





TABLE OF CONTENTS

1. INTRODUCTION

- **1.1 Background and Objectives**
- 1.2 Overall Planning Vision
- **1.3 Overall Urban Design Framework for Kai Tak**
- 1.4 Purpose of the Urban Design Guidelines and Manuals for the Kai Tak Development
- **1.5** Principal Function of the Urban Design Guidelines and Manuals

2. PROPOSED CONTROL PARAMETERS FOR THE GRID NEIGHBOURHOOD

- 2.1 Introduction
- 2.2 Purpose of Lease Conditions
- 2.3 Control Parameters for the Grid Neighbourhood
- 2.4 Low-rise Residential Blocks
- 2.5 High-rise Residential Blocks
- 2.6 For the Low Zone (below 25mPD) of High-rise and Low-rise Residential Blocks
- 2.7 Retail Belt Fronting the Station Square and the Multi-purpose Sports Complex
- 2.8 Fence Walls
- 2.9 Greening
- 2.10 Lease Conditions Appertaining to Non-Building Areas
- 2.11 Overview
- 3. GENERAL OVERVIEW AND WAY FORWARD FOR THE GRID NEIGHBOURHOOD
- 3.1 Overview of the Control Parameters for the Grid Neighbourhood



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TABLE OF CONTENTS

4. URBAN DESIGN GUIDELINES FOR THE GRID NEIGHBOURHOOD

- 4.1 Introduction
- 4.2 **Public Creatives Framework**
- 4.3 Ambient Tone and Colour
- 4.4 Streetscape Design
- 4.5 Permeability and Legibility
- 4.6 Residential Façade Treatments
- 4.7 Reflectivity, Colour and Transparency of Glazing
- 4.8 Control of Advertisement Signs and Projections
- 4.9 Guidelines on Retail Design
- 4.10 Projection, Cornice and Balcony
- 4.11 External Works
- 4.12 Fence Wall Design and Permeability
- 4.13 Feature Lighting
- 4.14 Greening
- 5. OVERVIEW
- 5.1 Conclusion

APPENDICES

- Appendix A: Lease Conditions for the Grid Neighbourhood
- **Appendix B: Definitions**
- **Appendix C: Proposed Building Lines Disposition**
- **Appendix D: Retail Design Parameters**
- Appendix E: Colonnade Design for Kai Tak Development by Architectural Services Department







1.1 Background and Objectives

Background

The latest approved Kai Tak Outline Zoning Plan (OZP) No. S/K22/6 covers a land area of approximately 323 hectares. The plan incorporated a number of urban design parameters which reflect the planning vision and the planning theme adopted for the Kai Tak Development (KTD). The preceding, in combination with current planning intentions, intend to facilitate the transformation of the KTD into the "Heritage, Green, Sports and Tourism Hub of Hong Kong".

Objectives

The overall objective of the Kai Tak Development Urban Design Guidelines and Manuals (UDGMs) is to set out a design framework and approach that will circumscribe the broad form, arrangement, massing and appearance of development within the KTD. This will be represented in five separate manuals that separately outline recommended urban design parameters for the following categories of development:

- Grid Neighbourhood (GN)
- Domestic Sites (other than GN and RP)
- Private Non-Domestic Sites (other than GN and RP)
- Government, Institution or Community (G/IC) Sites
- The Runway Precinct (RP)



Figure 1.1 Kai Tak Development Landscape Master Plan







1.2 Overall Planning Vision

"A distinguished, vibrant, attractive and people-oriented Kai Tak by Victoria Harbour."

Throughout the years, Kai Tak has undergone many transformations. Its original and most memorable function was as one of the world's busiest international airports. Following the move of the airport to Chek Lap Kok, Kai Tak has since subject to several detailed planning exercises that have sought to achieve its redevelopment into a centre point for living, work, leisure and transport.

1.3 Overall Urban Design Framework for Kai Tak

The KTD is formed of six identified sub-districts (or Precincts) which are planned to be interlinked by a distinctive open space and connectivity system. The principal Precincts consist of Grid Neighbourhood, Kai Tak Sports Park, Metro Park, Runway Precinct, Tourism and Leisure Hub and South Apron Corner. The following key urban design and landscape principles have been identified and adopted under the proposed Kai Tak Urban Design Framework:

- Connecting Neighbourhoods
- Creating Nodes
- Activating the Harbour-front
- Creating a Pedestrian Friendly Environment
- Creating a Dynamic Skyline
- Celebrating Views
- Celebrating Gateways
- Creating "A Green Web for Sustainable Development"



Figure 1.2 Kai Tak Development Sub-Areas Plan







Who are these documents for and how are they to be used

The urban design requirements and development control parameters outlined in the individual UDGM are intended to assist architects and relevant professionals and practitioners to understand and realise the design and development vision for the KTD. The design parameters circumscribe a set of control parameters and design approaches that specify a proposed range and quality of treatments that should be applied to realise the design vision and quality to be achieved within the KTD.



P.6

Introduction





1.5 Principal Function of the Urban Design Guidelines and Manuals

The principal function of each of the UDGM is to achieve a coherent overall design of high quality. Worked examples are provided to illustrate the application of guidelines with the aim of ensuring consistency in the visual expression of all types of urban development within the KTD. The specific purposes of each manual are as follows:

1. Grid Neighbourhood Manual: outlines a range of proposed urban design control parameters that are specifically applicable to the developments at the Grid Neighbourhood, including provision relating to proposed residential low blocks, high blocks, and a retail belt fronting the Station Square.

2. Domestic Sites Manual: outlines a range of proposed lease conditions and urban design control parameters that are specifically applicable to the domestic developments other than the Grid Neighbourhood and Runway Precinct, including provisions relating to all residential developments and the retail belt fronting the Station Square and the Kai Tak Sports Park.

3. Private Non-Domestic Sites Manual: outlines a range of proposed urban design control parameters that are specifically applicable to the private non-domestic developments, including provisions relating to all non-domestic developments fronting Prince Edward Road East (PERE).

4. Government, Institution or Community (G/IC) Sites Manual: outlines a range of proposed urban design control parameters relating to all Government developments and the relationship and interface with the surrounding developments.

5. Runway Precinct Sites Manual: outlines a range of proposed urban design parameters relating to all residential and commercial developments along the Runway and the relationship and interface with the prominent waterfront promenade.



Figure 1.4 Development sites addressed by the UDGMs







The individual UDGM prepared for the Grid Neighbourhood, Domestic Sites, Private Non-Domestic Sites, G/IC Sites and Runway Precinct outline recommended urban design and control parameters. These have had regard to various design studies that have been undertaken for the KTD and have made specific reference to those undertaken for each category of development or location.

The following chapters specifically address the design parameters that are specifically applicable to the development sites in the Grid Neighbourhood.



Figure 1.5 Site Reference Plan indicating development sites addressed by each UDGM







2.1 Introduction

The Explanatory Statement (ES) of the Outline Zoning Plan (OZP) outlined the recommendations in respect of urban design control parameters arising from various studies on the KTD including those specified for the domestic sites. These parameters were then assessed against prevailing statutory requirements and guidelines including the Buildings Ordinance (BO), OZP, Practice Notes for Authorized Persons, Registered Structural Engineers and Registered Geotechnical Engineers (PNAP), particularly PNAP APP-152, and the Hong Kong Planning Standards and Guidelines (HKPSG) to identify any potential divergence or variance.

The proposed control parameters for the Grid Neighbourhood extend to include provisions relating to the residential low blocks, high blocks, and the retail belt fronting the Station Square and the multi-purpose stadium complex. They aim to control maximum permitted plot ratio (PR), building height (BH), gross floor area (GFA), total site coverage, maximum façade length, fence wall and level of greening.

The following section proposes control parameters that are suitable for land lease and other land use control instruments for private developments in the Grid Neighbourhood.

2.2 Purpose of Lease Conditions

As mentioned in the ES of the OZP, the ability to intervene in the built environment in Hong Kong is significantly circumscribed by Hong Kong Land Leases, Building and Planning Ordinances which, over the years, have become increasingly prescriptive.



Figure 2.1 Site Reference Plan indicating Development Sites within the Grid Neighbourhood in the Kai Tak Development Area (KTDA)







In effect, the imposition of lease conditions is the principal means of development control where conditions more onerous than the minimum standards of the BO and Regulations or OZP are to be imposed.

Land is sold or granted to the private sector for development on leasehold terms, and lease conditions are drawn up by Lands Department after consultation with the Planning Department and other relevant Government departments. In the case of comprehensive large-scale private development, the lease conditions usually require a master layout plan to be prepared and submitted to the Government for approval. In order to encourage a self-contained project, the Government may require additional specifications on building density, G/IC uses, and access roads which should then be consolidated in modified lease covenants.

Lease conditions should be emphatically written in such a way that is clear and concise. The use of aspirational requirements should be avoided to ensure the meaning is clear to all who read them. Lease conditions also need to be fair and reasonable and, most importantly, practical and implementable.

2.3 Control Parameters for the Grid Neighbourhood

The layout and massing proposals for the Grid Neighbourhood are formed of a very tight knit interplay of land uses in established neighbourhoods in the vicinity of Kai Tak (residential and retail) and development massing. The grid form was interpreted from the grid layouts of adjacent older areas. This essentially has the effect of imposing an old layout form on a new development area. As outlined in the ES of the OZP, the intention of the design concepts for the Grid Neighbourhood were to:

- Create a series of semi-enclosed open spaces (i.e. the courtyards) to enhance the planning intention to induce a stronger sense of community in the Grid Neighbourhood; and
- Provide a smooth transition of building mass from towers to low blocks through the introduction of three to six-storeys low blocks.

In addition to the design concepts, key features included:

- Reduce the massing of towers and allow diversity in BH and disposition to create more interesting skylines and to improve visual permeability with the inclusion of fewer towers;
- Reduce overlooking and minimise "wall effects"; and
- The introduction of more low blocks to create well defined public and private domain / streetscape.

To meet with the above, design control parameters were proposed for the low-rise residential blocks, high-rise residential blocks, the low zone of the high-rise and low-rise residential blocks, the retail belt fronting the Station Square and the Multi-purpose Sports Complex, for fence wall (a perimeter enclosure that combines fence and wall elements) requirements as well as prescribed greening ratios for the Grid Neighbourhood. The following sections reiterate the recommendations of the ES of the OZP in respect of the proposed control parameters.







2.4 Low-rise Residential Blocks

The maximum permitted height of the low-rise residential blocks prescribed under the current OZP stipulates that low blocks shall not exceed six storeys or 25mPD whichever is less in height, to ensure a varied building height profile is created within the Grid Neighbourhood. As recommended in the ES of the OZP, the stipulations of the OZP need to be carried into lease conditions. To be consistent with the original control statement, the proposed parameter read as follows:

The low-rise residential blocks shall be three to six storeys and shall not exceed a maximum building height of 25mPD.

This reflects the stipulations contained under the auspices of the OZP and can therefore be readily incorporated as a lease condition.

Whilst the OZP is not specific on the absolute quantum of development to be constituted as low blocks, it does advise that the Grid Neighbourhood should comprise low blocks to achieve diversity in building mass / form and help to create a more interesting building height profile in the area. As recommended, the proportion of low blocks required should be enshrined under lease conditions. As suggested, a minimum quantum of low blocks needs to be stated. The previously proposed control parameter reads as follows:

Depending on site configuration, allocate 10-13% of the total domestic GFA for low block development to guarantee provision. It is considered that the wording of this provision is not sufficiently robust enough to achieve its intended objective. It is not considered appropriate for the purposes of lease conditions to state a figure between 10-13%, but rather a clear and more definitive indication should be given. Given the conditions are not uniform throughout the Grid Neighbourhood, it is considered more appropriate to select the lower percentage rather than the higher percentage. It is recommended that the lease condition should consequently read as follows:

Depending on site configuration, individual sites will have different design parameters. A minimum of 10% of the total domestic GFA should be allocated for low-rise residential block development to guarantee provision.

Whilst the OZP recommends that podium free design is to be adopted to improve wind penetration at pedestrian level, that wider gaps between buildings should be provided and that buildings should be configured to align with the prevailing winds, there is no specific percentage imposed on the extent of low blocks required to abut building lines. The previously proposed control parameter reads as follows:

Depending on site configuration, low-rise residential blocks shall abut on at least 30-40% of the building lines of the sites.

It is recommended that a specific stipulation must be included under lease conditions specific to the area and the following lease condition is proposed:







Except with the prior written consent of the Director of Lands, the façades of the low-rise residential blocks erected or to be erected on the lot shall abut on at least 30% of the blue building lines and the red building lines (other than the portions of the red building lines that fall within the Non-building Area (NBA) reserved for the view corridor). **Appendix C** depicts the disposition of blue building lines and red building lines.

2.5 High-rise Residential Blocks

The current OZP specifies the maximum site coverage of the entire development but does not specify the maximum site coverage for residential towers. However, site coverage requirements need to be employed under lease conditions to promote the low block design. The previously proposed control parameter read as follows;

The total site coverage of the high-rise residential block shall not exceed 17% to reduce the massing of high blocks.

It is preferable that lease conditions should avoid using aspirational wording and be written in a clear and concise manner which can be easily interpreted to avoid confusion. It is recommended that the lease condition which stipulates site coverage requirements for the high-rise residential blocks should be more succinct and expressed as follows:

The total site coverage of high-rise residential blocks shall not exceed 17%.

This avoids confusion surrounding the required design intention and outcome.

Whilst there are no specific provisions relating to high-rise residential blocks abutting a building line under the provisions of the OZP, the BO contains specific provisions relating to prescribed window requirements which strive to discourage overlooking. The previously proposed control parameters read as follows:

- At least one façade of each residential tower shall abut on a building line; and
- The Cumulative Projected Façade Length of the high-rise residential blocks against the nearest building line in the same direction shall not exceed 65 metres to enhance townscape and reduce overlooking.

It is recommended that this provision should be amended and transcribed as a lease condition to read as follows:

- Except with the prior written approval of the Director of Lands, any buildings or group of buildings erected or to be erected on the lot shall not have any projected façade length of 60 metres or more. Notwithstanding this, at least one façade of each residential tower erected or to be erected on a lot shall abut a blue building line or a red building line. The Cumulative Projected Façade Length of any residential tower or group of residential towers erected or to be erected on the lot shall not exceed 65 metres;
- This special condition shall only apply to high-rise residential blocks erected or to be erected on the lot. For the avoidance of doubt, the projected façade length of low-rise residential blocks shall not be taken in account when calculating the Cumulative Projected Façade Length referred to; and







In calculating the projected façade length of a Cumulative Projected Façade Length the gap between any two buildings shall be taken into account and the Director of Lands' decision as to the calculation shall be final and binding on the purchaser.

The proposed control parameter which addresses the extent of the continuous projected façade length reads as follows:

The continuous projected façade length of any residential tower or any group of residential towers shall not exceed 40 metres to enhance visual permeability.

In the ES of the OZP, it was recommended that a provision to this effect would need to be included under lease conditions. It is recommended that the above proposed control parameter can be adapted to be used as a lease condition and should be amended to read as follows:

- The Continuous Projected Façade Length of any building or group of buildings erected or to be erected on the lot shall not exceed 40 metres;
- This special condition shall only apply to high-rise residential blocks erected or to be erected on the lot. For the avoidance of doubt, the projected façade length of low-rise residential blocks shall not be taken in account when calculating the stipulated Continuous Projected Façade Length; and
- In calculating the projected façade length of a Continuous Projected Façade Length the gap between any two buildings shall be taken into account and the Director of Lands' decision as to the calculation shall be final and binding on the purchaser.

2.6 For the Low Zone (below 25mPD) of High-rise and Lowrise Residential Blocks

The proposed control parameter addressing openings reads as follows:

Openings with the minimum area of 185 sq.m in total shall be provided in the façade surface area of the lowest six floors for a continuous block length exceeding 60 metres to enhance visual permeability.

It was identified in the ES of the OZP that the BO sets out minimum requirements for fenestration under the Building (Planning) Regulations (B(P)R) (Part IV Reg 30) to ensure the minimum provision for lighting and ventilation. The intention behind the proposed development conditions is to promote variation in the appearance of massing and façades within the "low zone" and to promote a degree of visual permeability. To achieve the design aspiration it is proposed that the statement should be modified to read as follows:

- For any building or group of buildings having a Continuous Block Length exceeding 60 metres, an opening or openings with an area of at least 185 sq.m in the aggregate shall be provided at both or any of the following locations:
 - Below the level of 25 metres above the Hong Kong Principal Datum (mPD) of the low-rise residential blocks; or
 - Below the level of 25 metres above the Hong Kong Principal Datum (mPD) of the high-rise residential blocks.







2.7 Retail Belt Fronting the Station Square and the Multipurpose Sports Complex

The previously proposed control parameters relating to the retail belt read as follows:

- Retail development shall not be more than two storeys or 15mPD in height;
- The retail development shall account for at least a PR of 0.1 of the site to guarantee provision; and
- A 3 metres setback on the ground floor fronting the Station Square and the Multi-purpose Sports Complex.

Whilst it was identified that the proposed height was in line with the recommendations of the OZP, it was established that there were no specific provisions relating to the PR or setbacks. Therefore, the need for these provisions to be included in lease conditions is imperative. For the purposes of lease conditions, it is recommended they read as follows:

- Retail development shall not be more than two storeys or 15mPD in height;
- The retail development shall account for at least a PR of 0.1, except for Site 1K3 which has a PR of 0.2; and
- A 3 metres building setback within which there shall be 3.5 metres clear space extending upwards from ground level shall be applied along the perimeter of each development site fronting the Station Square and the Multi-purpose Sports Complex. It is recommended that the full retail façade frontage shall aspect to the Station Square.

2.8 Fence Wall

The OZP advocates that to enhance penetration of prevailing wind within individual development sites, greater permeability of fence walls be promoted. Accordingly, the proposed control parameters drafted in the ES of the OZP read as follows:

To enhance the interaction between the neighbourhood and the pedestrian streets as well as to capitalise on the greenery provision along the pedestrian streets, any boundary wall or fencing fronting the pedestrian streets be appropriately designed to allow for a porosity of not less than 50% of the surface area of such boundary wall or fence measured from 1 metre above the formation level of the pedestrian street.

As such, it is recommended that the porosity of the fence wall and related requirements should be specified in lease conditions. To this end, it is proposed that a lease condition clause should be adopted and should read as follows:

All boundary walls and fences fronting pedestrian streets shall be appropriately designed to achieve visual and physical porosity of not less than 50% of the surface area across their entire length per linear metre from 1 metre from the average formation level of adjacent roads / footpaths or land.







2.9 Greening

As outlined in the ES of the OZP, greening requirements are stipulated in both the HKPSG and PNAP APP-152. It was established that a precise greening requirement needs to be stipulated under lease conditions. The previously proposed control parameters read as follows:

- Greening shall be provided within the 3 metres setback area along pedestrian streets and at 5 metres along the perimeters of sites abutting the proposed Kai Tak River; and
- Overall minimum greening requirement including 30% of the site area. The minimum greening requirements at pedestrian zone shall be 20% of the site area and 20% of the roof area.

The above proposed control parameters are appropriately detailed and can broadly ensure that the required outcome and intensity of greening is achieved. They are clear in their execution and would likely be easily interpreted. However, to avoid confusion it is recommended that the setback area is referred to as 'NBA' as prescribed by the OZP. The suggested phasing of lease conditions are therefore proposed to read as follows:

- Greening visible to pedestrian or accessible by any person(s) entering the lot shall be provided within the 3 metres building setback within each site located along pedestrian streets; and
- Greening visible to pedestrian or accessible by any person(s) entering the lot shall be provided within the 5 metres building setback within each site located along the edges of the proposed Kai Tak River.

The overall minimum greening ratio shall be 30% of the site area. The greening ratio within the pedestrian zone shall be equivalent to 20% of the site area and the greening ratio at roof shall be equivalent to 20% of the roof area.

2.10 Lease Conditions appertaining to Non-Building Areas

No specific mention has been made in the ES of the OZP in relation to development conditions that should be applied to non-building areas (NBAs). This is considered to be an omission and as such it is proposed that the following be applied to the NBAs:

- Except with the prior written consent of the Director of Lands, no building or structure shall be erected or constructed within the NBAs except the followings:
 - Boundary walls or fences or both, provided that if the boundary walls or fences or both shall front onto pedestrian street or path, such boundary walls or fences or both shall be erected or constructed in all respects to the satisfaction of the Director of Lands to achieve visual and physical porosity of not less than 50% along the horizontal plane per linear metre from 1 metre above the general formation level of the adjacent pedestrian street or path; and
 - Landscaping features and associated facilities.







2.11 Overview

The preceding refined lease conditions will assist in realising the design concepts for the Grid Neighbourhood. The intention has been to ensure that lease conditions are written in such a way that is clear and concise to avoid misinterpretation and to ensure that the key features proposed within the Grid Neighbourhood can be realised. As such, they are intended as appropriate control requirements that can be implemented as "technical, quantifiable, tangible and enforceable conditions". A full summary of these conditions is contained within **Appendix A**.



GENERAL OVERVIEW AND WAY FORWARD FOR THE GRID NEIGHBOURHOOD





3.0 GENERAL OVERVIEW AND WAY FORWARD FOR THE GRID NEIGHBOURHOOD

3.1 Overview of the Control Parameters for the Grid Neighbourhood

This section has reiterated the recommendations contained in the ES of the OZP for the control parameters for the Grid Neighbourhood and from this prescribed a set of lease conditions to be applied, that are fair and reasonable and, most importantly, practical and implementable. They typically relate to maximum permitted height, site coverage, plot ratio and greening etc.

The next section under this report will provide the design guidelines, with the aid of explanatory diagrams and examples to assist architects, relevant professionals and practitioners in understanding how to meet the control requirements and parameters outlined. This Study is intended to mainly focus on the pedestrian zone and focus on such aspects as ambient tone, visual permeability at street level, façade treatments, external works, fence wall design and feature lighting etc. to ensure that an urban design framework is established that will ensure the best possible outcome is achieved.







4.1 Introduction

With the aim of developing an over-arching theme to guide the urban design of the streetscape and associate furniture in the KTD to create a visual identity that encapsulates the planning vision of turning Kai Tak into a "distinguished, vibrant, attractive and peopleoriented community by Victoria Harbour", a separate consultancy for "Study on Public Creatives was engaged separately by CEDD in December 2011, before the commencement of this Urban Design Guidelines and Manual consultancy was taken up by URBIS Limited.

The Study started with a series of searches to identify key values of Kai Tak, followed by a consensus building workshop in mid January 2012 to consolidate the views of various stakeholders towards these values from different angles (such as history, expectation of what the KTD could bring; social development, cognitive connection; Kai Tak as an airport, Kai Tak as the new comprehensive urban planning project and Kai Tak in relation to neighbouring districts).

After studying the social and cultural legacies of the neighbouring areas, the planning intention of different sub-districts, the design of on-going public rental housing and public works projects, and the Vision of Kai Tak, the Public Creatives Study Consultants recommended that the visual identity should focus on vigour and liveliness of the KTD and its surrounding area. The concept of a "Tree by Victoria Harbour" was proposed and the "Tree" concept defines the personality of Kai Tak which acts as the creative principles upon which design development in later stages is to be built. Further to the presentation of the "Tree" concept and the street naming proposal endorsed by the Government in July 2012, the Public Creatives Study Consultants carried forward the endorsed concept of developing a set of creative principles and a design theme, namely the "Current of Vitality".

Based on the design theme of 'Current of Vitality', the Public Creatives Study Consultant developed a visual identity icon, a graphic element matrix, supporting graphic elements, typography and a set of main colours and highlight colours for implementation of the design theme in possible design for the whole KTD.

Without conflicting with the master urban design principles provided by URBIS Limited, the Public Creatives Study Consultant studied the appearance of the streetscape and the public facilities within the public realm and focused primarily on the visual quality of streetscape, the interface between public and private areas within 15 metres height at pedestrian zones (taking into account other users such as public transport passengers, motorists as well). Without conflicting the master urban design principles provided by URBIS Limited, the Public Creatives Study Consultant provided suggestions on the urban design elements in guiding various parties to consider possible designs and implementations to maintain a coherent visual gesture and subtly reflect the design theme.





4.2 Public Creatives Framework

Colour Scheme

The colour scheme developed by the Public Creatives Study Consultant is described and addressed below:

The colour scheme features eight main colours and six highlight colours.



Figure 4.1

The choice of colours is inspired by the core values of Kai Tak, namely Connecting, Natural / Healthy, Future-driven, Strong-rooted, Energetic and Open / Welcoming. The colours follow and recognize the roots of what Kai Tak was and what it will be in the future. Following this line of thought, the colours are connected and displayed in harmony with the society and urban structures (architectural constructions, park and leisure environments, and business areas etc.) without being overpowering.

Use of Colours

Main Colours

The upper four main colours (Pantone 427C, Pantone 1C, Pantone 409C and Pantone 406C are mainly to be used for 3D items. The lower four main colours (Pantone 333C, Pantone 331 C, Pantone 2747C, Pantone 300C are mainly for the use on 2D items.

Highlight Colours

To enrich the colour range and bring vibrancy to the colour scheme for Kai Tak, colours from the ecosystem around a *ficus subpisocarpa* tree have been chosen as highlight colours. The highlight colours have a variety of colour intensities which supplement the main colours. The six highlight colours (Pantone 117C, Pantone 180C, Pantone 1817C, Pantone 354C and Pantone 4995C) can be used in any combination with the main colours.

The Public Creatives Study Consultant also proposed that a sense of place could be further enhanced by simply selecting suitable colour tones for the area or development. The main colours and highlight colours of the Study on Public Creatives can be observed as accents to the ambient tone and colour of the Urban Design Control and Guidelines.





4.3 Ambient Tone and Colour

The use of various tones and colours applied in a specific and considered manner can help create a strong sense of place and make a district more visually appealing. Tone refers to the lightness or darkness of an object and is often considered as one of the most powerful design elements given the impact it can have in defining a building and / or an area.

In the context of the parameters, tone specifically refers to the colour that is applied to the external facade of buildings as well as pavements and street furniture in the Grid Neighbourhood. The use of a consistent set of chromatic treatments throughout a development can ultimately engender a sense of place. It is an important aspect of modern urban design practice, as it can improve the visual quality of a neighbourhood and its image as well as contributing to soften the visual impact of buildings.

The level of pedestrian circulation needs to be visually appealing and designed to ensure appropriate interface connection with the public realm of the street. Impacts to adjoining and / or adjacent areas need careful consideration to avoid negative interface issues arising.

OBJECTIVE

Ensure the tone and colour selected throughout the development provides increased aesthetics and amenity to the Grid Neighbourhood.

Recommended:

 \succ Reference to the Public Creatives Study Consultant chosen colour scheme should be made to inform the selection of appropriate colour tones for the Grid Neighbourhood.

Acceptable:

- Where appropriate, the use of colour contrasts, if carefully considered, can also be adopted to stimulate visual interest and ensure a monotonous design is avoided. These elements help to ensure a degree of variety is enshrined in the development and visually distinct neighbourhoods are realised; and
- Glass and steel coloured balconies set against wood and brick elements allow for appropriate colour contrasts to be realised in developments and ensure monotonous design is avoided.

To Be Avoided:

The use of abrupt contrasts and garish colours, should however, be avoided.





Figure 4.2a

Figure 4.2b

A variety of colours and physical embellishments can be applied to residential developments to generate a range of aesthetically subtle facades. The above illustrates examples of colour treated timber, coloured balconies, dual coloured tiled facades and steel or clear / coloured glass which can all contribute to creating a sense of place. Such materials and colour tones are recommended.







4.4 Streetscape Design

Historic Street Pattern

One of the guiding principles of the layout has been to replicate the grid layout that is found throughout the adjacent existing area to provide a more meaningful link with Kai Tak's contextual morphological heritage, and to help establish a distinctive character for the Grid Neighbourhood. The grid pattern is also efficient and effective design in terms of pedestrian movement and legibility.

Visual Corridors

This grid pattern helps to create long views through the development, and across the Kai Tak River. Whilst the pedestrian streets run along a northwest – southeast axis, these are crossed by two 20 metres wide NBAs running northeast – southwest, helping to increase visual permeability across the whole site, by maximising views of and increasing access to the Kai Tak River, thus reducing it as a barrier between the two parts of the site, and helping to better connect the development.

Riverine Edge – 5 Metres Setback for Greening

The physical attributes of the Kai Tak River is an asset to be fully exploited for its value as a passive recreational space for residents and wider area and users of the retail belt. It also forms a view and air corridor, and as a connection with the area's waterside and historical characteristics. Its location running through the heart of the site means that both banks of the river can complement each other, and the 5 metres setbacks can be treated consistently with appropriate landscape features. Its curving edge also adds an element of deviation from the grid theme, thus providing the opportunity for an element of physical and visual variety at the riverine edge.



Figure 4.3 Grid Neighbourhood Reference Plan







3 Metres Wide Non-building Areas

Within each of the development sites, 3 metres wide NBAs are designated along the boundary abutting 10 metres wide pedestrian streets. Running in a SE-NW orientation these NBAs are intended to enhance penetration of prevailing winds. They also provide opportunity to improve the overall amenity of the Grid Neighbourhood.

Pedestrian Streets

A total of five 10 metres wide pedestrian streets are provided. These allow for increased pedestrian movement within the Grid Neighbourhood. The recommended pattern, colour and design of this street can be seen in the images.



Figure 4.4 Pedestrian Street Layout



Figure 4.5 Proposed paving pattern and colour for the Pedestrian Street



Figure 4.6 The Pedestrian Street includes landscaped areas abutting the 3 metres wide NBAs







4.5 Permeability and Legibility

Visual permeability refers to the extent of provision made within a given layout to permit through views. Conversely legibility refers to the extent to which the public can orientate themselves and navigate and understand how a place works. Legibility also infers that spaces and buildings are sufficiently distinctive that they are capable of conveying a sense of place. Both factors will require to be addressed during the detailed design of the Grid neighbourhood.

The intention is to create an easy and smooth transition between the retail belt, visual corridor, pedestrian street and NBAs within the Grid Neighbourhood. It is advocated that universal access to facilitate ease of access for all users at all crossings is provided throughout the Grid Neighbourhood.

OBJECTIVE

The layout and design of the development should provide a readable and clear distinction between public, communal and private areas.

20 Metres Wide Visual Corridor

As mentioned, two 20 metres wide visual corridors are intended for the Grid Neighbourhood. Given their location, the opportunity exists to provide a secondary pedestrian access for the sites and to allow for increased visual and physical movement throughout the development.

Recommended:

- The highest degree of visual permeability and legibility should be enshrined throughout the Grid Neighbourhood. This can be achieved by ensuring no physical barriers are included at the interface of the pedestrian street and the 20 metres wide visual corridor. This includes gates, landscape features or fence walls;
- Within visual corridors the location of trees and plants can be specifically placed and organised to delineate points and routes of access and circulation and to define spaces of separate character and function within the visual corridor;
- It is recommended the paving pattern for the visual corridor should be consistent with the pedestrian street;
- It is recommended that at the junction of the pedestrian street and visual corridor a change in paving material is utilised to demarcate the interface of the public and private realm and to enhance legibility; and
- Tree planting can on day one comprise semi mature trees disposed in a line or arrangement and fully formed up to ensure views at grade are not compromised.





Acceptable:

If physical barriers such as gates / fence walls / landscape elements are used at the junction of the pedestrian street and the visual corridor, it is recommended the material used allow for a high degree of visibility and transparency.



Figure 4.7 Transparent barrier materials is acceptable at the junction of the pedestrian street and the visual corridor

To Be Avoided:

Visual and physical access should not be hindered or blocked in any way. The use of solid and non-porous gates or boundary walls should be avoided at the junction of the pedestrian street and the visual corridor.



Figure 4.8 Tree / Planting along centre of NBA blocking the view corridor should be avoided



Figure 4.9 Solid barrier materials should be avoided at the junction of the pedestrian street and the visual corridor





Junction of the Retail Belt and the Station Square

The junction of the retail belt and the Station Square also needs careful consideration to ensure the transition between the two areas is not restricted in any way and to promote legibility for users. This section specifically deals with the treatment of the retail belt which is within the boundary of the Grid Neighbourhood.

Recommended:

- The junction of the retail belt and the Station Square should be \geq barrier free to enable free flow pedestrian movement between these areas: and
- Within the retail belt, a range of tones and textures can be \triangleright applied to paving treatments which will help to distinguish between these two areas.

Acceptable:

- The location of a fence wall and / or security gate at the rear \geq boundary of the retail belt and the 3 metres NBA; and
- Contrast in the colour/material and / or design of paving can be \geq used to direct access to retail outlets. As visitors approach from the Station Square, a difference in paving material and design can help to indicate they are moving from one area to the next.

To Be Avoided:

- The inclusion of a boundary wall along the entire boundary of \geq the retail belt should be avoided; and
- Colour contrasts in paving should avoid creating the \geq appearance of barriers to pedestrian movement to ensure a walking friendly environment.







The fence wall and / or Figure 4.10b security gate can be located at the rear boundary of the retail belt and the 3 metres NBA

Figure 4.10c The fence wall and / or security gate should be avoided to located along the entire boundary of the retail belt



P.28

3m

NBA





Interface of the 3 Metres Wide NBA and the Pedestrian Street

Recommended:

- A fence wall may be included at the boundary of the 3 metres wide NBA and the 10 metres wide NBA. It is, however, recommended that this be setback by 3 metres from the boundary of the retail belt and 3 metres from the boundary of the 10 metres wide NBA to allow for landscape treatments to be applied that would assist in screening the fence wall;
- Avoiding the development of a continual fence wall along the \geq entire length of the 3 metres wide NBA would also enable increased pedestrian flow within the retail belt and allow for increased visual and physical permeability along the length of the retail belt:
- All surfaces on which pedestrians walk should be firm, stable \geq and slip resistant even when wet. In addition to the initial costs, the costs and ease of maintenance, repair, reinstatement and replacement should be considered; and
- The design layout and type of materials should be visually and \geq physically integrated at the public private interface to allow for a coherent transition between these two areas.



Figure 4.11

Acceptable:

Continuing the fence wall along the length of the 3 metres wide NBA and along the back boundary of the retail belt is also acceptable. In this instance, a security gate could run the length of the boundary at the retail belt. The security gate should be porous to ensure a degree of visual permeability is realized.

To Be Avoided:

The inclusion of a fence wall along the entire length of the 3 metres wide NBA and into the retail belt should be avoided. This will restrict pedestrian movements and erode the permeability and legibility within the sites.



Figure 4.12







Interface of the Retail Belt and 3 Metres Wide NBA

Recommended:

- To enhance the pedestrian realm, it is recommended that retail uses are setback from the 3 metres wide NBA appropriately;
- Within this setback, al fresco dining uses are recommended to create an active streetscape; and
- Similar paving materials and colour tones for the 3 metres wide NBA and retail belt are recommended.

Acceptable:

Landscaping may be included within this setback.

To Be Avoided:

The location of a fence wall along the boundary of the 3 metres setback and the retail belt which would effectively limit permeability and legibility from being realized within the development.



Figure 4.13 Recommended Interface of the retail belt and 3 metres wide NBA





4.6 Residential Façade Treatments

The considered design of building façades and the utilisation of appropriate materials can contribute significantly to creating inviting and sophisticated environments.

A carefully conceived approach to façade design can contribute to cementing a sense of continuity and cohesion when viewed against the backdrop of a skyline, and at the level of human interaction at grade within the public and private realm.

OBJECTIVE

The architectural form and the treatment of façades should be carefully conceived to ensure that the chromatic treatments applied are pertinent to the location of the development site, promote visual variety and make a positive contribution to the public realm.

Recommended:

- Continuity in the appearance and quality of façade treatments should be ensured as a general principal at all levels but in particular at the lower floors of each building's exterior. This is critical in contributing to such promoting pedestrian interest and ensuring a quality environment;
- It is suggested that building frontages are enhanced through architectural treatments such as balconies, bay windows clearly defined entrances and windows etc. This will add vitality and interest to the public realm and create a quality edge in the Grid Neighbourhood. This will also seek to ensure an appropriate level of overlooking and natural surveillance is achieved which in turn engenders a sense of security;

- The texture and appearance of exterior façade detailing should relate to the human scale as it is vital that the interaction between the buildings makes a positive contribution to the public realm and the public domain creating a quality edge to the Grid Neighbourhood;
- It is suggested that the architectural and façade treatments employed therefore, foster a sense of lightness and subtlety in the development; and
- Recommended building fabric treatments include wood and glass finishes. The façade appearance and the visual expression of buildings can be softened by means of fenestration and the use of 'soft' materials such as recycled wood / natural materials subject to compliance with the Building Regulations.



Figure 4.14

Figure 4.15

Wood and glass façades can foster a sense of lightness and subtlety. The use of partial wood façades with colour detailing can serve to express the character, architecture and form of the buildings and contribute to positively enhancing the quality of the built environment.







Acceptable:

- Durable modern low maintenance materials such as stone and brick, are also encouraged. These types of finishes and / or detailing can contribute to the visual variety and if subtlety combined to soften the visual appearance of buildings. Appropriate colour tones should be selected in line with those recommended by the Public Creatives Study;
- Façade treatments of a contemporary style incorporating steel and glass as principle elements contrasted with polished concrete surfaces are also advocated; and
- The combination of materials, detailing and treatments can enhance visual variety and the quality of the built environment.

To Be Avoided:

- Excessive long blank façades should be avoided throughout the Grid neighbourhood. This will detract from the experience and appearance of an active streetscape for pedestrians; and
- > Bare featureless concrete façades should also be avoided.



Figure 4.16

Figure 4.17

Examples of brick and stone façade finishes with the use of sympathetic tones together with expansive fenestration can ensure that obstructive and visually negative structures do not result. Windows, doors and balconies are located at the street face of a building help to add visual variety and depth to a building while also ensuring an appropriate level of natural surveillance.







Figure 4.18 Greater permeability of fence walls to enhance the interaction between the neighbourhood and the pedestrian streets as well as to capitalise on the greenery provision along the pedestrian streets with distinguished paving materials





4.7 Reflectivity, Colour and Transparency of Glazing

The design of glazing, its function and purpose in conjunction with residential developments has altered significantly over the years. Historically, the textures and tones of glazing were largely irrelevant in Hong Kong. Buildings were designed to ameliorate the effect of the sun and frequently shutters were provided to window spaces. The percentage of façade given to window space was relatively small in comparison. This in part reflected past predilections against the inclusion of large areas of window space in residential developments and a tendency towards expediency in design and implementation. In recent years there has been a shift towards larger window spaces in residential buildings. The increase in the proportion of glazed areas on façades has had consequent benefit in terms of enhancing the visual appearance of buildings and providing greater architectural flexibility.

The improvement in glazing technology whilst being generally positive has brought with it a number of questionable benefits in relation to the residential sector.

There are arguments for and against the employment of reflective surfaces. In certain contexts they can create positive effects by reflecting water movement or adjacent developments. Reflectively is, however, normally employed in commercial environments where the frequent design intention is to create a sense of movement and change which in turn engenders a sense of vibrancy. Residential environments are generally more passive and normally do not incorporate highly expressive façade treatments.

OBJECTIVE:

The use of glazing should avoid adverse impacts to surrounding developments.

Recommended:

- The use of quality glazing within bespoke frames can add a degree of scale to a building, promote visual interest and enhance lightness and texture. Therefore, the use of non reflective quality glazing is recommended in the pedestrian zone;
- Where used above the ground floor, both curtain wall and window / door glazing should desirably have the minimum extent of reflectivity needed to achieve energy efficiency standards. Non-reflective coatings or soft tints are encouraged in this regard;
- Light to Energy: There are currently many new glazing products emerging in the market that make positive use of the energy of the sun (cooling in summer and warming in winter). Whilst the initial cost of photo-voltaic glazing is high, the gains from energy savings offset the capital cost over time. There are also a number of products that limit heat reflection. These have desirable benefits to local micro climates. With improvements in technology it is likely that costs will fall. The application of the technology is desirable but not, as yet, mandatory;
- The environmental performance of glazing should be such that buildings are comfortable, in terms of thermal and visual aspects; and
- Frugality in the use of energy and other resources.





Acceptable:

Where the use of polished metal surfaces are incorporated into the building design, these should be designed or screened to ameliorate reflectively and measurable heat.



Figure 4.19

Figure 4.20

A wide range of glazing treatments are available that can contribute positively to the visual appearance of residential developments and produce positive environmental benefit to the Grid Neighbourhood.

To Be Avoided:

- Highly reflective materials should be avoided where they would result in glare to neighbouring developments and public spaces; and
- Dark tinted reflective glazing should also be avoided. This can result in the buildings appearing visually dominant.



Figure 4.21

Figure 4.22

Dark reflective finishes and blank or utilitarian finishes have extremely negative impacts on the visual and built environment. Unsuitable use of colour can very quickly appear dated and can sharply conflict with surrounding development. Conversely, the application of highly reflective surfaces may produce spectacular effects in commercial areas but in a residential context may produce unwelcome glare.

4.8 Control of Advertisement Signs and Projections

The use of extravagant graphic elements and signs in the urban areas of Hong Kong is generally recognised as a cultural symbolism which contributes greatly to the townscape and totally dominates the character of certain shopping street in the urban area. This type of information system transmits messages in as direct a form as possible with respect to restrictions, rules, activities and places.






OBJECTIVE

Throughout the Grid Neighbourhood, several types of information must be conveyed to the public including retail signage, directional signage, street name signage and residential name signage. Whilst well-designed graphic symbols apply to certain categories particularly those concerning safety, controls should not seek to inhibit the flamboyant use of advertising signs except with regard to certain building and dimensional constraints.

Retail Belt Design:

The main aim of the guideline is to ensure that signs are of a consistent language within the retail belt of the Grid Neighbourhood area and minimise signage clutters in public realm / shop front improvements.

Recommended:

- Portable Signs: The use of portable signs (i.e. sandwich boards or menu boards) in the retail belt of the Grid Neighbourhood can be permitted, subject to clearances for passage, to enhance visual interest;
- Directional Signage: It is imperative that the design, colour \geq and height of such are consistent throughout both the residential and retail areas; and
- The use of primary colours with clear signwriting should be \geq provided.

Acceptable:

- Flush wall signs should avoid covering any window or door \geq openings, or any prominent architectural features / detailing;
- Sign should avoid detracting from the desirable character of \geq the setting in which they are located; and
- This could be in line with the Public Creatives Study. \geq

To Be Avoided:

- \triangleright Signs extending over a pavement should be avoided;
- Signs should not be of solid and substantial material; \triangleright
- Signs should not obstruct pedestrian passage; \geq
- Pop up vinyl signs should be discouraged; \triangleright
- Signs extending over a pavement or carriageway are not recommended;
- Excessive or obtrusive artificial light facing the retail street \geq should be avoided;
- The display of any sign / advertising device shall not be \geq located close to any corner, bend, safety-zone or traffic sign; and
- \geq Signs that are likely to obstruct the view of traffic; or likely to unduly distract the attention of road users; or signs that in any way are likely to be a danger to the public are also not recommended.



Figure 4.23a

Directional and information signage helps to provide clear directions to appropriate destinations, services and community facilities.









Retail Sins No Projected Signage Allowed

Figure 4.24 Signage projecting over streets and pedestrian walkways should be avoided





Figure 4.26 Residential signage should make reference to the Public Creatives Study's recommendations





Figure 4.27 Within the retail belt, at grade, portable signs can be displayed to enhance visual interest.

Figure 4.28 Signage should be clear and concise and easily legible







Figure 4.29 Location of signage and wall mounted signs should follow a consistent language throughout the retail belt





Vehicle Zones Design:

The main aim of the guideline is to ensure that signs are of a consistent language within the vehicle zones of the Grid Neighbourhood area and unify the use of signage.

Recommended:

Signage should be clear and concise and easily legible.

Acceptable:

Directional and information signage helps to provide clear directions to appropriate destinations, services and community facilities.

To Be Avoided:

- Limit the use of directional signage to minimise visual clutter;
- Signs should not flash, revolve, move or contain mechanisms that give the impression of movement;
- Signage extending over a carriageway is discouraged in line with Transport Departments advice; and
- Directional signs that are likely to obstruct the view of traffic, or likely to unduly distract the attention of road users.

Remarks:

Sign lettering and background shall be in line with Hong Kong Planning Standards and Guidelines, Transport Department and any other official standards and consistent with recommendations of the Public Creatives Study.

Pedestrian Zone Design:

The main aim of the guideline is to ensure that signs are of a consistent language within the Grid Neighbourhood Area and unify the use of signage.

Recommended:

- Directional signage should be easy to locate and clearly identifiable;
- Should be located in a safe way without detracting the characteristics of the area; and
- Signage should be clear, concise and legible for easy navigation that would not cause confusion.

Acceptable:

- Directional and information signage helps to provide clear directions to appropriate destinations, services and community facilities;
- Street name signage should be of an appropriate size and scale and easily identifiable; and
- Signage that is unobtrusive and integrates with the surrounding landscape can promote visual variety and positively contribute to the built environment.

To Be Avoided:

- Signage should be appropriate to the streetscape in which they are located;
- Signage should not unduly dominate the visual landscape; and
- Large or freestanding billboard signs in the residential area.





Residential Areas Design:

The main aim of the guideline is to ensure that signs and projections are of a consistent language within the residential domain of the Grid Neighbourhood area.

Recommended:

- Signage should be erected at the entrance of residences to \geq mark the ingress / egress of the NBA area;
- Signage should be located in a safe way without detracting \geq the characteristics of the area:
- Signage should not project more than 300mm from the fence \geq wall to which it is affixed;
- Signage should be clear, concise and easily legible; \geq
- Have a maximum sign face area not exceeding 50% of the \triangleright total height of the fence fall and 1.2 metres in width; and
- \triangleright Any light associated with a sign does not create a nuisance to adjoining sites and light from signs is to be minimised and confined on site.

Acceptable:

- Signs which identify the name and number of residential \geq blocks are to be limited to flush fence wall signs;
- Signage should be designed, sited and integrated; and
- Street name signage should be of an appropriate size and scale and easily identifiable.

To Be Avoided:

- The creation of signage clutter;
- Intrusive or invasive signage; and
- Excessive illuminated signage.

Remarks:

Sign lettering and background shall be in line with Hong Kong Planning Standards and Guidelines, Transport Department requirements and any other official standards as well as the recommendations of the Public Creatives Study.



Figure 4.30

Figure 4.31

Signage that is unobtrusive and integrates with the surrounding landscape can promote visual variety and positively contribute to the built environment





4.9 Guidelines on Retail Design

Throughout retail history in Hong Kong, shopping has been profoundly interlinked with the evolution of urban places, place making and the city's identity. In the context of the KTDA it will also be important to ensure that the retail environment is not only consistent in quality and expression but that there is a consistent approach to design within each neighbourhood and component part of the development.

OBJECTIVE

It is essential that a high degree of comfort be achieved in the public domain. Buildings should provide shading at the ground level through design features especially in a humid city like Hong Kong. It is important to sets out broad design principles and parameters with an emphasis to establish the ground floor rhythm and proportions.



Figure 4.32



Figure 4.33a

Figure 4.33b



Figure 4.33c

Figure 4.33d

Examples of contemporary and historic colonnade design features in Hong Kong







Recommended:

- Natural Shading whereby additionally trees are used \geq whenever possible to shade sidewalk and storefront areas;
- Canopy A horizontal canopy can be applied to facades of \geq buildings, or supported on free-standing structures, to provide shade for pedestrians at ground level;
- Colonnade a covered, shaded space by means of a \geq colonnade, is generally built into the ground floor along primary retail frontages (Refer to Appendix E for more details).
- A continuous solar shading through the incorporation of \geq colonnade is recommended at the ground floor of all retail frontages within the KTDA, to be a minimum of 3 metres in width with a minimum clear height of 3.5 metres;
- Food and beverage at rooftop terraces to promote the \geq vibrancy of the retail belt; and
- A minimum spacing width of 8 metres between columns is \geq recommended.

Diagram "a" provides a reference as to the preferred type of treatments that can be utilised.





Figure 4.34 Historically, Hong Kong employed extensive use of colonnades within shop house development.









Figure 4.35 Illustration of the retail belt development in the Grid Neighbourhood - includes colonnade, covered walkway and open space edges. (Refer to Appendix E for more details)



Urban Design Guidelines for the Grid Neighbourhood





Acceptable:

- Brise-Soleil: Sun shading may be achieved at both ground and upper floor levels using a brise-soleil device cantilevered from the arcade. The recommended width of these devices shall be no more than one-third the height of the wall to which it is shading;
- The edges of the colonnade could be enhanced with hardscape landscaping to enable al fresco dining;
- The inclusion of softscape treatments to ensure a degree of aesthetic amenity is achieved;
- The area underneath the canopy is regarded as conventional pedestrian circulation space - similar to covered footbridges or waterfront areas;
- The option to extend a canopy over the pedestrian streets between the retail belt sites is also permissible; and
- A covered walkway extending outside the colonnade to the edge of the retail belt site boundary.

Diagrams "**b**" and "**c**" provide a reference as to the acceptable type of treatments that can be utilised.



To Be Avoided:

The colonnade should not have too many columns and the structural support should be such that it allows good visual permeability through to the façade.

Diagram "**d**" provides a reference as to the type of treatments that should be avoid.



EXPRESSED GROUND FLOOR

Remarks:

Low rise retail can adopt several forms and address shelter in a range of applications. In Kai Tak, colonnade development (a) is preferred to optimise shade and shelter. (Refer to Appendix E for more details)







4.10 Projection Cornice and Balcony

OBJECTIVE

Building projections can extend to include design feature such as cornices, eaves, sills, belt courses, bay windows, balconies, and other architectural features. These features should be designed in accordance with the standards set forth in related guidelines and ordinance. In residential areas projections such as vertical bay (projecting) cornice, bay windows, balconies (other than balconies used for primary access), and similar features that increase either the floor area of the building or the volume of space enclosed by the building above grade, is recommended in the Grid Neighbourhood and shall be limited as follows:

Recommended:

- Every balcony projected from an upper storey of a building shall have a clear height, upwards from the floor of such balcony, of not less than the clear height of the storey from which it projects;
- Vertical clearance shall be a maximum of 3.5 metres from the sidewalk is recommended along the perimeters of each development site fronting the Station Square and the Multipurpose Sports Complex;
- Every opening placed on an external wall above the ground floor of any building shall be protected by a barrier which shall be not less than 1.1 metres high and the lowermost 15 metres of such barrier shall be built solid;
- The maximum size of a balcony is recommended to be 3 sq.m; and
- The maximum length of each bay window shall be 4.5 metres at the line establishing the required open area, and shall be reduced in proportion to the distance from such line by means

of 45 degree angles drawn inward from the ends of each stipulated 4.5 metres dimension, reaching a maximum of 2.5 metres along a line parallel to and at a distance of 100mm from the line establishing the open area.

Acceptable:

- Projections may be placed within the curtilage of each site and serve to promote diversity of detail and variety on building façades; and
- The barrier provided should be so designed as to minimize the risk of persons or objects falling, rolling, sliding or slipping through gaps in the barrier, or persons climbing over the barrier.

To Be Avoided:

- No projection should overhang an NBA or a place for public circulation;
- No pipes (including water and drain pipes) or gutters, or the appurtenances of such pipes or gutters facing pedestrian street;
- No drying rack or supporting structure for an exposed airconditioning unit shall project over a pedestrian street of the Grid Neighbourhood;
- Avoid excessive projection of balconies, cornice and bay windows; and
- No eaves, cornices, mouldings or architectural projections shall project over a street more than 0.5 metre or at a height of less then 2.5 metres above the level of the ground.

Remarks:

Projection, cornice and balcony shall be in line with BO & Regulations of Hong Kong any other official standards which are applicable to the design.









Indicative layout of the residential development in the Grid Neighbourhood, including balconies, bay windows and courtyard design. Figure 4.36







The following illustrate the types of projections that can be used. Diagrams of suitable projections - including balcony and shading device designs that can be employed.



Figure 4.39



Figure 4.38

Projections, balconies and other detail features can contribute significantly to enhancing visual interest, architectural texture and variety.





Figure 4.40



Figure 4.42

Figure 4.41







4.11 External Works

External works refers to external structures that are not the main part of the building block structure. These include retaining walls, fence walls, awnings, balconies, pipes and lighting etc. Previously, the architecture of older buildings did not make provision for air conditioning units. The following provides some guidelines for external works that are to be considered for buildings facing the pedestrian street in the Grid Neighbourhood.

OBJECTIVE

Ensure external works avoid visual clutter on the façades of buildings facing the pedestrian street, the retail belt and the Station Square.

Recommended:

- \geq Fence Walls - any fence / boundary wall fronting the pedestrian streets shall be appropriately designed to allow for a porosity of not less than 50% of the surface area per metre length of such boundary wall or fence measured from 1 metre above the formation level of the pedestrian street; and
- Balconies should be screened appropriately where practical to \geq protect the privacy of neighbours. Timber lattices and other semi permeable screens can be utilised as long as their finish, form and treatment is consistent with the design of buildings.

Acceptable:

Reference should be made to the B(P)R as well as all other \geq relevant legislation and guidelines for acceptable parameters relating to screening of air conditioning units, clothes drying racks, pipes and gutters, levels of lumens etc.

To Be Avoided:

Visual clutter created by external works should be avoided. The location of equipment (lights, utility infrastructure etc.) within the pedestrian zone that causes visual or physical nuisance should also be avoided.





Figure 4.44a





Figure 4.44c

Figure 4.44d

Figure 4.44b

Untreated service, air conditioning, pipelines and utility infrastructure can significantly undermine the architectural and visual guality of development.







4.12 Fence Wall Design and Permeability

The character of street frontages in residential developments is often significantly affected by perimeter walls and fences. In order to enhance the visual permeability and porosity within the Grid Neighbourhood, some recommendations should be applied to the height, materials and transparency of fences determines the levels of visibility and outlook, informal surveillance, privacy, security and frontage activity. It is recommended that the porosity of the fence wall and related requirements should be specified in lease conditions. (Refer to **Appendix D** for more details)

OBJECTIVE

In line with the OZP of Kai Tak to enhance penetration of prevailing wind within individual development sites, greater permeability of fence walls be promoted.

Recommended:

All boundary walls and fences fronting pedestrian streets and vehicular streets shall be appropriately designed to achieve visual and physical porosity of not less than 50% of the surface area across their entire length per linear metre from 1 metre from the average formation level of adjacent roads / footpaths or land.



Figure 4.45 Example of 50% porosity fence wall design





Figure 4.46



Figure 4.47



Figure 4.48

Figure 4.49

Visually porous fence walls enhance openness and visual permeability



Figure 4.50 50% Porosity for fence wall above 1 metre on the general formation level of the pedestrian streets









Figure 4.51 Diagram provides different possibilities for the location of the fence wall

Acceptable:

- To engender an impression of openness and permeability through the application of different materials, front fences (and fences onto open space) should be highly visible and / or partially transparent; and
- The materials utilised in the construction of fence walls should be consistent with and respectful of the architectural form and treatment of buildings and shall also have specific regard to hard and soft landscape treatments employed in the public realm e.g wood.

The following illustrate the types of fence wall that are acceptable.



Figure 4.52 The fence walls along the promenade allow visually permeable from the waterfront and the materials are compatible with the surrounding environment





To Be Avoided:

- > The creation of fortress like environments:
- Designs that place private open space in the front setback are generally inappropriate as residents need for privacy cannot be reconciled with the need for a visual connection to the street;
- Avoid using invasive species to ensure plants will not become overgrown as it will reduce the porosity of the fence wall; and
- Planting which grows to a height above 1 metre is discouraged to maintain the porosity of the fence wall design.

The followings illustrate the types of fence wall that should be avoided.





Figure 4.53





Figure 4.55

4.13 Feature Lighting

By designing places that are well lit for pedestrians, places are made safer and unthreatening. However, care needs to be taken to avoid unnecessary light pollution. Lighting can be provided by overhead street lamps (sometimes best mounted on buildings), as well as from bollards, feature lights, building, façade lights and shop windows.

OBJECTIVE:

Activating coordinated lighting fixtures that deliver safe and comfortable lighting levels should be provided within the Grid Neighbourhood.

Recommended:

- Lighting (exterior building and landscape) shall be directed away from adjacent properties and roadways, and shielded as necessary. In particular, no light shall be directed at the window of a residential unit either within or adjacent to a project;
- Recommended to provide well-designed architectural and landscape lighting, all exterior lighting (building and landscape) should be integrated with the building design, create a sense of safety, encourage pedestrian activity after dark, and support retail belt's nightlife;
- The entire retail belt should develop a system or family of lighting with layers that contribute to the night-time experience, including façade downlighting, sign and display window illumination, landscape, and streetscape lighting;
- For domestic security lights at 150W lamp is considered adequate for the residential strips of the Grid Neighbourhood;
- Ensure lights are correctly adjusted so that they only illuminate the surface intended and do not throw light onto neighbouring property;





- Lighting within the 20 metres NBA should be of a pedestrian \geq scale and should generally not exceed 5 metres in height, with close regular spacing;
- Special feature lighting should only be provided along the \triangleright retail belt or open space areas;
- Architectural lighting should relate to the pedestrian can be \geq used to illuminate distinct buildings and create a more attractive evening environment.
- Landscape feature lighting should be of a character and scale \triangleright that relates to the pedestrian and highlights special landscape features;
- All exterior lighting should be shielded in the Grid \geq Neighbourhood especially in the residential area to reduce sky glow, glare and eliminate light being cast into the night sky. These are orange glow seen over towns and roads from upward light. This kind of intrusive over bright lighting or poorly directed lights may cause serious adverse effect onto neighbouring property, which affect the neighbours' right to enjoy their own property. A typical example would be an inconsiderately directed security light shining into a bedroom window; and
- Security lighting should be integrated into the architectural and \geq landscape lighting system. Security lighting should not be distinguishable from the Grid Neighbourhood's overall lighting system. Illuminate alleys for both vehicles and pedestrians.



Figure 4.56a

Figure 4.56c

Shielded exterior lighting and security lighting that is integrated into the architecture and landscape can help promote natural surveillance and add visual interest to the area whilst avoiding glare.

Acceptable:

- The shape and colour of lights can also generate threedimensional sculptures, transforming the perception of a place and dramatically painting its night landscape. Generally, the more light - the more encouragement of night-time activities which can be applied to the retail belt area;
- To reduce street clutter, lighting units could be mounted on \geq fence wall or buildings, although this will require easements to be secured from the property-owners;
- For domestic security lights ranging 150W to 290W is \geq considered acceptable for the Grid Neighbourhood;
- Security lights should be correctly adjusted so that they only \geq pick up the movement of persons in the area intended and not beyond;







- Direct light downwards in the residential area;
- Reduce the effects of glare main beam angles of all lights should be below 70 degrees; and
- For an all-night porch light a 9W lamp is more than adequate in most situations.

To Be Avoided:

- Poor Lighting Inconsiderate or incorrectly set lighting can produces glare which occurs when the over brightness of a light source against a dark background interferes with a person's ability to view an area or object, i.e. glare can conceal rather than reveal;
- Lighting that can detract from the architectural appearance of a building and even hide complex or attractive features;
- Lighting that can impact on the ecology and wildlife of an area, and affect the behavioural patterns of mammals, birds, insects and fish;
- The wasting of light is a waste of the energy which powers the light and is therefore a waste of resources and money;
- The use of uplighting should not be used to ensure light pollution is avoided. Through a composition of all available sources, a desirable level of lighting can be produced, bringing attention to some components but hiding others;
- Lighting obstacles such as planters or street furniture that have to be negotiated by drivers and by people on foot;
- For domestic security lights at 300W and above is considered excessive and would create too much glare reducing security; and
- Avoid installing equipment which spreads light above the horizontal.

Remarks:

The ambience of the street at night is wholly dependent on the quality of the lighting, which should be appropriate to the domestic setting. Lighting levels in the Grid Neighbourhood should be adequate to achieve good personal security at night. In accordance with the Building Environmental Assessment Method (BEAM) SA15 - Light Pollution the following suggestions apply:

Obtrusive light limitations for exterior lighting installations						
Environmental Zone	Sky Glow ULR (Max %)	Light into Windows Ev (Lux) (1)		Source Intensity I (kcd) (2)		Building Luminance Before curfew (3)
		Before curfew	After curfew	Before curfew	After curfew	Average L (cd/m²)
E1	0	2	1(4)	2.5	0.5(4)	0
E2	2.5	5	1	7.5	0.5	5
E3	5	10	2	10	1	10
E4	15	25	5	25	2.5	25

The definition of treatments for the four zones listed in the above table are as follows:

- E1: Intrinsically dark areas such as national parks
- E2: Low district brightness areas such as rural or small village locations

E3: Medium district brightness areas such as small town centres or urban locations

E4: High district brightness areas such as town / city centres with high levels of night-time activity

URL = Upward high ratio of the installation and is the maximum permitted percentage of luminaire flux for the total installation that goes directly into the sky.

Ev = Vertical illuminance in Lux normal to window glazing

I = Light intensity in Kilo-Candelas

L = Luminance in Candelas per square metre







Figure 4.57 Diagram "a" provides an example of recommended treatments that can be utilised



Figure 4.58 Diagram "b" provides a reference as to the acceptable type and level of lighting that can be utilised









Figure 4.59 Diagram "c" a provides a reference with respect to an acceptable type of lighting



Figure 4.60 Diagram "d" a provides a reference as to the example of very poor lighting







4.14 Greening

In order to realize the planning vision of creating a "Green Web for Sustainable Development" in Kai Tak, it is important to maximise every greening opportunities and promote high quality landscape design in the Grid Neighbourhood.

OBJECTIVE:

To enhance the environmental quality of the urban space through introducing high level of greening and upgrade the landscape quality by planting more greenery within the Grid Neighbourhood. The streetscape within the Grid Neighbourhood will be well reference with the rest of the Kai Tak Development which emphasis has been given to greening both at ground level and on rooftops, exceeding the 30% overall greening ratio required.

Recommended:

- Particular attention at the pedestrian level and to mitigate the heat island effect;
- Landscaping within the NBA It is recommended that a minimum of 50% of the NBA includes soft landscaping;
- Greening shall be provided within the 3 metres building setback within each site located along pedestrian streets. Notwithstanding this requirement a maximum 3 metres greening free access shall be permitted where it abuts a pedestrian access to a site measured from the pedestrian street level. Calculation should be shown in the submission drawing by developer(s);
- Planting native plants instead of non-native varieties;
- Greening shall be provided within the 3 metres building setback within each site located along pedestrian streets;

- Greening shall be provided within the 5 metres building setback within each site located along the edges of the proposed Kai Tak River; and
- The overall minimum greening ratio shall be 30% of the site area. The greening ratio within the pedestrian zone shall be equivalent to 20% of the site area and the greening ratio at roof shall be equivalent to 20% of the roof area.















Acceptable:

- As a general guideline, at least 1,200mm of soil depth should be provided at grade to enable tree planting within areas designated for greening. A minimum of 300mm soil depth is typically provided at roof areas designated for extensive greening. The actual soil depths nevertheless shall depend on the types of planting selected as well as constraints of a specific site;
- Whilst recognising the need for greening along the nonbuilding areas, it is also important that greening free access is provided where it abuts a pedestrian street to enable pedestrian entry and exit points;
- The design of landscape treatment needs to fit in with the Kai Tak Master Plan. The effects of plant size and form at maturity, seasonal changes, textures and colours all need to be considered in the design;
- Plant growth rates and the length of time required for planting to reach the desired visual screening or aesthetic effect should also influence plant selection;
- Allocate adequate space for landscape treatment. Narrow strips of land for verge and medians will generally result in poor landscape outcomes;
- Greenery areas could be at ground level, podium level, sky gardens, slopes, vertical walls, roof of the buildings, etc. For the purpose of calculating countable greenery areas should be built in or fixed permanently to buildings with recommended minimum soil depths of 1,200mm for trees, 600mm for shrubs / climbers / bamboos and 300mm for grass / groundcovers. Continuous planting areas instead of fragmented areas should be designed, where practicable. For proprietary greening systems on roofs, sky gardens, vertical greening, etc. the soil provision is subject to performance based criteria; and

The inference of the overall greening ratio requirement is that greening can be provided at all levels (including roof level) and in the form of green walls (i.e. vertical greening). Vertical greening should not however be deductible from the minimum extent of greening that is to be provided at grade.

To Be Avoided:

- Poor landscape treatments that incorporate complicated designs are expensive and difficult to maintain; poor plant selection and soil quality; low success rates; planting blocking views for drivers or pedestrians; and poor maintenance arising from poor accessibility for contractors;
- Avoid using invasive species to ensure adverse environmental impacts do not occur;
- Minimise the need for benching as it can be visually jarring and creates areas that are hard to maintain; and
- Cut and fill batters should be feathered into the natural landform and geometric profiles avoided unless it is a deliberate design feature.

Remarks:

- Appropriate control / enforceable requirements that have been incorporated by Lands Department through land lease and land allocation documents.
- * Interpretation of greening ratio will be based on PNAP APP-152 and applicable to all project sites within the Kai Tak Development according to Planning Department.





5.0





5.0 OVERVIEW

5.1 Conclusion

The preceding sections have outlined design guidelines that are specifically advocated for the pedestrian zone within the Grid Neighbourhood. They are intended to be applied in a flexible manner and their interpretation, and application should not be rigid but encourage creative solutions.

The core aim of the UDGM is to assist architects, designers and planners etc. with the information and support they need to achieve a consistent high level of urban design throughout the Grid Neighbourhood and helping to meet with the identified design control parameters.

It is intended that they can assist in meeting with the aspirations of the people who live and work in the Grid Neighbourhood, and serve to inform both first and last impressions for visitors.

In summary, the UDGM for the Grid Neighbourhood is a manual aims to raise the quality and consistency of the design of streets and spaces in the Grid Neighbourhood in Kai Tak and widen the range and quality of the purposes they serve by:

- Introducing a more standardised approach to their design and appearance; and
- Improving consistency and coordination of the planning and execution of works.

RS CESS RESTRICTED TO TRAFI /120 45 1H/ 1H2 45 1H3 GIC 112 Tat Pile 113 /70 EMSD HEADQUARTERS ADDITIONAL DISTRICT LEGEND G/IC Q COM **Grid Neighbourhood Sites**

Figure 5.1 Site Plan of the Grid Neighbourhood



Remarks: Compliance with all relevant Guidelines and Regulations is necessary.

Appendices





Low-rise Residential Blocks

LC1 - The low-rise residential blocks shall be three storeys to six storeys and shall not exceed a maximum BH of 25mPD.

LC2 - Depending on site configuration, individual sites will have different design parameters. A minimum of 10% of the total domestic GFA should be allocated for low-rise residential block development to guarantee provision.





Appendix A - Figure 1









LC3 - Except with the prior written consent of the Director of Lands, the façades of the low-rise residential blocks erected or to be erected on the lot shall abut on at least 30% of the blue building lines and the red building lines (other than the portions of the red building lines that fall within the Non-Building Area reserved for the View Corridor). Refer to Appendix C for the disposition of blue building lines and red building lines.

TYPICAL SITE LAYOUT FOR GRID NEIGHBOURHOOD

High-rise Residential Blocks

LC4 - The total site coverage of high-rise residential blocks shall not exceed 17%.



Appendix A - Figure 3

P.62





LC5 - Except with the prior written approval of the Director of Lands, any buildings or group of buildings erected or to be erected on the lot shall not have any projected façade length of 60 metres or more. Notwithstanding this, at least one façade of each high-rise residential block erected or to be erected on a lot shall abut a blue building line or a red building line. The Cumulative Projected Façade Length of any building or group of buildings erected or to be erected or to be erected on the lot shall not exceed 65 metres.

This special condition shall only apply to high-rise residential blocks erected or to be erected on the lot. For the avoidance of doubt, the projected façade length of low-rise residential blocks shall not be taken in account when calculating the Cumulative Projected Façade Length referred to.

In calculating the projected façade length of a Cumulative Projected Façade Length the gap between any two buildings shall be taken into account and the Director of Lands' decision as to the calculation shall be final and binding on the purchaser.







Conforming Scenario – with Cumulative Projected Façade Length Equal <65m



Appendix A - Figure 5







Non-Conforming Scenario – with Cumulative Projected Façade Length Equal >65m



Appendix A - Figure 6

P.65





LC6 - The continuous projected façade length of any building or group of buildings erected or to be erected on the lot shall not exceed 40 metres.

This Special Condition shall only apply to high-rise residential blocks erected or to be erected on the lot. For the avoidance of doubt, the projected façade length of low-rise residential blocks shall not be taken in account when calculating the Continuous Projected Façade Length referred to.

In calculating the projected façade length of a continuous projected façade length the gap between any two buildings shall be taken into account and the Director of Lands' decision as to the calculation shall be final and binding on the purchaser.

Conforming Scenario – with Cumulative Projected Façade Length Equal ≤ 40m



Appendix A - Figure 7





For the Low Zone (below 25mPD) of High-rise and Low-rise Residential Blocks

LC7 - For any building or group of buildings having a Continuous Block Length exceeding 60 metres, an opening or openings with an area of at least 185 square metres in the aggregate shall be provided at both or any of the following locations:

- Below the level of 25 metres above the Hong Kong Principal Datum (mPD) of the low-rise residential blocks; or
- Below the level of 25 metres above the Hong Kong Principal Datum (mPD) of the high-rise residential blocks.

Non-Conforming Openings







LC8 - Retail development shall not be more than two storeys and 15mPD in height;

LC9 - The retail development shall account for at least a PR of 0.1, save for Site 1K3 which has a PR of 0.2; and

LC10 - A 3 metres building setback within which there shall be 3.5 metres clear space extending upwards from ground level shall be applied along the perimeter of each development site fronting Station Square and the Multi-purpose Stadium Complex. It is recommended that the full retail façade frontage shall aspect to Station Square.





Residential

Retail PR \geq 0.1 of Total PR of the Site



(OZP prescribes a maximum height of 15mPD for 'shops and services' and 'eating places')

LC8 and LC10

Appendix A - Figure 10

LC9

Appendix A - Figure 9



P.68





LC11 - All boundary walls and fences fronting pedestrian streets shall be appropriately designed to achieve visual and physical porosity of not less than 50% of the surface area across their entire length per linear metre from 1 metre above the general formation level of pedestrian streets.



Appendix A - Figure 11



Appendix A - Figure 12

Appropriately designed to achieve visual and physical porosity of not less than 50% of the surface area







LC12 - Greening shall be provided within the 3 metres building setback within each site located along pedestrian streets.



Appendix A - Figure 13



Appendices





LC13 - Greening shall be provided within the 5 metre building setback within each site located along the edges of the proposed Kai Tak River.



Appendix A - Figure 14






Appendix A: Lease Conditions for the Grid Neighbourhood

LC14 - The overall minimum greening ratio shall be 30% of the site area. The greening ratio within the pedestrian zone shall be equivalent to 20% of the site area and the minimum greening ratio at roof shall be equivalent to 20% of the roof area.





Appendix A - Figure 15a

Appendix A - Figure 15b







Appendix A: Lease Conditions for the Grid Neighbourhood

Lease Conditions Appertaining to NBAs

LC15 - No specific mention has been made in the ES of the OZP in relation to development conditions that should be applied to NBAs. This is considered to be an omission and as such it is proposed that the following be applied to the NBA:

- Except with the prior written consent of the Director of Lands, no building or structure shall be erected or constructed within the NBAs except the followings:
 - Boundary walls or fences or both, provided that if the boundary walls or fences or both shall front onto pedestrian street or path, such boundary walls or fences or both shall be erected or constructed in all respects to the satisfaction of the Director of Lands to achieve visual and physical porosity of not less than 50% along the horizontal plane per linear metre from one metre above the general formation level of the adjacent pedestrian street or path; and
 - Landscaping features and associated facilities.





Appendix B: Definitions

Abut / Abutting - To abut shall mean to have all or any part of a building adjoining or touching a blue building line or a red building line and the meaning of an abutting blue building line or an abutting red building line shall be construed accordingly.

Building Line - Defines the perimeter within which the development is to be contained (see **Appendix C**). The precise coordinates of the specified building lines will be further outlined in the lease plan for ease of reference. Blue building line and red building line are proposed and shall mean any of the following lines more particularly shown and indicated on the plan annexed hereto (**Appendix C**).

Continuous Projected Façade Length for Towers - The Continuous Projected Façade Length of buildings shall mean the maximum projected façade length of buildings along the entire extent of an abutting blue building line or an abutting red building line in the same direction of that abutting blue building line or that abutting red building line.

Cumulative Projected Façade Length for Towers - The Cumulative Projected Façade Length of a building or building or group or groups of buildings shall mean the total projected façade length of a building or buildings or group or groups of buildings along the entire extent of an abutting blue building line or an abutting red building line in the same direction of that abutting blue building line or that abutting red building line.

Continuous Block Length (below 25mPD) - A Continuous Block Length shall be the Cumulative Projected Façade Length of a building or group of buildings below the level of 25 metres above the Hong Kong Principal Datum (mPD) projecting against a red building line.

Definite Heights for the Residential Towers - No building shall exceed, excluding plant and lift motor rooms, the height in mPD prescribed by the prevailing OZP. Minor relaxation of such height restrictions will only be permissible upon successful application to the Town Planning Board.

Fence Wall Porosity - Is the extent of visual and physical porosity along the horizontal plane across their entire length per linear metre from one metre from the general formation level of adjacent pedestrian streets / footpaths or land. Specifications are imposed to ensure that perimeter walls do not constitutive physically dominant or visually adverse elements within the built environment and enclose spaces to the extent that visual permeability of affected.

Group of Buildings - Any two or more buildings shall be treated as a group of buildings if the shortest horizontal distance between any two buildings erected or to be erected on the lot is less than 15 metres, regardless the building considered as low-rise residential block or high-rise residential block.





Greening - Can be interpreted within the broader definition of landscape and generally refers to the appearance of the land cover. It includes components such as shapes, textures and colours, and their combinations to create distinctive patterns and pictures – HKPSG Chapter 4. Greening refers to the inclusion of soft landscape treatments at a specific given ratio on a horizontal or vertical plane within a given site and around, on, and upon a building within that site. Horizontal greening is typically applied at ground or roof level. Vertical greening refers to greening applied using a range of techniques to the vertical plane of a building (i.e. upon the façade).

Provision of Consultancy Services for Preparation of an Urban Design Guidelines and Manual for Kai Tak Development Office of the Civil Engineering and

Development Department Quotation Ref.: KLN/2011/12

Non-Building Areas (NBAs) – NBAs shall be delineated on the plan as defined under the OZP. No building or structure shall be permitted to be erected or constructed unless prior written consent is obtained from the Director of Lands except for the followings:

- Boundary walls or fences or both, provided that if the boundary walls or fences or both shall front onto pedestrian street path, such boundary walls or fences or both shall be erected or constructed in all respects to the satisfaction of the Director of Lands to achieve visual and physical porosity of not less than 50% along the horizontal plane per linear metre from one metre above the general formation level of the adjacent pedestrian street or path; and
- Landscaping features and associated facilities.

Openings - An opening or openings shall mean an enclosed or covered visually unobstructed space or spaces which extend through the entire depth of such part or parts of the low-rise residential blocks or the high-rise residential blocks below the level of 25 metres above the Hong Kong Principal Datum provided that each opening shall be provided above the ground floors of the low-rise residential blocks or the high-rise residential blocks and provided further that the minimum horizontal planar dimension of each opening shall not be less than 3 metres in length and the minimum vertical planar area of each opening shall not be less than 9 square metres.

Projected Façade Length - In calculating the projected façade length for the Continuous Projected Façade Length or Continuous Projected Façade Length the gap between any two buildings shall be taken into account.

Low-rise Residential Block - Any building or buildings erected or to be erected on a lot for private residential purposes and not exceeding a height of 25 metres above the Hong Kong Principal Datum. Each low-rise residential block shall have a minimum of three storeys but shall not exceed six storeys, excluding any floor or space below the ground level.

High-rise Residential Block - Any building or buildings erected or to be erected on the lot for private residential purposes other than the low-rise residential blocks.

Urban Design Manual - The manual shall be regarded as a document that illustrates best design practice and a palette of treatments for buildings and the spaces that surround them to illustrate the quality and appearance of buildings and spaces that are expected within the KTDA. The manual has no legal effect.









Appendix C: Proposed Building Lines Disposition



Remarks:

- * Unless specified on the diagram, the building facing the boundary is to be setback 3m
- Building lines facing the retail belt is to be setback 15m from the boundary line (retail belt zone)

Appendix C - Figure 1







RETAIL FRONTAGES

Owing to the changes to the building regulations and market taste, retail frontages in Hong Kong take many forms. These range from retail incorporated into colonnaded developments, the adoption of canopies or projections or in many cases provided no weather and shade protection and retail malls with different floor to ceiling height provision. (Refer to **Appendix E** for more details). In the context of the KTDA it will be important to ensure that the retail environment is not only consistent in quality and expression but that there is a consistent approach to design within each neighbourhood and component part of the development.

In the Grid Neighbourhood low rise retail development will delineate the northern perimeter of the neighbourhood with major aspects to the Station Square. The square will constitute one of the showpiece development areas within the KTDA. The following sections address:

- The design approaches that should be considered with respect to shopfront design;
- The component parts that are paramount in retail design; and
- The manner in which the retail units will be secured i.e. security shutters.

OBJECTIVE

Key factors that need to be considered with respect to design, retail continuity (in terms of consistency of architectural approach and design) and materials utilised in shop front design should include the following: The design of the shopfront should incorporate easy and convenient access to the premises for everyone, including mobility impaired customers. The following design principles are advocated in connection with retail provision within the Grid Neighbourhood:

COLONNADES

As mentioned, the design vision for retail development within the Grid Neighbourhood is to incorporate colonnades at the front of each retail block. These are to be a minimum depth of 3m and a minimum height of 3.5 metres. Columns supporting structure over the colonnade may be located within the space allocated to pedestrian circulation beneath the colonnade.

The space occupied by columns should, however, be as nominal as is practicably possible. Colonnades shall be used solely for the purposes of public circulation and shop-window viewing. Any al fresco dining shall be outwith the curtilage of the colonnade and within the 3 metre hardscaped front setback to each retail lot. In design terms retail colonnades should respect the scale and proportion of building elevations. Double storey colonnades have advantages for light penetration. Their provision should be considered with respect to established developments to ensure continuity of architectural rhythm. The component parts that are paramount in retail design:

- The design approaches that should be considered with respect to shopfront design; and
- The manner in which the retail units will be serviced.







SIGNAGE MATERIALS

It is objective to ensure materials used for the signage in retail, shopfront and colonnade construction are of good quality, durable and in keeping with chromatic themes and textures devised for the Grid Neighbourhood and the character of early phases of development that may pre-exist later developments. In general, the number and type of materials and colours used should be kept to a minimum.







Appendix D - Figure 1a

Traditional Retail Shopfronts



Appendix D - Figure 2a Contemporary Retail Shopfronts

Appendix D: Retail Design Parameters



Appendix D - Figure 1b



Appendix D - Figure 2b



Appendix D - Figure 1c



Appendix D - Figure 2c



Autos





Appendix D - Figure 3

Appendix D - Figure 4



Appendix D - Figure 5

Architectural features of retail premises



Urbia





COLOUR IN SIGNAGE DESIGN

The colour palette of signage design should reflect the context of the area, i.e. a modern colour palette will be acceptable in a modern shopping precinct although garish 'day-glow' colours are unlikely ever to be acceptable. Rich, dark colours with a matt finish often look very good, leaving window displays and lettering to provide accents. Whatever the context, colour schemes adopted should be subtle and blend harmoniously with the built and landscape environment.

RETAIL FRONTAGE DESIGN

In addition to the colonnades, a retail shopfront is typically made up of a number of elements which form a frame for the shop entrance and shop window. Each has their own practical and visual function (see illustrations using typical retail frontages in Hong Kong). The main components include:

- Fascia: The fascia provides the space within which the name and business of the shop is generally displayed;
- Pilasters: Separate each shop from its neighbours and define the width of the shopfront;
- Stallriser: The stallriser provides protection at ground level and provides a solid base to the shop front;
- Architrave: this comprises the moulded frame around a door or window;
- Corbel: Pilaster heads often project to form a bracket or corbel. These can either be a decorative feature or a means to allow the fascia to be fixed at an angle looking down to the pavement;
- Cornice: The cornice defines the top of the shop front and gives protection from the weather; and

Mullion: A vertical post or upright dividing a window or opening into two or more lights.

FASCIAS

OBJECTIVE

To create a distinctive and individual style through the design of fascia.

Recommended:

- Retain or reinstate cornices as the terminating element of the fascia; they should be weatherproofed;
- Restrict the width of the fascia within the pilasters and corbels, or line up with the window frame below where corbels are missing;
- Limit the content of the fascia (and other signage as outlined earlier) to contain the name and / or trade of the premises together with the street number of the premises and a telephone number if necessary; and
- Ensure the lettering is well spaced and cover a maximum of 75% of the width of the fascia. The colour scheme should complement the shop window frames. The lettering style should be simple and bold.

To Be Avoided:

- Avoid intermittent, flashing or moving displays; and
- > Avoid glossy, highly reflective, luminous colours and materials.





Window Frame and Doors Including Architraves

OBJECTIVE

To promote visual interest to the public realm and encourage distinctive individual shop units and promote universal design that cater for people who use wheelchairs; those who cannot walk easily, people who are deaf, people who are blind or visually impaired, the elderly, children, and people with pushchairs, prams or trolleys, etc. to access all retail premises.

Recommended:

- Use transparent glazing even in non-retail units;
- Use Glass (laminated glass) to ensure public safety and as a security measure;
- Large areas of glazing should incorporate visual "stops", (alerting people who are visually impaired to the presence of the glass) at least 150mm high, across the width of the glazed area, at two heights: 850-1,000mm and 1,400-1,600mm above ground level, to ensure visibility against the background seen through the glass;
- Use colour, interesting shapes and proportions, quality materials and lively window displays, doors and windows can add visual interest to the public realm and produce distinctive individual shop units;
- Recess entrances to shopfronts to avoid doors opening outwards over external public circulation spaces;
- Entrance door with a width of 900mm for adequate clear opening and wheelchair access;
- Slightly recessed the plane of shop windows from the pilasters to provide depth and shadow and a variation in the plane;
- Levelled thresholds at entrances should be level; and

Include a kicking plate and door handles that are easy to operate, positioned 1,000mm above ground floor for safety purposes and to prevent wear and tear.

Acceptable:

- Mechanised ventilation units / air conditioner condensers create clutter and should be located to the rear of the property;
- ATM machines that are satisfactorily integrated into the shopfront as a whole and incorporate a substantial litter bin / receipt collector;
- Entrance doors should provide a minimum clear opening width of 830mm for wheelchair access on a flat fronted shop; and
- Changes in level within the shop unit by ramps no steeper than 1:14 and a minimum of 1,200mm wide.

To Be Avoided:

- The extensive use of opaque, frosted, reflective, mirrored or tinted glass is discouraged as they detract from the intent to promoting an active frontage;
- Solid or partly infilled frontages are not considered desirable in any circumstance;
- Deeply recessed windows or completely open frontages are not considered acceptable in visual and functional terms; and
- Ramps to entrances are discouraged.







SIGNAGE DESIGN

OBJECTIVE

To ensure that all signage achieves a high level of design quality in terms of its design and its relationship to the architectural design of buildings and the character of area. To ensure that all signage do not contribute to excessive visual clutter or visual disorder and detract the amenity and visual appearance of the area.

Recommended:

- Only one projecting sign per each retail premise or unit;
- Projecting signs installed at fascia level, at either end of the fascia panel; and
- Projecting signs that are modest in size and not exceeding dimensions 600x600x100mm.

Acceptable:

- Projecting signs contained within the curtilage of the retail colonnade;
- Signs that are internally illuminated and with the ability to adjust the light intensity;
- Signs that promote an active street front;
- Signs containing the shop name;
- Wall mounted signs that are restricted to the sides of external; columns supporting the overhanging structure of each colonnade;
- All signs should be non-illuminated and of a hanging or bracketed design. A slim sign written panel will avoid visual clutter and ensure visual separation from the main retail fascia; and

- Notices or signs may be displayed on any premises to advertise the fact that a person, partnership or company is carrying on a profession, business or trade at those premises. Such signs should avoid being garish or obtrusive;
- Seasonal special / illuminated signage for use in seasonal promotions, marketing festivities; and
- Banner Signs: Banner signs may extend up to six inches into the public right-of-way when located eight feet or more above grade of said right-of-way. Banners may extend over public property and may extend across a public street and shall be subject to all related parties, laws and ordinances.

To Be Avoided:

- Excessive and cluttered of signage;
- Projecting signs that extend beyond the external face of the retail colonnade abutting the pedestrian realm;
- Illuminated projecting signs;
- Flashing signs;
- Signs that are externally illuminated e.g. floodlight and neon signs, etc.;
- Signs that are fixed to pilasters;
- Signs that obstruct visual access to the activities within the retail premises
- Signs that are related to specific commercial product or services;
- Fascia made of acrylic sheeting, Perspex, aluminium or plastic; and
- Wall mounted signs mounted on the external face of colonnade supporting fronting the public realm (i.e. the outward expression of each building).







SECURITY SHUTTERS

Solid metal shutters result in an unattractive environment out of shopping hours. They have a negative visual impact on the general quality of streetscape and are accordingly discouraged. Any security device should have a minimum effect on the architectural features and appearance of a building or the character of the streetscape.

Recommended

Transparent roller shutters that permit visual access to the shopfront design out of shopping hours.

Acceptable:

- Perforated metal roller shutters that permit visual access to the shopfront design out of shopping hours; and
- Metal roller shutters that promote visual interest e.g. applied with chromatic treatments that responds to the design character and / or context of the area.

To Be Avoided:

Solid metal roller shutters with no chromatic treatments or visual interests and / or obstruct visual access to the design of the shopfront.

OVERVIEW

Retail provision will provide an important and very visible face to the Grid Neighbourhood. It is intended that the above parameters will serve to circumscribe a range of design approaches and considerations that can be utilised by developers in realising retail development of the highest quality.











Retail Belt Paving

Recommended:

- A range of tones and textures can be applied to paving in the retail areas. Heavily trafficked commercial retail areas might for example, adopt darker textures that could be contrasted by illuminated window displays (e.g. as paving treatments around the landmark in Central);
- Dropped kerbs should be provided for universal access at road crossings;
- The retail outlets should be appropriately setback from the boundaries adjacent to station square and the pedestrian streets. This area can be paved appropriately and enable al fresco dining to be utilised in this space; and
- Firm and slip resistant tactile paving should be used. Blister Paving should be constructed of durable and long-lasting materials such as concrete, steel and metal.

Acceptable:

- Colour contrast can be used to direct access to retail outlets, and to enhance pedestrian safety. As visitors approach the street crossings, a difference in colour tone can help to indicate they are moving off the footpath / walkways from one space to another; and
- The selected colour tone should enhance the physical quality of the retail environment and encourage shoppers to return.

To Be Avoided:

 Any paving material with a polished finish due to potential slip hazards;

- Non-durable tactile paving materials such as rubber should be avoided; and
- Colour contrasts should avoid creating the appearance of barriers to pedestrian movement, to ensure a walking friendly environment.





Appendix D - Figure 7

Appendix D - Figure 8



Appendix D - Figure 9

A range of tones and textures can be applied to the retail areas. It is suggested that darker tones are applied to differentiate retail areas from residential areas.



Appendix D - Figure 10



Appendix D- Figure 11







PAST EXAMPLES



Appendix E - Figure 1

Location: Johnston Road, Wan Chai Column Size: 660mm x 660mm Column Space: 5m c/c



Location: Cheung Sha Wan Column Size: 800mm x 800mm Column Space: 6m to 8m c/c



Location: Central Column Size: 900mm x600mm Column Space: 4.5m c/c

Appendix E- Figure 3



Location: Queen's Road East, Wan Chai Column Size: 600mm to 800mm Column Space: 5m c/c

Appendix E- Figure 4

Appendix E - Figure 2







ELEVATION



Appendix E - Figure 5



Appendix E: Colonnade Design for Kai Tak Development by Architectural Services Department





SECTION



Appendix E - Figure 6



Appendix E: Colonnade Design for Kai Tak Development by Architectural Services Department





SECTION



Appendix E - Figure 7



Appendix E: Colonnade Design for Kai Tak Development by Architectural Services Department





AXONOMETRIC SECTION



Appendix D - Figure 8

COLONNADE PERSPECTIVE





Appendices





ELEVATION



Appendix D - Figure 10

Appendix E: Colonnade Design for Kai Tak Development by Architectural Services Department

P.91

Appendices





PERSPECTIVE



Appendix D - Figure 11

Appendix E: Colonnade Design for Kai Tak Development by Architectural Services Department



Appendices





Colonnade Design

A retail building with colonnade design is proposed to be provided within the areas designated for "Shop and Services" and "Eating" uses only ("Retail Belt") in the latest approved Kai Tak Outline Zoning Plan No. S/K22/6. A colonnade shall be a covered, unobstructed space at the ground level with supports for structure at equal spacing along the full length of the colonnade abutting the lot boundary facing the Station Square and / or the Multi-purpose Sports Complex, where applicable. It is assumed that building(s) shall be two-storey building(s) with non-domestic accommodation provided on 1/F directly above the colonnade on G/F.



P.93

Appendic