

Al Ahsa Oasis

Architectural Design Guidelines



Application Handbook - Residential Villas





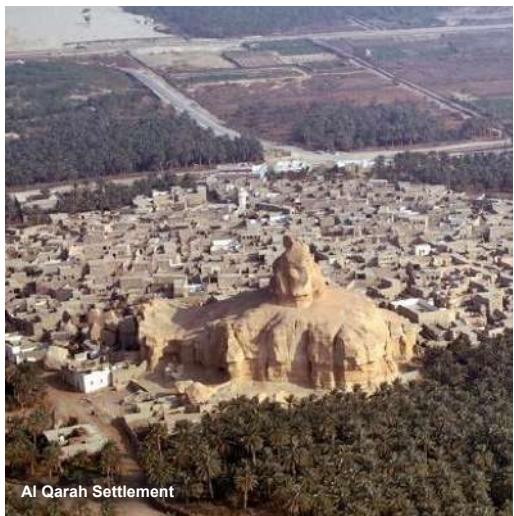
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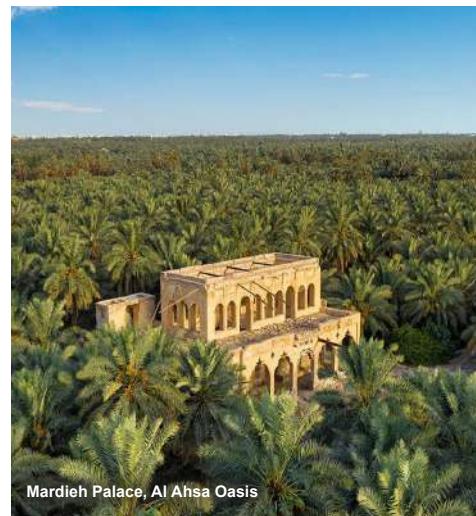


Application Handbook - Residential Villa

Al Ahsa Oasis - Architectural Design Guidelines



Al Qarah Settlement



Mardieh Palace, Al Ahsa Oasis



Example of elevation of a Traditional Villa in Al Ahsa Oasis

I Introduction

The purpose of this document is to help designers and builders of villas apply the architectural character of Al Ahsa Oasis to their projects.

Al Ahsa Oasis, neighboring the East Coast region, is a prime example of the Arabian Peninsula's unique date palm oasis settlement, sometimes also known as a microclimate. This typology arises from the geologic attributes of an area which is rich with aquifers and rock sediments, which allow for water retention and abundant growth of date palms. In turn, the date palm oasis provides a shaded canopy over the landscape thus enabling the growth of other fruit trees as well as homes and walkways under the palm's protection.

Provided the rich and lush agricultural biome that the typology of the oasis provides, over the centuries, oases across the Peninsula became a loci for trade, people, and sedentary urban development. This is exemplified by Al Ahsa which has rich and multi-layered architectural history recreating motifs and styles from across the world as part of trade relations and migration. It is especially known for the varied styles of arches, lattice works and floral or geometric motifs.

Very common dwellings in Al Ahsa is the Freej, an area demarcated for tribes or families which have a built-up area for intergenerational housing, and come with several adjacent functions such as mosques, madrasas (schools) and walkways. Many single dwellings would be two tiered and have their own shared courtyard and shaded verandas.

Settlements and villages of Al Ahsa are active with plazas, arcades and market areas given their importance as local and regional nodes for trading in agricultural and food products.

This handbook is a supplement to the Al Ahsa Oasis 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

Villas form a significant and common aspect of the residential built environment throughout the Kingdom. A housing prototype, they respond strongly to people's experience and character of their homes and place.

Serving residential needs, villas are built across a stylistic scale to better integrate within their neighboring context. Addressing their design is thus necessary to ensure the implementation of architectural design guidelines.

The villa includes three distinctive styles that developed in the twentieth century in the Kingdom, which encapsulate a fluidity from the historic fabric to contemporary development patterns. They are typically composed of large rectangular plots of land enclosed at the perimeter, accessible by car or the main entryway, both placed alongside the same edge. Villas tend to exhibit a horizontal, rectilinear form, where the street facing side is clearly articulated while simultaneously maintaining privacy through the fenced perimeter. Their various stylistic expressions derive from developed differences in the building type.

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 Al Ahsa Oasis

This handbook implements the Al Ahsa Oasis Architectural Design Guidelines in residential villas by harmonizing their 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 Al Ahsa Oasis.

- 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 & 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)
 - **Do's 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:

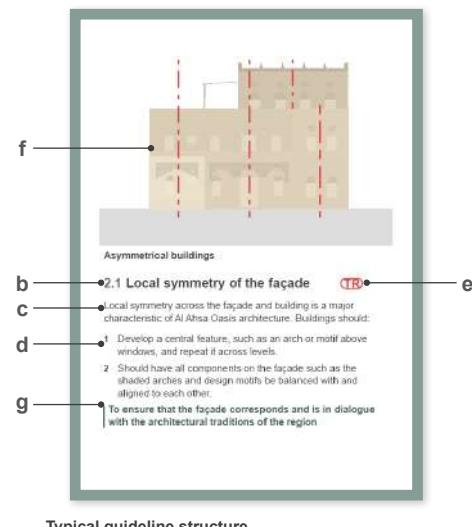
TR Mandatory for Traditional style

TN Mandatory for Transitional style

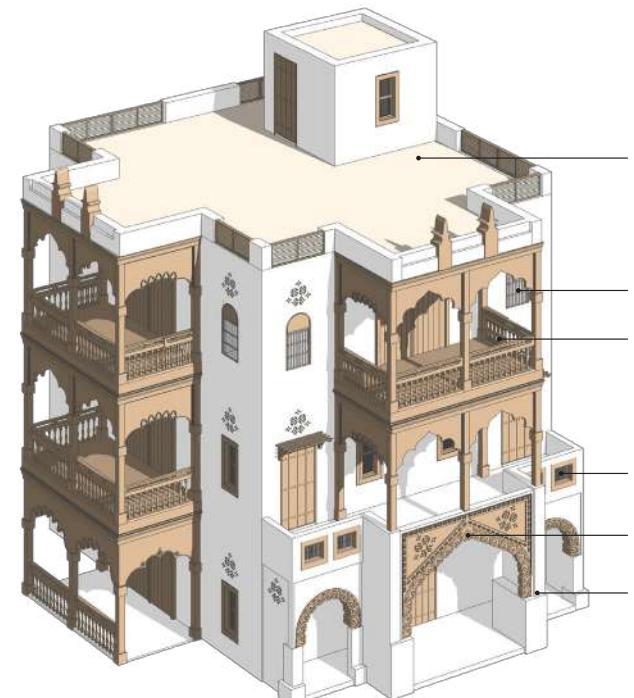
C Mandatory for Contemporary style

5 Guidelines are organized according to the following parts:

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



This general character reference model is from the Al Ahsa Oasis Architectural Design Guideline, summarizing the key features of the architectural character.



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 villas.

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 villas are shown on this page.

COMPOSITIONAL RULES

2.1 Local symmetry of the façade

Localized symmetry within each building volume is a pivotal aspect across Al Ahsa, contributing to an overarching aesthetic cohesion. While the overall facade may embrace asymmetry, the symmetry within individual volumes is indispensable for achieving localized harmony. This entails ensuring that each volume maintains a symmetrical disposition, fostering consistency in window placements, arcades, and decorative elements. By adhering to this principle, the facades not only exhibit a cohesive visual appeal but also uphold the intrinsic design ethos prevalent throughout the region.

2.2 Grouping of elements

To effectively highlight the variations along the façade in Al Ahsa architecture, it's essential to strategically group sections of openings. Windows should be placed on the upper levels and arcades on the base levels. Additionally, a distinct grouping should be established through variations in parapet heights or changes in local symmetry groups across the different levels. By following these guidelines, you can achieve the characteristic grouping of openings that defines the architectural charm of Al Ahsa.

2.3 Entrances and articulation

For a successful traditional villa design, ensure consistent material usage throughout, including a spacious covered parking opening for accessibility. Highlight the main entry with distinct framing like an ornate archway or decorative features. Enhance the entryway with a shaded arcade for shelter and style. Incorporate a boundary wall with driveway and main entrance gates to boost privacy, security, and aesthetics. Following these guidelines results in a visually appealing and practical traditional villa design.

2.6 Roofscape and rooftop elements

The traditional roofscape of the Al Ahsa Oasis is characterized by stepped designs, potentially featuring accessible terraces, and incorporating crenellations. As most rooftop levels are accessible, they may all function like a terrace, and some feature a shaded structure or arcade. The rooftop should be stepped at least once on each façade for a height difference.

2.7 Geometry of components

Arrange windows, balconies, doorways, bays, and staircases to create local symmetries, which correspond to interior architecture use and program. An angular grid pattern, which is better suited to



Axonometric view showcasing an example of the application of compositional rules for traditional style residential villa.

Key traditional architectural features.



Elevation view showcasing an example of the application of compositional rules for traditional style residential villa.



contemporary architecture, should be avoided. The arrangement of structures should be slightly irregular and more cohesive in its grouping.

2.8 Solid Façades

Building façades must have 'opening' proportions of 20-35% of the total façade area. The 'opening' area encompasses the full extent of components such as windows, doors, balconies, shutters, lookouts, and all compositional elements which provide entry into the villa. Side façades should not overwhelm the front façade, featuring less openings in comparison.

TRADITIONAL ELEMENTS

3.2 Doorways and entrances

The main residential entrance should be clearly expressed upon the façade, slightly set back from the fenced boundary. Use timber shutters for the main entryway. The entryway and all along the front façade of the base incorporate polylobed and scalloped framing archways.

3.3 Windows and openings

Windows on the main façade must have at least 3 levels of hierarchy in size and proportion. These are typically rectangular or feature a semicircular arch, and are constructed of wood. Some may feature a decorative element. The windows themselves are typically either square or rectangular, with timber shutters. Avoid using long horizontal strip windows and placing windows directly across from existing windows on neighbouring buildings.

3.4 Rooftop elements

Ensure that the villa's façade maintains traditional Al Ahsa architecture by avoiding long unbroken shapes, breaking frontages at regular intervals for human scale and visual interest. Emphasize variety by having at least one volume higher than others by a floor or 1-1.2m parapet extension, especially on the main façade. Prioritize residents' privacy with higher parapet walls, screens, and overhead shading. Decorate the highest roof's parapet with crenellations.

COLORS, MATERIALS AND PATTERNS

4.1 Colors

The building façades should comprise natural colors, using predominantly off-white shades and timber. Employ accent colors minimally, comprising no more than 10% of the façade area. See section 4.0 'Colors and Materials' for more information.

4.2 Materials

The primary wall surface should feature a matt-finish with off-white plaster, limewash or similar. This must be continuous from above the base to the top of the parapet. Wood should be used for windows, doors, and gates.

5.0 Patterns

Incorporate patterns from historic vegetal and floral designs existing in the region. Place such designs above entrances and windows.

1.0 Transitional Style

Start here to review the general guidelines of the transitional style 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 villas are shown on this page.

COMPOSITIONAL RULES

2.1 Local symmetry of the façade

In transitioning from traditional to transitional architectural styles, it's essential to preserve the localized symmetry ingrained in the former while embracing new geometric and angular features. Although the overall facade may adopt asymmetry, maintaining symmetry within each building volume is critical. This localized symmetry within individual volumes contributes to an overall sense of balance and cohesion across the facade. Consistency in details and decorative elements further reinforces this harmony, bridging the gap between traditional and transitional designs.

2.2 Grouping of elements

To effectively emphasize variations along the façade in line with traditional style, follow these steps: Group sections of openings strategically by placing similar windows on each separate volume and incorporating simple arcades with basic timber panels on the base level. Additionally, enhance grouping contrast by adding a distinguishing element of semi-circular windows for some sections of the villa. By implementing these techniques, you can achieve a cohesive and visually appealing façade that reflects the traditional architectural style in a transitional manner.

2.3 Entrances and articulation

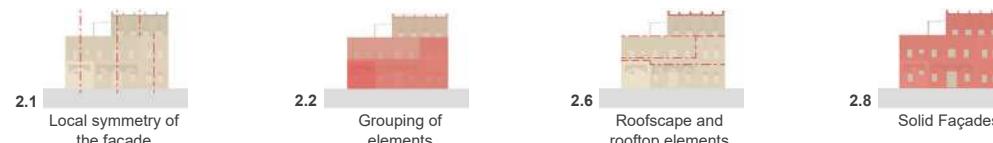
For a cohesive design in a transitional villa, it's crucial to use the same material for both the base and the rest of the building. Create an opening for covered vehicular parking, which can extend from the first accessible rooftop balcony, ensuring accessibility and functionality. Clearly distinguish the main entryway, echoing traditional designs, by incorporating a shaded arcade. Additionally, prioritize the inclusion of a boundary wall around the perimeter, complemented by framed gates for both the driveway and the main entryway. This not only enhances security but also adds to the contemporary aesthetic of the structure.

2.6 Roofscape and rooftop elements

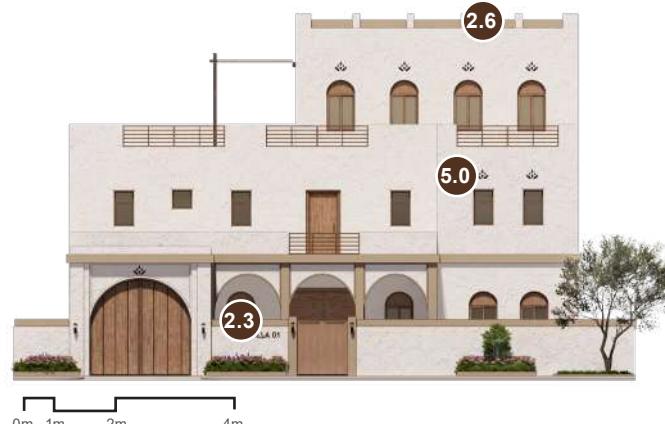
The parapet line and roof silhouette must be flat and rectangular. The roofline must not be one single straight line across the façade. It must be broken down to create variation in heights across the single facade elevation. This can be achieved by making either variation in the number of floors or by variation in parapet heights.

2.7 Geometry of components

For the transitional style, arrange windows, balconies, doorways, bays, and staircases to create local symmetries, which correspond



Axonometric view showcasing an example of the application of compositional rules for transitional style residential villa.



Elevation view showcasing an example of the application of compositional rules for transitional style residential villa.

to interior architecture use and program. Avoid an angular grid pattern, suited to the contemporary architecture. Blend elements more seamlessly. For example, windows and doors still feature a less ornate and crafted style yet influenced by the traditional style and crafts.

2.8 Solid Façades

Building facades must have 'opening' proportions of 30-45% or less of the total façade area. Side and rear facades should have less openings than front facades and be secondary to front facades.

TRANSITIONAL ELEMENTS

3.2 Doorways and entrances

The main residential entrance should be clearly expressed upon the façade, placed under a shaded arcade, and also articulated the gate of the fenced boundary. Doorways on other levels (such as for balconies or on the rooftop) are also typically only slightly recessed, and made of wood.

3.3 Windows and openings

Windows on the main façade must have at least 3 levels of hierarchy in size and proportion. In the transitional style, windows are a mixture of slimmer rectangles, squares, and semi-circular arched openings. Generally, they may be longer, a design which allows for a greater amount of light to enter. Avoid using long horizontal strip windows and placing windows directly across from existing windows on neighbouring buildings.

3.4 Rooftop elements

The villa's façade elevation must not form a long unbroken shape; however, they should be broken down to respect the rhythm of the traditional architecture of Al Ahsa. Break frontages at frequent intervals to give the street a human scale and a sense of interest and variety. Apply this across the building facades, especially the main facade by making at least one volume higher than the rest of the façade by a floor or a minimum of 1-1.2m parapet extension of that volume. Protect residents' privacy and exposure by using higher parapet walls, screens, and by providing overhead shading structures. Make sure to decorate the highest roof's parapet with crenellations.

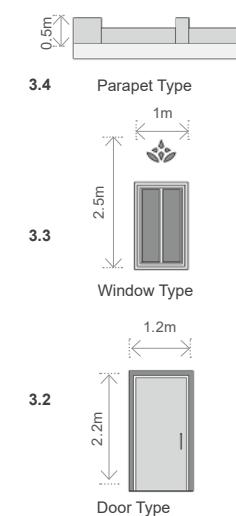
COLORS, MATERIALS AND PATTERNS

4.1 Colors

The building facades should comprise colors deriving from the natural contextual environment, predominantly off-white shades and timber. Employ accent colors minimally. See section 4.0 'Colors and Materials' for more information.

4.2 Materials

The primary wall surface should feature a matt-finish with off-white plaster, limewash or similar. This must be continuous from above the base to the top of the parapet. Windows, doors, and shutters should use a dark timber finish.



5.0 Patterns

Incorporate more minimal versions of patterns from historic vegetal and floral designs existing in the region. Place such designs above entrances and windows.

1.0 Contemporary Style

Start here to review the general guidelines of the contemporary style 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 villas are shown on this page.

COMPOSITIONAL RULES

2.1 Local symmetry of the façade

Expanding on the notion of localized symmetry, for the contemporary style, it remains centered on aligning key elements for visual cohesion. However, in this contemporary interpretation, there is flexibility for elements to extend vertically, spanning the full floor height. This intentional design choice should aim to craft an inviting spatial experience, emphasizing user interface considerations within the contemporary architectural context. While the features become more geometric and angular, the focus on localized symmetry, consistent detailing, and decorative elements should persist across each façade.

2.2 Grouping of elements

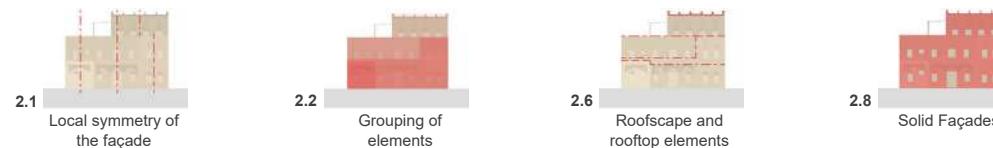
To align with the traditional style, emphasize differences along the façade by strategically grouping openings. Arrange elements according to the interior program's needs, considering functions both vertically and horizontally, without strictly separating floors. Create multiple variations in parapet height, or changes in local symmetry groups, across more than one story. Balconies and roofs with transparent glass railings, and longer vertical windows extend the vertical sense of the villa. By following this approach, you can achieve a contemporary façade design that integrates functionality seamlessly while still respecting traditional principles.

2.3 Entrances and articulation

The base and the rest of the structure should share the same material. Clearly distinguish the opening for the covered vehicular park and the main entryway, on the main façade and the boundary. The inclusion of a boundary wall around the perimeter is paramount, with gates for the driveway and the main entryway. It may be decorated with a series of linear elements and is broken up by sections made of different material.

2.6 Roofscape and rooftop elements

For the contemporary style, the design of the roofscape should step towards the rooftop. The roof silhouette must be flat and rectangular, accessible, and can be lined with a glass railing. It should be stepped at least once on each façade.

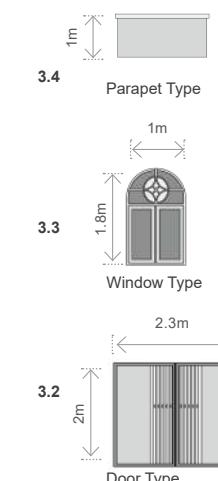


Axonometric view showcasing an example of the application of compositional rules for contemporary style residential villa.

Key contemporary architectural features.



Elevation view showcasing an example of the application of compositional rules for contemporary style residential villa.



2.7 Geometry of components

For the contemporary style, arrange windows, balconies, doorways, and staircases to create local symmetries, which correspond to interior architecture use and program.

2.8 Solid Façades

For the contemporary style, large windows should be prioritized, therefore allocating a maximum of 60% of the façade for openings. This enhances the overall aesthetic and functional aspects of the building. Similar to the transitional style, curtains are used for shading in some of the windows.

CONTEMPORARY ELEMENTS

3.2 Doorways and entrances

The main wooden residential entrance should be clearly differentiated upon the façade and on the gate of the fenced boundary. Doorways on other levels (such as for balconies or on the rooftop) are also typically slightly recessed and glazed.

3.3 Windows and openings

Windows on the main façade must have at least 3 levels of hierarchy in size and proportion. They feature wider openings, and are typically not shuttered which allows for a greater amount of light to enter. Avoid placing windows directly across from existing windows on neighbouring buildings within 6m.

3.4 Rooftop elements

The contemporary style villa does not use high parapets or crenellations. Instead, flat, minimal roofs are preferred. Where an accessible terrace is provided, protect residents' privacy and outdoor exposure with the provision of a shade covering.

COLORS, MATERIALS AND PATTERNS

4.1 Colors

The building facades should comprise natural colors, in line with the regional palette, using predominantly off-white shades and timber. Employ accent colors minimally, no more than 20-30% of the façade. See section 4.0 'Colors and Materials' for more information.

4.2 Materials

The primary wall surface should feature a matt-finish with off-white plaster, limewash or similar. This must be continuous from above the base to the top of the roof. Glass is used more generously across the structure, with larger windows taking up more of the façade.

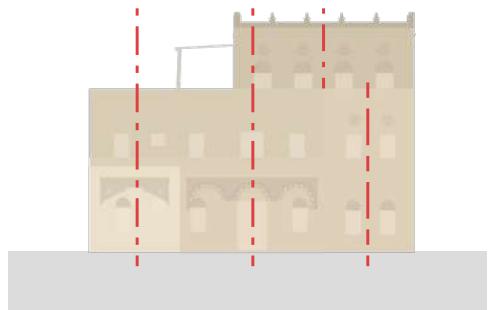
5.0 Patterns

Incorporate fractal and minimal design which derive from historic vegetal and floral designs existing in the region. Place such designs above the main entrance as well as on the corners of the structure.

2.0 Compositional rules

The following guidelines provide compositional rules for building design with the Al Ahsa Oasis architectural character, specially adapted for villas.

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



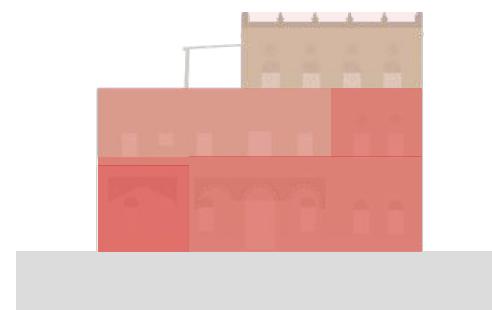
Local symmetry of facade

2.1 Local symmetry of the façade

Local symmetry across the façade and building is a major characteristic of Al Ahsa Oasis architecture. Buildings should:

- 1 Adopt a localized symmetry in low-rise buildings by distributing the elements in a symmetrical order on the facade.
- 2 Should have all components on the façade such as the shaded arches and design motifs be balanced with and aligned to each other.

To ensure that the façade corresponds and is in dialogue with the architectural traditions of the region.



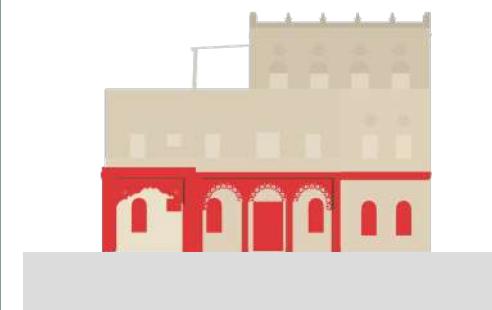
Groups of elements

2.2 Grouping of elements

The legible organisation of bays and side façades is a dominant feature which characterises vernacular design. New buildings should:

- 1 Group orthogonal windows across levels. Arched windows should be grouped together.
- 2 Ensure the geometry of doors and windows is orthogonal and framed by semicircular or square arches.
- 3 Include projecting elements, like balconies, progressively more flush with the general building line, as well as banding.

To embrace and reinforce the distinctive expressions of traditional sources.



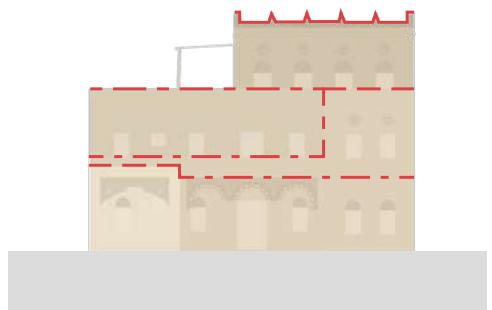
Base detail

2.3 Entrances and articulation

Wall finishes demonstrate a close relationship with the ground. New buildings should:

- 1 Ensure the base and rest of villa share the same material.
- 2 Emphasize framing of the entrance and vehicular park.
- 3 Include a boundary wall around the perimeter, with gates for the driveway and the main entryway.

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



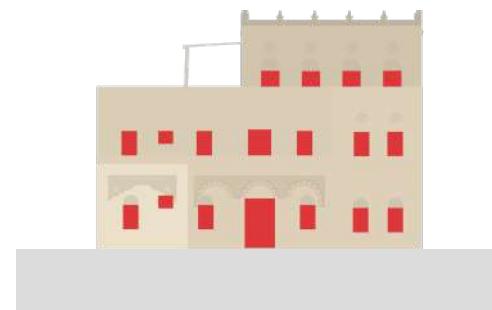
Stepping, rectilinear roofscape

2.6 Roofscape and rooftop elements

Stepped roofscapes form a distinctive component in Al Ahsa Oasis. The design of new buildings should:

- 1 Incorporate flat roofs with possible accessible terraces on different levels.
- 2 **TR** Integrate specific crenellations characteristic to the area and the function of the building.

To retain a consistent and traditional roofscape.



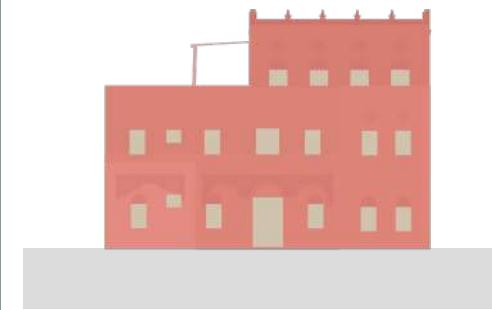
Orthogonal geometry of elements

2.7 Geometry of components

The overall alignment and placement of elements such as doors and windows are key to expressing the design. New buildings should:

- 1 Coordinate the orthogonal geometry of doors and windows. For windows, repeat different styles on different levels.
- 2 Have the doorway clearly articulated through a shaded arch on the ground floor.

To embrace and celebrate distinctive orthogonal organisation, a strong characteristic of façades in the area.



Solid façades

2.8 Solid façades

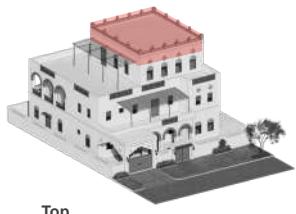
Per traditional architecture, facades feature more openings, proportionally less to the wall. New buildings should:

- 1 Have the walls be punctuated with openings and fenestrations of varied sizes.
- 2 Have large windows be adopted to facilitate airflow between the spaces.
- 3 **TR** Should have approximately 35% of the façade be allotted for openings.
- 4 Incorporate clear and angular openings around windows and doors.

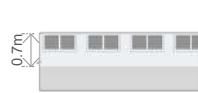
To design the openings of façades building upon the region's traditional architecture.

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.



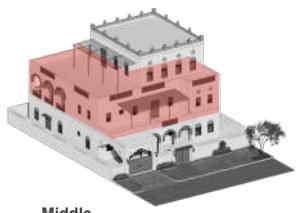
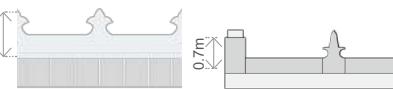
Top



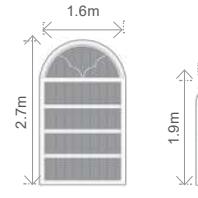
Flat parapet with fenestrations



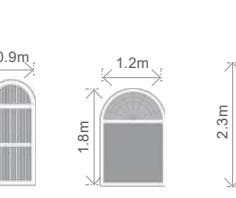
Parapet with crenellations



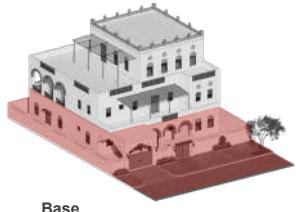
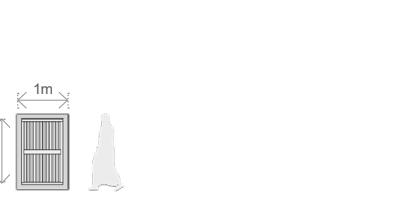
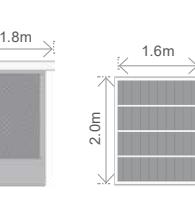
Middle



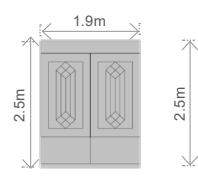
Arched windows



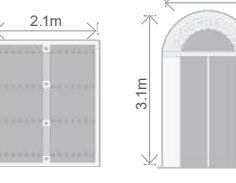
Rectangular windows



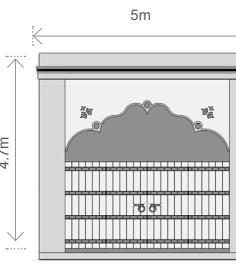
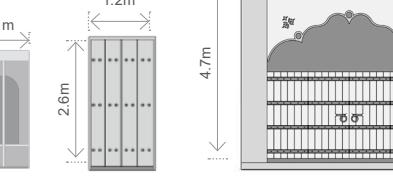
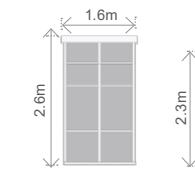
Base



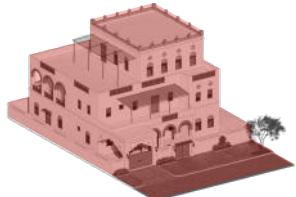
Entrance Doors



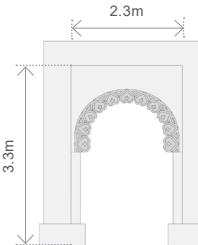
Arches



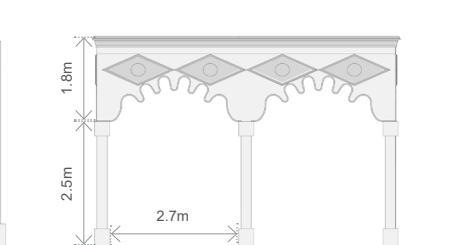
Parking Door



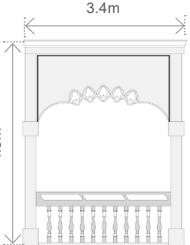
Other elements



Arch



Arches



Balcony



Fenestrations

3.4 Rooftop elements

- 1 Be completely flat.
- 2 Parapets are commonly recessed or embellished as part of the roof area.
- 3 Wooden screen and/or small openings between the decorated merlons is common.
- 4 There can be multiple roofs between the different levels or volumes, and can be connected with each in a gradual and transitional manner.

To create functional roof spaces and roofscapes which embrace the typical characteristics of the local area.

3.3 Windows and openings

- 1 Usually rectangular and vertical windows.
- 2 Windows are more concentrated on higher floors, some with semicircular arches on top and wooden screens.
- 3 Smaller square openings above windows and openings are common, as well as decorated ventilation screens on the façade.
- 4 Windows are generally simple and made of wood, glass and locally sourced materials.

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

3.2 Doorways and entrances

- 1 Clearly define primary entrances.
- 2 Use wooden doors and extensive craftsmanship for the arches and colonnades.
- 3 Consider the articulation of the entrances portal using wood or engravings into the façade with pointed tops and framed arches.
- 4 Use local materials, such as tamarisk wooden doors or an equivalent material for the entrance.

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

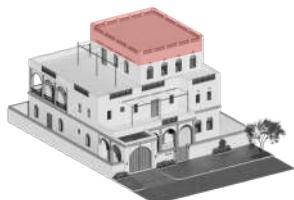
3.5 Other elements

- 1 In addition to the elements above, palm wood and fronds can be used as building material.
- 2 Provide different ornamentations to the arches based on the vegetal-inspired motifs and patterns of the region.

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

3.0 Transitional Elements

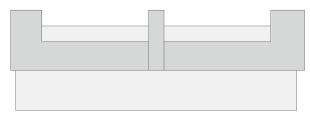
The elements illustrated are examples and should not limit other possible design solutions that follow guideline principles and historic precedents. Element measurements are illustrative and provided to indicate general proportions only.



Top



Flat parapet



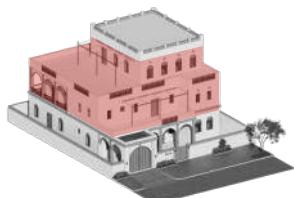
Parapet with notches



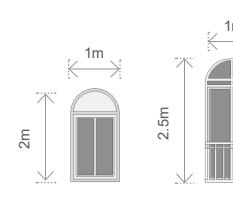
3.4 Rooftop elements

- 1 Be completely flat.
- 2 Maintain a distinct rectilinear form, with banding or more abstracted repeated pattern.
- 3 Should feature flat and angular parapets which are nearly flush with the primary building line and integrated into the building's façade.
- 4 Can incorporate color and modern materials for the parapet and banding which are very proximal to the hues and shapes of traditional style.

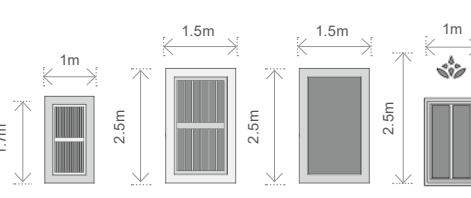
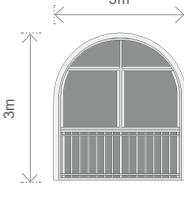
To create functional roof spaces and roofscapes which embrace the typical characteristics of the local area.



Middle



Arched windows

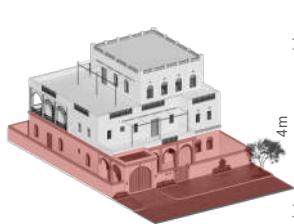


Rectangular windows

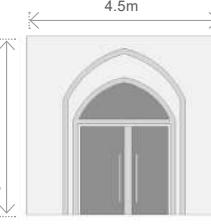
3.3 Windows and openings

- 1 Use rectilinear and rectangular vertical windows.
- 2 Windows should mostly be on the upper levels and have a marked frame within the gypsum frame, or using local materials or painted in a color which complements the context.
- 3 Incorporate simple, geometric patterns and muted arch motifs above the window.
- 4 Windows can incorporate wooden louvres or crossed bars.

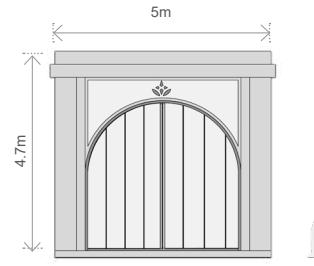
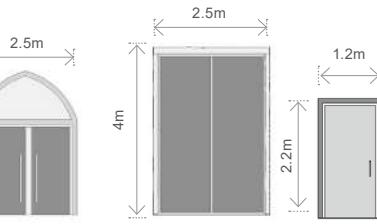
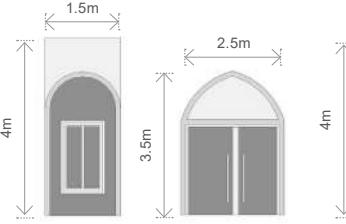
To respond to climate considerations and provide an aesthetic treatment which is distinct to the local area.



Base



Entrance Doors

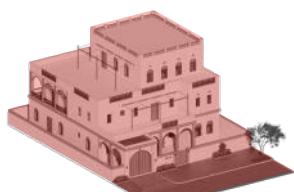


Parking Door

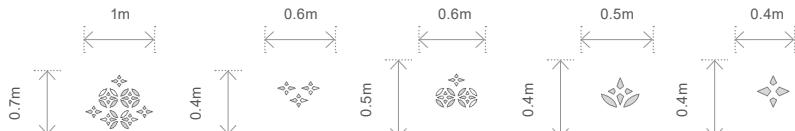
3.2 Doorways and entrances

- 1 Clearly define primary entrances within a shaded walkway or veranda as typical of the region.
- 2 Door framing and recessing through gradual changes in arch styles can create a sense of entry.
- 3 Incorporate semicircular arches or pointed ones with modest ornamentation and framing.
- 4 Use local wood or an equivalent material for the door and incorporate glass.

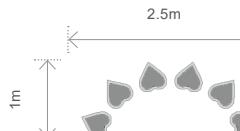
To create suitable thresholds within the base which is part of a well-ordered, coherent street scene and responds to the local character.



Other elements



Ornamentation / Fenestrations



3.5 Other elements

- 1 In addition to the elements above, buildings often can incorporate off-white or other color accents. They can also integrate patterned fenestrations slightly abstracted to be used above windows.

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

3.0 Contemporary Elements

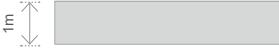
The elements illustrated are examples and should not limit other possible design solutions that follow guideline principles and historic precedents. Element measurements are illustrative and provided to indicate general proportions only.



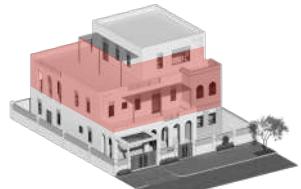
Top



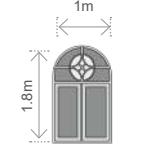
Parapet (Horizontal banding)



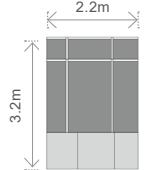
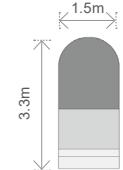
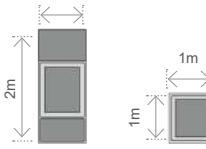
Parapet (Terrace)



Middle



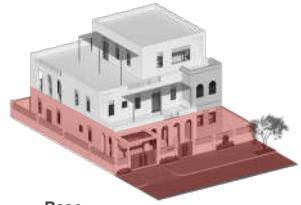
Windows



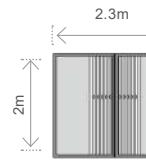
3.3 Windows and openings

- 1 Provide rectangular and vertical windows with glass.
- 2 Incorporate minimal motifs and ornamentation.
- 3 Openings and windows should be used mostly on upper floors, yet, not spanning the entire height of the floor level.
- 4 Windows and openings should be surrounded by a minimal and muted frame, and is flush with the building line.

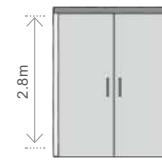
To create functional roof spaces and roofscapes which embrace the typical characteristics of the local area.



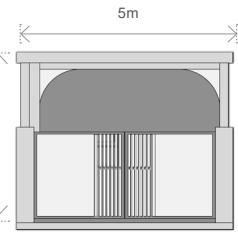
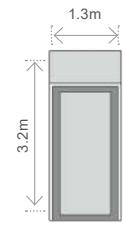
Base



Entrance Gate



Entrance Doors



Parking Door

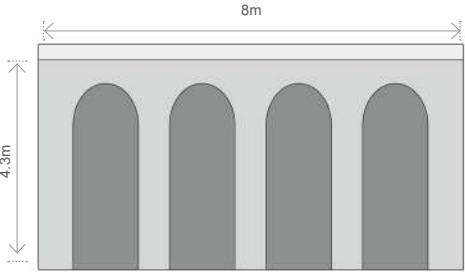
3.2 Doorways and entrances

- 1 Clearly define primary entrances to enhance the street frontage experience.
- 2 Door framing and recessing is marked by interpretive design of local arch styles, such as through volume or material, and have little to no decoration.

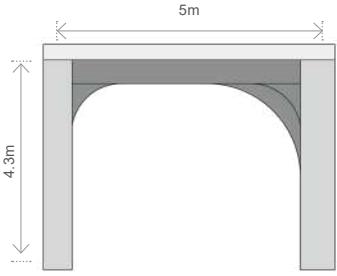
To create suitable thresholds within the base which is part of a well-ordered, coherent street scene and responds to the local character.



Other elements



Arches



Fenestrations

3.5 Other elements

- 1 In addition to the elements above, buildings can incorporate the use of new materials and scales. Traditional colonnades, verandas, columns, balconies or bays, should be recasted through new materials and based on functional and minimal design decisions.

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

4.0 Colors and Materials

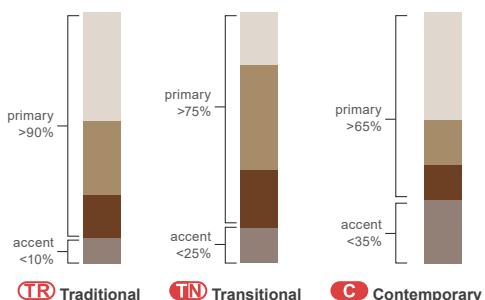
4.1 Colors

The color palette of Al Ahsa Oasis is closely linked to traditional building materials such as stone, palmwood and sand. The surrounding landscape is also an important influence, particularly the colors of cream, gray-white and brown beige.

- 1 **TR** Primary colors, the larger swatches to the right, should be used on walls and secondary colors, the smaller swatches, should be used on recessed structures on the building which tend to have an orange-beige finish. Additionally, plaster and lime white color should be used for levels 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 a percentage of the total facade area, is allowed for each style:
 - **TR** <10%
 - **TN** <25%
 - **C** <35%
- 4 For windows' glass, avoid using mirror-like reflective glass with bright colors that do not harmonize with the local environment and 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/



Gypsum ornamentation



Metal window grills



Plaster finish on adobe walls



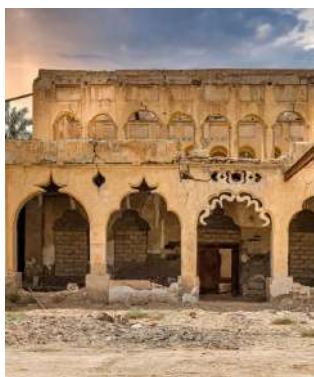
Plaster ornaments
Mud ornaments
Gypsum stucco



Perforated metal cladding
Timber grilles
Metal grilles



Smooth coloured plaster
Coarse-grained clay plaster
Rough-cast render



Limestone walls and archway



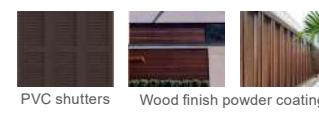
Timber window shutter



Timber doors



Limestone cladding
Plaster finish
Mud finish



PVC shutters
Wood finish powder coating
Wooden door panels



Glass with aluminum frames
Arched windows
Fiberglass with wood finish

4.2 Material

This palette summarizes the prevalent materials found in the architecture of Al Ahsa Oasis.

- 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 styles, and in a more cautious manner in traditional style.
- 3 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.

- 4 Local and sustainably sourced materials are preferred.

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 landscape and architectural character.

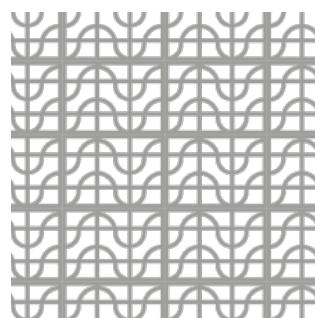
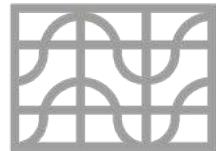
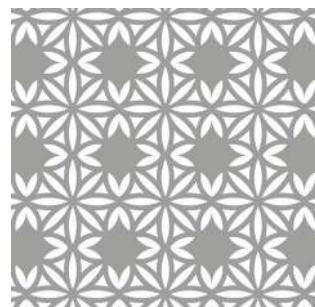
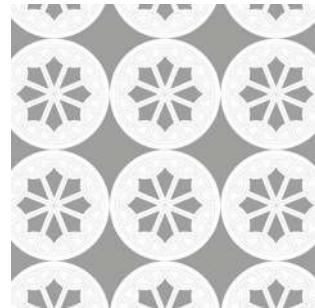
5.0 Patterns

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 **(TN 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



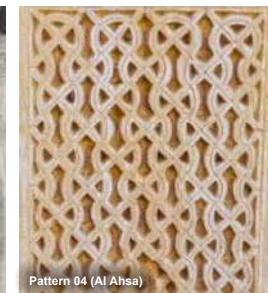
Pattern 01 (Al Ahsa)



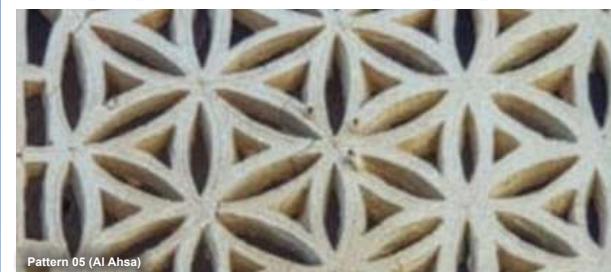
Pattern 02 (Al Ahsa)



Pattern 03 (Al Ahsa)



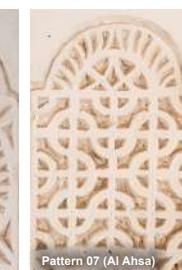
Pattern 04 (Al Ahsa)



Pattern 05 (Al Ahsa)



Pattern 06 (Al Ahsa)



Pattern 07 (Al Ahsa)



Pattern 08 (Al Ahsa)



Pattern 09 (Al Ahsa)



Pattern 10 (Al Ahsa)



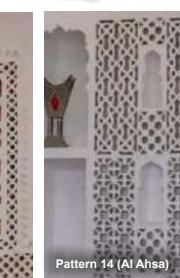
Pattern 11 (Al Ahsa)



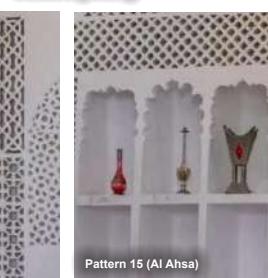
Pattern 12 (Al Ahsa)



Pattern 13 (Al Ahsa)



Pattern 14 (Al Ahsa)



Pattern 15 (Al Ahsa)

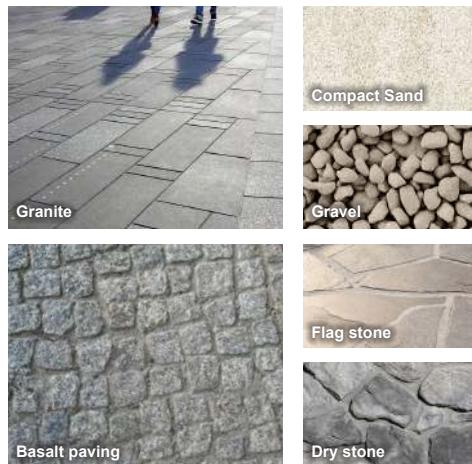
6.0 Public realm

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 needs. It's essential to ensure that any modifications or additions to publicly-owned spaces are thoroughly coordinated and approved by relevant authorities.

To enhance the character and quality of publicly used spaces in between buildings.



6.1 Paving Materials

Paving guides users through both built and natural areas.

- 1 Select robust materials for longevity, easy maintenance, and repair.
- 2 Use contextual materials that complement surrounding.

To enhance aesthetics, and environmental sustainability in urban landscapes.



Undesirable shading



Desirable frontage shading



6.3 Parking

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

- 1 Parking spaces should not obstruct the use of built areas.
- 2 Unregulated use of public space disturbs the visual appeal of the built area and affects public access.

To ensure that parking does not create an obstruction to the development and ensures good flow.



Palm trees



Shade trees

Ornamental species



6.4 Planting

Planting should complement and work with existing ecosystems and contribute to a sustainable built habitat.

- 1 Rely less on importing plant species and source drought and saline tolerant species.

To ensure that plants do not disturb existing wildlife and natural environment.



Villa signage



Undesirable villa signage



Ceiling light



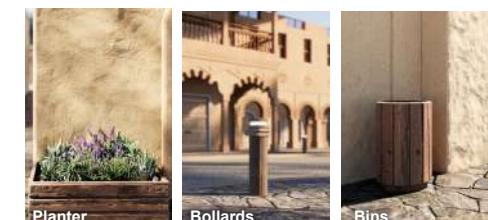
Wall hanging light



Free standing light



Undesirable lighting approach



Planter

Bollards

Bins



Undesirable frontage

Protruding steps

6.5 Signage

Signage guides users and aids navigation in public areas.

- 1 Signage should integrate seamlessly with the architecture, ensuring clarity and harmony in form, scale, color, and size.
- 2 Minimize signage conflicts with residences and tree canopies by facing roads and using subdued illumination.

To effectively orient the public in navigating built areas.

6.6 Lighting

Lighting is crucial for nighttime activity and overall design.

- 1 Consistent lighting enhances urban and architectural appeal.
- 2 Architectural lighting should target color temperatures in the 2200K-2700K range for comfort and good color rendering.

To create a harmonious and pleasurable perception of public areas.

6.7 Public realm interface

The shared spaces and walkways of public areas should be used effectively.

- 1 Avoid protruding ramps or steps into public property.

To create a distinct and active sense of place.

7.0 Dos and don'ts

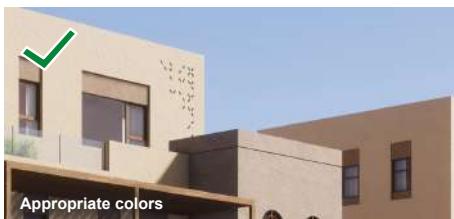
This section focuses on easy wins for the improvement of architectural quality and character. Drawing upon best design practice, these guidelines help avoid common mistakes that create visual pollution and hostile environments.

| To avoid common design mistakes.



7.1 Inappropriate materials

- 1 Use durable and quality materials that give the building authenticity, texture and mass while adhering to recommended material palette.
- 2 Do not use building materials alien to the tradition such as metal cladding and high reflectivity and colored glass.
- 3 Do not use low-quality building materials that appear fake or poorly imitate the original materials.



7.2 Saturated colors

- 1 Do not use non-contextual bright and artificial colors that detract from the natural landscape and local architecture.
- 2 Colors should be consistent and integrate well with the built landscape and landscape at large.



7.3 Screens and closures

- 1 Integrate the design of 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 traditional elements

- 1 When integrating traditional elements on existing or new structures, it should be done in a conscious manner adhering to original precepts through which such motifs and elements were used.
- 2 Careless copies of historical motifs, lackluster incorporation of local symbols, poor consideration of proportions, massing, volume, and other instrumentalization of traditional motifs should be avoided.



7.5 Exposed shutters

- 1 Exposed roller shutters create noise and visual pollution if not properly concealed.
- 2 It is recommended that shutters are always integrated in the façade and properly mounted.
- 3 The use of high-quality mechanized shutters to ensure durability is advised. Shutters should also reflect the color scheme of the construction, design and overall region.



7.6 Exposed building services

- 1 Infrastructural elements such as communication towers, air-conditioning units, satellite dishes, water tanks and ducts, wires, pipes, among other should be discreetly embedded in the design and not exposed or be seen by the public.

7.7 Inconsistent or imported architectural style

- 1 The adoption of building materials, style, and standards which do not comply with local architecture style and character should be avoided.
- 2 Styles should embrace the cultural context and use materials that work with the local context.
- 3 Avoid applying foreign imported architectural elements.



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

8.0 Traditional villa example

Nestled within the enchanting landscape of Al Ahsa Oasis, traditional architecture stands as a tribute to the region's storied past. Every facet of design, from the gracefully arched vehicular gates adorned with intricate details to the carefully shaded rooftop elements and precisely aligned windows, serves to honor the area's rich heritage. These architectural features not only enhance the visual appeal but also imbue each level of the structure with a distinct charm and functionality.

Beyond aesthetics, the design harmonizes seamlessly with the natural surroundings, echoing the irregular profile of the region's original dwellings. Through diverse heights and structures, the villa reflects the organic growth of settlements over time. The intricate motifs and architectural flourishes further enrich the narrative, showcasing the artistry and craftsmanship of Al Ahsa's builders.

Even the boundary wall, with its echoing arches and stylistic continuity, serves as a testament to the region's cultural richness. This commitment to tradition ensures that Al Ahsa's architectural heritage remains a source of pride and inspiration for generations to come.

1 Cinquefoil arches above the vehicular gate, flanked by lanterns.



2 Entryway through perimeter wall features a timber double door with a shade above.



3 Traditional façades with ornamentation above openings.



4 Third story features a large shaded rooftop.





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

8.0 Transitional villa example 1

Building upon the foundational design elements of traditional architecture, the transitional approach accentuates the incorporation of semi arched openings and frames. This transitional design exemplifies a fusion of contemporary influences with traditional aesthetics, breathing new life into historic designs by infusing them with a subdued interpretation of regional patterns, styles, and ornamentation.

Within this design paradigm, a deliberate effort is made to streamline and refine all architectural features such as angles, arches, banding, and parapets, resulting in a more minimalist and understated aesthetic. Moreover, there is a deliberate departure from the overt use of motifs and traditional designs, opting instead for a subtle integration across entrances and windows.

The balcony and bay railings are crafted to be more welcoming, prioritizing transparency to foster a sense of openness and connection with the surrounding environment. Overall, this transitional approach strikes a balance between honoring the heritage of traditional architecture and embracing contemporary sensibilities, creating spaces that feel both timeless and inviting.

1 Vehicular gateway is timber with a semicircular arched opening, set within a rectangular plaster frame.



2 Entrance through the perimeter wall is timber with minimal ornaments.



3 Bare geometric outlines of openings accommodate semicircular arches and geometric ornamentation.



4 Third story features a large shaded rooftop section with a modern design.





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

8.0 Transitional villa example 2

This transitional worked example depicts a blend of traditional design with modern functionality. The villa is characterized by different volumes and localized symmetry, marked through openings, the boundary wall, and roofscape. The three-story recessed structure is painted with the characteristic tones from the region, alongside arched doorways and openings above windows with decorative elements which reinforce the traditional craftsmanship of Al Ahsa.

The villa's façade relies on wood and local timber, for the main gate, doors and window shutters. Additionally, the façade also shows a balanced composition between solid high walls and slight openings and voids, ensuring privacy while allowing natural light to penetrate the interior spaces.

The landscape around the villa features context-specific plantings and trees and a well-defined boundary wall with material consistency to the

façade which regulates the streetscape from the private interiors.

1 Villa's garage entrance features clean modern lines, using the same materials as the main entrance door.



2 Main pedestrian entrance made of wood, framed by traditional stonework or concrete.



3 Openings above windows carved in classic geometric patterns.



4 Delicate iron or wood balcony railings enhance the villa's solid geometric design.





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

8.0 Contemporary villa example 1

By expanding upon traditional foundations while embracing novel architectural paradigms, this scenario epitomizes a sophisticated hybrid design ethos, seamlessly melding diverse influences. Abstracted local motifs imbue the design with a unique character, while elongated vertical surfaces, manifested through uninterrupted windows and arched walkways, create a sense of fluidity and spatial continuity.

Semicircular arches, though present, are slender and serve a more understated role in defining the villa's various structures and functions. Windows take on a pronounced elongated and widened form, enhancing the sense of openness and connection to the outdoors. Certain balconies opt for glass railings, promoting transparency and an unobstructed view of the surroundings.

Parapets are rendered with simplicity, devoid of

embellishments, contributing to the overall clean and contemporary aesthetic. Intriguing fractal designs adorn the facades, adding visual interest and complexity, while shaded verandas offer respite and define projecting bays and side balconies.

This design narrative showcases a harmonious fusion of tradition and innovation, resulting in a dynamic architectural expression that captivates with its blend of familiarity and modernity.

1 Vehicular entryway is simple, covered by a shaded canopy extending from the main façade wall.



2 Entrance structure upon the perimeter wall is simplified.



3 Contemporary openings combine glass with timber framing, featuring fractal and geometric ornamentation.



4 Shaded accessible rooftop spanning multiple storeys, featuring a timber overhang.





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

8.0 Contemporary villa example 2

The contemporary villa's volume takes on mostly cubic massing, and is distinguished by its three levels with extending balconies. Soft beige and earthy tones drawn from the Al Ahsa's color palette mark different functions of the building (such as the main entrance, boundary wall, and window openings). The design has larger windows and arched openings for main living areas.

The building displays a mix of clean lines and archetypal elements such as the wooden features and textured surfaces of traditional design. They have a minimalistic approach to decoration that emphasizes the materiality and form.

The integration of local landscaping works with the traditional ecosystem while also contributing to the public realm. Privacy is balanced with openness through strategic placement of walls and openings.

Material continuity between the boundary wall and the villa establishes a sense of material and design unity, contributing to a coherent visual character for the streetscape.

1 Garage entrance mirrors the main pedestrian entrance, with a shaded parking pergola.



2 Clean lines and textured wood characterize the main gate, blending modern design with minimal motifs.



3 Arched window frames, flush with the building profile, feature interpretive metalwork of traditional design.



4 Contemporary openings feature glass, timber framing and minimal design.





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

8.0 Contemporary villa example 3

The contemporary villa worked example shows a modern interpretation of Al Ahsa's architectural heritage. The design adopts a predominantly cubic form accentuated by the multi-level structure, with terraces and slight indented framing for windows and the roof to provide dimensionality to the façade.

Neutral hues derived from the color palette of Al Ahsa are used for the building's palette with wooden accents and textured finishes nodding to traditional aesthetics.

Expansive windows and minimalist arches break the building profile to ensure abundant daylight. The boundary wall and windows incorporate abstracted ornamented fenestrations to serve practical and aesthetic purposes, ensuring adequate lighting and points of view while contributing to the regional aesthetics. The design negotiates private and communal spaces, with walls and open areas orchestrated to create a sense of seclusion without compromising on openness.

Consistency in materials from the boundary wall to the main structure creates a cohesive character to the building, reinforcing a modern, yet culturally resonant streetscape.

1 Villa's entrance combines a modern, clean-lined wooden door with a solid pergola for car parking.



2 Main pedestrian entrance made of wood/local timber with clean lines.



3 Flush window frames with abstracted design feature tinted glass.



4 Villa's roof terrace is a flat, minimally adorned space offering privacy to the inhabitants.

