement.

8.6.9 At the federal level, the DNH is the custodian of the CMP as being the State Party to UNESCO. DNH is empowered by the National Heritage Act 2005.

8.6.10 However, the following may need some attention in assisting the effective management of the CMP:

(i) Establishing Heritage Commissioner’s Office at State level. This Office is to provide advice to the WHO, the State Heritage Committee in heritage matters, and become the location to deposit the heritage registry at state level. The Office may be established as a state initiative or by the DNH in accordance with the state heritage enactment but should not contravene the provisions of National Heritage Act 2005. Upcoming amendments to this act may shed some light to this matter.

(ii) Town and Country Planning Act 1976 (Act 172) is also currently being amended and is likely to incorporate measures to enhance the power of the local planning authorities in heritage and conservation management. In addition, the amendments to Act 172 are likely to incorporate the need for developers to submit a Heritage Impact Assessment (HIA) as part of other impact assessments for heritage areas.

(iii) The need to have joint consultative discussions between both WHIs (and all that comes in future) to compare notes and experiences, include steering Committee under Department of National Heritage.

8.6.11 Besides the effort to conserve the buildings, this organization also runs many programs to create awareness, raise funds and lobbying the government about the plight of the citizens of Penang.

Awareness and Educating the Public

8.6.12 Educating stakeholders is part of managing change that must be undertaken as part of the process in implementing the CMP. In particular, this is highly important if there are owners of heritage assets who feel that CMP is cumbersome and difficult to follow. The establishment of WHO at the WHS in Melaka and George Town will certainly be supportive towards educating the owners, developers and all stakeholders in heritage and conservation management.
Hence, the Education & Training Section has been proposed as one of the administrative structure under WHO for this purpose. The GM of the WHO will have to ensure that this Section undertakes necessary efforts to create better awareness of heritage and conservation management and getting stakeholders to participate willingly in the programmes under the CMP. The Section should also be responsible to carry out interpretive works of the site, organizing campaigns, increasing the knowledge of the people concerned, improving the capabilities of the staff through training, and publicity. Interpretive works includes orientation programmes, exhibitions and seminars, books and guides to unique heritage assets at Site, leaflets, guided tours and other publications. The Section may undertake short-term to long-term programmes to instill interest in people, especially the young and women, by providing technical knowledge and skills training to enable them to be part of the larger effort of recruiting volunteers and paid staff in heritage and conservation management. There is certainly room for providing training to create entrepreneurs to produce local products and souvenirs for visitors to purchase. They should also be trained to take the economic opportunities in heritage and conservation management, especially in the field of cultural tourism that covers food, cultural displays, interpreters, hotelling, transportation, and travel and tours.

Table 8.4 Players in Heritage Management and Related Legislations

<table>
<thead>
<tr>
<th>Level</th>
<th>Key Agency</th>
<th>Related Legislations to CMP Implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local</td>
<td>MBMB MPPP</td>
<td>The Town and Country Planning Act 1976 (Act 172)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The Streets, Drainage and Building Act 1974 (Act 133)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Uniform Building By-Law (UBBL)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>MBMB By-Laws</td>
</tr>
<tr>
<td></td>
<td></td>
<td>MPPP By-Laws</td>
</tr>
<tr>
<td></td>
<td>WHO</td>
<td>The respective states to empower the WHO to perform part of local government responsibilities in heritage and conservation management</td>
</tr>
<tr>
<td>Federal</td>
<td>Department of National Heritage</td>
<td>Federal Constitution</td>
</tr>
<tr>
<td></td>
<td>(Custodian)</td>
<td>National Heritage Act 2005 (Act 645)</td>
</tr>
</tbody>
</table>
9. Incentives and Funding for the World Heritage Site

9.1 Introduction
9.1.1 This section aims to establish an incentive programme for the World Heritage site that would, in the short and medium term, provide sustained assistance to the many players within the WHS to encourage them to conserve and protect the Outstanding Universal Value (OUV) of the Site. It draws upon what are available and how to further promote, consolidate and strengthen them under a system which would bring long-term benefit the WHO.

9.2 Existing Incentives for WHS
9.2.1 Incentives and financial grant aid are presently available for eligible projects in the WHS from various agencies at national and local levels. The Department of National Heritage gives grants to owners of private properties that are in the National Heritage Registry to help them restore their buildings. In the WHS, selected buildings that opt to be listed in the National Heritage Registry receive financial aid and technical advice. In addition, the Federal Government has allocated RM50 million for the preservation and conservation of the WHS. Of this, RM30 million is allocated to Melaka and is under the management of the Department of National Heritage.

9.2.2 In the case of George Town, the Federal Government allocation of RM20 million has been entrusted to Think City Sdn. Bhd. a private company set up under Khazanah Nasional Bhd, the Federal Government investment company, to provide financial assistance for heritage conservation.

9.2.3 Think City Sdn. Bhd. has established a grant system, the George Town Grants Programme (GTGP) to provide seed-funding of heritage projects in George Town. The four types of grants of GTGP are:

• project and booster grants,
• repayable grants,
• matching grants; and
• technical assistance and capacity building grants.
9.2.4  Project and booster grants are one-off grants and their values range from RM200,000 to RM500,000. Repayable grants are aimed at private property owners to encourage them to apply best practices in heritage conservation. The repayable grants vary from RM50,000 to as high as RM 2 million, and repayment is expected to go into a revolving fund (Think City Repayable Grant Fund) to benefit others. The grants are given based on certain terms and conditions. Matching grants are extended to applicants whose projects involve public spaces, public buildings or projects with strong public impact. The applicants are likely to be public or private bodies, and public-private partnerships. The value of a matching grant can range from RM50,000 to RM2 million for projects that would also have their own funding sources. Technical assistance funding and capacity building grants are given to technical assistance and capacity building programmes. The GTGP does not cover maintenance works and are available to projects on conserving intangible and tangible values. They are granted to individuals, companies, and public agencies. Around RM2.7 million has already been disbursed in George Town, among the recipients is the WHO of George Town which used the grants for education, research and dissemination.

9.2.5 At the local level, the local authority in George Town, the Municipal Council of Penang (MPPP) has established its own set of incentives to encourage heritage conservation which are fiscal and non-financial. The MPPP has set up a one-stop committee chaired by the Council President to fast track plan processing for the George Town WHS. It has waived some planning and building requirements. The waivers are not blanket waivers and vary between building classifications and in-fill developments. Examples of waivers given are waivers on widening of roads and back lanes (where appropriate), permission for adaptive re-use, car park provisions, and contributions (such as development charge, tree planting and drainage). In addition, maintenance grants are given by both state and local authorities to assist building owners in the George Town WHS. The grants are in fact tax discounts, given for a period of 5 years. Their equivalent value is 90% of annual assessment rate and 90% of annual quit rent. These incentives are relatively attractive and can be further expanded to stimulate more restoration. These incentives should be provided with attached terms and conditions, one of which is approval of building works and compliance with guidelines and technical requirements of local authorities.

9.3  A WHS Incentive Programme

9.3.1  A WHS Incentive Programme is proposed to encourage heritage conservation in the WHS and to facilitate the implementation of the CMP. The WHS Incentive Programme, comprising financial and non-financial incentives, is intended to encourage and stimulate private sector participation in heritage conservation within the WHS. It is also intended to facilitate the implementation of the CMP programmes aimed at protecting the OUV of the WHS, and to address and prevent losses of heritage integrity and value within the site. It is further proposed that WHO of the respective areas within the site be responsible for implementing the WHS Incentive Programme. Where the incentives are not directly under its control, it is to work and coordinate with the awarding agencies to ensure that the benefits reach the intended beneficiaries.
9.4 Appointing WHO as the Key Coordinator of the WHS Incentive Programme

9.4.1 Placing the WHS Incentive Programme under WHO’s coordination and management would reduce fragmentation of incentives across agencies, and help the intended beneficiaries to receive the aid they need to undertake heritage conservation. Through this, it is also believed that it may expedite the process of managing and monitoring response to changes taking place in the WHS. It is anticipated that WHO, as the expert heritage agency within its respective area, should be able to streamline and direct the incentives to where actions and help are most needed.

9.4.2 The advantages of making WHO as key coordinator of incentives are summarised below:

- As the key coordinator, WHO would be able to monitor and track various ongoing and new restoration activities within the site, and use the incentive programme to achieve the aims of the CMP.
- WHO, being the expert agency in its respective area, would have access to in-house and external expertise, to assist in the WHS programme, providing technical assistance to help the public.
- WHO is expected to use the incentive programme to accord equal emphasis on tangible and intangible values of the WHS.
- WHO should be able to evaluate objectively applications for assistance, including emerging requirements, and respond quickly to new requirement for assistance.

9.5 Contents of the WHS Incentive Programme

9.5.1 The incentive programme is subdivided into four packages as follows: (i) financial, (ii) non-financial, (iii) revenue-generating, and (iv) technical assistance. The financial package is focused on providing financial assistance through grants and loans. The non-financial package is made up of three types of incentives, namely, fiscal, planning and development, and technical assistance. The income-generating package is based on generating income from the working partnerships between WHO and the private sector. The fourth package is on technical assistance. The packages are not mutually exclusive; they are used simultaneously, and reinforce each other in order to stimulate heritage works in the WHS.

a. Financial Package

9.5.2 Two schemes, proposed under the financial assistance package, are grant and loan schemes (Figure 9.1). The grant scheme can be further subdivided into various types to meet the varying needs of the community on restoration. The loan scheme is devised to supplement the grant scheme. A major constraint of the loan scheme is WHO’s legal limitation in extending loans to borrowers without a money-lending permit.
9.5.3 The WHO grant scheme essentially is a scheme where financial assistance is extended to people involved in heritage conservation. It includes both tangibles and intangibles. Grants usually do not entail repayment unless otherwise specified.

9.5.4 The proposed WHO grant scheme is fashioned after Think City’s George Town Grants Programme. Its main underlying principle is to encourage the private sector to work towards sustaining the OUV of both properties in the Site. Its goals are (a) to encourage restoration, (b) to prevent further deterioration of existing premises, (c) to encourage rectification of dilapidated buildings, (d) to encourage appropriate infill development and vacant lands in the property, (e) to support capacity building and skills training, and (f) promote education and raising awareness.

9.5.5 In proposing the WHO grant scheme, flexibility and monitoring are emphasized to enable WHO to modify the grant system in response to changing circumstances. The grant scheme is proposed for a term of 2 years, subject to review depending on its practicality, available resources, and WHO capacity and ability to achieve the goals of the CMP. The review would allow for changes and modifications to adapt to changing circumstances.
9.5.6 The suggested types of grants are summarized in Table 9.1. At the early stage of implementation, WHO is not expected to implement all grant types; it would pick selectively for implementation and use those it adopts in conjunction with existing grants to achieve a wider reach within the community. Over time, as existing grants are phased out, the WHO grants are expected to play a more significant role in conservation.

9.5.7 At a start, WHO grants are not expected to entail large sums of monies. They are subject to WHO financial resources which are not likely to be substantial during the early stage of implementing the CMP. Thus, the amounts given are expected to target at individual building owners and small corporations undertaking small-scale projects within the heritage site. The values of grants would range from RM2,000 to RM50,000. The grants are to assist and are not expected to cover entire costs of projects. Applications are to be made to WHO Technical Committee, and the amount awarded would be evaluated on technical and intangible considerations.

Table 9.1: WHO-Grant Scheme and Proposed Types of Grants

<table>
<thead>
<tr>
<th>Grant</th>
<th>Purpose</th>
<th>Amount (RM)</th>
<th>Beneficiary</th>
</tr>
</thead>
<tbody>
<tr>
<td>One-off Grant</td>
<td>• Maintenance and upkeep including interiors</td>
<td>RM2,000- RM10,000</td>
<td>a) Individuals</td>
</tr>
<tr>
<td></td>
<td>• Improvements to interiors</td>
<td></td>
<td>b) Corporations</td>
</tr>
<tr>
<td></td>
<td>• Painting and facade improvements</td>
<td></td>
<td>c) NGOs</td>
</tr>
<tr>
<td></td>
<td>• Education, Publicity and awareness</td>
<td></td>
<td>d) Institutions of higher learning</td>
</tr>
<tr>
<td></td>
<td>• Research and publication</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Skills training</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Renovations and restoration</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Matching Grant</td>
<td>• Maintenance and upkeep</td>
<td>Ratio is 50:50 or 30:70. Maximum grant is RM50,000</td>
<td>a) Individuals</td>
</tr>
<tr>
<td></td>
<td>• Improvements to interiors</td>
<td></td>
<td>b) Corporations</td>
</tr>
<tr>
<td></td>
<td>• Painting and Facade Improvements</td>
<td></td>
<td>c) NGOs</td>
</tr>
<tr>
<td></td>
<td>• Education, Publicity and awareness</td>
<td></td>
<td>d) Institutions of higher learning</td>
</tr>
<tr>
<td></td>
<td>• Research and publication</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Skills training</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Renovations and restoration</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Area improvement</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Technical assistance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Repayable Grant</td>
<td>• Improvements to interiors</td>
<td>Zero interest Maximum: RM50,000</td>
<td>a) Individuals</td>
</tr>
<tr>
<td></td>
<td>• Renovations and restoration</td>
<td></td>
<td>b) Corporations</td>
</tr>
<tr>
<td>Performance Grant</td>
<td>• Improvements to interiors</td>
<td>RM2,000- RM10,000</td>
<td>a) Individuals</td>
</tr>
<tr>
<td></td>
<td>• Renovations and restoration</td>
<td></td>
<td>b) Corporations</td>
</tr>
<tr>
<td></td>
<td>• Area improvement</td>
<td></td>
<td>c) NGOs</td>
</tr>
<tr>
<td>Technical and Capacity Building Grant</td>
<td>• Education, Publicity and awareness</td>
<td>RM2,000- RM10,000</td>
<td>a) Individuals</td>
</tr>
<tr>
<td></td>
<td>• Research and publication</td>
<td></td>
<td>b) Corporations</td>
</tr>
<tr>
<td></td>
<td>• Skills training</td>
<td></td>
<td>c) NGOs</td>
</tr>
</tbody>
</table>

Source: Comprehensive Development Plan (January, 2011)
The proposed grants are:

- One-off grants are small grants provided to assist individuals, NGOs and small corporations undertaking works to protect the value of the WHS.
- Matching grants entail the recipients to match the value of the grant given. The matching ratio could be 50:50, with each contributing equal sum or it could be 70:30 with the recipient providing 30% of project cost. The ratio is a variable, subject to recommendation of the granting body.
- Repayable grants are a form of loan except that there is no interest. WHO is not a licensed lending institution and has no authority to give loans. It can provide grants which are repayable but as a form of guarantee, it may want a heritage agreement to be signed to enable it to recover the grants. The repayable grant is likely to range from RM10,000 to RM50,000.
- Performance grants are aimed at specific targets to achieve. Targets could be physical improvements such as improvements to structures or to facades or roofs.
- Technical and capacity building grants are another form of financial assistance directed at technical and capacity building aspects of heritage within the WHS.

The above list is not exhaustive. WHO can further improve on the proposed grant scheme, adding or removing those found to be not effective and replacing them. The Table 9.1 also indicates the grants having low monetary value. This takes into consideration that during the early stages of implementation of the CMP, WHO may not have access to substantial monies to provide grants with high monetary values. In fact, during this early stage, WHO may not be able to implement all the proposed grants simultaneously. This would depend on its financial, technical and human capacity. Each WHO shall have the flexibility to determine which types of grants are appropriate for its respective site, and what terms and conditions to set. However, all WHO grants are subject to a qualifying condition that approval for building works and compliance to technical requirements.

**ii) Heritage Loan Scheme**

Another financial assistance scheme is a heritage loan scheme (Table 9.2). WHO is not licensed to give loans so it would have to negotiate and work with banks to create a special heritage loan scheme for individuals and corporate investors. Under the loan scheme, WHO plays a supporting but important role in encouraging banks to participate and extend financial assistance for restoration projects in the form of loans. Crucial to the proposed loan scheme is a firm commitment from the banking institutions on how they could contribute towards preserving the OUV in the WHS.

There are two variations to the loan scheme. One is a direct loan scheme which the commercial banks can give to eligible borrowers working on restoration and renovation projects within the WHS. The other variant has an element of subsidy whereby the interest rate on such loans is lower than market rate, and the difference is to be financed through a rant from WHO.
to vet applications for these incentives before they are submitted to the relevant authorities for approval. These incentives are not blanket incentives, and would vary on a case to case basis.

The non-financial incentives include: **Fast Track Advisory Services Unit in WHO**

A Fast Track Advisory Service Unit in WHO is established to assist in fast tracking of applications for restoration and renovation in the WHS. The proposed advisory unit will have technical expertise to provide advisory services on planning and building procedures and requirements, materials, contractors, and guidelines and regulations. The unit helps applicants and their consultants to comply with guidelines, regulations, and other pertinent requirements before formal submissions are made to the Technical Review Panel for consideration.

ii) Planning and Development Incentives

Some planning and development incentives are already available from MPPP in the George Town WHS. (Table 9.3). The incentives are to help building owners in the WHS. They should be extended to Melaka part of the WHS, and be institutionalised as part of the WHO Incentive Programme. The incentives should be given on conditions that the proposed restoration or development works have approved building plans and are in compliance with heritage guidelines and technical requirements.

New planning incentives such as the transfer of development rights or plot ratios (subject to other existing planning regulations) could also be introduced. These, however, have to be further studied before they could be adopted by the respective local authorities in WHS.

### b. Non-Financial Package

9.5.12 The non-financial package has its origins from incentives provided by the local authorities such as those provided by MPPP in George Town WHS. There are two parts to the non-financial package. One part is the planning and development incentives, and the other is the fiscal incentives in the form of tax exemptions and discounts (Figure 9.2).

9.5.13 The WHO does not play a direct role in the provision of non-financial package for the WHS because it does not have regulatory functions. For this package, the state and local authorities are the main players, and the extent to which incentives under this package are given would depend on how much these authorities could and would give.

9.5.14 Although the types and contents of this package are outside the control of WHO, it is important for WHO to contribute and assist in the provision and management of the non-financial package. One way it can do this is for WHO to work close with representatives of the state and local authorities on these incentives, forging working partnerships to ensure that the incentives are relevant and operational. It could use its Technical Review Panel.

### Table 9.02: Proposed Heritage Loan Scheme

<table>
<thead>
<tr>
<th>Loan Type</th>
<th>Purpose</th>
<th>Beneficiary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building Loan</td>
<td>• Improvement to interiors</td>
<td>a) Individuals</td>
</tr>
<tr>
<td></td>
<td>• Renovation &amp; restoration</td>
<td>b) Corporations</td>
</tr>
<tr>
<td></td>
<td>• Skill improvement</td>
<td></td>
</tr>
<tr>
<td>Building Subsidy Loan</td>
<td>• Improvements of interiors</td>
<td>a) Individuals</td>
</tr>
<tr>
<td></td>
<td>• Renovations &amp; restoration</td>
<td>b) Corporations</td>
</tr>
</tbody>
</table>

Source: Comprehensive Development Plan (January, 2011)
iii) Fiscal incentives

Fiscal incentives are tied up to tax rebates, credits, exemptions or discounts provided at different government levels. At the federal level, the most important incentive would be that given by the Inland Revenue and relates primarily to exemptions or rebates on income tax. At state and local levels, the fiscal incentives are based on exemptions or discounts of taxes on land (state) and properties (local authority).

9.5.19 Requests for exemptions from income tax by WHO from Inland Revenue would benefit WHO and donors (individuals and corporations) who make contributions in support of the WHS. An income tax exemption would be beneficial when WHO establishes a trust account to benefit projects and activities in the WHS.

9.5.20 Exemptions or Discount on State Quit Rent and Property Assessment.

The factors to be considered under this proposed scheme are the duration of the incentive and whether a discount or full tax exemption is preferred. Table 9.4 shows the possible fiscal incentives that can be initiated by
both state and local authorities. These incentives are conditional upon the building works having approval and are in compliance with the development and building guidelines.

9.5.21 The fiscal incentive from the state governments is used together with that from the local governments, as a double reward to owners who have approvals and comply with all technical requirements.

9.5.22 A longer duration of incentive of up to 10 years is proposed. The rationale for a longer duration is to make the incentive sufficiently attractive to promote restoration works while encouraging greater compliance to technical requirements and guidelines.

9.5.23 In using the incentive on annual property assessment, the awarding authorities may opt to give incentive only on the enhanced value of the building/property or they may allow the entire land or property to receive discount from annual assessment. It is suggested that the duration and the quantum of the incentive be varied, using 5 years as a benchmark for exemption and allowing the discount or exemption to taper off gradually at the tenth year.

9.5.24 This fiscal incentive has terms and conditions of which approval and full compliance to guidelines and requirements of the approving authorities is the most important qualifying condition. The incentive can also be varied by the awarding authorities, depending on the types of heritage works such as whether they are major or minor works, whether there is a change in use from commercial to residential or from residential to commercial, and whether they are in line with the recommended land use policies in the WHS.

9.5.25 Alternatively, instead of giving discounts, the authorities can opt for a tax credit. This scheme works on the basis that prior to the award of tax credit on property tax; the recipients must have paid these taxes in the immediate past 2 years to be eligible (those who had not been paying such taxes are not eligible). The tax credit will only be given to buildings after restoration and have complied with heritage guidelines and other technical requirements.

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Table 9.3: Planning and Development Incentives

<table>
<thead>
<tr>
<th>Planning &amp; Development Incentive</th>
<th>Categories of Buildings I, II, IIA</th>
<th>Infill</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deletion of road widening*</td>
<td>Exempted</td>
<td>Exempted</td>
</tr>
<tr>
<td>Deletion of back land widening*</td>
<td>Exempted</td>
<td>Exempted</td>
</tr>
<tr>
<td>Allow adaptive re-use</td>
<td>With permission</td>
<td>N/A</td>
</tr>
<tr>
<td>Waiver of Car Park Provision</td>
<td>Full Waiver or 70%</td>
<td>50%</td>
</tr>
<tr>
<td>Exemptions of Development Charges &amp; Other Contributions to Local Authorities</td>
<td>Full Exemption</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Notes: (1) * Subject to technical requirements of relevant authorities (2) N/A – not applicable


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Melaka and George Town. Historic Cities of the Straits of Malacca.
9.5.26 Reverse Incentive and Penalty
In Peninsular Malaysia, local authorities are known to exempt properties which are vacant or unutilised for a period of time from property assessment. Owners of such properties can apply for exemptions by providing proofs to the local authorities that their properties were vacant. This incentive tends to benefit property owners with vacant premises. This incentive may have a negative effect on WHS as property owners who leave their premises in disrepairs and vacant would not be penalised. Under such circumstances, a reverse incentive is introduced. Property owners in WHS who leave their premises vacant, and in poor conditions, would not enjoy this benefit. They would be penalised by having to pay the full tax unless they show proof that they are starting to repair, to seek tenants or to approach WHO as partners under revenue-generating scheme.

9.5.27 Owners of such properties can apply for exemptions by providing proofs to the local authorities that their properties were vacant. This incentive tends to benefit property owners with vacant premises. This incentive may have a negative effect on WHS as property owners who leave their premises in disrepairs and vacant would not be penalised. Under such circumstances, a reverse incentive is introduced. Property owners in WHS who leave their premises vacant, and in poor conditions, would not enjoy this benefit. They would be penalised by having to pay the full tax unless they show proof that they are starting to repair, to seek tenants or to approach WHO as partners under revenue-generating scheme.

9.5.28 Under this incentive package, two schemes are to be initiated and managed by WHO (Figure 9.3). The objectives are (i) to stimulate restoration and preservation among owners of buildings, and (ii) to generate income for WHO, where possible. This forms part of its efforts to increase its independent revenue sources while encouraging and helping building owners in WHS to start restoration or repair works.

Table 9.4: Options for Fiscal Incentives at State and Local Levels

<table>
<thead>
<tr>
<th>Options</th>
<th>Nature of Fiscal Incentive</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exemption on Enhanced Value of Assessed Property (as result of Restoration/conservation)</td>
<td>100% tax exemption on the enhanced value of property</td>
<td>Total Duration: 10 years For 5 years after which, tax is imposed at 25% discount for next 5 years</td>
</tr>
<tr>
<td>Discount on Property Assessment or a Tax Credit</td>
<td>90% discount</td>
<td>Total Duration: 10 years 90% discount for first 5 years; reduce to 50% in subsequent 5 years. Tax credit is an alternative form of discount where a credit is given for use later on.</td>
</tr>
<tr>
<td>No change in Assessed Value of Building (after restoration)</td>
<td>Assessed value is unchanged &amp; not reviewed</td>
<td>Total Duration: 5 years Value of tax base is held constant</td>
</tr>
<tr>
<td>Discount on State Quit Rent or Tax Credit</td>
<td>90% discount</td>
<td>Total Duration: 10 years 90% discount for first 5 years; reduce to 50% in subsequent 5 years. The alternative is tax credit</td>
</tr>
</tbody>
</table>

Notes: (1) * Subject to technical requirements of relevant authorities
(2) N/A—not applicable
Sources: (1) Comprehensive Development Plan (January, 2011)
(2) Investing in Penang’s Heritage. A Guide for Investors
The schemes are:

i) **Heritage Preservation Scheme**

9.5.29 The objective is to encourage reuse of heritage buildings in the WHS through purchase or donations. WHO acquires properties either by purchase or donation in order to safeguard these buildings. Whether the buildings are acquired through donations or purchase, the key player is WHO. It would restore and sell or lease the buildings, with attached heritage covenants that restrict their uses. Any revenue or income earned would be put into WHO to finance other heritage initiatives under its management.

ii) **Copyrights Concession Scheme**

9.5.31 This scheme proposes to centralise copyrights on WHS heritage image into the hands of WHO to manage and ensure that they are not abused or misused commercially. The WHO would form partnerships with the heritage building owners over such images. The WHO would coordinate the lease concession of these images to potential users such as hotels, restaurants, bus and other transport companies, retailers, tourism agencies, and souvenir makers. The lease concessions are formalised through agreements and fees are to be paid by users. The fees are managed by WHO, and the income earned shared between WHO and property owners through buildings in WHS. Conditions can be imposed, for example, souvenir manufactures are to use local resources to produce the WHS souvenirs in an attempt to create a positive socio-economic impact for communities living in WHS through the generation of jobs and business opportunities.

iii) **Technical Assistance Incentive Package**

9.5.32 The provision of technical assistance is vital towards sustaining the integrity of the WHS. On ground, the various group discussions held have revealed that having access to information, technical skills, and technical advice are important for people impacted upon to respond positively. Some areas of concern identified are inadequate knowledge of building plans and materials, lack of specialist building skills among local contractors, and lack of appropriate building materials. In these areas, WHO, through a special technical assistance incentive package, can begin to target much needed technical advice to communities, and interface with them to help them to carry out restoration and improvement works.

The incentive package emphasizes education and awareness as a priority measure in the WHS, and to support it with various technical assistance schemes that include:

- Free Heritage Information Kit,
- Discount Heritage Paint Scheme where it can bring in local paint manufacturers to assist building
owners in the heritage site to buy appropriate paints for their buildings,

- Building Materials Sponsorship Scheme to be developed under WHO watch and coordinated by WHO,
- Skills Training Scheme where WHO would identify skills required and work with relevant agencies to train local craftsmen and artisans including heritage tourist guides, and skilled. WHO could work with Construction Industry Development Board (CIDB) or with the state skills development centre to develop skills training courses.
- Registration Scheme for contractors, builders, painters, artisans, etc to create a pool of skilled workers who are able to undertake heritage conservation works in WHS, and
- Technical advisory scheme where WHO, using its access to a pool of experts, shall provide extension services to help building owners comply with the guidelines and technical requirements of restoration.

The service can be provided free or at a nominal fee to the public.

9.6 Framework for Managing Finances of WHO

9.6.1 WHO needs a framework to effectively manage the money it receives and raises. In this way, it can direct funds to where they are needed most. The WHO would have two accounts which are managed separately (Figure 9.3).

**Management Account**

9.6.2 The management account is to cover the operating expenses of WHO and it is kept separate from a trust account where it keeps money to implement the CMP programmes and fund heritage conservation. The management account is for its daily and operating and administrative expenses.
Heritage Trust Account

9.6.3 For conservation works and CMP programmes, it has a heritage trust account. Any surpluses from its management account can be transferred into its Heritage Trust account. The CEO of WHO is responsible for the management of both accounts, and for ensuring that the funds are managed separately. Both accounts are audited by external accounting firms, and WHO will adhere strictly to the principles of transparency and accountability in managing these accounts.

9.7 Making Available Financial Resources for WHS Incentive Programme

9.7.1 The WH incentive programme requires funding to be operational. Some of the grants and incentives that are already provided by public agencies and private corporations for heritage conservation in the WHS are expected to continue, unless they are terminated or have achieved their purpose and are closed. The World Heritage incentive programme would attempt to integrate with them, where appropriate. As most of the proposed incentives proposed are WHO management, the agency would require financial resources to implement them. For WHO, government support is crucial. It needs financial support from both federal and state governments, and a strong working relationship with the local authorities to carry out its work in WHS. The main sources of financial support for WHO are (Table 9.5):

a) Government Contributions or Appropriations

9.7.2 These contributions are to be channelled mainly into WHO management account
to enable it to carry out its operational and management functions. Surpluses from the management account can be transferred into its trust accounts for CMP programmes and other heritage schemes operated by WHO. The possible sources are:

- State contributions or appropriations
- Federal contributions or appropriations through the Ministry of Information, Communication and Culture

b) Government Grants

9.7.2 Government grants are provided by the federal or the state government or through selected federal ministries for specific purposes, linked to area improvement and tourism. WHO and the local authorities are both implementing the CMP programmes, and should be entitled to apply for grants from various federal ministries or their state governments for financial assistance. For example, if the programmes had tourism-related schemes or projects, they can apply for grants from Ministry of Tourism or if the programmes are focused on area improvements, they can apply for grants from the Ministry of Housing and Local Government.

9.7.4 Similarly, state governments in the WHS can also award grants to their respective WHO to help them in heritage conservation. Under its draft heritage enactment, the state government of Penang has proposed a state heritage fund. If the state heritage fund is established, it can extend a grant to help the WHO. The same approach can be used for Melaka.

9.7.5 Another possible source of grant is from the national Heritage Fund. The establishment of a national Heritage Fund is provided under Part V of the National Heritage Act 2005. Among its allowed expenses is payment of expenses incurred on conservation and preservation in conservation areas that are owned by
the federal government or otherwise, and the provision of grants and loans. The establishment of the national Heritage Fund would be beneficial for WHO as they can seek financial assistance, either grants or loans, from the Heritage Fund.

9.7.6 Grant money received by WHO are to be placed under a trust account to ensure that their use is dedicated for heritage programmes and schemes, and not administrative expenses.

c) Grants and Contributions from Government-Linked Agencies and Corporations

9.7.7 WHO and the local authorities implementing the CMP programmes should be entitled to access grants and contributions from government-linked agencies and corporations. One example is the grants from Think City Sdn Bhd for George Town which can be used to finance partially or fully the costs of selected projects under the CMP.

d) Other Sources of Funds

9.7.8 Although government funding is vital, it is also important for WHO to be financially self-reliant by looking for ways to generate its own income.

- Income-generating project: A possible way is to develop income-generating scheme where it can earn some revenue.
- Appeal scheme: Another way is to raise money through an appeal scheme, either on annual basis or periodic basis. Through its trust account, WHI can seek donations from individuals and corporations.
- Gifts and Bequests: WHI should also be allowed to receive gifts and bequests of buildings or other monies for the WHS.

- Membership fees: Public can opt to join WHI as members and pay subscriptions.

9.7.8 e) New Funding Sources

The search for funds for heritage conservation should be done at all levels of government. Heritage funding, unlike economic and social development, does not always receive top priority in the national or state budget. Finding additional funding is a challenge for all authorities involved.

- New sources for National Heritage Fund

At the federal level, the Heritage Fund may want to seek additional sources of funds in addition to government allocations and contributions. The National Heritage Act 2005 indicates that a levy can be introduced for heritage funding. In the event that introducing a new levy is not viable, allocations from certain federal revenue sources may help to provide more funding. Some possibilities to consider are a percentage share of revenue from gaming taxation or a percentage of the service tax.

- State Heritage Charge

At the state level, the proposed state heritage enactment of Penang also outlines the types of funding for the proposed state heritage fund including the possibility of using a new levy. It is proposed that the state government may introduce a heritage charge on hotels in the state to help fund the state heritage fund. As a start, it could impose the heritage charge on hotels within the WHS. The money raised could be redirected to WHO heritage trust to use be used as grants for heritage
conservation. The charge can be imposed on hotels of 3-star to 5-star and above within the WHS. The hotels are to collect the charges on behalf of the state and remit to the state heritage fund. The rate could be RM3 per room per night for 3-star hotel, rising to RM5 per room per night for hotels of 5-star and above. Payments are to be itemised in hotel bills to ensure that hotel guests are aware of such charges. A small percentage of the charge can be given to hotels to cover administrative costs. The state government undertakes to remit the charges collected to WHO trust account for use in WHS.

9.8 Setting up a WHO Heritage Trust Account

a)  Key Principles of WHO Trust Account

9.8.1 The proposed WHO trust account is created based on three key principles, i.e. (i) to promote and encourage active participation in conservation and preservation in WHS, (ii) to have sustainable financial resources, and (iii) to ensure that monies collected are managed in a transparent and responsible manner for the benefit of WHS.

b)  Preliminary Steps

9.8.2 WHO can start the process of establishing a Heritage Trust by setting up a working committee to look further into it, together with a budget and a time frame. A budget of RM50,000 would be sufficient to cover the preliminary costs of setting up the heritage trust within a maximum time frame of 12 months. Some of the tasks to be resolved quickly are (i) to identify the projects and schemes under the CMP that WHO can implement, and to carry out financial projections to determine the required amount of funds, (ii) to request government funding that could go into the trust account, (iii) to identify potential trustees from private sector, (iv) to identify potential donors to start appeal scheme (v) to decide on whether CEO is to undertake fund-raising or appoint another person to do this task, and (vi) to seek tax exemptions from Inland Revenue.

c)  Management of WHO Heritage Trust

9.8.3 Trustees and their responsibility
The proposed trust is to have a panel of trustees where there is a mix of government and non-government representation, including private sector representation. Private sector representation is encouraged, especially for the purpose of fund raising. Among the trustees, there must be a combination of technical, financial, and management expertise. The trustees have fiduciary responsibility to manage and safeguard the assets of the trust. A set of bye-laws and regulations are to be established to guide how the trust is to be administered and the procedures for extending financial and non-financial assistance.

9.8.4  Manager/Management
The Chief Executive Officer (CEO) of WHO will be the manager of the proposed trust fund. To assist the CEO, there has to be Financial Advisory Committee comprising 3 members, with at least 2 members having expertise in fund and financial management. To process applications for grants, loans, and other incentives, the trust can refer to WHO Technical Review Panel for assistance.

9.8.5  Accounts of Trust
The proposed trust is to establish different accounts to hold and manage the funds collected. Money from the different
### Table 9.5: Hierarchy of Heritage Funds and Funding Sources

<table>
<thead>
<tr>
<th>Heritage Fund</th>
<th>Funding Source</th>
<th>Propose New Funding Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal level - Heritage Fund</td>
<td>1. Approved Government contributions from Consolidated Fund</td>
<td>1. % share of revenue from gaming tax</td>
</tr>
<tr>
<td></td>
<td>2. Donations, gifts, grants</td>
<td>2. % share of service tax</td>
</tr>
<tr>
<td></td>
<td>3. Approved levy under National Trust Act</td>
<td>3. Corporate donations &amp; gifts (tax exemptions)</td>
</tr>
<tr>
<td></td>
<td>4. Interest from investments of fixed deposit</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5. Repayment of loan provided under National Trust Act</td>
<td></td>
</tr>
<tr>
<td></td>
<td>6. Credit in the Fund</td>
<td></td>
</tr>
<tr>
<td></td>
<td>7. Approved Borrowings by Federal Government</td>
<td></td>
</tr>
<tr>
<td></td>
<td>8. Monies or property</td>
<td></td>
</tr>
<tr>
<td>State level- Heritage Fund</td>
<td>1. Approved Government contributions from State Consolidated Fund</td>
<td>1. State Heritage Charge as a levy provided under the proposed State Heritage Enactment. The charge is imposed on hotels within the WHS as a start. Charge to be imposed on 3-star hotels and upwards. Proposed rate of RM 3 to RM5 per room per night. Grants from national Heritage Fund</td>
</tr>
<tr>
<td></td>
<td>2. Federal government contributions</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. Donations, gifts, grants</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4. Approved levy under proposed state heritage enactment</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5. Repayment of loans</td>
<td></td>
</tr>
<tr>
<td></td>
<td>6. Approved Borrowings by State Government</td>
<td></td>
</tr>
<tr>
<td></td>
<td>7. Money or property of the Heritage Commission</td>
<td></td>
</tr>
<tr>
<td>WHS level - WHI Heritage Trust Account</td>
<td>1. Approved state contributions</td>
<td>1. Approved federal contribution</td>
</tr>
<tr>
<td></td>
<td>2. Donations, gifts, bequests</td>
<td>2. Grants from national Heritage Fund and state heritage fund</td>
</tr>
<tr>
<td></td>
<td>3. Membership fees</td>
<td>3. Allocation of State Heritage Charge on Hotels</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4. Grant from federal ministries (Ministry of Information, Communication and Culture, Ministry of Tourism, &amp; Others, where relevant)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5. Think City Sdn Bhd (GTGP)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>6. Income-Generating Schemes</td>
</tr>
</tbody>
</table>

**Sources:**

1. National Heritage Act 2005
2. Comprehensive Development Plan (January, 2011)
accounts can be used in various ways to provide financial support to its incentive programme.

9.8.6 The trust account is subdivided into different trust accounts as follows:

a) **Endowment Trust Account** where money it receives are deemed as capital to be invested and only earnings from these investments are used to fund its heritage programme. The capital remains intact as the long-term asset of the trust fund.

b) **Revolving Trust Account** where money it receives are used to finance the heritage programme but care is taken to ensure that the revolving fund does not dry up. This means that the account has to be topped up through repayment, income earned, donations, and surpluses from management account.

c) **Sinking Trust Account** where the monies are to be used for a specific purpose, after which the account for that purpose will be closed when the allocated fund has been used up and/or the task is completed.

9.8.7 Among the three, the endowment trust account is more difficult to establish as it requires a large contribution from a donor, whether government (federal or state) or private donation. The sum would likely be in a range of RM10 million or more in order to make a substantial impact, i.e. to have the investment yields an attractive annual return for the trust. The annual earnings can then be put into a revolving account. The contribution or donation is considered a capital to be kept intact. To safeguard the capital, the trustees would need to identify a responsible fund manager to manage the funds and provide stable income flows.

9.8.8 The revolving trust account is easier to set up but it entails annual top-ups to enable the trust to sustain its programme in WHS. Annual surpluses from WHO management account can be transferred to the revolving account. The trust can seek annual contributions from the federal and state governments for its revolving account. Such contributions can be grants from federal ministries or donations from private corporations and individuals. WHO can also place revenue earned from income-generating schemes into the revolving account. The allocation from the proposed state heritage charge can be a regular income source for the revolving trust account.

The sinking trust account involves using a financial allocation for a specific task and to close the account after the monies have been used and the task achieved. A sinking trust account can be set up to keep grants obtained from organizations such as Think City. The grants can be earmarked for a specific purpose, and when the task is completed, the account for that activity is closed and the excess, if any, is transferred to the revolving account.
9.9 WHO Sources of Funds, Financing Objectives, and Financial Accounts

9.9.1 Table 9.6 summarises WHO sources of funds, its various financing objectives, and the accounts where it keeps the funds received. The table shows that WHO would likely channel a substantial portion of what it receives into its trust account to fund heritage conservation and its activities proposed under the CMP.

9.10 Conclusions

9.10.1 The provision of incentives for heritage conservation in WHS is closely tied to the availability of financial resources to the proposed agency undertaking the conservation programmes. Although there are existing incentives in the WHS, the impact on the WHS is not apparent as the private sector and the local communities have yet to demonstrate active participation.

9.10.2 One limitation is an absence of concerted incentive programme to which the public and community can easily access. Financial resources to support an incentive programme are relatively weak. There is a need to focus incentives onto one authority or agency that is able to bring to work closely with the local communities. Such agency would likely be a local body that is also very familiar with the WHS. As WHO is proposed as the organisation best suited to manage the WHS, it is also important to provide them with access to financial resources.

9.10.3 A number of funding sources has been identified for WHO. They range from federal to state government contributions, grants from various federal ministries, and different organisations. New sources of funds are also identified. An important one would be the proposed State Heritage Charge on hotels in the WHS. When introduced and transferred to WHO, it would be one of its stable sources of revenue to fund heritage programmes. Heritage conservation requires financing, and it will not be easy to compete with other development needs in the federal or state budgets. Finding alternative and new financial sources is crucial for heritage funding, whether at federal, state or local level. The proposals here are indicative possibilities and they are not exhaustive. Upper most in these proposals is flexibility. WHO should have the flexibility and space to adapt and change the funding model to suit their needs at different points in time in the future.
### Table 9.6: WHO - Sources of Fund, Financing Objectives and Financial Accounts

<table>
<thead>
<tr>
<th>Sources of Funds to WHO</th>
<th>Financing Objectives</th>
<th>Time Frame</th>
<th>WHO Account Management</th>
<th>WHO Account Trust Fund</th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal Contributions</td>
<td>Operating and Administrative expenses (staff costs, office administration, travel expenses, expert costs, &amp; other operating costs)</td>
<td>Annual</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>State Contributions</td>
<td></td>
<td>Annual</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Membership fees</td>
<td></td>
<td>Annual</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Federal Ministries’ Grants</td>
<td>WHO Incentive Programme on tangible and intangible activities</td>
<td>Annual</td>
<td>-</td>
<td>✓</td>
</tr>
<tr>
<td>Grants from national/state Heritage Funds</td>
<td>WHO Incentive Programme on tangible and intangible activities</td>
<td>Annual</td>
<td>-</td>
<td>✓</td>
</tr>
<tr>
<td>State Hotel Charge</td>
<td>WHO Incentive Programme on tangible and intangible activities</td>
<td>Annual</td>
<td>-</td>
<td>✓</td>
</tr>
<tr>
<td>Donations (corporate &amp; individual), gifts, bequests</td>
<td>WHO Incentive Programme on tangible and intangible activities</td>
<td>Annual</td>
<td>-</td>
<td>✓</td>
</tr>
<tr>
<td>Income-generating</td>
<td>• Operating and administrative expenses</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• WHO Incentive Programme</td>
<td>Annual</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Private Grants</td>
<td>WHO Incentive Programme on tangible and intangible activities</td>
<td>Annual</td>
<td>-</td>
<td>✓</td>
</tr>
</tbody>
</table>

**Source:** Comprehensive Development Plan (January, 2011)
PART 2

Development Guide Plan for Melaka WHS
1 Introduction to the Development Guide Plan for Melaka

1.1 A Dynamic Historic Living City

Melaka has existed for more than 500 years and it was a vibrant and successful trading port in its early days. Today though challenged by high growth in other urban centres in Malaysia, Melaka remain strong and more importantly it is able to adapt to change and new demands to accommodate growth physically as well economically and socially.

Melaka is rich with culture and traditions. Where the forefathers had brought with them beliefs, foods, traditions, decorations, arts and other custom from their place of origin. They were adapted to suit the local climate and conditions and had influence the cultural landscape of Melaka.

It is for this and much more that Melaka is a World Heritage Site. And this Development Guide Plan is prepared to ensure that the city's authenticity remain intact by managing growth and the new needs for change in today's modern times in a more holistic manner so as to protect the integrity of the OUV's.

1.2 Purpose of this Document

Planning for heritage in Melaka WHS aims to ensure that the significant elements of the past are appropriately managed and respected by new development. Heritage conservation does not preclude change but rather respond to it. This Development Guide Plan provides a framework for the control of new development of redevelopment and for conservation. It aims to:

i) Establish the framework and guiding principle for detailed planning on heritage;

ii) Ensure that development within the WHS are planned and constructed with the basic understanding of heritage significance and that level of change should respect its heritage significance;

iii) Enhance the townscape elements of the city in a manner that it celebrates and enrich the Outstanding Universal Values that make Melaka as World Heritage Site.

1.3 Content of this Document

The document contains these following aspects:

i) Managing the Use of Land and Building;

ii) Protecting the Built Cultural Heritage;

iii) Protecting Vistas, Enclaves and Streetscape;

iv) Enhancing Public Realm;

v) Managing Circulation and Access;

vi) Improving Urban Infrastructure.
2 Managing the Use of Land and Building

Managing growth and change in a World Heritage Site is challenging. It requires the understanding for the protection of the OUVs and the need to accommodate for new economic opportunities that emerge in today's cities but could potentially be a threat to the authenticity and integrity of the WHS.

Realising this, the management plan for WHS has proposed for the need to manage the use of land and building in the WHS. The intricacy of the multi-cultural historic urban landscape necessitates a control on the use of land and building that takes account of the sensitivity of change to cultural landscape of Melaka WHS. Thus, control on use of land and building in the WHS requires a process that is unlike any other areas outside the WHS.

2.1 The Mapping of Living Cultural Heritage

Living heritage topography maps reveal the layering of urban structures and built environment as expressed in the historical and modern townscape. These maps display the dominant patterns, spatial distribution and range of human activity in relation to the built environment. These maps also facilitate a thorough understanding of the inter-connectivity of activities with the built environment. Together they form a representation of the dynamics of the living cultural landscape of Melaka WHS.

2.1.1 What are the maps for?

They serve as a critical tool in identifying the cultural significances and the manifestations of the OUVs of the site;

They facilitate the formulation of the land use and building use control mechanism.

They facilitate the planning and development process in understanding the importance of the site/building that needs to be incorporated into the proposal.

2.2 Profile of Activities in the WHS

2.2.1 A Mixed-Use City

Figure 2.1 shows the distribution of landuse activities in the WHS.

The Melaka WHS is a mixed use heritage city, with Institutional and Residential being the highest distribution of activities. 40.47% of the WHS are institution, However most of these institution are located within the buffer area that is.

Within the Core area, its main activity is Commercial (34%) , Institution (30.7%) and Residential (16.34%). The commercial components are well spread in the Core area and as such seem to be the dominant activity of WHS and proves why the city is vibrant with activities of trade and commerce.
The WHS has substantial amount of residential units and these also accounts for the population base of WHS.

One use that is important to have in the WHS is its open space and green areas. Only 2.94% of the 185.24 hectares of land is open space and recreational areas. In early days, roads were not busy and hence co-function as part of the outdoor space of its communities. With a built-up of 85%, the Melaka WHS needs quality spaces for the city to breathe. However WHS has 16.87 hectares of vacant land and this can be observed as potential land to acquire green space when developed.

The land use and activities structure shall assist in managing future growth for the WHS area.

2.2.2 Clustering of Economic Activities

Commercial use in the WHS consist of:
- Retail trade
- Wholesale trade
- Personal & Household Services
- professional Services
- Bank and Financial Institution
- Hotels and Motels
- Restaurants and cafe
- Storage and Go-downs

These activities clustered strongly at the buffer area of Jalan Bendahara - Jalan Pasar baru i.e. Areas north of the Core Area. While in the Core Area, it is interspersed with other activities and uses.

The second cluster of economy is Industry where its activities includes:
- Metallic Product
- Basic metal
- Paper Printing
- Food and Tobacco
- Metal Fabrication & Machinery Equipment
- Wood
2.3 Controlling the Use of Land and Building

In managing the WHS and ensuring its sustainable development, it is necessary to protect its Outstanding Universal Values, namely:

OUV 1: Layered history, plural society and cultural-religious diversity, hereinafter simply referred to as ‘cultural diversity’

OUV 2: Living heritage, both tangible and intangible, hereinafter referred to as ‘living heritage’

OUV 3: Built townscape, especially townhouses and shophouses, hereinafter referred to as ‘built heritage’.

Cultural diversity (OUV 1) is itself an intangible heritage which is embodied and embedded in living heritage (OUV 2) and built heritage (OUV 3).

In so far as cultural diversity is reflected in built heritage, it has to be recovered and protected with the tools for protecting built heritage, as well as through action plans. The control of Land and Building use through zoning is an important tool to protect and enhance these OUVs, in particular OUV 1 and OUV 2.

2.3.1 Use of Category I Buildings and Sites

For Category I buildings and sites, the use should remain as originally intended. Any adaptation to the use must be of similar use or nature of activities and have minimal impact on the cultural significance of the place and requires the preparation of a Planning Permission. The submission shall include a Heritage Impact Assessment and Cultural Impact Assessment (CIA) within the Development Proposal Report.

2.3.2 Single-Use Activity Zones

For these zones in the WHS, the described use must be retained:

i) Institution Zone
ii) Open Space/Green Zone
iii) Places of Worship

2.3.3 Mixed-Use Activity Zones

For the purpose of controlling the use of Land and Buildings, the WHS of George Town is segmented into 7 mixed-use Activity Zones:

i) Institution Zone
ii) Commercial Zone
iii) Residential Zone
iv) River Zone
v) Mixed Use Zone
vi) Traditional Village

With the exception of the Traditional Village Zone, the zones are generally mixed-use zones, meaning the use of land for either 100% Commercial, 100% Residential and Residential-with-Commercial are allowed.

The Traditional Village is residential dominant use zone. It should retain its dominant residential component, with allowance for limited tourism related activities and sundry shops within the residential premises. Refer to Figure 2.3 for a map of the Activity Zones and their descriptions. Any change of use shall require the application for Planning Permission.

2.3.4 Matrix of Non-permissible Activities in the WHS

Refer to Table 2.1 for a matrix describing the list of non-permissible activities within the WHS of Melaka, and exceptions to the list in accordance with each Activity Zone.
The matrix describes a list of non-permissible activities within the WHS of Melaka, with the exception of those checked under their respective Activity Zones. This table is to be read with Figure 2.5 which describes the Activity Zones.

<table>
<thead>
<tr>
<th>Non-permissible Activities in the WHS of Melaka</th>
<th>Exceptions for:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Motor Vehicle and Motor Vehicle Repairs</td>
<td>Institution Zone</td>
</tr>
<tr>
<td>2 Swiftlet Houses</td>
<td>Places of Worship</td>
</tr>
<tr>
<td>3 Bowling Alley, Karaoke, Arcade, Snooker Hall, Casino</td>
<td>Open Space/Green Zone</td>
</tr>
<tr>
<td>4 Industry (except cottage industry)</td>
<td>Commercial Zone</td>
</tr>
<tr>
<td>5 Recycling (except existing)</td>
<td>Residential Zone</td>
</tr>
<tr>
<td>6 Funeral Services (except existing)</td>
<td>Traditional Village Zone</td>
</tr>
<tr>
<td>7 Petrol Station (except existing)</td>
<td>River Zone</td>
</tr>
<tr>
<td>8 Printing (except existing)</td>
<td>Mixed Use Zone</td>
</tr>
<tr>
<td>9 Department Store</td>
<td></td>
</tr>
<tr>
<td>10 Contemporary Mini-Mart/Convenience Store</td>
<td></td>
</tr>
<tr>
<td>11 Wholesale, Storage and Distribution</td>
<td></td>
</tr>
<tr>
<td>12 Bar/Night Club</td>
<td></td>
</tr>
<tr>
<td>13 Electronics and Computer</td>
<td></td>
</tr>
<tr>
<td>14 Internet Café</td>
<td></td>
</tr>
<tr>
<td>15 Transport, Import/Export and Logistics</td>
<td></td>
</tr>
<tr>
<td>16 Travel and Tourism Services</td>
<td></td>
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<tr>
<td>17 Financial Services</td>
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</tr>
<tr>
<td>18 Real Estate and Property Services</td>
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</tr>
<tr>
<td>19 Renovation Supplies and Hardware</td>
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</tr>
<tr>
<td>20 Home-stay</td>
<td></td>
</tr>
<tr>
<td>21 Budget Hotel</td>
<td></td>
</tr>
<tr>
<td>22 3-5 Star Hotel</td>
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</tr>
<tr>
<td>23 Boutique Hotel</td>
<td></td>
</tr>
</tbody>
</table>
2.4 Special Activities

Two special activities are found in WHS and they are the Ancestral Houses and Traditional Trades. These special activities are quite unique to Melaka WHS and special attention has to be given to ensure that the planning and development protects their activities in this vibrant heritage town.

2.4.1 Traditional Trade and Ancestral House Overlays

Ancestral House Overlays are identified. They are 9 units of Ancestral house and they are located along Jalan Tun Tan Cheng Lock.

The Traditional Trades in Melaka consist of 238 numbers and they consist of 32 types of traditional trades. These traditional trades ranges from food related activities, jewellery activities, traditional crafts, health and beauty related activities and several others. They are located in both the Core and Buffer area and are clustered in several enclaves.

The 33 types of traditional trades are:-
1. Provision shop
2. Traditional Food
3. Salted Fish
4. Spice and Flour Millers
5. Kopitiam/Coffee Shop Coffee manufacturer
6. Chicken Merchant
7. Coconut Shop
8. Silver Smith
9. Tin Smith
10. Locksmith
11. Traditional Embroidery & Tailoring
12. Traditional Chinese Wedding Shop
13. Beaded Stones
14. Shop Scales
15. Chinese Medical Shop & Medical Hall
16. Saloon
17. Bicycle Shop
18. Frame makers
19. Rattan Handcraft
20. Rubber Stamping/Seal Carving
2.5 Water Body

The water body is an important part of the WHS where it's view into the city of Melaka are important view towards WHS OUV's. Thus any form of land reclamation on the water body area designated within the Buffer Zones of the WHS is NOT permitted.

The construction of floating structures may be permitted, subject to a hydraulic study and Planning Permission, which includes a Heritage Impact Assessment.
Figure 2.6 Traditional Trades

<table>
<thead>
<tr>
<th>Traditional Trade</th>
<th>Total</th>
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</thead>
<tbody>
<tr>
<td>Provision Shop</td>
<td>13</td>
</tr>
<tr>
<td>Traditional Food</td>
<td>22</td>
</tr>
<tr>
<td>Salted Fish</td>
<td>2</td>
</tr>
<tr>
<td>Spice &amp; Flour Miilers</td>
<td>12</td>
</tr>
<tr>
<td>Kopitiam (Coffee Shop &amp; Coffee Manufacture)</td>
<td>7</td>
</tr>
<tr>
<td>Chiken Merchant</td>
<td>1</td>
</tr>
<tr>
<td>Coconut Shop</td>
<td>2</td>
</tr>
<tr>
<td>Silver Smith</td>
<td>1</td>
</tr>
<tr>
<td>Tin Smith</td>
<td>21</td>
</tr>
<tr>
<td>Gold Smith</td>
<td>17</td>
</tr>
<tr>
<td>Lock Smith</td>
<td>1</td>
</tr>
<tr>
<td>Traditional Embroidery &amp; Tailoring</td>
<td>7</td>
</tr>
<tr>
<td>Traditional Chinese Wedding Shop</td>
<td>3</td>
</tr>
<tr>
<td>Beaded Shoes (Wah-Aik)</td>
<td>1</td>
</tr>
<tr>
<td>Shop Scales</td>
<td>1</td>
</tr>
<tr>
<td>Chinese Medical Shop &amp; Medical Hall</td>
<td>24</td>
</tr>
<tr>
<td>Saloon</td>
<td>2</td>
</tr>
<tr>
<td>Bicycle Shop</td>
<td>4</td>
</tr>
<tr>
<td>Frame Makers</td>
<td>7</td>
</tr>
<tr>
<td>Rattan Handcraft</td>
<td>2</td>
</tr>
<tr>
<td>Rubber Stamping/Seal Carving/Sing Board</td>
<td>7</td>
</tr>
<tr>
<td>Chinese Clogs</td>
<td>2</td>
</tr>
<tr>
<td>Optical &amp; Watch Shop</td>
<td>18</td>
</tr>
<tr>
<td>Stone Maker</td>
<td>4</td>
</tr>
<tr>
<td>Barrel</td>
<td>1</td>
</tr>
<tr>
<td>Pawn Shop</td>
<td>6</td>
</tr>
<tr>
<td>Cheekia</td>
<td>5</td>
</tr>
<tr>
<td>Book Rental</td>
<td>10</td>
</tr>
<tr>
<td>Chinese Longevity (Prayer, Coffin &amp; Undertaker)</td>
<td>28</td>
</tr>
<tr>
<td>Money Changer</td>
<td>3</td>
</tr>
<tr>
<td>Dental</td>
<td>1</td>
</tr>
<tr>
<td>Pharmacy</td>
<td>1</td>
</tr>
<tr>
<td>Market</td>
<td>2</td>
</tr>
</tbody>
</table>

Others

Source: Land use survey, 2010; AJM Planning & Urban Design Group Sdn Bhd
3 Protecting Built Cultural Heritage

3.1 Building Category

The buildings and sites within the Melaka WHS are identified into four categories encompassing both conservation and compatible development. Figure 3.1 maps out the categorisation of heritage buildings in the WHS of Melaka.

Analysis on Categorisation of the WHS

<table>
<thead>
<tr>
<th>Category</th>
<th>No of Building</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>66</td>
<td>2.11</td>
</tr>
<tr>
<td>IIA</td>
<td>77</td>
<td>2.49</td>
</tr>
<tr>
<td>IIB</td>
<td>1987</td>
<td>65.98</td>
</tr>
<tr>
<td>Replacement</td>
<td>920</td>
<td>29.41</td>
</tr>
<tr>
<td>TOTAL</td>
<td>3,050</td>
<td>100.00</td>
</tr>
</tbody>
</table>

From 3,050 number of buildings in Core Zone and Buffer Zone, Category I buildings estimated 66 nos(2.11%) and Category IIA is 77 (2.49%). Most of the buildings are under Category IIB which take about 65.98% and Replacement about 920 buildings(29.41%).

Category I buildings mostly refers to Religious Structure and also the Dutch Structure. For example the Stadhuys, the Christ Church, the Clock Tower, Sri Poyyatha Vinayagar Moorthi Temple, Kampung Hulu Mosque, kampung Keling Mosque and Chan Koon Cheng Temple.

Category IIA address the important structure for WHS, relating to the historical and also cultural element of the town. For example, the landing steps at the river mouth relates to the significance of trading port in the past. The ancestral house along Jalan Tun Tan Cheng Lock, Chinese Associations along Jalan Hang Jebat and the Sikh Temple at Jalan Temenggong represent the significance of multicultural in WHS.

Protection, conservation & adaptation

- **Category I:**
  - (i) Monuments of exceptional interest.
  - (ii) Buildings and monuments declared as ancient and gazetted formerly under the Antiquities Act 1976 now under the National Heritage Act (2005)
  - (iii) Buildings Registered as National Heritage under the National Heritage Act (2005)

- **Category IIA:**
  - (i) Buildings of exceptional interest.
  - (ii) Buildings related to or associated with Category I buildings.
  - (iii) Corner buildings of architectural significance.
  - (iv) Rows of buildings of architectural significance.
  - (v) Dated building of architectural significance.
  - (vi) Compounds, boundary walls, gateposts & gates, landscapes, trees, enclaves, granite pathways and sites.
  - (vii) Historic street furniture, granite posts and chains, fountains, lamp-posts, post boxes, fire hydrants and fire assurance plaques, granite and engineering brick drains, etc.

- **Category IIB:** Buildings of special interest that warrant every effort being made to preserve them.

Compatible development

- **Infill Development:**
  Existing empty land or temporary structure where compatible re-development is permitted.

- **Replacement:**
  Existing building without any significant value where sensitive re-development is permitted.

Replacement buildings are mostly refers to buildings on the reclaimed land which has no significance to the WHS.
Building Categories

<table>
<thead>
<tr>
<th>Category</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category I</td>
<td>2.11</td>
</tr>
<tr>
<td>Category II</td>
<td>65.98</td>
</tr>
<tr>
<td>Replacement</td>
<td>29.41</td>
</tr>
</tbody>
</table>

Core Area Buffer Area River
100.00

Source:
* Map produced from existing land use information
Land use survey, 2010; AJM Planning & Urban Design Group Sdn Bhd
3.1.2 Categorisation of Built Cultural Heritage in Core Zone

Core Zone of Melaka WHS is divided into two main areas that significantly represents its function and activity as follows:
(i) Civic Zone - Historic Administration Enclave
(ii) Historic Residential and Commercial - Mixed Use Enclave

(i) Civic Zone

Jalan Gereja & Lorong Gereja

<table>
<thead>
<tr>
<th>Category</th>
<th>No of Building</th>
<th>%</th>
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</thead>
<tbody>
<tr>
<td>I</td>
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<td>17.65</td>
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<tr>
<td>IIA</td>
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Jalan Kota

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<tr>
<td>I</td>
<td>25</td>
<td>45.45</td>
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<tr>
<td>IIA</td>
<td>5</td>
<td>9.09</td>
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<tr>
<td>IIB</td>
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<td>18.18</td>
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<td>Replacement</td>
<td>15</td>
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Jalan Laksamana

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<tr>
<td>IIB</td>
<td>39</td>
<td>92.86</td>
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</table>

(ii) Historic Residential and Commercial

Jalan Tun Tan Cheng Lock

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<th>No of Building</th>
<th>%</th>
</tr>
</thead>
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<tr>
<td>IIA</td>
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<td>8.15</td>
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<td>IIB</td>
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Jalan Hang Jebat

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<td>IIA</td>
<td>6</td>
<td>4.20</td>
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<td>IIB</td>
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Jalan Tokong, Jalan Tukang Emas & Jalan Tukang Besi

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<td>IIA</td>
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<td>4.20</td>
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<tr>
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Jalan Parameswara, Jalan Banda Kaba & Jalan Kampung Pantai, Lorong Jambatan
## Conservation Management Plan and Special Area Plan: Part 2 (Melaka)

### Jalan Kampung Hulu

<table>
<thead>
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<td>0.68</td>
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### Lorong Hang Jebat

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<td>7</td>
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### Jalan Hang Kasturi

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### Jalan Hang Lekiu

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### Jalan Hang Lekir

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<td>1</td>
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<tr>
<td>Replacement</td>
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<td>5.26</td>
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<tr>
<td><strong>TOTAL</strong></td>
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### Jalan Kampung Kuli

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<td>I</td>
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<td></td>
</tr>
<tr>
<td>IIA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IIB</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Replacement</td>
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<td>5.26</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
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### Jalan Portugis

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<td></td>
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**Melaka and George Town: Historic Cities of The Straits of Malacca**
3.2 Building Types

The early architecture is an amalgamation of cross cultural values, ideas, traditions and the memories of immigrants and indigenous builders, and the adaptation to the availability of building materials, skills, transportation and the appropriateness to the tropical climate.

Masonry buildings of fortress, churches, chapels and monasteries started since 1511 after the Portuguese conquered Melaka. and they introduced laterite and tiles as the building materials. A Famosa and the Ruins of St. Paul's Church are two examples of the masonry structure that still can be seen today.

After Dutch wrested control of Melaka in 1641, they started to introduce brick houses, protestant churches and administrative buildings. This is when the shophouses of Dutch Style was started. Monopolies being awarded to Dutchmen to manufacture clay bricks, roofing tiles of Mediterranean and Chinese patterns as well as 'Melaka Tiles'.

A list of architecture types available in Melaka is outlined below:

1. Shophouses and Townhouses
2. Mosques
3. Churches
4. Chinese temples
5. Hindu temples
6. Buildings of administration
7. Buildings of commerce
8. Godowns and offices
9. Residential Blocks
FIGURE 3.3 *Types of Buildings, Melaka*

1.  
2.  
3.  
4.  
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6.  
7.  
8.  
9.  
10.  
11.
3.3 Building Styles

The eclecticism of the architecture of the shophouses can be contributed to the migrant Indian and Chinese builders, who brought with them the influences from their homelands. By the 1900s the European architectural and engineering professionals came to Melaka and brought with them new technologies and building forms influenced from the western architecture movement.

The basic shophouse styles are defined as:
1. Dutch Style
2. "Southern Chinese" Eclectic Style
3. Early "Straits" Eclectic Style
4. Late "Straits" Eclectic Style
5. Art Deco Style
6. Modern Style

Researchers to date have worked hard to analyse the influences and styles that these shophouses took on. It is this analysis that has been transferred onto other built forms and is used to describe the styles in which they too were built.
**Building Style**

- Dutch Style
  - Dutch
  - Dutch (Altered)
- Southern China Style
  - Southern China
- Early Shop House
  - Early Shop House/Town House
  - Early Shop House/Town House (Altered)
- Timber Shop House
  - Timber Shop House
  - Timber Shop House (Altered)
- Transitional
  - Transitional
  - Transitional (Altered)
- Straits Eclectic
  - Early Straits Eclectic
  - Early Straits Eclectic (Altered)
  - Late Straits Eclectic
  - Late Straits Eclectic (Altered)
- Art Deco
  - Art Deco
  - Art Deco (Altered)
- Modern
  - Modern
  - Modern (Altered)
- Other Architectural Styles
  - Palladian
  - Baroque
  - Neo Classical
  - Portuguese
  - Chinese Urban Courtyard House
  - Straits Colonial
  - Islamic
  - Kampung House
  - Mosque
  - Chinese Temple
  - Church
  - Hindu Temple
  - Sikh Temple
  - Warehouse
  - Monument
  - Undefined
  - Modern
  - Modern (Altered)

**Source:**
Land use survey, 2010; AJM Planning & Urban Design Group Sdn Bhd
FIGURE 3.5 *Six Main Shophouse Styles, Melaka*

- **Dutch Style**
- **Southern China Style**
- **Early Straits Eclectic Style**
- **Late Straits Eclectic Style**
- **Art Deco Style**
- **Modern Style**
FIGURE 3.7 Jalan Hang Jebat
FIGURE 3.8 Jalan Tukang Emas
FIGURE 3.9 Jalan Hang Lekir
FIGURE 3.10 Jalan Kampung Pantai
FIGURE 3.10 Jalan Kampung Kuli
Analysis on Style of the WHS

From the map (figure 3.4), it is clearly shown that the styles are richer for the area that established earlier (refer to the map below) for example in Residential and Commercial Zone, especially along Jalan Tun Tan Cheng Lock. This is the earliest stretch of settlement in WHS, the Dutch styles had dominant numbers and the others are Southern China and Late Straits Eclectic. Outside Core Zone which have a various mixture of Styles are Jalan Bunga Raya, Jalan Temenggong, and Lorong Bukit Cina. Art Deco Style can be seen dominantly along Jalan Bendahara and modern styles on the reclaimed land.

Figure 3.4: Melaka Town 1916
3.4 Guidelines for the Conservation Area and Heritage Buildings

All the buildings and sites within the World Heritage Site are subject to the Guidelines for the Conservation Areas and Heritage Buildings, covering all aspects of conservation works as well as all compatible developments within the World Heritage Site.

Refer to the Appendix A: Guidelines for the conservation areas and heritage buildings for more details.
4 Protection of Landmarks, Vistas and View Corridors

4.1 Protection of Panorama and Waterfront Vistas

The hills and the river remain strong topographical features that frames and identifies Melaka’s sense of place. The roofscape and skyline, and the prominence of certain landmarks are significant in the way the historic city is perceived and read. It is critical to the OUVS Melaka therefore that these unique features area respected and that new developments give, due consideration to them and further enhance the visual quality.

Figure 4.1: Panorama towards Melaka Town taken from the Straits of Malacca in 1831

Figure 4.2: Aerial View of Melaka Town
4.2 Protection of Landmarks and View Corridors

Street level views also frame important vistas and focal points. For example, the minarets of Kampung Kling and Kampung Hulu Mosques, the church towers of St Francis Xavier’s, as well as the clock tower at Dutch Square, all define important landmarks and wayfinding elements for its corresponding streets.

Any development in the WHS will be required to take considerations of the identified landmarks. They must not be block view from the street.

Figure 4.3. Streetscape of Goldsmith Street, Melaka showing the minaret of Kampung Keling Mosque and Sri Poyatha Vinayagar Moorthi Temple
Landmarks:
1. Kg. Hulu Mosque
2. Cheng Hoon Teng Temple
3. Kampung Kling Mosque
4. Sri Poyatha Vinayagar Moorthi
5. St. Francis Xavier Church
6. Christ Church
7. Stadthuys
8. Ruins of St. Paul Church
9. Malay Sultanate Palace
10. A Famosa Fort
11. Proclamation of Independent Memorial
12. Sam Poh Kong Temple
13. Hang Li Po’s Well
14. Chee Anchestral Mansion

FIGURE 4.4 Urban Form and City’s Profile

Melaka River

Civic Zone

Street Level Vista

Waterfront Views
Figure 4.5. Jalan Kampung Hulu towards Masjid Kampung Hulu

Figure 4.6. Jambatan Kampung Jawa towards St. Francis Xavier Church

Figure 4.7. Jalan Gereja towards Christ Church

Figure 4.8. Jalan Kota toward Independence Memorial

Figure 4.9. Jalan Kampung Pantai

Figure 4.10. Jalan Tun Tan Cheng Lock

Figure 4.11. Chee Ancestral House
Figure 4.12. Jalan Laksamana

Figure 4.13. Jalan Hang Lekir

Figure 4.14. A Famosa Gate

Figure 4.15. Jalan Tukang Emas

Figure 4.16. Istana Kesultanan Melayu Melaka

Figure 4.17. Ruin of St. Paul's Church
4.3 Protection of the Terracotta Roofscape

The terracotta roofscape is an essential component of the historic urban fabric of the WHS of Melaka and its Outstanding Universal Values. It is essential towards the conservation of this area that the preservation of the terracotta roofscape is supported.

Figure 4.19 shows an aerial vista of the terracotta roofscape.
A strong and unique character of the old Melaka is the presence of a public space in the middle of the town. This can be seen strongly at the city square or Dutch Square which is also a significant landmark in Melaka city. The square, whose position made very prominent by sense of enclosure created by the Stadhuis and the Christ Church with a fountain and clock tower cut the centre. The buildings composition in the square has never been altered since the Dutch period. It has always been a strong imprint of a typical character of a European townscape where the civic ambience of the place was heightened by the presence of major civic buildings and space.

Objective of public realm proposal is to:

1) Create more spaces similar to the Dutch square or open space for the public.
2) Prioritizing streets in the town for pedestrian as shared spaces with other street users.
3) Improving further connectivity with waterfront area.
4) Connects back lanes as alternative route or pedestrians.
5) Greening the town reduce the effect of heat island, create cooler atmosphere and improving pedestrian comfort.

Figure 5.1: Clock Tower at Dutch Square, 1890

Figure 5.2: Clock Tower at Dutch Square, 2010
Figure 5.3: Proposed public realm projects
Projects

**Park and Plaza**
- A1. Heeren Linear Park (New)
- A2. Jalan Kota Linear Park (Upgrade)
- A3. Padang Nyiru Park (Upgrade)
- A4. Kampung Pantai Plaza (New)
- A5. Jonker Plaza (New)
- A6. Market Plaza (New)

**Pedestrian Priority Street**
- B1. Lorong Gereja upgrading
- B2. Jalan Istana upgrading
- B3. Linear park pedestrian bridge

**Waterfront Promenade**
- C1. Connect and upgrade the riverwalk to Melaka Sentral

**Backlane**
- D1. Backlane improvement (Upgrade)

**Car-Parks**
- E1. Jalan Masjid centralized parking (New)
- E2. Parking at Jalan Banda Kaba (Upgrade)
- E3. Parking at Jalan Bendahara (Upgrade)
5.1 Parks and Plazas

A comfortable and stimulating public space that encourages social interaction always relate with the nodes of activity, complemented by the components of street furniture. The proposed parks and urban plazas in Melaka World Heritage Site are interconnected via a landscaped pedestrian network. It is also proposed that some open land be upgraded into parks and be made public accessible. It emphasizes improvements to the streets that connect to parks, recreation centres, transit stations and other community uses.

**A1. Heeren Linear Park (New)**
To define the original water edge of Melaka Town. This is the back lots of Jalan Tun Tan Cheng Lock.

**A2. Jalan Kota Linear Park (Upgrade)**
To define the original water edge of Melaka Town by upgrading the back-house of Dataran Pahlawan.

<table>
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<td>- Parks to simply consist of turf and large tree canopy coverage;</td>
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<tr>
<td>- Trees preferable to shrubs;</td>
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<tr>
<td>- Incorporation of underground water retention where possible;</td>
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<tr>
<td>- Minimally designed new street furniture and lighting;</td>
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<tr>
<td>- Promotes universal access principles;</td>
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<tr>
<td>- Promotes efficient water use and solar lighting;</td>
</tr>
<tr>
<td>- Recovers, re-uses and generally minimises the amount of natural resources used;</td>
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<tr>
<td>- Possible incorporation historic street furniture, either restored or authentically reconstructed;</td>
</tr>
<tr>
<td>- Possible incorporation of “urban farming” and bio diversity, such as a paddy field for educational purposes.</td>
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A3. Padang Nyiru park (Upgrade)
To turn the carpark into green open space to protect vista from Lorong Jambatan towards St Francis Xavier’s Church.

A4. Kampung Pantai Plaza (New)
To provide a public space at Jalan Kampung Pantai where it links to the back lane.

A5. Jonker Plaza (New)
To provide a public place at the end of Jalan Hang Jebat where people can gather and enjoy the street activities.

A6. Market Plaza (New)
To provide a public space on the old market footprint near to Kampung Jawa where it links to the existing park.
5.2 Pedestrian Priority

Shared streets is an important characteristic of the city of Melaka. However, it should be the aim in any design of the streetscape that pedestrian use is prioritized.

Some of the main vehicular-use streets may benefit from the addition of sidewalks and planting of trees along the streets.

B1. Lorong Gereja upgrading
B2. Jalan Istana upgrading

Figure 5.4: Jalan Gereja
Being a city divided into by a river, connectivity from one side to the other is critical. This has been acknowledged in the past practice with existence of existing bridges, mostly located at the focal point or nodes such as residential area (Lorong Jambatan to Kampung Jawa), commercial area (Jalan Kampung Hulu to former market site) and transit station (former bus station to Jalan Munshi Abdullah).

B3. Linear park pedestrian bridge
To connect the linear park and the transit hub as well as centralized parking at Taman Kota Laksamana.

**Performance Criteria for Pedestrian Priority Streets**

- A cautious approach in the design of streetscapes, of changing as much as necessary but as little as possible;
- Design of streetscape to take into consideration the community use of the street, including festival use;
- Ground material to ideally remain as asphalt, or a porous material that is easily maintained;
- The provision of sidewalks only when necessary;
- Use permeable, breathable sidewalk material;
- Consistent colour palette for the entire WHS;
- Street trees preferable to shrubs;
- All new streetscape programs to adhere to universal access principles;
- Possible integration of street design with landscape and storm water management system;
- Recovers, re-uses and generally minimizes the amount of natural resources used;
- Minimally designed new street furniture and lighting;
- Possible incorporation of street markers along heritage trails to increase legibility and wayfinding;
- Possible incorporation of historic street...
5.3 Waterfront Promenade

Melaka River is significant as a historical trading port where it was a melting pot of cultures and influences from Middle East, India, China and Malays Archipelago. The river used to be very busy as it was a primary transportation during those days and today, the river river cruise has taken into place.

The promenade provides the structure that integrates all these elements together, and a pedestrianised linkage connects from the Quay Side and proposed to connect until Melaka Sentral, the main transportation hub. Water taxi landings are proposed to revitalize and bringing back the importance of the river as one of the transport mean for the public.

C1. Connect and upgrade the riverwalk to Melaka Sentral (the transport hub)
Performance Criteria for Waterfront Promenade

- Integration with the inner city and all redevelopment programs;
- Public accessible;
- To adhere to universal access principles;
- Possible integration with landscape and storm water management system;
- Recovers, re-uses and generally minimises the amount of natural resources used;
- Possible incorporation of street markers along heritage trails to increase legibility and wayfinding;
- Minimally designed new street furniture and lighting;
- Possible incorporation historic street furniture, either restored or authentically reconstructed.

Figure 5.8: Continuity of Promenade follows the Water Transport Route
5.4 Back Lanes

The fourth landscape program involves upgrading and revitalisation of back lanes for pedestrian use, or even commercial use where applicable. Back lanes create short cuts and as an alternative escape in case of fire for the residence.

*D1. Backlane improvement (Upgrade)*

*Figure 5.9: Potential of Melaka backlanes*

*Figure 5.10: Vibrant street activities on backlane.*
Performance Criteria for Back Lanes

- A cautious approach in the design of streetscapes, of changing as much as necessary but as little as possible;
- Design of streetscape to take into consideration the community use of the street;
- Ground material to ideally remain as asphalt, or a porous material that is easily maintained;
- Lighting of back lane attached on heritage buildings
- Preferred location of lighting to be on top of the rear door
- Possible landscaping of back lanes.
5.5 Landscaped Car “Parks”

While it is an objective to make the city carbon-zero and green, the shift into a carbon-zero emission and a car free city has to happen gradually. Meanwhile, a lot of empty spaces within the WHS especially at Jalan Portugis and Jalan Masjid are dedicated towards parking car and remains necessary until the transition towards public transportation happens.

A short term design solution is to landscape these on grade car parks in the effort to make them multi-functional as green public open spaces.

*E1. Jalan Masjid centralized parking (New)*
*E2. Parking at Jalan Banda Kaba (Upgrade)*
*E3. Parking at Jalan Bendahara (Upgrade)*
Performance Criteria for Landscaped Car “Parks”

- Use porous ground material and permeable paving for on-site water retention where possible;
- To adhere to universal access principles;
- Possible integration of street design with landscape and storm water management system;
- Recovers, re-uses and generally minimises the amount of natural resources used;
- Possible incorporation of street markers along heritage trails to increase legibility and wayfinding;
- Minimally designed new street furniture and lighting;
- Possible incorporation historic street furniture, either restored or authentically reconstructed.
Managing Circulation and Access

6.1 Traffic Management Strategy

The traffic management strategy for Melaka WHS is in response to the traffic issues that the area is facing and also the concern and decision made by the World Heritage Committee in its 32nd annual session in Quebec City, Canada, 2008 in which it has requested the State Party to:

- Develop measures for decreasing motor traffic.

In developing the traffic management plan, the transport strategy adopted has taken into account the vision and development objectives for Melaka WHS. The traffic management plan takes upon a short and medium term approach, where the strategy looks into immediately enhancing public transportation infrastructure and encouraging public transport travel before restraint measures are adopted. This strategy is also in light of the local stakeholders views that traffic demand management should be undertaken after/while public transportation matters is addressed.

Thus the traffic management strategy is based on six main objectives as follows:

1. To encourage and improve public transport travel and enhance the existing transport network;
2. To reduce private vehicle use so as to shift to a more sustainable mode of transport;
3. To integrate the current modes of public transport with future proposed systems in achieving greater coverage and usage;
4. To encourage walking and cycling in the WHS;
5. To adopt travel demand management strategies in phases so as to achieve a congestion free WHS; and
6. To promote an integrated transportation policies towards better environmental standards.

Figure 6.1: Traffic congestion at Jalan Tun Tan Cheng Lock
6.2 Integrated Public Transport

Presently, public transport system in Melaka mainly consists of buses and taxis. In addition, there are river boat cruise and tourist bus that serves along the Melaka River and the World Heritage Site. With the high usage of private cars, the bus systems are not operating at maximum efficiency due to the congested roads. Thus, in order to improve the public transport usages within the World Heritage Site area, some key initiatives identified are as follows:-

1. Proposal for a river transport system such as a water taxi that will link the WHS area to Melaka Sentral - the public transport hub where all Melaka City buses and taxi services are stationed;

2. Provision of additional jetties along the Melaka River that will enhance linkages to the WHS via water taxi;

3. Provision of pedestrian bridges and footpath from the jetties to the WHS;

4. Provision of a Park-And-Ride (P&R) stations at Taman Rempah and Kota Laksamana. The Panorama buses and water taxi will provide services between P&R to the World Heritage Site.

5. Proposed policy that all tourists using private cars are to park at P&R sites and use water transport, Panorama buses or taxis to the World Heritage Site.
6. To integrate buses and water taxi with the future tram system that is expected to connect Ayer Kero to Melaka Town. Two transit station has been identified close to WHS and they are at Jalan Laksamana and near the bridge to Jalan Hang Tuah.

7. To also integrate with the tourist buses where they are to drop visitors at two to three spots at the perimeter of WHS and then park at designated parking areas outside Core Zone of WHS.
6.3 Traffic Circulation and Parking

The existing road system within Melaka WHS consists of narrow streets with limited footpath. These roads are burdened with heavy local traffic that passes through the area everyday especially vehicles using Jalan Tun Tan Cheng Lock and Jalan Kg Hulu-Jalan Kg Pantai. The problem is further aggravated with roadside and illegal parking activities and heavy pedestrian movement. All these activities shares the same road space and to a certain extent has created discomfort to the road users.

In addressing traffic issue, consideration for residents daily routine is given priority as local communities are an important component to Melaka as a World Heritage City. Consultations with local communities representatives indicated that the prefered solution to resolve traffic issue is that any change is done progressively, and ensure that they achieve the desired result before proceeding to another initiatives. This is an order to ensure that the resultant impact is as minimum as possible.

There will be no change in traffic circulation for the short term but once the public transportation system is in place, the traffic circulation needs to be reviewed.

The initiatives to address the problems faced are as follows:-

1. To proposed two centralised parking facilities in the area - Kampung Hulu to serve the northern area and at Kota Laksamana to cater for the southern area. The proposed and existing centralised parking location shall ensure good coverage within walking distance of 300 metres.

2. To reduce on-street parking facilities on congested roads and in particular on-street parking at Jalan Tun Tan Cheng Lock.

3. To allow for scheduled times zones for service truck for loading unloading.

![Figure 6.7. Proposed Centralized parking location](image)
6.4 Pedestrian, Cycling and access for all

Improving pedestrian connectivity is one of the key strategy for the WHS as this area has high visitation rate and pedestrian comfort and safety is most important.

Key Initiative:

1. Providing Sidewalks
   Replacing on-street parking with sidewalks and dedicated pedestrian pathways.

2. Ensuring that the proposed sidewalk provides clearways for pedestrians.

3. The proposals are for Jalan Hang Jebat, Jalan Tukang Besi and Tun Tan Cheng Lock.
7 Improving Urban Infrastructure

The object of this study is to determine the current state of the infrastructure in the Melaka WHS, to identify the weaknesses and deficiencies of the said infrastructure and to propose improvement, upgrading and rectification works. The successful implementation of the proposed works will require the relevant agencies and utilities companies to work and coordinate with each other.

7.1 Sewerage

7.1.1 Existing System

One of the main component of the sewerage treatment system found in the Melaka WHS are sewer mains running along the river bank from Taman Rempah at Jambatan Hang Jebat through Jalan Bunga Raya, with a spur running down Jalan Kee Ann to join this line. A second line runs from Kampung Morten and along Jalan Kampung Pantai and Jalan Kampung Hulu joining the Jalan Bunga Raya line at Jambatan Chan Koon Cheng. The main line then runs along the right bank of the river beneath the river walkway to join the sewer line constructed in the 1980's in Taman Kota Laksamana.

A secondary line runs parallel to the combined main sewer along Lorong Hang Jebat joining the original Taman Kota Laksamana sewer mains. A feature of this sewer mains unlike the original main line in Taman Kota Laksamana is that the sewer mains in the rest of the WHS and Kampung Morten captures grey water from the roadside drains. Except for properties which were connected directly to the original Taman Kota Laksamana mains, none of the other properties in the WHS are connected to the central sewer line.

Figure 7.1 illustrates the alignment and size of the sewer mains described here.

The second main component of the sewerage treatment system in this area is the existing Sewerage Treatment Plant in Taman Kota Laksamana. This plant has the capacity or is capable of being expanded to treat the sewerage and grey water from the roadside drains in the WHS.

The final component of the existing sewerage treatment system is the in-situ septic tanks and packaged treatment plants located within the premises of the properties in the WHS. None of these in-situ units are capable of treating the sewerage to the standards set or are maintained properly.
7.1.2 Issues

(i) Except for the sewerage captured by the Taman Kota Laksamana portion of the centralised sewerage system, the sewerage in the rest of WHS is not treated to the required standards. This is because the in-situ septic tanks relied on are either too old to be functioning properly or inadequately maintained to achieve the level of treatment necessary to meet the standards determined by the authority. The properties are not connected to the sewer mains because the sewer lines laid in the last decade in the WHS were designed to capture grey water and the sewerage treatment company, Indah Water Konsortium (IWK), tasked to run the sewerage treatment works nationwide is only mandated to treat sewerage and not grey water as well. There is no mechanism or legal framework whereby IWK can determine a tariff to charge households or businesses nor is it within their purview to treat grey water.

(ii) There is little or no incentive or motivation on the part of the households and businesses in the WHS to maintain or upgrade their individual septic tanks.

(iii) It is also difficult to access the individual septic tanks for maintenance as many of them are located at the back of the premises and the back lanes access was built for nightsoil collection and inaccessible by IWK tankers.
7.1.3 Recommendation

(i) Households and businesses must be encouraged to upgrade their in-situ plants and/or migrate to newer/green technologies that treats sewer water and at the same time recycles and reuses the grey or black water for irrigation of toilet flushing. Examples of one such system is the BIOKUBE system which is an engineered biological green domestic sewage water recycling technology.

(ii) Resolve the statutory impediment to allowing the households and businesses to connect to the sewer mains and to the centralised sewer plant.
   - Cost of connection to sewer mains to be shared between householders and the PBT.
   - SPAN to be prevailed upon their Umbrella Act to permit them to treat both sewerage and grey water or allow a third party to manage and run the system.

Only if the above is found to be unworkable and as a last option only; disconnect the sewer mains from the grey water input and treat only the sewerage from the premises in the WHS. If this option is adopted, strict enforcement must be carried out to ensure as little contaminants enter the road side drains as possible. Street vendors, food retailers etc must be monitored to ensure that the open drains are not used as convenient place to dispose of their waste.
7.2 Water Supply

7.2.1 Existing Status

The water supply to the WHS is undertaken by Syarikat Air Melaka Sdn Bhd a GLC. The distribution network had recently been upgraded and is adequate for the WHS needs.

7.2.2 Issues

(i) Final connection to premises is not properly executed with some installations do not meet technical specification required. Examples and insufficient depth leading to frequent leakage especially at location where the pipes cross roads.

(ii) Obstructive location of water, meter, and exposed hosing that affects the visual of heritage streetscape.

(iii) Indicator markers of underground pipe lines and below ground hydrants are not adequately maintained and/or thoughtfully located.

7.2.3 Recommendations

(i) Develop a best or good practice guidelines for final connections and location of meter stands bearing in mind the on-site observations above.

(ii) Re-lay all final connections and ensure a well thought out pattern of final pipe connection to the premises.

(iii) Close supervision of all on site works to ensure the protocols in the guidelines are adhered to and work is carried to specifications.

Figure 7.2 Inappropriate location of water meter and connection
7.3 Fire Protection System

7.3.1 Existing Status

(i) Existing hydrants in Core Zone are mostly underground and located by means of a concrete marker.

(ii) Existing hydrants are connected to the domestic mains and pressure within the domestic mains are not constant; varying in accordance with demand patterns.

(iii) Haphazard distribution of electrical cables and disused cables are left in-situ.

(iv) Existing roads in WHS are narrow and often crowded with visitors.

7.3.2 Recommendations

(i) Replace all underground hydrants with pillar hydrants.

(ii) Re-locate hydrants to positions where they cannot be unwittingly or purposely concealed.

(iii) Install a dedicated pipeline for fire hydrants and fire hosereels. This will ensure adequate pressure is maintain at all times as well as permit a network of hosereels and sprinklers to be installed within the premises in the WHS. Connection to hosereels and sprinklers within private premises can be metered with the rates for unauthorised use set a punitive level.

Figure 7.3: Hydrants Location in WHS
(iv) Set up a Risk Assessment Committee to develop guidelines for fire safety as well as to develop Disaster Management Protocols in the event of a fire and other public safety incidents.

(v) To consider the setting up of volunteer fire rescue squads and obtain specialised equipment to cater to the narrow streets.

Figure 7.4 Underground Hydrant
7.4 Roads and Drains

7.4.1 Existing Status

The roads and drains in the WHS is the responsibility of MBMB. Currently the road level had been raised considerably since and many of the premises are now lower than the road edge. Similarly the walls of the historic Dutch drains had been raised to maintain the coping level imposed by the higher new road levels.

7.4.2 Issues

(i) The existing levels of the roads are in the most part either higher or at grade with the foot-ways of the premises.

(ii) The construction of the barrage at the river estuary and the maintenance of the river level at a high tide level had lead to back flow of the water from the river into the drainage system. The installation of flow valve (tide valve) devices at the discharge points with the river had prevented the back flow of water from the river to an extent. The high water level in the river itself meant that the water in the drains cannot discharge into the river. The permanent high water level in the river and drains had led to damage to the buildings in the WHS.

7.4.3 Recommendations

(i) Conduct a comprehensive survey of the road and drains alignment, levels (both coping, crown and invert levels) and the levels of the footways to enable an opinion to be formed as to the optimum levels of the roads. Milled the road down so as to achieve this optimum level.

(ii) Determine the optimum water level for the river for boats to ply. If necessary dredge the river so that an optimum level can be maintained that allow drain water in the WHS to flow out into the river.

(iii) Allow the river to recede to the low tide level whenever possible especially when the boats are not in service.

(iv) Prepare a comprehensive drainage master plan to overcome the drainage and flooding issue.

(v) To adopt water sensitive urban design solutions by introducing localised infiltration through well drained landscape areas that can be located as part of small pocket parks in WHS.

(vi) To increase water absorption rate on road surface by use of pervious materials for the roads.

Figure 7.5: Road level higher than building level
7.5 Electrical Supply

7.5.1 Existing Status
Tenaga Nasional Berhad is the sole supplier of electricity to the Melaka WHS. The supply cables within the WHS are mainly overhead although there are some which are laid underground.

It is generally accepted that the supply network is severely stressed by the high demand and low capacity of the supply network. The low capacity is mainly caused by the lack of suitable sites for substations and feeder pillars.

7.5.2 Issues

(i) Haphazard installation of incoming supply cables to the premises due to uncoordinated upgrading especially to newly relocated businesses.

(ii) Feeder pillars and compact substation are visually and physically obtrusive. Eg at the end of Jalan Tun Tan Cheng Lock near the river. The vista from the street to The Stadhuys and St. Paul's Hill is visually impaired while the pedestrian walkway is obstructed by both the substation and feeder pillar.

(iii) Poor location of meters and incoming distribution boards.

7.5.3 Recommendations

(i) To re-lay all supply cables and remove all disused cables.

(ii) When re-laying the supply cables, to relocate the meters to visually less intrusive positions such as above archways between premises at the footway or back lanes. The use of remote monitoring of electricity meters meant there is no necessity to locate the meters as they are now being done. Meters can even be installed indoors and concealed. If such remote monitoring technology is unavailable, consumers can be asked to do their own meter reading regularly with the TNB doing annual reading to confirm the accuracy of these self reading.

(iii) Identify locations for new substations and feeder pillars and to relocate badly sited substations and feeder pillars.

(iv) Encourage the use of energy saving lighting and devices to reduce the need for increased power supply and the attendant need for infrastructure.

(v) Encourage the use of solar powered lightings and fittings. These includes street lamps, bollards etc, that will reduce the cabling works.
PART 3

Development Guide Plan for George Town WHS
1 Introduction to the Development Guide Plan for George Town

1.1 An Intelligent and Sustainable Heritage City

As the heart of the Penang, George Town WHS is poised to become a key cultural centre of the region as the State's prepares to position itself the hub of the Northern Corridor Economic Region (NCER) of Malaysia. There is much potential for the WHS to contribute towards the enhancement its greater region. A city that builds its value on heritage, not hindered by it.

Part 3 of the Conservation Management Plan and Special Area Plan for 'Melaka and George Town, The Historic City of the Straits of Malacca': Development Guide Plan for George Town WHS reflects the State Government's aspiration of developing the historic centre of the city of George Town as an "Intelligent and Sustainable Heritage City."

1.2 Purpose of this Document

Planning for heritage in George Town WHS aims to ensure that the significant elements of the past are appropriately managed and respected by new development. Heritage conservation does not preclude change but rather respond to it. This Development Guide Plan provides a framework for the control of new development of redevelopment and for conservation. It aims to:

i) Establish the framework and guiding principle for detailed planning on heritage;

ii) Ensure that development within the WHS are planned and constructed with the basic understanding of heritage significance and that level of change should respect its heritage significance;

iii) Enhance the townscape elements of the city in a manner that it celebrates and enrich the Outstanding Universal Values that make George Town as World Heritage Site.

1.3 Content of this Document

The document contains these following aspects:

i) Managing the Use of Land and Building;

ii) Protecting the Built Cultural Heritage;

iii) Protecting Vistas, Enclaves and Streetscape;

iv) Enhancing Public Realm;

v) Managing Circulation and Access;

vi) Improving Urban Infrastructure.
Managing growth and change in a World Heritage Site is challenging. It requires the understanding for the protection of the OUVs and the need to accommodate for new economic opportunities that emerge in today's cities but could potentially be a threat to the authenticity and integrity of the WHS.

Realising this, the management plan for WHS has proposed for the need to manage the use of land and building in the WHS. The intricacy of the multi-cultural historic urban landscape necessitates a control on the use of land and building that takes account of the sensitivity of change to cultural landscape of George Town WHS. Thus, control on use of land and building in the WHS requires a process that is unlike any other areas outside the WHS.

2.1 The Mapping of Living Cultural Heritage

Living heritage topography maps reveal the layering of urban structures and built environment as expressed in the historical and modern townscape. These maps display the dominant patterns, spatial distribution and range of human activity in relation to the built environment. These maps also facilitate a thorough understanding of the interconnectivity of activities with the built environment. Together they form a representation of the dynamics of the living cultural landscape of George Town WHS.

2.1.1 What are the maps for?

They serve as a critical tool in identifying the cultural significances and the manifestations of the OUVs of the site;

They facilitate the formulation of the land use control mechanism.

2.1.2 Living Heritage Topography Maps:

Four living heritage topography maps are provided on the following pages:

i) Socio-Cultural Topography (Figure 2.1)

ii) Socio-Economic Topography (Figure 2.2)

iii) Residential Topography (Figure 2.3)

iv) Restaurants and Food Stalls Topography (Figure 2.4)

2.2 Profile of Activities in the WHS

2.2.1 A Mixed-Use City

Figure 2.3 shows the distribution of the residential component of the WHS of George Town. The land use data on residential is categorised into full residences and mixed-use residences. As of current, there are two dominant residential neighbourhoods within the WHS; surrounding the enclave of Lebuh Acheh Mosque and beyond the Kuan Yin Temple. Generally, the rest of the WHS is of mixed-use character, containing a mix of residences and commercial (or often both).
The socio-cultural topography describes the distribution of a cultural enclave or area, which is defined by its related buildings, spaces and paths.

1) Civic Administrative Area
- Historic civic and administrative buildings and public and recreational open spaces

2) Historic Schools Cluster
- Historic school buildings, compounds and open sports and recreational spaces

3) Street of Harmony
- Cluster of Religious buildings, related trades and religious community

4) Little India
- Cluster of Indian cultural businesses, street stalls and resident Indian community

5) Cantonese Cultural Buildings Cluster
- Cluster of Clan Temples, Associations and Clan House Buildings

6) Five Major Hokkien Clan Houses
- A Clan House includes Temple, Compound and Related Buildings

7) Market Clusters
- Includes Core market building, street stalls and related shops

8) Clan Jetties Cluster
- Includes Jetty, temples, water village and resident community

9) Clan Jetties Cluster
- Includes Jetty, temples, water village and resident community

10) Trade Associations Distribution

Source: AJM, 2010
The socio-economic topography describes the distribution of a cultural enclave or area, which is defined by its related buildings, spaces and paths.

1) High End Hotel Cluster
   - 3-5 Star Hotels, Boutique Hotels

2) Budget Hotel Cluster
   - Budget Hotels

3) Fashion & Textile Cluster
   - Fashion clothing, textile and related activities

4) Financial Cluster
   - Legal and banking activities. Includes financial services, insurance, money changers and lenders, pawnshop and stock exchange

5) Import-Export, Transport & Storage Cluster
   - Freight forwarding cargo and logistics
   - Import/Export/distribution
   - Transport, trucking and removals
   - Food and beverage distribution, general storage

6) Waterfront Cluster
   - Jetties, ferry, port, godown and merchant houses

7) Gold and Gems Trade Cluster

8) Hardware Trade Cluster

9) Creative Industries
   - Media, marketing, graphic design services, printing and publications
   - Paper suppliers, sign board makers

Source: George Town Land Use and Population Survey, Geographia, 2010
100% residential properties
Mixed-use residences
100% commercial properties

Source: Land Use Survey, AJM, February 2010
Figure 2.4
Restaurants and Food Stalls Topography

Source: George Town Land Use and Population Survey, Geographia, 2010
There has been a reduction in the living population of the WHS in the decade. According to land use data, the residential component in 2010 makes up 13.94% of the land use or 21.07 hectare. This is a reduction of 4% from the year 2005, or 12.1% from the year 2000. It is therefore imperative to the conservation of the OUVs that residential activity is promoted.

2.2.1 Clustering of Economic Activities

Commercial use dominates the WHS. Patterns of activities emerge from the analysis of the land use, as illustrated in Figure 2.2.

A high concentration of clothing and textile related businesses are clustered around Lebuh Pasar and its perpendicular streets. This area is also known as Little India. Lebuh Cintra and Jalan Pintal Tali contains another cluster clothing and textile related business.

Finance related activities are concentrated along the Lebuh Pantai, Lebuh Bishop and Lebuh Gereja. Aside from financial related services, the cluster also include related activities such as money changers and brokers.

Hotels are generally located along Jalan Penang, Lebuh Chulia and Lorong Love. Boutique hotels are the fastest emerging activity in the WHS, and its growth may need to be contained within select zones as to not devalue the OUVs.

The WHS also contain a strong clustering of wholesale, storage and distribution activities. Traditionally these activities were conducted in the godowns between Pengkalan Weld and Lebuh Pantai. These have now gradually expanded inward towards the inner city.

Food and beverage related activities is a dominant activities in the WHS, as illustrated in Figure 2.4. Its locations are fairly dispersed. Figure 2.4 also shows the location of food stalls.

2.2.1 Clustering of Cultural Activities

The Socio-Cultural Topography (Figure 2.1) describes the various cultural enclaves and clusters that are distributed within the WHS.

The cultural clusters encompasses several neighbourhoods of distinctive character, largely falling within the Core Zone of the WHS. The Historic Civic-Administrative Area has important public buildings, cultural venues and recreational open space. The Historic Schools Cluster consists of educational buildings, mostly within large green spaces. Little India is a culturally vibrant area for ethnic retail and commerce, it has a significant degree of mixed use, due to the presence of migrant workers. The Street of Harmony along Jalan Masjid Kapitan Keling, which has various religious institutions lined up along an axis, is richly endowed with spiritual values and cultural diversity. Lebuh King likewise has many cultural associations. In the Mosque and Waqf Precinct, mosques are surrounded by trust properties occupied by communities of faith. The Five Big Clans Temple Complex similarly consists of clan temples surrounded by community housing and trust properties.
2.2 Controlling the Use of Land and Building

In managing the WHS and ensuring its sustainable development, it is necessary to protect its Outstanding Universal Values, namely:

OUV 1: Layered history, plural society and cultural-religious diversity, hereinafter simply referred to as ‘cultural diversity’

OUV 2: Living heritage, both tangible and intangible, hereinafter referred to as ‘living heritage’

OUV 3: Built townscape, especially townhouses and shophouses, hereinafter referred to as ‘built heritage’.

Cultural diversity (OUV 1) is itself an intangible heritage which is embodied and embedded in living heritage (OUV 2) and built heritage (OUV 3).

In so far as cultural diversity is reflected in built heritage, it has to be recovered and protected with the tools for protecting built heritage, as well as through action plans. The control of Land and Building use through zoning is an important tool to protect and enhance these OUVs, in particular OUV 1 and OUV 2.

2.2.1 Use of Category I Buildings and Sites

For Category I buildings and sites, the use should remain as originally intended. Any adaptation to the use must be of similar use or nature of activities and have minimal impact on the cultural significance of the place and requires the preparation of a Planning Permission. The submission shall include a Cultural Impact Assessment (CIA).

2.2.2 Single-Use Activity Zones

For these zones in the WHS, the described use must be retained:

i) Institution Zone
ii) Open Space/Green Zone
iii) Places of Worship

2.2.3 Mixed-Use Activity Zones

For the purpose of controlling the use of Land and Buildings, the WHS of George Town is segmented into 7 mixed-use Activity Zones:

i) Waterfront Zone
ii) Financial Zone
iii) Trade Zone
iv) Jetty Zone
v) Enterprise Zone
vi) Tourism and Leisure Zone
vii) Special Zone

With the exception of the Jetty Zone, the zones are generally mixed-use zones, meaning the use of land for either 100% Commercial, 100% Residential and Residential-with-Commercial are allowed. The Jetty Zone should retain its dominant residential component, with allowance for limited tourism related activities and sundry shops within the residential premises. Refer to Figure 2.5 for the Activity Zoning Diagram.

Any change of use shall require the application for Planning Permission.

2.2.3 Matrix of Non-permissible Activities in the WHS

Refer to Table 2.1 for a matrix describing the list of non-permissible activities within the WHS of George Town, and exceptions to the list in accordance with each Activity Zone.
The matrix describes a list of non-permissible activities within the WHS of George Town, with the exception of those checked under their respective Activity Zones. This table is to be read with the Activity Zoning Diagram (Figure 2.5).

<table>
<thead>
<tr>
<th>Non-permissible Activities in the WHS of George Town</th>
<th>Exceptions for:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Waterfront Zone</td>
</tr>
<tr>
<td>1. Motor Vehicle and Motor Vehicle Repairs</td>
<td></td>
</tr>
<tr>
<td>2. Swiftlet Houses</td>
<td></td>
</tr>
<tr>
<td>3. Foreign Food and Beverage Outlets</td>
<td></td>
</tr>
<tr>
<td>4. Bowling Alley, Karaoke, Arcade, Snooker Hall, Casino</td>
<td></td>
</tr>
<tr>
<td>5. Industry (except cottage industry)</td>
<td></td>
</tr>
<tr>
<td>6. Recycling (except existing)</td>
<td></td>
</tr>
<tr>
<td>7. Funeral Services (except existing)</td>
<td></td>
</tr>
<tr>
<td>8. Petrol Station (except existing)</td>
<td></td>
</tr>
<tr>
<td>9. Printing (except existing)</td>
<td></td>
</tr>
<tr>
<td>10. Department Store</td>
<td>●</td>
</tr>
<tr>
<td>11. Contemporary Mini-Mart/Convenience Store</td>
<td>●</td>
</tr>
<tr>
<td>12. Wholesale, Storage and Distribution</td>
<td>●</td>
</tr>
<tr>
<td>13. Bar/Night Club</td>
<td>●</td>
</tr>
<tr>
<td>14. Electronics and Computer</td>
<td>●</td>
</tr>
<tr>
<td>15. Internet Café</td>
<td>●</td>
</tr>
<tr>
<td>16. Transport, Import/Export and Logistics</td>
<td>●</td>
</tr>
<tr>
<td>17. Travel and Tourism Services</td>
<td>●</td>
</tr>
<tr>
<td>18. Financial Services</td>
<td>●</td>
</tr>
<tr>
<td>19. Real Estate and Property Services</td>
<td>●</td>
</tr>
<tr>
<td>20. Renovation Supplies and Hardware</td>
<td>●</td>
</tr>
<tr>
<td>21. Home-stay</td>
<td>●</td>
</tr>
<tr>
<td>22. Budget Hotel</td>
<td>●</td>
</tr>
<tr>
<td>23. 3-5 Star Hotel</td>
<td>●</td>
</tr>
<tr>
<td>24. Boutique Hotel</td>
<td>●</td>
</tr>
</tbody>
</table>
Enterprise Zone
The zone is a diverse retail zone. The land use should encourage a full range of retail activities and allow for supporting services.

Trade Zone
The zone is an existing trading and warehouse cluster. Trade-related activities should be contained within this zone but allow for land use changes.

Jetty Zone
The zone is an established residential cluster. The land use should remain as primarily residential and allow for tourism oriented activities.

Tourism and Leisure Zone
The zone is an inner city tourism cluster. The land use should be inclusive towards tourism related services and leisure for all types of visitors.

Waterfront Zone
The zone is a prime area for urban regeneration, with connections to the waterfront and the inner city. The land use should be geared towards high value development incorporating mixed-use development, high end hotels and leisure.

Financial Zone
The zone is an existing finance, legal and banking cluster for the larger city of George Town. The land use should retain this character and to encourage night and F&B activities.

Institution Zone
The zone includes civic buildings schools, police stations and fire stations.

Category I Buildings
The use should remain as intended, or of similar use or nature of activity.

Places of Worship

Special Zone
The zone contains the highest concentration of OUVs and Category I buildings within the WHS. The land use shall be subject to the following overlays:

- Residential Overlay
- Cultural Enclaves Overlay:
  - i) Masjid Kapitan Keling and Gold Bazaar
  - ii) Kuan Yin Enclave
  - iii) Little India
  - iv) Kongsi Enclave
  - v) Lebuh Acheh Mosque Enclave

Open Space/Green Zone

DEVELOPMENT GUIDE PLAN FOR GEORGE TOWN WHS
MANAGING THE USE OF LAND AND BUILDING
Figure 2.5

This Activity Zones Map is to be read together with the Matrix of Non-permissible Activities in the WHS (Figure 2.6)
2.3 Special Zone

This zone has the highest concentration of significant cultural sites and Category I buildings within the WHS. The area thus warrants the strictest form of land use control as it contains a complex layering of cultural, socioeconomic, religious and residential morphologies.

Special Zone is generally a mixed-use zone, meaning the use of land for either 100% Commercial, 100% Residential and Mixed-Commercial-and-Residential are permitted, subject to the requirements and prescriptions of the Overlays.

The Overlays attempt to reveal these cultural, socio-economic, religious and residential morphology within the planning of land use. The Overlays prescribe the encouraged activities for the respective areas within the Special Zone.

Figure 2.5 illustrates the methodology of the generation of the Overlays for the Special Zone.

2.3.1 Residential Overlay

The dominant activity in these areas is Residential, and thus shall remain so. Commercial activities within these neighbourhoods shall enhance the cultural significance and OUVs of the site.
2.3.2 **Cultural Enclave Overlays**

Five Cultural Enclave Overlays are identified. They are:

i) Masjid Kapitan Keling and Gold Bazaar
ii) Kuan Yin Enclave
iii) Little India
iv) Kongsi Enclave
v) Lebuh Acheh Mosque Enclave

The following pages outlines the prescribed or encouraged activities for each of these enclaves.

### i) Masjid Kapitan Keling and Gold Bazaar Enclave

Prescribed activities:

- Activities relating to gold and gem trade
- Indian Muslim restaurants
- Activities supporting the mosque and the Muslim community services

### ii) Kuan Yin Enclave

Prescribed activities:

- Retail of prayer paraphernalia, idols and charms
- Chinese vegetarian restaurants
- Activities supporting the temple and its users

### iii) Little India

Prescribed activities:

- South and Northern Indian restaurants
- Textiles and related trade
- Worker’s accommodation
- Cultural products and services

### iv) Kongsi Enclave

Prescribed activities:

- Activities supporting the temple and its users
- Residential or Commercial-with-Residential
- Compatible arts and culture related activities

### v) Lebuh Acheh Mosque Enclave

Prescribed activities:

- Activities supporting the mosque and the Muslim community, preferably Haj related
FIGURE 2.6 Special Zone

Residential Overlay

Cultural Enclave Overlays:
- Masjid Kapitan Keling and Gold Bazaar
- Kuan Yin Enclave
- Little India
- Kongsi Enclave
- Lebuh Acheh Mosque Enclave

Melaka and George Town: Historic Cities of the Straits of Malacca.
2.4 Water Body

Any form of land reclamation on the water body area designated by the Core and Buffer Zones of the WHS is not permitted.

The construction of floating structures may be permitted, subject to a hydraulic study and Planning Permission, which includes a Heritage Impact Assessment.
3 Protecting the Built Cultural Heritage

3.1 Identification and Listing of Heritage Buildings

3.1.1 Categorisation of Built Cultural Heritage

The buildings and sites within the WHS are identified into four categories encompassing both conservation and compatible development.

Figure 3.1 and 3.2 describes the categorisation of buildings for the Historic Cities of the Straits of Malacca, along with the samples of each category in the WHS of George Town

Protection, conservation & adaptation:

- **Category I:**
  
  (a) Monuments of exceptional interest.
  
  (b) Buildings and monuments declared as ancient and gazetted formerly under the Antiquities Act 1976 now under the National Heritage Act (2005)
  
  (c) Buildings Registered as National Heritage under the National Heritage Act (2005)

- **Category II:**

  (a) Buildings of special interest that warrant every effort being made to preserve them.

---

**Example of Category I**: City Hall, Esplanade

**Example of Category II**: ensemble of shophouses, Light Street

Figure 3.1: Categories of Built Cultural Heritage: Protection, Conservation and Adaptation
Analysis on Categorisation of the WHS:

In the WHS of George Town, there are 93 buildings, gateways, cemetery and sites categorised as Category I. This amounts to 1.71% of the total number of identified buildings and sites. The majority of Category I buildings and sites are located in the core zone (69 out of 93).

Category II consists of 74.43% of the total number of buildings and sites, at 4048. It is the most prominent category as it makes up the majority of buildings on the WHS. The distribution of Category II buildings and sites are approximately equal in both the Core and Buffer Zones.

Meanwhile, there are 585 infill sites identified, which consists existing empty land or temporary structures. This corresponds to a land area of 14.49 hectare, or 12.35% of the total WHS area. They are mainly located along the waterfront between Beach Street and Weld Quay.

Replacement buildings, on the other hand, make up 713 of the total, or 13.10%.

Table 3.1 below describes the number of identified buildings and sites in the WHS of George Town. Refer to Figure 3.3 for the map of categorisation.

<table>
<thead>
<tr>
<th>Category</th>
<th>Number of buildings and sites</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category I</td>
<td>93</td>
<td>1.71</td>
</tr>
<tr>
<td>Category II</td>
<td>4048</td>
<td>74.43</td>
</tr>
<tr>
<td>Infill Development</td>
<td>585</td>
<td>10.76</td>
</tr>
<tr>
<td>Replacement</td>
<td>713</td>
<td>13.10</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>5439</strong></td>
<td><strong>100.00</strong></td>
</tr>
</tbody>
</table>

Table 3.1: Identified Buildings and Sites in George Town WHS

Compatible development:

- **Infill:**
  
  (a) Existing empty land or temporary structure where compatible re-development is permitted.

- **Replacement:**
  
  (a) Existing building without any significant value where sensitive re-development is permitted.

Figure 3.2: Categories of Built Cultural Heritage: Compatible Development
Figure 3.3

Building Categories

Source: "Inventory of buildings in the Heritage zone of George Town"; 2000, Extract Data from "Kelly map", 1970's Survey map; Photographic Evidence (1980s - 2010); 0.5m resolution GEODER & Image (2010); Ortho image mapping & Building Heights Extraction.
3.1.2 Types of Buildings

A list of architecture types available in George Town is outlined below:

1. Shophouses
2. Bungalows
3. Mosques
4. Churches
5. Chinese temples
6. Hindu temples
7. Buildings of administration
8. Buildings of commerce and trade
9. Godowns and offices
10. Water villages (clan jetty)
11. Residential Blocks

Figure 3.5 on the facing page describes the form of buildings available in the WHS of George Town. Refer to Appendix C: Heritage Buildings in George Town for a description on the form and styles of buildings.

The shophouse constitute the majority of building form within the WHS.

3.1.3 Styles of Buildings

The early architecture is an amalgamation of cross cultural values, ideas, traditions of immigrants and indigenous builders, and the adaptation to the availability of building materials, skills, transportation, as well as the appropriateness to the tropical climate. By the 1900s the European architectural and engineering professionals came to Penang and brought with them new technologies and building forms influenced from the western architecture movement.

The basic shophouse styles are defined as:

1. Early Penang Style
2. Southern Chinese Eclectic Style
3. Early Straits Eclectic Style
4. Late Straits Eclectic Style
5. Art Deco Style
6. Early Modern Style

Figure 3.4 below illustrates the six main shophouse styles in Penang. For a description and explanation of each of these styles, please refer to Appendix C: Heritage Buildings in George Town.

Figure 3.4: Six main shophouse styles in Penang
FIGURE 3.5 *Types of Buildings, George Town*
Analysis on Styles of Buildings of the WHS:

Besides the six main shophouse styles, there are other architectural styles of buildings within the WHS of George Town.

These include the architecture of Post Modernism and contemporary buildings since the 1980’s; as well as the architectural styles of the places of worships such as the Chinese Temple Style and the Southern Indian Style temples; utilitarian architecture such as godowns and garages; and wooden structures or sheds, among others.

There are also non-architectural building undefinable within any prescribed styles and therefore described as "other (non-architectural)". This includes schools, tombs, cemeteries, petrol stations, gates, entrances and monuments. Table 3.2 describes the number of buildings in the WHS according to architectural styles.

Within the WHS, the Early Penang styles of buildings are endangered, at only 124 buildings. There is a high distribution of Southern Chinese Eclectic styles in the core zone. This is especially true within the historic commercial centre, which is the oldest shophouse area in the WHS. In contrast, the buffer zones contains a high number of Straits Eclectic styles and Art Deco styles, which are later architectural styles corresponding to these areas that were developed much later. Godown styles are mostly concentrated around the waterfront zone.

Refer to Figure 3.6 for the map of showing the styles of buildings.

<table>
<thead>
<tr>
<th>Styles:</th>
<th>Number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Early Penang</td>
<td>124</td>
<td>2.28</td>
</tr>
<tr>
<td>Southern Chinese Eclectic</td>
<td>1746</td>
<td>32.10</td>
</tr>
<tr>
<td>Straits Eclectic</td>
<td>1044</td>
<td>19.19</td>
</tr>
<tr>
<td>Art Deco</td>
<td>587</td>
<td>10.79</td>
</tr>
<tr>
<td>Modernism</td>
<td>407</td>
<td>7.48</td>
</tr>
<tr>
<td>Post Modernism</td>
<td>81</td>
<td>1.49</td>
</tr>
<tr>
<td>Chinese Temple</td>
<td>34</td>
<td>0.63</td>
</tr>
<tr>
<td>Mosque</td>
<td>9</td>
<td>0.17</td>
</tr>
<tr>
<td>Godown/Utilitarian</td>
<td>112</td>
<td>2.06</td>
</tr>
<tr>
<td>Wooden structures</td>
<td>602</td>
<td>11.07</td>
</tr>
<tr>
<td>Other architectural styles</td>
<td>96</td>
<td>1.76</td>
</tr>
<tr>
<td>Empty land</td>
<td>138</td>
<td>2.54</td>
</tr>
<tr>
<td>Others (non-architectural)</td>
<td>459</td>
<td>8.44</td>
</tr>
</tbody>
</table>

Table 3.2: Styles of buildings in George Town WHS
3.2 Guidelines for the Conservation Area and Heritage Buildings

All the buildings and sites within WHS are subject to the Guidelines for the Conservation Areas and Heritage Buildings, covering all aspects of conservation works as well as all compatible developments within the World Heritage Site.

Refer to the Appendix A : Guidelines for the Conservation Areas and Heritage Buildings for more detail on the conservation principles, procedures for repair/building/planning permissions and the guidelines on the allowable works on all heritage buildings, and controls on signage and advertisement within the WHS.
Early Penang
Southern Chinese Eclectic
Straits Eclectic
Art Deco
Modernism
Postmodernism
Chinese Temple
Mosque
Godown/Utilitarian
Other Architectural Styles
Undefined Architectural Styles
Wooden Houses/structure
Others (Non-architectural)
Empty


DEVELOPMENT GUIDE PLAN FOR GEORGE TOWN WHS
PROTECTING THE BUILT CULTURAL HERITAGE

Figure 3.6
Building Style
4 Protecting Vistas, Enclaves and Streetscape

The built heritage of George Town does not simply consist of individual buildings, it include the ensemble of buildings and streetscape elements, and the way they are clustered and oriented to form the historic urban fabric of the city. The protection of vistas, enclaves and streetscapes are therefore essential towards the preservation of this fabric.

4.1 Protecting Panorama and Waterfront Vistas

The hills and the Straits remain strong topographical features that frames and identifies George Town’s sense of place. The roofscape and skyline, and the prominence of certain landmarks are significant in the way the historic city is perceived and read.

It is imperative that this waterfront vista remains uninterrupted from any development projects within the WHS.

Figure 4.1 and 4.2 shows the panorama of George Town from the Straits of Malacca, then and now.

Figure 4.1: Panorama of George Town in the early 20th Century

Figure 4.2: Panorama of George Town today
4.2 Protecting Landmarks and Vistas

Street level views also frame important vistas and focal points. For example, the minarets of Acheen Street and Kapitan Keling Mosques, the church towers of St. George’s and the Assumption’s, as well as the clock towers of the FMS Railway building (Figure 4.3), all define important landmarks and wayfinding elements for their corresponding streets.

Figure 4.3: Streetscape of Lebuh China, George Town showing the FMS Railway Clock Tower as landmark.
Tables 4.1 to 4.3 describe the landmarks that require view protection, and correspondingly their related street level vistas, sea view vistas and waterfront views. Figure 4.4 identifies these in map format.

### Table 4.1: List of Landmarks

<table>
<thead>
<tr>
<th>Landmarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>L1</strong> Clock Tower, King Edward’s Place</td>
</tr>
<tr>
<td><strong>L2</strong> Fort Cornwallis, Esplanade</td>
</tr>
<tr>
<td><strong>L3</strong> Town Hall, Esplanade</td>
</tr>
<tr>
<td><strong>L4</strong> City Hall, Esplanade</td>
</tr>
<tr>
<td><strong>L5</strong> Supreme Court, Lebuh Light</td>
</tr>
<tr>
<td><strong>L6</strong> St. George’s Church (Church and Rotunda), Lebuh Farquhar</td>
</tr>
<tr>
<td><strong>L7</strong> Church of the Assumption, Lebuh Farquhar</td>
</tr>
<tr>
<td><strong>L8</strong> Cheong Fatt Tze Mansion, Lebuh Leith</td>
</tr>
<tr>
<td><strong>L9</strong> St Francis Xavier Church, Jalan Penang</td>
</tr>
<tr>
<td><strong>L10</strong> Church Street Pier, Pengkalan Weld</td>
</tr>
<tr>
<td><strong>L11</strong> FMS Railway Clock Tower, Gat Lebuh China</td>
</tr>
<tr>
<td><strong>L12</strong> Kuan Yin Temple, Jalan Masjid Kapitan Keling</td>
</tr>
<tr>
<td><strong>L13</strong> Sri Mahamariamman Temple, Jalan Masjid Kapitan Keling</td>
</tr>
<tr>
<td><strong>L14</strong> Nagore Shrine, Lebuh Chulia</td>
</tr>
<tr>
<td><strong>L15</strong> Kapitan Keling Mosque, Jalan Masjid Kapitan Keling</td>
</tr>
<tr>
<td><strong>L16</strong> Acheen Street Mosque, Lebuh Acheh</td>
</tr>
<tr>
<td><strong>L17</strong> Boon San Tong Khoo Kongsi</td>
</tr>
<tr>
<td><strong>L18</strong> Benggali Mosque</td>
</tr>
</tbody>
</table>

### Table 4.2: List of Street Level Vistas

<table>
<thead>
<tr>
<th>Street Level Vistas</th>
<th>Reference to landmark #</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>V1</strong> Lebuh Light</td>
<td>(L1), (L2), (L3), (L5)</td>
</tr>
<tr>
<td><strong>V2</strong> Lebuh Gereja</td>
<td>(L6)</td>
</tr>
<tr>
<td><strong>V3</strong> Gat Lebuh Bishop</td>
<td>(L10)</td>
</tr>
<tr>
<td><strong>V4</strong> Lebuh China</td>
<td>(L12)</td>
</tr>
<tr>
<td><strong>V5</strong> Jalan Masjid Kapitan Keling</td>
<td>(L12), (L13), (L15), (L16)</td>
</tr>
<tr>
<td><strong>V6</strong> Lebuh Leith</td>
<td>(L8), (L18)</td>
</tr>
<tr>
<td><strong>V7</strong> Inner road towards the Catholic Church</td>
<td>(L9)</td>
</tr>
</tbody>
</table>

### Table 4.3 List of Sea View Vistas

<table>
<thead>
<tr>
<th>Sea View Vistas</th>
<th>Reference to landmark #</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>S1</strong> Gat Lebuh China</td>
<td>(L11)</td>
</tr>
<tr>
<td><strong>S2</strong> Lim Jetty</td>
<td>-</td>
</tr>
<tr>
<td><strong>S3</strong> Chew Jetty</td>
<td>-</td>
</tr>
<tr>
<td><strong>S4</strong> Tan Jetty</td>
<td>-</td>
</tr>
<tr>
<td><strong>S5</strong> Lee Jetty</td>
<td>-</td>
</tr>
<tr>
<td><strong>S6</strong> New Jetty</td>
<td>-</td>
</tr>
<tr>
<td><strong>S7</strong> Yeoh Jetty</td>
<td>-</td>
</tr>
<tr>
<td><strong>S8</strong> Sea view of Boon San Tong Khoo Kongsi</td>
<td>(L17)</td>
</tr>
<tr>
<td><strong>S9</strong> Ferry view</td>
<td>(L10), (L11), (L17), waterfront views</td>
</tr>
</tbody>
</table>
FIGURE 4.4 Landmarks, Vistas and Focal Points, George Town

Landmarks:

1. Clock Tower
2. Fort Cornwallis
3. Town Hall
4. City Hall
5. Supreme Court
6. St George’s Church
7. Church of the Assumption
8. Cheong Fatt Tze Mansion
9. St Francis Xavier Church
10. Church St Pier
11. FMS Railway Clock Tower
12. Kuan Yin Temple
13. Sri Mahamariamman Temple
14. Nagore Shrine
15. Kapitan Keling Mosque
16. Acheen Street Mosque
17. Boon San Tong Khoo Kongsi
18. Benggali Mosque

Street Level Vista

Sea View Vista

Waterfront Views

Protection of sea views along the waterfront

Protection of view from ferry
4.3 Protecting the Terracotta Roofscape

The pitched-roof terracotta roofscape is an essential component of the historic urban fabric of the WHS of George Town and its Outstanding Universal Values. It is essential towards the conservation of this area that the preservation of this pitched-roof terracotta roofscape is supported. Any development in the WHS must be roofed in terracotta tiles, and maintain the pitched roof character. Existing flat roofs, should they not be replaced, is recommended to be converted to green roofs.

Figure 4.5 shows an aerial vista of the terracotta roofscape.
4.4 Heights

The townscape of the WHS as a manifestation of the OUVs is closely linked to the visual legibility the important landmarks and the continuity of its rooftopscape. The control of height is a necessary measure to ensure that importance of these elements are in no way compromised.

Increase in height of all heritage buildings in the WHS (Category II) and the allowed height for Infill and Replacement sites may be built to a maximum of 18 metres from ground level to the roof eave;

Such increase in height; shall be considered at the merit of each application where the extension of height reflects the authenticity of the OUVs of the WHS;

The height of Category I buildings must be maintained.

4.5 Street Elevations

The dominant building type in the WHS, the shophouse were designed to form a row of shophouses. The facade composition of compatible Infill and Replacement developments must respect the scale and rhythm of their surrounding buildings, as well as ensure the continuity of the street elevation.

4.6 Corner Sites

For a shophouse on a corner site, both the front and the side are considered the street façade and should maintain the continuity of both street elevations.

Figure 4.7: A corner building

Figure 4.6: Street Elevation
4.7 Protecting Historic Compounds, Boundary Walls, Gateways, Pathways and Street Furniture

Compounds, enclaves, boundary walls, gateways, pathways and street furniture constitute this historic urban structure.

The existence of these elements should be researched and warrant every effort to be protected and conserved.

As the town grew more intensively, rows of shophouses were built on the available land fronting the street edge, eventually concealing the earlier buildings and their compounds. The Chinese Kongsis illustrate this morphology (Figure 4.9), where the temples were set within an open space and surrounded by shophouses.

Among the buildings constructed on a compound layout are the St. George Church, the Supreme Court, the Kuan Yin Temple, Kapitan Keling Mosque, and the mansions on Light Street and between the Convent and the Esplanade.

Any extensions to a heritage building on a compound must retain the spatial character of the compound.

Figure 4.8: Traditional cobbled pathways from Pengkalan Weld to Lebuh Pantai, once pounded by the feet of coolies and labourers - for the loading and unloading of cargo of the vibrant trans shipment port. These pathways support the local OUV of the site.

Figure 4.9: The Khoo Kongsi enclave, showing the temple, stage, related buildings and compound
4.8 Protecting Historic Street Edge & Drains

In the older parts on George Town, the drain edge is of clay brick. But in the extensive engineering works of the 1890s in George Town, the drain edge used engineering brick, usually made in the potteries next to coalmines.

4.8.1 Historic Drains is an Example of Sustainable Urban Design

The built landscape was designed to use the climatic conditions, with materials to hand. Terracotta tiled roofs, cooled the upper rooms and channelled rainwater to the open drain below, creating a cooling curtain of water. Internally rain flowing from the roofs sloping into the air-well was collected in the granite reservoir, and would drain through the property and into the open drain in the street. The open drains allowed for evaporation and cleared quickly, any blockage easily seen. This is a typical streetscape designed to suit tropical climates.

Figure 4.12: Gutterless traditional tiled roof channels water into the historic street drains

To avoid flooding, the buildings were raised up by a step or two. This also meant that the internal outlet was higher and this avoided back up from the drain during heavy rains. The drain was crossed by a ‘bridge’ of granite slabs opposite the central door of the buildings. On top of the slabs, or sometimes forming the bridge, were granite steps.

The open street drains should be maintained as much as possible, and the practice of new developments incorporating open drains should be encouraged when possible.

Figure 4.13: View of Lorong Stewart shows the clean open drain today, with the gutterless V-shaped terracotta roof
4.9 Back Lanes

4.9.1 Back Lane Waiver

Within the WHS it is possible to apply for a waiver against this requirement during the application process for planning permission or building submission.

4.9.2 Previously Surrendered Land

In the case of land surrendered to the state authority before WHS listing and is now identified as of heritage value, it is advisable for the landowner make application to the state authority to buy-back the land in order to protect the heritage building.

When the project is part of the World Heritage Site, the back lane position should be reconsidered by the state.
5 Enhancing Public Realm

5.1 Open Space and Landscape Design

5.1.1 Objective

It is an objective of this document to make the streets of George Town pedestrian priority, and to provide adequate public open spaces and connectivity for the comfort of all non-private-vehicle user. This relates closely to the management of access and circulation, which is addressed in Chapter 6 of this document.

This chapter proposes the series of urban design programs and guidelines towards the enhancement of the public realm.

5.1.2 Shared Streets

The streets of George Town are traditionally shared spaces, with changing patterns of activities (Figure 5.1). These practices, performances and rituals create the richness of the culturally eclectic landscape of the historic settlements. Refer to Figure 5.21 at the end of this chapter for a map of Festival Routes and Performance Space Topography.

The temporary public use of the street should be maintained and encouraged.

The use of five footways and street space for outdoor seating and merchandise displays while maintaining adequate pedestrian access is allowed.

Figure 5.1: The street of George Town as a multi-use, cultural space. Illustration by Tan Yeow Wooi
5.1.2 Strategy for Public Open Space and Pedestrian Connection

i) Public Space Connectivity

In the effort to green the city and towards reducing carbon emission, a series of parks and public open spaces are proposed in addition to existing public open spaces. These proposed network of public open spaces are interconnected via a landscaped pedestrian network.

ii) Nodes Connectivity

Three main nodes that bring in the highest number of pedestrians into the WHS are KOMTAR, the ferry/bus/taxi terminals on Weld Quay and Swettenham Pier bringing a high volume of tourists from the cruise ships. All these nodes are proposed to be connected to the pedestrian network.

iii) Waterfront Connectivity

The strategy of public connectivity also includes the linkage from the waterfront (Weld Quay especially) into the inner city, in the aim to facilitate pedestrian movement within these two areas. A water taxi route is also proposed to connect key areas along the waterfront. Please refer to Chapter 6 on Managing Access and Circulation for more details.

Figure 5.3 describes the connectivity between the open spaces and pedestrian network. A series of landscape programs and streetscape upgrades are proposed in the aim towards improving connectivity of movement to, from, and within the WHS of George Town.

Figure 5.2: Example of a streetscape that is pedestrian priority and incorporating a public arts program. This is potentially applicable for Leith Street and Farquhar Street Upgrade (program B3, refer to 5.2.2)
FIGURE 5.3 *Open Space and Pedestrian Network, George Town*

- **Existing Green / Public Open Space**
- **Proposed New Green / Public Open Space**
- **Pedestrian Priority Streets**
- **Tree Lined Pedestrian Priority Streets**
- **Waterfront Promenade**
- **Water Taxi Route**

To create pedestrianised link along China Street to connect the waterfront to the inner city.

Water taxi connecting the clan jetties to Church St Pier and Green Hall, with linkages to the waterfront promenade.
5.2 Proposed Landscape Network

The proposed landscape network is divided into five types of programs:

A) Parks
B) Pedestrian Priority Streets
C) Waterfront Promenade
D) Back Lanes
E) Landscaped Car Parks

The list of programs are described in Table 5.1 to 5.5, and illustrated in Figure 5.4.

It is possible for the programs to be consolidated into packages corresponding to areas, or be a part of a redevelopment project.

It is essential that upon the detail design and documentation of any landscape programs that a Heritage (and Cultural) Impact Assessment (HIA) is conducted to assess the impact of new intervention or development on the existing historic urban cultural landscape.

The objectives of these landscape programs are:

i) To increase green public open space in the city

ii) To have streets that promote a safe, comfortable, convenient and barrier free connectivity for all road users with primary consideration for pedestrian

iii) To reinstate the vibrancy of the waterfront, and to reconnect it with the inner city

iv) To revitalize back lanes as important and safe pedestrian access-way
### Table 5.1: List of Park programs

<table>
<thead>
<tr>
<th>Code</th>
<th>Name of Program</th>
<th>Acreage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1</td>
<td>Prangin Canal Park (New)</td>
<td>3.2</td>
</tr>
<tr>
<td>A2</td>
<td>Esplanade Field (Upgrade)</td>
<td>13.37</td>
</tr>
<tr>
<td>A3</td>
<td>Lebuh Union Police Quarter’s Park (New)</td>
<td>0.84</td>
</tr>
<tr>
<td>A4</td>
<td>Lebuh Bishop Park (New)</td>
<td>0.15</td>
</tr>
<tr>
<td>A5</td>
<td>Lorong Pasar Park (New)</td>
<td>0.47</td>
</tr>
<tr>
<td>A6</td>
<td>Kampung Kolam Park (New)</td>
<td>0.25</td>
</tr>
<tr>
<td>A7</td>
<td>Lebuh Armenian Park (Upgrade)</td>
<td>0.44</td>
</tr>
<tr>
<td>A8</td>
<td>Lebuh Camarvon Police Quarters Park (New)</td>
<td>2.27</td>
</tr>
<tr>
<td>A9</td>
<td>People’s Park (New)</td>
<td>0.78</td>
</tr>
<tr>
<td>A10</td>
<td>“Rock World” Park (New)</td>
<td>0.64</td>
</tr>
<tr>
<td>A11</td>
<td>Prangin Park (New)</td>
<td>0.31</td>
</tr>
<tr>
<td>A12</td>
<td>Lebuh Camarvon Park (New)</td>
<td>0.13</td>
</tr>
<tr>
<td>A13</td>
<td>Boon San Tong Khoo Kongsiti Public Plaza (New)</td>
<td>0.52</td>
</tr>
<tr>
<td>A14</td>
<td>Clan Jetty Parks (New)</td>
<td>8.32</td>
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<tr>
<td>A15</td>
<td>Gat Lebuh Pasar Park (New)</td>
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<tr>
<td>A16</td>
<td>Jalan Masjid Park (New)</td>
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</tr>
<tr>
<td>A17</td>
<td>St. Francis’s Xavier Park (New)</td>
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<tr>
<td>A18</td>
<td>Merdeka Park (New)</td>
<td>0.32</td>
</tr>
<tr>
<td>A19</td>
<td>St. George’s Park (Upgrade)</td>
<td>2.36</td>
</tr>
</tbody>
</table>

### Table 5.2: List of Pedestrian Priority Street programs

<table>
<thead>
<tr>
<th>Code</th>
<th>Name of Program</th>
<th>Length (m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>B1</td>
<td>Lebuh China Limited Access</td>
<td>590</td>
</tr>
<tr>
<td>B2</td>
<td>Lebuh Camarvo, Jalan Masjid Kapitan Keling Upgrade</td>
<td>1010</td>
</tr>
<tr>
<td>B3</td>
<td>Lebuh Leith, Lebuh Farquhar Upgrade</td>
<td>750</td>
</tr>
<tr>
<td>B4</td>
<td>Gat Lebuh Acheh Upgrade</td>
<td>480</td>
</tr>
</tbody>
</table>

### Table 5.3: List of Waterfront Promenade programs

<table>
<thead>
<tr>
<th>Code</th>
<th>Name of Program</th>
<th>Length (m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>C1</td>
<td>Green Hall-Esplanade Waterfront Promenade</td>
<td>570</td>
</tr>
<tr>
<td>C2</td>
<td>Upper Weld Quay Waterfront Promenade</td>
<td>860</td>
</tr>
<tr>
<td>C3</td>
<td>Clan Jetties Waterfront Promenade</td>
<td>610</td>
</tr>
</tbody>
</table>

### Table 5.4: List of Back Lane programs

<table>
<thead>
<tr>
<th>Code</th>
<th>Name of Program</th>
<th>Length (m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>D1</td>
<td>Line Clear Back Lane Project (Upgrade)</td>
<td>100</td>
</tr>
<tr>
<td>D2</td>
<td>Lebuh Union - Lebuh Bishop (Upgrade)</td>
<td>135</td>
</tr>
<tr>
<td>D3</td>
<td>Lebuh PASAR - Lorong Chulia (Upgrade)</td>
<td>130</td>
</tr>
<tr>
<td>D4</td>
<td>Lebuh Camarvon- Jalan Pintal Tali (Upgrade)</td>
<td>170</td>
</tr>
<tr>
<td>D5</td>
<td>Lebuh Chulia - Lebuh Muntri (New)</td>
<td>425</td>
</tr>
</tbody>
</table>

### Table 5.5: List of Landscape Car Park programs

<table>
<thead>
<tr>
<th>Code</th>
<th>Name of Program</th>
<th>Acreage</th>
</tr>
</thead>
<tbody>
<tr>
<td>E1</td>
<td>Fort Cornwallis car park</td>
<td>1.28</td>
</tr>
<tr>
<td>E2</td>
<td>Lebuh Downing car park</td>
<td>2.46</td>
</tr>
<tr>
<td>E3</td>
<td>Lorong Love car park</td>
<td>0.37</td>
</tr>
<tr>
<td>E4</td>
<td>Jalan Argyll car park</td>
<td>0.54</td>
</tr>
<tr>
<td>E5</td>
<td>Police HQ car park</td>
<td>3.68</td>
</tr>
</tbody>
</table>

*Melaka and George Town: Historic Cities of The Straits of Malacca.*
FIGURE 5.4 Proposed Landscape Network, George Town
5.2.1 Program (A) : Parks

In the effort to green the city and towards reducing carbon emission, a series of parks are proposed. The proposed parks are interconnected via a landscaped pedestrian network. It is also proposed that some open land be upgraded into parks and be made public accessible.

Well maintained parks and landscaped elements are essential for the livelihood and livability of George Town. The parks offer the residences a place of recreation and leisure, as well as helping to maintain ecological balance and reduce pollution.

Public-Private-People Partnerships (PPP)

The success of the green masterplan is highly dependant on collaborations between the Local Authority and the private owners, as possibility of the acquisition of empty land for park space is limited. It is advised that public-private-people partnerships are pursued in the upgrading of certain privately owned public spaces and parks (such as St. George’s Church Park). This partnership includes collaborating with stakeholders.

Figure 5.5: Park to consist of turf and large tree canopies
The proposed park programs are as follows:

A1. Prangin Canal Park (New)
A2. Esplanade Field (Upgrade)
A3. Lebuh Union Park (New)
A4. Lebuh Bishop Park (New)
A5. Lorong Pasar Park (New)
A6. Kampung Kolam Park (New)
A7. Lebuh Armenian Park (Upgrade)
A8. Police Quarters Park (New)
A9. People’s Park (New)
A10. “Rock World” Park (New)
A11. Prangin Park (New)
A12. Carnarvon Street Park (New)
A13. Boon San Tong Khoo Kongsi Public Plaza (New)
A14. Clan Jetty Parks (New)
A15. Gat Lebuh Pasar Park (New)
A16. Jalan Masjid Park (New)
A17. St Francis’s Xavier Park (New)
A18. Merdeka Park (New)
A19. St. George’s Park (Upgrade)

* Execution of programs subject to the availability of funds

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**Performance Criteria for Parks**

- Parks to simply consist of turf and large tree canopy coverage;
- Trees preferable to shrubs;
- Incorporation of underground water retention where possible;
- Minimally designed new street furniture and lighting;
- Promotes universal access principles;
- Promotes efficient water use;
- Recovers, re-uses and generally minimises the amount of natural resources used;
- Possible incorporation historic street furniture, either restored or authentically reconstructed;
- Possible incorporation of “urban farming” and biodiversity, such as a paddy field for educational purposes.
5.2.2 Program (B) : Pedestrian Priority Streets

Shared streets is an important characteristic of the city of George Town. Thus, it should be the aim in any design of the streetscape that pedestrian use is prioritised.

Some of the main vehicular-use streets may benefit from the addition of sidewalks and the incorporation trees along the streets. Figure 5.3: Open Space and Pedestrian Network illustrates the proposed pedestrian networking on these main streets.

The proposed street programs are as follows*:

B1. Lebuh China Limited Access

Lebuh China is proposed as a limited access street that limits private vehicles from entering. The purpose of this limited access street is to recreate the public interface on the street, uninterfered by private vehicles. Minimal changes to the street structure is proposed (i.e. reversibility), hence the retaining of the asphalt ground material and bollards that are removable for festival processions. The street is to be tree lined, however the choice of plants should not compromise the vista towards Kuan Yin Temple and the FMS Railway Clock Tower. Street furniture to facilitate urban encounters should be sensitively placed. Loading and unloading are allowed only at specific times. Lebuh China thus becomes a case study for pedestrianised streets for George Town and to test the public acceptance for them.

Figure 5.6: Artist impression of Lebuh China Limited Access
B2. **Lebuh Carnarvon, Jalan Masjid Kapitan Keling Upgrade**

Lebuh Carnarvon and Jalan Masjid Kapitan Keling, with high volume of vehicles, are proposed as tree lined streets with sidewalks for pedestrian. As of the printing of this document, the planting of trees on the median of Lebuh Carnarvon has been completed.

B3. **Lebuh Leith, Lebuh Farquhar Upgrade**

Lebuh Leith is proposed to incorporate wide tree lined pedestrian sidewalks, as it is very wide and lack five footways. The street should also showcase public art. The provision for public art and sculptures has benefits in fostering a civic experience and connection to a place.

The sidewalk is proposed to continue into Lebuh Farquhar toward’s St George’s Church.

B4. **Gat Lebuh Acheh Upgrade**

Gat Lebuh Acheh currently benefits from a tree lined sidewalk that is actively used by the community. It is proposed that this sidewalk is continued along Gat Lebuh Acheh to connect to the waterfront and Weld Quay.

* Execution of programs subject to the availability of funds

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**Performance Criteria for Parks**

- A cautious approach in the design of streetscapes, of changing as much as necessary but as little as possible;
- Design of streetscape to take into consideration the community use of the street, including festival use (Refer Figure 9.21 for routes of festivals);
- Ground material to ideally remain as asphalt, or a porous material that is easily maintained;
- The provision of sidewalks only when necessary;
- Use permeable, breathable sidewalk material;
- Consistent colour palette for the entire WHS;
- Street trees preferable to shrubs;
- All new streetscape programs to adhere to universal access principles;
- Possible integration of street design with landscape and storm water management system;
- Recovers, re-uses and generally minimises the amount of natural resources used;
- Minimally designed new street furniture and lighting;
- Possible incorporation of street markers along heritage trails to increase legibility and wayfinding;
- Possible incorporation historic street furniture, either restored or authentically reconstructed.

*Figure 5.7: Possible intergration of swales and on street car park with sidewalk program*
5.2.3 Program (C) : Waterfront Promenade

There is high potential in reinvigorating George Town’s waterfront that reflects the continued evolution of the city from its status as a port town to a world class waterfront development.

The waterfront demands a coherent framework that links together the conservation of the physical and cultural fabric, connectivity to the inner city and revitalisation in the form of new activities that adapt to the historic built environment. The promenade provides the structure that integrates all these elements together, and a pedestrianised linkage connecting them.

Public-Private-People Partnerships (PPP)

Public-Private Partnerships between the Local Authority and investors are an essential component to ensure the integration of the waterfront development with the public realm. This partnership includes collaborating with stakeholders.

Three waterfront promenade programs are proposed. They are however interconnected to one another. The programs are defined as follows (subject to funding):

C1. Green Hall-Esplanade Waterfront Promenade

To construct a waterfront promenade connecting Green Hall along the Esplanade and Fort Cornwallis (Jalan Tun Syed Sheh Barakbah) towards the godowns near Swettenham Pier. A water taxi stop is proposed on Green Hall. The program should be integrated with any proposals for the Esplanade and Fort Cornwallis as a PPP Partnership.

Figure 5.8: A waterfront development that integrates new functions and the historic built form

Figure 5.9: Waterfront promenade programs

Figure 5.10: Green Hall-Esplanade Waterfront Promenade
Performance Criteria for Waterfront Promenades

- Integration with the inner city and all redevelopment programs;
- Public accessible;
- To adhere to universal access principles;
- Possible integration with landscape and storm water management system;
- Recovers, re-uses and generally minimises the amount of natural resources used;
- Possible incorporation of street markers along heritage trails to increase legibility and way-finding;
- Minimally designed new street furniture and lighting;
- Possible incorporation historic street furniture, either restored or authentically reconstructed.

C2. Upper Weld Quay Waterfront Promenade

To construct a waterfront promenade connecting the godowns of Swettenham Pier, along upper Weld Quay towards the marina and bus/ferry/taxi station. It is imperative that the promenade is integrated with any development along the waterfront and is made public accessible.

Figure 5.11: Upper Weld Quay Waterfront Promenade

C3. Clan Jetties Waterfront Promenade

To construct a waterfront promenade connecting lower Weld Quay that provides a public interface and a safe pedestrian route towards the clan jetties. The illegal structures along Weld Quay is to be removed and reinstated as pedestrian access, which is integrated with the proposed parks for the Clan Jetties. Water taxi stops to be placed at the end of the clan jetties.

Figure 5.12: Clan Jetties Waterfront Promenade
5.2.4 Program (D): Back Lanes

When the earliest streets were created, buildings were built back-to-back with no back lanes. In the early 1900s when road widening took place together with suburban growth and redevelopment of the urban areas, back lanes were created. These were either part of redevelopment, or created by cutting back the kitchen areas of back-to-back housing. There are areas where back-to-back still exist.

The fourth landscape program involves the upgrading and revitalisation of back lanes for pedestrian use, or even commercial use where applicable.

The proposed back lane programs are as follows (subject to funding):

**D1. Line Clear Back Lane Project (Upgrade)**

To upgrade and beautify the back lane where Line Clear Nasi Kandar Restaurant is located. This back lane connects Chulia Street and Penang Road. The temporary roofing is to be removed and replaced with an open air environment that integrates seating, tables and landscaping elements, while the narrow lane is upgraded with vertical planting and floor lighting.

**Figure 5.13: Landscaping and lighting of back lane**

**Figure 5.14: Active back lane are safe and conducive for street activities**

**Figure 5.15: Line Clear Back Lane**

**Figure 5.16: Lebuh Union – Lebuh Bishop Back Lane**

**D2. Lebuh Union – Lebuh Bishop (Upgrade)**

To upgrade and beautify back lane and integrate with proposed Bishop Street park.
Performance Criteria for Back Lanes

- A cautious approach in the design of streetscapes, of changing as much as necessary but as little as possible;
- Design of streetscape to take into consideration the community use of the street;
- Ground material to ideally remain as asphalt, or a porous material that is easily maintained;
- Lighting of back lane not to be attached on heritage buildings;
- Prefered location of lighting to be on the ground, e.g. a hidden fluorescent wash lighting;
- Possible landscaping of back lanes.

D3. Lorong Pasar – Lorong Chulia (Upgrade)

To upgrade and beautify back lane and integrate with proposed Market Lane park and Love Lane car “park”.

D4. Lebuh Carnarvon – Jalan Pintal Tali (Upgrade)

To upgrade and beautify back lane and integrate with proposed Carnarvon park.

D5. Lebuh Chulia – Lebuh Muntri (New)

To construct new back lane connecting Lebuh Chulia and Lebuh Muntri, and integrate with proposed Jalan Masjid park.
5.2.5 **Program (E) : Landscaped Car Parks**

While it is an objective to make the city carbon-zero and green, the shift into a carbon-zero emission and a car free city has to happen gradually. Meanwhile, a lot of empty spaces within the WHS is dedicated towards parking car and remains necessary until the transition towards public transportation happens.

A short term design solution is to landscape these on grade car parks in the effort to make them multi-functional as green public open spaces. In the long run these areas may be converted into parks.

Five proposed landscaped car parks programs are as follows*:

- E1. Fort Cornwallis car park
- E2. Lebuh Downing car park
- E3. Lorong Love car park
- E4. Jalan Argyll car park
- E5. Police HQ car park, Jalan Penang

* Execution of programs subject to the availability of funds
Performance Criteria for Landscaped Car Parks

- Use porous ground material and permeable paving for on-site water retention where possible;
- To adhere to universal access principles;
- Possible integration of street design with landscape and storm water management system;
- Recovers, re-uses and generally minimises the amount of natural resources used;
- Possible incorporation of street markers along heritage trails to increase legibility and way-finding;
- Minimally designed new street furniture and lighting;
- Possible incorporation historic street furniture, either restored or authentically reconstructed.
5.3 Events, Tours and Film Locations

The historic centre of George Town has been the heart for many celebrations. Some have their origins in traditional celebrations, such as the Chingay Parade and the Dondang Sayang singers during Chap Goh Mai. Refer to Figure 9.21 for a map of Festival Routes and Performance Spaces Topography.

Other celebrations have become traditional over time – such as the New Year Celebration of the Gregorian calendar and the Merdeka countdown.

The purpose of this chapter is to guide the use of the WHS for gatherings of a large number of visitors, or for location of filming.

5.3.1 Contemporary Culture Festivals and Events

George Town is attracting contemporary festivals and events. The performance criteria as describes as follows describes the required guidelines pertaining to the use of the WHS for Contemporary Culture Festivals and Events.

- Community consultation and participation – even if the celebration is not of their culture;
- Manufacture of sets off site, delivered to site for fast assembly;
- No fixing of items to the heritage buildings without the permission of the occupier;
- Banners, decorative lighting to use existing poles and not be placed across the road, restricting bomba access;
- Road closure to be on the event day only and using easily removable barriers;
- Bomba access should be maintained at all times and not be blocked with temporary structures.

5.3.2 Heritage Tours

From time to time a Heritage Site may be used as a venue for entertaining large groups of visitors. The performance criteria as describes as follows describes the required guidelines pertaining to the use of the WHS for Heritage Tours.

- The carrying capacity of the site must be considered;
- Tour buses are only allowed to drop off passengers and not allowed to park within the WHS.
5.3.3 Film Locations

This section describes the required guidelines pertaining to the use of the WHS for Film Locations. This is to ensure that filmmakers, local communities and building owners can all benefit from such events taking place within the cultural landscape.

**Performance Criteria for Film Locations**

- All film location companies are to inform GTWHI before confirming the location of their shoot;
- GTWHI should ensure that not only the owners of the buildings have agreed to the shoot, but that the remaining cultural landscape and communities are not compromised;
- The film company must walk through the site with GTWHI to explain the location and equipment to be used, and to receive advice as to how to avoid damage to the area;
- Approval may not automatically be granted if:
  a. the filming method is likely to cause damage to the WHS;
  b. the road has been or will be closed for more than 5 days during the year due to other festivities;
- The film company should carry sufficient insurance against damage to the heritage buildings;
- A heritage repair deposit must be lodged with GTWHI so that in the event of damage, there are sufficient funds to effect good repairs;
- Heritage buildings may be repainted to suit filming, but the materials used must be approved by the GTWHI and repainted with the original colours and materials on completion of the filming by the film company or a local contractor;
- Compensation is to be paid to all residents and businesses for the duration of the filming and extend to businesses affected by road closure even if the filming is not directly on their doorstep;
- The building and striking of the film set is to take place during reasonable hours, avoiding the disturbance to any cultural practices of the community;
- Further compensation should be paid for night filming.
Figure 5.21

Festival Routes and Performance Spaces Topography

Festival Routes:

- **Thaipusam Hindu Festival**
  - 1st Day of Thaipusam: Chariot House, Panang Street ↔ Outside WHS
  - 3rd Day of Thaipusam: Outside WHS

- **Navarathri Gujerati Festival**
  - Festival Procession: Sri Mahamariamman Temple ↔ Fort Cornwallis

- **Nine Emperor Chinese Festival**
  - 9th Day of the 9th Chinese Lunar Calendar: Tao Boo Keong Temple → Yeoh Jetty

- **Tua Peh Kong**
  - 'Chneah Hoy' Flame Watching Ceremony: 15th Day of 1st Chinese Lunar Calendar
    - Poh Hock Seah Temple → Outside WHS

- **Chingay**
  - Giant Flag Carrying in December: Outside WHS → Esplanade

Stage and Altars:

- **Start Point**
- **End Point**

Festival Routes in the Past:

- **Dondang Sayang**
  - 15th Day of 1st Chinese Lunar Calendar: Outside WHS → Esplanade

Source: AJM, 2010
6 Managing Circulation and Access

6.1 Issues on Access Management

6.1.1 Quebec Decision, July 2008

Upon the inscription of 'Melaka and George Town, Historic Cities of the Straits of Malacca' in the city of Quebec, the World Heritage Committee has requested that the State Party:

i) Submit a comprehensive conservation plan dealing with all the buildings and its schedule for implementation in both cities;

ii) Develop measures for decreasing motor traffic;

iii) Improve the definition of key indicators for monitoring the architectural heritage components.

These requests were reiterated during the 33rd session of World Heritage Committee in June 2009.

The growing problem of traffic congestion is singled out as a main issue in the World Heritage Sites. Congestion of the roads can be attributed to the high built up area of George Town WHS, and to the national trend of increasing dependency on the private vehicles. Correspondingly, there are limited opportunities for road upgrading to cater for its increasing capacity.

6.1.2 Regional Issues

George Town remains an important centre for financial and cultural activity. There is however a lack of an integrated public transportation system connecting the city and the entire Island of Penang. In positioning George Town as the hub of the Northern Corridor Economic Region and towards a new economic model for the state, it is imperative that the transportation system is improved.

There is no reliable public transport alternative to convince private vehicle user to shift modes. Focus group consultations with the local communities point out towards the inadequacy of the existing public transportation system. A mere 11.28% of employees and 3.64% of the residents of the WHS use the buses as their mode of transportation to work. In contrast, 51.87% of employees and 42.05% of residents travel to work by private cars. It must be noted that almost 70% of the trips made into the WHS originates externally. It is important that this percentage of trips to be taken care of in order to improve the internal circulation.

Presently, the Government of Penang is embarking on a public transport system study for the whole state of Penang. The main objective of the study is to relieve traffic congestion and to improve public transport services for the state. The study which has just been commissioned is expected to be completed towards middle 2011. The success of the management of traffic in the WHS is highly dependant on how it integrates with this comprehensive masterplan.
6.1.3 Local Issues

A focus group consultation conducted in October 28, 2010 identified local issues pertaining to the management of circulation and access in the WHS. The following list describes the findings from the session:

i) Traffic volume is too high, especially during festive seasons;

ii) Address reliability of public transportation;

iii) Suggestion for smaller and more frequent buses;

iv) Heavy vehicles should not be allowed in the WHS;

v) Proper lay-bys for buses;

vi) Clan Jetty residents requests for the possibility of a water taxi across Clan Jetty for tourists;

vii) Traffic needs to be diverted from the waterfront;

viii) Location of bus stops should tie in with activities;

ix) Enforce loading hours;

x) Consider the possibility of a loading hub to transfer heavy lorries to smaller lorries;

xi) Development intensity should reflect the Level of Service (LOS) of the roads;

xii) Identify tourist bus stops as they are an obstruction; and

xiii) Residents should park for free.

Some of the local issues within the George Town WHS area are similar for the whole of George Town such as heavy congestions, inadequate parking space that resulted to illegal parking and double parking. Within the George Town WHS area, along Lebuh Chulia between Jalan Penang and Jalan Masjid Kapitan Keling double parking resulted to congestions and interruption to bus services that plies along this roads.

6.2 Access Management Objectives

In developing an access management plan, the transport strategy adopted has taken into account the vision and development objectives for George Town WHS. The traffic management plan is concerned with reducing private vehicle dependency by developing and promoting alternatives, particularly high quality public transport improvements and complementary restraint measures.

The development of the traffic management strategy has been based on these main objectives:

6.2.1 Short Term Objectives

i) Addressing local issues relating to or caused by traffic congestion;

ii) To encourage and improve public transport travel;

iii) Managing traffic demand;

iv) To maximise the existing transport network; and

v) Adopt universal access principles and to increase pedestrian connectivity within the WHS;
FIGURE 6.1 Access Management Objectives and Strategies

**Short Term**
- Addressing local issues relating to or caused by traffic congestion;
- To encourage and improve public transport travel;
- Managing traffic demand;
- To maximise the existing transport network;
- Adopt universal access principles and to increase pedestrian connectivity within the WHS;

**Medium Term**
- To promote transport policies and improvements which minimise environmental impact;
- Integration with the transportation state Masterplan (currently being drafted);

**Long Term**
- To moderate private vehicle use so as to shift to more sustainable mode of transport such as public transport, walking and cycling;
- Make WHS fully universal accessible;
- Full integration of the inner city with the waterfront;

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**Accessibility and Connectivity**
- Year 0: Accessibility and connectivity for all
- Year 1: Public transportation
- Year 5: Traffic demand management

**Traffic Circulation**
- Year 0: Traffic demand management
- Year 1: Public transportation
- Year 5: Accessibility and connectivity for all
6.2.2 Medium Term Objectives

vi) To promote transport policies and improvements which minimise environmental impact;

vii) Integration with the transportation state Masterplan (currently being drafted);

6.2.3 Long Term Objectives

viii) To moderate private vehicle use so as to shift to more sustainable mode of transport such as public transport, walking and cycling;

ix) Make WHS fully universal accessible;

x) Full integration of the inner city with the waterfront.

Figure 6.1 describes these objectives and the strategies.

6.3 Access Management Strategies

The traffic management proposals for George Town WHS are presented by the following phases:-

Phase 1 (< year1)

Accessibility and Connectivity for All

6.3.1 The improvement of public accessibility is related closely to Chapter 5 of this document on Enhancing Public Realm, in the implementation of the Open Space and Pedestrian Network masterplan (Refer to chapter 5). This includes the provision of new sidewalks on select stretches of streets, as well as the proposal for Lebuh China as a limited access road (Refer to 5.2.2);

6.3.2 All development projects in the WHS must adopt universal accessibility principles;

6.3.3 MPPP to remove obstructions on select five footways, particularly on roads with high volume of vehicular traffic, beginning with Lebuh Chulia;

6.3.4 To construct a new traffic light on the corner of Lebuh Chulia and Pengkalan Weld. This is to allow pedestrians to cross safely as well as to manage the vehicles taking a right turn into Lebuh Chulia.

Public Transportation

6.3.5 It is proposed MPPP Rapid Penang Central Area Transit (CAT), a free shuttle bus service that plies the roads within the core and buffer zones of the WHS, be expanded and improved in terms of routing and frequency. The first route will ply the internal area of George Town WHS area and a second route that ply on the outer boundary as shown in Figure 6.2. It is recommended that the proposed CAT routes to operate at 10 minutes interval to provide efficient and regular services within the WHS.

Traffic Demand Management

6.3.6 As to not further encourage the use of private vehicles in the WHS, there is to be no increase in off street parkings;

6.3.7 To prevent interruptions to the bus service on Lebuh Chulia, the removal of on-street parking within this section of the road is proposed (Figure 6.3). The parking shall be relocated to nearby centralised parking locations on the corner of Jalan Argyil and Jalan Penang and between Lorong Love and Lorong Chulia.
1. Sustainable travel to work patterns maps out the employees (+) and residents (x) of the WHS who commute using sustainable modes (walk, cycle, public transport).

2. Two routes are proposed. The routing aims to optimise the catchment of users of sustainable transportation methods and the main nodes (KOMTAR, Cruise Pier and Jetty Terminal).

3. Proposed location of transit stops to maximise pedestrian shed coverage and near to existing transit stops. A pedestrian shed of 380m or 5 minutes is utilised.

4. Location of transit stops to leverage on connectivity of existing and proposed pedestrian routes.
6.3.8 It is proposed tour bus shall only be allowed to drop-off passengers within the WHS and not allow to wait for passengers. It is proposed tourist bus stops to be provided near Gat Lebuh Mcallum;

6.3.9 Enforcement of loading/parking times and parking zones to be stepped up, to ensure double parking and illegal parking are not rampant within the WHS;

6.3.10 To issue parking permits to resident.

Phase 2 (year 1 < year 5)

Traffic Circulation

6.3.11 It is proposed that a grid system of one-way and two-way serve the WHS. The two-way primary routes at the external boundary functions to divert the through traffic whilst the one-way primary routes served to connect to the local road within the WHS. Figure 6.4 shows the proposed medium term plan to the traffic circulation improvement.

Public Transportation

6.3.12 Public transport improvement for Phase 2 is integration with the Public Transport Study proposal. It is envisaged proposal for Park and Ride Stations and Rail Transit systems will be proposed to improve the present public transport services. It is recommended within the WHS that tram and water taxi could be proposed to further compliment the proposed free shuttle service.

Phase 3 (> year 5)

Accessibility and Connectivity for All

6.3.13 To propose on grade pedestrian crossing across the coastal roads of Pengkalan Weld, Lebuh Light, Lebuh Farquhar and Jalan Sultan Ahmad Shah, to ensure the full pedestrian integration of George Town WHS’s waterfront with the inner city and improve universal accessibility;

6.3.14 To make more streets as pedestrian priority.
FIGURE 6.4 Proposed Traffic Circulation (Phase 2)

Primary Circulation:
- Two-way traffic
- One-way traffic

Secondary Circulation:
- One-way traffic

Local Roads:
- Two-way traffic
7 Improving Urban Infrastructure

The objective of the management of urban infrastructure is towards a systematic and practical infrastructure and utility systems for the WHS of George Town. It is essential that all relevant agencies and utility providers work together with the custodians of the WHS (Department of National Heritage, the World Heritage Office and MPPP) to ensure that these objectives can be implemented within the expected time frame of between 5 to 10 years.

7.1 Sewerage

7.1.1 Current Situation

The existing sewerage system used in the WHS of George Town are (i) sewerage treatment system, (ii) pumping main system and (iii) individual septic tank.

The sewerage is channelled to Jelutong Sewerage Treatment Plant (STP) via existing sewerage pipes. There are two pumping stations within the WHS, Pump PEG001 on Lebuh King and Pump PEG126 at Ngah Abor. Indah Water Konsortium Sdn. Bhd. (IWK) is responsible in maintaining the sewerage system in this area.

7.1.2 Issues

i. In certain areas, individual septic tanks and pour fl ashes are still being used and maintained by the owners of premises;

ii. There are sewerage pipe laid through the private land. Should any damage or blockage occur, the land owners would have to conduct their own maintenance;

iii. The existing manhole are located in narrow spaces and therefore difficult to maintain;

iv. Clan Jetty is a critical area for sewerage management, because there are no proper Sewerage Treatment System. The sewage is channeled directly into the sea, which is both a hygiene and water pollution issue for the WHS (Figure 7.1);

7.1.3 Proposed Solutions

i) For all new developments within the WHS of George Town, developers must connect the sewerage pipe of the development to an existing sewerage treatment plant;

Figure 7.1: Clan Jetties
ii) The authorities must enforce that the individual land owners of premises to connect to the existing pipe line;

iii) Alternatively, the existing individual septic tank may be changed to the more sustainable sewerage system. One example is the Biokube;

iv) For the Clan Jetties, a vacuum system should be implemented and pumped into an existing manhole, which is then channelled into Jelutong’s STP. Or, they may be treated with the Biokube system and discharged as grey water.

7.2 Drainage

7.2.1 Current Situation

i) The drainage system in the WHS is managed by two agencies; Jabatan Pengairan dan Saliran Timur Laut (JPS) and the Local Authority (MPPP). The river and the monsoon drains are maintained by JPS, while the town drainage system is maintained by MPPP;

ii) JPS has constructed a retention pond on Jalan Tar (which is the area marked as S-10 in Figure 7.2) to alleviate the issue of flooding during the high tide and heavy rain. The pumping system is used to pump the water out from the pond;

iii) Most of the run off water is channelled towards the Prangin Canal (Figure 7.3) and into the retention pond (Figure 7.4). Part of the water from the WHS is channelled directly into the sea as indicated by PN 1-8 and PS 1-8.

7.2.2 Issues

Flooding is a major issue in the WHS of George Town. Lebuh Acheh and Jalan Pintal Tali have been identified as flood
zones during heavy rain. The flooding is due to the following.

i) High built up area

The water catchment area is reduced due to a high built up area and unpermeable roads, thus leading to a high quantity of surface water runoff.

ii) High tide effect

The sea water level increases during high tide, leading to higher level of the river. This further contributes to the issue of flooding especially during heavy rain in the lower ground areas.

iii) The small and narrow drainage system

The existing drainage system is too small to cater for the water runoff.

iv) Clogged drains

The drainage system does not function to its capacity due to rubbish stuck in between.

7.2.3 Proposed Solutions

i) The design of new public parks and open spaces must incorporate, where possible, a stormwater management system such as an on site detention (OSD) system. This requirement is exempted for archaeological sites. Figure 7.5 indicates the proposed OSD locations in the WHS;

ii) The drainage system needs to be maintained and upgraded from time to time to suit the development and land use. However, the historic street engineering drains must be maintained;

iii) Any new development proposals must incorporate a retention pond and rain water collection system as per the Stormwater Management Manual (MASMA);

iv) A study on the existing drainage system must be conducted, towards a master plan proposal to alleviate this situation;

v) The drains must be maintained regularly by the Local Authority;

vi) The use grease traps for restaurant is mandatory.
FIGURE 7.5 Proposed OSD Locations for Sub-catchment Areas
7.3 Water Supply

7.3.1 Current Situation

The water supply for George Town area is managed by Perbadanan Bekalan Air Pulau Pinang Sdn. Bhd. (PBA). The upgrading and replacement of the current pipes are in progress and 50% complete.

7.3.2 Issues

i) Improper connection of water supply;

ii) Obstructive location of water meter, and exposed hosing that affects the visuals of the heritage streetscape.

7.3.3 Proposed Solutions

i) Close supervision is required during the installation of pipes and water meters to ensure that its placement do not obstruct pedestrian safety.

ii) PBA should relocate obstructive water meters to suitable locations. Placement of water meter along the pillars of heritage buildings is recommended (Figure 7.6). Alternatively, the water meter may be boxed up (Figure 7.7).
7.4 Fire Prevention System

7.4.1 Current Situation

Currently, the fire hydrant is connected to the underground pipe which shares water with the domestic supply. Fire hydrants are located by the road side.

7.4.2 Issues

i) The pipes are shared between domestic supply and the fire hydrants, thereby reducing water pressure in peak hour use;

ii) Inappropriate decorative lighting, hung from lighting pillars and crossing the road creates problems in terms of accessibility for fire trucks and large vehicles;

iii) Location of the fire hydrants on the roadside are exposed to vehicles and accidents;

iv) Building signage blocking the openings of windows, thus a fire hazard.

7.4.3 Proposed Solutions

i) To maintain the pillar hydrant pressure, the pipes should be separated from domestic supply;

ii) Installation of decorative lighting across street light pillars are not allowed;

iii) The installation of underground pillar hydrant is required to avoid damage caused by vehicles;

iv) The implementation and enforcement of building guidelines on signage and advertising.

7.5 Telecommunication

7.5.1 Current Situation

There are two types of telecommunication connections, the antennas from the telecommunication tower and the underground cables and cabinets.

Most of the telcos have their own separate antennas, i.e. TM, Celcom, Digi and Maxis. This create unsightly views to the urban fabric of the area.

7.5.2 Issues

i) The antennas are an eyesore and obstructs views. There is also the associated health issues arising from the waves from the telecommunication towers;

ii) Antennas are erected without following specified guideline especially on building rooftops;

iii) Telecommunication cabinet obstructs traffic and walkway.

7.5.3 Proposed Solutions

i) To construct a centralised tower and should be erected away from residential areas;

ii) To impose guidelines on the telcos to share infrastructure resources;

iii) Relocate telecommunication cabinets to more suitable areas such as back lanes.
7.6 Electrical Supply

7.6.1 Current Situation

Electrical supply is obtained from TNB. The cables were laid underground and over head. The electricity is supply from the TNB substation to the premises.

7.6.2 Issues

i) Cables are not install properly, for instance exposed power outlets and untidy wiring across building exterior and untidy connections;

ii) Feeder pillars obstruct walkways and too close to the road carriageway and may obstruct vehicular traffic;

iii) Meters are exposed, untidy and sometimes blocking the aesthetic of heritage buildings;

iv) Distribution board is exposed and untidy.

7.6.3 Proposed Solutions

i) Cables to be rearranged and laid on a tray or conduit, and located behind pillars and transoms or truss beams of buildings. Alternatively, cable also can be laid at the back lanes or underground;

ii) To relocate feeder pillar to a safe and more suitable place that does not disrupt the historic streetscape, such as in back lanes (when possible) or embedded into buildings (Figure 7.8);

iii) To relocate meters and distribution boards, either hidden from view or in a way that does not block important architectural features (Figure 7.9), such as in back lanes (when possible).

Figure 7.8: Proposed feeder pillar on back lanes when possible

Figure 7.9: Solution: Meter mounted on walls and hidden from view
7.7 Roads

7.7.1 Current Situation

The roads are maintained by the Local Authority (MPPP). They have been typically resurfaced several times without the excavation of the old road surface and thus increasingly the road levels after every resurfacing work.

7.7.2 Issues

i) Existing road level higher than building level.

ii) Existing road level and walkway at the same level.

7.7.3 Proposed Solutions

i) A comprehensive study on the road network must be undertaken for the WHS. This study must consider the roadside drain level as well as the main drains to determine the discharge point and level. It is then possible to determine the optimum road level to ensure that the road level will be lower than the building level.

ii) Road surface materials should consider the use of more pervious materials and encourage slower speed traffic.
ANNEXURE A

Guideline for the Conservation Area and Heritage Building in Melaka World Heritage Site
ANNEXURE A:
GUIDELINES FOR THE CONSERVATION AREAS AND HERITAGE BUILDINGS FOR MELAKA WHS

1. Introduction
   1.1 Preamble
   1.2 Conservation Principles
   1.3 Conservation Objectives
   1.4 Terms and Definition

2. Works and Activities Requiring Approvals
   2.1 Introduction
   2.2 Objectives
   2.3 Legal Instruments
   2.4 Repair, Planning & Building Control Procedure
   2.5 Heritage Impact Assessment
   2.6 Dilapidation Survey Report
   2.7 Progress Report
   2.8 Temporary Structures

3. Conservation Practice
   3.1 Introduction
   3.2 Authenticity & Interpretation
   3.3 Compatible Building Use
   3.4 Reversibility & Adaptation
   3.5 Dismantling
   3.6 Fire Protection
   3.7 Demolition
   3.8 Alterations and Extension

4. Category I
   4.1 Definition
   4.2 Permitted Use
   4.3 Authenticity and Interpretation
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1 Introduction

1.1 Preamble

"Development is the engine of an urban economy but heritage and identity will always be the soul of the city".
Christopher Pound

Melaka’s built, natural and human landscapes are all reflections of Melaka’s rich history, a history of both its indigenous and migrant populations. Each brought with them the traditions of their homelands, which over time fused, adapted and intermingled to suit the new land. This history, mirrored in the living cultures of today, their traditions and architecture, is the identity of the State.

The built environment echoed the beliefs and needs of its builders and the early settlers and is rich in cultural meaning. So closely tied are the intangible and tangible cultures, that it is hard to separate them. A granite step, brings with it the belief of solidity and permanence, a Datuk Shrine Heralds the presence of a Chinese community, a call for prayer creates a human pathway of worshipers towards a mosque and a broken coconut outside a doorway, marks the ridding of egos of the Hindu community on their auspicious days for prayer.

The tangible and the intangible are intertwined - each celebrates the other, each creates the whole. These guidelines therefore intend to support this cultural integrity, to highlight its values and recognise its significance in our fast changing world.

1.1.1 A brief history of these guidelines

The Melaka State Government’s commitment in conservation of Melaka started as early as the 1970s and this commitment find its first tangible expression in the restoration of Stadthuys in the 1970’s and the Melaka Enactment in 1988 known as the Preservation and Conservation of Cultural Heritage Enactment. The Enactment led to the formation of PERZIM and the setting up of a Conservation Unit within the Local Authority, The Melaka Historic City Council (Majlis Bandaraya Melaka Bersejarah – MBMB). Capacity building efforts by both the State and MBMB led to the evolution of a series of guidelines which finally crystallised into a document known as Conservation Area Action Plan in 2002. The proposals and guidelines contain in this document which was approved by a meeting of the Full Council of MBMB, form the basis for MBMB in managing the Heritage Areas and the development of Melaka as a Living Heritage City. These guidelines were included in the dossier to UNESCO for Melaka’s inscription together with George Town as a World Heritage Site in 2008.

1.1.2 Guidelines intent

The guidelines reflect MBMB’s aspiration to develop Melaka as a Living Heritage City. The guidelines shall guide all decisions in planning and development application. It also explains the relationship between planning polices and obligations of the Authorities and its Stakeholders. It is also material on repair conservation, maintenance, alteration, extensions and compatible development issues.
1.1.3 Who uses these guidelines?

This guidance is for officers of local authority, property owners and tenants, contractors, developers, investors and related professionals and students, technical agencies, events’ organisers and film production teams and all members of the public with an interest in the conservation and development of Melaka’s built and natural heritage.

1.1.4 Why conserve?

The protection, conservation and enhancement of a conservation areas, enclaves and buildings provides an enriching experience for those who works or live here either as residents or visitors, creating a sense of belonging, stability and connection between future and past generations, community, landscape and cultures from distant lands.

Melaka’s tangible and intangible heritage is a testament to its entrepreneurial forefathers, both indigenous and migratory, and is expressions of Melaka’s unique identity and experience. They are irreplaceable records, which provide a source of inspiration for the present and future generations. They also present an new future where conservation practice loeads to low carbon communities and cities; a lonbg term perspective towards sustainability.

The State Government has committed itself to the concept of sustainable green development - of not sacrificing what future generation will value for the sake of short term and, often, illusory gains. The Melaka State Government wishes to preserve the historic environment, which by its nature is irreplaceable. Once lost, heritage buildings cannot be replaced; and the future generations will be nobbed of the rich history these buildings represents. recreation.
1.2 Conservation Principles

In accordance with Article Two of The BURRA CHARTER (1999), which is the retention of the cultural significance of a place, the Melaka State Government’s fundamental conservation principle for all heritage buildings in Melaka is a cautious approach of changing as much as necessary but as little as possible. Buildings to be conserved shall be retained, restored or preserved in accordance with this regulation. In the event that the original structural elements need to be repaired or replaced, their features shall be retained. Selective replacement may be considered only when absolutely necessary.

No building or structure shall be altered or demolished if there is any conceivable way of preserving it in its original or current condition. Adaptive reuse of heritage building is recommended and encouraged to generate new life to such buildings in line with the Living Heritage City concept.

When upgrading and adapting a building for new use the existing structure should be retained by strengthening and repairing the structural elements. Any alteration or strengthening to structural elements should be done in the most sympathetic and unobtrusive way possible, using original methods and materials whenever possible, or matching with materials of similar properties, if not.

If a building is deemed unsafe, it should be made safe, following original methods and materials.

1.3 Conservation Objectives

In general, the preservation and conservation activities on heritage assets of Melaka have been, and will continue to be carried out to achieve the following objectives:

(i) to optimize and revitalize the use of heritage resources and assets for future benefits in relation to economic growth, social, cultural and education development.

(ii) to preserve and encourage the protection of significant architectural or cultural or historical values of a place.

(iii) to preserve the close relationship of communities and their social cultural ties; further enhance the sense of belonging and sense of pride among the people.

(iv) to act as life education tool and resource of knowledge for the young and future generations.

(v) to preserve the authentic living heritage of multi-ethnic groups and retain the unique identity of Melaka.
Terms and Definitions

**Adaptation** means modifying a place to suit the existing use or a proposed use. **

**Architectural Significance** means buildings that demonstrate unique cultural practices related to architecture and/or examples or developments in building technology.

**Associations** mean the special connections that exist between people and place. ** Associations may include social or spiritual values and cultural responsibilities for a place.

**Authenticity** means that an object is made or done in the traditional or original way, or in a way that faithfully resembles the original. Within a cultural landscape authenticity goes on to describe the genuineness of the landscape that reflects the traditions, beliefs and ways of being of communities existing there. A landscape created by the users for the users.

**Buffer Zone** refers to a protected area directly outside the Core Zone of a World Heritage Site. *

**Conservation** means all the processes of looking after a place - to retain its cultural significance **

**Conservation areas** – are areas where the entire street or enclave is of significant Heritage Value**.

**Core Zone** means the main heart of the UNESCO World Heritage Site *.

**Compatible use** means a use, which respects the cultural significance of the place. Such a use involves no, or minimal, impact of cultural significance. **

**Cultural Impact Assessment (CIA)** – a study to be carried out before any change of use and/or any approval of compatible development, in order to assess the impact of the new use and new development on the existing community.

**Cultural Landscapes** means environments, that reflects interaction between people, the built and natural environment.

**Cultural significance** means aesthetic, historic, scientific or social value for past, present or future generations. It is embodied in the place itself, its fabric, setting, use, associations, meaning, records related places, and related objects. **

**Dilapidation Report** means a report on the condition of a building or object.

**Dossier** refers to documents submitted to UNESCO during the application and nomination process to be a World Heritage Site *.

**Fabric** means all the physical material of the place, including components, fixtures, contents, and object. ** Fabric includes building interiors and sub surface remains, as well as excavated material. Fabric may define spaces and these may be important elements of the significance of the place.

**Heritage Significance** means a building, object or landscape that reflects cultural and architectural significance that is of value to the overall cultural landscape of the site.

**Heritage / Historic Buildings** - buildings of architectural and cultural significance.
Heritage Impact Assessment (HIA) - is a report provided during the planning application process for new developments and their possible impact on the World Heritage Sites *, may include a Community Impact Study and/or Cultural Impact Assessment..

Interpretation means all the ways of presenting the cultural significance of a place **. Interpretation - treatment of the built fabric

Maintenance - the continuous protective care of the fabric and setting of a place, and it’s to be distinguished from repair. Repair involves restoration or reconstruction ** e.g. regular inspection, cleaning of gutters.

Meaning denotes what a place signifies, indicates, evokes or expresses. **

Outstanding Universal Value (OUV) means the UNESCO criteria on which a site becomes or value to the world – a World Heritage Site.

Place means site, area, land, landscape, building or other work, group of buildings or other works, and may include components, contents, spaces and views **.

Preservation - maintaining the fabric of a place in its existing state and retarding deterioration **

Reconstruction means returning a place to a known earlier state and is distinguished from restoration by the introduction of materials (new or old) into the fabric **. New material may include salvaged, and recycled material.

Restoration means returning a place to a known earlier state by removing accretions or by reassembling existing components without the introduction or new materials**.

Related object means an object that contributes to the cultural significance of a place but is not at the place **.

Related place - a place that contributes to the cultural significance of another place **.

Restoration means returning a place to the existing fabric of a place to a known earlier state by removing accretions of by reassembling existing components without the introduction of new material **.

Setting means the area around a place, which may include the visual catchments

Use means the function of a place, as well as the activities and practices that may occur at the place **.
Works and Activities Requiring Approvals

2.1 Introduction

This section of the regulation outlines the existing legislation and how it supports the protection of the cultural landscape of Melaka’s conservation areas, enclave and buildings of heritage significance, especially in the Core and Buffer Zones of the WHS.

2.2 Objectives

The objective of this section is to assist in the identification of current support legislation in order to provide a foundation of knowledge to all those in the position of decision-making regarding buildings works applications, violations and enforcement.

Its intent is to correct misconceptions that has built over time, to provide a quick reference guide and a framework for further research and development on the subject.

This section is divided into:

1. Legal Instruments
2. Repair, Planning & Building Application
3. Heritage Impact Assessment
4. Dilapidation Survey Reports
5. Progress Reports - during works
6. Maintenance Guide
7. Temporary Structures

2.3 Legal Instruments

This guideline has been prepared in reference to the relevant legal instrument and statutory:

- The Structure Plan and Local Plans for Melaka
- The Action Plan for the UNESCO World Heritage Site of Melaka 2002
- The Conservation Management Plan - for the UNESCO World Heritage Site of Melaka
- Draft Special Area Plan for Conservation Area of Melaka 2008
- Acts of Parliament
  1. National Heritage Act 2005
  2. Local Government Act 1976
  3. Town and Country Planning Act 1976 (Act 172) as of March 2010
  4. Street, Drainage and Building Act 1974 (Act 133) as of May 2010
- Relevant By-laws:
  2. MBMB Advertisement By Laws 1995
  3. Earthworks Bylaws 1982
  4. Trade, Businesses and Industries Bylaws 1987

In addition, the Operational Guidelines of UNESCO for World Heritage Sites are applicable as the continued inscription of the properties on the World Heritage Register is contingent on the State Party’s compliance with these guidelines.
2.4 Repair, Planning & Building Control Procedure

- Getting the right advice

In all cases, before undertaking either the:

i) purchase of a property or site, and/or;
ii) preparation of a concept design proposal of a property or site;

It is advisable to understand the cultural landscape of the World Heritage Site – the OUV’s, and what opportunities this offers for conservation and compatible development. Relevant bodies that can advise are: WHO of Melaka and Unit Konservasi MBMB

Helping the process through Application process is sometimes delayed due to incomplete submissions at whatever stage of the process. In order to ease the pathway for approval, it is important to submit proposals that have:

(i) Understood and followed these Guidelines.
(ii) Compiled plans, elevations, sections and visuals that tally.
(iii) complied with the requirements of the relevant reports - Heritage Impact Assessment/Dilapidation Survey Reports - where applicable

2.4.1 Planning Permission Application

Planning Permission is obligatory in accordance to the Town and Country Planning Act 1976 and is required for :-

i) New development projects on Infill sites;
ii) New development project replacing existing building listed as Replacement;
iii) Demolition of parts or the whole of a heritage building;
iv) Roofing or re-roofing of a building or any part of a building;
v) Extension of buildings or any part of a building
vi) Increase in height of a building or any part of the building; and
vii) Change of use or activity of the building or land as specified in Part 3 of this document

2.4.2 Building Application

Building Application is required under the Street, Drainage and Building Act 1974, Act 133. Building plans, measured drawings and documents considered necessary to support such application is required for :-

i) Erection of new building in the case of Infill and Replacement categories;
ii) Extension of building or part of a building in the case of Category II building;
iii) Increasing the height of an existing building or part of a building;
iv) Change of use or activity of the building; and
v) Restoration works of a building or part of a building in the case if Category I and Category IIA and IIB.
2.4.3 Repair Permit

Repair Permit shall be required for works and activities that do not require any approval or permission from the relevant authorities as specified under Planning Permission and Building Application. Repair Permits shall be required for:

i) Repair and maintenance works such as plumbing, fixing roof leakage that do not require the re-roofing of the entire roof or part of the roof;
ii) Putting back original materials where missing for front facade and roof;
iii) Re-plastering of part of a building; and
iv) Change of material for any part of the building.

Such repair permit will be issued by the Local Authority (MBMB)

- Requirements for Repair Permit:
  i) The signature of the property owner or agent;
  ii) Land-title, quit rent receipt, proof of ownership;
  iii) Dilapidation Survey Report - a brief photographic description of the building, showing areas of repair to be done - indicated on sketch plans;
  iv) A brief written description of the works to be carried out including materials to be used;
  v) Photographs of the site before and after the works.

They can be submitted by the owner, contractor, licensed draftsman or architect.

- Emergency repair

In the case of emergency repair, a repair may take place before the application of a permit (e.g. roof damaged over a weekend). However, photographs of before and after the repair should be submitted to MBMB together with a Repair Works application, as soon as possible.

- Before works begin
  i) Permits are required for temporary items such as the temporary deposit of building material on the streets and the erection of scaffolding on the street. Application should be made to the Engineering Department, by the contractor, before works starts.
  ii) Signboards for the project works – are to be installed out side the building together with the permit number.

- Inspection of Works

Site inspection by building inspectors may take place:
  i) during the repair works application process;
  ii) during the repair works period; or
  iii) following any complaint.

Stop-work orders are issued for non-compliance. Remedial works are to be carried out failing which legal action may be taken.

- Completion of Works

To inform the Building Department upon completion of works. The site to be photographed and records kept by MBMB.

- demolition of parts of or the whole of a heritage building.
- significant extension to a heritage building.

A Heritage Impact Assessment (HIA) may be required dependant on the significance of the building or site, adjacencies and size of development. The project together
2.5 Heritage Impact Assessment

A Heritage Impact Assessment (HIA) is required at Planning Permission Application stage, for change of use and for new compatible development projects. It is part of the general documentation and is an assessment of the proposed project site, and its potential impact on the authenticity of the OUV of the WHS.

The HIA also includes a Cultural Impact Assessment (CIA). This is an assessment of the impact of change of use or compatible development on the existing cultural environment and local community.

A Heritage Impact Assessment (HIA) may be required to be prepared depend on the significance of the building or site, adjacencies and size of development. The project together with the HIA will be presented to the MBMB Conservation Committee for support prior to the presentation or submission to One Stop Centre (OSC) for approval or rejection.

The HIA is written by an approved consultant, who is paid for by the developer/owner of the proposed site/change of use. The final HIA is submitted directly to the MBMB Heritage Unit and for major works forwarded to the Department of National Heritage (JWN).

The HIA is to be submitted together with the Development Proposal Report (or Laporan Cadangan Pemajuan) which is a document required to be submitted to support any Planning Permission Application. The requirement for a Development Proposal Report and its content is outlined in Section 21A(1), Town and Country Planning Act 1976 (Act 172) and the Manual Penyediaan Laporan Cadangan Pemajuan by the Federal Department of Town and Country Planning, Peninsular Malaysia.
The Department of National Heritage has prepared a Guideline for writing the HIA, available from the Unit Konservasi MBMB or the WHO office, and should be used as a template. It should include:

i) Impact Assessment
   Means the assessment of the impact the new development will have on the heritage building(s) on the site and neighbouring areas, both during the construction stage and after, when the project is complete. This should refer to both, physical, cultural and social impact.

ii) Mitigating Measures
    Means a description of the measures that will be taken to reduce or avoid the impacts negative to the heritage buildings on the site, the neighbouring buildings and the OUV in general.

- When is an HIA required?

   The HIA is required for all compatible development projects (Infill and Replacement Categories) in the WHS and for projects facing the perimeter of the Buffer Zone.

   An HIA is also required for the alteration or extension of a building other than shophouses, to assess its impact on vistas, views, rooflines and streetscapes for consideration.

2.5.2 HIA Review

   The HIA undergo review by members of the MBMB Conservation Committee, whereby the structure, contents and recommendation of the report is assessed against the requirements and for their completeness and accuracy e.g. visuals, elevations and plans etc.
2.6 Dilapidation Survey Reports

A Dilapidation Survey Report is a description of the condition of the heritage building or buildings to be repaired/conserved/adapted.

Dilapidation Survey Reports are issued as part of the documentation during the pre-screening submission to Unit Konservasi MBMB. They are also used to guide the team of consultants during the design development process and should form part of the Documentation for Tender and later construction.

On small projects, the Dilapidation Survey Report can be used to record the site issues in order for the contractor to make a quotation.

2.6.1 Category I – Dilapidation Survey Report

Dilapidation Survey Reports are required for all Category I buildings and should be submitted together with the application for the Repair Permit. As only conservation work is taking place, no HIA will be required. However, aspects of the Dilapidation Survey Report should include:

- the identification of Historical Significance of the site
- Architectural Significance of the building/s on the site
- Cultural Significance of the site

2.6.2 Category IIA– Dilapidation Survey Report

Dilapidation Survey Reports are required for all Category IIA buildings and should include the identification of:

- the identification of Historical Significance of the site
- Architectural Significance of the building/s on the site
- Cultural Significance of the site

Of particular importance is their relationship with other landmark heritage items, for example an adjacent Category I site. These Category IIA sites are permitted to carry out compatible (but reversible) changes for new use, therefore the Dilapidation Survey Report is prepared for the Permit Plan or Building Plan Submission Stage.

2.6.3 Category IIB– Dilapidation Survey Report

Category IIB heritage buildings are permitted compatible (and reversible) adaptation for new use, within the guidelines therefore; the Dilapidation Survey Report is prepared for the Unit Konservasi MBMB.

2.6.4 Compatible Development– Dilapidation Survey Report

Infill and Replacement development projects will require both an HIA and a Dilapidation Survey Report, particularly if there is an existing building, or remnants of existing heritage buildings on the site to be developed.

Jabatan Warisan Negara has prepared a description of what is expected in the Dilapidation Survey Report, this is available from the MBMB Unit Konservasi and should be used as a template.
2.7 Progress Reports

The Heritage Buildings of Melaka and George Town go back almost 200 years and in the case of Melaka some go back some 400 years. Some have been incrementally altered and embellished over the decades, each culture and each age adding to the richness of each site. The early stages of conservation and repair work may discover many signs of the early histories and is similar to above ground archaeology, tracing the traditional building methods and cultural changes made by craftsmen at different times.

In respect of the WHS, it is important to record the works that take place during the conservation, repair, alteration and extension works; in particular what is found of the original buildings when work begins.

2.7.1 Contents of the report

The progress of work on site is to be recorded in the form of Progress Reports, to be submitted to MBMB. A minimum of three stages is required to be recorded, though more stages recorded are welcome. The Progress Report is a photographic record of the building taken:

- Before works start,
- During work in progress (mid-way)
- At the completion.

If possible the same location and angle should be photographed at each stage for each report, and location marked on an accompanying plan.

2.7.2 Size of the report

The size of the report is directly related to the size of a project, for example works to a shophouse would be less than works to a large mansion. The shophouse reports therefore would be much smaller than for those of the mansion or large development site.

Jabatan Warisan Negara has prepared a Progress Report template - this is available from the Unit Konservasi MBMB, and should be used as a guide to preparing the reports.

2.7.3 Report Writer

These reports can be prepared by owners, consultants, contractors or an appointed representative. They are not intended to take up too much time, but are a simple photographic record of the building and the new works during the process of repair and conservation.

2.7.4 The User of the report

It is of value to the owner of a property and perhaps to future purchaser to have a set of the Progress Reports, in order to understand the work that has been undertaken.

The reports also form part of a knowledge bank, helping the two World Heritage Sites learn more about the traditional ways that the build heritage was created and the cultures that created them.
2.8 Temporary Structures

Permission should be obtained for temporary structures placed within the World Heritage Site, particularly those required by event's organisers and promoters. Examples of temporary structures are archways, signages etc.
Figure 2.2. Application Process
3 Conservation Practice

3.1 Introduction

This guideline is concerned principally with works that affect the special interest and character of the cultural landscape and buildings of heritage significance that fall under Category I and Category IIA and Category IIB. It is divided into the following sections:

- Authenticity & Interpretation
- Compatible Building Use
- Reversibility & Adaptation
- Dismantling
- Fire Protection
- Demolition
- Alterations and Extension

3.2 Authenticity & Interpretation

3.2.1 What is authenticity, why is it so important?

The protection of the ‘authenticity’ or ‘genuineness’ and integrity of a cultural landscape, demonstrates a respect and depth of understanding of both the tangible – the built culture, and the intangible – the living culture and how the intertwining of the two creates the value of the site, place or setting the OUV.

In eclectic cultural landscapes such as Melaka and George Town, the connectivity between the two sites is also part of the OUV of the World Heritage Site. Loss of this authenticity through mismanagement, misinterpretations and attempts to ‘package’ the cultural landscape, as a marketable ‘commodity’ will lead to its eventual loss.

The ‘authenticity’ of the cultural landscape is reflected in objects of historic significance, materials, location and orientation of a place, buildings use and daily rituals and performances within the place and setting. The aim of conservation, therefore, is to retain, support and value the cultural significance of a place (Burra Charter article 2.2) and both its historic and current heritage significance.

In order to conserve and protect the authenticity of the built landscape it must first be understood, and its values recognised. Thus:

“it is the architects job to learn the pertinent values (of a host culture) before starting work”

Herb Stovel, former Director of ICOMOS Heritage Settlement Programme

This advice refers to all stakeholders of the cultural landscape.

The forefathers of the eclectic communities that live within or visit Melaka, brought with them traditional design ideas, methods of construction and decoration, use, foods, belief systems and other customs from their places of origin. These were adapted to suit the climate and conditions of the land. It is both the culture of the past and the culture and tradition of the present that create the ingredients for the ‘authenticity’ of the cultural landscape.
3.2.2 How do we know what is authentic and what is not?

- Understanding the written and unwritten ‘rules’ that guided the early settlers in order to ‘read’ and understand the cultural landscape, is helpful. Each culture has its own form of Feng Shui which has guided the creation and use of the built cultural landscape.

- Understanding the age of a building and what technologies were in Melaka at the time of its building gives indication of what is original and what has been added later.

In Melaka, the windows are significant and varies according to the styles of the building. But on the image above, the window is mistakenly installed and does not represent any of the shophouses style.

Figure 3.1: The authentic Early Shophouse Style front
3.2.3 Why is research important?

Melaka was built on a large swamp, and on reclaimed sea/land. The heritage buildings were created using materials to suit the conditions and climate and of its heights was to match the urban form, allowing natural airflow. Building heights was also important in relation to the type of land the building sits on.

By researching the past as much as possible, maintenance and repairs will be better understood and new building work can be designed to be more compatible with the cultural landscape.

3.2.4 Where do I get help with research?

- **Original Building Plans**

  Property owners may request a search for original building plans from MBMB (for a fee). Although what is drawn may not necessarily be the same as what was built, they give a good indication as to the traditional materials and structural design.

- **Other Research Resources and Data**

  Copies of historic maps can be found in PERZIM or Unit Konservasi MBMB.

  The National Archives of Malaysia, Singapore and the UK are all helpful resources for researchers.
3.3 Compatible Building Use

Generally, the best way of securing the upkeep of heritage building, place or site, is to keep them in active use. However, judging the best use is one of the most important and sensitive assessments that Unit Konservasi MBMB have to make. It requires balancing the economic viability of possible uses against the effect of any changes they entail.

The best use will very often be the use for which the building was originally designed and the continuation or reinstatement of that use should certainly be the first option when the future of that building is considered. But not all original uses will now be viable or necessarily be appropriate. The nature of uses can change over time, so that in some cases the original use may now be less compatible with the building than an alternative.

A compatible or adaptive re-use of heritage buildings may be permitted by MBMB to ensure the survival of such buildings. This means economically viable uses if they are to survive.

Approval of new use however, must take into consideration the suitability of the use within the cultural landscape. Inappropriate use may cause loss of authenticity of the cultural landscape – the OUV of the WHS.

A Heritage Impact Assessment including a Cultural Impact Assessment will be required for change of use application to ensure that the new use reflects the authenticity of the OUV.

3.4 Reversibility & Adaptation

3.4.1 Reversibility of new works

New extensions or any other permitted alterations to the original form should be reversible, so that future owners may revert back to the original authentic form with minimum damage involved in the process.

Category I buildings should retain their authentic and original form according to the significance of the building, and related buildings / enclave e.g. a mosque, temple or clock tower.

Category IIA and IIB buildings may, together with conservation works be adapted for:

i) a continuation of existing use, with the addition modern conveniences not found in the original form e.g. toilets, electricity, piped water etc.

ii) a new use, which is compatible with the existing form and with permitted additions to the built fabric.

3.4.2 Reversing past misinterpretations

Over the years of development and modernisation, alterations have been made to the built landscapes. Some changes are lightweight cosmetic changes that can be reversed to rediscover the authentic design, e.g. glass louvered windows replaced authentic timber-louvre shutters. Other changes have caused accidental damage, e.g. cement render used instead of traditional lime plaster, or the covering over of the historic drains and ditches.
Reversing this trend should be a considered option when repairing, conserving, altering and/or extending a heritage building, site or landscape.

3.4.3 Using the right materials

Choosing the wrong materials can cause damage to a property and in the case of a shophouse, can potentially harm the party wall, causing damage to its neighbours.

- Find out what original materials were used
- Check what damage the replacement materials have done – if any
- Remove with care and revert back to the original

Advice for using the right materials can be asked from Unit Konservasi MBMB.

3.5 Dismantling

Sections being removed to make way for authorised changes and/or additional areas are better dismantled than demolished and original materials salvaged if possible.

Dismantled items can be:

- used in other areas of the property if in good condition.
- recycled if matched with the original material and in good condition. e.g. old timbers may be used to repair remaining ones.
- sold to others wishing to restore/conserve.

When buying materials dismantled from another building, it is important to purchase from a source that has not acquired the items through dismantling another heritage property without the relevant approvals.
3.6 Fire Protection

3.6.1 Residential use buildings

If a heritage building is being restored and retained as residential use, the fire regulations apply regarding a protected separation from the neighbouring building.

- Early shophouses were designed with an undivided roof, covering many units.
- Later shophouses were designed with a firebreak wall separating each unit.

It is important to maintain the authenticity of the roofline of shophouses. A new fire division for those buildings without a visible firewall should not show above the roofline.

3.6.2 Commercial use buildings

All commercial properties, either heritage buildings or modern buildings must follow the relevant legal requirements for fire protection.

Change of use from Residential to Commercial will require that the buildings follow the regulations for commercial fire protection. However, if the change of use requires too many physical changes that are not reversible, the use may not be suitable.
3.6.3 Mixed-use buildings

Business owners, living above the shophouse or place of business (Single occupancy), represents a traditional use of the shophouse. In this instance, the living quarters on the upper floors would not be separated by a fireproof division.

If a building is divided for separate tenancies, commercial and residential, then a fireproof division and means of escape must be provided, during the renovation/conservation process. See the requirements in the Uniform-Building-Bylaws Part VII (UBBL).

3.6.4 Fire protection materials – Reversibility

Fire protection is to aid the escape of people, through a building to the point of exit, in the case of a fire. The principles of reversibility must be referred to in the selection of fire protection materials.

- Protecting floors for commercial buildings

If the floor is of timber construction then a fire protective barrier may be required between floors, according to the requirements in the UBBL Part VII.

The protective barrier should:

i) NOT be of a material that cannot be removed at a later date should use revert to residential and/or may cause damage during removal (see section 4.4).

ii) NOT add additional weight to existing structures, beyond their capacity.

Using a concrete slab on top of the original timber floor structure is only permitted for bathroom areas, and should not be considered as a method for fire separation.

The following are suggested protective layer:

i) A fire rated ceiling board

ii) A fire retardant paint suitable for timbers

- Protecting walls

If a new fire protected partition wall is required, it should be of a fire rated material that does not add weight beyond the capacity of the original floor structure, and can be removed without damage to the original fabric of the building.

- Fire protective doors

Fire protected doors may be required on both new and existing openings.

Certified fire doors must be installed, therefore the original doors must be removed with care and stored for later reinstatement should the use of the building revert to residential use.

Existing openings in Heritage Buildings usually come with thick hardwood frames, and panelled doors. Every effort should be made to keep the original frames, as well as install the certified fire door frames.

Always discuss the issue of fire escape and heritage building needs, with Jabatan Bomba dan Penyelamat and Unit Konservasi MBMB. The importance of regulations and advice for fire protection in Heritage Buildings has been recognised and is in the process of being evaluated. It is important to check for the latest approved approach that complies with both Jabatan Bomba dan Penyelamat and the principle of reversibility.
3.7 Demolition

3.7.1 State policy & legal issues

Conservation area designation imposes control over the demolition of all listed buildings or parts of it within the conservation area. Application for planning permission to demolish must be made to MBMB.

In the conservation area, account should clearly be taken of the part played in the architectural or historic interest of the area by the building for which demolition is proposed, and in particular of the wider effects of demolition of the building’s surroundings and on the conservation area as a whole.

The MBMB is entitled to consider the merits of any proposed development in determining whether planning permission should be given for the demolition of an unlisted building in the conservation area.

Works involving the destruction of part of the fabric of the building will be regarded as ‘demolition’ as per the Town And Country Planning Act 1976 and will require planning permission.

3.7.2 Linking between properties

If an owner of a row of a Category II shophouse wishes to link these properties by creating openings in the structural party walls, planning permission to carry out such work is required.

3.7.3 Illegal demolition

As defined in section 22 (3) of the Town And Country Planning Act, upon the application for planning permission, demolition shall not take place until:

- planning permission, building plan and commencement of works for those works have been granted; and
- a contract for carrying out works of redevelopment has been made.

Failure to comply will constitute as illegal demolition.

3.7.4 Strong justification for demolition

Heritage building controls ensure that proposal for demolitions are fully scrutinized before any decision is reached. The destruction of heritage buildings is the result of neglect or failure to make imaginative efforts to find new uses for them or to incorporate them into compatible development schemes.

The demolition of any Category I or II building should be wholly exceptional and should require the strongest justification.

The State Planning Committee would not expect planning permission to be given for the total or substantial demolition of any heritage building without clear and convincing evidence that all reasonable efforts have been made to sustain existing uses or find viable new uses, and this efforts have failed; or that redevelopment will produce for the community which would decisively outweigh the loss resulting from demolition.

Planning permission for demolition would not be granted simply because redevelopment is economically more attractive to the owner than repair and re-use of the heritage building, or because the owner acquired the building at a price that reflected the potential for redevelopment rather the condition and constraints of the existing heritage building.
Where proposed works will result in the total or substantial demolition of the heritage building, or any significant part of it, Unit Konservasi MBMB, in addition to the general considerations must address the following considerations:

i) The condition of the building;

ii) The cost of repairing and maintaining it in relation to its importance;

iii) The value derived from its continue use.

Any such assessment should be based on consistent and long-term assumptions. Less favourable levels of rent cannot automatically be assumed for heritage buildings.

In rare cases where it is clear that a building has been deliberately neglected in the hope of obtaining planning permission for demolition, less weight should be given to the cost of repair (see above). In this case two further considerations should be addressed:

ii) the adequacy of efforts made to retain the building in use;

iii) the merits of alternative proposals for the site.

The Unit Konservasi MBMB may wish to incorporate heritage building within new development, and this option should be carefully considered.

The challenge presented by retaining heritage buildings can be a stimulus to imaginative new design to accommodate them.
3.8 Alterations and Extension

3.8.1 General principles for alterations and extension

i) Each heritage building has its own characteristic, which is usually related to an original or subsequent function. This should as far as possible be respected when proposals for alteration are put forward. Marks of special interest appropriate to a particular type of building are not restricted to external elements, but may include anything from the orientation, the plan or the arrangement of window openings to small internal fittings. Attempt should be made to retain the characteristic of distinct type of building, especially those that are particular to their area. The use of appropriate local material is very desirable.

ii) Alterations should be based on a proper understanding of the structure. Some heritage buildings may suffer from structural defects arising from their age, methods of construction or past use, but can still give adequate service provided they are not subject to major disturbances. Repairs should usually be low-key, re-instating or strengthening the structure only where appropriate. New work should be fitted to the old to ensure the survival of as much historic fabric as is practical. Old work should not be sacrificed merely to accommodate the new.

iii) Information about the history and historical development of a building, object or site, is of value when considering proposed alteration. This may be gained from the physical evidence in the building itself – lost features in the plaster, rough edges where features have been cut away—which can enlighten the original form or construction. There may also be documentary information, such as early photographs, drawings, written description or other documents relating to its construction or use.

iv) In judging the effect of any alteration or extension it is essential to have assessed the elements that make up the special interest of the building in question. They may comprise not only obvious visual features such as a decorative façade or internally, features such as staircases, decorated plaster ceilings or capitals but also the spaces and layout of the building. These elements are just as important in simple buildings as in grander architecture.

v) Subsequent addition to the original design of heritage buildings, including minor accretions, such as porches, balconies, verandahs, door dressings, do not necessarily detract from the quality of building. They are often of interest in their own right as part of the building’s organic history. Generally later features of interest should not be removed merely to restore a building back to an earlier form.

vi) New building extensions should not dominate the existing heritage building either in scale, material or situation.
3.8.2 The original building profile such as features of airwell, forecourt, internal court, rear court, etc. shall be retained and restored. Alteration and/or extensions to heritage buildings are subject to MBMB permits and approvals. Unauthorised alteration and addition to the building profile will require the original to be reinstated to the original profile.

For guidelines on alterations and extension for Category I, please refer to Chapter 4

For guidelines on alterations and extension for Category IIA, please refer to Chapter 5

For guidelines on alterations and extension for Category IIB, please refer to Chapter 6
4 Category I

4.1 Definition

Category I is defined as the following:

(i) Monuments and buildings of exceptional interest;
(ii) Monuments and buildings declared as ancient and gazetted formerly under the Antiquities Act 1976 now under the National Heritage Act (2005); and
(iii) Monuments & buildings registered as National Heritage under the National Heritage Act (2005).

Cultural Landscapes - Category I sites.

Category I buildings and sites are important in that they reflect the authenticity of the cultural landscape and therefore the OUVS of WHS.

The Cultural, Social and Architectural significance of objects and buildings, in other words the cultural landscape, is an expression of the Heritage Value of a site, and for that reason they are identified as Category I.

The numerous religious building in Jalan Tokong, Jalan Tukang Emas and Jalan Tukang Besi are centres of cultural life and community activity. They remain relevant to the lifestyle of the various community in Melaka. As such buildings like Cheng Hoon Teng Temple, Kampung Keling Mosque ans Sri Poyyatha Vinayagar Moorthi Temple had been categorised as Category I.

Similarly buildings like the Clock Tower, the Victoria Memoriall Fountain, the Stadhuys and Christ Church which not only continue to perform their historical functions today but also define and give character to the Town Square had been categorised as Category I.

4.2 Permitted Use

The use should remain as originally intended.

4.3 Authenticity and Interpretation

Category I are objects and buildings must be conserved to retain their original use, form, decoration and traditional materials in order to preserve their authenticity, both physical and cultural.

(i) Category I buildings should retain their authentic and original form according to the significance of the building, and related buildings / enclave/ item. e.g. a temple and surrounding housing.

(ii) Research into the object or building form, architectural style, typology, traditional materials, history of the object or building and the search for original building plans, should be undertaken, in order to establish the authenticity.

(iii) During the conservation of buildings process, a report of these findings is required by the Local Authority on submission of drawings, together with a report of the condition of the building, when conservation works are to be undertaken. (see Dilapidation Survey Report Part 2).
4.4 Research for Historical Data

For Category I buildings and objects as much must be understood about them before works are carried out – even minor repairs.

This includes researching:
(i) Traditional construction / manufacture methods typical of the type and age of the building/ object;
(ii) Original drawings, photographs, paintings and other drawn information
(iii) Newspaper cutting archives, and archives documentation of the owner or related association etc.
(iv) Local oral histories.

4.5 Permitted Works

Category I building or object - only restoration work is allowed be carried out in order to reinstate back its original character and maintaining its original fabric using similar construction method and materials.

New construction method will only be allowed for the purpose of re-strengthen the original building structure without disturbing or modifying its original structure or removing any of its original fabric. It requires a cautious approach of changing as much as necessary but as little as possible

4.5.1 Requirements for permitted works:
(i) Dilapidation Survey Report
(ii) Repair works
(iii) Progress Reports
(iv) Other reports and surveys

i) Dilapidation Survey Report
Before any application for a Repair works can be submitted a Dilapidation Survey Report is required for all Category I buildings and should be submitted together with the application. The report should include a description of the:
- Historical Significance of the Site
- Architectural Significance of the Site
- Cultural Significance of the Site

The reports will vary in length depending on the extent of works being carried out.

ii) Repair works
To refer to Part 4 of this Guidelines, and to discuss with Unit Konservasi MBMB for guidance.

iii) Progress Reports
These Reports allow the MBMB, owner and architect to follow the course of the work on site. They are a photographic record taken before works commence, at the mid point of the project and when all is completed.

iv) Other Reports and surveys
If major conservation work is to be carried out full measured drawings should accompany the Dilapidation Report and be used as Tender/ Contract/ Construction Documents.

It is advisable to prepare a Conservation Management Plan for the conserved Category I building to avoid damage in future maintenance and help check for potential problems.
4.6 Examples of Category I

Figure 4.1 Clock Tower

Figure 4.2 Ruins of St. Paul’s Church

Figure 4.3 Kampung Keling Mosque

Figure 4.4 Christ Church Melaka
4.7 Guidelines for Conservation Work : Category I

4.7.1 Front Forecourt

<table>
<thead>
<tr>
<th>Item</th>
<th>Original designs / building methods</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Forecourt Courtyard Compound</td>
<td>The forecourt is an important setting in which a Category I building is placed, it should be kept to its original form, and used in the manner in which it was intended when built.</td>
<td>The forecourt may sometimes be identified separately as Category II – the same requirements apply.</td>
</tr>
<tr>
<td>b) Gate and walls</td>
<td>The original size &amp; ornamentation of the gate and walls shall be retained &amp; restored with original or matching materials.</td>
<td>MBMB should avoid obstructions such as bus shelters, parking etc in front of the entrance. Building owners may apply for their relocation.</td>
</tr>
<tr>
<td>c) Ground</td>
<td>The original flooring material shall be retained and restored with matching materials. Laying of new ground finishes shall be sensitive and sympathetic to the front façade.</td>
<td>The original material often has significant cultural meaning even the direction of the granite / brickwork is important. Every effort should be made to understand the cultural significance.</td>
</tr>
<tr>
<td>d) Drainage</td>
<td>The original drainage from the buildings to the street is an integral part of the Category I Building and Compound design. It should be retained and restored to original.</td>
<td>The flow of water has a strong cultural significance and should be respected. Additional drainage may be permitted to avoid flooding.</td>
</tr>
</tbody>
</table>
### 4.7.2 Roof

<table>
<thead>
<tr>
<th>Item</th>
<th>Original designs / building methods</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Tiles All Roofs</td>
<td>The original traditional roofing material, eaves detail, (fascia board) shall be retained and restored</td>
<td>Original installation method and tile profile are to be used</td>
</tr>
<tr>
<td>b) Structure Main Roof</td>
<td>The original profile, pitch, height, party wall and eaves projection and internal structure shall be retained and restored</td>
<td>The original form should be retained damaged elements may be removed and replaced with matching elements</td>
</tr>
<tr>
<td>c) Jack Roof</td>
<td>The original traditional roofing material, eaves detail, (fascia board), ventilation louvers or glass, shall be retained and restored</td>
<td>Roof tiles are to be identical to the main roof.</td>
</tr>
<tr>
<td>d) Roof Eaves</td>
<td>The original eaves, overhang and support features shall be retained and restored.</td>
<td>Original to be maintained.</td>
</tr>
<tr>
<td>e) Parapets, gutters &amp; down pipes</td>
<td>The original features, shall be retained and restored.</td>
<td>New gutters may not be added to existing roofs designed without gutters.</td>
</tr>
</tbody>
</table>
### 4.7.3 Building External and Internal

<table>
<thead>
<tr>
<th>Item</th>
<th>Original designs / building methods</th>
<th>Comments</th>
</tr>
</thead>
</table>
| a) Building               | Each Category I Building will be unique, culturally and architecturally and must be conserved and restored to maintain its authentic uniqueness | Further research into:  
The traditional way of building  
The building’s architectural, social, and cultural history.                                                                                                                                              |
| b) Materials              | The original materials used for the walls, columns, windows, doors, railings, floors and decorative elements, etc., must be conserved, restored or returned back to the original. | All effort to be made to replace damaged or lost elements with matching size, species, kind or design.  
New items are only permitted if they match the performance of the original material.                                                                                                      |
| c) Alteration and Extension| The Category I building has a footprint and profile unique to its architectural style.              | No alteration or extension is permitted.                                                                                                                                                              |
| d) Utilities and Services | Many Category I buildings were designed before the invention of electricity.  
Those that have had electricity installed in the past may require it to be upgraded.  
Temperatures were controlled through appropriate design elements such as open air-wells and fanlights; these should be conserved and restored.  
Many Category I buildings were designed before the invention of plumbing. Water was collected in water tanks and wells, if still part of the building these should be conserved and retained. | Research is required into how the original buildings respected, and were designed to suit the climate.  
New services required, such as lighting, security, must be installed with care and are unobtrusive and discrete.  
Air-conditioning may only be installed if the original options can no longer be used and will be assessed on a case-by-case basis.  
Unless part of the original building design, all new sanitary and plumbing should be in and ancillary / annex building. |

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Melaka and George Town: Historic Cities of The Straits of Malacca.
5 Category IIA

5.1 Definition
Category IIA is defined as the following:-

(i) Buildings of exceptional interest.
(ii) Buildings related to or associated with Category I buildings.
(iii) Corner buildings of architectural significance.
(iv) Rows of buildings of architectural significance.
(v) Dated building of architectural significance.
(vi) Compounds, boundary walls, gateposts & gates, landscapes, trees, enclaves, granite pathways and sites.
(vii) Historic street furniture, granite posts and chains, fountains, lamp-posts, post boxes, tramlines and trolley buspoles, fire hydrants and fire assurance plaques, granite and engineering brick drains, etc.

Category IIA covers a multitude of elements, all of which are relevant to the cultural, social and architectural significance of heritage buildings and conservation areas, including the Core and Buffer Zones of the WHS. They are important to protect, conserve and maintain as the ‘permanat element’ of the urban fabric of the city and the history of the island’s progress.

They range from the few remaining historic cast iron lamp posts to buildings related to Category I buildings. In this instance the use of the buildings must be compatible to the Category I building and not cause a devaluation in its significance to the Site. Continuing or re-instating original use is one way of maintaining the cultural and social significance and serves to highlight the philanthropy of the early ancestors.

Category IIA is also used to identify items selected for their significance in terms of urban landscape – for example, the old fountain in the Red Square.

5.2 Permitted Use
The use should be as originally intended or the new use should be compatible with the original structure and form and the Category I site.

Minor alterations may be permitted on a case-by-case basis.

5.3 Authenticity and Interpretation
Category IIA – buildings, compounds and objects, compound walls, gateways, dated buildings, trees and cultural spaces support the Category I buildings and/or the overall OUV of the WHS.

Research into the form, design style, traditional materials, history and original design source, should be undertaken, in order to establish the authenticity.

Category IIA, buildings and objects should retain their authentic and original form, materials and wherever possible use.

For IIA buildings or objects:
(i) The original or typical design (or floor plans, in case of buildings), should only have minor changes for modern use, but the overall use should respect the authentic design.
(ii) The façade(s) should remain or be returned to the original.
(iii) The roof structure and roof tiling should match the original. Taking note of the roof structure in relation to the party walls when they are load-bearing structures.
(iv) The requirements for natural ventilation (described in the UBBL para. 31) - the internal open air-well and the external kitchen air-well / yard should be respected.

5.4 Research for Historical Data

Category IIA buildings, places and objects - as much as possible must be known about them in order to guide the team involved in any desired changes, before works are carried out – even minor repairs.

This includes researching:
(i) Traditional building methods typical of the type and age of the building/object.
(ii) Contemporary conservation methods, suited to the object or building.
(iii) Original drawings, photographs, paintings and other drawn information.
(iv) Newspaper cutting archives, and archives documentation of the owner or related association etc.
(v) Local oral histories.

5.5 Permitted Works

**Authentic conservation work** is permitted be carried out in order to reinstate back the original character and maintain the original fabric using traditional or compatible contemporary methods and materials.

In Category IIA buildings, if the original fabric is intact then the original material may not be exchanged for a different material, e.g. if lime plaster has been used then it cannot be replaced with cement plaster.

Alteration is permitted in order to upgrade sanitary and plumbing, & electrical utilities.

Extension at rear (and side if applicable) is not allowed.

**Requirements for permitted works:**
Category: IIA objects and buildings
(i) Dilapidation Survey Report
(ii) Repair Permit
(iii) Heritage Impact Assessment
(iv) Building Submission
(v) Progress Reports

i) **Dilapidation Survey Report**
Before any application for a Repair Permit can be submitted a Dilapidation Survey Report is required for all Category IIA buildings and should be submitted together with the application for the Repair Permit or Building Submission.

ii) **Repair Permit**
To be submitted to MBMB Building Department before any work is carried out on a Category IIA building or object such as gateway or compound wall. In the case of emergency repair, a repair may take place before the application of a permit (e.g. roof damaged over a weekend when Building Department closed or owner not contactable).

However, photographs of before and after the repair should be submitted to MBMB together with a Repair Permit, as soon as possible.
(iii) **Heritage Impact Assessment**
As the permitted extensions or alterations to category IIA buildings or objects are restricted, the overall impact on the existing building and external environment should be limited.

However, as some Category IIA buildings are related to a Category I building, a Heritage Impact Assessment is still required though its size will be relative to the scale of works involved (see 4.4).

- Historical Significance of the Site
- Architectural Significance of the Site
- Cultural Significance of the Site

(iv) **Building Submission**
In Category IIA buildings, minor extensions and alterations are allowed as well as e.g. upgrading sanitary facilities. These would need to be submitted to the Unit Konservasi MBMB for screening before submission to OSC/Building Control Department.

(v) **Progress Reports**
These Reports allow the MBMB, owner and architect to follow the course of the work on site. They are a photographic record taken before works commence, at the midpoint of the project and when all is completed.
5.6 Examples of Category IIA

Figure 3.1 - 73, Jalan Tun Tan Cheng Lock

Figure 3.2 - 100, Jalan Hang Jebat

Figure 3.3 - 113, Jalan Tokong

Figure 3.4 - 117, Jalan Tun Tan Cheng Lock

Figure 3.5 Landing Steps, Melaka River 2010

Figure 3.6 Landing Steps, Melaka River 1910
## Guidelines for Conservation Work on Listed Heritage

### General Guide: Category IIA

#### Buildings and Objects

<table>
<thead>
<tr>
<th>Item</th>
<th>Original designs / building methods</th>
<th>Comments</th>
</tr>
</thead>
</table>
| a) Building | Each Category IIA Building will be either unique, culturally and architecturally, or associated with a Category I building, or part of an enclave / corner and must be conserved and restored to maintain its authentic uniqueness | Research into:  
The architectural style origins.  
The traditional way of building  
The building’s architectural, social, and cultural history.  
See Part 3 - Conservation Practice |
| b) Materials | The original materials used for the structure, roofs, walls, columns, windows, doors, railings, floors and decorative elements, etc, must be conserved, restored or returned back to the original. | All effort to be made to replace damaged or lost elements with matching size, species, kind or design.  
New items are only permitted if they match the performance of the original and are approved. |
| c) Alteration | The Category IIA Building has a footprint and profile unique to its architectural style. This should be maintained. | Alteration is permitted to sensitively upgrade amenities.  
See Part 3 - Conservation Practice |
| d) Extension | The Category IIA Building has a footprint and profile unique to its architectural style. This should be maintained. | Shophouses - Extension to the rear area, after the yard/air well is permitted, provided it does not impinge on natural ventilation and light to other units. 
Other buildings – Extension on a case by case basis  
See Part 3 - Conservation Practice |
| e) Utilities and Services | Many Category IIA buildings were designed before the invention of electricity. Those that have had electricity installed in the past may require it to be upgraded. Temperatures were controlled through appropriate design elements such as open air-wells and fanlights, these should be conserved and restored. Many Category IIA buildings were designed before the invention of plumbing. Water was collected in water tanks and wells, if appropriate to the building these should be conserved and retained. | Research is required into how the original buildings respected and were designed to suit the climate. New services required, such as lighting, security, must be installed with care and be unobtrusive and discrete. Air-conditioning may only be installed if the original options can no longer be used and will be assessed on a case-by case-basis. Unless part of the original building design, all new sanitary and plumbing should be in and ancillary building. See Part 3 - Conservation Practice |
| f) Objects | Category IIA objects, such as lampposts, landing steps, post boxes, granite pathways etc – are remnants of the historic built landscape. | Research into method of manufacture and repair. Always repair and conserve, rather than demolish and replace. |
Category IIB

6.1 Definition

Category IIB is defined as:- Buildings of special interest that warrant every effort being made to preserve them.

Cultural Landscapes Category II B

Category IIB buildings, places and sites, make up for the majority of the cultural landscape of Melaka. They are the humble, the vernacular, they tell of the everyday lives of the eclectic cultural landscape of Melaka. They are also the most vulnerable to change often swept aside by new developments, converted into boutique hotels, inappropriate remodelling or simply neglect.

They were residences of those who had lived in Melaka for generations. They were built to support the traditional beliefs of the inhabitants and users. The materials used, the position of a stair, the angle of the door, all relevant to the cultural beliefs of the owners and users.

They represent an architectural identity, that was adapted to suit climatic needs and those of the site conditions. They respected the environment producing zero carbon structures long before the notion was realised for its sustainability.

They tell of cultural influences in the change in scale, decoration and materials, each one a piece of an architectural and cultural jigsaw. They are the identity of the Historic Cities of the Straits of Malacca and the greatest link between its historic cities.

6.2 Permitted Use

Generally, the best way of securing the upkeep of heritage building, place or site, is to keep them in active use. However, judging the best use is one of the most important and sensitive assessments that MBMB have to make. It requires balancing the economic viability of possible uses against the effect of any changes they entail.

The best use will very often be the use for which the building was originally designed and the continuation or reinstatement of that use should certainly be the first option when the future of that building is considered. But not all original uses will now be viable or necessarily be appropriate. The nature of uses can change over time, so that in some cases the original use may now be less compatible with the building than an alternative.

A compatible or adaptive reuse of heritage buildings may be permitted by MBMB to ensure the survival of such buildings. This means economically viable uses if they are to survive.

Category IIB- where permitted alterations and extensions are required for the new use, the original fabric and form of the building should not be compromised.
6.3 Authenticity and Interpretation

As Category IIB buildings dominate the streetscape, the authenticity of their connection to the street – the façade and five-foot-way and/or compound, the original materials used, the style of openings and decoration should be maintained, restored and conserved, or if altered at some point in time - returned back to the original.

Owners of these buildings may apply to build compatible alterations and extensions - approval will be a case-by-case basis.

Owners are advised to visit the Unit Konservasi MBMB to seek advice regarding:

(i) The original typology and the authentic appearance or style of the building.
(ii) The authentic streetscape – including neighbours.
(iii) The authentic roof line, the view from the street and vistas. The authentic streetscape and roofline is part of the OUV for the WHS; any change must be carefully considered.
(iv) The guidelines for conservation and alteration and extension works, traditional ways of building etc.

6.4 Research for Historical Data

It is advisable to discover as much as possible about the Category IIB buildings or objects, before a proposal for works is considered.

Research can help in determining the original ground condition, e.g. swamp or stream. The type of foundations used in buildings of the same time period and area and the building materials used at the time of its construction.

Research material:
(i) Original drawings – from the MBMB archives.
(ii) Photographs, paintings and other drawn information.
(iii) Newspaper cutting archives, and archives documentation of the owner or related association etc.
(iv) Local oral histories.

6.5 Permitted Works

Category IIB building - internal alteration and extension at rear (and side if applicable) is allowed for suitable adaptive-reuse and new extension should complement and enhance the quality of existing building in terms of setting, mass, height, design, scale, material use and architectural element.

In Category IIB buildings, repairing the original materials or returning back to the original fabric of the building is to be encouraged, e.g. removing cement plaster and replacing with traditional lime plaster.

The existing building with its original character and building profile should be retained and restored to its original condition. Replacing the existing materials should have similar profile, performance, design, colour and texture or equivalent.

Requirements for permitted works
i) Dilapidation Report
ii) Repair Proposal Drawings
iii) Building Plan Submission
iv) Progress Reports
v) Heritage Impact Assessment
i) Dilapidation Report
Before any application for repair can be submitted a Dilapidation Survey Report is required for all Category IIB buildings and should be submitted to Unit Konservasi MBMB before the application for the Repair approval or Building Plan submission to Building Control Department.

ii) Repair Proposal Drawings
To be submitted to MBMB Unit Konservasi for screening before submitting to the Building Control Department prior to any work being carried out on a Category IIB building or object such as gateway or compound wall.

In the case of emergency repair, a repair may take place before the application of permit (e.g. roof damaged over a weekend when Building Department closed or owner not contactable). However, photographs of before and after the repair should be submitted to MBMB Unit Konservasi together with Repair Proposal Drawings as soon as possible.

iii) Building Plan Submission
In Category IIB buildings, minor extensions and alterations are allowed as well as e.g. upgrading sanitary facilities. These together with dilapidation report need to be submitted to Unit Konservasi MBMB for screening before it is submitted to Building Control Department for approval.

iv) Progress Reports
These Reports allow the MBMB, owner and architect to follow the course of the work on site. They are a photographic record taken before works commence, at the midpoint of the project and when all is completed.

v) Heritage Impact Assessment
On a case-by-case basis, and subject to the position of the building related to application, a HIA may be required.
6.6 Guidelines for Conservation Work Detail Guide: Category IIA and Category IIB

6.7.1 Roof

<table>
<thead>
<tr>
<th>Item</th>
<th>Original designs / building methods</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tiles - All Roofs</td>
<td>The original traditional roofing material, eaves detail, (fascia board) shall be retained and restored</td>
<td>Original installation method and tile profile are to be used.</td>
</tr>
<tr>
<td>Types</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Small size, V or U profile, unglazed, natural colour terracotta tiles.</td>
<td>a) Timber battens run ridge to eaves on horizontal purlins (roof beams).</td>
<td></td>
</tr>
<tr>
<td>b) Interlocking clay roof tile, Marseilles (Indian or French) not traditional to shophouses</td>
<td>b) Timber battens run horizontal supported by truss roof system.</td>
<td></td>
</tr>
<tr>
<td>Structure Main Roof</td>
<td>The original profile, pitch, height, party wall and eaves projection and internal structure</td>
<td>The original form should be retained and restored. Faulty members may be removed and replaced with matching member.</td>
</tr>
<tr>
<td>Types</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Horizontal timber purlins (roof beams) installed between load-bearing walls (shophouses)</td>
<td>a) Acts as brace for the structural walls.</td>
<td></td>
</tr>
<tr>
<td>b) Horizontal timber purlins (roof beams) installed above truss or sloping rafter (bungalows)</td>
<td>b) Acts as a tie for the trusses &amp; rafter</td>
<td></td>
</tr>
<tr>
<td>c) Timber or Metal Truss System supporting battens for a interlocking clay tile roof or timber boards or profiled metal roofing sheets</td>
<td>c) Often used for corner sites, 1900s godowns and double-pitched roofs of bungalows etc.</td>
<td></td>
</tr>
<tr>
<td>Ridge and Gable</td>
<td>A row of shophouses would often have a roof ridge of bricks or with bricks and air-vent tiles</td>
<td>The original form should be retained, missing elements to be put back.</td>
</tr>
<tr>
<td></td>
<td>Original raised gable wall / party wall (of high cultural significance)</td>
<td></td>
</tr>
<tr>
<td>Jack Roof</td>
<td>The original traditional roofing material, eaves detail, (fascia board), ventilation louvres or glass, shall be retained and restored</td>
<td>Existing Jack Roof to be retained. New jack roof is not permitted.</td>
</tr>
<tr>
<td>-----------</td>
<td>--------------------------------------------------------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td>A tiled roof raised above the ridge of an existing roofline to allow for covered ventilation into the main roof space. Timber structures vary from building to building.</td>
<td>Roof tiles are to be identical to the main roof.</td>
</tr>
<tr>
<td>Skylight</td>
<td>These are not original to the architecture of Melaka</td>
<td>Glass moulded Marseilles tiles are sometimes found on Marseille tiled roofs</td>
</tr>
<tr>
<td>Dormer Window</td>
<td>Dormer windows are not found in Melakan architecture</td>
<td>New dormer window is not permitted.</td>
</tr>
<tr>
<td>Eaves Roof overhang</td>
<td>The original eaves, overhang and support features shall be retained and restored.</td>
<td>No new eave detail or support may be used. The original form should be retained, and restored.</td>
</tr>
<tr>
<td>Types</td>
<td>a) Stepped terracotta flat tiles, brick corbel brackets at junction with wall a) traditional shophouse without gutters.</td>
<td>b) shophouse or bungalow with overhanging roof</td>
</tr>
<tr>
<td></td>
<td>c) Exposed battens and facia board. Brick corbel or timber corbel. c) buildings after 1920s, shophouses, bungalows and commercial buildings</td>
<td></td>
</tr>
<tr>
<td></td>
<td>d) RC brackets and ceiling boards with patterned beading (1920s) d) RC brackets and ceiling boards with patterned beading (1920s)</td>
<td></td>
</tr>
<tr>
<td>Gutters</td>
<td>Gutters and down pipes were introduced in the mid 1800s, many buildings continued without gutters, with rain falling into the open drain below. Gutters and downpipes were part of the overall design from the early 1900s.</td>
<td>Roofs without gutters should remain without. The original form to be retained and restored.</td>
</tr>
</tbody>
</table>
### Upper Façade

<table>
<thead>
<tr>
<th>Item</th>
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</tr>
</thead>
<tbody>
<tr>
<td>(i) Building Facade</td>
<td>The heritage facades styles are numerous, changing with new influences fashions and technologies. Over the years many have been altered almost beyond recognition.</td>
<td>The original façade shall be retained &amp;/ or restored. Demolition, alteration &amp; addition to original / aesthetic façade is not permitted. The original masonry, mortar &amp; plaster shall be retained (where possible).</td>
</tr>
<tr>
<td>(ii) Upper Facade (a)</td>
<td>Decorative features – on certain shophouses, there are often bands of decoration, either painted or moulded with 3D chien nien shardwork, below the roof beam, or above the first floor beam.</td>
<td>The original decorative features, if any, shall be retained &amp; restored using traditional materials.</td>
</tr>
<tr>
<td></td>
<td>On certain shophouses, masonry bungalows and commercial buildings, the decoration was moulded from lime mortar.</td>
<td>To be repaired, restored or reinstated, using original materials if evidence.</td>
</tr>
<tr>
<td>(b)</td>
<td>Upper floor shutters – traditional timber shutters with two panels of movable louvres and in some cases one further solid panel at the base of each leaf.</td>
<td>To be repaired, restored or reinstated, using original materials.</td>
</tr>
<tr>
<td>(c)</td>
<td>Balustrades – behind the door height shutters - a balustrade usually of timber, but occasionally of cast iron.</td>
<td>To be repaired, restored or reinstated, using original materials. Missing elements shall follow the original design.</td>
</tr>
<tr>
<td>(d)</td>
<td>New secondary internal windows may be required if the internal space is being air-conditioned or to cut out external noise.</td>
<td>Leaf frame timber size &amp; width to match the leaf frame of the shutters. Clear, kampong or light tinted class is permitted</td>
</tr>
<tr>
<td>(e)</td>
<td>Low wall – below shutters, in some instances highly decorated.</td>
<td>To be restored back to original</td>
</tr>
<tr>
<td>(f)</td>
<td>Canopy – In a few cases a terracotta 'V' shaped tiled canopy projected from above the first floor beam, below the first floor low wall, out into the street. The canopy structure supported by projecting granite corbels.</td>
<td>Original canopy, if any, to be retained &amp; restored. Traditional roofing material is to be used. Materials such as metal, asbestos sheet or PVC are not permitted. Permitted but in design manner and compliance with requirement of relevant department.</td>
</tr>
<tr>
<td>(iii) Side Facade</td>
<td>Sidewall openings- In a few cases openings in the sidewalls were part of the original design. These were protected by stepped bricks and terracotta tiles to form a slight projection from the main wall above the opening. Solid or louvred timber shutters would have filled the opening.</td>
<td>Original to be retained and restored. No new opening in side walls permitted</td>
</tr>
</tbody>
</table>
### 6.7.3 Lower Façade

<table>
<thead>
<tr>
<th>Item</th>
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</tr>
</thead>
<tbody>
<tr>
<td>(i) Lower Facade</td>
<td>The entrance façade of residential shophouses and certain bungalows follows a similar design format. Central doorway and timber doors flanked either side by shuttered openings with air-vents above. The nature of the decoration and material reflects the culture of the original owner/builder and the design evolved with 'modern' influences over the years.</td>
<td>Existing façades that have been altered from the original shall be reinstated to original façade in terms of rhythm, materials used, vertical &amp; horizontal elements. Traditional material such as timber, lime plaster, lime wash, are to be used.</td>
</tr>
<tr>
<td>(a) Central doorway and ventilation doors – Residential</td>
<td>Ventilation doors and pintu pagar should always open into the five foot way. These may be pivot doors or hinged depending on the style of the façade. The shoe for the pivot was often carved granite.</td>
<td>To be retained, and restored with traditional materials. New italics – allowed.</td>
</tr>
<tr>
<td>(b) Central doorway and solid doors - Residential</td>
<td>The timber frame often formed the threshold, though granite thresholds are also known. Pivoted solid doors should always open inwards so that the painted or carved poem/ auspicious message is facing towards the inside of the building.</td>
<td>To be restored and retained. New roller shutters are not permitted. Existing roller shutter to be replaced with traditional security shutters.</td>
</tr>
<tr>
<td>(c) Security shutters – Commercial</td>
<td>Full width timber panels are considered traditional. Clear glass, frameless glass doors are permitted. Metal framed doors are not permitted Reflective glass is not permitted.</td>
<td></td>
</tr>
<tr>
<td>(d) New secondary glass doors may be required if the internal space is being air-conditioned or to cut out external noise. These should be placed between the solid timber doors (opening inwards) and the ventilated doors opening out. The glass doors should open inwards.</td>
<td>To be restored and retained using traditional materials and methods.</td>
<td></td>
</tr>
<tr>
<td>(e) Openings and air-vents.</td>
<td>Thick timber frames, vertical metal bars and horizontal timber transoms, created the openings for the solid timber shutters on the ground floor. In some cases glass windows were installed between the bars and the solid shutters. Above the openings are timber framed air vents with decorative carved grilles or simple vertical bars. Leaf frame timber size &amp; width to match the leaf frame of the shutters. Clear, kampong or light tinted class is permitted. Reflective glass is not permitted.</td>
<td>Carved timber panels sitting on carved lions were typical in shophouses.</td>
</tr>
<tr>
<td>(f) New secondary internal windows may be required if the internal space is being air-conditioned or to cut out external noise.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(ii) Signage</td>
<td>Signage shall be installed in accordance with Guidelines for Display of Signage.</td>
<td></td>
</tr>
<tr>
<td>(iii) Security devices</td>
<td>Original security devices such as locks, steel bars, grilles &amp; etc. shall be retained &amp; restored.</td>
<td></td>
</tr>
</tbody>
</table>
### 6.7.3 Five Foot Way

<table>
<thead>
<tr>
<th>Item</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Five-Footway - Verandah</td>
<td>Original design of five-footway such as archway &amp; arcades shall be maintained. Any original decorative feature(s) shall be retained &amp; restored.</td>
<td>---</td>
</tr>
<tr>
<td>(i) Walls</td>
<td>Decorative wall tiles - Originally placed as a dado panel below the two openings either side of the main door. These were installed using lime mortar.</td>
<td>Existing to be retained and restored. New tiles are not permitted</td>
</tr>
<tr>
<td>(ii) Floors</td>
<td>Where the five-footway is not level with adjacent units &amp; the difference in level is more than one step, Original floor finishes shall be restored. If repair or replacement is necessary, finishes used shall be of material close to the original in terms of colour &amp; texture.</td>
<td>A ramp in compliance with the requirements of relevant departments shall be provided. Traditional finishes terracotta tiles, terrazzo tiles, and mosaic to be restored. Finishes of gloss ceramic tiles are not permitted. Shall be retained &amp; exposed without covering up by other materials.</td>
</tr>
<tr>
<td>(iii) Drain</td>
<td>Traditional granite steps and bridge across drain – Drain edge – engineering bricks.</td>
<td>Existing to be retained and restored. If missing, new to be installed.</td>
</tr>
<tr>
<td>(iv) Ceiling</td>
<td>In rare cases the five-foot way has a ceiling. Exposed upper floor structure of timber boards &amp; timber joists are more usual. Exposed reinforced concrete floor, if any.</td>
<td>Original ceiling profile / design shall be maintained. Any original decorative feature(s) shall be retained &amp; restored. Is permitted to remain.</td>
</tr>
</tbody>
</table>
### 6.7.4 Rear Area

<table>
<thead>
<tr>
<th>Item</th>
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</tr>
</thead>
<tbody>
<tr>
<td>(i) Roof cover</td>
<td>Kitchen courtyard and air well – rear court</td>
<td>Matching roofing material as the main roof shall be used. Materials such as zinc, asbestos, metal deck &amp; etc. are not permitted.</td>
</tr>
<tr>
<td></td>
<td>New roof of pitch profile over the rear courtyard single storey kitchen building is allowed subject to the roof height requirement. No new structure is allowed within the air-well.</td>
<td></td>
</tr>
<tr>
<td>(ii) External Staircase</td>
<td>Existing external staircase, if any, should be retained.</td>
<td></td>
</tr>
<tr>
<td>(iii) Rear Boundary Wall</td>
<td>The rear wall - plaster and brick with an external opening into the back lane – if any. The original height of wall is to be retained.</td>
<td>Any original decorative feature(s) shall be retained &amp; restored.</td>
</tr>
<tr>
<td></td>
<td>An increase on wall height to accommodate minimum headroom requirements is allowed provided it does not impede neighbouring buildings. - light, ventilation etc.</td>
<td>Shall be of matching construction, materials and finishes.</td>
</tr>
<tr>
<td>(iv) Windows, Doors &amp; Vents</td>
<td>Original openings were simpler than the front façade, but of the same materials. The rear opening may be changed subject to design requirement. New openings are permitted.</td>
<td>To be retained &amp; restored</td>
</tr>
<tr>
<td></td>
<td>Rear Façade</td>
<td>New openings shall be of similar material as the front façade.</td>
</tr>
</tbody>
</table>
### 6.7.5 Interior

<table>
<thead>
<tr>
<th>Item</th>
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</tr>
</thead>
<tbody>
<tr>
<td>(i) Ground Floor</td>
<td>Floors&lt;br&gt;The existing ground floor level and changes in level shall be retained.&lt;br&gt;Original layout / tile works / finishes shall be retained &amp; restored.</td>
<td>Replacement of damaged materials shall match with same or close to if the function of the material matches.</td>
</tr>
<tr>
<td>(ii) Upper Floor(s)</td>
<td>The existing floor level &amp; original structural members including timber main beams or steel I-beam, timber floor joists &amp; timber floor boards shall be retained &amp; restored.&lt;br&gt;&lt;br&gt;<strong>Addition of toilets</strong> internally is permitted if existing structure is not compromised. New support structure, from ground floor must avoid damage to original brick, granite and footings and bakau piles. Extension for toilet / bathroom at rear of building preferred.</td>
<td>For wet areas e.g. Toilets &amp; kitchen, concrete floor may be used.</td>
</tr>
<tr>
<td>(iii) Mezzanine Floor</td>
<td>Mezzanine floors are not part of the original layout of the buildings as tall ceilings cooled the naturally ventilated spaces. Existing mezzanine floor should be retained if meets requirements. New basement is not permitted.</td>
<td></td>
</tr>
<tr>
<td>(iv) Ceiling</td>
<td>Ceilings&lt;br&gt;Original ceiling profile / design shall be retained.&lt;br&gt;Any original decorative feature(s) shall be retained &amp; restored. &lt;br&gt;Exposed underside of floor structure of timber boards &amp; timber joists shall be retained &amp; restored. &lt;br&gt;Existing exposed underside of reinforced concrete floor above, if any, is allowed to remain. False ceiling is permitted provided the volume of internal space is maintained and original features such as cornices, arches, capitals &amp; decorative stuccos are not covered.</td>
<td>Areas of damage may be replaced with matching or similar material. Traditional material of timber frame, timber boards or plaster boards.</td>
</tr>
<tr>
<td>(v) Party wall</td>
<td>Walls&lt;br&gt;The majority of Heritage Buildings were constructed using bricks as loadbearing walls - reinforced concrete column structure was introduced in the early 1900s in new construction, but many buildings were redesigned and adapted from the original load bearing brick buildings. &lt;br&gt;Openings in the party wall for joint units may be permitted subject to the stability of building structure and the value of the features to be that will be removed as a result of the openings.</td>
<td>Repair work is permitted but must follow original design, material &amp; construction method. &lt;br&gt;No material used may damage the integrity of the structural wall and cause nuisance to the neighbouring buildings. New structure introduced to support the wall above the openings must avoid damaging the remaining footings, and bakau piles. Traditional or matching material is to be used.</td>
</tr>
<tr>
<td>(vi) Decorative Features</td>
<td>The original decorative features, if any, shall be retained &amp; restored.</td>
<td></td>
</tr>
</tbody>
</table>
### 6.7.6 Features

<table>
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<tr>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>Air Well</strong></td>
<td>Long shophouse buildings with two pitched roofs or more, separated the pitches with an air-well, to allow for ventilation and cooling of the spaces below. The air-well allows for access to maintain the pitched roof. Below the air-well and on the ground floor is a recessed area of granite edging and floor. A drain hole leads to the front of the building and the street drain.</td>
<td></td>
</tr>
<tr>
<td>(i) Size</td>
<td>The original size &amp; location shall be retained &amp; restored.</td>
<td></td>
</tr>
<tr>
<td>(ii) Floor Finishes</td>
<td>Level up the existing floor is not permitted. The original finishes of granite slab &amp; edging shall be retained &amp; restored.</td>
<td>Replacement or installation of new materials shall be the same or close to original materials.</td>
</tr>
<tr>
<td>(iii) Windows, Shutters &amp; vents- upper floor</td>
<td>The original openings shall be retained &amp; restored.</td>
<td>Traditional material is to be used to replace damaged pieces. Installation of other modern materials is not allowed.</td>
</tr>
<tr>
<td>(iv) Roof Cover</td>
<td>A flat moveable roof cover is allowed &amp; the height of the cover shall be lower than the eaves of the main roof. Total cover up of air well is not permitted. No other above ground structure or slab is discouraged within the air well space.</td>
<td>Lightweight transparent or translucent roof covering is allowed.</td>
</tr>
<tr>
<td><strong>Staircases</strong></td>
<td>Original staircase positioning &amp; design with fine craftsmanship shall be retained &amp; restored. Repositioning the original staircase is permitted if necessary. The original artistic design of balusters &amp; balustrades are to be retained &amp; reused. Additional new staircase is permitted if necessary</td>
<td>Traditional material is to be used to repair or make good the original finishes.</td>
</tr>
<tr>
<td>(v) Exterior/Finishes</td>
<td>Colours and finishes Each period of design history had preferred colour schemes. Scraping back to the original base layer will reveal the colour history. The colour and materials should be chosen from this investigation. The original finishes, e.g. Tiles, fair-faced bricks or granolithic render (shanghai plaster) shall be retained &amp; restored. Painting over the original finishes is prohibited. The colour scheme or paint used shall match &amp; harmonise with the typical character of the heritage buildings &amp; of streetscape.</td>
<td>Traditional material such as lime wash is to be used or other breathable material. Finishing materials must not harm the structural integrity of the building.</td>
</tr>
<tr>
<td>(vi) Interior/ Finishes</td>
<td>Interior finishing materials shall not harm the structural integrity of the building.</td>
<td>If lime wash was the original material then a breathable paint or lime wash may be used.</td>
</tr>
</tbody>
</table>
6.7.7 Utilities

The majority of Category IIA&B properties were built before the age of electricity, air-conditioning, piped water, sewerage and other utilities and services. Their installation will potentially disturb the original integrity of the heritage buildings and must be done with care and consideration.

<table>
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<tr>
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<tbody>
<tr>
<td>(i) Security Surveillance</td>
<td>CCTV cameras and gear are permitted, and should be placed carefully to avoid damage to the façade and original interiors.</td>
<td>Installations must seek permits from the relevant authorities. Must avoid damage to the original building fabric. Installation of new security devices is allowed, subject to requirements of suitability, unobtrusive positioning, visually discreet in design and colour.</td>
</tr>
<tr>
<td>(ii) Electrical Conduits</td>
<td>No electrical conduit pipes are allowed on the surface of external façade. TNB cable routing and meter must be within the five-foot-way or rear of building. Internal wiring may be either Visible wiring on Patrice boards (Melaka)</td>
<td></td>
</tr>
<tr>
<td>(iii) Air-conditioning units</td>
<td>No air conditioning pipes are permitted on the external façade. Air-conditioning pipes are permitted on the surface of the rear wall or rear air well and shall be properly encased &amp; neatly laid out. Air-condensing condenser units shall be located least visible from the exterior. Air-conditioning units may be located below five foot way on party wall is there is sufficient head room – for shophouses only. Installation of compressor unit(s) on front façade is strictly prohibited. Air-condensing condenser units may be installed at the rear courtyard / kitchen area (below the rear boundary wall / air well / roof) and / or covered up by a frame with suitable design &amp; material. Cooling tower air-conditioners are not allowed as they add too much humidity to the area encouraging plant growth and potential damage.</td>
<td>Material such as timber lattice or metal screen, which harmonized with building rear façade is preferred.</td>
</tr>
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<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>(iv) Satellite Dishes</td>
<td>No satellite dishes are permitted on the external façade or front roof.</td>
<td>To be placed at the rear courtyard if possible.</td>
</tr>
<tr>
<td>(v) Water tank / Solar panels</td>
<td>Water tank, &amp; other external installations, if any, shall be covered / screened &amp; placed least visible from the exterior. Corner units should avoid these being visible from the streets.</td>
<td>Material such as timber lattice or metal screen which harmonized with building façade is preferred.</td>
</tr>
<tr>
<td>(vi) Lift</td>
<td>Installation of lift is allowed for extension / annexed building. The lift shaft shall not protrude from the front slope of the roof of new building.</td>
<td>Motor-room-less lifts are advisable. The pit must avoid damage to heritage foundations and footings.</td>
</tr>
<tr>
<td>(vii) Kitchen Exhaust fan</td>
<td>Exhaust fan can be placed at rear kitchen courtyard. Exhaust fan ducts cannot be placed outside the building. Exhaust discharge from kitchen hoods/stoves cannot be directed into any public space.</td>
<td></td>
</tr>
<tr>
<td>(viii) Night Lighting</td>
<td>Light fittings, if any, shall be placed at least obtrusive place &amp; in harmonious with the character of building façade.</td>
<td></td>
</tr>
</tbody>
</table>

**Sanitary, Plumbing, drainage**

| (i) Waste pipes             | Wastepipes and floor traps to follow regulations as required. Design to avoid damage to heritage buildings footings, below ground. Heritage floor tiles, raised to accommodate pipes work to be restored back if possible. |                                                                                            |
| (ii) Drainage               | Provide proper drainage at the building perimeter to ensure that water does not splash against building or foundation walls nor drain towards the building. |                                                                                            |
| (iii) Soil vent-pipe        | Soil vent pipes should not be placed where they may protrude out through the front roof, visible to the street. |                                                                                            |
7 Infill and Replacement

7.1 Introduction

This section is concerned with sites or buildings identified as Infill or replacement on which permitted compatible development can take place within the WHS, and their potential impact on the OUV's of the WHS.

7.1.1 Protection, Conservation, Enhancement

The desirability of preserving or enhancing the conservation area is in the State Planning Committee's view a material consideration in the MBMB's handling of development proposals, which are outside the conservation area but would affect its setting, or views into or out of the area.

All development proposals will be judged for their effect on the character and appearance of the conservation area.

While conservation of the Core and Buffer Zones whether by preservation or enhancement of their character or appearance must be a major contribution, this cannot realistically take the form of preventing all new development; the emphasis will generally need to be on controlled and positive management of change. Policies will need to be implemented to allow the area to remain alive and prosperous but at the same time to ensure that any new development accords with the area's special architectural, historic and cultural significance.

What is important is not that new buildings should directly imitate earlier styles, but that they should be designed with respect for their context, as part of a larger whole, which has a well established character and appearance of its own.

7.1.2 Compatible development

MBMB requires detailed plans and drawings of proposed new development, including elevations, which show the new development in its setting, before considering a planning application. MBMB have special regard for such matters as scale, height, form, massing, and respect for the traditional pattern of frontages, vertical or horizontal emphasis and detailed design (e.g. the scale & spacing of window openings, and the nature & quality of materials). General planning standards should be applied sensitively in the interests of harmonizing the new development with its neighbours in the conservation area.

Planning decisions in respect of development proposed to be carried out in the conservation area must give high priority to the objective of preserving and/or enhancing the character and/or appearance of the area.
7.2 In Fill

**Definition**
Existing empty land or temporary structure where compatible re-development is permitted.

### 7.2.1 Introduction
Amongst the shophouses, godowns and other properties in the conservation areas and the WHS, are empty pieces of land. Some of these sites have one or two temporary buildings on them and others are completely empty.

These are prime sites for Compatible Infill Development where redevelopment is permitted.

For those that are placed within a WHS, this guideline provide a guide to compatible redevelopment. Those outside the WHS, come under the Town and Country Planning Act and other existing legal instruments.

### 7.2.2 Permitted Use
For compatible infill development projects within the WHS, care must be taken that the proposed use will not devalue the OUV of the Site. Advice should be sought from the MBMB as to the permitted use for each lot.

### 7.2.3 Authenticity and Interpretation
It is recommended that an infill site
(i) set within a row of heritage buildings, or
(ii) placed amongst other infill sites or adjacent to replacement sites, should study the authentic design of the adjacent buildings and the site’s history, in order to propose a design compatible with and interpreting the site and its historic content.

### 7.2.4 Permitted Works
Temporary buildings or sites categorised as Infill Development, located within conservation areas do not have intrinsic architectural or heritage significance, although the site may have had in the past.

Temporary buildings on the site may be demolished and redeveloped simultaneously subject to statutory requirements. It is important that the redevelopment should be designed to enhance the streetscape and the character of the adjoining heritage buildings, as required in the Town and Country Planning Act (1976).

### 7.2.5 Requirements for permitted works:
(i) Planning Permission for Infill Development
(ii) HIA
(iii) Building Submission and Report
(iv) Progress Reports

(i) **Planning Permission & Heritage Impact Assessment**
For all new development within the WHS and or other conservation areas, a HIA must accompany the Planning Submission by a Competent Person for Planning Approval (see section 4).

For example:
*Historic research revealed the progression of reclamation for the land along the estuary of the Melaka River and the types of building built on it. This forewarns the Geotechnical and the C&S engineers as to the challenges of the site and guided the overall design concept at planning stage.*
(ii) **Building Submission & Condition Report**

If, in the case of the WHS, infill development is taking place on a site where they may be adjacent heritage buildings, it is highly recommended that a report of the general conditions of the neighbouring buildings be submitted together with the project proposal for Building Submission.

This Conditions Report identifies the condition of the adjacent heritage buildings before work commences. If major works are taking place, the condition of neighbouring heritage buildings should be monitored. All effort should be made to avoid damage to the neighbouring heritage properties.

(iii) **Progress Report**

These Reports allow the MBMB, owner and architect to follow the course of the work on site. They are a photographic record taken before works commence, at the midpoint of the project and when all is complete.

7.2.6 **Research for Historical Data**

Within the WHS, the HIA – requires the Historical Significance of the site and adjacent heritage buildings to be researched and written. Historic evidence may influence the design of the new proposal and give reference to interesting buildings or events of the past. It may even inspire a rebuilding of a building formerly demolished.

Research possibilities are:

(i) Original drawings, photographs, paintings and other drawn information.

(ii) Newspaper cutting archives, and archives documentation of the owner or related association etc

To avoid negative impact on neighbouring heritage buildings, it is important to understand their construction methods.

This includes researching:

(i) Traditional building methods typical of the type and age of the building/item,

(ii) Historic maps (look out for the word ‘swamp’).

(iii) Local oral histories, place names – (Kampung Java was the settlement for the Javanese population before they were relocated to Kampung Morten)

7.2.6 **Permitted Height**

The height of compatible infill development within the WHS is dependent on the height of the adjacent heritage buildings.

However, listed buildings outside the conservation area will be determined by planning regulations.
7.3 Replacement

**Definition**
Existing building without any significant value where sensitive re-development is permitted.

7.3.1 Introduction

Unlisted buildings located within conservation areas are buildings, which do not have intrinsic architectural and heritage interest and may be demolished and replaced simultaneously subject to these conservation guidelines. The redevelopment should be designed to enhance the streetscape and the character of the adjoining buildings.

For those sites that are placed within the WHS, these Regulations provide a guide to compatible Replacement.

Those outside the WHS, come under the Town and Country Planning Act and other existing legal instruments.

7.3.2 Permitted Use

For compatible replacement development projects within the WHS, care must be taken that the proposed use will not devalue the OUV’s of the Site. Advice should be sought from the MBMB as to the permitted use for each lot.

7.3.3 Authenticity and Interpretation

It is recommended that a replacement site (i) set within a row of heritage buildings, or (ii) placed amongst other infill sites or adjacent to replacement sites, should study the authentic design of the adjacent buildings and the site’s history so that a design compatible with and interpreting the site and its historic content is achieved.

7.3.4 Permitted Works

Sites identified for replacement and located within conservation areas do not have intrinsic architectural and heritage significance. These buildings are permitted to be demolish and replaced with compatible new development, sensitive to their location, its history and the significance to the cultural landscape of the overall site and its OUV’s or to the conservation areas and enclaves if outside the WHS. These sites are subject to conservation regulations.

It is important that the projects follow the due process for concept design (see below) and that the redevelopment should be designed to enhance the streetscape and the character of the adjoining buildings, as required in the Town and Country Planning Act (1976).

Requirements for permitted works:
(i) Planning Permission - Heritage Impact Assessment
(ii) Building Submission & Condition Report - insurance
(iii) Progress Reports

(i) Planning Permission - Heritage Impact Assessment
For all new development within the WHS and or other conservation areas, an HIA must accompany the Planning Submission for Planning Approval (see section 4).

It is advisable that the HIA takes place at an early stage, as this will help identify key factors than may influence / inspire / fore warn consultants in the schematic design process.
For example:

*Historic research revealed the progression of reclamation for the land along the estuary of the Melaka River and the types of building built on it. This forewarns the Geotechnical and the C&S engineers as to the challenges of the site and guided the overall design concept at planning stage.*

(ii) **Building Submission & Condition Report - insurance**

In the WHS, it is possible that replacement development is taking place on a site where they may be a building to demolish adjacent heritage buildings, or part of an existing heritage building to retain. It is highly recommended that the general conditions of the neighbouring buildings be recorded and submitted as a report together with the project proposal for Building Submission.

This Conditions Report identifies the condition of the adjacent heritage buildings before work commences. If major works are taking place, the condition of neighbouring heritage buildings should be monitored. All effort should be made to avoid damage to the neighbouring heritage properties.

(iii) **Progress Reports**

These Reports allow the MBMB, owner and architect to follow the course of the work on site. They are a photographic record taken before works commence, at the mid point of the project and when all is completed.

7.3.5 **Research for Historical Data**

Within the WHS, the HIA – Heritage Impact Assessment requires the Historical Significance of the site and adjacent heritage buildings to be researched and written.

Historic evidence may influence the design of the new proposal and give reference to interesting buildings or events of the past. It may even inspire the rebuilding of a building formerly demolished.

Research possibilities are:

(i) Original drawings, photographs, paintings and other drawn information.

(ii) Newspaper cutting archives, and archives documentation of the owner or related association etc

To avoid negative impact on neighbouring heritage buildings, it is important to understand their construction methods when considering demolition methods (of the replacement building) and proposed new construction methods.

This includes researching:

(i) Traditional building methods typical of the type and age of the building/item,

(ii) Historic maps (look out for the word ‘swamp’).

(iii) Local oral histories, place names (Kampung Java was the settlement for the Javanese population before they were relocated to Kampung Morten)
7.3.6 Permitted height
The height of compatible infill development within the WHS is dependent on the height of the adjacent heritage buildings or 12 metres measured 300mm above the centre of the road to the highest point of the proposed building.

7.4 Guidelines for Infill and Replacement

These regulations refer to new development to be built within a row of existing heritage shophouses or in an area where there are both heritage buildings and buildings identified as replacement.

If the authentic heritage features of the neighbouring heritage buildings have been altered over time, it is of value to consult the Unit Konservasi MBMB, or PERZIM for these Guidelines Part Three, in order to establish the authentic features to be followed.

If the new development is proposed for an area where there are both heritage buildings and buildings identified as replacement and not in a row of existing shophouses, a contemporary architectural form may be suitable.
### Roof (External)

<table>
<thead>
<tr>
<th>Item</th>
<th>Design</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Roof form &amp; finish</td>
<td>The roof shall be pitched to follow the gradient and roof form of the adjacent heritage buildings, if in a shophouse row, or neighbouring heritage buildings if in other areas.</td>
<td>Roofing material shall be unglazed, natural clay following the traditional profile suitable for the traditional roof structure for the building form. e.g. shophouse – purlins system godowns – truss system</td>
</tr>
<tr>
<td>b) Projection</td>
<td>The eave line of the front roof, method of construction and gutter shall be in line with adjacent heritage building.</td>
<td>Materials used in the construction to match the adjacent buildings.</td>
</tr>
<tr>
<td>c) Skylight</td>
<td>See relevant building Category regulations for adjacent properties, for guidance on skylight.</td>
<td>---</td>
</tr>
<tr>
<td>d) Jack roof</td>
<td>Jack roof if the infill is part of a row that already has a jack roof. Design to match with adjacent heritage building.</td>
<td>Roofing material shall be unglazed, natural clay following the adjacent jack roof profile and structure.</td>
</tr>
<tr>
<td>e) Dormer window</td>
<td>Dormer window is not permitted.</td>
<td>---</td>
</tr>
</tbody>
</table>

### Street Facade (External)

<table>
<thead>
<tr>
<th>Item</th>
<th>Design</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Front Façade &amp; side</td>
<td>Within a row of heritage buildings - the solid &amp; void expression of adjacent conservation building may be used as a guide in the design of the façade &amp; with emphasis on the vertical &amp; horizontal elements. On a corner site - The corner infill building shall reflect the design of a corner heritage building. The height of floors shall be coordinated &amp; in parallel with the floor height of adjacent heritage building.</td>
<td>Surface materials, finishes, texture, colour etc shall be compatible with that of the adjacent heritage building.</td>
</tr>
</tbody>
</table>
b) Five footway / verandah way

A five-foot-way-covered walkway shall be provided on the ground floor at the frontage of the building and also along the street facade of corner building. The width, height & level of the walkway shall match that of adjoining walkway when the infill is in a row of existing heritage building.

Where there is no adjoining walkway, the design should follow, the adjacent heritage buildings.

For new infill adjacent to building identified as replacement the minimum width of 2.25 meter shall be provided for in the design. The front façade of the new infill should follow alignment of adjacent building.

Where it is not possible to match the walkway level of adjacent building, a ramp in compliance with the requirements of relevant departments shall be provided.

The provision of colonnaded covered walkway is subject to evaluation. The size & spacing of the columns shall take cognizance of the existing character of the colonnaded covered walkway of the street blocks in the vicinity.

Floor finishes & colour shall match the material used in adjacent heritage buildings, if authentic.

### Rear Facade (External)

<table>
<thead>
<tr>
<th>Item</th>
<th>Design</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Rear Façade</td>
<td>Compatibility in terms of materials, finish, texture, profile &amp; design with adjacent heritage buildings is encouraged.</td>
<td>The use of clear or light tinted glass for openings is preferable.</td>
</tr>
</tbody>
</table>
**Party Wall (External)**

<table>
<thead>
<tr>
<th>Item</th>
<th>Design</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Gable ends</td>
<td>The new building shall not obstruct the original raised gable wall / party wall (of artistic merit) of adjacent heritage buildings.</td>
<td>The use of clear or light tinted glass for openings is preferable.</td>
</tr>
<tr>
<td>b) Party wall structure</td>
<td>The existing structural integrity of an adjoining heritage building must not be compromised, nor damage caused by the infill development.</td>
<td>e.g. – Lime mortar, Lime plaster, Lime wash or breathable paint (silicate)</td>
</tr>
</tbody>
</table>

**Others (External)**

<table>
<thead>
<tr>
<th>Item</th>
<th>Design</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Canopy</td>
<td>The use of canopy is generally allowed where appropriate. Compatibility in terms of design &amp; material used is encouraged. A standard projection of 450 mm is acceptable.</td>
<td>---</td>
</tr>
<tr>
<td></td>
<td>Traditional canopy corbels and timber structure on a neighbouring building should be followed if appropriate.</td>
<td></td>
</tr>
<tr>
<td>b) Signage/Advertising</td>
<td>Signage shall be designed &amp; installed according to the regulations for display of signage and advertising Part 8 of these Regulations.</td>
<td>In compliance with regulations for the World Heritage Site</td>
</tr>
<tr>
<td>c) Security</td>
<td>Security &amp; protection measures appropriate to the risk are generally acceptable provided that it is visually discreet in design &amp; colour &amp; place in an unobtrusive position.</td>
<td>---</td>
</tr>
</tbody>
</table>
### Internal

<table>
<thead>
<tr>
<th>Item</th>
<th>Design</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Basements</td>
<td>Basement is generally not recommended. However basement may be allowed in certain cases subject to site conditions &amp; provided it does not affect the structural stability of adjacent heritage buildings.</td>
<td>---</td>
</tr>
</tbody>
</table>
| b) Air Wells  | Provision of air well(s) is subject to neighbouring building profile, street characteristic and the length of building. The size & positioning of air well to follow the original air well of adjacent heritage buildings.  

A flat moveable / fixed roof cover over the air well is allowed & the height of the cover shall be lower than the eaves of the main roof.  

Floor drainage for the open air-well must be considered in the overall design. | ---      |
### Mechanical and Electrical

<table>
<thead>
<tr>
<th>Item</th>
<th>Design</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Exhaust fan</td>
<td>Exhaust fan shall not intrude or discharge into the public space.</td>
<td></td>
</tr>
<tr>
<td>b) Conduits &amp; Pipes</td>
<td>All other utility &amp; conduit pipes except for rainwater down pipes shall not run on the surface of the external front wall. Rainwater down pipes shall lead directly into drains.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) Air-condensing Units</td>
<td>Outdoor air-condensing units shall be located such that they are not visible from the exterior.</td>
<td></td>
</tr>
<tr>
<td>d) Lift shaft</td>
<td>Lift shaft is not permitted to project above the front slope of the main roof. The lift shaft should not be visible from any angle from the street.</td>
<td>Motor room less lifts are advisable</td>
</tr>
<tr>
<td>e) Satellite dishes</td>
<td>Satellite dishes should not be placed on the front elevation</td>
<td></td>
</tr>
</tbody>
</table>
8 Building Signage and Lighting

8.1 General Guideline of Signage & Advertisement

The traditional signage seen in heritage areas displays a character unique to Malakans and their heritage. It demonstrates the skills of the craftsmen; the wood carvers, the plasterers and lantern makers and should be protected, conserved and encouraged to be used, in both new-use and conservation of heritage buildings.

Because of the special interest of the heritage buildings and the conservation area, advertisements which may have a significant visual impact are not permitted for display on heritage buildings and in the conservation area.

All signage must be carefully located to avoid obscuring the heritage building, and blocking light and ventilation into the rooms. It differs according to the architectural style of the buildings and the elements on the facade.

All signage and advertisement must obtain the necessary approvals prior to erecting them such approvals will be prior to obtaining pront for signboard and advertising.

Figure 8.1: Traditional Engraved Signage Maker in Melaka
8.2 Guidelines on Traditional Shophouse Signage

Good examples from the past can be seen along Jalan Kampung Pantai (figure 8.3) which the location and the scale of the signages were in proportion and blend harmoniously with the buildings.

Figure 8.2: Jalan Kampung Pantai 2010

Figure 8.3: Jalan Kampung Pantai 1930
In a traditional shopfront, original space for name plaques or signboards should be utilised to the fullest for signage purposes.

i) The width of the name plaque or signboard shall not be more than the width of the door and its height shall be half or less than the width of the door (Figure 8.3)

ii) Distinctive features of a traditional shopfront such as relief motifs, ornaments, vents, fanlights, relief carvings on timber doors or windows and special finishes shall not be covered by the signage.

Other Traditional Signage

These signage devices are encouraged:

i) Stonework
   Incised stonework (such as the figures of the year in which the building was completed or opened, the name of the building or that of its occupants), embossed lettering, emblems and logos, which is incorporated in the fabric of a building is permitted and shall be preserved.

ii) 3D Individual Letters in Metal
   The Early Modern style of architecture saw the use of three-dimensional letters, often bronze, as part of the overall design on the façade. These were not internally illuminated.

iii) Bamboo Chicks
   Bamboo Chicks – blinds- are often used as a sun-shading device. For a commercial premises these are ideal places to advertise the business, otherwise hidden behind the shade.
8.3 Guidelines on Business Signage

Buildings are often covered in two types of signage or advertising.

- Business Signage - giving the name of the shop/business
- Product Advertising – showing the product sold from the premises

Illustrated below in Figure 8.5 is a general guideline on the permitted positions for business signage/advertising on a heritage building:

Figure 8.5: Permitted Positions of Facade Signage
8.3.1 Façade Business Signage / Advertisement

i) Advertisement display shall not obscure or obstruct any window or ventilation opening on the wall of a building.

ii) Placing of horizontal advertisement display is prohibited above and beneath roof eave.

iii) Advertisement display shall not project beyond 0.5 metre from the building.

iv) Placing of advertisement display on top of any decorative elements is not permitted.

v) Placing of advertisement display shall not cover the silhouette of parapet.

vi) Horizontal advertisement display shall conform within the width of the spandrel of the first floor of the premise / unit (a). If it cannot be displayed, it is permissible below the floor beam provided there is a minimum clear height of 2.5 meters.

Figure 8.6: Facade Signage

8.3.2 Projecting Business Signage / Advertisement

i) Advertisement display must be affixed so that any part of it must have a minimum clear height of 3.7 metres from the streetway.

ii) Projecting advertisement display may only be affixed on end columns.

iii) Projecting advertisement display may vary according to the roof eaves.

iv) Projecting advertisement display of each floor shall conform within the floor height.

v) Projected box type casing advertisement display is prohibited.

Figure 8.7: Projecting Signage
8.3.3 Hanging Business Signage / Advertisement

i) Hanging signs placed within the five-foot-way should be within the clear width between the column and entrance wall with minimum headroom clearance of 2.5 metres.

ii) Hanging signs placed above the arch of five-foot-way should not extend below the arch level.

iii) Hanging sign placed below the arch much have minimum headroom clearance of 2.5m.

iv) No sign may cover the curve of the arch.

8.3.4 Product Advertisement On Flank Wall

i) Advertisement display relating to name boards attached to the flank wall of a building is permitted subject to compliance with the dimension and design specified in these regulations.

ii) Advertisement display, which protrudes above the roofline is prohibited.

iii) Wall mounted poster panels erected on the walls of a building is prohibited.
8.4 Guidelines on Lighting of Heritage Buildings

i) Illuminating heritage buildings must be carried out with extreme care, to avoid both ugly and damaging installations.

ii) Drilling of holes through walls in order to provide power supply, and the fixing of light fittings, all causes damage to the heritage buildings and should be kept to a minimum.

iii) Once installed and running, the heat build up from lights placed too close to the building is likely to cause damage. Lighting should be considered with this in mind.

iv) Traditionally the lighting would have been at the ground floor entrance, under the five-foot-way of a shophouse or porch of a bungalow, and internally in shop windows.

vi) Static and rotational colour lighting is not permitted.

8.4.1 Possible Light arrangements:

- Strings of light bulbs attached to a building e.g. around windows and cornices etc, is not permitted.
- Spot lighting on the building should be kept to a minimum, subject to approval on a case-by-case basis.
- Flood lighting of buildings should be unobtrusive and set within the landscape, not attached to the building.
- Floodlighting of buildings must be natural white colour.

Figure 8.10: Lighting under the five-footway
1 Introduction

1.1 Preamble

"Development is the engine of an urban economy but heritage and identity will always be the soul of the city."

Christopher Pound

Penang Island’s built, natural, and living cultural landscapes are all reflections of the Island’s rich history of both indigenous and migrant populations. Each brought with them the traditions of their homelands, which over time fused, adapted and intermingled to suit the new land. This history, mirrored in the living cultures of today, their traditions and architecture, is the island’s identity.

The built environment echoed the beliefs and needs of its builders and the early settlers and is rich in cultural meaning. So closely tied are the intangible and tangible cultures, that it is hard to separate them. A granite step, brings with it the belief of solidity and permanence, a Datuk shrine heralds the presence of a Chinese community, a call for prayer creates a human pathway of worshipers towards a mosque and a broken coconut outside a doorway, marks the ridding of egos of the Hindu community on their auspicious days for prayer.

The tangible and the intangible are intertwined - each celebrates the other, each creates the whole. These guidelines therefore intend to support this cultural integrity, to highlight its values and recognise its significance in our fast changing world.

1.1.1 Intent of Guideline

The function of this Guideline for Conservation Areas and Heritage Buildings is to regulate the development and use of land in the World Heritage Site of George Town. It has to take account of the State Government’s objective of promoting sustainable economic growth and make provision for development to meet the economic and social needs of the community. This Guideline is also required to preserve the built and natural heritage.

This Guidelines reflect the State Government’s aspiration of developing the historic centre of the city of George Town as a truly “Intelligent and Sustainable Heritage City”. Its sets out the State Government’s policy on planning and development issues and provides guidance to MPPP on the operation of the planning and development systems. This regulation is material to decisions on planning applications. It is also material to decisions on repair, conservation, maintenance, alteration, extension and compatible development issues.

This guideline provides a full statement of the State Government’s policy for the protection of heritage building, conservation areas and other elements the historic environment. It explains the role played by the planning and building systems and the supporting role of the GTWHI in their protection. It supersedes the “Regulations for Conservation Areas and Heritage Buildings” 2009
1.1.2 **Who uses these guidelines?**

This guidance is for officers of public authority, existing and potential property owners and tenants, contractors, developers, investors, related professionals, students and all members of the public with an interest in the repair, conservation, enhancement, and compatible development of George Town’s built and natural heritage.

1.1.3 **Why conserve?**

The protection, conservation and enhancement of a conservation areas, enclaves and buildings provides an enriching experience for those who live in, work in or visit them, creating a sense of belonging, stability and connection between future and past generations, community, landscape and cultures from distant lands.

Penang Island’s tangible and intangible testaments to its entrepreneurial forefathers, both indigenous and migratory, are expressions of the Island’s unique identity and experience. They are irreplaceable records, which provide a resource of inspiration for the present and future generations. They present an example of sustainable, low carbon building practice and way of life – a knowledge bank for present and future generations.

The State Government has committed itself to the concept of sustainable development - of not sacrificing what future generation will value for the sake of short term and often-illusory gains. The State Government wishes to preserve the historic environment, which by it nature is irreplaceable. Once lost, heritage buildings cannot be replaced; and they can be robbed of their special interest as surely by unsuitable alteration as by outright demolition. They are irreplaceable assets.

It is fundamental to the State’s policies for environmental stewardship that there should be effective protection for all aspect of the historic environment. The physical survivals of the State’s past are to be valued and protected for the State’s sake, as a central part of the State’s cultural and historical heritage. They are irreplaceable records, which contribute, through formal education and in many other ways, to the State’s understanding of both the present and the past. The presences of the buildings adds to the quality of our lives, by enhancing the familiar and cherished local scene and sustaining the sense of local distinctiveness, which is so important an aspect of the character and appearance of the city of George Town. The historic environment is also of immense importance for leisure and recreation.
1.2 Terms and Definitions

**Adaptation** means modifying a place to suit the existing use or a proposed use. **

**Architectural Significance** means buildings that demonstrate unique cultural practices related to architecture and/or examples of developments in building technology.

**Associations** mean the special connections that exist between people and place. ** Associations may include social or spiritual values and cultural responsibilities for a place.

**Authenticity** means that an object is made or done in the traditional or original way, or in a way that faithfully resembles the original. Within a cultural landscape authenticity goes on to describe the genuineness of the landscape in that it reflects the traditions, beliefs and ways of being of communities existing there. A landscape created by the users for the users.

**Buffer Zone** refers to a protected area directly outside the Core Zone of a World Heritage Site.

**Conservation** means all the processes of looking after a place - to retain its cultural significance. Conservation is based on a respect for the existing fabric, use, associations and meaning. It requires a cautious approach of changing as much as necessary but as little as possible **

**Conservation areas** are areas where the entire street or enclave is of significant Heritage Value**

**Core Zone** means the main heart of the UNESCO World Heritage Site.

**Compatible use** means a use, which respects the cultural signification of the place. Such a use involves no, or minimal, impact of cultural signification**

**Cultural Impact Assessment (CIA)** means a cultural mapping and assessment study to in order to assess the impact of new building use and new building development on the existing community. To be included in the HIA.

**Cultural Landscapes** means environments that reflect a purposeful relationship between man, the built and natural environment in response to cultural traditions and belief. A sense of place.

**Cultural significance** means aesthetic, historic, scientific or social value for past, present or future generations. It is embodied in the place itself, its fabric, setting, use, associations, meaning, records related places, and related objects **

**Dilapidation Report** means a report on the condition of a building or object.

**Dossier** refers to documents submitted to UNESCO during the application and nomination process to be a World Heritage Site *

**Fabric** means all the physical material of the place, including components, fixtures, contents, and object. ** Fabric includes building interiors and sub-surface remains, as well as excavated material. Fabric may define spaces and these may be important elements of the signification of the place.

**Heritage Significance** means a building, object or landscape that reflects cultural and architectural significance that is of value to the overall cultural landscape of the site.
Heritage / Historic Buildings - buildings of architectural and cultural significance

Heritage Impact Assessment (HIA) is a report that describes compatible development and new use projects and assesses their impact on the OUV of the site. The HIA also includes a Cultural Impact Assessment

Integrity means the quality of being true to the original material, form, use, purpose and cultural significance

Interpretation means all the ways of presenting the cultural significance of a place **. Interpretation includes treatment of the built fabric

Maintenance - the continuous protective care of the fabric and setting of a place, and it’s to be distinguished from repair. Repair involves restoration or reconstruction **. e.g. regular inspection, cleaning of gutters.

Meaning denotes what a place signifies, indicates, evokes or expresses **

Outstanding Universal Value (OUV) refers to the UNESCO criteria for inscription as a World Heritage Site

Place means site, area, land, landscape, building or other work, group of buildings or other works, and may include components, contents, spaces and views **

Preservation - maintaining the fabric of a place in its existing state and retarding deterioration **

Reconstruction means returning a place to a known earlier state and is distinguished from restoration by the introduction of materials (new or old) into the fabric **. New material may include salvaged, and recycled material

Related object means an object that contributes to the cultural significance of a place but is not at the place **

Related place - a place that contributes to the cultural significance of another place **

Restoration means returning a place to a known earlier state by removing accretions of by reassembling existing components without the introduction of new material **

Setting means the area around a place, which may include the visual catchments **

Use means the function of a place, as well as the activities and practices that may occur at the place **

1.3 Conservation Principles

In accordance with Article Two of The BURRA CHARTER (1999), which is the retention of the cultural significance of a place, the State Government's fundamental conservation principle for all heritage buildings in Penang Island 'is a cautious approach of changing as much as necessary but as little as possible' (Burra Charter 1999).

Buildings to be conserved shall be retained, restored or preserved in accordance with this regulation. In the event that the original structural elements need to be repaired or replaced, their features shall be retained. Selective replacement may be considered only when absolutely necessary. Total reconstruction is prohibited.

No building or structure shall be altered or demolished if there is any conceivable way of preserving it in its original or current condition. Adaptive reuse of heritage building is recommended and encouraged to generate new life to such buildings in line with the "Intelligent and Sustainable Heritage City" concept.

When upgrading and adapting a building for new use the existing structure should be retained by strengthening and repairing the structural elements. Any alteration or strengthening to structural elements should be done in the most sympathetic and unobtrusive way possible, using original methods and materials whenever possible, or matching with materials of similar properties, if not. If a building is deemed unsafe, it should be made safe, following original methods and materials.

1.4 Objectives

In general, the preservation and conservation activities on heritage assets of Penang Island have been, and will continue to be carried out to achieve the following objectives:

i) to optimise and revitalize the use of heritage resources and assets for future benefits in relation to economy growth, social, cultural and education development;

ii) to preserve and encourage the significant architectural or cultural or historical values of a place;

iii) to preserve the close relationship of communities and their social cultural ties; further enhance the sense of belonging and sense of pride among the people;

iv) to act as life education tool and resource of knowledge for the young and future generations;

v) to preserve the authentic living heritage of multi-ethnic groups and retain the unique identity of George Town.
Guideline for the Conservation Area and Heritage Building in George Town World Heritage Site
ANNEXURE B:
GUIDELINES FOR THE CONSERVATION AREAS AND HERITAGE BUILDINGS FOR GEORGE TOWN WHS

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1 Introduction

1.1 Preamble

"Development is the engine of an urban economy but heritage and identity will always be the soul of the city."

Christopher Pound

Penang Island’s built, natural, and living cultural landscapes are all reflections of the Island’s rich history of both indigenous and migrant populations. Each brought with them the traditions of their homelands, which over time fused, adapted and intermingled to suit the new land. This history, mirrored in the living cultures of today, their traditions and architecture, is the island’s identity.

The built environment echoed the beliefs and needs of its builders and the early settlers and is rich in cultural meaning. So closely tied are the intangible and tangible cultures, that it is hard to separate them. A granite step, brings with it the belief of solidity and permanence, a Datuk shrine heralds the presence of a Chinese community, a call for prayer creates a human pathway of worshipers towards a mosque and a broken coconut outside a doorway, marks the ridding of egos of the Hindu community on their auspicious days for prayer.

The tangible and the intangible are intertwined - each celebrates the other, each creates the whole. These guidelines therefore intend to support this cultural integrity, to highlight its values and recognise its significance in our fast changing world.

1.1.1 Intent of Guideline

The function of this Guideline for Conservation Areas and Heritage Buildings is to regulate the development and use of land in the World Heritage Site of George Town. It has to take account of the State Government’s objective of promoting sustainable economic growth and make provision for development to meet the economic and social needs of the community. This Guideline is also required to preserve the built and natural heritage.

This Guidelines reflect the State Government’s aspiration of developing the historic centre of the city of George Town as a truly “Intelligent and Sustainable Heritage City”. Its sets out the State Government’s policy on planning and development issues and provides guidance to MPPP on the operation of the planning and development systems. This regulation is material to decisions on planning applications. It is also material to decisions on repair, conservation, maintenance, alteration, extension and compatible development issues.

This guideline provides a full statement of the State Government’s policy for the protection of heritage building, conservation areas and other elements the historic environment. It explains the role played by the planning and building systems and the supporting role of the GTWHI in their protection. It supersedes the “Regulations for Conservation Areas and Heritage Buildings” 2009.
1.1.2 Who uses these guidelines?

This guidance is for officers of public authority, existing and potential property owners and tenants, contractors, developers, investors, related professionals, students and all members of the public with an interest in the repair, conservation, enhancement, and compatible development of George Town’s built and natural heritage.

1.1.3 Why conserve?

The protection, conservation and enhancement of a conservation areas, enclaves and buildings provides an enriching experience for those who live in, work in or visit them, creating a sense of belonging, stability and connection between future and past generations, community, landscape and cultures from distant lands.

Penang Island’s tangible and intangible testaments to its entrepreneurial forefathers, both indigenous and migratory, are expressions of the Island’s unique identity and experience. They are irreplaceable records, which provide a resource of inspiration for the present and future generations. They present an example of sustainable, low carbon building practice and way of life – a knowledge bank for present and future generations.

The State Government has committed itself to the concept of sustainable development - of not sacrificing what future generation will value for the sake of short term and often-illusory gains. The State Government wishes to preserve the historic environment, which by it nature is irreplaceable. Once lost, heritage buildings cannot be replaced; and they can be robbed of their special interest as surely by unsuitable alteration as by outright demolition. They are irreplaceable assets.

It is fundamental to the State’s policies for environmental stewardship that there should be effective protection for all aspect of the historic environment. The physical survivals of the State’s past are to be valued and protected for the State’s sake, as a central part of the State’s cultural and historical heritage. They are irreplaceable records, which contribute, through formal education and in many other ways, to the State’s understanding of both the present and the past. The presences of the buildings adds to the quality of our lives, by enhancing the familiar and cherished local scene and sustaining the sense of local distinctiveness, which is so important an aspect of the character and appearance of the city of George Town. The historic environment is also of immense importance for leisure and recreation.
1.2 Terms and Definitions

**Adaptation** means modifying a place to suit the existing use or a proposed use.**

**Architectural Significance** means buildings that demonstrate unique cultural practices related to architecture and/or examples of developments in building technology.

**Associations** mean the special connections that exist between people and place. **Associations** may include social or spiritual values and cultural responsibilities for a place.

**Authenticity** means that an object is made or done in the traditional or original way, or in a way that faithfully resembles the original. Within a cultural landscape authenticity goes on to describe the genuineness of the landscape in that it reflects the traditions, beliefs and ways of being of communities existing there. A landscape created by the users for the users.

**Buffer Zone** refers to a protected area directly outside the Core Zone of a World Heritage Site.

**Conservation** means all the processes of looking after a place - to retain its cultural significance. Conservation is based on a respect for the existing fabric, use, associations and meaning. It requires a cautious approach of changing as much as necessary but as little as possible.**

**Conservation areas** are areas where the entire street or enclave is of significant Heritage Value.**

**Core Zone** means the main heart of the UNESCO World Heritage Site.

**Compatible use** means a use, which respects the cultural significance of the place. Such a use involves no, or minimal, impact of cultural significance.**

**Cultural Impact Assessment (CIA)** means a cultural mapping and assessment study to in order to assess the impact of new building use and new building development on the existing community. To be included in the HIA.

**Cultural Landscapes** means environments that reflect a purposeful relationship between man, the built and natural environment in response to cultural traditions and belief. A sense of place.

**Cultural significance** means aesthetic, historic, scientific or social value for past, present or future generations. It is embodied in the place itself, its fabric, setting, use, associations, meaning, records related places, and related objects.**

**Dilapidation Report** means a report on the condition of a building or object.

**Dossier** refers to documents submitted to UNESCO during the application and nomination process to be a World Heritage Site.*

**Fabric** means all the physical material of the place, including components, fixtures, contents, and object. **Fabric** includes building interiors and sub-surface remains, as well as excavated material. Fabric may define spaces and these may be important elements of the significance of the place.

**Heritage Significance** means a building, object or landscape that reflects cultural and architectural significance that is of value to the overall cultural landscape of the site.
Heritage / Historic Buildings - buildings of architectural and cultural significance

Heritage Impact Assessment (HIA) is a report that describes compatible development and new use projects and assesses their impact on the OUV of the site. The HIA also includes a Cultural Impact Assessment.

Integrity means the quality of being true to the original material, form, use, purpose and cultural significance.

Interpretation means all the ways of presenting the cultural significance of a place. Interpretation includes treatment of the built fabric.

Maintenance - the continuous protective care of the fabric and setting of a place, and it’s to be distinguished from repair. Repair involves restoration or reconstruction. e.g. regular inspection, cleaning of gutters.

Meaning denotes what a place signifies, indicates, evokes or expresses.

Outstanding Universal Value (OUV) refers to the UNESCO criteria for inscription as a World Heritage Site.

Place means site, area, land, landscape, building or other work, group of buildings or other works, and may include components, contents, spaces and views.

Preservation - maintaining the fabric of a place in its existing state and retarding deterioration.

Reconstruction means returning a place to a known earlier state and is distinguished from restoration by the introduction of materials (new or old) into the fabric. New material may include salvaged, and recycled material.

Related object means an object that contributes to the cultural significance of a place but is not at the place.

Related place - a place that contributes to the cultural significance of another place.

Restoration means returning a place to a known earlier state by removing accretions of by reassembling existing components without the introduction of new material.

Setting means the area around a place, which may include the visual catchments.

Use means the function of a place, as well as the activities and practices that may occur at the place.

1.3 Conservation Principles

In accordance with Article Two of The BURRA CHARTER (1999), which is the retention of the cultural significance of a place, the State Government's fundamental conservation principle for all heritage buildings in Penang Island 'is a cautious approach of changing as much as necessary but as little as possible' (Burra Charter 1999).

Buildings to be conserved shall be retained, restored or preserved in accordance with this regulation. In the event that the original structural elements need to be repaired or replaced, their features shall be retained. Selective replacement may be considered only when absolutely necessary. Total reconstruction is prohibited.

No building or structure shall be altered or demolished if there is any conceivable way of preserving it in its original or current condition. Adaptive reuse of heritage building is recommended and encouraged to generate new life to such buildings in line with the “Intelligent and Sustainable Heritage City” concept.

When upgrading and adapting a building for new use the existing structure should be retained by strengthening and repairing the structural elements. Any alteration or strengthening to structural elements should be done in the most sympathetic and unobtrusive way possible, using original methods and materials whenever possible, or matching with materials of similar properties, if not. If a building is deemed unsafe, it should be made safe, following original methods and materials.

1.4 Objectives

In general, the preservation and conservation activities on heritage assets of Penang Island have been, and will continue to be carried out to achieve the following objectives:

i) to optimise and revitalize the use of heritage resources and assets for future benefits in relation to economy growth, social, cultural and education development;

ii) to preserve and encourage the significant architectural or cultural or historical values of a place;

iii) to preserve the close relationship of communities and their social cultural ties; further enhance the sense of belonging and sense of pride among the people;

iv) to act as life education tool and resource of knowledge for the young and future generations;

v) to preserve the authentic living heritage of multi-ethnic groups and retain the unique identity of George Town.
2 Works & Activities Requiring Approvals

2.1 Introduction

This section of the guidelines outlines the existing legal provisions that support the protection of the built cultural landscape of Penang State’s conservation areas, enclave and buildings of heritage significance, including the UNESCO World Heritage Site.

This chapter is divided into the following sections:

2.2 Legal Provision
2.3 Repair, Planning & Building Application
2.4 Heritage Impact Assessment
2.5 Dilapidation Reports
2.6 Progress Reports - during works
2.7 Maintenance Guide

2.2 Legal provision

This guideline provides legal provision and procedures for the regulation and control of works and activities in the WHS, particularly under the following:

ii) Draft Penang Island Local Plan (2005)

Acts of Parliament:

i) National Heritage Act 2005 (Act 645)
ii) Local Government Act 1976 (Act 171)
iii) Town and Country Planning Act 1976 (Act 172)
iv) Street, Drainage and Building Act 1974 (Act 133)

By-laws:

i) Uniform Building By-laws 1984
ii) Municipal Council of Penang Island (Advertisement) By-law 2000
iii) Municipal Council of Penang Island By-laws 1998
iv) Licensing By-laws
2.3 Repair, Planning & Building Control Procedure

- Getting the right advice

In all cases, before undertaking either the:

i) purchase of a property or site, and/or;

ii) preparation of a concept design proposal of a property or site;

it is advisable to understand the cultural landscape of the World Heritage Site – the OUV, and what opportunities this offers for conservation and compatible development. Relevant bodies that can advise are: MPPP Heritage Unit, and GTWHI.

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**Figure 2.1:** Chart showing control of works and activities in the WHS under TCPA (Town and Country Planning Act) and SDBA (Street, Drainage and Building Act)
2.3.1 Planning Permission Application

Planning Permission is obligatory in accordance to the Town and Country Planning Act 1976 and is required for:

i) New development projects on Infill sites;

ii) New development project replacing existing building listed as Replacement;

iii) Demolition of parts or the whole of a heritage building;

iv) Roofing or re-roofing of a building or any part of a building;

v) Extension of buildings or any part of a building;

vi) Increase in height of a building or any part of the building; and

vii) Change of use or activity of the building or land as specified in Part 3 of this document (Item 2.2 on Controlling the Use of Land and Building).

2.3.2 Building Application

Building Application is required under the Street, Drainage and Building Act 1974, Act 133. Building plans, measured drawings and documents considered necessary to support such application is required for:

i) Erection of new building in the case of Infill and Replacement categories;

ii) Extension of building or part of a building in the case of Category II building;

iii) Increasing the height of an existing building or part of a building;

iv) Change of use or activity of the building; and

v) Restoration works of a building or part of a building in the case if Category I and Category II.

2.3.3 Repair Permit

Repair Permit shall be required for works and activities that do not require any approval or permission from the relevant authorities as specified under Planning Permission and Building Application. Repair Permits shall be required for:

i) Repair and maintenance works such as plumbing, fixing roof leakage that do not require the re-roofing of the entire roof or part of the roof;

ii) Putting back original materials where missing for front facade and roof;

iii) Re-plastering of part of a building; and

iii) Change of material for any part of the building.

Such repair permit will be issued by the Local Authority (MPPP)
• **Requirements for Repair Permit:**

  i) The signature of the property owner or agent;

  ii) Land-title, quit rent receipt, proof of ownership;

  iii) Dilapidation Survey Report - a brief photographic description of the building, showing areas of repair to be done - indicated on sketch plans;

  iv) A brief written description of the works to be carried out including materials to be used;

  v) Photographs of the site before and after the works.

They can be submitted by the owner, contractor, licensed draftsman or architect.

• **Emergency repair**

  In the case of emergency repair, a repair may take place before the application of a permit (e.g. roof damaged over a weekend). However, photographs of before and after the repair should be submitted to MPPP together with a Repair Works application, as soon as possible.

• **Before works begin**

  i) Permits are required for temporary items such as the temporary deposit of building material on the streets and the erection of scaffolding on the street. Application should be made to the Engineering Department, by the contractor, before works starts.

  ii) Signboards for the project works – are to be installed outside the building together with the permit number.

• **Inspection of Works**

  Site inspection by building inspectors may take place:

  i) during the repair works application process;

  ii) during the repair works period; or

  iii) following any complaint.

  Stop-work orders are issued for non-compliance. Remedial works are to be carried out failing which legal action may be taken.

• **Completion of Works**

  To inform the Building Department upon completion of works. The site to be photographed and records kept by MPPP.
2.4 Heritage Impact Assessment

A Heritage Impact Assessment (HIA) is required at Planning Permission Application stage, for change of use and for new compatible development projects. It is part of the general documentation and is an assessment of the proposed project site, and its potential impact on the authenticity of the OUV of the WHS.

The HIA also includes a Cultural Impact Assessment (CIA). This is an assessment of the impact of change of use or compatible development on the existing cultural environment and local community.

The HIA is written by an approved consultant, who is paid for by the developer/owner of the proposed site/change of use. The final HIA is submitted directly to the MPPP Heritage Unit and for major works forwarded to the Department of National Heritage (JWN).

The HIA is to be submitted together with the Development Proposal Report (or Laporan Cadangan Pemajuan) which is a document required to be submitted to support any Planning Permission Application. The requirement for a Development Proposal Report and its content is outlined in Section 21A(1), Town and Country Planning Act 1976 (Act 172) and the Manual Penyediaan Laporan Cadangan Pemajuan by the Federal Department of Town and Country Planning, Peninsular Malaysia.

The Department of National Heritage has prepared a Guideline for writing the HIA, available from the MPPP Heritage Unit or the GTWHI office, and should be used as a template. It should include:

i) Impact Assessment

Means the assessment of the impact the new development will have on the heritage building(s) on the site and neighbouring areas, both during the construction stage and after, when the project is complete. This should refer to both, physical, cultural and social impact.

ii) Mitigating Measures

Means a description of the measures that will be taken to reduce or avoid the impacts negative to the heritage buildings on the site, the neighbouring buildings and the OUV in general.

• When is an HIA required?

The HIA is required for all compatible development projects (Infill and Replacement Categories) in the WHS and for projects facing the perimeter of the Buffer Zone.

A HIA is also required for the alteration or extension of a building other than shophouses, to assess its impact on vistas, views, rooflines and streetscapes for consideration.
2.5 Dilapidation Survey Reports

A Dilapidation Survey Report is a description of the condition of the heritage building or buildings to be repaired/conserved/adapted.

Dilapidation Survey Reports are written as part of the documentation for Building Application.

The content of the report is directly related to the size of a project.

On big and small projects, the Dilapidation Survey Report can be used to record the site issues in order for the contractor to make a quotation. They are also used to guide the team of consultants during the design development process and form part of the Documentation for Tender and later Construction.

As well as a photographic survey of the building condition, together with drawings, the Dilapidation Survey Report should include:

i) Historical Significance of the Site;

ii) Architectural Significance of the Site;

iii) Cultural Significance of the Site.

The Department of National Heritage has prepared a description of what is expected in the Dilapidation Survey Report for major works under Building Control, this is available from the MPPP Heritage Unit or the GTWHI, and should be used as a template.

2.6 Progress Reports – for work in progress

The Heritage Buildings of George Town, go back over two hundred years. In that period of time some buildings have been incrementally altered and embellished, each culture, each age adding to the richness of each site.

In the early stages of conservation and repair work and compatible development, discovers many show signs of the early histories allowing us to trace the traditional building methods and cultural changes made by craftsmen from different lands.

- Why write a report?

It is important to record the works that takes place during the conservation, repair, alteration and extension works, as well as compatible development and in particular to record what is found of the original buildings, when work begins, for example – size of bricks, materials used, layout of tiles, layers of flooring, original colours.

- What is in the report?

The Progress Report is a photographic record of the building taken:

i) before works start;

ii) during work in progress (mid-way);

iii) at the completion.

If possible the same location and angle should be photographed at each stage for each report, and location marked on an accompanying plan. Submitted to MPPP Heritage Unit.
• **How big does it have to be?**

   The size of the report is directly related to the size of a project, for example a report on re-roofing a shophouse, would not be as big as a report for the entire shophouse.

• **Who prepares the reports?**

   These reports can be prepared by owners, consultants, contractors or an appointed representative. The Department of National Heritage has prepared a Progress Report template, which is available from the MPPP or the GTWHI office, and should be used as a guide to preparing the reports.

• **Who benefits from the reports?**

   It is of value to the owner of a property and perhaps to future purchaser to have a set of the Progress Reports, in order to understand the work that has been undertaken.

### 2.7 Maintenance / Repair Guides

A Maintenance / Repair Guide is a check-list of all the elements of a heritage building, which may, from time to time, require further maintenance work. It is a record of materials used in the conservation work, their warranties, guarantees and performance (if applicable). The guide allows the owner, manager or tenant of a heritage property to carry out further works, using appropriate materials suitable for the age and style of a heritage building.

The guide will help avoid future inappropriate repairs, advise on the materials and methods to use and promote the continued wellbeing of the heritage buildings.
3 Conservation Practice

3.1 Introduction

This guideline is concerned principally with works that affect the special interest and character of the cultural landscape and buildings of heritage significance that fall under Category I and Category II. It is divided into the following sections:

3.2 Authenticity & Interpretation
3.3 Compatible Building Use
3.4 Reversibility & Adaptation
3.5 Dismantling
3.6 Fire Protection
3.7 Demolition
3.8 Alterations and Extension

These principles must be adhered to for any conservation works in the WHS of George Town.

3.2 Authenticity & Interpretation

3.2.1 What is authenticity, why is it so important?

The protection of the ‘authenticity’ or ‘genuineness’ and integrity of a cultural landscape, demonstrates a respect and depth of understanding of both the tangible – the built culture, and the intangible – the living culture and how the intertwining of the two creates the value of the site, place or setting the OUV.

In eclectic cultural landscapes such as Melaka and George Town, the connectivity between the two sites is also part of the OUV of the World Heritage Site. Loss of this authenticity through mismanagement, misinterpretations and attempts to ‘package’ the cultural landscape, as a marketable ‘commodity’ will lead to its eventual loss.

ANNEXURE B : GUIDELINES FOR THE CONSERVATION AREAS AND HERITAGE BUILDINGS (GEORGE TOWN)

Melaka and George Town. Historic Cities of The Straits of Malacca.
3.2.2 How do we know what is authentic and what is not?

- Understanding the written and unwritten ‘rules’ that guided the early settlers in order to ‘read’ and understand the cultural landscape, is helpful. Each culture has its own form of Feng Shui or Vashtu Shastra, which has guided the creation and use of the built cultural landscape.

- Understanding the age of a building and what technologies were on the island at the time of its building gives an indication of what is original and what has been added later.

- As each building, place or site is different, GTWHI aims to help in this identification process through its resource centre, temporary exhibitions, talks and workshops. Comparing each building, place or site with old maps and drawings, for example will give a good indication of what is original and what is a later addition.

*Figure 3.1: In an authentic shophouse, its outer door is a carved door with ventilation slots or decorative carving. The solid doors, together with an auspicious message, are always on the inside of the doorframe. When they open, the door and auspicious message face into the house. Ground floor shutters, under the five-foot-way are solid and beyond the grill.*
3.2.3 Why is research important?

By researching the past as much as possible, maintenance and repairs will be better understood and new building work can be designed to be more compatible with the cultural landscape.

George Town was built on a large swamp, on beachfront and on reclaimed land. The heritage buildings were created using materials to suit the conditions and climate.

3.2.4 Where do I get help with research?

- **Original Building Plans**

  Property owners may request a search for original building plans from MPPP (for a fee). Although what is drawn may not necessarily be the same as what was built, they give a good indication as to the traditional materials and structural design.

- **Other Research Resources and Rata**

  The GTWHI is developing a resource centre for design styles and traditional ways of building as well as an Archive/Knowledge Bank for research purposes. Published postcard collections, and copies of historic maps can be found in the GTWHI library.

  The National Archives of Malaysia, Singapore and the UK are all helpful resources for researchers.

  - National Archives Malaysia  
  - Penang Library  
  - National Library Singapore - newspaper cuttings  
    [http://newspapers.nl.sg/](http://newspapers.nl.sg/)
  - National Archives Singapore  
  - NAS - access to archives online  
  - GTWHI website  
    - will be regularly updated as new archives come online, including historic maps
3.3 Compatible Building Use

The best use will very often be the use for which the building was originally designed and the continuation or reinstatement of that use should certainly be the first option when the future of that building is considered. But not all original uses will now be viable or necessarily be appropriate. The nature of uses can change over time, so that in some cases the original use may now be less compatible with the building than an alternative.

A compatible or adaptive re-use of heritage buildings may be permitted by MPPP to ensure the survival of such buildings.

Approval of new use however, must take into consideration the suitability of the use within the cultural landscape. Inappropriate use may cause loss of authenticity of the cultural landscape – the OUV of the WHS.

A Heritage Impact Assessment including a Cultural Impact Assessment will be required for change of use application to ensure that the new use reflects the authenticity of the OUV.

3.4 Reversibility & Adaptation

3.4.1 Reversibility of new works

New extensions or any other permitted alterations to the original form should be reversible, so that future owners may revert back to the original authentic form with minimum damage involved in the process.

Category I buildings should retain their authentic and original form according to the significance of the building, and related buildings / enclave e.g. a mosque, temple or clock tower.

Category II buildings may, together with conservation works be adapted for:

i) a continuation of existing use, with the addition modern conveniences not found in the original form e.g. toilets, electricity, piped water etc..

ii) a new use, which is compatible with the existing form and with permitted additions to the built fabric.

3.4.2 Reversing past misinterpretations

Over the years of development and modernisation, alterations have been made to the built landscapes. Some changes are lightweight cosmetic changes that can be reversed to rediscover the authentic design, e.g. glass louvered windows replaced authentic timber-louvre shutters. Other changes have caused accidental damage, e.g. cement render used instead of traditional lime plaster, or the covering over of the historic drains and ditches.
Reversing this trend should be a considered option when repairing, conserving, altering and/or extending a heritage building, site or landscape.

3.4.3 Using the right materials

Choosing the wrong materials can cause damage to a property and in the case of a shophouse, can potentially harm the party wall, causing damage to its neighbours.

- Find out what original materials were used
- Check what damage the replacement materials have done – if any
- Remove with care and revert back to the original

Advice for using the right materials can be asked from MPPP Heritage Unit and GTWHI.

3.5 Dismantling

Sections being removed to make way for authorised changes and/or additional areas are better dismantled than demolished and original materials salvaged if possible.

Dismantled items can be:

- used in other areas of the property if in good condition.
- recycled if matched with the original material and in good condition. e.g. old timbers may be used to repair remaining ones.
- sold to others wishing to restore/conserve.

When buying materials dismantled from another building, it is important to purchase from a source that has not acquired the items through dismantling another heritage property without the relevant approvals.
3.6 Fire Protection

3.6.1 Residential use buildings

If a heritage building is being restored and retained as residential use, the fire regulations apply regarding a protected separation from the neighbouring building.

- Early shophouses were designed with an undivided roof, covering many units.

- Later shophouses were designed with a firebreak wall separating each unit.

It is important to maintain the authenticity of the roofline of shophouses. A new fire division for those buildings without a visible firewall should not show above the roofline.

3.6.2 Commercial use buildings

All commercial properties, either heritage buildings or modern buildings must follow the relevant legal requirements for fire protection.

Change of use from residential to commercial will require that the buildings follow the regulations for commercial fire protection. However, if the change of use requires too many physical changes that are not reversible, the use may not be suitable.
3.6.3 Mixed-use buildings

Business owners, living above the shophouse or place of business (Single occupancy), represents a traditional use of the shophouse. In this instance, the living quarters on the upper floors would not be separated by a fireproof division.

If a building is divided for separate tenancies, commercial and residential, then a fireproof division and means of escape must be provided, during the renovation/conservation process. See the requirements in the Universal-Building-Bylaws (UBBL) Part VII.

3.6.4 Fire protection materials – Reversibility

Fire protection is to aid the escape of people, through a building to the point of exit, in the case of a fire. The principles of reversibility must be referred to in the selection of fire protection materials.

- Protecting floors for commercial buildings

If the floor is of timber construction then a fire protective barrier may be required between floors, according to the requirements in the UBBL Part VII.

The protective barrier should:

i) NOT be of a material that cannot be removed at a later date should use revert to residential and/or may cause damage during removal (see section 3.4)

ii) NOT add additional weight to existing structures, beyond their capacity.

Using a concrete slab on top of the original timber floor structure is only permitted for bathroom areas, and should not be considered as a method for fire separation.

The following are suggested protective layer:

i) A fire rated ceiling board

ii) A fire retardant paint suitable for timbers

- Protecting walls

If a new fire protected partition wall is required, it should be of a fire rated material that does not add weight beyond the capacity of the original floor structure, and can be removed without damage to the original fabric of the building.

- Fire protective doors

Fire protected doors may be required on both new and existing openings.

Certified fire doors must be installed, therefore the original doors must be removed with care and stored for later reinstatement should the use of the building revert to residential use.

Existing openings in Heritage Buildings usually come with thick hardwood frames, and panelled doors. Every effort should be made to keep the original frames, as well as install the certified fire door frames.

Always discuss the issue of fire escape and heritage building needs with Fire and Rescue Department, MPPP Heritage Unit and GTWHI. The importance of regulations and advice for fire protection in Heritage Buildings has been recognised and is in the process of being evaluated. It is important to check for the latest approved approach that complies with both Bomba and the principle of reversibility.
3.7 Demolition

3.7.1 State policy & legal issues

Conservation area designation imposes control over the demolition of all listed buildings or parts of it within the conservation area. Application for planning permission to demolish must be made to MPPP.

In the conservation area, account should clearly be taken of the part played in the architectural or historic interest of the area by the building for which demolition is proposed, and in particular of the wider effects of demolition of the building’s surroundings and on the conservation area as a whole.

The MPPP is entitled to consider the merits of any proposed development in determining whether planning permission should be given for the demolition of an unlisted building in the conservation area.

Works involving the destruction of part of the fabric of the building will be regarded as ‘demolition’ as per the Town And Country Planning Act 1976 and will require planning permission.

3.7.2 Linking between properties

If an owner of a row of a Category II shophouse wishes to link these properties by creating openings in the structural party walls, planning permission to carry out such work is required.

3.7.3 Illegal demolition

As defined in section 22 (3) of the Town And Country Planning Act, upon the application for planning permission, demolition shall not take place until:

i) planning permission, building plan and commencement of works for those works have been granted; and

ii) a contract for carrying out of works of redevelopment has been made.

Failure to comply will constitute as illegal demolition.

3.7.4 Strong justification for demolition

Heritage building controls ensure that proposal for demolitions are fully scrutinized before any decision is reached. The destruction of heritage buildings is the result of neglect or failure to make imaginative efforts to find new uses for them or to incorporate them into compatible development schemes.

The demolition of any Category I or II building should be wholly exceptional and should require the strongest justification.

The State Planning Committee would not expect planning permission to be given for the total or substantial demolition of any heritage building without clear and convincing evidence that all reasonable efforts have been made to sustain existing uses or find viable new uses, and this efforts have failed; or that redevelopment will produce for the community which would decisively outweigh the loss resulting from demolition.

Where proposed works will result in the...
total or substantial demolition of the heritage building, or any significant part of it, the MPPP, in addition to the general considerations must address the following considerations:

i) The condition of the building;

ii) The cost of repairing and maintaining it in relation to its importance;

iii) The value derived from its continue use.

Any such assessment should be based on consistent and long-term assumptions.

In the cases where it is clear that a building has been deliberately neglected in the hope of obtaining planning permission for demolition, less weight should be given to the cost of repair (see above). In this case two further considerations should be addressed:

ii) the adequacy of efforts made to retain the building in use;

iii) the merits of alternative proposals for the site.

The MPPP may wish to incorporate heritage building within new development, and this option should be carefully considered.

The challenge presented by retaining heritage buildings can be a stimulus to imaginative new design to accommodate them.
3.8 Alterations and Extension

3.8.1 General principles for alterations and extension

i) Each heritage building has its own characteristic, which is usually related to an original or subsequent function. This should as far as possible be respected when proposals for alteration are put forward. Marks of special interest appropriate to a particular type of building are not restricted to external elements, but may include anything from the orientation, the plan or the arrangement of window openings to small internal fittings. Attempt should be made to retain the characteristic of distinct type of building, especially those that are particular to their area. The use of appropriate local material is very desirable.

ii) Alterations should be based on a proper understanding of the structure. Some heritage buildings may suffer from structural defects arising from their age, methods of construction or past use, but can still give adequate service provided they are not subject to major disturbances. Repairs should usually be low-key, re-instating or strengthening the structure only where appropriate. New work should be fitted to the old to ensure the survival of as much historic fabric as is practical. Old work should not be sacrificed merely to accommodate the new.

iii) Information about the history and historical development of a building, object or site, is of value when considering proposed alteration.

This may be gained from the physical evidence in the building itself – lost features in the plaster, rough edges where features have been cut away which can enlighten the original form or construction. There may also be documentary information, such as early photographs, drawings, written description or other documents relating to its construction or use.

iv) In judging the effect of any alteration or extension it is essential to have assessed the elements that make up the special interest of the building in question. They may comprise not only obvious visual features such as a decorative façade or internally, features such as staircases, decorated plaster ceilings or capitals but also the spaces and layout of the building. These elements are just as important in simple buildings as in grander architecture.

v) Subsequent addition to the original design of heritage buildings, including minor accretions, such as porches, balconies, verandahs, door dressings, do not necessarily detract from the quality of building. They are often of interest in their own right as part of the building’s organic history. Generally later features of interest should not be removed merely to restore a building back to an earlier form.

vi) New building extensions should not dominate the existing heritage building either in scale, material or situation.
3.8.2 Permitted alterations and extension

The original building profile such as features of airwell, forecourt, internal court, rear court, etc. shall be retained and restored. Alteration and/or extensions to heritage buildings are subject to MPPP permits and approvals. Unauthorised alteration and addition to the building profile will require the original to be reinstated to the original profile.

For guidelines on alterations and extension for Category I, please refer to Chapter 4

For guidelines on alterations and extension for Category II, please refer to Chapter 5
4 Category I

Category I buildings and sites are important in that they reflect the authenticity of the cultural landscape and therefore the Outstanding Universal Value of the Site.

For example:
The cultural links between a temple on Armenian Street and its related temple in Tanjung Tokong, and the ceremonial processions carried out between the two sites, are evidence of the cultural significance of the temples, which is still highly relevant to the present Chinese population of Armenian Street and Penang. Equally, the architecture of the temple bears evidence of migrant ancestors - craftsmen, sponsors and worshipers of the temple, whose entrepreneurial spirit helped, create the settlement we see today.

In the same way, the clock tower on Prince Edward place is not only identified by MPPP but also under the National Heritage Act. It represents an interesting time in the history of the settlement, under the colonial administration of the British, the hard won wealth and philanthropy of the donor, the art of the architect and the skill of the local craftsmen.

The Cultural, Social and Architectural significance of objects and buildings, in other words the cultural landscape, is an expression of the Heritage Value of a site, and for that reason they are identified as Category I.

4.1 Permitted Use

The use should remain as originally intended, when possible. Any adaptation to the use must be of similar use or nature and activities and have minimal impact on the cultural significance of the place and requires the preparation of a Cultural Impact Assessment.

4.2 Authenticity and Interpretation

Category I buildings and objects must be conserved to retain their original use, form, decoration and traditional materials in order to preserve their authenticity, both physical and cultural.

i) Category I buildings should retain their authentic and original form according to the significance of the building, and related buildings / enclave/ item. e.g. a temple and surrounding housing.
ii) Research into the object or building form, architectural style, typology, traditional materials, history of the object or building and the search for original building plans, should be undertaken, in order to establish the authenticity.

iii) During the conservation of buildings process, a report of these findings is required by the local authority on submission of drawings, together with a report of the condition of the building, when conservation works are to be undertaken.

4.3 Research for Historical Data

For Category I buildings and objects as much must be understood about them before works are carried out – even minor repairs.

These may include researching on:

- Traditional building methods typical of the type and age of the building/item;
- Historic maps (look out for the word ‘swamp’);
- Local oral histories, place names – (the local name for Jalan Sugei Ujong translates as ‘Soft Ground’ on the old maps this was a very big swamp).

Refer to chapter 3.2.4 on research methods.

4.4 Permitted Works

Only restoration work is allowed be carried out in order to reinstate back its original character and maintaining its original fabric using similar construction method and materials.

New construction method will only be allowed for the purpose of re-strengthen the original building structure without disturbing or modifying its original structure or removing any of its original fabric. It requires a cautious approach of changing as much as necessary but as little as possible

4.5 Requirements for Permitted Works

4.5.1 Dilapidation Survey Report

Before any application for a Repair works can be submitted a Dilapidation Survey Report is required for all Category I buildings and should be submitted together with the application. The report should include a description of the:

i) Historical Significance of the Site

ii) Architectural Significance of the Site

iii) Cultural Significance of the Site

The reports will vary in length depending on the extent of works being carried out. Refer chapter 2.5 for Dilapidation Report.

4.5.2 Repair Works Permit

Refer chapter 2.3.1 for more information on the Repair Works permit.
4.5.3 Progress Reports

These are a photographic record taken before works commence, at the mid point of the project and when all is completed. The reports allow MPPP, the owner and architect to follow the course of the work on site.

Refer chapter 2.3.6 for more information on progress reports.

4.5.4 Other Reports

If major conservation work is to be carried out, full measured drawings should accompany the Dilapidation Survey Report and be used as Tender/Contract/Construction Documents. Under the Department of National Heritage's conservation projects for building listed as National Heritage, other reports will be required, such as Historic Architecture Building Survey (HABS) survey.

It is advisable to prepare a conservation management plan for the conserved Category I building to avoid damage in future maintenance and help check for potential problems.

4.5.5 Permitted Heights

The height of the building is to be maintained as per original. No increase in height is allowed.
### 4.6 Guidelines for Conservation Work on Category I Buildings

#### 4.6.1 Forecourt

<table>
<thead>
<tr>
<th>Item</th>
<th>Design</th>
<th>Materials / Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forecourt/ Courtyard</td>
<td>The forecourt is an important setting in which a Category I Building is placed it should be kept to its original form, and used in the manner in which it was intended when built</td>
<td>The forecourt may sometimes be identified separately as Category II– the same requirements apply</td>
</tr>
<tr>
<td>Ground</td>
<td>The original flooring material shall be retained and restored with matching materials</td>
<td>MPPP should avoid obstructions such as bus shelters, parking etc in front of the entrance. Buildings owner may apply for their relocation</td>
</tr>
<tr>
<td>Drainage</td>
<td>The original drainage from the buildings to the street is an integral part of the Category I Building and Compound design. It should be retained and restored to original</td>
<td>The flow of water has a strong cultural significance and should be respected. Additional drainage may be permitted to avoid flooding</td>
</tr>
</tbody>
</table>
### 4.6.2 Roof

<table>
<thead>
<tr>
<th>Item</th>
<th>Design</th>
<th>Materials / Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tiles All Roofs</td>
<td>The original traditional roof dressing material, eaves detail, (fascia board) shall be retained and restored</td>
<td>Original installation method and tile profile are to be used</td>
</tr>
<tr>
<td>Structure Main Roof</td>
<td>The original profile, pitch, height, party wall and eaves projection and internal structure shall be retained and restored</td>
<td>The original form should be retained Faulty members may be removed and replaced with matching member</td>
</tr>
<tr>
<td>Jack Roof</td>
<td>The original traditional roof dressing material, eaves detail, (fascia board), ventilation louvres or glass, shall be retained and restored</td>
<td>Existing Jack Roof to be retained, Roof tiles are to be identical to the main roof New jack roof is not permitted</td>
</tr>
<tr>
<td>Dormer Windows</td>
<td>Not part of original architecture</td>
<td>Is permitted if hidden from view and allowing access to the roof for maintenance</td>
</tr>
<tr>
<td>Roof Eaves</td>
<td>The original eaves, overhang and support features shall be retained and restored</td>
<td>Original to be maintained</td>
</tr>
<tr>
<td>Parapets, gutters &amp; down pipes</td>
<td>The original features, shall be retained and restored</td>
<td>New gutters may not be added to existing roofs designed without gutters</td>
</tr>
</tbody>
</table>
### 4.6.3 Building External and Internal

<table>
<thead>
<tr>
<th>Item</th>
<th>Design</th>
<th>Materials / Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building</td>
<td>Each Category I building will be unique, culturally and architecturally and must be conserved and restored to maintain its authentic uniqueness</td>
<td>Further research into: The traditional way of building The building’s architectural, social, and cultural history</td>
</tr>
<tr>
<td>Materials</td>
<td>The original materials used for the walls, columns, windows, doors, railings, floors and decorative elements, etc, must be conserved, restored or returned back to the original</td>
<td>All effort to be made to replace damaged or lost elements with matching size, species, kind or design New items are only permitted if they match the performance of the original material</td>
</tr>
<tr>
<td>Alteration and Extension</td>
<td>The Category I building has a footprint and profile unique to its architectural style</td>
<td>No alteration or extension is permitted.</td>
</tr>
<tr>
<td>Utilities and Services</td>
<td>Many Category I buildings were designed before the invention of electricity Those that have had electricity installed in the past may require it to be upgraded Temperatures were controlled through appropriate design elements such as open air-wells and fanlights; these should be conserved and restored Many Category I buildings were designed before the invention of plumbing. Water was collected in water tanks and wells, if still part of the building these should be conserved and retained</td>
<td>Is permitted if hidden from view and allowing access to the roof for maintenance</td>
</tr>
<tr>
<td>Roof Eave</td>
<td>The original eaves, overhang and support features shall be retained and restored</td>
<td>Original to be maintained</td>
</tr>
<tr>
<td>Parapets, gutters &amp; down pipes</td>
<td>The original features, shall be retained and restored.</td>
<td>New gutters may not be added to existing roofs designed without gutters</td>
</tr>
</tbody>
</table>
5 Category II

Definition:
(a) Buildings and items of special interest that warrant every effort being made to preserve them.

5.1 Category II Buildings, Places and Sites

Category II buildings, places and sites, make up for the majority of the built cultural landscape of George Town. They are the humble, the vernacular, and they represent the everyday lives of the eclectic cultural landscape of George Town:

i) They were residences and business premises of those who have lived in George Town for generations. They were built to support the traditional beliefs of the inhabitants and users. The materials used, the position of a stair, the angle of the door, were and are still all relevant to the cultural beliefs of the owners and users.

ii) They are also part of the commercial heart of each urban area, defining its character and relating the heart to human scale.

iii) They represent an architectural identity, that was adapted to suit climatic needs and those of the site conditions, they respected the environment producing carbon zero structures long before the notion was realised for its sustainability.

iv) They tell of cultural influences in the change in scale decoration and later materials, each one a piece of an architectural and cultural jigsaw. They are the identity of the Straits of Melaka and the greatest link between its historic cities.

5.2 Permitted Use

The best use will be the use for which the building was originally designed for and the continuation or reinstatement of that use should certainly be the first option when the future of that building is considered. But not all original uses are now viable or necessarily be appropriate. The nature of uses can change over time, so that in some cases the original use may now be less compatible with the building design intent or with its original use.

A compatible or adaptive reuse of heritage buildings may be permitted by MPPP to ensure the survival of such buildings.

Refer to Part 3, Chapter 2 on Managing the Use of Land and Building for a schedule of allowable use in the WHS. Advice can be sought from the MPPP Heritage Unit and GTWHI for the type of use that are suitable for these buildings.

5.3 Authenticity and Interpretation

As Category II buildings dominate the streetscape the authenticity of their connection to the street – the façade and five-footway and/or compound, the original materials used, the style of openings and decoration should be maintained, restored and conserved, or if altered at some point in time, is returned back to the original.

Refer to Chapter 3 for guide to Authenticity
and Interpretation.

Refer to Exhibit A on the following page on how to reinstate a facade back to its original and authentic design.

Owners are advised to visit the MPPP Heritage Unit and GTWHI office to seek advise regarding:

i) The original form and the authentic appearance or style of the building;

ii) The authentic streetscape;

iii) The authentic roof line, the view from the street and vistas. The Authentic streetscape and roof line is part of the OUV for the UNESCO site, any change must be carefully considered;

iv) The guidelines for conservation and alteration and extension works, traditional ways of building etc.

5.4 Research for Historical

Figure 5.1: Authenticity – example shophouse
EXHIBIT A: How to Reinstate a Façade to its Original Design?

● Step 1: Is the building a part of a group?
   This one is the middle of a group of five.

● Step 2: Do its neighbours have more or less the same design?
   This ensemble all have low walls on the first floor, column-to-column windows and pitched roof.

● Step 3: Check the Shophouse Style sheets and see if a neighbour is similar in design.
   These will tell you all the features and materials typical of the shophouse style.

● Step 4: Check old maps and surveys to understand how and when the shophouses were built.
   The Kelly Town survey 1891-3 shows the group of five shophouses, confirming that these shophouses were built as one design.

Kelly maps without the watermark are available from JUPEM.
Data

It is advisable to discover as much as possible about the Category II buildings or objects, before a proposal for works is considered.

Research can help in determining the original ground condition, e.g. swamp or stream. The type of foundations used in buildings of the same time period and area and the building materials used at the time of its construction.

Research material include:

- Original drawings from the MPPP archives
- Photographs, paintings and other drawn information
- Newspaper cutting archives, and archives documentation of the owner or related association etc.
- Local oral histories
- Refer to Chapter 3.2.3 for guide to research

5.5 Other Objects and Buildings – Category II

Whilst the majority of properties identified as Category II are shophouses, there are also other types of buildings, shophouses and objects of added interest. These include:

- **Category II items or objects**
  
  i) Compounds, boundary walls, gateposts & gates, landscapes, trees, enclaves, granite pathways and sites;
  
  ii) Historic street furniture, granite posts and chains, fountains, lamp-posts, post boxes, tramlines and trolley bus poles, fire hydrants and fire assurance plaques, granite and engineering brick drains, etc.

- **Category II buildings of added interest**
  
  i) Buildings of special interest – historical;
  
  ii) Buildings historically associated with Category 1 buildings;
  
  iii) Corner buildings of architectural significance;
  
  iv) Rows of buildings of architectural significance;
  
  v) Dated building of architectural significance.
Category II Items or Objects

Figure 5.2: Items such as cast iron fountains and granite pathways are identified as part of the authentic built landscape.

Category II Buildings of added interest

Figure 5.3: Dated buildings allow us to clearly date architectural styles, materials and technologies.

Figure 5.4: The humble category II shophouses surrounding a granite compound create the authentic setting for the Category I Khoo Kongsi Temple and stage. They are all part of the history of the site and of the Khoo clan vistas.

Figure 5.5: Corner sites are clear landmarks, and key buildings in the streetscape, often framing important vistas.

Figure 5.6: Rows of buildings, built by the same craftsmen for the same owner with beautiful shard work.

Figure 5.7: 120 Lebuh Armenian former base of Dr. Sun Yat Sen.
5.6 Permitted Works

The original building profile such as features of air well, forecourt, internal court, rear court, etc. shall be retained and restored to its original condition. Replacing the existing materials should have similar profile, performance, design, colour and texture or equivalent. It requires a cautious approach of changing as much as necessary but as little as possible.

Alteration and/or extensions to heritage buildings are subject to MPPP permits and approvals. Unauthorised alteration and addition to the building profile will require the original to be reinstated to the original profile.

Please refer to Chapter 2 for repair, planning & building control procedure.

Please refer to Chapter 3 on the conservation practices applicable to all heritage buildings.

5.6.1 Alterations and extension to buildings other than shophouses

A Heritage Impact Assessment is required for the alteration or extension of a building other than shophouses, to assess its impact on vistas, views, roof lines and streetscapes for consideration.

Each application should be discussed with the MPPP Heritage Unit and the GTWHI, to assess the possibilities before application is made.

5.6.2 Extensions on shophouses

The original height of all listed buildings shall be maintained. The rear courtyard open-air well should remain open, and the buildings may be increased by one storey.

Extension, increase in height, and additional storey above the permitted height at the rear of building shall be considered based on the merit of each case, application should include an HIA to show the design reflects the authenticity of the OUV of the WHS. In all cases the UBBL shall be followed.

Refer to Exhibit B for a visual guide on height extensions for Category II shophouses.

5.6.3 Back-to-back or back-to-side extension

If a heritage building has been built back-to-back (Figure 5.11) or back-to-side of a neighbouring house, the possibility of an extension at the rear is limited by the need to provide, natural ventilation and light to comply with the UBBL and escape in the case of fire.

The need for natural light and ventilation still applies to each building even if the back-to-back houses are owned by the same owner.

5.6.4 Extension of rear courtyard and kitchen

In the heritage shophouses, the traditional arrangement at the rear of the building is a single storey terrace with kitchen below or later a single storey jack roof kitchen with open yard. Over the years the yards have been covered over. It is advisable to reinstate the yards or terrace and air-well
in order to allow for light, ventilation and escape – returning to the ‘green building’ concept. Rear courtyard and open air-well should remain open.

5.6.5 Buildings backing on to Category I buildings.

In some instances the rear of a building may be seen from the compound of, or is adjacent to a Category I building (Figure 5.4). In this case care should be taken to maintain the authenticity and integrity of the Category I site. Extensions to Category II buildings shall be considered based on the merit of each case.

5.6.6 Extension of buildings with back lanes

The height of any new extension must not block the ventilation or escape of its neighbours. Thus, the traditional external air-well/ kitchen and terrace arrangement should be retained or put back if formerly demolished.

5.7 Permitted Height

The original height of all listed buildings shall be maintained.

The height for extension may be increased by one storey from the original height/storey in accordance with this guidelines. Listed buildings outside the UNESCO World Heritage Site, will be determined by planing regulations and subject the acceptance of the HIA report. In all cases, such extension of height shall comply with the UBBL.
EXHIBIT B: Height Extension for Category II Shophouses

Requirements for extension works on Category II buildings:

i) Planning Approval for increase in height minor and major works;

ii) Building Plan Approval;

iii) DPR including HIA;

iv) Dilapidation Survey Report;

v) Progress reports.

After completion of works it’s advisable to produce a Maintainace & Repairs Reports.

NOTE:
These illustrations are diagrammatic sketch examples – in reality each shophouse differs in size and surrounding situation. It is important, therefore, to discuss any proposal with the MPPP Heritage Unit or GTWHI in order to assess the opportunities and limitations of each site, before starting work or even purchasing the building.

Figure 5.9: An example of a single storey extension above building with an air-well, with an open rear courtyard.
Figure 5.10: An example of a single storey extension above building without an airwell, with an open rear courtyard.

Figure 5.11: An example of a back-to-back shophouse arrangement without a back lane, the extension should allow ventilation and avoid being a solid mass.
5.8 Guidelines for Conservation Work on Category II Buildings

5.8.1 External Forecourt

<table>
<thead>
<tr>
<th></th>
<th>Original design - building methods</th>
<th>Requirements / conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1.0 Forecourt</strong></td>
<td>Bungalows set in a compound or forecourt, with wall and gates. Example 1: Stewart Lane bungalow 1900s Terrace/ Town Houses, with forecourt and garden wall and gate. Example 2: Cannon Street</td>
<td>Original materials, design &amp; finishing to be used. Laying of new ground finishes shall be sensitive &amp; sympathetic to the front façade. The original size &amp; ornamentation of the wall &amp; gate shall be retained &amp; restored.</td>
</tr>
</tbody>
</table>
5.8.2 External Finishes and Colours

<table>
<thead>
<tr>
<th>2.0 Finishes and colours</th>
<th>Requirements / conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2.1 Exterior / Walls</strong></td>
<td>The original finishes, shall be retained &amp; restored. Painting over the original finishes e.g. Shanghai plaster, is not permitted.</td>
</tr>
</tbody>
</table>
| Each period of design history had preferred colour schemes.  
(See Shophouse styles in Annexure D)  
Scraping back to the original base layer will reveal the colour history.  
The colour and materials for conservation should be chosen from this investigation. | |
| Types of Finish:  
a. Lime Plaster / Lime Wash - Most buildings in the WHS  
b. Shanghai Plaster - Buildings after 1930s – 1960s  
c. Cement Render - Early Modern Buildings | |
| **2.2 Exterior Timber Work** | If lime plaster / wash was the original material then a breathable paint or lime wash may be used. |
| Each period of design history had preferred colour schemes.  
(See Shophouse styles in Annexure D)  
Scraping back to the original base layer will reveal the colour history.  
The colour and materials for conservation should be chosen from this investigation. | |
| Types of Finish:  
a. Ta Chi, Tong Oil - Traditional Chinese timberwork  
b. Kampong Oil finish - Traditional Malay timberwork  
c. Timber oil/ stain - Timber work  
d. Oil based paints - Metal or timber work | The colour scheme or paint used shall match & harmonise with the typical character of the heritage buildings & of streetscape. |
### 5.8.3 External - Roof

<table>
<thead>
<tr>
<th>Items</th>
<th>Original design - building methods</th>
<th>Requirements / conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>3.0 ROOF</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>3.1 Tiles - All Roofs</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Roof Material Types:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Small size, V or U profile, unglazed, natural colour terracotta tiles. Timber battens run ridge to eaves on horizontal purlins (roof beams) - Shophouses, bungalows, godowns, etc.</td>
<td>Original installation method and tile profile shall be retained and restored.</td>
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</tr>
<tr>
<td>b. Interlocking clay roof tile, Marseilles (Indian or French). Timber battens run horizontal supported by truss roof system – Bungalows, Beach St Office buildings</td>
<td>b) Not suitable for pre 1930s Shophouses</td>
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<tr>
<td>c. Slate roofs - Supported by timber boards, on purlins - Godowns, Church roofs &amp; Beach St Offices.</td>
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<td><strong>3.2 Structure Main Roof</strong></td>
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<tr>
<td><strong>Roof Structure Types:</strong></td>
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<tr>
<td>a) Horizontal timber purlins (roof beams) installed between load-bearing walls. Acts as brace for the structural party walls. - shophouses</td>
<td>The original form to be retained &amp; restored. Faulty members may be removed and replaced with matching member. New metal trusses are not permitted, unless they match the original.</td>
<td></td>
</tr>
<tr>
<td>b) Horizontal timber purlins (roof beams) installed above truss or sloping rafters. Acts as a tie for the trusses &amp; rafter. - Shophouses, Godowns, Beach St Offices. Bungalows</td>
<td>c) Not suitable for pre 1930s Shophouses</td>
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<tr>
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</table>
| 3.3 Ridge and Gable, Party wall | Roof ridge to top of roof pitch. Roof Ridge Type  
  a) Raised brickwork or brickwork and vent bricks. - Shophouses  
  b) Lime plastered or V tiled over joint.- Shophouse, Godowns, Beach St Off ces, Bungalows  
  c) Ridge tiles and finial (Marseilles). Often used for corner sites, double-pitched roofs of bungalows etc | The original form should be retained, and conserved  
 Missing elements to be put back.  
 Raised gable end wall / party wall, brickwork and lime plaster  
 Middle Brick work party wall sometimes raised above the roof tiles, dividing each unit.  
  a) Early Penang Shophouses – not raised party wall – continuous roof with neighbour  
  b) Later Penang shophouses – raised party wall – division with neighbour. | of high cultural significance – original to be conserved  
 high cultural significance – original to be conserved |
| 3.4 Jack Roof | A jack roof is a tiled roof raised above the ridge of an existing roof slope.  
 To allow for covered ventilation into the main roof space. Timber structures vary from building to building. Roof tiles are identical to the main roof. | The original traditional roof material, eaves detail, (fascia board), ventilation louvres or glass, shall be retained and restored. Existing Jack Roof to be retained. New jack roof is only permitted on back extension for natural ventilation. |
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<tr>
<td>3.5 Skylight</td>
<td>Skylights not original to the architecture of Penang. Glass moulded Marseilles tiles are sometimes found on Marseille tiled roofs</td>
<td>New skylight is not permitted. Original design of shophouse allows for natural light and ventilation</td>
</tr>
<tr>
<td>3.6 Dormer Window</td>
<td>Dormer windows not original to the architecture of Penang. Hidden dormer access doorways, for maintenance are found on larger buildings.</td>
<td>New dormer window is not permitted. New access dormer doorway is permitted if hidden from general view for large buildings e.g. Courthouse. Not permitted for shophouses.</td>
</tr>
</tbody>
</table>
| 3.7 Eaves Roof overhang | Eaves, overhang & support features - specific to each architectural style. Types:  
  a) Stepped terracotta flat tiles, brick corbel brackets at wall junction - traditional shophouse without gutters.  
  b) Exposed battens and facia board. Brick corbel or timber corbel - shophouse/bungalow with overhanging roof  
  c) RC brackets and ceiling boards with patterned beading (1920s) - buildings after 1920s, shophouses, bungalows and commercial buildings | Original form should be retained & restored. No new eave detail or support may be used.                                                                                                                                                                                                |
<p>| 3.8 Gutters     | Gutters and down pipes are not original to all buildings. Introduced in the mid 1800s, many buildings continued without gutters. Gutters and downpipes were part of the overall design from the early 1900s                                                                                                                                                                                                 | Roofs without gutters should remain without.                                                                                                                                                                                                   |</p>
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<tr>
<td><strong>4.0</strong></td>
<td><strong>Front / Side Facade</strong></td>
<td>The original façade shall be retained &amp;/ or restored. Demolition, alteration &amp; addition to original / aesthetic façade is not permitted. The original masonry, mortar &amp; plaster shall be retained (where possible).</td>
</tr>
<tr>
<td><strong>4.1 Building Facade</strong></td>
<td>The front part of the building with the main doorway, and for a corner sites also the side of a building. The heritage facades styles are numerous - See Part 7 Heritage Buildings for guides on original shophouse façade styles.</td>
<td>To be repaired, restored or reinstated, using original materials if evidence.</td>
</tr>
</tbody>
</table>
| **4.2 Upper Facade (under roof)** | **a)** Decorative features types:- below roof beam & first floor beam  
  i) Painted historic stories / mural or  
  ii) Chien Nien cut and paste porcelain work.  
  iii) Lime mortar mouldings  
  Found in 20C shophouses, masonry bungalows and commercial buildings. | To be repaired, restored or reinstated, using original materials. Missing elements shall follow the original design. Clear, kampong or light tinted class is permitted for area above shutters if part of the original design. |
| | **b)** Upper floor timber shutters types  
  i) Window height shutter - All movable timber louvre shutters -  
  ii) Door height shutters - Two panels of movable louvres + solid panel at the base of each leaf.  
  iii) Fixed louvre shutters.  
  See Part 7 Heritage Buildings for guides on original shutter styles. | To be repaired, restored or reinstated, using original materials. |
| | **c)** Balustrades – behind the door height shutters – a balustrade usually of timber, but occasionally of cast iron. | To be repaired, restored or reinstated, using original materials. |
| | **d)** New secondary internal windows - behind shutters inside  
  Original in later designs from 1890s onwards -, new may be required if the internal space is being air-conditioned or to cut out external noise. | Leaf frame timber size & width to match the leaf frame of the shutters. Clear, kampong or light tinted class is permitted. |
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| e)    | Low wall (spandrel) – types: below shutters, above five-foot-way beam– various types - Shophouses  
   i) Simple indented brickwork, lime plaster mouldings.  
   ii) Indented brickwork with Green Chinese Vent Tiles  
   iii) Indented brickwork cast iron panels.  
   iv) Highly decorated with Chien Nien Shard work  
   See Part 7 Heritage Buildings for guides on original low wall styles. | To be repaired, restored or reinstated, using original materials. Missing elements shall follow the original design. |
| f)    | Canopy / awning– projecting our from above the five-foot-way beam.  
   Traditional Canopy-  
   In a few cases a terracotta “V” shaped tiled canopy projected out into the street. The canopy structure was supported on projecting granite corbels. These can still be found but the canopy may be missing.  
   Timber fan canopy.  
   Concrete slab – art deco  
   New canopy –  
   Sidewall openings- In flat shophouse wall  
   In a few cases openings in the sidewalls were part of the original design.  
   i. Drip stone - stepped bricks and terracotta tiles to form a slight projection above the opening  
   ii. Timber shutters solid or louvred. | Original timber and tiled canopy retained & restored.  
   Traditional roof ing material to be used.  
   Following historical design and materials.  
   Original to be retained and restored.  
   No new opening in side walls permitted |
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<tr>
<td><strong>5.0</strong> Five-Footway - Verandah</td>
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<td>Original design of five-footway such as archway &amp; arcades shall be maintained. Any original decorative feature(s) shall be retained &amp; restored. Should not be blocked with fixed obstructions.</td>
</tr>
<tr>
<td><strong>5.1 Walls</strong></td>
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<tr>
<td>a) Decorative wall tiles -</td>
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<td>Existing to be retained and restored. New dado tiles on a case-by-case basis.</td>
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<td>Originally placed as a dado panel below the two openings either side of the main door. These were installed using lime mortar.</td>
<td>Types: see Shophouse Style sheets for when each type was used.</td>
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<tr>
<td>i) Majolica and tube line embossed tiles.</td>
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<td>ii) Printed Pattern Tiles</td>
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<tr>
<td>iii) 4” x 4” ceramic tiles (Japanese) - Terrace houses circa 1930s</td>
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<tr>
<td>v) Mosaic, Small tile designed in sheets - Circa 1950s</td>
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<tr>
<td>v) Terrazzo (in situ – rare in the WHS) - Early Modern Buildings.</td>
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<tr>
<td>b) Wall Materials</td>
<td></td>
<td>Existing to be retained and restored.</td>
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<td>The five-footway wall finish was lime plaster / wash – even when the exterior walls were shanghai plaster.</td>
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<td><strong>5.2 Floor</strong></td>
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<td>a)</td>
<td></td>
<td>Traditional finishes e.g. terracotta tiles, terrazzo tiles, and mosaic to be restored. New finishes to follow original.</td>
</tr>
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<td>Types: see Shophouse Style sheets Part 7 for when each type was used.</td>
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<tr>
<td>i) Granite slab/ sleepers/ blocks</td>
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<td>ii) Terracotta tiles in either diamond or ‘I’ pattern.</td>
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<tr>
<td>iii) Encuastic individual tiles of different coloured clays</td>
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</table>
| | iv) Cement Tiles with coloured pattern - Terrace houses circa 1920 – 1930s  
v) Mosaic, small tile designed in sheets - around 1950s  
vii) Terrazzo - Early Modern Buildings. (in situ – rare in the WHS) | Gloss ceramic tiles are not permitted. |
| b) | **Granite slab edging**, marks the street boundary of the five-foot-way | Shall be retained & exposed without covering up by other materials.  
Existing to be retained and restored. If missing, new to be installed.  
Not original – to be removed. no new ramp permitted. |
| c) | **Granite steps** and bridge across drain – original Drain edge – engineering bricks. | |
| e) | Motorbike ramp next to steps across drain. | |
| 5.3 Ceiling | **Ceiling to five-foot-way** | Original ceiling profile / design shall be maintained. Any original decorative feature(s) shall be retained & restored. |
| Types: | i. Exposed upper floor structure of timber boards & timber joists  
ii. Timber strip ceiling c/w carved decoration.  
iii. Exposed reinforced concrete floor (rare cases) | |
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<tr>
<td>6.0 Kitchen courtyard and air well – rear court</td>
<td>The kitchen area was additional to the overall building form – single storey and designed to allow for good drainage and ventilation, there are a few types of back yards / kitchens.</td>
<td>New roof of pitch profile over the rear kitchen is allowed subject to the roof height requirement. Matching roof covering material as the main roof shall be used. Materials such as zinc, asbestos, metal deck &amp; etc. are not permitted.</td>
</tr>
</tbody>
</table>
| 6.1 Roof cover | Roof covering for the single storey kitchen took different forms.  
  
  a. Traditionally under a terracotta terrace (first floor) next to an open air-well - Shophouses  
  
  b. Under a tiled roof with jack roof for ventilation – next to an air-well. - Town/terrace houses  
  
  c. Under an rc terrace, next to an air-well. Town/terrace houses | |
| 6.2 Air Well | The kitchen air-well / yard is a sunken floor area lined with granite. Open air allows natural ventilation for both the kitchen and the toilet located in this area. When the houses are back to back this air-well is important for healthy living.  
Even the smallest of shophouses would have had an open area at the rear. | New habitable space above the kitchen is permitted subject to height/ materials & ventilation requirements.  
No new structure is allowed within the air-well / open air space. |
| 6.3 External Staircase | Existing external staircase.  
New external staircase is permitted for means of escape. | Can be retained or removed subject to use of the premises and requirements.  
Material used is subject to the requirements of the relevant authority e.g. Bomba. |
<p>| 6.4 WC | The WC is at the rear in the Kitchen area, usually adapted from the original used for night soil collection. | A new WC should be installed, subject to requirements of the relevant departments. |</p>
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<tr>
<td><strong>7.0 Rear Façade</strong></td>
<td>Original openings were simpler than the front façade, but of the same materials. Lime plaster wall finish– even if the front façade was shanghai plaster.</td>
<td>Materials be retained &amp; restored. New openings are permitted and shall be of similar material as the front façade openings.</td>
</tr>
<tr>
<td><strong>7.1 Windows, Doors &amp; Vents</strong></td>
<td>See Kitchen roof cover 6.1 above Terracotta tiled terrace.</td>
<td>New habitable space above the terrace is permitted subject to height/ materials and ventilation requirements.</td>
</tr>
<tr>
<td><strong>7.2 Terrace</strong></td>
<td>Original decorative wall</td>
<td>Original height and decorative feature(s) shall be retained &amp; restored.</td>
</tr>
<tr>
<td><strong>7.3 Rear Boundary Wall</strong></td>
<td>The rear load bearing brick and plaster wall with an external opening into the back lane.</td>
<td>New extension to wall is permitted provided it does not impede neighbouring buildings, - light, ventilation etc.</td>
</tr>
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<tr>
<td><strong>8.0 Floors</strong></td>
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<tr>
<td><strong>8.1 Ground Floor</strong></td>
<td>The existing ground floor level and changes in level are traditional to the building types. &lt;br&gt;The traditional floor finishes were designed to breath, though later cement was used as a decorative feature. &lt;br&gt;Types: see shophouse style sheets for when each type was used. i) Terracotta tiles in either diamond or 'I' pattern. ii) Encuasitic individual tiles of different coloured clays iii) Cement Tiles with coloured pattern - Terrace houses circa 1930s iv) Mosiac, small tile designed in sheets - Circa 1950s v) Terrazzo (in situ – rare in the WHS) - Early Modern Buildings.</td>
<td>Original levels shall be retained.</td>
</tr>
<tr>
<td><strong>8.2 Upper Floor(s)</strong></td>
<td>The traditional timber floors on timber joists acted as part of the original structure of the building, bracing and separating the party walls. a) The existing floor level &amp; original structural members including timber main beams or steel I-beam, timber floor joists &amp; timber floor boards - b) The existing structure of the floor members - including timber main beams or steel I-beam, timber floor joists &amp; timber floor boards - c) New use requirements for fire protection of timber floors</td>
<td>Original shall be retained &amp; restored. Must NOT be of a material that cannot be removed at a later date Must NOT put additional weight to existing structures, beyond their capacity.</td>
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<td>d)</td>
<td>Addition of toilets first floor internally.</td>
<td>For wet areas e.g. toilets, concrete floor may be used.</td>
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<td>New support structure, from ground floor must avoid damage to original brick, granite and footings</td>
<td>Permitted if original structure is not compromised.</td>
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<td>and bakau piles.</td>
<td>See 6.0 Kitchen Area.</td>
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<td>e)</td>
<td>Extension for toilet / bathroom at rear of building preferred.</td>
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<tr>
<td>8.3 Mezzanine Floor</td>
<td>Mezzanine floors are not part of the original layout of the buildings as tall ceilings cooled the naturally ventilated spaces</td>
<td>Can be retained or removed.</td>
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<tr>
<td></td>
<td>Existing mezzanine floor</td>
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<td>New Mezzanine floor may be considered subject to existing floor height and compliance with</td>
<td>Any material except reinforced concrete is permitted. The choice of material used shall be compatible and harmonious with existing structure. Subject to UBBL.</td>
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<td>requirements or relevant departments</td>
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| **9.0 Ceilings** | Ground floor ceilings were usually the exposed timbers of the floor structure above. Cornices below the joists on the ground floor were also a feature. Occasionally they were covered with a ceiling – mainly on the roof floor or in coffee shops on the ground floor. Types:  
  a. Exposed upper floor structure of timber boards & timber joists - Lower floors  
  b. Timber strip ceiling c/w carved decoration. - Below roof floor  
  c. 4’ x 4’ ft ceiling panels c/w timber beading - Lower floors  
  d. exposed underside of terracotta terrace floor structure  
  e. exposed RC slab floor | Original ceiling profile / design shall be retained. Any original decorative feature(s) shall be retained & restored. Areas of damage may be replaced with matching or similar material. |
| New Ceilings | Shall be retained & restored | New ceiling is permitted provided the volume of internal space is maintained and original features such as cornices, arches, capitals & decorative stuccos are not covered. Installation of aluminium or metal frame is not permitted. |

**Melaka and George Town**: Historic Cities of The Straits of Malacca.
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<td><strong>10.0 Walls</strong></td>
<td>Shophouses and terraced / town houses share party walls. Commercial buildings that were originally shophouse construction – Beach St. share party walls. Bungalows and some commercial buildings and godowns have detached wall.</td>
<td>Repair work is permitted but must follow original design, material &amp; construction method. No material used may damage the integrity of the structural wall and cause nuisance to the neighbouring buildings.</td>
</tr>
</tbody>
</table>
| **10.1 Party wall**      | Types of wall:  
  a) Load bearing clay brick – lime mortar and lime plaster.  
  b) Load bearing clay brick - latter added RC columns (1900s)  
  c) Concrete beam and post system – inf ll clay or cement bricks – lime mortar / plaster (1910s- 1970s)  
  d) Concrete beam and post system – inf ll clay or cement bricks – cement mortar / render (1970s- ) |                                                                                                                                                           |
<p>| <strong>10.2 New openings</strong>    | Openings in the party wall to join units                                                            | Openings permitted on a case-by-case basis, subject to the stability of building structure – Opening not to exceed 80% of air-well opening. Supporting structure to avoid damage to original footings. Permission to remove on a case-by-case basis. |
| <strong>10.3 Decorative Features</strong> | Internal walls -  90° to party walls – brick load bearing walls c/w openings                       | Shall be retained &amp; restored using traditional or matching materials. Shall be retained &amp; restored using traditional or matching materials. |
|                           | Masonry Features Stepped brick and lime plaster cornices, arch architraves, etc.                  |                                                                                                                                                           |
|                           | Timber Features – Traditional carved screen, traditional wall cupboards, and ground foor &amp; lattice/ solid partitions c/w doors 1st floor. |                                                                                                                                                           |</p>
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<td>11.0</td>
<td><strong>Air Well</strong></td>
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<td>Long shophouse buildings with two pitched roofs or more, separated the pitches with an air-well, to allow for ventilation and cooling of the spaces below. The air-well allows for access to maintain the pitches roof. Below the air-well and on the ground floor is a recessed area of granite edging and floor. A drain hole leads to a covered drain usually flowing to the front of the building and the street drain.</td>
<td>Shall be retained &amp; restored.</td>
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<td>11.1</td>
<td><strong>Size</strong></td>
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<td>The original size &amp; location of the air-well -</td>
<td>Shall be retained &amp; restored.</td>
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<tr>
<td>11.2</td>
<td><strong>Floor finishes</strong></td>
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<td>The original finishes of granite slab &amp; edging -</td>
<td>Shall be retained &amp; restored.</td>
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<tr>
<td>11.3</td>
<td><strong>Windows, Shutters &amp; vents – upper floors</strong></td>
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<td>The original openings on the first floor around the air-well opening - Replacement or installation of new shutters/ walls/ balustrades</td>
<td>Shall be retained &amp; restored.</td>
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<td></td>
<td>Traditionally the air-well is open air without a roof cover. However, an addition of a flat, moveable roof cover, that can be later removed is - Air-well in full with floors and solid roof</td>
<td>Replacement of damaged or installation of new materials shall be the same or close to original materials. Level up the existing floor is not permitted.</td>
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<tr>
<td>11.4</td>
<td><strong>Roof cover</strong></td>
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<td>Permitted lightweight transparent roof covering below eaves. Total cover up not permitted.</td>
<td>Not permitted - No other above ground structure or slab is permitted within the air well space.</td>
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| **12.0 Staircases** | Original staircase positioning & design with fine craftsmanship -  
Repositioning original timber staircase c/w brick or granite lower steps -  
Additional new staircase – required for Bomba approval  
Traditionally the air-well is open air without a roof cover. However, an addition of a flat, moveable roof cover, that can be later removed is -  
Air-well in fill with floors and solid roof | Make good and make safe the original  
Restore back and / or make safe. |
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<td>13.0</td>
<td><strong>Mechanical &amp; Electrical Systems</strong></td>
<td>Permits must be sought from the relevant authorities.</td>
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<tr>
<td>13.1</td>
<td><strong>Security Surveillance</strong></td>
<td>Are permitted - installation of new security devices subject to requirements of suitability, unobtrusive positioning, visually discreet in design and colour. Must avoid damage to the original building fabric.</td>
</tr>
<tr>
<td>13.2</td>
<td><strong>Electrical Conduits</strong></td>
<td>Not permitted In 5’way or back lane of building.</td>
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<td>CCTV surveillance cameras and gear - Electrical conduit pipes on the surface of external façade are - TNB cable routing and meter Internal wiring may be either</td>
<td>Channel must be Makita cut to avoid unnecessary damage. Conduit to be held in place with metal clips, not Portland cement.</td>
</tr>
<tr>
<td></td>
<td>a) Visible conduit (George Town)</td>
<td>Not permitted Are permitted and shall be properly encased &amp; neatly laid out. Is strictly prohibited.</td>
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<tr>
<td></td>
<td>b) Visible, double insulated wiring on Patrice boards (Melaka)</td>
<td>And can be covered by a frame with suitable design such as timber lattice or metal screen, which harmonized with building rear, façade.</td>
</tr>
<tr>
<td></td>
<td>c) Wiring in conduit buried in the existing walls.</td>
<td>Not permitted</td>
</tr>
<tr>
<td>13.3</td>
<td><strong>Air-conditioning units</strong></td>
<td>Permitted, screened and discrete positioning required.</td>
</tr>
<tr>
<td></td>
<td>Air conditioning pipes and conduits on the external façade are - Air-conditioning pipes on the surface of the rear wall or rear air well Air-condensing condenser unit(s) on front façade - Air-condensing units installation position : a) Shall be located least visible from the exterior. b) Below 1 ½ foot way on party wall if sufficient headroom -shophouses only. c) at the rear courtyard / kitchen area. Cooling tower air-conditioners - new installations at ground level. VRV air-conditioning systems for larger buildings require suitable floor space.</td>
<td></td>
</tr>
<tr>
<td>Items</td>
<td>Original design - building methods</td>
<td>Requirements / conditions</td>
</tr>
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</tr>
<tr>
<td>13.4 Satellite TV Dishes</td>
<td>Satellite TV dishes.</td>
<td>To be placed at the rear courtyard if possible. Should not block the view of the front façade.</td>
</tr>
<tr>
<td>13.5 Water tanks/ Solar panels</td>
<td>Water tank, &amp; other external installations, if any, shall be covered / screened &amp; placed least visible from the exterior. Solar panels</td>
<td>Material such as timber lattice or metal screen which harmonized with building façade is preferred. Location on front roof not permitted.</td>
</tr>
<tr>
<td>13.5 Lift</td>
<td>Installation of lift for extension / annexed building. The lift shaft shall not protrude from the roof of the new extension.</td>
<td>Motor-room-less lifts are permitted. The pit must avoid damage to heritage foundations and footings. Location to be reviewed on a case-by-case basis.</td>
</tr>
<tr>
<td>13.6 Kitchen Exhaust fan</td>
<td>Exhaust fan shall be placed at rear kitchen courtyard or back lane.</td>
<td>Flood lights - Not Permitted. Not permitted. Light bulbs fixed to the fabric of the building are not permitted.</td>
</tr>
<tr>
<td>13.7 External Lighting</td>
<td>External decorative / food lighting is not part of the original character. Coloured Spot lights or cyclical lights Residential buildings – lanterns or lights in five-foot-ways -original. Commercial buildings / monuments / places of worship etc –</td>
<td></td>
</tr>
<tr>
<td>Items</td>
<td>Original design - building methods</td>
<td>Requirements / conditions</td>
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</tr>
<tr>
<td><strong>14.0</strong></td>
<td><strong>Sanitary, Plumbing, drainage</strong></td>
<td></td>
</tr>
<tr>
<td><strong>14.1 Pipe work</strong></td>
<td>Water supply pipe work to be concealed within walls –</td>
<td>Permitted, channel - Makita cut to avoid unnecessary damage.</td>
</tr>
<tr>
<td></td>
<td>Water supply pipe work to be surface mounted – with metal clips -</td>
<td>Conduit to be held in place with metal clips, not Portland cement. Preferred.</td>
</tr>
<tr>
<td><strong>14.2 Waste pipes</strong></td>
<td>Wastepipes and floor traps to follow regulations as required.</td>
<td>Design to avoid damage to heritage buildings footings, below ground heritage floor tiles, raised to accommodate pipes work to be restored back if possible, or replaced with same if damaged.</td>
</tr>
<tr>
<td><strong>14.3 Drainage</strong></td>
<td>Provide proper drainage at the building perimeter to ensure that water does not splash against building or foundation walls nor drain towards the building.</td>
<td>Landscape to allow for maximum evaporation around heritage buildings where possible.</td>
</tr>
<tr>
<td><strong>14.4 Soil vent- pipe.</strong></td>
<td>Soil stack - vent pipes should not be placed where they may protrude out through the front roof, visible to the street.</td>
<td>To follow requirements.</td>
</tr>
<tr>
<td>Items</td>
<td>Original design - building methods</td>
<td>Requirements / conditions</td>
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</tr>
<tr>
<td><strong>15.0 Alteration</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15.1 Basement</td>
<td>Below Ground basements are not a characteristic of the historic buildings – built on swamp, beach or reclaimed sea.</td>
<td>New basement is not permitted</td>
</tr>
<tr>
<td>15.2 Swimming pools</td>
<td>Other deep projections into the ground such as swimming pools must avoid displacement of ground water into building walls and neighbours.</td>
<td>No swimming pools permitted inside the heritage buildings. Compound swimming pools are permitted, on case-by-case basis.</td>
</tr>
<tr>
<td>15.3 Water features</td>
<td>Internal water features may add too much moisture and encourage fungus and harmful growth</td>
<td>Internal water feature permitted on a case-by-case basis. External water feature permitted on a case-by-case basis.</td>
</tr>
<tr>
<td><strong>16.0 Extension</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16.1 Extension Roof</td>
<td>New pitched roof to rear extension –</td>
<td>Roof covering materials &amp; pitch to match the main roof in terms of colour, texture, material &amp; profile &amp; internal structure.</td>
</tr>
<tr>
<td></td>
<td>New flat roof – for contemporary extension</td>
<td>Permitted only if used as a green roof garden.</td>
</tr>
<tr>
<td></td>
<td>New jack roof</td>
<td>Jack roof to rear extension only.</td>
</tr>
<tr>
<td></td>
<td>New Dormer window</td>
<td>Dormer window not permitted</td>
</tr>
<tr>
<td></td>
<td>New skylight</td>
<td>Skylight not permitted</td>
</tr>
<tr>
<td>16.2 Extension façade</td>
<td>The new façade may be of traditional (to match existing) or contemporary style.</td>
<td>Modern material is allowed but shall be designed in harmony &amp; match with the traditional heritage façade &amp; surrounding streetscape in terms of texture, profile, colour &amp; performance etc.</td>
</tr>
<tr>
<td>Items</td>
<td>Original design - building methods</td>
<td>Requirements / conditions</td>
</tr>
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<td>------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>16.3 Extension upper face</td>
<td>Canopy above second storey opening may be allowed subject to sympathetic and unobtrusive in design manner and in compliance with the requirements of relevant departments.</td>
<td>Traditional roof covering material is to be used.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Materials such as metal, asbestos sheet or PVC are not allowed.</td>
</tr>
<tr>
<td>16.4 Upper floor(s)</td>
<td>New concrete floor slabs for extension.</td>
<td>Permitted - floor finishes shall match the existing in terms of texture, colour &amp; material.</td>
</tr>
<tr>
<td>16.5 Finishes</td>
<td>The new block shall be rendered in appropriate &amp; subtle colour &amp; finishes which blend &amp; complement the conserved part &amp; does not detract from the character of the surroundings.</td>
<td>Material, which is similar or close to existing finishes is preferable.</td>
</tr>
<tr>
<td>16.6 Footings &amp; piles</td>
<td>The method of excavation works for new footings (piling for over two storey building)</td>
<td>Shall be approved by the MPPP before commencement of work.</td>
</tr>
<tr>
<td></td>
<td>All reasonable care &amp; protection shall be accorded to adjacent heritage buildings to ensure retention of their structural stability &amp; integrity.</td>
<td>Traditional construction method to match building is encouraged, but must pass all regulations and departments’ requirements.</td>
</tr>
</tbody>
</table>

Figure 5.10: Detail of typical bakau piling in heritage buildings

Figure 5.11: Granite below columns

Figure 5.12: Granite below stepped footing
6 Inf ll and Replacement

6.1 Introduction

This section is concerned with sites or buildings identified as Inf ll or Replacement on which permitted compatible development can take place within the World Heritage Site, and their potential impact on the OUV of the WHS.

However, developments adjacent to listed buildings, or enclaves outside the conservation area will be determined by State or Local Authority planning regulations. This chapter is divided into two sections:

6.2 Compatible Development Guidelines for Inf ll
6.3 Compatible Development Guidelines for Replacement

6.1.1 Protection, Conservation, Enhancement

The desirability of preserving or enhancing the World Heritage Site is in the State Planning Committee’s view a material consideration in the MPPP’s handling of development proposals, which are outside the Site but would affect its setting, or views into or out of the area.

All development proposals will be judged for their effect on the character and appearance of the World Heritage Site.

While conservation of the two zones (core and buffer of the WHS) whether by preservation or enhancement of their character or appearance must be a major contribution, this cannot realistically take the form of preventing all new development; the emphasis will generally need to be on controlled and positive management of change. Policies will need to be implemented to allow the area to remain alive and prosperous but at the same time to ensure that any new development accords with the area’s special architectural, historic and cultural significance.

The World Heritage Site includes gap sites, and a few insensitive buildings that make no positive contribution to or indeed detract from, the character or appearance of the area; their inf ll or replacement, respectively, should be a stimulus to imaginative, high quality design, and seen as an opportunity to enhance the area.

What is important is not that new buildings should directly imitate earlier styles, but that they should be designed with respect for their context, as part of a larger whole, which has a well established character and appearance of its own.
6.1.2 **Compatible development**

The MPPP requires detailed plans and drawings of proposed new development, including elevations, and 3D views, which show the new development in its setting, before considering a planning application. The MPPP should have special regard for such matters as scale, height, form, massing, respect for the traditional pattern of frontages, vertical or horizontal emphasis and detailed design (e.g. the scale & spacing of window openings, and the nature & quality of materials). General planning standards should be applied sensitively in the interests of harmonizing the new development with its neighbours in the conservation area.

Planning decisions in respect of development proposed to be carried out in the conservation area must give high priority to the objective of preserving or enhancing the character or appearance of the area. If any proposed development would conflict with that objective, there will be a strong presumption against the grant of planning permission, though in exceptional cases the presumption may be overridden in favour of development which is desirable on the ground of some other public interest.

Whilst the character and appearance of the World Heritage Site should always be given full weight in planning decisions, the objective of preservation can be achieved either by development which makes a positive contribution to the area’s character or appearance or by development which leaves the character and appearance unharmed.
6.2 Compatible Development Guidelines for Inf II

Definition:
(a) Existing empty land or temporary structure where compatible re-development is permitted

6.2.1 Permitted Use

For compatible Inf II development projects within the WHS, care must be taken that the proposed use will not devalue the OUV of the Site. Advice should be sought from the MPPP or GTWHI as to the permitted use for each lot.

6.2.2 Authenticity and Interpretation

It is recommended that an Inf II site:

i) set within a row of heritage buildings, or

ii) placed amongst other Inf II sites or adjacent to replacement sites,

the architect should study the authentic design of the adjacent buildings and the site’s history, in order to propose a design compatible with and interpreting the site and its historic content.

6.2.3 Research for Historical Data

Within the WHS, the Heritage Impact Assessment (HIA) requires the Historical Significance of the site and adjacent heritage buildings to be researched and documented.

Historic evidence may influence the design of the new proposal and give reference to interesting buildings or events of the past and even buildings previously demolished.

To avoid negative impact on neighbouring heritage buildings, it is important to understand their construction methods.

These may include researching on:

- Traditional building methods typical of the type and age of the building/item;
- Historic maps (look out for the word ‘swamp’);
- Local oral histories, place names – (the local name for Jalan Sugei Ujong translates as ‘Soft Ground’ on the old maps this was a very big swamp).

Refer to chapter 3.2.4 on research methods

6.2.4 Permitted Works

Temporary buildings or sites categorised as Inf II Development, located within conservation areas do not have intrinsic architectural or heritage significance, although the site may have had in the past.

Temporary buildings on the site may be demolished and redeveloped simultaneously subject to this Guideline.

It is important that the redevelopment should be designed to enhance the streetscape, vistas and the character of the adjoining heritage buildings.
6.2.5 **Requirements for permitted works:**

i) Planning Permission and Heritage Impact Assessment (including Cultural Impact Assessment)

ii) Building Plan Approval

Refer to Chapter 2 for further details

6.2.6 **Heritage Impact Assessment (HIA)**

Important to the infill development is the Heritage Impact Assessment. Accompanying the HIA is a Cultural Impact Assessment (CIA), which takes into considerations the impact of the development of the Cultural Cluster in which it is placed.

It is advisable that the CIA and HIA takes place at an early stage, as this will help identify key factors that may influence / inspire / forewarn consultants in the schematic design process.

For example: **historic research revealed the progression of reclamation for the land between Beach Street and Weld Quay, and the types of building built on it. This forewarned the Geotechnical and the C&S engineers as to the challenges of the site and guided the overall design concept at planning stage.**

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**Figure 6.1:** Compatible Infill. The building is the new courthouse building complementing the historic courthouse building in height, pitch of roof and an interpretation of the architectural style of the original building.

**Figure 6.2:** Development of infill and replacement sites within a row of heritage buildings.
6.2.7 Permitted height

The height of compatible Inf ll development within the World Heritage Site is dependant on the height of the lower adjacent heritage building (Figure 6.2).

In fill sites without adjacent heritage buildings, within the WHS, may be built to a maximum of 18m from ground level to roof EAVE, subject to the HIA reports.

6.2.8 Facade Guidelines for Compatible Inf ll within a row of heritage buildings

The facade composition of compatible Inf ll development must respect the scale and rhythm of it's surrounding buildings. Inf ll sites within a row of heritage buildings are subject to these facade guidelines:

i) The inf ll development must correspond to the number of bays of its neighbouring building (Figure 6.4), or

ii) The number of bays to correspond to the typical width of the bays of its neighbouring buildings (Figure 6.5), or

iii) The reconstruction of the original built fabric following research conducted i.e through historical maps, old photographs, etc.
6.3 Compatible Development Guidelines for Replacement

### 6.3.1 Permitted Use

For compatible replacement development projects within the WHS, care must be taken that the proposed use will not devalue the OUV of the Site. Advice should be sought from the MPPP Heritage Unit as to the permitted use for each lot.

### 6.3.2 Authenticity and Interpretation

It is recommended that a Replacement site:

i) set within a row of heritage buildings, or

ii) placed amongst other infill sites or adjacent to replacement sites, or

iii) a mixed site which includes a building or part building of heritage value and not necessarily to be demolished,

the architect should study both the authentic design of the adjacent buildings and the site's history, in order to propose a design in support of the OUV.

### 6.3.3 Research for Historical Data:

Within the WHS, the Heritage Impact Assessment (HIA) requires the Historical Significance of the site and adjacent

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**Figure 6.6:** Rear area – replacement – The new owner of this historic bungalow, empty for many years, was permitted to build a contemporary building following the footprint of adjacent buildings and the height of the neighbouring Bank Negara Building.

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**Definition:**

(a) Existing building without any significant value where sensitive re-development is permitted.

**Heritage buildings to be researched and documented:**

Historic evidence may influence the design of the new proposal and give reference to interesting buildings or events of the past and even buildings previously demolished.

To avoid negative impact on neighbouring heritage buildings, it is important to understand their construction methods.

These may include researching on:

- Traditional building methods typical of the type and age of the building/item;
- Historic maps (look out for the word ‘swamp’);
- Local oral histories, place names – (the local name for Jalan Sugei Ujong translates as ‘Soft Ground’ on the old maps this was a very big swamp).

Refer to chapter 3.2.4 on research methods.
6.3.4 Permitted Works

Sites identified for replacement and located within conservation areas do not have intrinsic architectural and heritage significance. These buildings are permitted to be demolish and replaced with compatible new development.

Sites that are mixed sites may have intrinsic architectural and heritage significance. For these sites both Replacement and Conservation guidelines apply.

It is important that the redevelopment should be designed to enhance the streetscape and the character of the adjoining buildings, as required in the Town and Country Planning Act, 1976 (Act 172).

6.3.5 Requirements for permitted works

i) Planning Permission and Heritage Impact Assessment (including Cultural Impact Assessment)

ii) Building Plan Approval (along with Dilapidation Survey Report if heritage building is part of site)

Refer to Chapter 2 for further details

6.3.6 Heritage Impact Assessment (HIA)

Important to the replacement development is the Heritage Impact Assessment. Accompanying the HIA is a Cultural Impact Assessment (CIA), which takes into considerations the impact of the development of the Cultural Cluster in which it is placed.

It is advisable that the CIA and HIA takes place at an early stage, as this will help identify key factors than may influence / inspire / forewarn consultants in the schematic design process.

For example: historic research revealed the progression of reclamation for the land between Beach Street and Weld Quay, and the types of building built on it. This forewarned the Geotechnical and the C&S engineers as to the challenges of the site and guided the over all design concept at planning stage.

Figure 6.7: Development of infill and replacement sites within a row of heritage buildings
6.3.7 **Dilapidation Survey Report**

If there is both a building for replacement and a heritage building on the same site, a dilapidation survey report is required for the heritage building. The MPPP Heritage Unit will be able to advise.

6.3.8 **Permitted height**

The height of compatible Replacement development within the World Heritage Site is dependant on the height of the lower adjacent heritage building (Figure 6.6 and 6.7)

Replacement sites without adjacent heritage buildings, within the WHS, may be built to a maximum of 18 from ground level to roof EAVE, subject to the HIA reports.

6.3.9 **Facade Guidelines for Compatible Inf ll Within a Row of Heritage Buildings**

The facade composition of compatible Inf ll development must respect the scale and rhythm of it's surrounding buildings. Inf ll sites within a row of heritage buildings are subject to these facade guidelines:

i) The Inf ll development must correspond to the number of bays of its neighbouring building (Figure 6.9), or

ii) The number of bays to correspond to the typical width of the bays of its neighbouring buildings (Figure 6.10), or

iii) The reconstruction of the original built fabric following research conducted i.e through historical maps, old photographs, etc
6.4 Guidelines for Compatible Development (Inf ll and Replacement)

<table>
<thead>
<tr>
<th>Item</th>
<th>Design</th>
<th>Materials / Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>External</strong></td>
<td></td>
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</tr>
<tr>
<td>1.0</td>
<td></td>
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</tr>
<tr>
<td>1.1 Roof form &amp; finish</td>
<td>A pitched roof to follow the gradient and roof form of the adjacent heritage buildings, if in a shophouse row, or neighbouring heritage buildings if in other areas.</td>
<td>Roofng material shall be unglazed, natural clay following the traditional profile of adjacent heritage buildings</td>
</tr>
<tr>
<td>1.2 Projection</td>
<td>A flat roof – for new buildings</td>
<td>Is permitted if used as a green roof garden. After first air-well and subject to HIA</td>
</tr>
<tr>
<td>1.3 Skylight</td>
<td>The eave line of the front roof, method of construction and gutter shall be in line with adjacent heritage building.</td>
<td>Skylight is not permitted</td>
</tr>
<tr>
<td>1.4 Jack roof</td>
<td>Jack roof on inf ll building adjacent to heritage buildings</td>
<td>Permitted if the inf ll is part of a row that already has a jack roof to match with adjacent heritage building.</td>
</tr>
<tr>
<td>1.5 Dormer window</td>
<td>Dormer window on inf ll building adjacent to heritage buildings</td>
<td>Dormer window not permitted</td>
</tr>
<tr>
<td>2.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.1 Front Façade &amp; side</td>
<td>a) Within a row of heritage buildings - the solid &amp; void expression of adjacent conservation building may be used as a guide in the design of the façade &amp; with emphasis on the vertical &amp; horizontal elements.</td>
<td>Surface materials, finish, texture, colour etc shall be compatible with that of the adjacent heritage building.</td>
</tr>
<tr>
<td></td>
<td>b) On a corner site - The corner inf ll building shall reflect the design of a corner heritage building.</td>
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<tr>
<td></td>
<td>c) The height of floors shall be coordinated &amp; in parallel with the floor height of adjacent heritage building. In accordance with the TCP Act</td>
<td></td>
</tr>
<tr>
<td>2.2 Five footway/verandah way</td>
<td>a) A five-footway - covered walkway shall be provided on the ground floor at the frontage of the building and also along the street facade of corner building. The width, height &amp; level of the walkway shall match that of adjoining walkway when the inf ll is in a row of existing heritage building</td>
<td>Floor finish &amp; colour shall match the material used in adjacent heritage buildings, if authentic.</td>
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<tr>
<td>Item</td>
<td>Design</td>
<td>Materials / Requirements</td>
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<tr>
<td>2.2 Five-foot-way cont.</td>
<td>b) Where there is no adjoining walkway, for example some areas of Beach Street where the heritage buildings front the pavement without a verandah, the design should follow, the adjacent heritage buildings.</td>
<td>---</td>
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<tr>
<td></td>
<td>c) For new infill / replacement buildings adjacent to heritage buildings the five-foot-way width should match the existing heritage building width.</td>
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<tr>
<td></td>
<td>d) The front façade of the new infill / replacement should follow alignment of adjacent buildings.</td>
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<tr>
<td></td>
<td>e) Where it is not possible to match the walkway level of adjacent building, a ramp in compliance with the requirements of relevant departments shall be provided.</td>
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</tr>
<tr>
<td></td>
<td>f) The provision of colonnaded covered walkway is subject to evaluation. The size &amp; spacing of the columns shall take cognizance of the existing character of the colonnaded covered walkway of the street blocks in the vicinity.</td>
<td>---</td>
</tr>
<tr>
<td>3.0 Rear Façade</td>
<td>Compatibility in terms of materials, finish, texture, profile &amp; design with adjacent heritage buildings is encouraged.</td>
<td>The use of clear or light tinted glass for openings is preferable.</td>
</tr>
<tr>
<td></td>
<td>If the rear façade overlooks a Category I building, the features should match those of the Category IIA neighbours.</td>
<td></td>
</tr>
<tr>
<td>4.0 Party Wall</td>
<td>The new building shall not obstruct the original raised gable wall / party wall (of artistic merit) of adjacent heritage buildings.</td>
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<tr>
<td>Item</td>
<td>Design</td>
<td>Materials / Requirements</td>
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</tr>
<tr>
<td>4.2 Party wall structure</td>
<td>The existing structural integrity of an adjoining heritage building must not be compromised, nor have damage caused by the infill development. If the party wall is load-bearing brickwork and it is to be part of the new infill structure, and if new support structure is to be introduced for the infill development:</td>
<td>The materials used in the conservation of the party wall should be compatible with those traditionally used. This will avoid damage to the interior of the adjacent property and the load bearing walls e.g. – Lime mortar, Lime plaster, Lime wash or breathable paint (silicate)</td>
</tr>
<tr>
<td>5.0 Canopy</td>
<td>The canopy is to follow traditional form.</td>
<td>Materials of timber frame &amp; roof similar to that of the main roof is encouraged while the use of modern rigid &amp; colourful canopies may deem inappropriate.</td>
</tr>
<tr>
<td></td>
<td>Traditional canopy corbels and timber structure on a neighbouring building should be followed if appropriate.</td>
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</tr>
<tr>
<td>6.0 Signage / advertising</td>
<td>Signage shall be designed &amp; installed according to the regulations for display of signage (See Chapter 7).</td>
<td>In compliance with guidelines for the World Heritage Site</td>
</tr>
<tr>
<td>7.0 Security</td>
<td>Security &amp; protection measures appropriate to the risk are generally acceptable provided that it is visually discreet in design &amp; colour &amp; place in an unobtrusive position.</td>
<td>---</td>
</tr>
<tr>
<td>INTERNAL 8.0 Basements</td>
<td>Due to swamp conditions and high ground water basements were not part of heritage buildings design.</td>
<td>Basement is not recommended. However, a basement may be allowed in certain cases subject to site conditions, &amp; provided it does not affect the structural stability of adjacent heritage buildings.</td>
</tr>
<tr>
<td>Item</td>
<td>Design</td>
<td>Materials / Requirements</td>
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</tr>
<tr>
<td><strong>9.0 Airwells</strong></td>
<td>Provision of air well(s) is subject to neighbouring building profile, street characteristic and the length of building.</td>
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</tr>
<tr>
<td></td>
<td>The size &amp; positioning of air well to follow the original air well of adjacent heritage buildings (if any).</td>
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</tr>
<tr>
<td></td>
<td>A flat moveable / fixed roof cover over the air well is allowed &amp; the height of the cover shall be lower than the eave of the main roof.</td>
<td>Light weight transparent or translucent roof covering is preferable</td>
</tr>
<tr>
<td></td>
<td>Floor drainage for the open air-well must be considered in the overall design.</td>
<td>---</td>
</tr>
<tr>
<td><strong>10.0 Mechanical and Electrical</strong></td>
<td>Exhaust fan shall be placed at rear façade facing the rear court / back lane.</td>
<td>Any material. Metal vents are preferably anodized or colour coated</td>
</tr>
<tr>
<td>10.1 Exhaust fan</td>
<td>All other utility &amp; conduit pipes except for rainwater down pipes shall not run on the surface of the external front wall.</td>
<td>---</td>
</tr>
<tr>
<td>10.2 Conduits &amp; Pipes</td>
<td>Rainwater down pipes shall lead directly into drains.</td>
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</tr>
<tr>
<td>10.3 Air-condensing units</td>
<td>Outdoor air-condensing units shall be located such that they are least visible from the exterior.</td>
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</tr>
<tr>
<td></td>
<td>Water cooling towers to be away from moisture absorbing heritage buildings</td>
<td>---</td>
</tr>
<tr>
<td>10.4 Lift shaft</td>
<td>Lifts are to be found in many heritage buildings – original Waygood – Otis lifts installed in George Town Dispensary, Public Bank, Lim Leang Teng Mansions and many others, none projected above the roof. New lifts installed in heritage buildings, do not project above the roof.</td>
<td>Lift shaft not permitted to project above roof, or be visible from any angle from the street. Motor room less lifts are recommended</td>
</tr>
<tr>
<td>10.5 Water tanks</td>
<td>Water tanks need to be concealed and screened</td>
<td>Not to be visible above roof</td>
</tr>
<tr>
<td>10.6 TV dishes</td>
<td>Satellite dishes on front façade or side if corner building –</td>
<td>---</td>
</tr>
<tr>
<td>10.7 Cell phone towers</td>
<td>Cell phone towers etc on roof tops or gantries on the side of buildings</td>
<td>Not to be visible from the street</td>
</tr>
</tbody>
</table>
The traditional signage seen on heritage displays a character unique to the origins of the island’s population and their heritage. It demonstrates the skills of the craftsmen; the wood carvers, the plasterers and lantern makers and should be protected, conserved and encouraged to be used, in both new-use and conservation of heritage buildings.

Because of the special interest of the heritage buildings and the conservation area, advertisements which may have a significant visual impact are not permitted for display on heritage buildings and in the conservation area.

Buildings are often covered in two types of signage or advertising.

- Business Signage - giving the name of the shop/business
- Product Advertising – showing the product sold from the premises

All signages must be carefully located to avoid obscuring the heritage building, and blocking light and ventilation into the rooms. Advertisement on business premises, must refer to either or both of the following:

i) the business carried on at the premises; and

ii) the name and qualification of the person operating it
Other Traditional Signage

These signage devices are encouraged:

i) **Stonework**
   Incised stonework (such as the figures of the year in which the building was completed or opened, the name of the building or that of its occupants), embossed lettering, emblems and logos, which is incorporated in the fabric of a building is permitted and shall be preserved.

ii) **3D Individual Letters in Metal**
   The Early Modern style of architecture saw the use of three-dimensional letters, often bronze, as part of the overall design on the façade. These were not internally illuminated.

iii) **Bamboo Chicks**
   Bamboo Chicks – blinds- are often used as a sun-shading device. For a commercial premises these are ideal places to advertise the business, otherwise hidden behind the shade.

7.2 Guidelines on Traditional Shophouse Signage

In a traditional shopfront original space for name plaques or signboards should be utilised to the fullest for signage purposes.

i) The width (m) of the name plaque or signboard shall not be more than the width of the door and its height shall be half or less than the width of the door (n) (Figure 7.1)

ii) Distinctive features of a traditional shopfront such as relief motifs, ornaments, vents, fanlights, relief carvings on timber doors or windows and special finishes shall not be covered by the signage.

---

Figure 7.1: Location and size of traditional shophouse signage

Figure 7.2: Samples of traditional building signage
7.3 Guidelines on Business Signage

i) Horizontal advertisement display shall conform within the central section of the spandrel - or low wall - of the first floor of the premise / unit.

ii) As per Figure 7.3, the height of advertisement display is determined by depth (h). Length of advertisement display is determined by width (w).

iii) If it cannot be displayed, it is permissible below the floor beam provided there is a minimum clear height of 2.5 meters. as per Figure 7.4.
**Performance Criteria for Façade Advertisement/ Sign Boards**

1. Advertisement display shall not obscure or obstruct any window or ventilation opening on the wall of a building;

2. Placing of horizontal advertisement display is prohibited above and beneath roof eave;

3. Advertisement display shall not project beyond 0.5 metres from the building;

4. Placing of advertisement display on top of any decorative elements is not permitted;

5. Placing of advertisement display shall not cover the silhouette of parapet.

**Performance Criteria for Projecting Advertisement/ Sign Boards**

1. Advertisement display must be affixed so that any part of it must have a minimum clear height of 3.7 metres from the street-way (Refer Figure 7.5);

2. Projecting advertisement display may only be affixed on end columns;

3. No advertisement shall project more than 0.8 metres from the façade of a building. (Refer Figure 7.5);

4. Projecting advertisement display of each floor shall conform within the floor height;

5. Fixed projecting and hanging advertisement shall be hung from a well-designed and detailed metal bracket;

6. Projected box type casing advertisement display is not permitted.

*Figure 7.5: Permitted positions of business signage/advertisement on a heritage building*
Performance Criteria for Hanging Advertisement / Sign Boards

1. Hanging signs placed within the five-foot-way should be within the clear width between the column and entrance wall with minimum headroom clearance of 2.5 metres (Refer Figure 7.5);

2. Hanging signs placed above the arch of five-foot-way should not extend below the arch level;

3. Hanging sign placed below the arch must have minimum headroom clearance of 2.5m.

Performance Criteria for Buildings on a Corner Site with Two Road Frontages

1. Advertisement display on frontage and sidewall of the building is permitted subject to compliance with the dimension and design specified in these guidelines;

2. Advertisement display may be erected on each frontage;

3. Only one advertisement may be displayed on each road frontage;

4. On the first frontage a main advertisement board may be displayed as specified in these guidelines;

5. On the second wall entrance, advertisement board shall not exceed the width of the entrance opening;

6. Not more than one advertisement parallel to a wall and one projecting at right angles from such a wall.

Performance Criteria for Advertisement Display on Sidewall

1. Advertisement display attached to the sidewall of a heritage building is not permitted;

2. Advertisement display attached to the sidewall of a contemporary infill or replacement building will be considered based on merit;

3. Advertisement display, which protrudes above the roof line, is not permitted;

4. Wall mounted poster panels erected on the walls of a building is not permitted.

Performance Criteria for Advertisement on Rooftop

1. Rooftop advertisement display is not permitted on all buildings within the WHS.

Performance Criteria for Advertisement on Columns

1. Advertisement shall not be displayed on columns without the approval of MPPP.
7.4 Guidelines on Lighting of Signage & Advertisement

i) Passive Lighting: Spotlights or back illumination of advertisement is permitted. The lighting fixtures shall not be intrusive or obtrusive in nature to the whole building and shall be kept to the minimum.

ii) Light fittings for signage shall be discreet and have concealed cables and gear.

7.5 Guidelines on Lighting of Heritage Buildings

i) Illuminating heritage buildings must be carried out with extreme care, to avoid both ugly and damaging installations.

ii) Drilling of holes through walls in order to provide power supply, and the fixing of light fittings, all causes damage to the heritage buildings and should be kept to a minimum.

iii) Once installed and running, the heat build up from lights placed too close to the building is likely to cause damage. Lighting should be considered with this in mind.

iv) Traditionally the lighting would have been at the ground floor entrance, under the five-foot-way of a shophouse or porch of a bungalow, and internally in shop windows.

vi) Static and rotational colour lighting is not permitted.

7.5.1 Possible Light arrangements:

- Strings of light bulbs attached to a building e.g. around windows and cornices etc., is not permitted.
- Spot lighting on the building should be kept to a minimum, subject to approval on a case-by-case basis.
- Flood lighting of buildings should be unobtrusive and set within the landscape, not attached to the building.
- Floodlighting of buildings must be natural white colour.
ANNEXURE C

Heritage Buildings Form and Styles in George Town World Heritage Site
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HERITAGES BUILDINGS OF GEORGETOWN WHS

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1.0 Introduction

Although the Malay bungalow was the earliest built form on the Island, and its influence can be seen in the evolution of the bungalow architecture, this chapter begins with an analysis of the building form that dominates both Melaka and George Town, the heritage cities on the Straits of Malacca now listed as World Heritage Sites. This form is that of the ‘Shophouse’ which line the streets of the urban cultural landscapes.

Researchers to date have worked hard to analyse the influences and styles that these shophouses took on (Figure C1). It is this analysis that has been transferred onto other built forms and is used to describe the styles in which they too were built.

"Turning the eye southward, Georgetown and the harbour are seen. The various styles in the construction of habitations of this small town have a strange effect—the European house, the Hindoo [sic] bungalow, the Malay cottage, the Chinese dwelling and the Burman hut are mingled together without regularity and apparently without plan, the first settlers having each built his residence according to the custom of the country... These various modes of building, by exhibiting the strongest contrast, add considerably to the beauty of the picture."

James Wathen, Journal of a Voyage in 1811 and 1812 to Madras and China, 1811 page 146
When the same descriptions are used for other forms, the historic time line begins to evolve. There is still much research work to be done in this area, but for now, this document presents the heritage buildings in groups of building form as listed below.

2.0 Shophouses
3.0 Bungalows
4.0 Residential Blocks
5.0 Godowns
6.0 Buildings of Commerce and Trade
7.0 Buildings of Administration
8.0 Places of Worship
9.0 Jetties

Within the section on each form or building type, there are also visual descriptions of each architectural style. As research continues more collections of images will be assembled of other architectural forms – the car showroom, the hotels, the cinemas for example.

2.0 Shophouse

The shophouse is an urban building form that dominates the built cultural landscape of both Melaka and George Town. Built in rows with shared party walls, they were used as family dwellings (and ancestral worship), stores, commercial premises and mixed use of commercial with the family or workers living above.

They were simple in their design, thick brick walls kept out the mid-day sun. Lime plastered walls and terracotta floors dispersed the cool moisture from the swamps beneath, whilst louvred shutters kept out the glaring sun and allow cooling breezes to take away the warmer air.

The earlier shophouses, and later terrace town houses, were small, just one pitched roof with a kitchen at the back under a single-storey terrace, surrounding and open air-well which took away the heat from the charcoal fired stoves.

Figure C2: The urban form of shophouse streets
As more land was cleared and the wealth and needs of the owners grew, the shophouses became longer, separating each pitch roof with an air-well, to help cool and ventilate the building. Originally built and used by migrant Indian and later Chinese populations, they brought with them the influences from their homelands.

By the 1900s the European architectural and engineering professionals began to migrate from Singapore, Ceylon, India and later Shanghai and Hong Kong, bringing with them new technologies and building forms.

Owners of traditional shophouses, eager to adapt to modern styles, began to refashion their facades in the latest styles, whilst the strict hierarchical use of space within the shophouse remained.

The following pages describe the timeline of the six main shophouse styles in Penang and George Town, and their characteristics and features.
This diagram describes the timeline of the shophouse styles in George Town, in relation to important events globally as well as pertaining to the region and the establishment of Malaysia as an independant nation. The table also traces the introduction of new materials in George Town and the ideology of the constructors.

The eclecticism of the architecture of the shophouses can be contributed to the migrant Indian and Chinese builders, who brought with them the influences from their homelands.

By the 1900s the European architectural and engineering professionals came to George Town and brought with them new technologies and building forms influenced from the western architecture movement.
FIGURE C5  *Timeline of Shophouse Styles in George Town*

<table>
<thead>
<tr>
<th>INTRODUCTION OF NEW MATERIALS IN PENANG</th>
<th>BASIC STYLES</th>
<th>SUB-BASIC STYLES</th>
<th>PHYSICAL CHANGES IN BUILDING FORM</th>
</tr>
</thead>
<tbody>
<tr>
<td>1825, terracotta roof tiles</td>
<td>Early &quot;Penang&quot; Style</td>
<td>&quot;Southern Chinese&quot; Eclectic Style</td>
<td>- With or without five footway</td>
</tr>
<tr>
<td>mid-1880s, cement and cast iron</td>
<td>&quot;Southern Chinese&quot; Eclectic Style</td>
<td>&quot;Southern Chinese&quot; Eclectic Style (Simple)</td>
<td>- Low in height</td>
</tr>
<tr>
<td>advent of the railway</td>
<td>&quot;Southern Chinese&quot; Eclectic Style</td>
<td>&quot;Southern Chinese&quot; Eclectic Style (High)</td>
<td>- With five footway</td>
</tr>
<tr>
<td>mid-1880s, MacFarlens produced pattern book</td>
<td>&quot;Straits&quot; Eclectic Style</td>
<td>Early &quot;Straits&quot; Eclectic Style</td>
<td>- Long in depth with air well</td>
</tr>
<tr>
<td>1910, reinforced concrete</td>
<td>&quot;Straits&quot; Eclectic Style</td>
<td>Late &quot;Straits&quot; Eclectic Style</td>
<td>- Staircase located beside air well</td>
</tr>
<tr>
<td>1920, government bought machine to</td>
<td>Art Deco Style</td>
<td>Straits Classical*</td>
<td>- Short in depth</td>
</tr>
<tr>
<td>produce printed cement tiles</td>
<td>Art Deco Style</td>
<td>Straits Baroque*</td>
<td>- Partially enclosed or open air well</td>
</tr>
<tr>
<td>1936, introduction of Shanghai Plaster</td>
<td>Modern Style</td>
<td>* these styles occur in parallel with the &quot;Straits&quot; Eclectic Styles</td>
<td>- Staircase placed after hall partition</td>
</tr>
<tr>
<td>from Fujian</td>
<td>Modern Style</td>
<td>** these are transitional styles</td>
<td>- More flat roofs and storeys</td>
</tr>
<tr>
<td></td>
<td>Post Modern</td>
<td>Art Deco-Modern**</td>
<td>- Curved wall at corner lot</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Early Modern</td>
<td>- Five footway sometime without pillars</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(includes Federal Style, International Style)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Late Modern</td>
<td></td>
</tr>
</tbody>
</table>

*Melaka and George Town: Historic Cities of the Straits of Malacca.*
Architectural Style of shophouse in Penang

Early “Penang” Style
1790s–1850s

General characteristics & structure
- Single or two storey with five-foot way.
- Simple in details and low.
- Lime plaster on structural brick wall and pillars.
- Square pillars supporting slanting beam (rafter) with projecting eaves.

Roof
- Terracotta V shape roof tiles, on timber horizontal roof beams (jurlins) and battens.
- Eave roof beam directly above the window.
- Overhanging pitch roof.

Upper façade
- Continuous row of timber panelled or louvered shutters, pillar to pillar.
- Low wall under window, either timber panelled (earlier type) or brickwork plastered.

Ground floor façade
- Residential - Brick wall with central door and two square window
- Commercial - Vertical timber panels – removable to create large opening.
- Five foot-way granite steps, granite edge and terracotta floor tiles.
Architectural Style of shophouse in Penang
“Southern Chinese” Eclectic Style
1840s-1900s

General characteristics & structure
- Two, sometime three stories with five foot way.
- Taller than Early Shophouse, simple decoration, more decorative by 1900s.
- Lime plaster on structural brick wall and pillars.
- Square pillars ending with Chinese pillar head (bracket).

Roof
- Terracotta V shaped roof tiles, on timber horizontal roof beams (purlins) and battens.
- Roof beam from pillar to pillar.
- Roof ridge and projecting gable wall at the end of row.

Upper façade
- Decorative panel below roof beam and above shutters, or fixed louvered panels above the louvered shutters, pillar to pillar.
- Low wall under window with typically three indented panels decorated with plastered mouldings or Chinese ceramic or cast iron air vents.

Ground floor façade
- Residential- Brick wall with central carved timber ventilated door and solid inner door in-between two square windows and air-vents above.
  or
- Commercial- Vertical timber panels removable to create large opening.
- Five foot-way granite steps, granite edge and terracotta floor tiles.
Architectural Style of shophouse in Penang

*Early “Straits” Eclectic Style*

1880s-1910s

**General characteristics & structure**
- Two, sometime three stories with five foot way.
- Similar height as Southern Chinese Eclectic style, mixed Chinese and European decoration.
- Lime plaster on structural brick wall and pillars.
- Square pillars ending with Chinese pillar heads and later European pillar heads (*capitals*>).

**Roof**
- Terracotta V roof tiles, on timber horizontal roof beams (*purlins*) and battens.
- Eave roof beam from pillar to pillar or hidden.
- Roof ridge and projecting party wall at each pillar.
- Row end wall top with variety of Chinese gables.

**Upper façade**
- Full height brick wall with three (or two) full-length louvred shutters (*Venetians*), framed with plaster arches and central keystones.

**Ground floor façade**
- **Residential:** Brick wall with central carved timber ventilated door and solid inner door, in-between two square windows and air-vents above.
  - or
- **Commercial:** Vertical timber panels removable to create large opening.
- Five-foot-way granite steps, granite edge and terracotta floor tiles, or geometric pattern clay floor tiles.
Architectural Style of shophouse in Penang
Late “Straits” Eclectic Style
1910s-1930s

General characteristics & structure
- Two or three stories with five foot way, sometimes with a compound garden.
- Generally shorter in height, with intensive use of both Chinese and European decoration.
- Lime plaster either on structural brick wall and pillars or Reinforced Concrete (RC) construction.
- Square pillars ending with, either Chinese pillar heads (brackets), European pillar heads (brackets) or capitals.

Roof
- Terracotta V roof tiles with either overhanging eaves and ceiling (Soffit) or hidden behind short horizontal brick and plaster decorative wall (parapet or balustrade).
- Roof ridge and projecting party wall at each pillar.
- End of gable end with variety of cultural symbol or simplified.

Upper façade
- Full height brick wall with openings.
- Full length louvered window (shutters, Venetians) with glass fanlights and internal balustrade.
- Decorative plaster works (keystones, architrave, piliasters, cornice, garlands with Chinese and European flora) very 3 dimensional, pierced with air-vents below roof eave.

Ground floor façade
- Residential-Building wall with central timber ventilated door and solid inner door in-between two timber windows with curved top and air-vents above. Decorated with ceramic (Majolica) tiles under window (dado panel) or
- Commercial-Vertical timber panels – removable to create large opening.
- Five foot-way granite steps, granite edge and terracotta floor tiles or cement tiles.
Architectural Style of shophouse in Penang

**Art Deco Style**
1930s-1960s

**General characteristics & structure**
- Two storey with five foot way, and compound garden for residential.
- Same height as Late “Straits” Eclectic. Simplified architectural features with either horizontal or vertical emphasis.
- Shanghai plaster finish over Reinforced Concrete (RC) construction of beams & pillars with cement or clay brick infill.
- Pillars & beams deemphasized and incorporated into façade.

**Roof**
- Marseille / Terracotta V shaped roof tiles fronted by flat RC eave overhang or stepped horizontal wall (parapet) with flag staff.

**Upper façade**
- Brick work with Shanghai plaster finish, decorated with three horizontal or vertical bands and generally dated on centre of parapet walls.
- Windows are arranged in groups, typically three in a bay often with metal frames and sea-green coloured moulded glass.

**Ground floor façade**
- Residential: plastered brick wall and central timber door with metal and glass decorative ventilation panels in-between timber framed windows with floral design metal grilles. Horizontal air-vents above windows and ceramic tiles below.
- or
- Commercial: metal folding panels with ventilation grill.
- Five-footway granite steps, granite edge/ Shanghai plaster edge and cement tiles.
Architectural Style of shophouse in Penang

**Early Modern Style**

1950s-1970s

**General characteristics & structure**

- Two storey for individual shophouse, three storey for corner shophouses, and three storey for row-houses designed to look like one building, commercial and residential mixed.
- Same proportion as Art Deco- Simplified clean linear functional features, e.g. shading canopies & fins.
- Lime or cement flat plaster finish over Reinforced Concrete (RC) construction of beams & pillar with cement or clay brick infill.
- Façade design and structure merged.
- Five-footway sometimes without pillars. (cantilever upper floor)

**Roof**

- Flat roofs, some with small red clay tiled finish, hidden behind parapet wall sometimes with horizontal metal railings.

**Upper façade**

- Horizontal and vertical reinforced concrete shading fins. Sea- green glass windows with metal frame, sometimes wrapping in front of internal pillars around corner sites.

**Ground floor façade**

- Residential shophouses: retained door and windows arrangement with modern materials; metal, glass, mosaic. Walls with slot or port-hole air-vents above window. or Commercial blocks – simplified square openings between structural pillars.
- Five-footway granite steps, granite edge and printed cement tiles, later mosaic tiles.
3.0 Bungalow

“The lowlands of Penang being liable to inundation in the rainy season, the houses of the Europeans are all elevated from the ground, eight of ten feet, or arches or pillars. They seldom consist of more than one floor, are built of wood and thatched over with leaves of trees, &c., the roofs resembling those of cottages in England, having the eaves projecting owner the verandahs in order to throw off the rain into the areas. They are all detached from each other, and surrounded with gardens, and trees of various kinds, that defend them a great degree from the sun.”

J Johnson Esq., Feb 1805, The Oriental Voyager

Before, Johnson arrived on Prince of Wales Island to write his descriptions above, and indeed before Sir Francis Light established the East India Company Settlement, there were at least 2,000 Malays living in the Datuk Keramat Area of the Island.

Their typical buildings form clearly influenced that of the Europeans, as described above, and that of the Chinese miller, contractor and entrepreneur Loh Amee – whose bungalow artist and voyager James Wathen illustrates in 1811 (right).

The Malayan bungalow was ideally suited to the swampy ground thus became the building form of the urban Malays, the Europeans and later the suburban elite.

Figure C12: The Early Penang bungalow as depicted by James Wathen in 1811
3.1 Early Penang Bungalow

Beautiful bungalow, similar to those found in Bangkok, that were built for the Achenese Settlers – sometimes called Indo Malay Style.

Figure C13: Plan of the brick walls of the ground floor of the bungalow, – creating cool places below (from Kelly Map 1891-96). Note the H-shaped plan internally.

Figure C14: Early Penang bungalow
3.2 Early Straits Eclectic Bungalow

The Early Straits Eclectic bungalow reflected the new wealth of the owners who built with two floors of masonry and often a projecting porch. The full height shutters on the upper floor were separated into ‘door opening widths’ frames by a simple flat ‘keyhole’ escutcheon type boarder.

Figure C15: The flat ‘keyhole’ architrave surrounding the shutter frame, complete with keystone

Figure C15: Plan of the brick wall layout of the Bungalow – complete with compound, Chinese Gate and out houses. (from Kelly Map 1891-96)

Figure C16: The Early Straits Eclectic bungalow
3.3 Late Straits Eclectic Bungalow

3.3.1 Syed Alatas Mansion

As masons and plasterers became more skilled, the bungalows became highly decorated according to each culture—here we see a crescent and star of the Straits Muslims. The plan remained similar to that of the Early Penang Bungalow, with the addition of the Porch or Porte Cochere. The heavily moulded architrave surrounding the shutter frame, complete with keystone, and bands of plaster decoration are typical of the Late Straits Eclectic Style.

![Figure C17: The heavily moulded architrave surrounding the shutter frame](image)

![Figure C18: Plan of the bungalow, with masonry walls and columns, and the H-shaped plan. The stair is in the bottom right corner, the same as the Early Penang and Early Straits Eclectic bungalows. (Kelly Map 1891-93)](image)

![Figure C19: Syed Alatas Mansion, a Late Straits Eclectic bungalow](image)
3.4 Straits-Art Deco Bungalow

Art Deco Style in its pure form was introduced into George Town through the car showroom and the Cinema.

Bungalows (and shophouses) of the Straits of Malacca created a wonderful mixture of Straits Eclectic and Art Deco that is only found in this region, hence the name Straits Art Deco. Influences from Europe brought the use of glass casement windows and reinforced concrete.

The suburban Straits-Art Deco bungalow still used lime plaster. Both glass windows and timber louver shutters were used in the design and the roof finish used clay V-shaped or U-shaped tiles. The gatepost for this bungalow are later and show the ultra modern Shanghai plaster finish.

Figure C20: A Straits-Art Deco bungalow on Leith Street. An open canopy with columns projects out in front of the house and meets the driveway.

In reference to the shophouse styles of the same period.

Figure C21: A Straits-Art Deco bungalow.
3.5 **Art Deco-Modern Bungalow**

There was a period in the architecture of George Town when the Art Deco style merged into the Early Modern style, keeping elements of both styles in the design. Suburban bungalows, and commercial buildings in George Town demonstrate this style best of all.

The emphasis on the vertical lines of the staircase tower reflects the Art Deco elements. Use of Glass Blocks for light into the central stairwell was typical.

The wrap-around corner windows, with columns set back, lean more towards modernism. Again this style is a fusion of both and a move from Art Deco into pure Modernism.

*Figure C22: Steel casement windows with aqua coloured obscured glass and decorative wrought iron security grille demonstrates a mixture between Art Deco and Early Modern.*

*Figure C23: An Art Deco-Modern bungalow*
4.0 Residential Blocks

4.1 Art Deco Residential Block

Lim Leang Teng Mansion

The residential block came about in the 1930s at the height of the rubber and tin boom. The first such block – the Lim Leang Teng Mansion below included studio and three bedroom apartments on the upper floors, and commercial accommodation on the ground floor. New technologies such as RC construction offered new opportunities to build taller. Lim Leang Teng was built for the wealthier members of society, but walk-up residential blocks were built from many different socio-economic groups.

Figure C24: Decorative corner to top floor parapet wall rich in Egyptian motifs, typical of Art Deco Style

Figure C25: The Lim Leang Teng Mansion, an Art Deco residential block with commercial level on ground floor

In reference to the shophouse styles of the same period
4.2 Art Deco-Modern Residential Block

4.2.1 21 Lebuh Light

These walk-up residential apartments were originally built as two floors above a commercial lower floor. Each atrium well was ventilated and the ‘towers’ rose above the flat roof parapet. The metal-framed glass windows appear to wrap around the corner (a Modern feature), but the expression of vertical structure (an Art Deco feature) is still visible in between.

In reference to the shophouse styles of the same period.

Figure C26: Precast concrete ventilation grill in Art Deco ‘Chevron’ pattern.

Figure C27: Art Deco-Modern residential block.
4.3 **Arts and Craft Residential Block**

4.3.1 **1, 1e, 1f Lebuh Buckingham**

This walk-up residential block, consists of a commercial ground floor and two floors of apartments. These represent the 'Arts and Craft' movement, with Spanish influenced arches into the five-footway and doorways, and timber windows with both louvres and glass panes. This building also features a mixture of exposed fair-faced brickwork and lime plaster, in addition to precast air-vent 'Chevron' detail to the stairwells.

*Figure C28: Spanish influenced arches along the five-footway*

*Figure C29: An Arts and Craft residential block on Lebuh Buckingham*
4.4 Early Modern Residential Block

4.4.1 Fire Brigade Quarters

This is a walk-up residential block for government freemen fashioned after the Federal Style of government buildings in Malaysia. The open corridor brought the five-footway back, providing shade and community connection. The vertical columns also became fins for shade, and the angled columns \((piloti)\) to the ground floor added a playful touch. This design worked with the climate to create greater living comfort.

4.4.2 People’s Court

People’s Court is a series of walk-up residential blocks with commercial ground floors and three floors of apartments.

Each block features an end stairwell for good ventilation, open corridor five-footway for circulation, and a playful inset balcony with ventilation block wall on the main façade creating a checkerboard look.

Figure C30: The fire brigade quarters on Gat Lebuh Chulia

Figure C31: People’s Court

In reference to the shophouse styles of the same period
5.0 Godowns

Godowns or warehouses were probably the first buildings seen along the coastline looking from ship to the Eastern shore. They were the emblem of the transhipment trade, for storage and safekeeping of goods from around the region and further afield on which fortunes would be made.

In 1801 when Leith encouraged the building on the reclaimed mud flat of Beach Street, reclamation began in earnest for godowns and the administrative offices of the trading companies. Even as early as the 1811 images by Wathen shows, the godowns were of solid brick construction. These buildings began to spread further and further out into the sea, until the Administration of the day decided to build Weld Quay as the final line of reclamation.

The godowns continued to stretch huge lengths from Beach Street to Weld Quay until the 1920s when Victoria Street was built and cut many of them in half.

The godowns have been added too, cut in half and changed as new technologies have been introduced over the years.

Once a neglected building form, it is now becoming appreciated as current research is revealing buildings and techniques of great interest. This research will continue.
Figure C34: Traditional cobbled pathways from Pengkalan Weld to Lebuh Pantai, once pounded by the feet of coolies and labourers - for the loading and offloading of cargo of the vibrant transshipment port. These pathways support the local OUV of the site.

Figure C35: A brick godown with terracotta roof
6.0 Buildings of Commerce and Trade

The influx of European architects and engineers matched the growth of commerce and the design to build prestigious buildings. They took on a more European / Colonial appearance, seen from Calcutta to Canton. Some were built new and others ‘grew’ out of existing shophouse architecture.

6.1 Straits Classical

6.1.1 RBS Bank, 9 Lebuh Pantai

This building features Classical architectural elements, such as the symmetrical pediment columns and archways. However, it has a tower to one side, five-footways for the tropical climate and originally a Chinese temple tile roof, suggesting a further eclectic style.

6.2 Straits-Art Deco

6.2.1 George Town Dispensery

This building features Classical architectural elements mixed with other features, notably a pitched roof and five-footway for the tropical climate and Marseilles tiled roof on a truss system. The Chamfered corner and broken pediment are playful rearrangements of classical design elements. It has
6.3 **Art Deco**

6.3.1 **28, 30 Lebuh Pantai**

A 1938 Art Deco façade using Shanghai plaster finish, steel framed casement and top hung windows, and simple lines with emphasis on the vertical using flagpole to emphasise the central stair well.

Internal building is a 1880s brick and lime mortar/plaster three-storey shophouse of the late straits eclectic style.

Built for OCBC as a bank and office chambers. This building does not feature a five-footway.

*Figure C38: An Art Deco building built for OCBC Bank*
7.0 Administration

The buildings of Administration began with the building of Fort Cornwallis, shortly after the arrival of the East India Company in 1786. Early buildings took reference directly from the urban layout and building works of Calcutta and Madras, following the architectural styles favoured by the East India Company engineers. When the administration changed from that of a trading company to that of a colonial administration, the Public Works Department recruited engineers and assistant architect from the homeland, Britain. Many of these buildings stand today and are considered under Category I. Research is ongoing.

7.1 Fort Cornwallis

As the biggest and the most intact fort in Malaysia, the Fort Cornwallis was originally built with a nibong (palm trunk) stockade with no permanent structures. In 1804, the fort was rebuilt with bricks and stones by Indian convict labour during Colonel R.T. Farquhar’s term as Governor of Penang. The Fort Cornwallis was later completed in 1810 during Norman Macalister’s term as Governor of Penang.

Early survey maps, old photographs and historical records of the Fort Cornwallis have shown that the star-shaped fort was packed with buildings and structures including military barracks and offices as well as a gunpowder magazine, a chapel, a harbour light, flagstaff, cannons, cell rooms, a store and guard houses; some of which still survived and are structurally sound. A moat of 9m wide and 2m deep was built around the fort. However, due to the malaria epidemic in the 1920’s, the moat had been filled in. The harbour light was used to signal incoming ships whilst the flagstaff was used to announce the arrival of mail ships or the descent of the Governor and other dignitaries from the Penang Hill.
7.2 Anglo Indian

7.2.1 Penang State Assembly Building

The E-shaped plan and Tuscan columns supporting triangular pediments are typical of courthouse architecture. Constructed from clay bricks, lime mortar and lime plaster load-bearing walls, the Penang State Assembly feature timber doors with open ventilation fanlights above.

7.3 Early Straits Eclectic

7.3.1 Penang High Court

The Penang High Court building Library is designed in 1901 and commenced construction in 1905 by the Public Works Department. Constructed from clay bricks, lime mortar and lime plaster load-bearing walls. Originally the walkways between the courts on the first floor were open verandahs. The projecting upper rooms below the triangular pediments were also open, but later timber louvres were added.
7.4 Straits Baroque

7.4.1 City Hall

Constructed in 1903 from clay bricks, lime mortar and lime plaster load-bearing walls and possibly reinforced concrete structure, the original design of the City Hall was intended to have open galleries on both floors. Today, the timber framed, glazed windows of the projecting wings have been copied for the filling in of the once open galleries.

7.5 Early Modern

7.5.1 Bangunan Tuanku Syed Putra

The reinforced concrete construction building appears to be floating above the long single storey podium building and screened by tall three dimensional vertical louvres.

Set back from the grid of sunshading is a wall of clear and coloured glass panels in red and yellow, a palette reminiscent of the De Stijl movement. The rear and side elevations expresses the vertical columns and horizontal beams with recessed infill panels.
8.0 Places of Worship

At the heart of all the communities in George Town are their places of worship. Each building has a distinct style relevant to the community and cultures for whom it was dedicated. On these following pages is a collection of a few main sites and a brief description. As centres of community as well as examples of unique architectural styles they are identified as Category I buildings.

8.1 Mosque

8.3.1 Kapitan Keling Mosque

The Kapitan Keling Mosque along Jalan Masjid Kapitan Keling was named after Caudeer Mohudeen, the head of the Indian Muslim community credited to have built it around 1800. The name "Kapitan Keling" is used to denote the headman or leader of the South Indian Muslim community. He was the first Superintendent of the mosque, and brought in builders and materials from India. The mosque was remodelled in the year 1916 to its present appearance. The exterior is ochre yellowed while the interior had white marble floors and a high ceiling. The interior aisles are formed by a series of horseshoe arches, crowned with King Edward's plaques. The façade of the building and its interior were decorated with geometric designs.

8.2 Chinese Temple

8.2.1 Kuan Yin Temple

*Kuan Yin Teng*, or Temple of the Goddess of Mercy, is one of the most important temples in Penang. Officially known as *Kong Hock Keong*, it is located along Jalan Masjid Kapitan Keling, formerly Pitt Street, and is one of the oldest Chinese temples in George Town. The temple’s architecture take reference from the Souther Chinese temple architecture from Fujian. The *Kuan Yin Teng* continues to be one of the most popular temples among the Chinese taoist community of Penang, and throngs come to worship here, especially on Temple Days, which fall on the first and fifteenth of every lunar month, and on the Goddess of Mercy’s feast days, which are on the 19th day of the 2nd, 6th and 9th month of the lunar calendar.
8.3 Hindu Temple

8.3.1 Sri Mahamariamman Temple

Situated at Lebuh Queen, Sri Mahamariamman Temple was built in accordance with the saiva agamas with an antechamber, a hall, circumambient dome, surrounding walls and an entrance. The complexity of Hindu mythology is reflected in the sculpture gopuram, which is over 23 feet high and features 38 statues of gods and goddesses and for swans over the entrance. It is from this temple that the Navarathri procession starts every year. Built in 1833, this temple is dedicated to the Hindu goddess Sri Maha Mariamman. Historically, it catered to the tamil community of traders and stevedores originating from South India.

8.4 Church

8.4.1 St. George’s Church

St. George’s Church is one of the oldest Anglican Church in Southeast Asia, built in 1816 with the help of the EIC during Colonel J. A. Bannerman's term as British Governor of Penang. It features a Grecian columns and pediments on its front facade, and a rotunda across the main building. The brick structure has a solid plastered stone base, a gable shaped roof for the tropical climate, and an octogonal-shaped steeple.
9.0 Jetties

Pointing out like fingers into the sea in a fishbone layout, each of the clan jetties represent a major Chinese family clan name. Built on stilts over the water, these jetties have existed for almost a century. Although the architecture has evolved and new materials have been used to build the houses, the general construction method remains the same. These include timber floors, walls, either vertical or horizontal ship-lap planking and in some cases still an attap (thatched) roof.

There are six jetties in George Town WHS: Lim, Chew, Yeoh, Lee, Tan and a mixed clan jetty.