Inner Madinah

Architectural Design Guidelines

Application Handbook - Residential Villas

VERSION 1.0

Inner Madinah Architectural Character Area

Contents

Prophet's Mosque

Bab Al Rahma Square (Old Madinah)

Example of elevation of single family villa in Inner Madinah
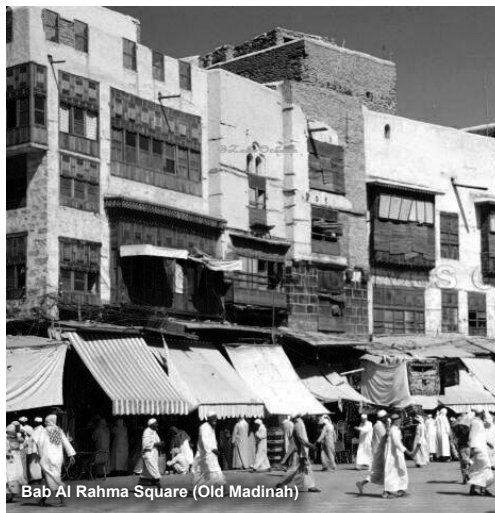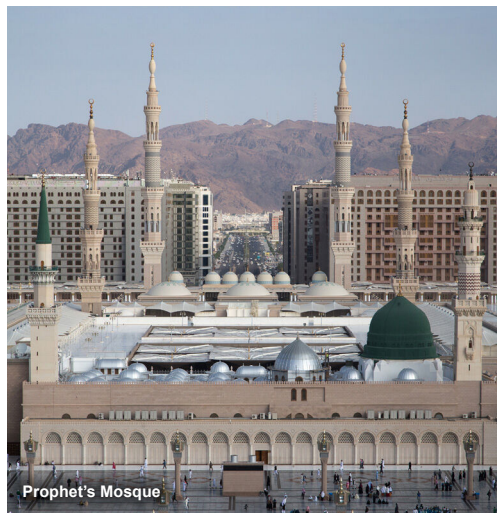
I   Introduction

The purpose of this document is to help designers and builders of single family residential villas 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.

The architectural character of Inner Madinah 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. 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

II   Residential villas

Residential villas are a widespread and important building type found across the Kingdom. Their design strongly influences people's experience and the character of a place.

Serving the needs of families residential villas 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: rectangular plots of land accessed by car from a street on one edge, and interfacing with neighboring properties on the other boundaries. Villas generally sit in their development plots with setbacks on all sides as detached units. In denser locations with smaller plots, villas may also be found with zero or minimal setbacks on one or two sides, creating townhouse conditions. The buildings tend to have rectilinear form and a clear orientation to the street, with distinct sides and backs. They are typically surrounded by boundary walls.

These conditions make villas different from the historical building types that are the source of architectural characters. The primary challenge to be addressed by this handbook is the application of the architectural character to these villa conditions.

Single Family Residential Villas

Designers should apply the architectural character and adapt its compositional principles to the unique challenges of the villa building type. Because architectural character is created at a neighborhood level, designers of villas need to contribute a coherent and attractive streetscape. The treatment of primary facades and boundary walls, and their contributions to the public realm will be crucial. The repetition of identical villas can lead to monotony and anonymity. Though consistency is good, organic variation between neighboring buildings is good for a sense of distinction and ownership. By addressing these primary challenges, single family residential villas will strengthen the architectural character of Inner Madinah.

This handbook implements the Inner Madinah Architectural Design Guidelines in residential villas by harmonizing their particular needs 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? (Section 3)
- **Materials and colors:** does your building use acceptable materials and colors in the proportions defined? (Section 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 dont's:** 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. (Section 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:
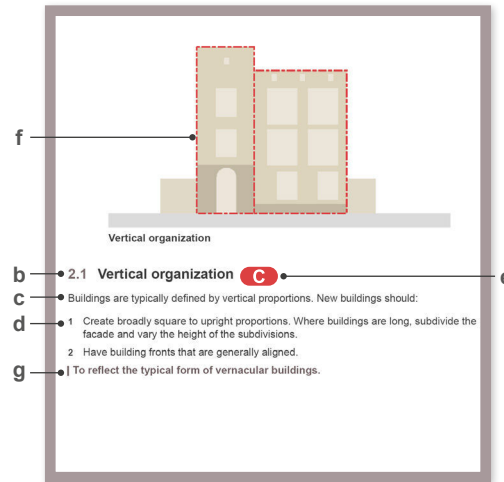
- **TR** Mandatory for Traditional style
- **TN** Mandatory for Transitional style
- **C** Mandatory for Contemporary style

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

f — Vertical organization

b — 2.1 **Vertical organization** **C** — e
c — Buildings are typically defined by vertical proportions. New buildings should:
d — 1 Create broadly square to upright proportions. Where buildings are long, subdivide the facade and vary the height of the subdivisions.
2 Have building fronts that are generally aligned.
g — | To reflect the typical form of vernacular buildings.

Typical guideline structure.

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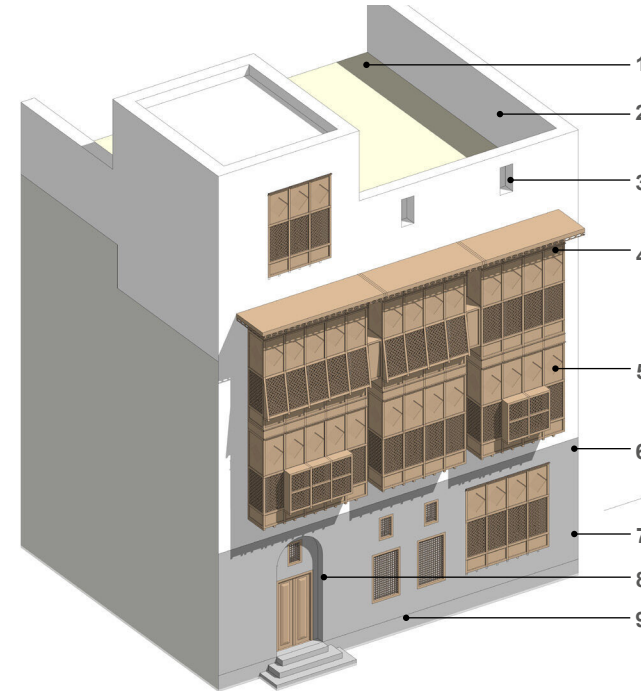
Key features:

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 residential villas.

Traditional style buildings should observe as many architectural character 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 residential villas are shown on this page.

COMPOSITIONAL RULES

2.1 Vertical organization

To enhance the vertical balance of the proportions of buildings, facades should introduce vertical breaks. Vertical breaks may include changes in parapet height, shifts in wall setback from property line, or changes in local symmetry.

2.3 Framed facades

Building facades should have 'Opening' proportions of 40% or less of the total front facade area, or 20% 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 predominantly smaller/narrower windows and screens, and fewer / narrower roshans than front facades.

2.4 Projecting elements

Use of at least one projecting roshan on the front facade is encouraged. In some cases roshans can be connected into pairs or triplets through continuous eaves, privacy screens, or base panels.

It is preferable to avoid the use of roshans on side facades.

2.5 Base details

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

2.6 Stepping roofscape

The parapets should be flat and rectangular, with a step incorporated which may accommodate habitable rooms.

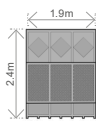Parapets can incorporate rectangular openings or crenelations with timber infill.

2.1 Vertical organization

2.3 Framed facades

2.4 Projecting elements

2.5 Base detail

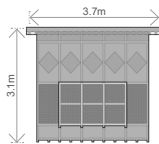**Traditional residential villa axonometric**

Traditional residential villa front elevation
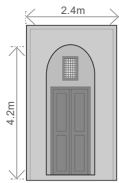
Key Traditional architectural features

3.2 Window

3.2 Roshan

3.1 Entrance door

TRADITIONAL ELEMENTS

3.1 Doors and entrances

Primary entrance doors to villas should be special. Use stone surrounds and wall recesses with arched top and / or clerestory vent. The doors should be of a traditionally crafted design.

Entrances in front boundary walls should also be carefully considered (see 3.4).

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 windows and small flush rectangular screened windows. The appearance of these elements should reflect the traditional craftsmanship where feasible. Contemporary glazing systems may be placed 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 within 6m.

3.3 Rooftop elements

Front facades must have one rooftop element with a step up from the main parapet line. Parapets may have recessed rectangular elements within them, particularly when they are in taller sections of 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

The design of the boundary walls should be complementary to the villa design. The entrances and gates in front boundaries should be folding or hinged and follow traditional timber craftsmanship.

COLORS, MATERIALS AND PATTERNS

4.1 Colors

The building facades should use 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 smooth white-washed render 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 from the architectural character.

1.0 Transitional style

Start here to review the general guidelines of the transitional style residential villas.

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 residential villas are shown on this page.

COMPOSITIONAL RULES

2.1 Vertical organization

To enhance the vertical balance of the proportions of buildings, facades should introduce vertical breaks. Vertical breaks may include changes in parapet height, shifts in wall setback from property line, or changes in local symmetry.

2.3 Framed facades

Building facades should 'Opening' proportions of 45% or less of the total front facade area, or 20% 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, predominantly smaller/narrower windows and screens, and fewer / narrower roshans than front facades.

2.4 Projecting elements

Use of at least one projecting roshan on the front facade is encouraged. In some cases roshans can be connected into pairs or triplets through continuous eaves, privacy screens, or base panels.

Its is preferable to avoid the use of roshan on side facades.

2.5 Base details

The ground floor should have a base of gray basalt cladding and off-white pointing, or approved equivalent, ranging from 0.6m to approximately 4m high. The base may step higher at main entrances, for special emphasis.

2.6 Stepping roofscape

The parapets should be flat and rectangular, with a step incorporated which may accommodate habitable rooms.

Parapets can incorporate rectangular openings or crenelations with timber infill.
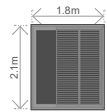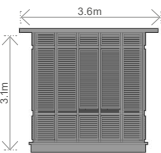

2.1 Vertical organization   **2.3 Framed facades**   **2.4 Projecting elements**   **2.5 Base detail**

Transitional residential villa axonometric

Transitional residential villa front elevation

**Key Transitional architectural features**

1.8m / 2.1m

3.2 Window

3.6m / 3.1m

3.2 Roshan

2m / 3.9m
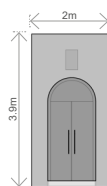
3.1 Entrance door

TRANSITIONAL ELEMENTS

3.1 Doors and entrances

Primary entrance doors to villas should be special. Use stone surrounds and wall recesses with arched top and / or clerestory vent. The doors should be of a traditionally crafted design.

Entrances in front boundary walls should also be carefully considered (see 3.4).

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 windows with glazing set behind.

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 within 6m.

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

The design of the boundary walls should be complementary to the villa design. The entrances and gates in front boundaries should be folding or hinged and be inspired by traditional timber craftsmanship.

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 can be used. 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 should be inspired by existing historical patterns from the architectural character.

1.0 Contemporary style

Start here to review the general guidelines of the contemporary style residential villas.

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 residential villas are shown on this page.

COMPOSITIONAL RULES

2.1 Vertical organization

To enhance the vertical balance of the proportions of buildings, facades should introduce vertical breaks. Vertical breaks may include changes in parapet height, shifts in wall setback from property line, or changes in local symmetry.

2.3 Framed facades

Building facades should have 'Opening' proportions of 50% or less of the total front facade area, or 20% 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 predominantly smaller/narrower windows and screens, and fewer / narrower roshans than front facades.

2.4 Projecting elements

Use of at least one projecting element on the front facade. This should be an interpretation of the roshan elements of the traditional style but can be abstracted and may be screening a shallow balcony or simply screening windows behind. These can be paired or grouped.

Its is preferable to avoid the use of projecting elements on the side facades.

2.5 Base details

The ground floor should have a base of gray basalt cladding, with off-white pointing, or approved equivalent, ranging from 0.6m to approximately 4m high. The base may step higher at main entrances, for special emphasis.

2.6 Stepping roofscape

The parapets should be flat and rectangular, with a step incorporated which may accommodate habitable rooms.

Parapets are encouraged to be simple and plain in the contemporary style but can incorporate some rectangular openings or recesses for occasional articulation.

2.1 Vertical organization

2.3 Framed facades

2.4 Projecting elements

2.5 Base detail
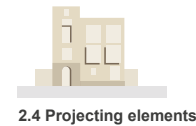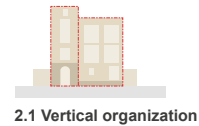
Contemporary residential villa axonometric

Contemporary residential villa front elevation

Key Contemporary architectural features

1.8m / 2.1m
3.2 Window

3.6m / 3m
3.2 Roshan

1.9m / 3.5m
3.1 Entrance door

CONTEMPORARY ELEMENTS

3.1 Doorways and entrances

Primary entrance doors to villas should be special. Use stone surrounds and wall recesses with arched top and / or clerestory vent. The doors should be of a traditionally crafted design.

Entrances in front boundary walls should also be carefully considered (see 3.4).

3.2 Windows and openings

Windows on the main facade must have at least 3 levels of hierarchy, typically comprised of projecting element(s), large rectangular screened windows and small rectangular screened windows. The screens 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 within 6m.

3.3 Rooftop elements

Front facades must have one rooftop element with a step up from main parapet line.

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

3.4 Other elements

The design of the boundary walls should be complementary to the villa design. The entrances and gates in front boundaries should have a consistency with doors and screens used for the villa design which can be simple yet use abstracted patterns inspired by the traditional Inner Madinah Patterns.

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.
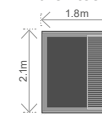
4.2 Materials

Contemporary materials can be utilized that have a similar appearance and the same language as the traditionally used materials such as smooth white-washed render (see section 4.2 for more details).

Windows, doors, and shutters should be a dark finish metal or/ and timber.
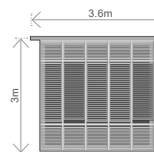
5.0 Patterns

Screen and door panel patterns can be created by abstracting existing historical patterns from the architectural character.
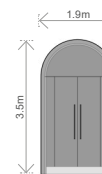
2.0 Compositional rules

The following guidelines provide compositional rules for building design with the Inner Madinah architectural character, specially adapted for the Residential Villa 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.
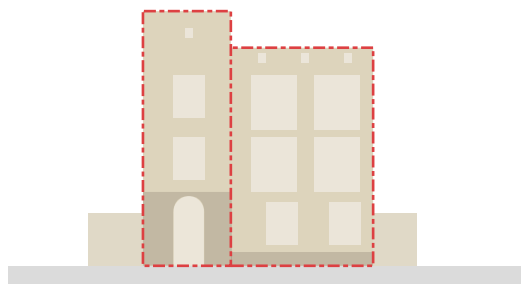

Vertical organization

2.1 Vertical organization

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

1   Create broadly square to upright proportions. Where buildings are long, subdivide the facade and vary the height of the subdivisions.

2   Have building fronts that are generally aligned.

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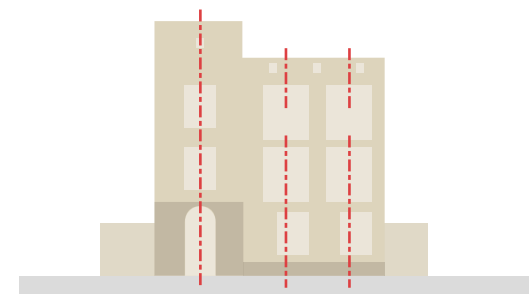
Legible bays

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; this may be centralized or side-justified alignment.

2   Generally align the placement of roshans with vertical bays (see also rule 2.4).

| **To emphasize the regular patterning and legible bays created by the distinctive compound arrangement of roshans.**
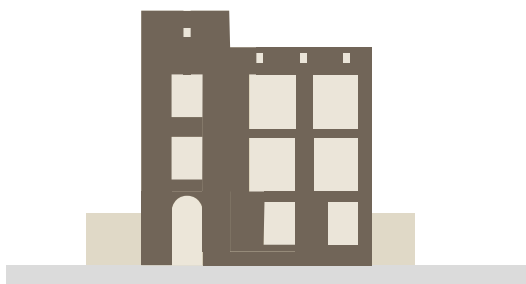
Framed facades

2.3 Framed facades

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

1   Have a relatively high window to wall ratio.

2   Space openings regularly and infill with timber screens and shutters.

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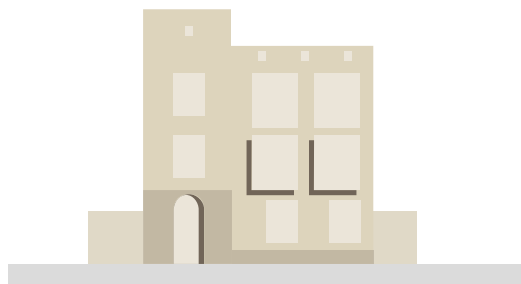
Projecting elements

2.4 Projecting elements

Roshans are typically found on the upper floors.

1   Where multiple roshans are used, join individual roshans horizontally with each other, in pairs or triples through overhang or infill panel details.

2   Roshans can also be grouped into regular grids (for example, 2x2 or 2x3). Single cells within the grid could be swapped with smaller flush window screens or blank walls.

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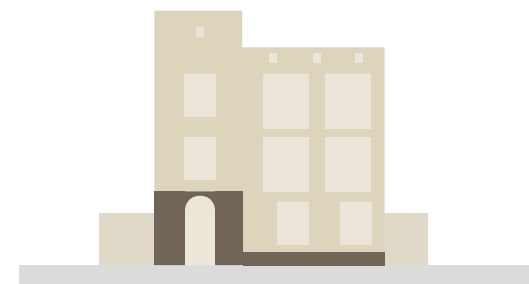
Base details

2.5 Base details

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

1   Use a heavy dark base for the ground floor of buildings.

2   (TR) Traditional style buildings should use dark gray basalt stone cladding or an equivalent.

3   Transitional and contemporary buildings can use materials that closely resemble the basalt stone in terms of the texture, color and appearance.

4   Contrast the walls above the base with off-white render.

5   Use surrounds to accentuate primary entrances.

| **To maintain the strong base expression of the traditional architectural character.**
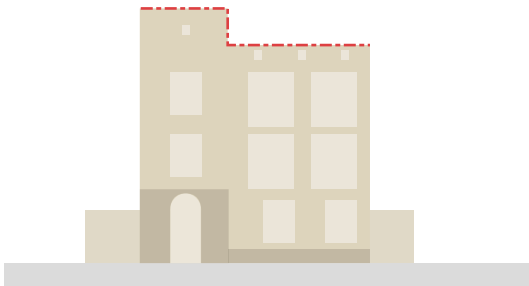
Stepping roofscape

2.6 Stepping roofscape

Roof and parapets form a distinctive component in Inner Madinah. The design of new buildings should:

1 Incorporate stepping roof forms 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 of historical 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.**
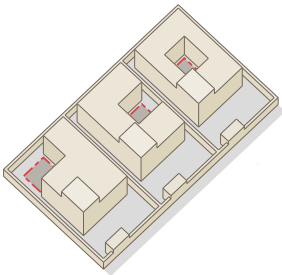
Courtyards and lightwells

2.8 Courtyards and lightwells

Courtyards and lightwells are being encouraged across the country as a sustainable and useful architectural feature that provides better outdoor amenity and interior lighting for 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
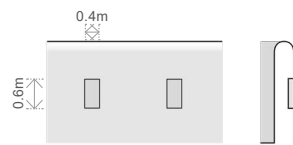
3.0 Traditional elements

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.
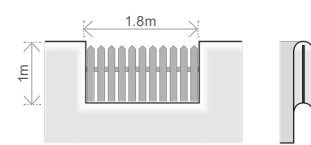

Top

Flat parapet

Parapet with recess details

Parapet with integrated fence

3.3 Rooftop elements

1 Habitable roof spaces can range from simple rooms to tall parapets, with the habitable open roof spaces are protected by high walls, sometimes with timber infill screens.

2 Rooftops should maintain a distinct rectilinear form with a stepping roofscape.

3 Buildings should feature flat parapets which are flush with the primary building line and integrated into the building's facade. Sometimes, these may feature recessed rectilinear forms or integrated fences.

4 Accessible roof space with functional areas should be concealed from the street by parapets with 'shaburah' or small openings in parapets.

To contribute to the rooftop character of Inner Madinah settlements.

**Middle**
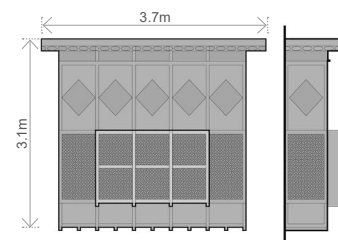
Roshans
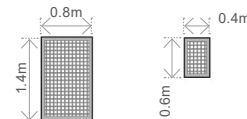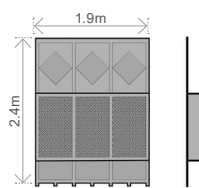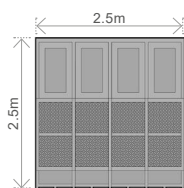
Ventilation openings

3.2 Windows and openings

1 Windows should be rectilinear and vertical.

2 Windows should incorporate simple, geometric patterns

3 At upper levels use of single roshans and horizontally-connected roshans is encouraged.

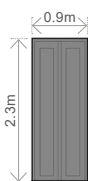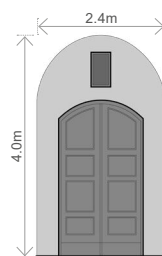4 Include rich and varied roshan detailing across single facades.

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


Base
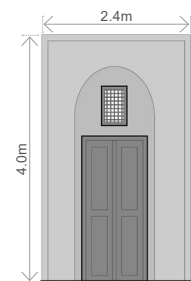
Primary entrance doors

Entrance door

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,or portals, with modest ornamentation.

3 Consider the articulation of entrances and openings using wood and stone, using local materials where possible.
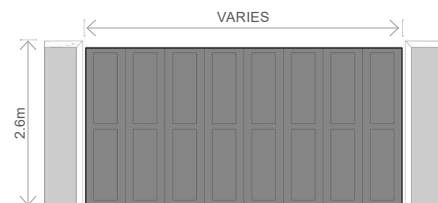
To create entrances with Inner Madinah character, and to contribute to the public realm.
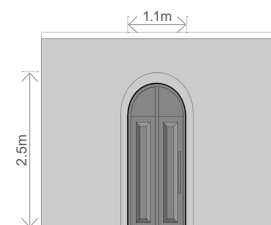
Other elements

Pedestrian access gate

Vehicular access gate

3.4 Other elements

1 In addition to the elements above, buildings often incorporate other elements (for example stone plinths) which should be complementary to the building's design.

2 Boundary walls to villas should utilize materials consistent with the villa, and be from the local material palette. Gates, portals and openings in the boundary walls should also be complementary to the villa's detail.

3 Off-white mortar joints are often used for decorative variety in stonework.

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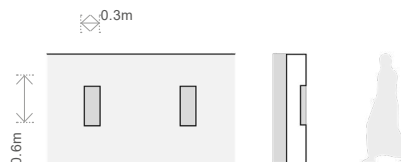
3.0 Transitional elements

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

VARIES

Flat parapets

VARIES

0.6m

0.3m

Flat parapet with recess details

3.3 Rooftop elements

1 Habitable roof spaces can range from simple rooms to tall parapets, where habitable open roof spaces are protected by high walls.

2 Rooftops should maintain a distinct rectilinear form with groups combining to form a stepping roofscape.

3 Buildings should feature flat parapets which are flush with the primary building line and integrated into the building's facade. Sometimes, these may feature recessed rectilinear forms or shadow gap details.

4 Accessible roof space with functional areas should be concealed from the street by 'shaburah' or small openings in parapets. Pergolas can be incorporated for further shade and privacy.
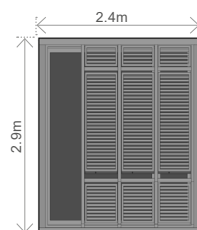
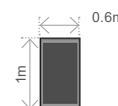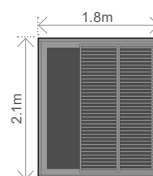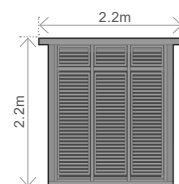**To contribute to the rooftop character of Inner Madinah settlements.**

Middle

3.1m | 3.6m | 1m

Roshan

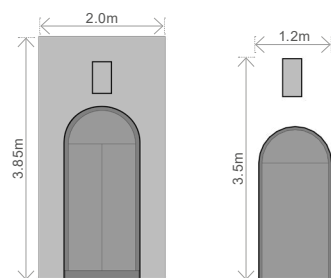2.9m | 2.4m

2.2m | 2.2m

2.1m | 1.8m

1m | 0.6m
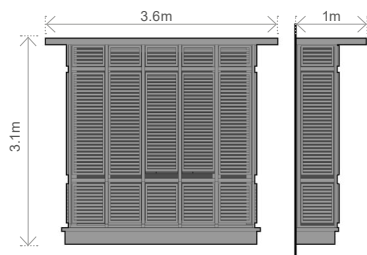
Windows

3.2 Windows and openings

1 Windows should be rectilinear and vertical.

2 Windows should incorporate simple, horizontal shutters.

3 At upper levels use both single roshans and horizontally-connected roshans.

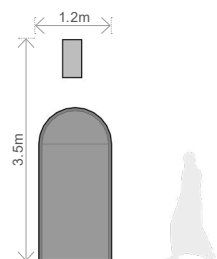4 Embrace detailing across single facades that is inspired by traditional Inner Madinah detailing.

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

Base
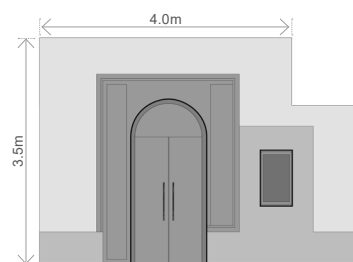
2.0m | 1.2m

3.85m | 3.5m

Primary entrance doors

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.

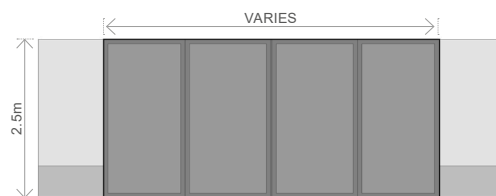3 Consider the articulation of entrances and openings using wood and stone, using local materials where possible.

To create entrances with Inner Madinah character, and to contribute to the public realm.

Other elements

4.0m

3.5m

Pedestrian access gate

VARIES

2.5m

Vehicular access gate

3.4 Other elements

1 In addition to the elements above, buildings often incorporate other elements (for example stone plinths) which should be complementary to the building's design.

2 Boundary walls to villas should utilize materials consistent with the villa,and be from the local material palette. Gates, portals and openings in the boundary walls should also be complementary to the villa's detail.

3 Off-white mortar joints are often used for decorative variety in stonework.

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.
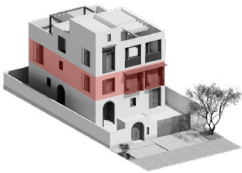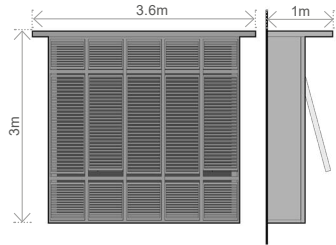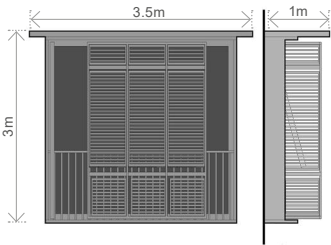
Top

VARIES

Flat parapet

VARIES

Flat parapet

VARIES

Flat parapet

Middle

3.6m / 1m / 3m

Roshan balcony

3.5m / 1m / 3m

Roshan balcony

2.4m / 2.7m

Window

1.8m / 2.1m

Window

0.9m / 1.3m

Window

Base

2.0m / 3.5m
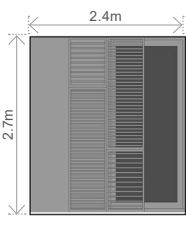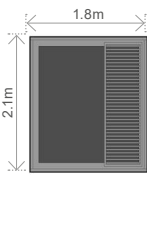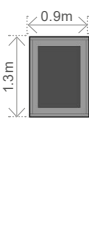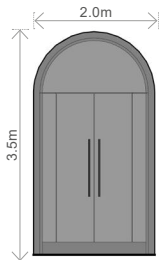
Main entrance

Other elements

4.0m / 4.2m

Pedestrian access gate

VARIES / 2.35m
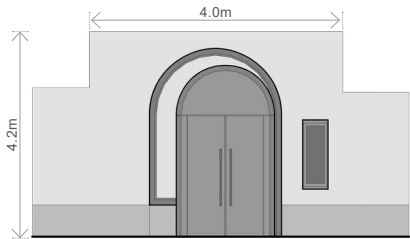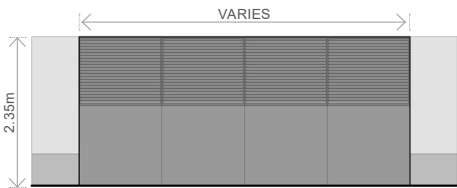
Vehicular access gate

3.3 Rooftop elements

1 Habitable roof spaces can range from simple rooms to tall parapets, where habitable open roof spaces are protected by high walls.

2 Rooftops should maintain a distinct rectilinear form with groups combining to form a stepping roofscape.

3 Buildings should feature flat parapets which are flush with the primary building line and integrated into the building's facade. Sometimes, these may feature rounded tops or shadow gap details.

4 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.

3.2 Windows and openings

1 Windows should be rectilinear and vertical.

2 Windows should incorporate simple, horizontal shutters.

3 At upper levels there can be single roshans and horizontally-connected roshans.

4 Embrace detailing across single facades that abstracts and interpretates traditional Inner Madinah detailing.

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

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.

3 Doors should have minimal detail and be symmetrical.

4 The articulation of entrances and openings should be composed of wood and stone, using local materials where possible.

To create entrances with Inner Madinah character, and to contribute to the public realm.

3.4 Other elements

1 In addition to the elements above, buildings often incorporate other elements (for example stone plinths) which should be complementary to the building's design.

2 Boundary walls to villas should utilize materials consistent with the villa, and be from the local material palette. Gates, portals and openings in the boundary walls should also be complementary to the villa's detail.

To embed other elements which are frequently part of the overall composition of buildings.
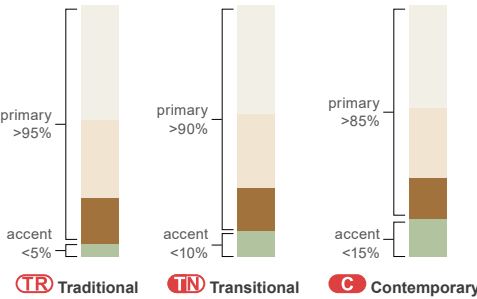
4.0 Colors and materials

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, of or 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.
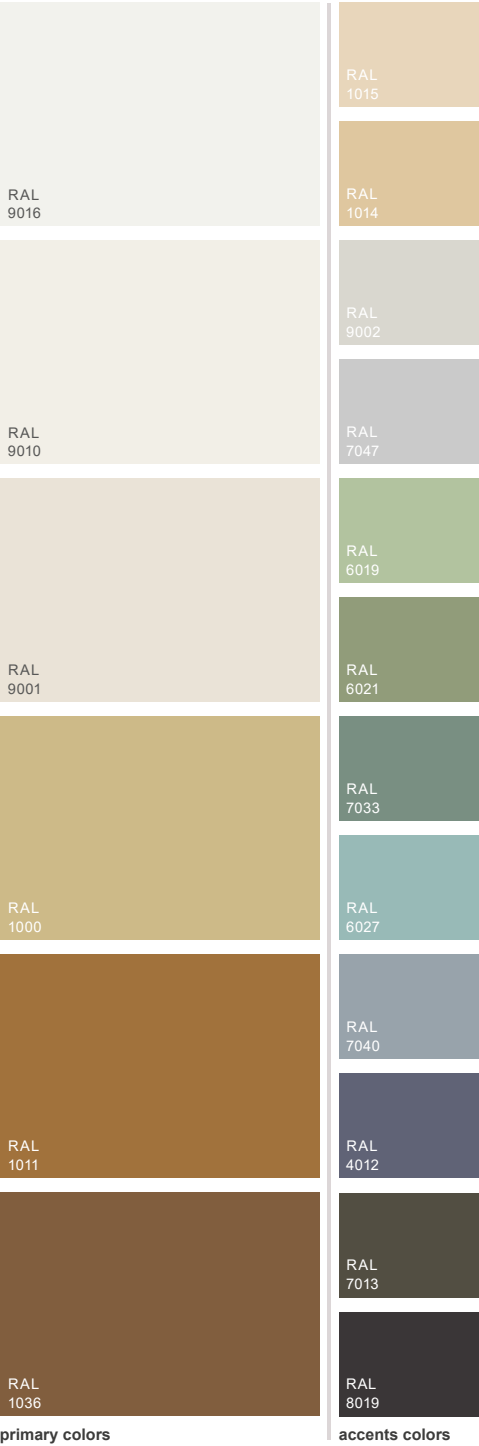
> **To create a townscape in harmony with the surrounding landscape and architectural character.**

approximate color proportions

primary >95% / accent <5% — **(TR) Traditional**
primary >90% / accent <10% — **(TN) Transitional**
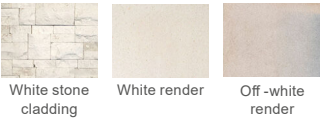primary >85% / accent <15% — **(C) Contemporary**
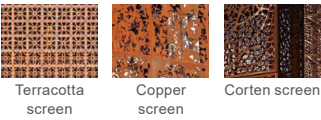
RAL Color codes

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.
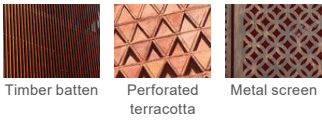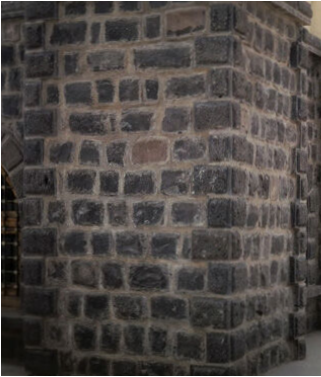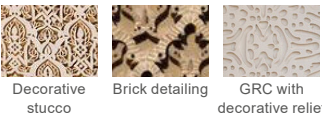For more information visit www.ral-farben.de/en/

primary colors

RAL 9016
RAL 9010
RAL 9001
RAL 1000
RAL 1011
RAL 1036

accents colors

RAL 1015
RAL 1014
RAL 9002
RAL 7047
RAL 6019
RAL 6021
RAL 7033
RAL 6027
RAL 7040
RAL 4012
RAL 7013
RAL 8019

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
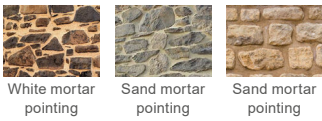
4.2 Materials

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 sustainably 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.**

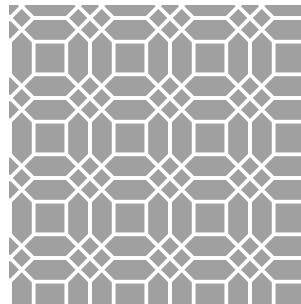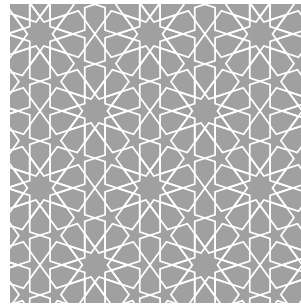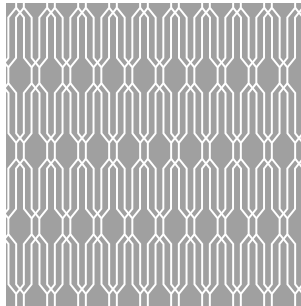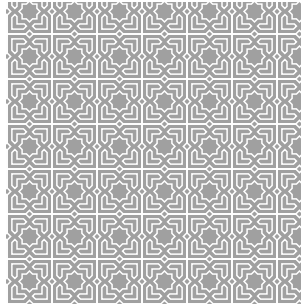> **To create buildings with tactile and visual richness.**

5.0 Patterns

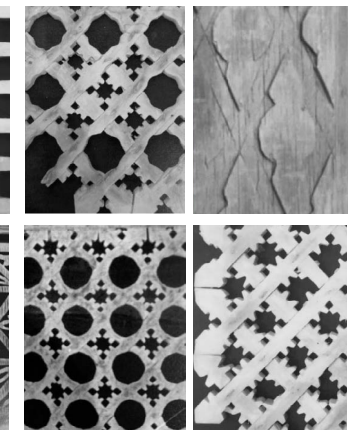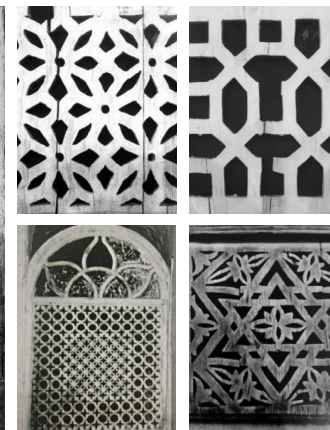This section provides advice on the interpretation and use of traditional patterns in new projects.

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

Roshan patterns

Pattern on face of balcony

Pattern on face of door

Window pattern

Roshan patterns

Roshan patterns

Wood carving
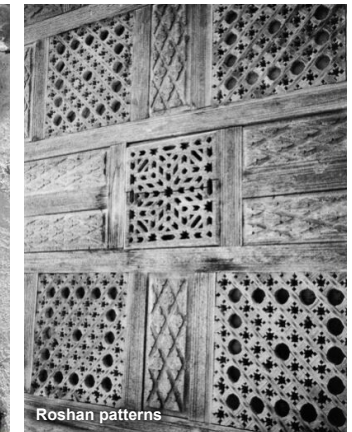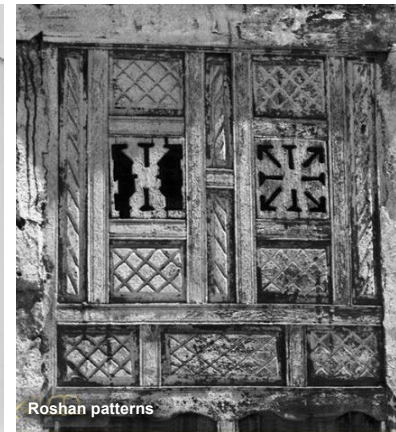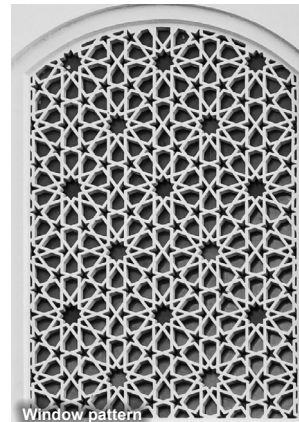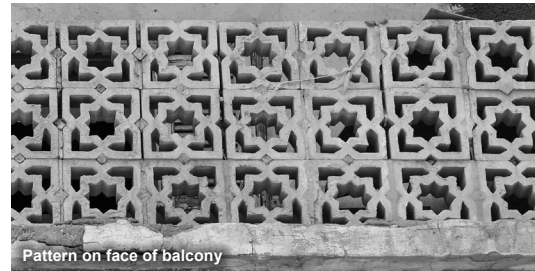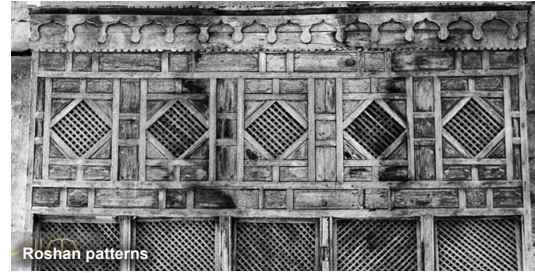
6.0 Public realm

This section focuses on the contributions of residential villas 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 buildings.
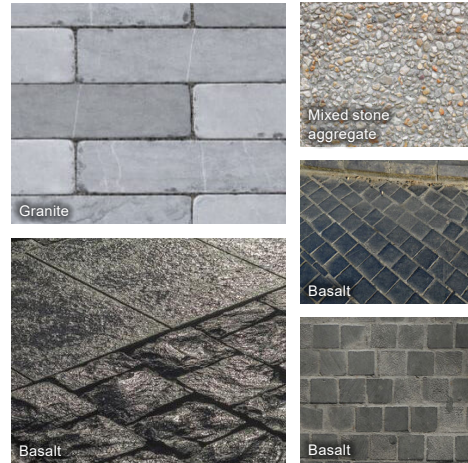

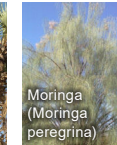
Granite

Mixed stone aggregate

Basalt

Basalt

Basalt

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)
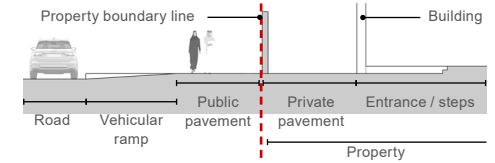

Palm trees

Phoenix dactylifera (Date palm)

Phoenix dactylifera (Date palm)

Doum Palm (Hyphaene thebaica)

Shade trees

Moringa (Moringa peregrina)

Ornamental species

Cucumis prophetarum (Wild Gourd)

Lycium shawii (Boxthorn)

Pergularia tomentosa (Pergularia)

Capparis spinosa (Common caper)

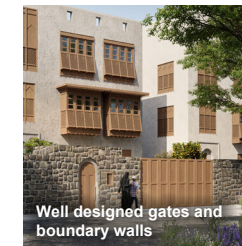Lavandula coronopifolia (Stagshorn lavender)

Cakile arabica (Zamluq)

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.

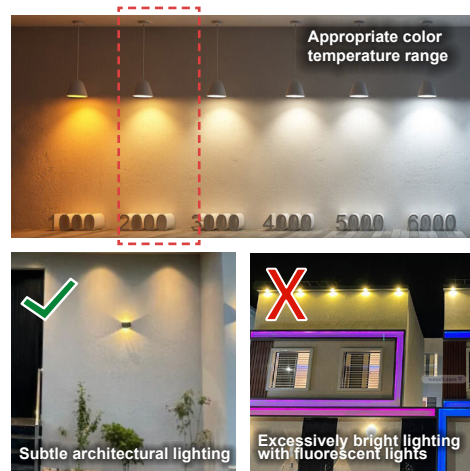3 Integrate and co-ordinate landscape and architectural design to better root the building in its surroundings.

Property boundary line — Building

Road — Vehicular ramp — Public pavement — Private pavement — Entrance / steps — Property

On-plot level transition

Well designed gates and boundary walls

Protruding ramps

6.3 Public realm interface

1 Boundary walls and their portals should be architecturally integrated with the building design.

2 Co-ordinate the design of new boundary treatments with neighboring boundary treatments to create elegant transitions.

3 Steps and ramps should not protrude into the public realm. Transitions should be located within property lines.

Appropriate color temperature range

1000 2000 3000 4000 5000 6000

Subtle architectural lighting

Excessively bright lighting with fluorescent lights

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.

26B

31A

Subtle house plate

A23

2/3

Excessively large house numbers

Unclear numbering

6.5 Signage

1 Residential 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, and excessively large numbers on the facade.

Boundary wall

Footpath

Parking

Street

Well-integrated parking bays

6.6 Parking

If the parking area is within the private property ownership, consider the following:

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.

Property

Boundary wall

Footpath

Vehicular ramp

Street

6.7 Vehicular access

1 Vehicular ramps should not protrude into public roadways or footpath zones.

2 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.

Appropriate material use

Extensive glazing

Poorly weathered and stained facade

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.
4. Do use locally sourced materials where possible.

Appropriate colors
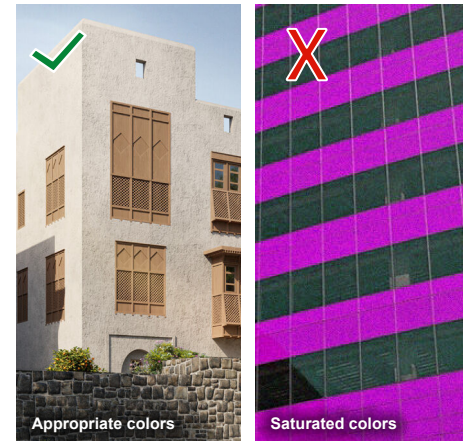
Saturated colors

7.2 Inappropriate colors

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. Refer to section 4.0 Colors and materials for guidance.
3. Do use colors compatible with the Inner Madinah Palette.

Integrated architectural design

Corrugated metal wall extension

Razor wire

7.3 Screens and security

1. Do not use razor or barbed wires for typical buildings; utilize deterrents that are inconspicuous or visually appealing.
2. Do integrate screens and security features through intelligent layout and design.

Appropriate architectural elements

Fake stone

Fake marble

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 shutters.
3. Reflect and interpret traditional elements sensitively. Have a selective emphasis of characteristics to create meaning and beauty in its new context.

Set-back air-con units. Hidden from public view, behind tall parapet.

Exposed air-con unit

Exposed watertanks

7.5 Exposed service elements

Ordinary building service elements such as watertanks, 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.

Boundary wall with integrated pedestrian entrance gate and portal

Inappropriate upper screen to wall

Inappropriate upper screen to wall

7.6 Perimeter walls and extensions

Perimeter walls are an important part of each villa plot and should be considered as part of the overall design.

1. Do not extend walls with corrugated metals and other inappropriate materials.
2. Perimeter walls should be architecturally integrated with the design of the buildings.
3. Provide a consistent treatment or smooth transition between adjacent plots to create a harmonious streetscape.

Integrated vehicular gate with ramp transitions and appropriate perimeter wall design

Unhoused and poorly designed roller shutters

7.7 Rolling shutters

The appearance of the primary frontage is important and should be carefully designed.

1. Exterior surface-mounted and unhoused rolling shutters should not be used on residential facades.
2. Side-rolling, swinging or folding gates are preferred for vehicular entrances.

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

1 Stepped roof tops and parapet with openings.

2 Flush timber roshan.

3 Projecting timber roshan.

4 Dark gray basalt stone boundary with traditional style gate.

8.0 Traditional small villa worked example

The traditional worked example features a very strong application of the architectural design guidelines to the residential villa. This is particularly evident in the detail of balconies, privacy screens, and doorways.
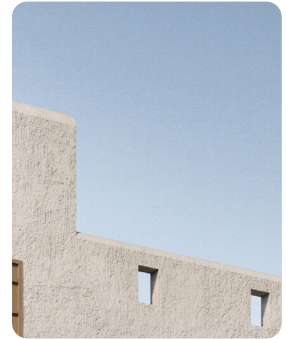
The building has a strong articulation of base, middle and upper levels, with a clear transition from gray stones to whiter tones and an arrangement of opening types which enhance this vertical organization.

Generous parapets, with stepping and outdoor rooms animate the roofscape.
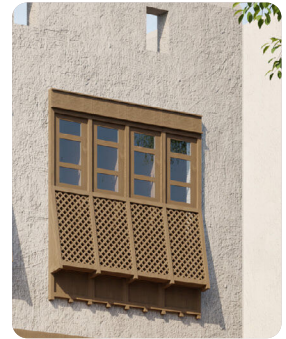
Facades are framed with rectangular projecting roshans which include opening screens and traditional fine detailing. Ornate carved timber panels, typical of the traditional style are incorporated on the screening.

The base of the building and boundary wall use basalt stone material, typical of the character area. Doorways and gates are ornate decorated timber panels set within openings in the boundary wall.

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

1 Step up in roofline and parapet with openings.

2 Flat, timber screened window.

3 Projecting timber simply detailed roshan.

4 Portal and gates integrated in boundary wall.

8.0 Transitional small villa worked example

The transitional model maintains a strong relationship to the traditional style while using simplified and less crafted details.

General forms, proportions, and compositional arrangements are maintained while patterns, materials and craftsmanship may be simplified for modern methods and modest budgets.
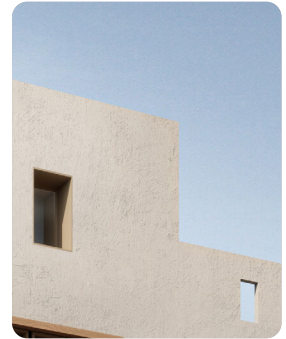
A stepped rooftop with high parapets offers outdoor terraces and concealment of services. Parapets are flat and solid with rectangular recess details referring back to the traditional parapet details and high level vents.

Roshans continue to be a key feature, but less ornate than the traditional vernacular. Openings are arranged in legible vertical bays while also
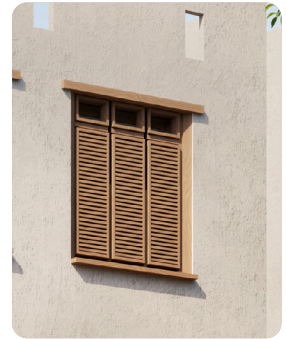
incorporating variations between base middle and top of the building.

A base of stone cladding is incorporated where the building and boundary wall meet the ground, referencing and inspired by traditional architecture. A portal is integrated in the boundary which is designed to be consistent with the villa design.

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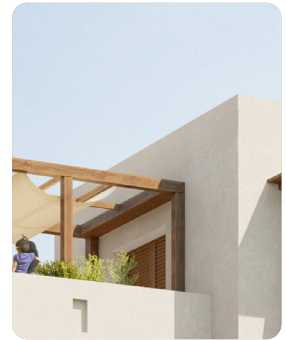

1 Staggered roofline with private shaded roof space.

2 Projecting timber roshan with simple decoration.

3 Large window openings with timber shutters

8.0 Transitional large villa worked example

The transitional model is a progression of the traditional form, which allows simplified and less 'crafted' detail. Many of the traditional features remain present, but some variations signal an evolution and reinvention of specific elements. Simple facade elements follow the proportions of the traditional and color and materiality is consistent with the Inner Madinah materials and color palette.

A, typically, stepped rooftop with parapets contains multiple outdoor terraces and provides concealment of services. Private shaded roof space is provided using timber frames and canopies. Parapets are flat and solid with rectangular recess details referring back to the traditional style.

Roshans continue to be a key feature, but less ornate than the traditional vernacular. Openings

are arranged in legible vertical bays while also incorporating variations between base middle and top of the building.

The ground floor facade is faced with stone cladding, giving a very legible base to the overall composition of forms. The front boundary wall is also stone clad has integrated gates and planters addressing the street.

4 Entrance and boundary wall integrated,

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

1   Upper level terrace with overhead shading behind screen wall and openings.

2   Window with screen elements for shade

3   Simply decorated screens to windows

4   Entrance portal in boundary wall.

8.0 Contemporary small villa worked example 1

The contemporary design incorporates adaptation to respond to modern ways of living and working. It also seeks to reflect changes in construction, availability of skills and materials
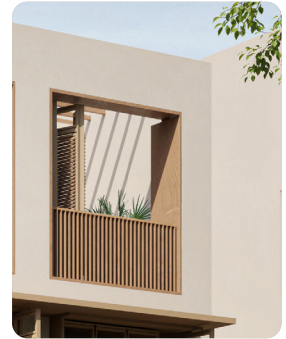
The villa has a simple, stepped roofline with flat and simple parapets. An upper floor terrace is enclosed by the facade and sits behind large openings incorporating simply detailed balustrading. A horizontal structure is placed above the terrace offering shade.

The organization of opening types forms clearly legible bays and includes variation between floors to enhance a reading of base middle and top. Materials used respect the Inner Madinah materials and color palette.

Projecting elements are used, with simple movable timber shading and windows deeply set behind. These are a reference to and interpretation of the projecting roshan screens used traditionally.

A low base of stone cladding is incorporated where the building and boundary wall meet the ground, referencing and inspired by traditional architecture. A portal is integrated in the boundary which is designed to complement the villa design.

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

1 Upper level terrace with sliding screens and shading structure over.
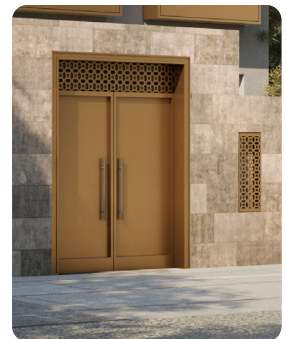
2 Screened window with deep reveals.

3 Large projecting screened element with glazing behind.

4 Entrance portal and gates integrated in boundary wall.

8.0 Contemporary small villa worked example 2

The contemporary model seeks to respond to changes in construction, availability of skills and materials. The design also incorporates adaptation responding to modern ways of living and working.

The organization of opening types forms clearly legible bays and includes variation between floors to enhance a reading of base middle and top. Materials used respect the Inner Madinah materials and color palette.

An upper floor, shaded, terrace is screened by sliding decorative metal elements with a simple pattern which is derived from local pattern types. The screens set in large openings in the facade and behind the screens simply detailed balustrading is incorporated.

Projecting elements with patterned metal shading panels and windows set behind are incorporated. These are interpretation and

abstraction of the roshans used traditionally.

The ground floor facade and the boundary wall are faced with stone cladding, giving a very legible base to the overall composition of forms.

A portal is integrated in the boundary which is designed to complement the villa design.

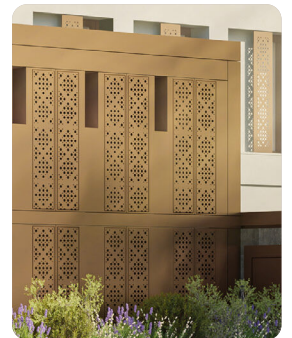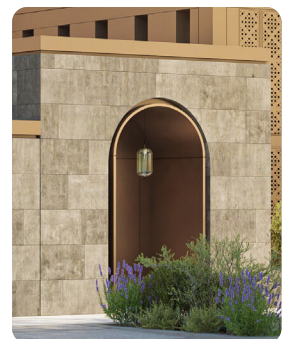Examples demonstrate one possible application to the guidelines and are for illustration only.

1 Stepping roofline with upper terrace behind parapet.

2 Projecting screened element with glazing behind.

3 Decorative metal screening panels to majlis room of villa.

8.0 Contemporary large villa worked example

The contemporary design incorporates adaptation to respond to modern ways of living and working. It also seeks to reflect changes in construction, availability of skills and materials

The organization of opening types forms clearly legible bays and includes variation between floors to enhance a reading of base middle and top. Materials used respect the Inner Madinah materials and color palette.

Projecting elements with patterned metal shading panels and windows set behind are incorporated. These are interpretation and abstraction of the roshans used traditionally.

The majlis, at ground floor is given a special treatment with a cladding of decorative metal screens which contributes to the reading of stepping frontages.

The predominant ground floor facade and the boundary facing material is a stone cladding, giving a very legible base to the overall composition of forms. A portal is integrated in the stone base signaling the main entrance. It is designed to complement the villa design.

4 Entrance portal and gates integrated in boundary wall.