

# Inner Madinah

## Architectural Design Guidelines



### Application Handbook - Low-rise Buildings





Inner Madinah Architectural Character Area



## Contents

<b>I</b>	<b>Introduction .....</b>	<b>3</b>
<b>II</b>	<b>Low-rise buildings.....</b>	<b>3</b>
<b>III</b>	<b>How to use the guidelines.....</b>	<b>4</b>
<b>1.0</b>	<b>Start pages.....</b>	<b>5</b>
	Traditional style .....	5
	Transitional style .....	6
	Contemporary style .....	7
<b>2.0</b>	<b>Compositional rules.....</b>	<b>8</b>
<b>3.0</b>	<b>Architectural elements.....</b>	<b>10</b>
	Traditional elements .....	10
	Transitional elements .....	11
	Contemporary elements .....	12
<b>4.0</b>	<b>Colors and materials.....</b>	<b>13</b>
<b>5.0</b>	<b>Patterns.....</b>	<b>14</b>
<b>6.0</b>	<b>Public realm .....</b>	<b>15</b>
<b>7.0</b>	<b>Dos and don'ts .....</b>	<b>16</b>
<b>8.0</b>	<b>Worked examples.....</b>	<b>17</b>
	Traditional mixed-use worked example .....	17
	Transitional mixed-use worked example .....	18
	Contemporary mixed-use worked example .....	19
<b>A.0</b>	<b>Appendix .....</b>	<b>20</b>
	Low-rise apartment buildings .....	20
	Traditional apartment worked example .....	21
	Transitional apartment worked example .....	22
	Contemporary apartment worked example .....	23





# Application Handbook - Low-rise Buildings

## Inner Madinah - Architectural Design Guidelines



## I Introduction

The purpose of this document is to help designers and builders of low-rise mixed-use buildings apply the architectural character of Inner Madinah to their projects.

Madinah is the second holiest city in Islam, located at the confluence of three valleys and part of a larger network of pilgrimage. Its cultural and religious history make this particular architectural character of special importance. It is characterized by the expression of Hejazi Architecture combined with materials of the surrounding landscape and the shape of its urban form.

The traditional architecture of Inner Madinah is marked by the use of lava stone at the base of the building, with white rendered walls above, and the prevalent use of roshan, often in stacked or horizontal pairs. These remarkable elements were a showcase of craftsmanship and a mark of prestige, and singularly the most important feature of the character. The historic urban fabric of low-rise houses, approximately two to three stories tall and sharing party walls created a continuous streetscape that can be easily repurposed for the

needs of low-rise buildings. Moreover, the active public realm they created can be an inspiration for designers today.

This handbook is a supplement to the Inner Madinah Architectural Design Guidelines. Designers are recommended to read the full version of the Architectural Design Guidelines to gain a comprehensive understanding of all aspects of the character. Please also consult regulating plans that may describe which styles are applicable to your project area.

To access these resources please use the links below



Link to Full  
Guidelines



Link to Regulating  
Plans



Example of elevation of Low-rise mixed-use building in Inner Madinah

## II Low-rise buildings

Low-rise buildings form a large proportion of the built environment across the Kingdom, and strongly influence people's experience and the character of a place.

Ranging from 1-4 stories, typically in a linear arrangement along roads and accommodating a mix of uses, low-rise buildings are a common building type found everywhere. Addressing their design is an important part of the implementation of the architectural design guidelines.

This building type emerges predominantly from contemporary development patterns: larger rectangular plots of land typically accessed by car from a street on one edge, and interfacing with adjacent properties on the other boundaries. These buildings tend to exhibit a horizontal, rectilinear form and a clear orientation to the street, with distinct sides and backs. This introduces inherent differences from historical building types that are the source of architectural characters, and is a primary challenge to their implementation, to be addressed in the compositional rules of this handbook.

### Low-rise mixed-use buildings

Low rise mixed-use buildings are usually subdivided into multiple units that often create a diversity to the facade, particularly where the ground floor use is commercial or retail.

The establishment of a consistent character for the whole building is another important objective of this handbook. This extends to the neighborhood: the consistent character of the streetscape, and the support of the public realm in conjunction with other low-rise buildings is a high priority.

### Low-rise apartment buildings

Where low-rise buildings are primarily comprised of apartments, the relationship between public and private spaces become paramount. In addition to the low-rise building application guidelines, please also observe the guidelines focused on apartment buildings, in Appendix A.

**This handbook will implement the Inner Madinah Architectural Design Guidelines in low-rise building types by harmonizing the needs described above with the requirements of the guidelines.**

### III How to use the guidelines

Follow these instructions to create a building that supports the architectural character of Inner Madinah.

- 1 Consult the regulating plan to determine which architectural style options (Traditional, Transitional, or Contemporary) are permitted at your project location.
- 2 Select from the permitted architectural styles, and review the list of general guidelines on the style start pages (Pages 5, 6 and 7).
- 3 Assess your design according to each of the following guideline categories:

- **Composition:** do your building massing and facade design follow compositional principles? (Section 2)
- **Elements:** do the individual parts of your building properly interpret the architectural character for your style? (Sections 3)
- **Materials and colors:** does your building use acceptable materials and colors in the proportions defined? (Sections 4)
- **Patterns:** do any elements show inspiration from local craftsmanship and culture? (Section 5)
- **Public realm:** does your building contribute to the quality and character of the street and the neighborhood? (Section 6)
- **Dos and don'ts:** have you avoided common mistakes that lower the quality and character of buildings? (Section 7)
- **Worked examples:** these are illustrations showing one possibility of how the guidelines can be applied, provided for inspiration. (Sections 8)

- 4 Throughout the document, **mandatory guidelines** for each character style will be marked with the following symbols. Where a guideline is mandatory for all styles, all three symbols will be present:

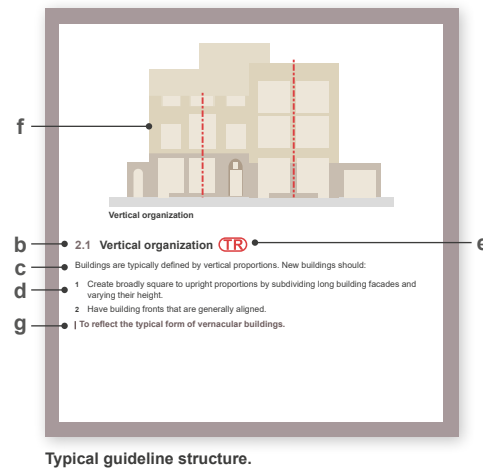
**TR** Mandatory for Traditional style

**TN** Mandatory for Transitional style

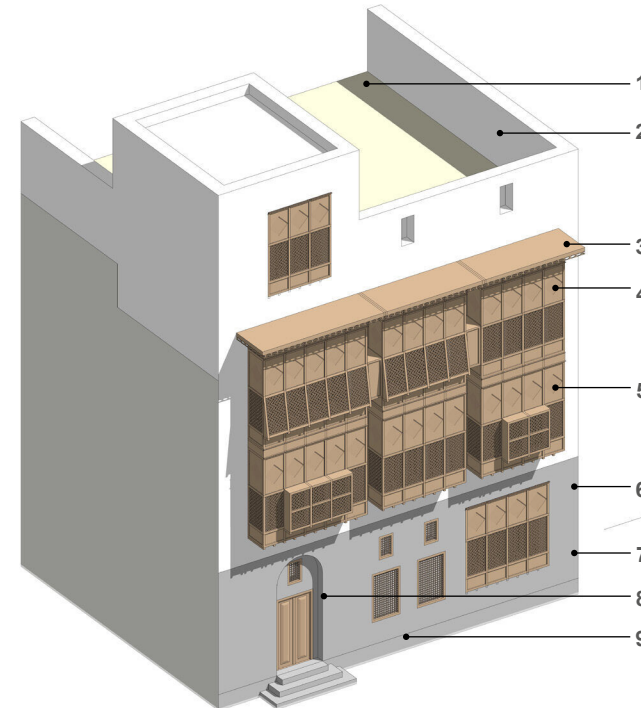
**C** Mandatory for Contemporary style

- 5 Guidelines are organized according to the following parts:

- a. Section heading:** identifies the general guideline category
- b. Header:** identifies the guideline topic
- c. Description:** expands upon the topic
- d. Instructions:** provides rules and design principles to observe
- e. Mandatory symbol:** indicates high priority guidelines that must be complied with
- f. Illustration:** non-regulatory diagrams that help visually explain guidelines
- g. Rationale:** objective of the guideline, to allow for alternative approaches to fulfillment



The illustration below is a general character reference model taken from the Inner Madinah Architectural Design Guidelines and is labeled to indicate the summarized key features of the Inner Madinah architectural character.



#### Key features:

- 1 Flat occupiable roofs
- 2 Tall parapets screening from the street with small rectangular openings, on axis with windows below.
- 3 Frame-like walls with rectangular openings, shaded by timber elements and shutters.
- 4 Upper level single roshans and horizontal roshans.
- 5 Ornamental screens based on geometric patterns
- 6 Broad, closely aligned building frontages, forming orderly streets.
- 7 Wall finishes combine off-white render with dark gray basalt stone.
- 8 Arched doorway openings.
- 9 Projecting off-white mortar joints used for decorative variety in stonework.



#### Traditional **TR**

The most conservative and faithful effort at interpreting traditional architectural form.

START AT PAGE 5



#### Transitional **TN**

A style suitable to help create gradual transitions between areas of different character style.

START AT PAGE 6



#### Contemporary **C**

This style keeps the essence of the architectural character that makes it distinct from contemporary architecture of other places.

START AT PAGE 7



# 1.0 Traditional style

Start here to review the general guidelines of the traditional style low-rise buildings.

Traditional style buildings should observe as many architectural design guidelines as strictly and as faithfully as possible. The traditional style is suitable for projects near heritage assets and parts of town closer to historic cores.

Note - guideline numbers below correspond to sections 2 through 5 of this Handbook and are not sequential: only the key features relevant to the application of the Traditional style to low-rise buildings are shown on this page.

## COMPOSITIONAL RULES

### 2.1 Vertical organization

To offset the horizontality of low-rise buildings, facades should introduce vertical breaks. Vertical breaks may include changes in height, shifts in wall setback from property line, or changes in local symmetry.

### 2.3 Framed facades

Building facades must have 'Opening' proportions of 45% or less of the total front facade area, or 15% or less of the total side facade area. 'Opening' area includes the full extent of timber screens, roshans, windows, doors and storefronts.

Side facades should be subordinate to front facades, with no shop fronts, predominantly smaller/narrower windows and screens, and fewer /narrower roshans than front facades.

### 2.4 Projecting elements

Use a minimum of one compound roshan on the front facade. A compound roshan is comprised of two to six individual roshans connected into pairs or triplets through continuous eaves, privacy screens, or base panels.

If side facades have roshan, they should be thinner in width than those on front facade.

### 2.5 Base details

Storefront openings should be of appropriate scale to complement the facade composition. They should not be too large and should avoid the use of large expanses of glass.

The ground floor should have a rusticated base of gray basalt cladding and off-white pointing, from the ground between 0.6m and 4m high. The base may step higher at main entrances for special emphasis.

### 2.6 Stepping roofscape

All facades should have an asymmetric composition. The parapet line and roof silhouette must be flat and rectangular. There should be one or more steps in the rooflines and their parapets. The stepping may accommodate habitable rooms or outdoor space.

Rooflines should be stepped at least once on each facade and consider the incorporation of rectangular openings.

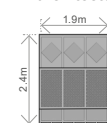


Traditional low-rise mixed-use axonometric

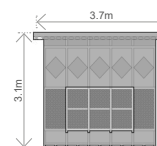


Traditional low-rise mixed-use front elevation

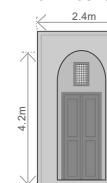
Key Traditional architectural features



3.2 Window



3.2 Roshan



3.1 Entrance door

## TRADITIONAL ELEMENTS

### 3.1 Doors and entrances

One residential door should be special, with a combination of surrounding wall recess, arched top or clerestory vent, with a symmetrical traditionally crafted design.

Shop front openings should have proportions of approximately 3:2 (width:height) and use traditional vertical shutters with exterior wood finish.

### 3.2 Windows and openings

Windows on the main facade must have at least 3 levels of hierarchy, typically comprised of roshan, large flush rectangular screened window and small flush rectangular screened window. These should, where feasible, be made using traditional craftsmanship. More contemporary glazing systems may sit behind the screens and shutters.

General proportions of windows are from 1:1 to 1:2 (width:height). to upright. Do not use long horizontal strip windows.

Avoid locating windows directly across from existing windows on neighboring buildings.

### 3.3 Rooftop elements

Front facades must have one rooftop element with a step up from the main parapet line. The volumes which step up may be enriched by having recessed rectangular elements within the parapet.

Where accessible roof space is provided, high parapet walls with inset privacy screens should be used to protect the privacy of inhabitants and to mitigate the overlooking of neighbors between different residential dwellings.

### 3.4 Other elements

Walls accommodating secondary entrances, which meet the public realm should be made of the same material as the base of the building.

Vehicular gates should use vertical shutters with pattern, finish, and panel proportions compatible with traditional storefront shutters.

## COLORS, MATERIALS AND PATTERNS

### 4.1 Colors

The building facades should be the natural colors of the predominant wall finishes (off white, timber, and gray basalt). Accent colors can be used. Please see section 4.0 for further detail about the use of accent colors.

### 4.2 Materials

The primary wall surface should be a matte-finish off-white plaster, limewash, or similar, and be continuous from above the gray base to the top of the parapet (see 2.5 Base detail).

Windows, doors, and shutters should be a dark timber finish.

### 5.0 Patterns

Timber screen patterns and door panel patterns should utilize existing historical patterns of Inner Madinah.

# 1.0 Transitional style

Start here to review the general guidelines of the transitional style low-rise buildings.

Transitional style buildings help integrate traditional architecture with the larger urban context and steer design towards new interpretations of traditional form.

Note - guideline numbers below correspond to sections 2 through 5 of this Handbook and are not sequential: only the key features relevant to the application of the Transitional style to low-rise buildings are shown on this page.

## COMPOSITIONAL RULES

### 2.1 Vertical organization

To offset the horizontality of low-rise buildings, facades should introduce vertical breaks. Vertical breaks may include changes in height, shifts in wall setback from property line, or changes in local symmetry.

### 2.3 Framed facades

Building facades must have 'Opening' proportions of 45% or less of the total front facade area, or 15% or less of the total side facade area. 'Opening' area includes the full extent of timber screens, roshans, windows, doors and storefronts.

Side facades should be subordinate to front facades, with no shop fronts, predominantly smaller/narrower windows and screens, and fewer /narrower roshans than front facades.

### 2.4 Projecting elements

Use a minimum of one compound roshan on the front facade. A compound roshan is comprised of two to six individual roshans connected into pairs or triplets through continuous eaves, privacy screens, or base panels.

If side facades have roshan, they should be thinner in width than those on front facade.

### 2.5 Base details

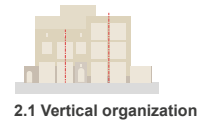
Storefront openings should be of appropriate scale to complement the facade composition. They should not be not very large and should avoid the use of large expanses of glass.

The ground floor should have a rusticated base of gray basalt cladding and off-white pointing, from the ground between 0.6m and 4m high. The base may step higher at main entrances for special emphasis.

### 2.6 Stepping roofscape

All facades should have an asymmetric composition. The parapet line and roof silhouette must be flat and rectangular. There should be one or more steps in the rooflines and their parapets. The stepping may accommodate habitable rooms or outdoor space.

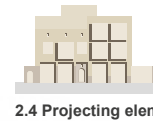
Rooflines should be stepped at least once on each facade.



2.1 Vertical organization



2.3 Framed facades



2.4 Projecting elements



2.5 Base detail

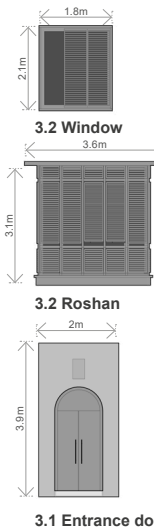


Transitional low-rise mixed-use axonometric



Transitional low-rise mixed-use front elevation

#### Key Transitional architectural features



## TRANSITIONAL ELEMENTS

### 3.1 Doors and entrances

One residential door should be special, with a combination of surrounding wall recess, arched top or clerestory vent, with a simple symmetrical design.

Shop front openings should have proportions of around 1:2 (width:height) and use traditionally inspired vertical shutters.

### 3.2 Windows and openings

Windows on the main facade must have at least 3 levels of hierarchy, typically comprised of a traditionally inspired roshan, large flush rectangular screened windows and small flush rectangular screened window with glazing set behind. The designs could be simpler, less detailed, interpretations of traditional elements.

General proportions of windows are around 1:1 (width:height). Long horizontal strip windows should not be used.

Avoid locating windows directly across from existing windows on neighboring buildings.

### 3.3 Rooftop elements

Front facades must have one rooftop element with a step up from main parapet line with a minimum height difference of 1.2m. Rectangular recesses can be installed in parapets at second floor level.

Where accessible roof space is provided, protect the privacy of inhabitants with high parapet walls and privacy screens in openings. Pergolas may also be utilized to mitigate overlooking of neighbors and between different residential units and provide further shading.

### 3.4 Other elements

Walls accommodating secondary entrances, which meet the public realm should be made of the same material as the base of the building.

Vehicular gates should use vertical shutters with pattern, finish, and panel proportions compatible with transitional storefront shutters.

## COLORS, MATERIALS AND PATTERNS

### 4.1 Colors

The building facades should be the natural colors of the predominant wall finishes (off white, timber, and gray basalt). Accent colors can be used. Please see section 4.0 for further detail about the use of accent colors.

### 4.2 Materials

A mix of traditional and contemporary materials should be used. See Chapter 4.0 for more details.

Windows, doors, and shutters should be a dark finish.

### 5.0 Patterns

Timber screen and door panel patterns should be inspired by existing historical patterns of Inner Madinah.

# 1.0 Contemporary style

Start here to review the general guidelines of the contemporary style low-rise buildings.

Buildings of this style should aim to retain the essence of the architectural character by skillful and knowledgeable interpretation of traditional forms into contemporary expression.

Note - guideline numbers below correspond to sections 2 through 5 of this Handbook and are not sequential: only the key features relevant to the application of the Contemporary style to low-rise buildings are shown on this page.

## COMPOSITIONAL RULES

### 2.1 Vertical organization

To offset the horizontality of low-rise buildings, facades should introduce vertical breaks. Vertical breaks may include changes in height, shifts in wall setback from property line, or changes in local symmetry.

### 2.3 Framed facades

Building facades must have 'Opening' proportions of 45% or less of the total front facade area, or 15% or less of the total side facade area. 'Opening' area includes the full extent of timber screens, roshans, windows, doors and storefronts.

Side facades should be subordinate to front facades, with no shop fronts, predominantly smaller/narrower windows and screens, and fewer /narrower roshans than front facades.

### 2.4 Projecting elements

Use a minimum of one compound roshan on the front facade. A compound roshan is comprised of two to six individual roshans connected into pairs or triplets through continuous eaves, privacy screens, or base panels.

If side facades have roshan, they should be thinner in width than those on front facade.

### 2.5 Base details

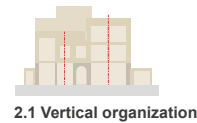
Storefront openings should be of appropriate scale to complement the facade composition. They should avoid the use of very large expanses of glass.

The ground floor should have a rusticated base of gray basalt cladding and off-white pointing, from the ground between 0.6m and 4m high. The base may step higher at main entrances for special emphasis.

### 2.6 Stepping roofscape

All facades should have an asymmetric composition. The parapet line and roof silhouette must be flat and rectangular. There should be one or more steps in the rooflines and their parapets. The stepping may accommodate habitable rooms or outdoor space.

Rooflines should be stepped at least once on each facade.



2.1 Vertical organization



2.3 Framed facades



2.4 Projecting elements



2.5 Base detail

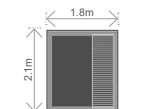


Contemporary low-rise mixed-use axonometric

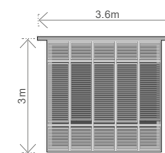


Contemporary low-rise mixed-use front elevation

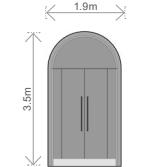
#### Key Contemporary architectural features



3.2 Window



3.2 Roshan



3.1 Entrance door

## CONTEMPORARY ELEMENTS

### 3.1 Doors and entrances

One residential door should be special, with a combination of deep lined arched wall recess with arched symmetrical door design.

Shop front openings should have proportions of around 3:4 (width:height) and use contemporary shutters that are abstracted from the traditional form.

### 3.2 Windows and openings

Windows on the main facade must have at least 3 levels of hierarchy, typically comprised of roshan, large flush rectangular screened window and small flush rectangular screen. The screens and roshans should be abstractions of the traditional form. Glazed windows should be recessed into the wall to allow for a sill detail.

General proportions of windows should be around 1:1 (width:height). Long horizontal strip windows are not appropriate.

Avoid locating windows directly across from existing windows on neighboring buildings.

### 3.3 Rooftop elements

Front facades must have one rooftop element with a step up from main parapet line. Shadow gap details or openings are appropriate where a parapet meets a facade.

Where accessible roof space is provided, the privacy of inhabitants should be protected with high parapet walls and privacy screens in openings. These should help to mitigate overlooking of neighbors and between different residential dwellings.

### 3.4 Other elements

Walls accommodating secondary entrances, which meet the public realm should be made of the same material as the base of the building.

Vehicular gates should use vertical shutters with pattern, finish, and panel proportions compatible with contemporary storefronts.

## COLORS, MATERIALS AND PATTERNS

### 4.1 Colors

The building facades should be the natural colors of the predominant wall finishes (off white, timber, and gray basalt). Accent colors can be used. Please see section 4.0 for further detail about the use of accent colors.

### 4.2 Materials

Contemporary materials can be utilized that have the same language as the traditionally used materials such as matte-finish off-white plaster or limewash (see section 4.2 for more details).

Windows, doors, and shutters should be a dark finish.

### 5.0 Patterns

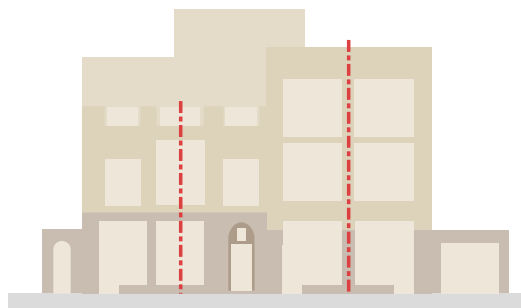
Timber screen and door panel patterns can be created by abstracting existing historical patterns of Inner Madinah.



## 2.0 Compositional rules

The following guidelines provide compositional rules for building design with the Inner Madinah architectural character, adapted for the Low-rise Building type.

The rules apply generally to all three styles (traditional, transitional, and contemporary), with mandatory requirements for specific styles identified by the relevant symbol.



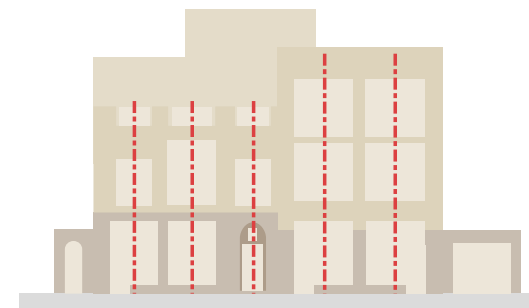
Vertical organization

### 2.1 Vertical organization

Buildings are typically defined by vertical proportions. New buildings should:

- 1 Create broadly square to upright proportions by subdividing long building facades and varying their height.
- 2 Have building fronts that are generally aligned.

**| To reflect the typical form of vernacular buildings.**



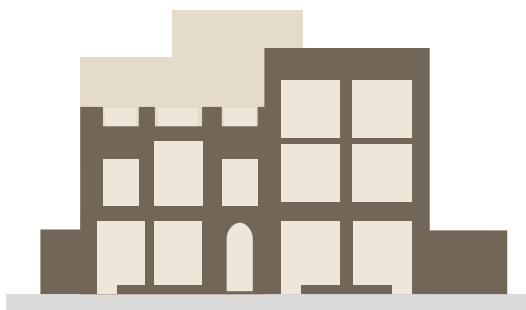
Legible bays

### 2.2 Legible bays

The legible organization of bays is a dominant feature which characterizes vernacular design. New buildings should:

- 1 Align windows and doors above each other.
- 2 Express these modules through the horizontal organization of roshans, particularly in compound groupings (for example in a grid of 2x2 or 2x3).

**| To emphasize the regular patterning and legible bays created by the distinctive compound arrangement of roshans in vernacular buildings.**



Framed facades

### 2.3 Framed facades

Street facades have a frame-like character. New buildings should:

- 1 Have a relatively high window to wall ratio (refer to each of the style pages for guidance about ratios: pages 5-7).
- 2 Incorporate rectangular openings infilled with timber screens and shutters.

**| To create a rhythm of framed facades in the urban streetscape of Inner Madinah.**



Projecting elements

### 2.4 Projecting elements

**TR** Roshans are typically found on the upper floors. New buildings design should consider the following compositional arrangements:

- 1 Join roshans into arrangements with neighboring elements.
- 2 Join roshans horizontally with extended eaves, occasionally.
- 3 Join roshans vertically with infilled connecting panels, occasionally.
- 4 Consider that, whilst often arranged in a grid, occasionally skip a roshan within the grid.

**| To use roshan in a rich and varied manner.**



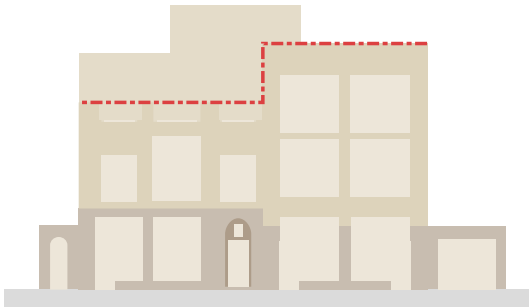
Base detail

### 2.5 Base details

Ground level wall finishes should express a strong relationship with the land. New buildings should:

- 1 **TR** Express a heavy dark base for the ground floor of buildings. Traditional style buildings should use dark gray basalt stone cladding.
- 2 Transitional and contemporary buildings can use materials that closely resemble the basalt stone in terms of the texture, color and appearance.
- 3 Contrast base with off-white render on walls above the base level.
- 4 Use arches to accentuate primary entrances.

**| To maintain a connection with the landscape and typical vernacular materials.**



Stepping roofscape

2.6 Stepping roofscape

- Roof and parapets form a distinctive component in Inner Madinah. The design of new buildings should:
- 1 Incorporate stepping roof lines which can incorporate habitable rooms.
  - 2 Occasionally provide outdoor rooms, enclosed by tall parapets which are flush with the building line.
  - 3 Consider the incorporation of rectangular openings or recesses in parapets, on axis with windows below.

| To create the stepping roofscape characteristic of Inner Madinah.



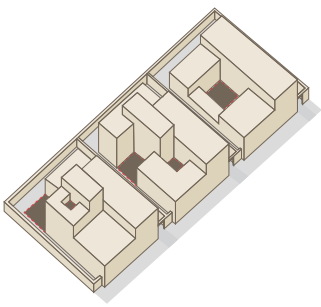
Continuous streetwalls

2.7 Continuous streetwalls

The overall streetscape created by neighboring buildings is important for the establishment of architectural character

- 1 Individual buildings should share a family resemblance when seen next to their neighbors. However, neighboring buildings should have a pleasing variety of height, architectural elements and roofscapes.
- 2 In plan, primary building facades should generally align.
- 3 Neighboring boundary walls should align or transition in an attractive way.

| To ensure that individual buildings work as a group to establish the architectural character and create a more attractive streetscape.



Courtyards and lightwells

2.8 Courtyards and lightwells

Courtyards and lightwells are being encouraged across the country as a sustainable and useful architectural feature that can provide better outdoor amenity and interior lighting for building users residents. Courtyards and lightwells:

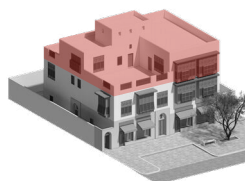
- 1 Should be of useful dimensions for outdoor amenity.
- 2 Generally be enclosed on three or four sides by buildings or walls belonging to the same property; where a wall is shared with a neighbor, privacy should be maintained in the location and placement of openings and accessible spaces.
- 3 May have a more open facade design than external walls, subject to privacy requirements and protection from solar radiation.

| To encourage the use of courtyards and lightwells.

intentionally blank

## 3.0 Traditional elements

The elements illustrated are examples and should not limit other possible design solutions that follow guideline principles and historic precedents. Element measurements are illustrative and provided to indicate general proportions only.



Top



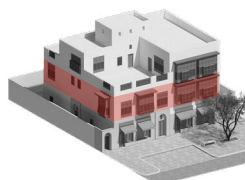
Flat parapet



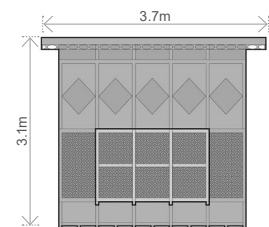
Parapet with notches



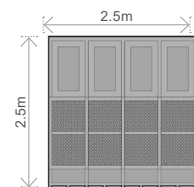
Parapet with integrated fence



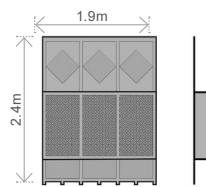
Middle



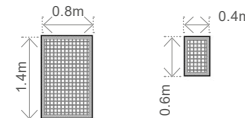
Roshan



Roshan



Roshan



Ventilation openings

### 3.3 Rooftop elements

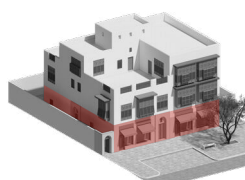
- 1 Habitable roof spaces range from simple rooms to roof or terrace areas protected by high walls or parapets, sometimes with timber infill screens.
- 2 Maintain a distinct rectilinear form with groups combining to form staggered roofscape.
- 3 Should feature flat parapets which are flush with the primary building line and integrated into the building's facade sometimes with recessed rectilinear forms.
- 4 Accommodate accessible roof space with functional areas concealed from the street by 'shaburah' or small openings in parapets.

To contribute to the rooftop character of Inner Madinah settlements.

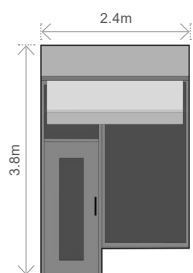
### 3.2 Windows and openings

- 1 Provide rectilinear vertical windows.
- 2 Incorporate simple, geometric patterns.
- 3 Provide upper level single roshans and horizontal roshans.
- 4 Include upward openings and decorative roshan eaves to further accentuate projecting features.
- 5 Embrace rich and varied traditional roshan detailing across single facades, including repeating and alternating elements within an overall sense of symmetry.

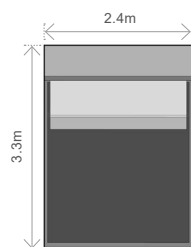
To respond to climate considerations and provide an aesthetic treatment which is distinct to the local area.



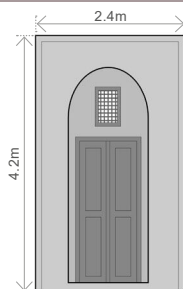
Base



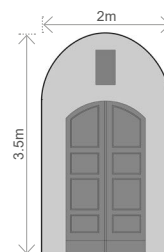
Retail entrance



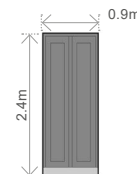
Retail entrance



Private entrance



Private entrance

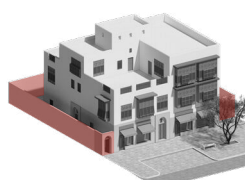


Private entrance

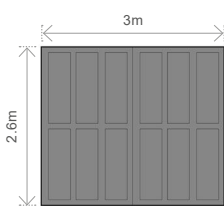
### 3.1 Doors and entrances

- 1 Clearly define primary entrances as part of a well-ordered street frontage. Door framing and recessing can add depth and create a sense of entry.
- 2 Incorporate arch tops in all primary doors with modest ornamentation.
- 3 Consider the articulation of entrances and openings using wood and stone. Where possible use local materials.

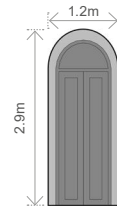
To create suitable thresholds within the base which is part of a well-ordered, coherent street scene and responds to local character.



Other elements



Vehicular access gate



Pedestrian access gate

### 3.4 Other elements

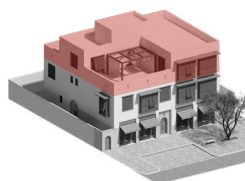
- 1 In addition to the elements above, buildings often incorporate off-white mortar joints used for decorative variety in stonework.
- 2 Boundary walls should utilize materials consistent with the building and be from the local material palette, if possible. Gates, portals and openings in the boundary walls should be complementary to the building's detail.

To embed other elements which are frequently part of the overall composition of buildings

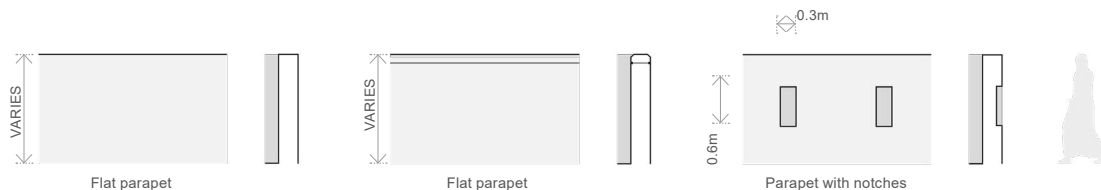


## 3.0 Transitional elements

The elements illustrated are examples and should not limit other possible design solutions that follow guideline principles and historic precedents. Element measurements are illustrative and provided to indicate general proportions only.



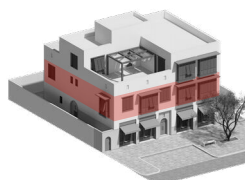
Top



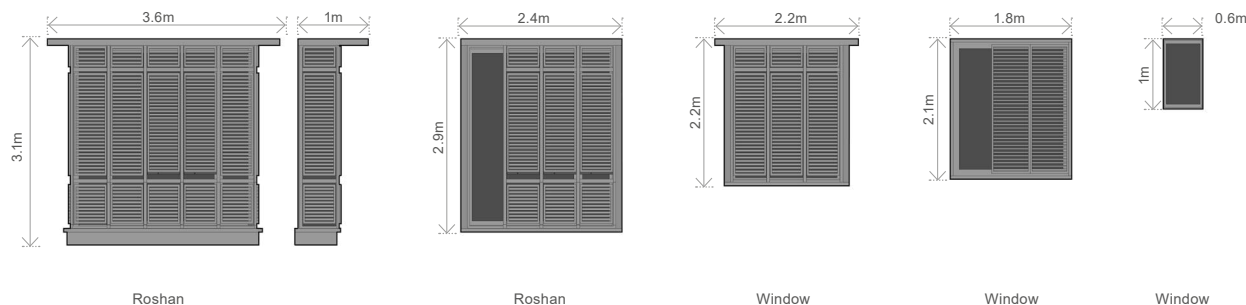
### 3.3 Rooftop elements

- 1 Habitable roof spaces range from simple rooms to roof or terrace areas protected by high walls or parapets, sometimes with timber infill screens.
- 2 Maintain a distinct rectilinear form with groups combining to form staggered roofscape.
- 3 Should feature flat parapets which are flush with the primary building line and integrated into the building's facade sometimes with recessed rectilinear forms or shadow gap details.
- 4 Accommodate accessible roof space with functional areas concealed from the street by 'shaburah' or small openings in parapets. Pergolas can be incorporated for further shade and privacy.

To contribute to the rooftop character of Inner Madinah settlements.



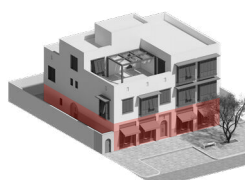
Middle



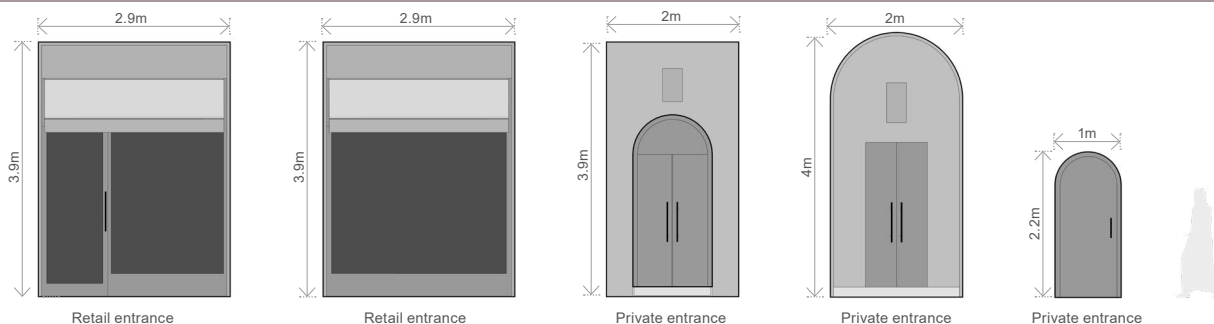
### 3.2 Windows and openings

- 1 Provide rectilinear vertical windows.
- 2 Incorporate simple, horizontal shutters.
- 3 Provide upper level roshans / horizontal linked roshans.
- 4 Include upward opening roshan eaves to further accentuate projecting features.
- 5 Embrace more contemporary detailing across single facades.

To respond to climate considerations and provide an aesthetic treatment which is distinct to the local area.



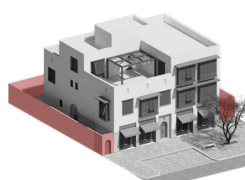
Base



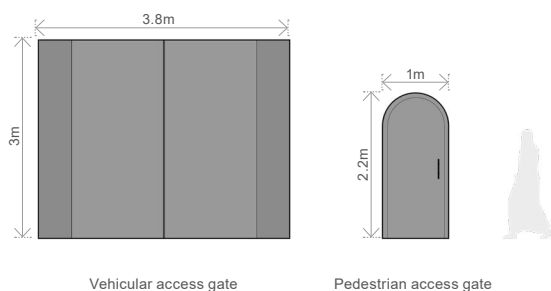
### 3.1 Doors and entrances

- 1 Clearly define primary entrances as part of a well-ordered street frontage. Door framing and recessing can add depth and create a sense of entry.
- 2 Incorporate arch tops in all primary doors with modest ornamentation.
- 3 Consider the articulation of entrances and openings using wood and stone. Where possible use local materials.

To create suitable thresholds within the base which is part of a well-ordered, coherent street scene and responds to local character.



Other elements



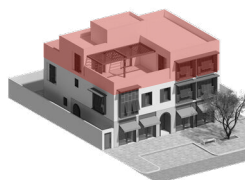
### 3.4 Other elements

- 1 In addition to the elements above, buildings often incorporate off-white mortar joints used for decorative variety in stonework.
- 2 Boundary walls should utilize materials consistent with the building and be from the local material palette, if possible. Gates, portals and openings in the boundary walls should be complementary to the building's detail.

To embed other elements which are frequently part of the overall composition of buildings

## 3.0 Contemporary elements

The elements illustrated are examples and should not limit other possible design solutions that follow guideline principles and historic precedents. Element measurements are illustrative and provided to indicate general proportions only.



Top



Flat parapet



Flat parapet



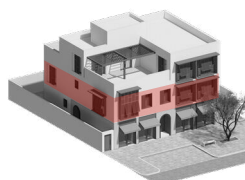
Flat parapet



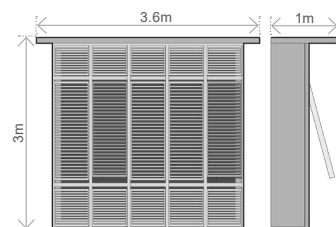
### 3.3 Rooftop elements

- Habitable roof spaces range from simple rooms to roof or terrace areas protected by high walls or parapets.
- Maintain a distinct rectilinear form with groups combining to form staggered roofscape.
- Should feature flat parapets which are flush with the primary building line and integrated into the building's facade sometimes with rounded tops or shadow gap details.
- Accommodate accessible roof space with functional areas concealed from the street by 'shaburah' or small openings in parapets. Contemporary pergolas can be incorporated for further shade and privacy.

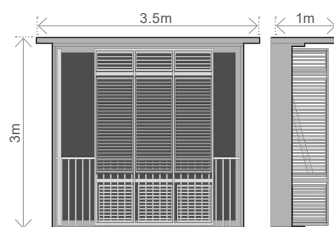
To contribute to the rooftop character of Inner Madinah settlements.



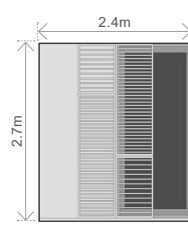
Middle



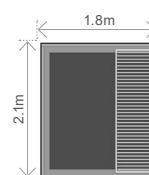
Roshan



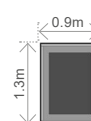
Roshan



Window



Window

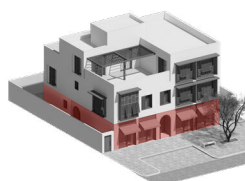


Window

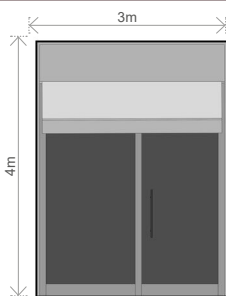
### 3.2 Windows and openings

- Provide rectilinear vertical windows.
- Incorporate simple, horizontal shutters.
- Provide upper level single and horizontally linked roshans.
- Include upward opening roshan eaves as well as sliding elements to further accentuate projecting features.
- Embrace contemporary detailing across facades.

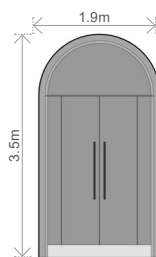
To respond to climate considerations and provide an aesthetic treatment which is distinct to the local area.



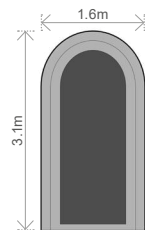
Base



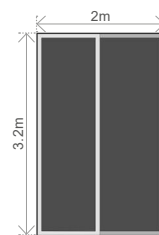
Retail entrance



Private entrance



Private entrance

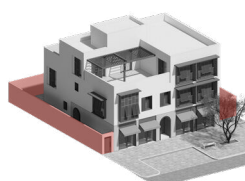


Private entrance

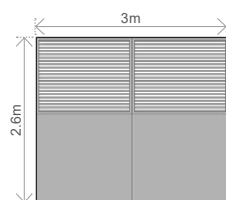
### 3.1 Doors and entrances

- Clearly define primary entrances as part of a well-ordered street frontage. Door framing and recessing can add depth and create a sense of entry.
- Incorporate arch tops in all primary doors with modest ornamentation.
- Doors should have minimal detail and be symmetrical.
- Consider the articulation of entrances and openings using wood and stone, or using other materials which are inspired by local materials where possible.

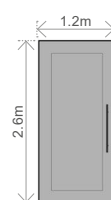
To create suitable thresholds within the base which is part of a well-ordered, coherent street scene and responds to local character.



Other elements



Vehicular access gate



Pedestrian access gate

### 3.4 Other elements

- In addition to the elements above, buildings often incorporate off-white mortar joints used for decorative variety in stonework.
- Boundary walls should utilize materials consistent with the building and be from the local material palette, if possible. Gates, portals and openings in the boundary walls should be complementary to the building's detail.

To embed other elements which are frequently part of the overall composition of buildings

# 4.0 Colors and materials

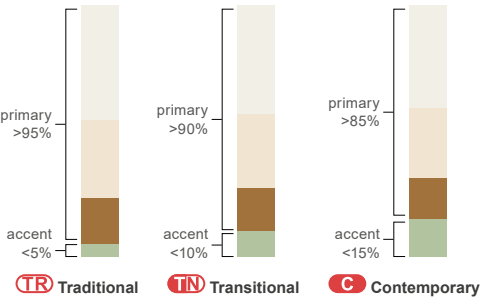
## 4.1 Colors

The color palette of Inner Madinah is closely linked to traditional building materials such as stone, wood and off-white render. The surrounding landscape is also an important influence, particularly the basalt colors of the Harrat fields.

- 1 **TR** The base should have a darker band of color, or of similar in town to basalt lava stone, changing to rendered light off-white walls above the ground level.
- 2 Generally use natural colors and finishes for the main body of the building with occasional use of brighter colors for accents on specific elements.
- 3 A maximum percentage of accent color, measured as an approximate percentage of the total facade area, is allowed for each style:
  - **TR** <5%
  - **TN** <10%
  - **C** <15%
- 4 The use of reflective glass of bright colors in windows should be avoided as it may contrast the local architectural character.

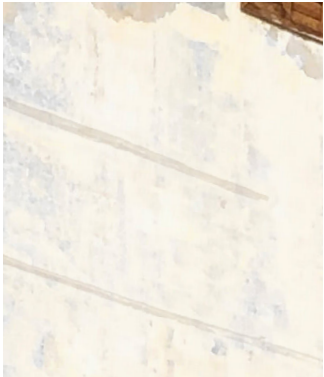
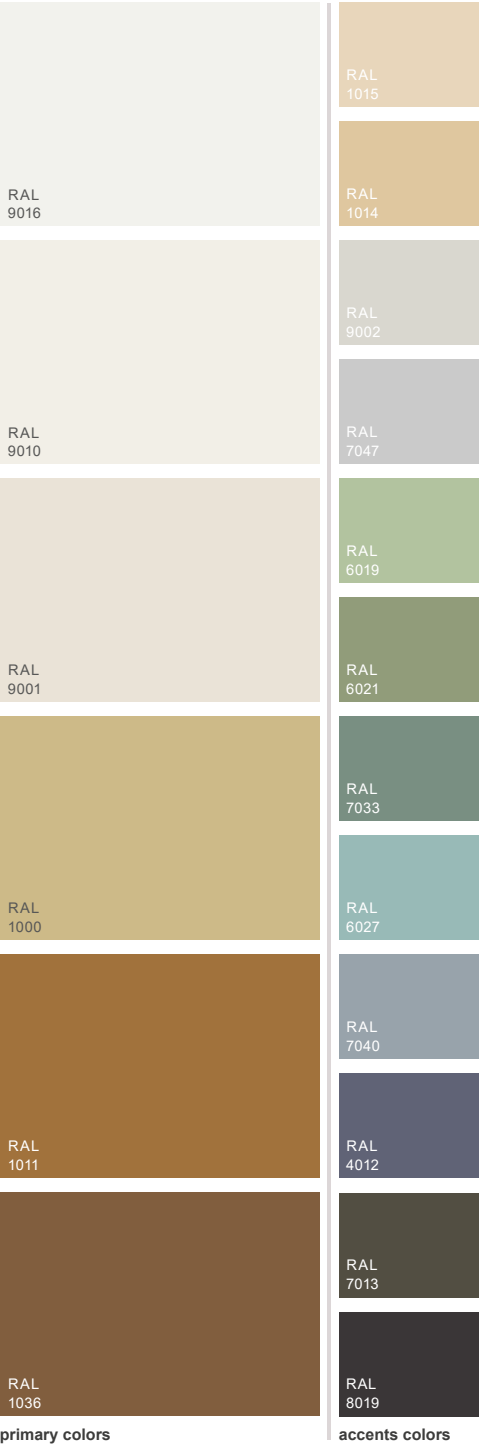
To create a townscape in harmony with the surrounding landscape and architectural character.

### approximate color proportions



### RAL Color codes

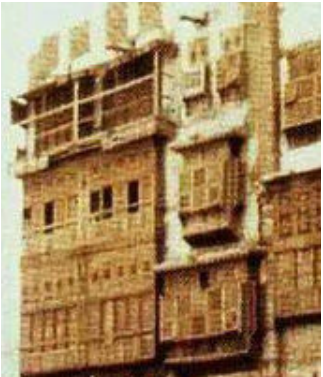
RAL codes are part of a universal color-matching system used to provide consistency in architectural finishes. It is recommended that teams verify colors with a physical fan deck. For more information visit [www.ral-farben.de/en/](http://www.ral-farben.de/en/)



White-washed render



White stone cladding    White render    Off-white render



Wooden roshans



Terracotta screen    Copper screen    Corten screen



Wooden screens



Timber batten    Perforated terracotta    Metal screen



Stucco detail



Decorative stucco    Brick detailing    GRC with decorative relief



Black basalt



Granite stone    Cement blocks    Stone cladding



White mortar pointing



White mortar pointing    Sand mortar pointing    Sand mortar pointing

## 4.2 Materials

This palette summarizes the prevalent materials found in the architecture of Inner Madinah.

- 1 **TR** The six large images reflect materials used in traditional architecture; new traditional style buildings should employ these materials as faithfully as possible.
- 2 Precious or no-longer available materials may entail the need for substitutions. The smaller images reflect a range of feasible substitutions for the primary images above them, acceptable for use in transitional or contemporary buildings, and, in a more cautious manner, in traditional buildings..
- 3 Local and sustainable sourced materials are preferred.

- 4 When designers can't utilize original materials, they might utilize materials that closely resemble the original materials present in the area while taking into account material quality in terms of sustainability and durability aspects as much as possible. Poor interpretations or applications of the materials should be avoided.

To create buildings in harmony with the surrounding landscape and architectural character.  
To enhance architectural character through the support of local craftsmanship.  
To create buildings with tactile and visual richness.



## 5.0 Patterns

This section provides advice on the interpretation and use of traditional patterns in new projects.

New buildings should:

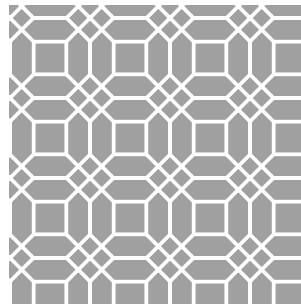
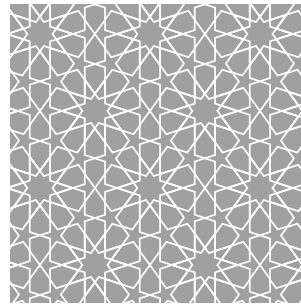
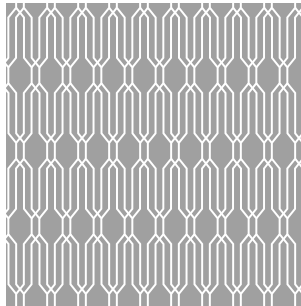
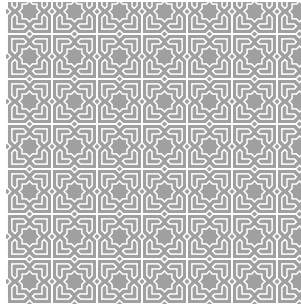
- 1 Create patterns through the use of local materials and craftsmanship.
- 2 Where multiple decorative patterns are applied across a single facade, these should be consistent.
- 3 **TR** Focus the use of surface patterns to doors, window screens and shutter doors.
- 4 **TR** Refer directly to historic precedents and be limited to geometric and floral patterns.
- 5 **C** The contemporary use of patterns should involve interpretation and abstraction: a selective emphasis of characteristics to create meaning and beauty in its new context. Designers can selectively use formal characteristics such as:

- Color (hue, tonality, tint)
- Shape (figure, outline, 2-D geometry)
- Form (volume, 3-D geometry)
- Texture (physical surface quality)
- Line (verticals, horizontals, diagonals, zigzags, curves, dashes, etc.)
- Value (lightness to darkness)

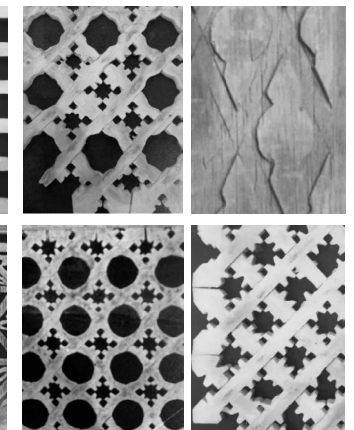
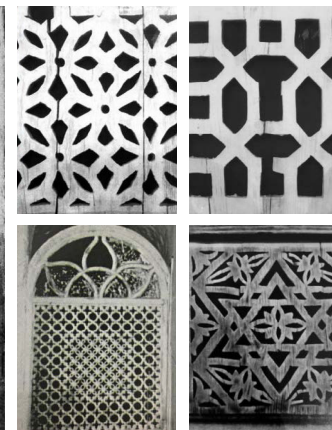
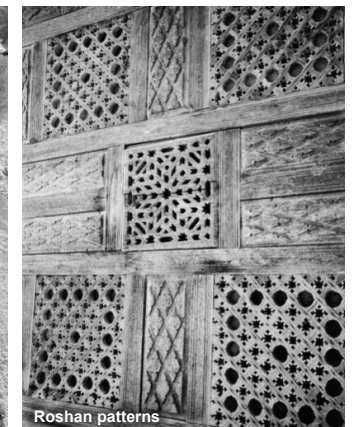
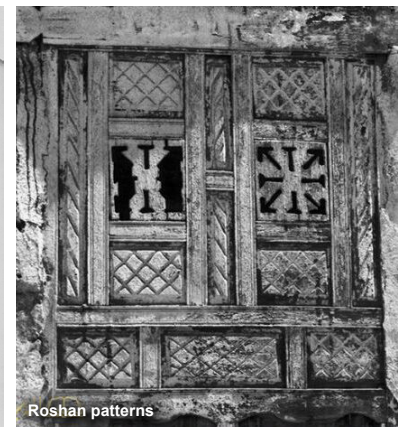
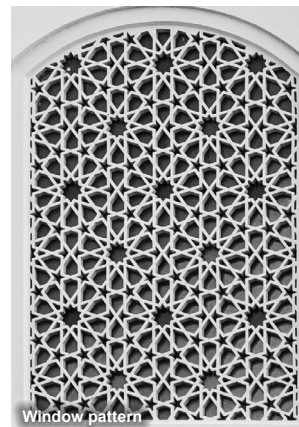
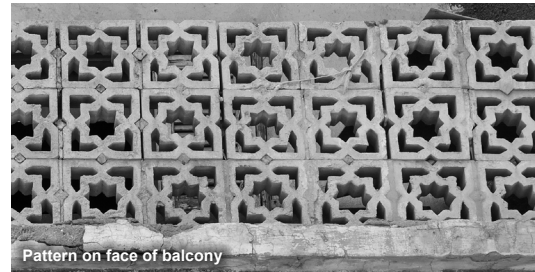
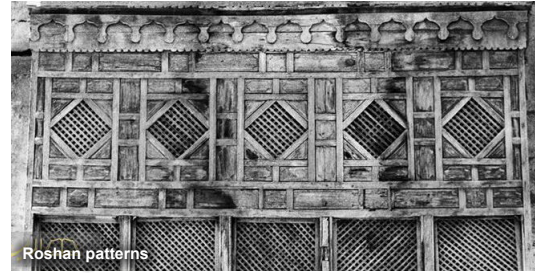
- 6 Patterns can be further transformed in the way they relate to one another. Designers can play with compositional rules such as:

- Balance (equality or harmony of parts)
- Contrast (difference of parts)
- Emphasis (strengthening of parts)
- Movement (change, directionality)
- Pattern (repetition, symmetry)
- Rhythm (even and uneven spacing)
- Unity/variety (degrees of variation)

To express the spirit and essence of the original architecture in new yet familiar ways.



Patterns





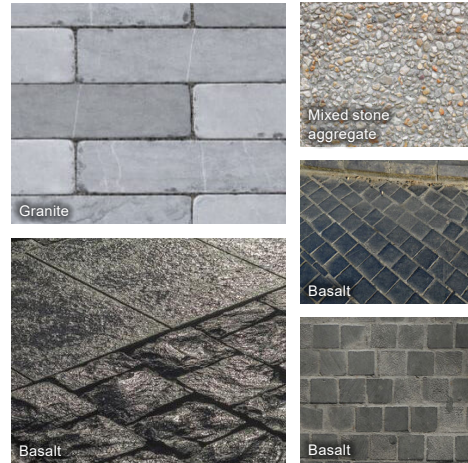
## 6.0 Public realm

This section focuses on the contributions of low-rise buildings to the surrounding streetscape and public spaces, creating strong character and high quality spaces.

The guidelines apply both to 'semi-public' spaces (public space built by private owners) and 'semi-private' spaces (private space that is generally accessible to the public).

**NOTE:** The application of these guidelines should be tailored to the specific project type, scale, and need. Ensure that any modifications or additions to the public-owned spaces are co-ordinated and approved by relevant authorities.

**To enhance the character and quality of publicly used spaces around and in between low-rise buildings.**



### 6.1 Paving materials

- 1 Co-ordinate finish levels of pedestrian pathways and vehicular surfaces for smooth and visually co-ordinated transitions with neighboring buildings.
- 2 Use materials that are complementary to the Inner Madinah architectural material palette (Section 4.2)

#### Palm trees



#### Shade trees

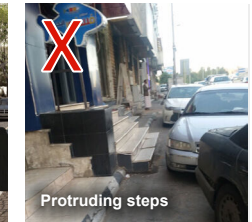
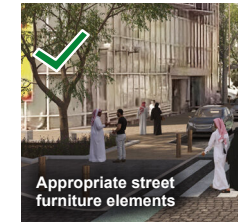


#### Ornamental species



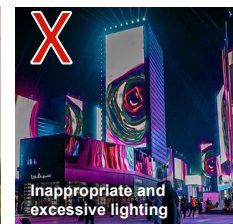
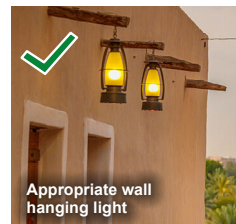
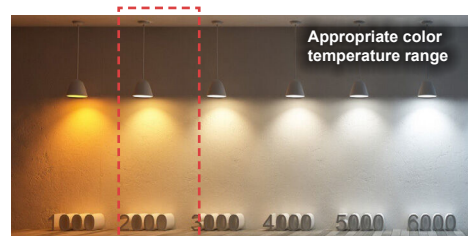
### 6.2 Planting

- 1 Prioritize the use of native species suited for the local climate and minimize the need for artificial irrigation.
- 2 Use planting to enhance privacy for ground level windows of residential occupancies.
- 3 Integrate and co-ordinate landscape and architectural design to better root the building in its surroundings.



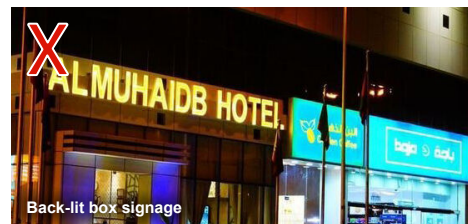
### 6.3 Public realm interface

- 1 Steps and ramps should not protrude into the public realm. Transitions should be located within property lines.
- 2 Provide active frontages and passive surveillance to enhance safety for surrounding public realm.
- 3 Avoid neglected sides and dead frontages; design should enhance sense of community and ease of maintenance for all spaces around it.



### 6.4 Lighting

- 1 Architectural lighting should target color temperatures in the 2200K-2700K range for comfort and good color rendering.
- 2 Light bulbs should be shielded from direct view of pedestrians and drivers to avoid nuisance glare.
- 3 Light bulbs should be shielded from shining directly into the night sky to minimize light pollution.



### 6.5 Signage

- 1 Retail signage should be integrated with the building design, with a preference for solid lettering.
- 2 Avoid the use of back-lit perspex-box surface mounted signage.



### 6.6 Parking

- 1 The design of parking bays should be integrated with the landscape design, with co-ordinated surface materials.
- 2 Intersperse parking spots with planting and seating areas.
- 3 Sufficient clearance for pedestrian movement should be provided between parking bays and buildings.



### 6.7 Vehicular access

- 1 Vehicular ramps should not protrude into public roadways.
- 2 Vehicular gates and service access to buildings should be provided on secondary facades where possible; avoid locating service access on the primary facade.
- 3 Integrate vehicular gates with the architectural design of the buildings.



## 7.0 Dos and don'ts

This section focuses on basic design moves to improve architectural quality and character.

They identify common mistakes that cause visual pollution and hostile environments so that designers can eliminate or minimize them.

To raise the overall quality and character of buildings by avoiding common design mistakes.



### 7.1 Inappropriate materials

- 1 Do not use large expanses of glass that increase cooling demand. Use building materials appropriate for the climate.
- 2 Do not use large expanses of mirrored glazing that can be a source of nuisance glare to pedestrians and drivers.
- 3 Do not use large expanses of materials that weather poorly or require high maintenance.



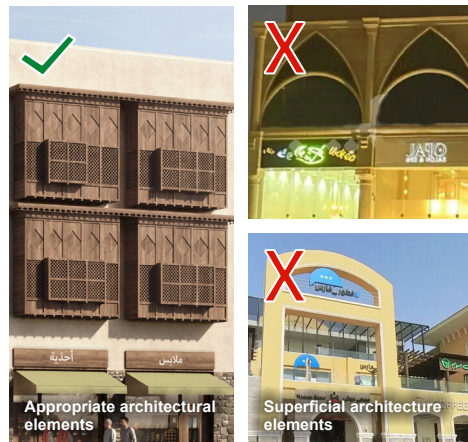
### 7.2 Saturated colors and brand architecture

- 1 Do not use large expanses of artificial, highly-saturated colors on buildings as they detract from the natural landscape and create a visually loud urban environment.
- 2 The architectural character of Inner Madinah should take priority over corporate identity and branding. Company logos should be modest and fit into surrounding context.



### 7.3 Screens and security

- 1 Integrate the design of screens and security features with the architecture.
- 2 Do not extend walls with unfinished corrugated metals and other raw sheet materials.
- 3 Do not use razor or barbed wires for typical buildings; utilize deterrents that are inconspicuous or visually appealing.



### 7.4 Superficial elements

- 1 Where historical motifs are used, the function and scale of the original elements should be respected. Avoid superficial application or the undisciplined resizing of features.
- 2 Avoid the use of non-functional elements such as fake mullions.
- 3 Reflect and interpret traditional elements sensitively. Have a selective emphasis of characteristics to create meaning and beauty in its new context.



### 7.5 Exposed roller shutters

Because they are everywhere, roller shutters have a large impact on the quality of the adjacent public realm. Poorly designed and installed shutters mask the quality of buildings behind them.

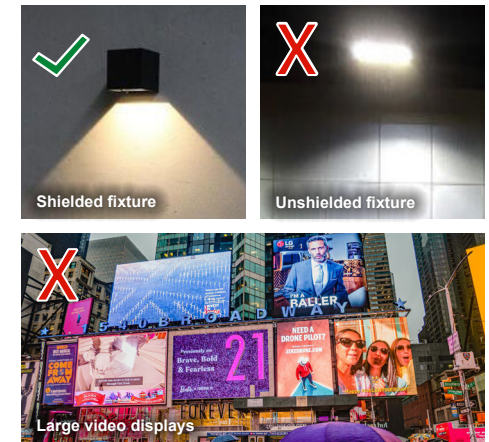
- 1 Do not use surface mounted roller shutters. Use recessed and hidden roller shutters instead.
- 2 Do not use unboxed roller shutters. Provide integrated housing for the roller shutters in their storage position.



### 7.6 Exposed service elements

Ordinary building service elements such as water tanks, air conditioning units and satellite dishes create visual pollution and undermine the character of a building.

- 1 Service elements should be screened and located in places not visible to the public.
- 2 Avoid surface mounting associated conduits, ducts, pipes and wiring. Integrate their location within the facade design.



### 7.7 Light pollution

Avoid excessive light and light pollution.

- 1 Do not use fixtures with bare bulbs (that create glare).
- 2 Use fixtures with cutoff shields to prevent upward light pollution.
- 3 Do not use large video displays.





## 8.0 Traditional mixed-use worked example

The traditional worked example features a strong application of the guidelines to the low-rise building type. This is particularly evident in the detail of balconies, privacy screens, and doorways.

Traditional buildings are defined by strong articulation of base, middle and upper levels, with a clear transition from gray stones to whiter tones.

Generous parapets, with stepping forms and outdoor rooms animate the roofscape.

Facades are framed with rectangular projecting roshans which include upward openings and fine detailing. Ornate carved timber shutters screen larger window openings.

At ground floor timber framed shopfronts are set within the basalt stone facade. Residential entrances are ornate decorated timber panels within arched stone openings.

1 Stepped roof tops with timber palisade balustrade. Habitable roofspace.



2 Projecting timber roshan.



3 Carved timber shutters.



4 Dark gray basalt stone ground floor.







## 8.0 Transitional mixed-use worked example

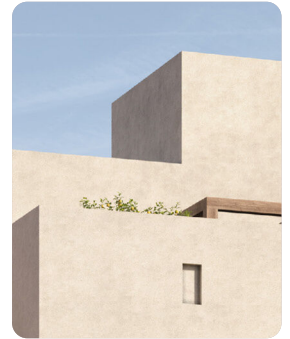
The transitional model is a progression of the traditional form, a simplified version with some modified elements and materials. Many of the traditional features remain present, but some variations signal an evolution and reinvention of specific elements. Facade elements are simplified whilst retaining the vertical proportions and materiality of the traditional.

A stepped rooftop with high parapets offers multiple outdoor terraces and concealment of services. Private shaded roof space is provided using timber canopies. Parapets are flat and solid with rectangular recess details referring back to the traditional proportion of high level vents.

Roshans continue to be a key feature, but less dominant than the traditional vernacular, with vertical gaps between roshans creating stronger horizontal delineation.

The main residential entrance is recessed with an arched timber opening set within the basalt stone surround. Retail shop fronts are wide and incorporate awning and signage.

1 Staggered roofline with private shaded roof space.



2 Projecting timber roshan with simple decoration.



3 Large window openings with timber shutters



4 Wide retail shop front with awning,







## 8.0 Contemporary mixed-use worked example

The contemporary apartment building model aims for architectural innovation and expression, while retaining a strong formal resemblance to Transitional and Traditional buildings.

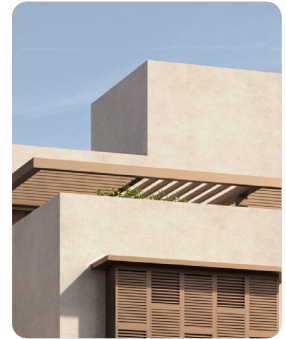
Contemporary buildings abstract elements and patterns of Traditional forms to create this family resemblance, whilst observing most compositional rules. They may also synthesize the application of traditional elements in new building typologies.

Screens and shades with high parapets allow for greater use of roof spaces.

Facades continue to exhibit a strong horizontal legibility with projecting elements. However, shutters and abstracted elements are used more sparingly within a more ordered frame. Abstracted roshan-like elements with projecting canopies are grouped in pairs. Large glazed windows are recessed with deep timber reveals.

At ground floor the dark gray stone is honed with a smoother refined finished. Retail shopfronts incorporate signage and awnings, aligning with the gray stone base.

1 Flat continuous parapets. Private roof space shaded with timber screen.



2 Simplified projecting timber roshan.



3 Timber framed windows with deep reveals.



4 Large glazed shop fronts.





## A.0 Appendix

### Low-rise apartment buildings

This appendix focuses on design issues important to low rise apartment buildings, for example, the relationship between public and private spaces, access to individual units, ground floor facade design, the provision of outdoor amenity, and the design of boundary treatments and rooftops.

Apartment building design should follow the guidelines for traditional, transitional and contemporary style in the rest of this handbook, but also observe the guidance notes in this appendix.

#### Massing scale

Apartment buildings should break down their mass into volumes of a scale that is relatable to the local traditional architecture (not monolithic blocks).

#### Entrances

Apartments' communal, shared entrances should be clearly identifiable, and distinct from other entrances. Where individual units are provided entrances with direct street access (for example, in duplexes), the design of those entrances should be subordinate to the communal shared entrances. Service doors should be discrete and subordinate to all residential entrances and should not be located on the primary frontage, where possible.

#### Privacy

Ground floor windows on street frontage should maintain privacy and security for residents. This may be achieved by using smaller windows, elevated windows, adjustable attractive security screens, and by setting back from the boundary with planted buffer zones and landscaping details.

Windows used on all levels should be equipped with appropriate shutters to provide shade and privacy. Windows on side facades, or facing nearby neighbors should not be located directly across from windows on neighboring buildings, except where the distance between buildings is greater than 12m. Windows on side facades should be chosen from subordinate sizes within the window hierarchy, and feature privacy screens where needed.

Recessed and appropriately screened balconies can be used.

#### Roofscape

Roof terraces should be located in a manner that provides privacy between different units. Avoid overlooking of neighboring buildings within 12m of wall line; use higher parapet walls to mitigate direct sight lines.

Mitigate views from public realm to rooftop building elements (for example, air conditioning units and watertanks) with appropriate tall parapets, setbacks and enclosures. Mitigate noise pollution with enclosures.

#### Other elements

Side yards can provide usable outdoor amenity space to ground floor units as appropriate.

Boundary walls should be of equivalent quality and materiality as the main building walls.

Attractive car parking is important. Where off-street parking is provided, use vehicular gates that are in character with the rest of the architecture and integrated with boundary wall design.

Access ramps should not obstruct the public realm; level changes should be managed within the property.

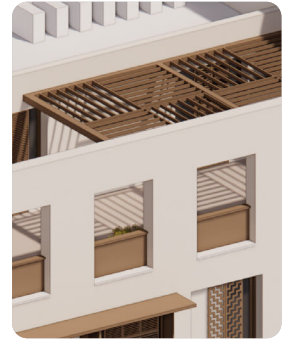


Illustrative example: Apartment building axonometric

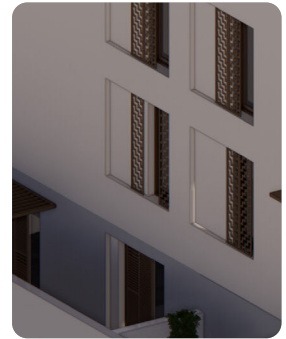


Illustrative example: Apartment building front elevation

1 Enhance usefulness of roof terraces with shading.



2 Maintain privacy between neighbors on side facades.



3 Maintain privacy and security at ground level, street-facing windows.



4 Emphasize primary shared entrances.







## A.0 Traditional apartment worked example

The traditional worked example features a strong application of the guidelines to the apartment building type. This is particularly evident in the simplicity of massing and detail of windows, privacy screens, and doorways.

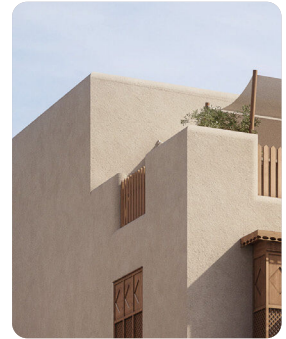
Traditional buildings are defined by strong articulation of base, middle and upper levels, with a clear transition from gray stones to whiter tones.

The main communal entrance is prominently placed, set within a large arched stone opening. Timber detailing of the door and framework is highly ornate.

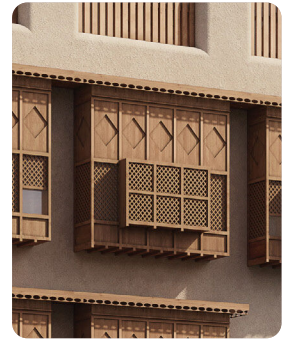
Facades are framed with large rectangular projecting roshans which include openings and fine detailing. Ornate carved opening shutters screen opening windows set behind.

Generous parapets, with stepping and canvas shading elements animate the roofscape. Building services are concealed behind a higher level parapet.

1 Stepped roofscape with timber palisade balustrade and canvas shading elements.



2 Projecting timber roshan.



3 Ornately carved timber shutters.



4 Large communal entrance set within a stone archway.







## A.0 Transitional apartment worked example

The transitional apartment is a step towards the contemporary while maintaining a strong reference to traditional forms. General forms, proportions, and compositional arrangements are maintained while patterns, materials and craftsmanship may be simplified for modern methods and modest budgets.

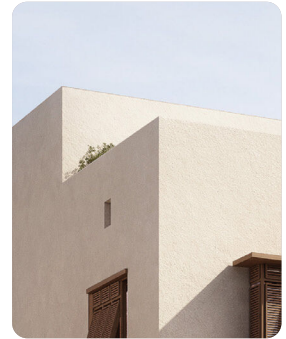
Articulation of the stone base is more subtle, with a smoother, more contemporary texture used.

The main communal entrance is prominently placed, set within a large arched stone opening. Timber detailing of the door and framework is simplified in the transitional building.

Roshans continue to be a key feature, but less dominant than the traditional vernacular, with vertical gaps between roshans creating stronger horizontal delineation.

A stepped roofscape with high parapets offers multiple outdoor terraces and concealment of building services. Timber canopies provide shading. Parapets are flat and continuous with rectangular recess details referring back to the traditional proportion of high level vents.

1 Stepped roofscape with flat parapet and recess detail.



2 Smaller roshan with clearer delineation across facade.



3 Larger window opening with simplified timber shutters.



4 Large communal entrance set within a stone archway.







Examples demonstrate one possible application to the guidelines and are for illustration only.

## A.0 Contemporary apartment worked example

The design of contemporary buildings can incorporate architectural innovation while retaining a strong family resemblance to Transitional and Traditional buildings.

Articulation of the stone base may be more playful, with greater compositional abstraction and a smooth, refined texture.

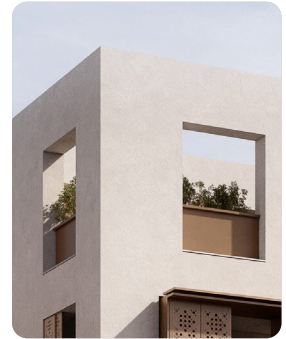
The main communal entrance is prominently placed, set within a large arched opening. Timber detailing is simpler and set within a deeper recess.

Facades continue to exhibit a strong horizontal legibility with projecting elements. However, shutters and roshan elements are used more sparingly within a more ordered frame. Large glazed windows are recessed with deep reveals.

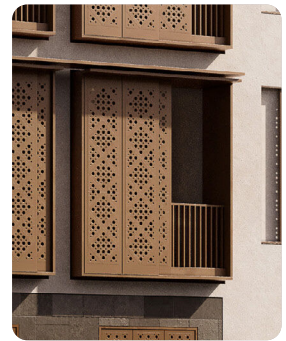
Traditional patterns may be abstracted to form perforated shading screens.

The roofscape is staggered less in the contemporary model. A flat, high parapet may incorporate rectangular openings that integrate with planters, referencing the traditional rooftop screened terraces.

1 Flat roofscape with rectangular parapet openings.



2 Simplified projecting timber roshan.



3 Deeply recessed window with perforated shading screens.



4 Large communal entrance set within a stone archway.

