

Al Ahsa Oasis

Architectural Design Guidelines



Application Handbook - Low-rise Buildings





Al Ahsa Oasis Architectural Character Area



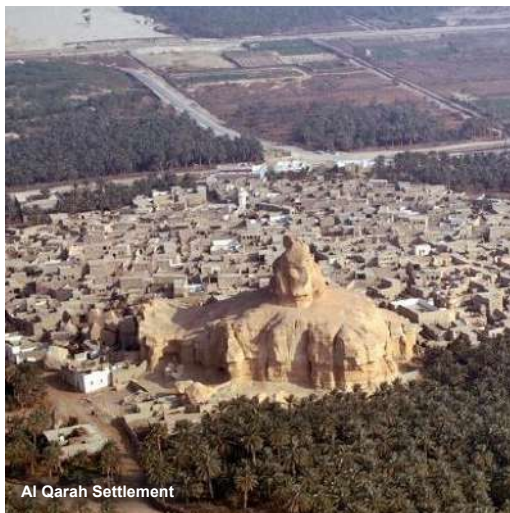
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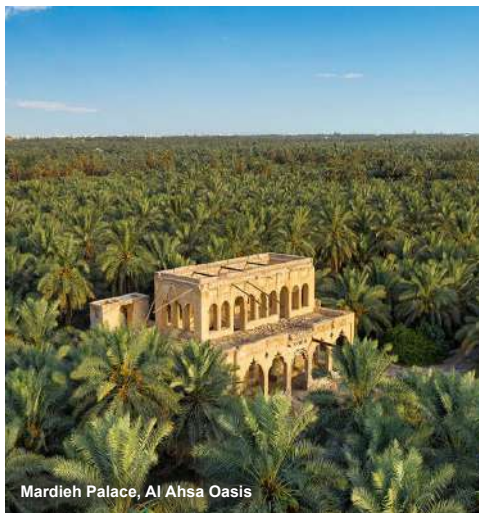


Application Handbook - Low-rise Buildings

Al Ahsa Oasis - Architectural Design Guidelines



Al Qarah Settlement



Mardieh Palace, Al Ahsa Oasis

I Introduction

The purpose of this document is to help designers and builders of low-rise mixed-use buildings 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.

Enabled by 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. A common feature in Al Ahsa is the organization of socio-urban clusters known as Fareejs. Typically, these clusters consist of a collection of dwellings that cater to intergenerational living, alongside other structures serving various functions, such as mosques or schools, and the interconnected walkways between them. Many individual dwellings would be two storeys and have their own shared courtyard and verandas. Al Ahsa settlements feature plazas, arcades, and market areas, serving as vital trading hubs for 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



Example of elevation of a Traditional Low-rise mixed-use building in Al Ahsa Oasis

II Low-rise Buildings

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

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

This building type emerges predominantly from contemporary development patterns: larger rectangular plots of land typically accessed by car from a street on one edge, and interfacing with adjacent properties on the other boundaries. These buildings tend to exhibit a horizontal, rectilinear form and a clear orientation to the street, with distinct sides and backs. This makes their form inherently different from the historical building types that are the source of architectural characters, and is a primary challenge for the application of the architectural character to low-rise buildings, to be addressed by this handbook.

Low-rise mixed-use buildings

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

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

Low-rise apartment buildings

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

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

III How to use the guidelines

Follow these instructions to create a building that supports the architectural character of 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 façade 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 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. (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:

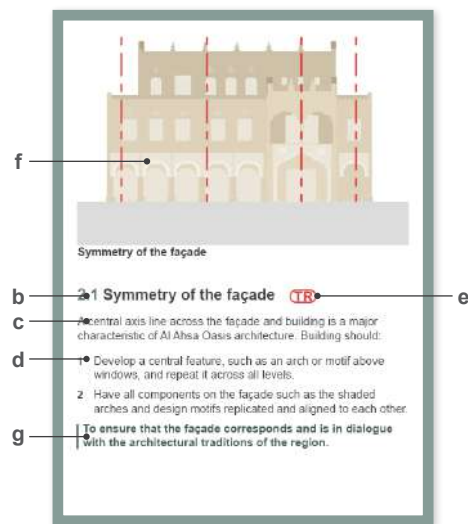
TR Mandatory for Traditional style

TN Mandatory for Transitional style

C Mandatory for Contemporary style

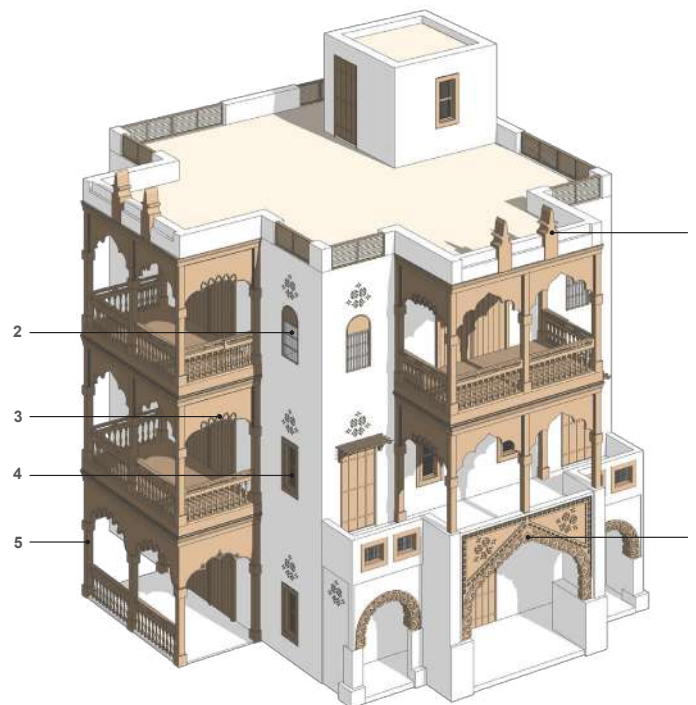
- 5 Guidelines are organized according to the following parts:

- 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 fulfilment



Typical guideline structure.

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



Key features:

- 1 Flat occupiable roofs screened from the street with tall ornamented parapets.
- 2 Rectangular windows usually at the corners of the structure and on the upper levels with a semicircular arch above and motifs.
- 3 Large, wide balconies from the habitable rooms; employ wide variety of ornamentations from cusps to lotus to tendril shapes.
- 4 Windows are generally smaller and rectangular on the main level above the ground floor to screen the interior from exterior.
- 5 Shopfront arcades in an ornamented style matching balconies above.
- 6 High-portal doorways with pointed or cusp arches leading into the main entrance.



Traditional **TR**

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

START AT PAGE 5



Transitional **TN**

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

START AT PAGE 6



Contemporary **C**

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

START AT PAGE 7

1.0 Traditional Style

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

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

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

COMPOSITIONAL RULES

2.1 Local symmetry of the façade

Symmetry in the façades of individual building volumes is a key feature throughout Al Ahsa in addition to aligning the key features of design prevalent in buildings. This entails adhering to a large-scale symmetry, where windows and arcades on each façade should exhibit a high degree of symmetry and consistency of details and decorations.

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 while incorporating arcades on the base levels, particularly on street-facing façades. Additionally, a distinct grouping in the middle section should be established by featuring windows with niches on top. By following these guidelines, you can achieve the characteristic grouping of openings that defines the architectural charm of Al Ahsa.

2.6 Rooftscape and rooftop elements

The traditional rooftscape of the Al Ahsa Oasis is characterized by stepped designs, potentially featuring habitable sections and incorporating crenelations. Fenestrations are also utilized as decorative elements in this architectural style.

2.7 Geometry of components

Doors in the architectural design of Al Ahsa should adhere to orthogonal geometry, emphasizing a clean and straight-lined structure. For entrances, especially main ones, and windows, an arched design is recommended to highlight their distinct character. The windows situated on higher floors can follow an arched format. Additionally, all arches, including those on doors and windows, should feature embellished cusp arches, along with variations of heart-shaped cusps, contributing to the intricate detailing characteristic of Al Ahsa's architectural style.

2.8 Solid façades

It is recommended to punctuate the walls with openings and fenestrations of varied sizes, contributing to a visually engaging façade. Large windows play a crucial role in promoting airflow between spaces, ensuring a comfortable interior environment. Allocating a maximum of approximately 35% of the façade for openings enhances the overall aesthetic and functional aspects of the building. Additionally, incorporating screen shadings over select openings adds a layer of detail, functionality and privacy to the



Axonometric view showcasing an example of the application of compositional rules for traditional style low-rise mixed-use buildings.

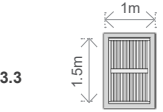


Elevation view showcasing an example of the application of compositional rules for traditional style low-rise mixed-use buildings.

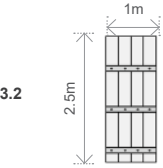
Key traditional architectural features.



3.4 Parapet Type



3.3 Window Type



3.2 Door Type

design, contributing to the region's architectural character.

TRADITIONAL ELEMENTS

3.2 Doorways and entrances

The main door should be articulated on the façade clearly with a projecting vertical structure which is large, wide, and visibly decorated. A pointed arch with carved motifs frame the main entrance. This allows it to be prominent while lining the main facade with a row of shopfront doors tucked within a semicircular shaded arcade with exposed columns that is slightly recessed from the main entryway structure.

3.3 Windows and openings

The second-floor windows on the primary façade are a prominent feature, aligning uniformly. These windows exhibit an orthogonal design, extending across both the main façade and side walls, while being more sparingly utilized on the base's side wall. Arched windows should be used on the higher building floors, complemented by small square openings on the side walls. Additionally, a shaded balcony can be used to highlight the main entrance by being situated above it.

3.4 Rooftop elements

The traditional rooftscape of Al Ahsa features flat rooflines, showcasing various parapet types tailored to the building typology and its contextual relevance. The parapets should have minimal outlines, featuring double-stepped crenelations separated by evenly spaced niches. Vegetal-inspired merlons with a wide gap between each element should be adopted.

COLORS, MATERIALS AND PATTERNS

4.1 Colors

The building façades should be the natural colors of the predominant wall finishes (cream, gray-white and brown beige). The use of accent colours should generally be avoided and, if used, should comprise less than 10% of the façade area. See section 4.0 'Colors and Materials' for more information.

4.2 Materials

The primary wall surface should be matt-finish off-white plaster, lime-wash, or similar, and be continuous from above the base to the top of the parapet.

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

5.0 Patterns

Historical patterns of the region are very detailed, ornamented, and have a stencil-like quality made of vegetal and floral and should be incorporated for entryways, above windows, fenestrations and crenelations.

1.0 Transitional Style

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

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

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

COMPOSITIONAL RULES

2.1 Local symmetry of the façade

Building on the symmetry of the traditional style, the transitional example should have aligned key features. Whereby the features are more geometric and angular, each façade should still have symmetrical features and consistency in details and decorative elements should be adopted.

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 floor and incorporating simple arcades with basic timber panels on the base levels, especially on street-facing façades. Additionally, enhance grouping contrast by adding a distinguishing element of semi-circular windows for the balcony in the middle section. By implementing these techniques, you can achieve a cohesive and visually appealing façade that reflects the transitional architectural style while still respecting traditional principles.

2.6 Roofscape and rooftop elements

Similar to the Al Ahsa Oasis traditional style, the roofscape's stepping follows the placement of the entrances.

2.7 Geometry of components

In the transitional style, the grouping of elements remains consistent with orthogonality, but arches should be simpler and semicircular, devoid of embellishments and ornaments, distinguishing it from the more ornate traditional style.

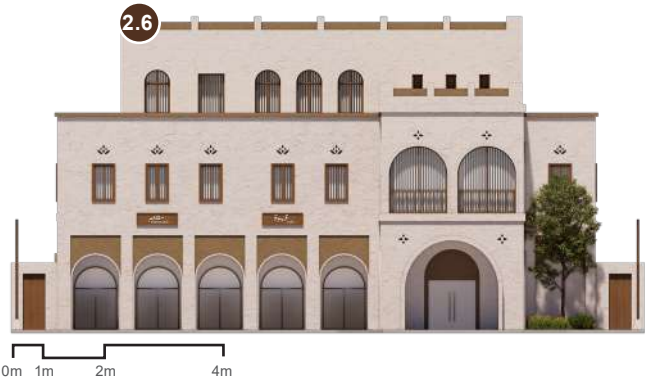
2.8 Solid façades

This compositional rule's traditional feature applies to the transitional style as it is, keeping with the character of Al Ahsa. It is recommended to punctuate the walls with openings and fenestrations of varied sizes, contributing to a visually engaged interior.

Allocating maximum of approximately 45% of the façade for openings enhances the overall aesthetic and functional aspects of the building. Incorporate simpler, less detailed screens than those in the traditional style, or consider alternative shading solutions in the transitional style.

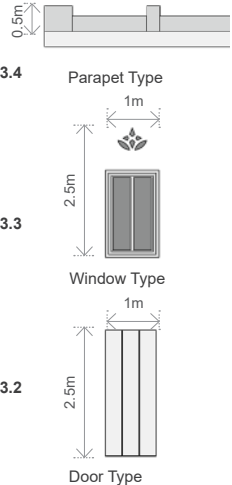


Axonometric view showcasing an example of the application of compositional rules for transitional style low-rise mixed-use buildings.



Elevation view showcasing an example of the application of compositional rules for transitional style low-rise mixed-use buildings.

Key transitional architectural features.



TRANSITIONAL ELEMENTS

3.2 Doorways and entrances

The transitional doors build on the traditional layout of doors but refine the original outlines, frames, and walkways into a more a more bare and basic geometric shape. Rather than using several arch types, semicircular doors are used for main and public entrances and orthogonal doors for less prominent entrances.

3.3 Windows and openings

In this transitional style, windows draw inspiration from traditional characteristics, primarily situated on the second floor. Unlike the traditional approach of framing them within the structure, aluminum or wood frames could be used, typically exhibiting greater length compared to traditional windows. Higher floors feature taller windows with arched structures above. The spacious balcony should serve as a versatile element, creating an outdoor ambience while seamlessly integrating with the interior through adding expansive windows framed with arches on all sides.

3.4 Rooftop elements

Similar to the traditional style, many crenelations and parapets adopt reduced height and less ornamentation. This design maintains the symmetrical translation of corners and roof elements from the traditional design, yet exhibits a more understated and minimal approach. It should host a parapet with a one step design and a gap in between.

COLORS, MATERIALS AND PATTERNS

4.1 Colors

The building façades should be the natural colors of the predominant wall finishes (cream, gray-white and brown beige). Accent colors should not comprise more than 20% of the façade area. See section 4.0 'Colors and Materials' for more information.

4.2 Materials

The primary wall surface should be matt-finish off-white plaster, limewash, or similar.

The square frame above the arcade and banding for the roof should be made of a different colored material but matches the rest of the building as a smooth contrast.

5.0 Patterns

Use minimal patterns which draw from the traditional local patterns but abstract them and simplify their decorative elements.

1.0 Contemporary Style

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

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

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

COMPOSITIONAL RULES

2.1 Local symmetry of the façade

Expanding on the notion of 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 symmetry, consistent detailing, and decorative elements should persist across each façade. The main entrance and elements on the ground level and façade as well as windows are used to express symmetry rather than elements on the roofscape.

2.2 Grouping of elements

To align with the traditional style, emphasize differences along the façade by strategically grouping openings. However, in the context of contemporary style, prioritize this grouping strategy based on the function of similar windows rather than individual floors. Arrange elements according to the interior program's needs, considering functions both vertically and horizontally, without strictly separating floors. By following this approach, you can achieve a contemporary façade design that integrates functionality seamlessly while still respecting traditional principles.

2.6 Roofscape and rooftop elements

For the contemporary style, the design of the roofscape should step towards the rooftop as well. However, this design maintains the emphasis on the main entrance.

2.7 Geometry of components

Building upon the transitional style, the contemporary approach should simplify geometric shapes, aiming for a homogeneous massing while maintaining a variety of geometric shapes by avoiding excessive repetition. The elements also maintain orthogonality and arches also adopt a simpler, semicircular form, with minimal ornamentation, thereby distinguishing it from the ornate traditional style.

2.8 Solid façades

For the contemporary style, large windows should be prioritized, therefore allocating maximum 60% of the façade for openings. This enhances the overall aesthetic and functional aspects of the building. Similar to the transitional style, simple shutters and window shades can be used.

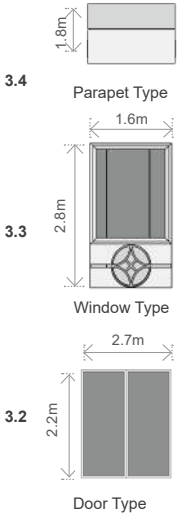


Axonometric view showcasing an example of the application of compositional rules for contemporary style low-rise mixed-use buildings.



Elevation view showcasing an example of the application of compositional rules for contemporary style low-rise mixed-use buildings.

Key contemporary architectural features.



CONTEMPORARY ELEMENTS

3.2 Doorways and entrances

The shopfronts should feature distinctive floor-to-ceiling arches. The second floor should project outward to align with the arches, establishing a shaded walkway for the ground floor shopfronts. In this style, the side structure for the entrance should be preserved, utilizing its original material while incorporating an extensive glass façade.

3.3 Windows and openings

The façade of the main building mass should be recessed behind circular arches, and the majority of the building should feature a glass exterior, forming a façade primarily composed of windows.

3.4 Rooftop elements

In the contemporary style, parapet banding or corner designs are avoided. The parapet should be simple and simple engravings may be applied.

COLORS, MATERIALS AND PATTERNS

4.1 Colors

Use paints and colors which are in line with the regional palette and natural materials. Consider using accent colors of no more than 35% as part of the definitions for the window frame, banding of the structure, and signage. See section 4.0 'Colors and Materials' for more information.

4.2 Materials

Usage of glass is higher compared to the traditional and transitional styles. The design uses two different color tones of the same material to delineate the different volumes.

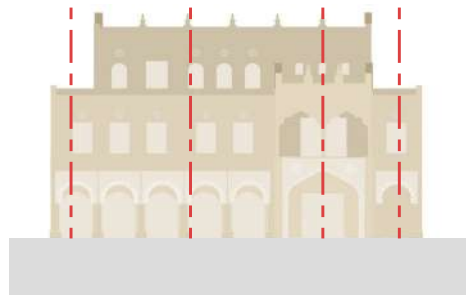
5.0 Patterns

In contemporary styles, designers should make use of existing traditional patterns to develop new ones. Original vegetal motifs and stencil-like decorations on the wall should be transformed into three-dimensional design objects. This approach embraces older motifs, reinterpreting them using modern materials and techniques.

2.0 Compositional rules

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

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



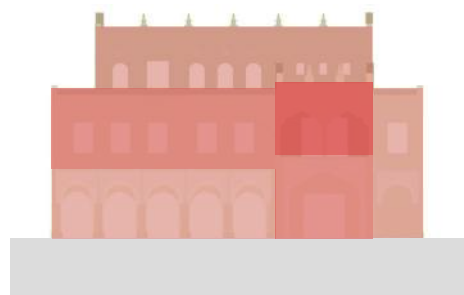
Local symmetry of the façade

2.1 Local symmetry of the façade

Symmetry 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 façade.
- 2 Have all components on the façade such as the shaded arches and design motifs replicated and aligned to each other.

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



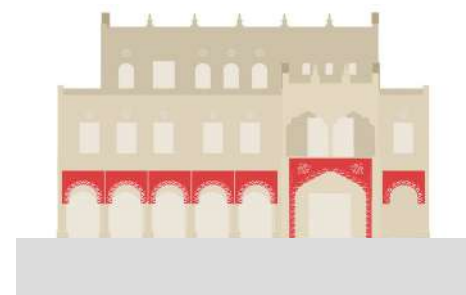
Grouping of elements

2.2 Grouping of elements

Utilizing both arched and orthogonal openings in Al Ahsa region, buildings should:

- 1 Be grouped orthogonal windows on the upper level and mid-level in the case of three storey buildings. Arched windows should be grouped together.
- 2 Have an articulated entrance through a large entryway and structure.
- 3 Be used on niches if arched openings are on the mid-floor.

To group the typical forms in vernacular buildings.



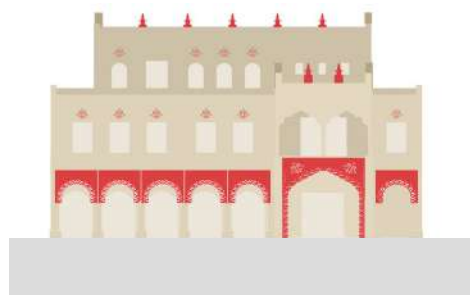
Entrances and articulation

2.3 Entrances and articulation

An exception to the symmetry of the Al Ahsa architecture is the entrance. Buildings should:

- 1 **TR** Have the main door with distinct arch shapes, and decorated with more complex ornamentations.
- 2 Ensure the main entrance door is accompanied by a well-articulated doorway, slightly protruding from the main structure featuring a visually distinct design profile from the shopfronts.

To make the main entrance design well prominent in the façade.



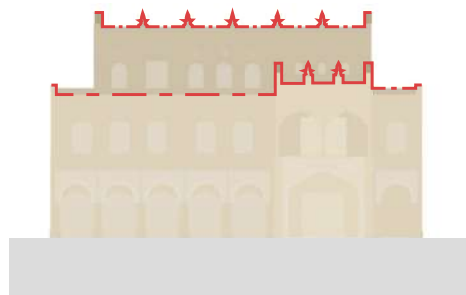
Ornamentations, fenestrations and crenelations

2.5 Ornamentation

New buildings are of a larger scale to traditional form, thus care should be taken to avoid distorting the original architecture which could undermine quality. New buildings should:

- 1 Embed ornamentation within the parapets, banding, arches, doors and recessed elements.
- 2 **TR** Have entrance heavily ornamented with intricate details.
- 3 Have façades which generally show singular ornamentation at every level and used above windows and openings.

To ensure that the ornamentations reflect the style of the Al Ahsa architecture and distinguish it from other regions.



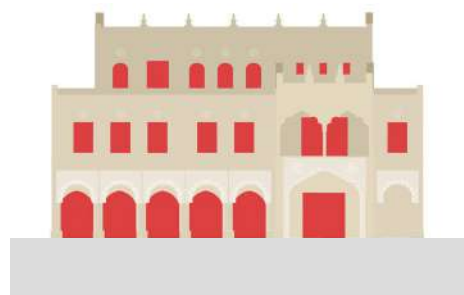
Roofscape and rooftop elements

2.6 Roofscape and rooftop elements

Roof and parapets form a joint component in Al Ahsa Oasis. The design of new buildings should:

- 1 Have a stepped roof with crenelations on the parapet.
- 2 **TR** Integrate specific crenelations 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 Have orthogonal shapes for doors and windows.
- 2 Apply arches for entrances and windows on higher floors.
- 3 Have the doorway and shopfronts clearly articulated through a shaded arcade.

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



Solid façades

2.8 Solid façades

Al Ahsa Oasis features less openings compared to solid walls. New buildings should:

- 1 Be punctuated with openings and fenestrations of varied sizes.
- 2 Emphasize the building's doorway with a protruding vertical structure with openings.
- 3 Provide vertical articulation for the main entrance and horizontal distinct ones for the ground floor and roofscape.
- 4 Large windows should be adopted for airflow ventilation.
- 5 Shading systems should be utilized for selected openings.

To soften the presence of solid walls and accentuate awareness of the surrounding environment.

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.



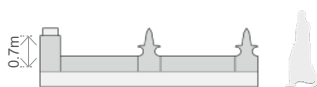
Top



Flat parapet with fenestrations



Parapet with crenelations



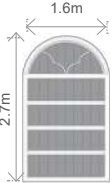
3.4 Rooftop elements

- 1 Be completely flat.
- 2 Parapets should be stylistically chosen according to the building use.
- 3 The use of wooden screens and/or small openings between the decorated merlons can be adopted.
- 4 A stepped roofscape and should be done in alignment with façade entrances.

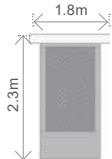
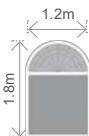
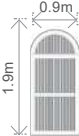
To create functional roof spaces and roofscapes which embrace the typical characteristics of the local area.



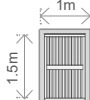
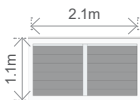
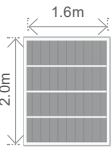
Middle



Arched windows



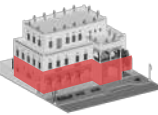
Rectangular windows



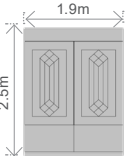
3.3 Windows and openings

- 1 Use rectangular or arched windows with a vertical proportional bias.
- 2 Windows are concentrated on middle floors, especially to indicate the living room area, 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 should be made of local timber or equivalent materials to local timber.

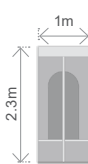
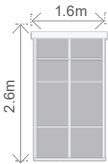
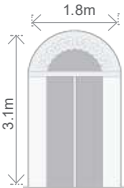
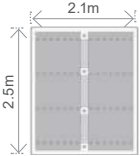
To respond to climate and aesthetic considerations of the area.



Base



Entrance Doors



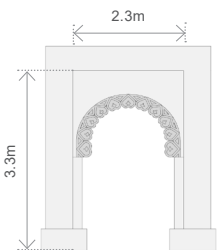
3.2 Doorways and entrances

- 1 Clearly define primary entrances as part of a well-ordered street frontage with shaded verandas.
- 2 A high portal doorway with wooden doors and extensive craftsmanship for the arches and colonnades.
- 3 Consider the articulation of the portal from the entrances and openings using wood or engravings and framed arches.
- 4 Use local materials, such as tamarisk wooden doors or an equivalent material for the entrance.

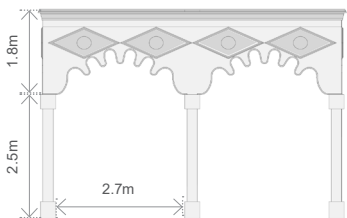
To create suitable thresholds within the base which is part of a well-ordered, coherent street scene and responds to local character.



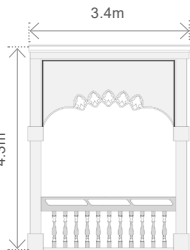
Other elements



Arch



Arches



Balcony



Fenestrations

3.5 Other elements

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

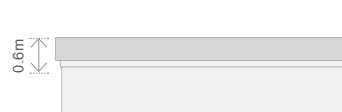
To embed other elements which are frequently part of the overall composition of buildings.

3.0 Transitional Elements

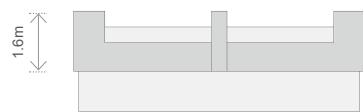
The elements illustrated are examples and should not limit other possible design solutions that follow guideline principles and historic precedents. Element measurements are illustrative and provided to indicate general proportions only.



Top



Flat parapet



Parapet with notches



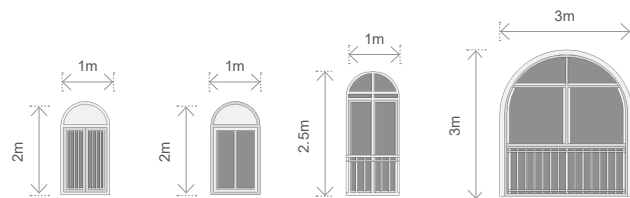
3.4 Rooftop elements

- 1 Maintain a distinct rectilinear form, with banding and an abstracted orthogonal crenelation.
- 2 Should have a color different to that of the façade's.
- 3 Modern material should be used for the parapet and banding, however, derived from the traditional material but with less ornamentation.

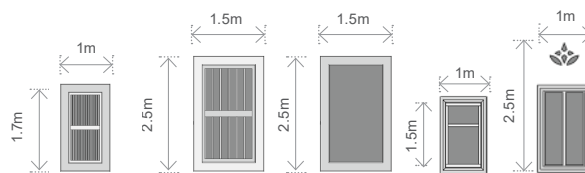
To create functional roof spaces and roofscapes which embrace the typical characteristics of the local area.



Middle



Arched windows



Rectangular windows

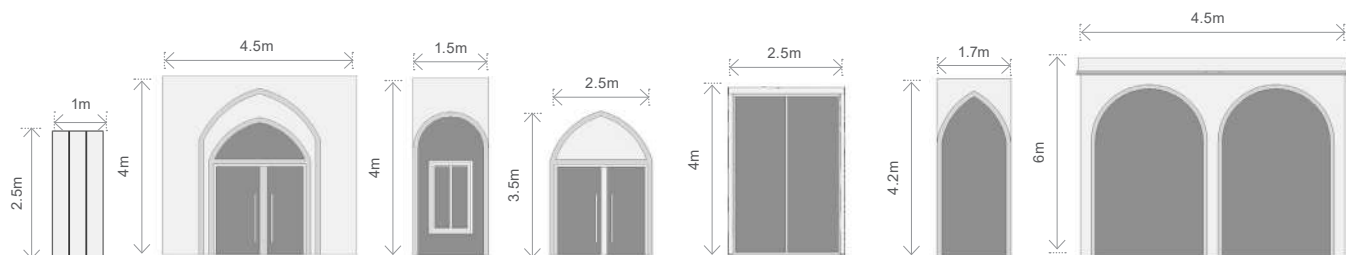
3.3 Windows and openings

- 1 Use rectangular or arched headed windows, generally with a vertical proportional bias.
- 2 Windows on the upper level should be more abundant and should have a clearly marked frame within the gypsum frame.
- 3 Incorporate simple, geometric patterns and abstracted arch motifs above the window.
- 4 Windows can incorporate wooden louvres, curtains or crossed bars.

To respond to climate and aesthetic considerations of the area.



Base



Entrance Doors

Arches

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 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

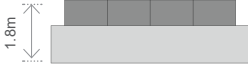
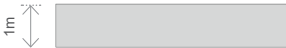
The elements illustrated are examples and should not limit other possible design solutions that follow guideline principles and historic precedents. Element measurements are illustrative and provided to indicate general proportions only.



Top



Parapet (Horizontal banding)



Parapet (Terrace)



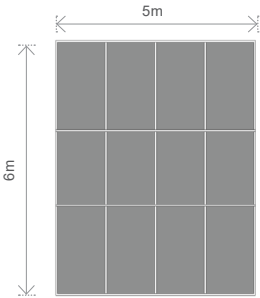
3.4 Rooftop elements

- 1 Be completely flat and should be stepped based on the building entrances specifically the main one.
- 2 Create a distinctive grouping of structures which create multiple roof terraces with planting, seating, and verandas.
- 3 Should feature flat parapets which are flush with the primary building line as well as angular corners.
- 4 Should have views and access to public areas with glass and transparent railings if it is not the upper-most roof.

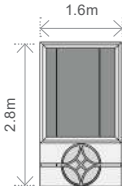
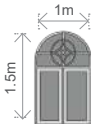
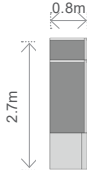
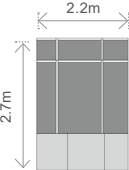
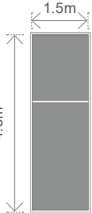
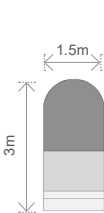
To create functional roof spaces and roofscapes which embrace the typical characteristics of the local area.



Middle



Windows



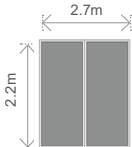
3.3 Windows and openings

- 1 Use rectangular or arched headed windows, generally with a vertical proportional bias, specifically floor to ceiling.
- 2 Incorporate minimal motifs and ornamentation.
- 3 Openings and windows can span the full floor height depending on the function.
- 4 Windows and openings should be surrounded by a minimal frame and not protrude from the projecting line.

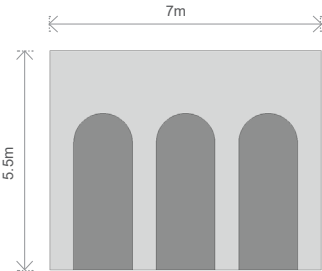
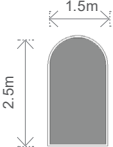
To respond to climate considerations and provide an aesthetic treatment which is distinct to the local area.



Base



Entrance Doors



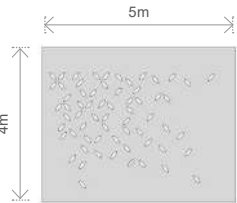
3.2 Doorways and entrances

- 1 Clearly define primary entrances to enhance the street frontage experience.
- 2 Door framing and recessing is marked by abstracted design of local arc styles, through volume, material and outline, and have little to no decoration.
- 3 Door portals should be flush with the projection line and façade.

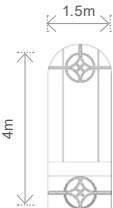
To create suitable thresholds within the base which is part of a well-ordered, coherent street scene and responds to local character.



Other elements



Fenestrations



Metal panels

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

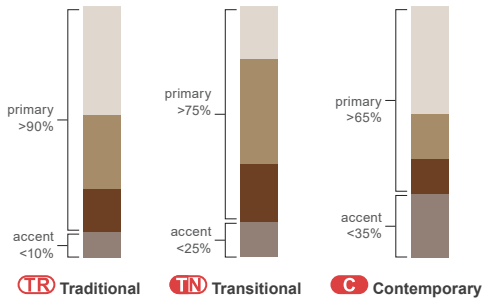
4.1 Colors

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 a 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 façade 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.

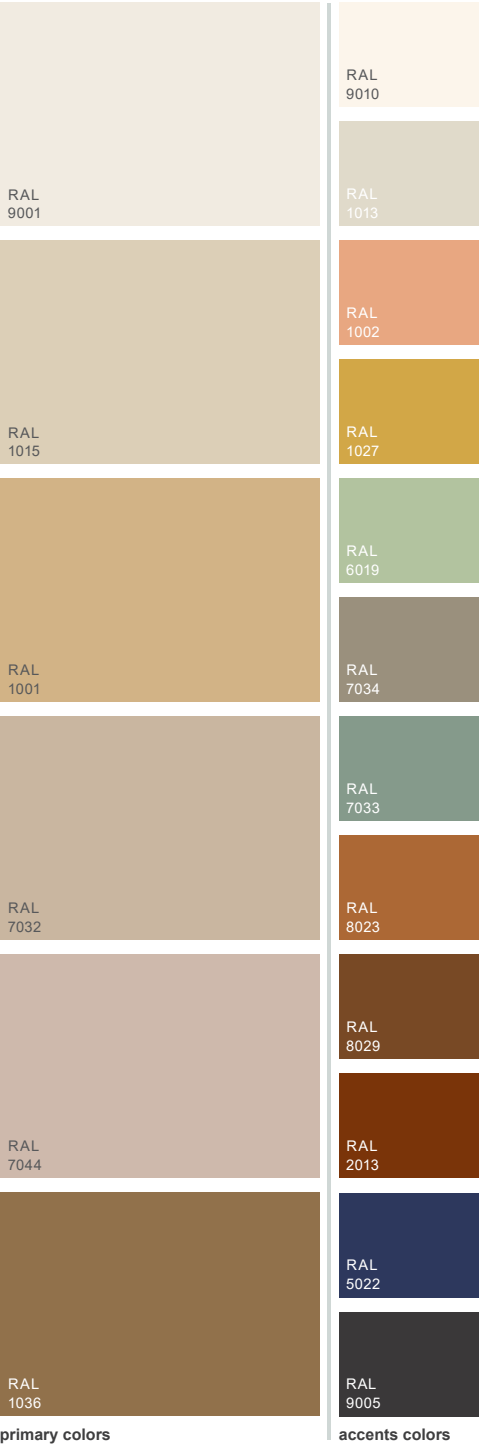
To create a townscape in harmony with the surrounding landscape and architectural character.

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



Plaster ornaments Mud ornaments Gypsum stucco



Metal window grills



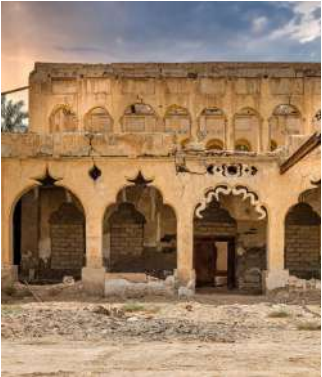
Perforated metal cladding Timber grilles Metal grilles



Plaster finish on adobe walls



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



Limestone walls and archway



Limestone cladding Plaster finish Mud finish



Timber window shutter



PVC shutters Wood finish powder coating Wood finish powder coating



Timber doors



Wooden door panels Glass with aluminum frames 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:

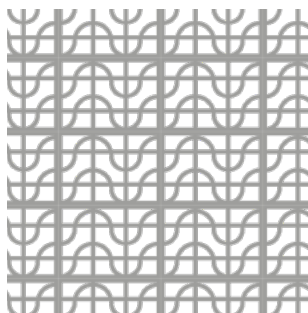
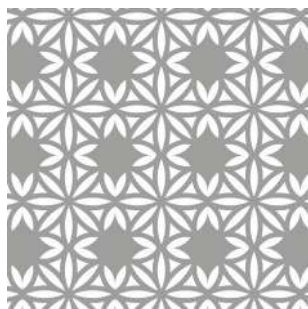
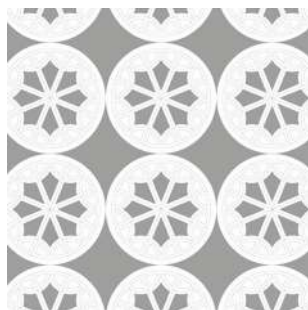
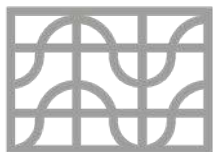
- 1 Create patterns through the use of local materials and craftsmanship.
- 2 Ensure consistency where multiple decorative patterns are applied across a single façade.
- 3 **TR** Focus the use of surface patterns to doors, window screens and shutter doors.
- 4 **TR** Refer directly to historic precedents and be limited to geometric and floral patterns.
- 5 **TIN 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.



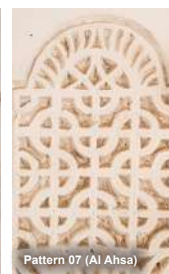
Patterns



Pattern 01 (Al Ahsa)



Pattern 06 (Al Ahsa)



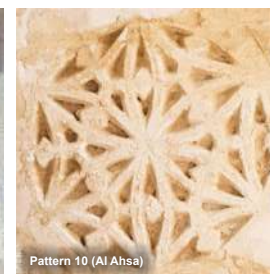
Pattern 07 (Al Ahsa)



Pattern 08 (Al Ahsa)



Pattern 09 (Al Ahsa)



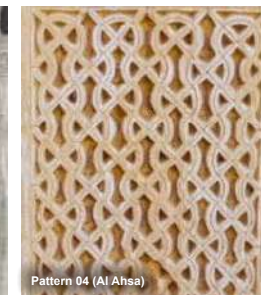
Pattern 10 (Al Ahsa)



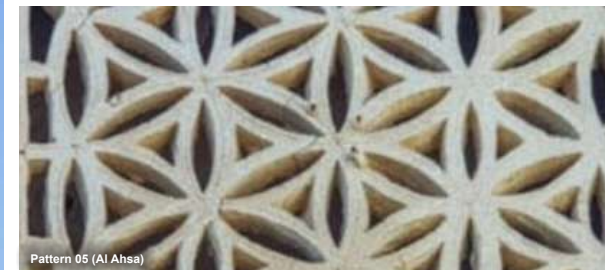
Pattern 02 (Al Ahsa)



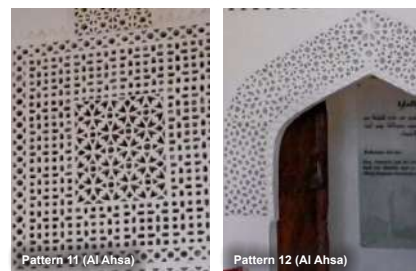
Pattern 03 (Al Ahsa)



Pattern 04 (Al Ahsa)



Pattern 05 (Al Ahsa)



Pattern 11 (Al Ahsa)



Pattern 13 (Al Ahsa)



Pattern 14 (Al Ahsa)



Pattern 15 (Al Ahsa)

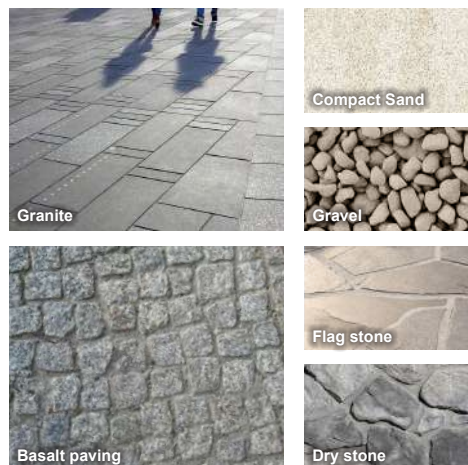
6.0 Public realm

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

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

Note: The application of these guidelines should be tailored to the specific project type, scale, and 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.

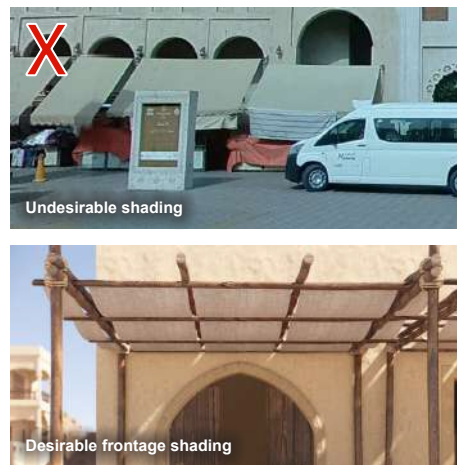


6.1 Paving Materials

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.



6.2 Shading

Shading structures are a critical component of modulating the public's interaction with the outdoors.

- 1 Integrate light shading structures as distinctive features that reflect the architectural style or theme, ensuring they harmonize with other facade elements for a cohesive overall design aesthetic.

To create a pleasant outdoor ambiance for public areas.

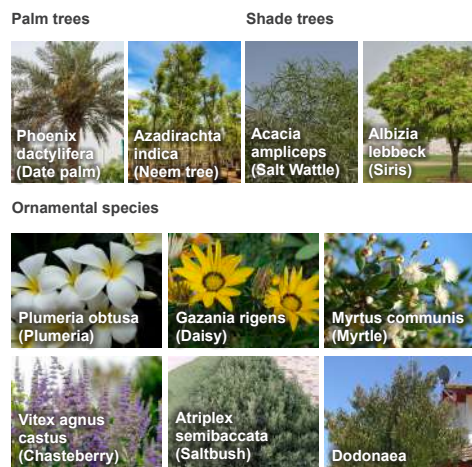


6.3 Parking

Parking is a key component in the overall approach to the public realm and for user decision making.

- 1 Parking spaces should not obstruct the use of built areas.
- 2 Unregulated parking in urban areas disrupts visual appeal and public access.

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

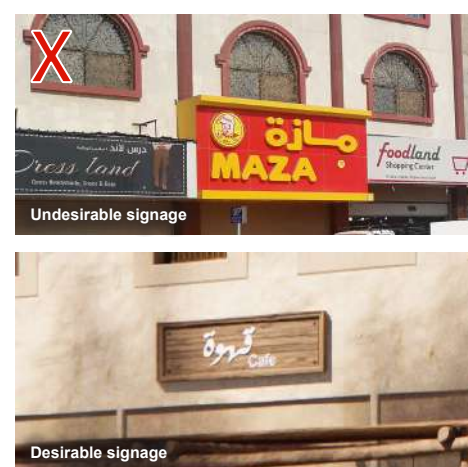


6.4 Planting

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.

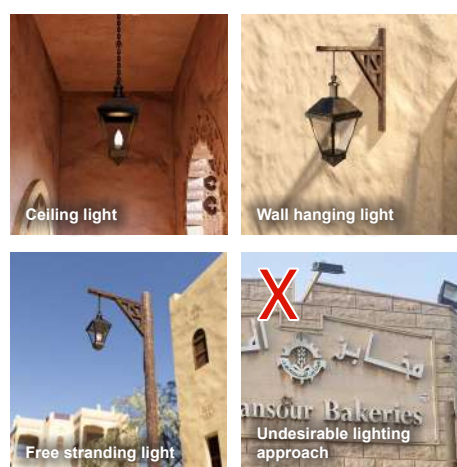


6.5 Signage

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 Ensure that mixed-use development and activations of frontages are created throughout public areas.
- 2 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 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.



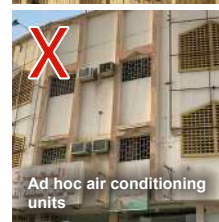
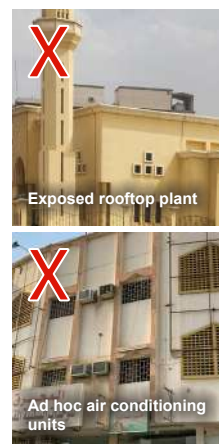
7.4 Superficial elements

- 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 The use of retractable security gates is advised.
- 3 Security gates should 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 mixed-use worked example

In Al Ahsa Oasis, traditional architecture comprises the use of pointed, semicircular and orthogonal openings, grouped on the façade to reflect the interior zoning. Retail is preferred to be highlighted with a shaded arcade, while the entrance prominently taking a larger arc on the façade.

Building volumes and massing in Al Ahsa Oasis are symmetrical. Generally the roofscape is stepped on the main façade.

Geometric and vegetal ornamentation on fenestrations, above windows and crenelations is used to promote the traditional architecture and to introduce aesthetic variety on the façade. These openings should also be carefully placed so they introduce ventilation and light into the building.

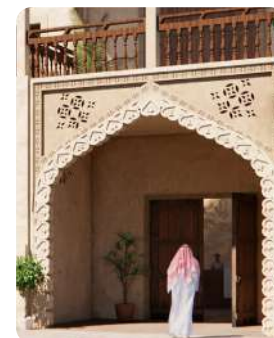
Use building materials that evoke the same traditional style for the walls, windows and frames. Colors are smoothly contrasted in the design enhancing

variety and allowing the ornamentation to pop out, in addition to engraved woodwork for balcony railings and shutters.

1 Plaster ornaments placed above openings.



2 Arched doorways with intricate plaster ornamentation.



3 Traditional shopfronts integrate with the façade through a shaded arcade.



4 Pointed arches frame and shade terraces.





8.0 Transitional mixed-use worked example

In the transitional style, evolution from the traditional is made evident through the preservation rather than abstraction of architectural elements. This style uses the same character and style of the traditional through semicircular and orthogonal openings, grouped on the façade to reflect the interior zoning. Retail is preferred to be highlighted with a shaded arcade, while the entrance prominently taking a larger arc on the façade.

Main differences between the traditional and transitional is through wider openings for windows and doors occupying more space on the façade. Additionally, the engravings and ornamentations are more subtle compared to the traditional with only their silhouette used for the portal and for windows. Simple shutters, setbacks for openings, or interior curtains can be used for privacy.

Fenestrations are more minimal and only one to two styles are used to indicate different massing and volumes of the structure. Additionally, the parapets use a cubic and geometric indentation.

- 1 Simplified geometric ornaments above windows and openings.



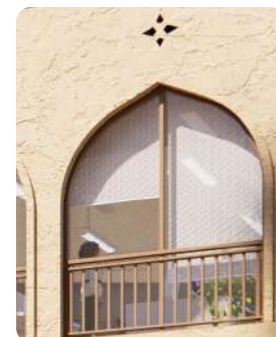
- 2 Shopfronts feature pointed arched frames shaded by an arcade.



- 3 Geometric doorways have pointed arches woven into the structure.



- 4 Pointed arches with minimal fenestrations used on the middle floors.





8.0 Contemporary mixed-use worked example

In the contemporary style of Al Ahsa Oasis, the essence of the architectural character is preserved through skillful reinterpretation and utilization of traditional forms. Contemporaneity is expressed through innovative use of materials, addressing the rhythm of the façade, and using large openings.

The volume and massing is retained in this style but is blended more seamlessly with little breaks in the façade walls. The opening proportions for the main entrance and windows on upper levels are much wider and take up more space on the façade.

Ornamentations inspired by the traditional styles are used minimally in the shaded arcade for the storefront area. High solid parapets and glass railings are used for the roofscape.

1 Abstracted ornaments adorn glass windows.



2 Glass facade entrance emphasizes transparency and openness.



3 Storefront doors open through floor-to-ceiling curtain walls, shaded by an arcaded walkway.



4 Full glass windows can be utilized to elevate contemporary aesthetics.



A.0 Appendix: Low-rise apartment buildings

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

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

Entrances and articulation

Traditional entrances in Al Ahsa have unique features. The main entrance is prominent, with a recessed double door and pointed arch, showcasing the area's architectural style.

Roofscape and rooftop elements

In Al Ahsa, the roofscape is crucial for architectural character. New buildings should follow guidelines: include crenelations like vegetal-inspired merlons or double-stepped with square fenestrations, adjust parapet style to match architecture, finish parapets with white plaster for regional contrast, add screens for shade and privacy, favor recessed designs to enhance aesthetics and maintain privacy from the street.

Solid façades

Façade openings define a building's interaction with neighboring residences and the street, delineating public and private areas. Side façades bordering residential properties should feature balconies with higher parapets for privacy. Ground floor openings should be designed to limit public exposure.

Secondary frontage

Privacy considerations are paramount for all façades in residential design. Openings should ensure that private interior spaces remain shielded from street view, accomplished through shutters or curtains/blinds. Stepped building massing is employed for exposed façades, providing seclusion without detracting from the traditional aesthetic of stepped roofscapes. Ground floor windows facing the street are shuttered to safeguard resident privacy.

Doorways and entrances

The traditional architecture of Al Ahsa, is evident in its craftsmanship, particularly in the design of doors. Doors facing public streets prioritize privacy, with symmetrical vertical composition and either flat or arched tops following orthogonal geometry. Crafted from local palm timber or equivalent material, these doors are flush with the façade and feature high portal-type entrances adorned with pointed or semicircular arches supported by vertical piers. Decorative over-panels add to their aesthetic appeal. These features should be applied on traditional styles, while transitional and contemporary should be less detailed and inspired by the traditional style.

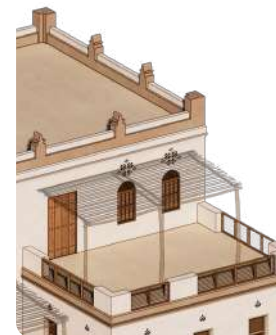


Apartment Building Axonometric



Apartment Building Front Elevation

- 1 Enhance usefulness of roof terraces with shading.



- 2 Maintain privacy between neighbors on side facades.



- 3 Maintain privacy and security at ground level.



- 4 Emphasize primary shared entrances.





A.0 Traditional apartment worked example

In the Al Ahsa Oasis, building volumes and massing of traditional architecture is symmetrical. For residential buildings, there are shuttered openings on the ground floor and semicircular ornamented arcs which slightly recessed on the façade. They can be used as locations for planters. The building's ground floor should also have a complementary relationship with its surroundings.

The main entrance is made of wood and tucked behind a pointed arch portal. Orthogonal, square and semicircular openings are grouped on the upper floors and used on the façade to reflect the interior zoning. These openings modulate light and ventilation into the building and generally have wooden shutters. Geometric and vegetal ornamentation is used above windows and promotes the traditional architecture on the façade.

Generally, the top-most roof has high parapets with a crown or spade motif and the overall appearance of the roofscape is stepped. Balconies and terraces have wooden railing for the terraces to enhance residential user experience and privacy.

1 Vegetal ornamentation above openings, and organic texture wall finish.



2 Highly detailed ornamented entrance, along with clear signage.



3 Ground level features slightly recessed semicircular arcs, suitable for planters.



4 Stepped roofscape ensures privacy, with shaded outdoor terraces made of wooden materials.





A.0 Transitional apartment worked example

In the transitional design, the building builds on the character and style of the traditional through semicircular and orthogonal openings which grouped on the façade. The main difference is that the opening and recessed frames on the ground level are less ornamented compared to the traditional style, and have a simpler and more geometric appearance.

In addition, the parapets and roofscape are flatter, shorter and have a more cubic appearance. There is a horizontal band running across the different volumes of the building. Vegetal ornamentation is only placed above openings and thus used more seldomly in the transitional style. Openings are slightly wider and bigger than the traditional.

- 1 Vegetal ornamentation adorns openings, and horizontal band painted in an accent color.



- 2 Building entrance features a wide semicircular opening and clear signage.



- 3 Ground level features slightly recessed semicircular arcs, suitable for planters.



- 4 Stepped roofscape with shaded wooden terraces.





A.0 Contemporary apartment worked example

In the contemporary style of Al Ahsa Oasis, the traditional source is abstracted. This design emphasizes larger openings and more glass on the façade with different groupings such as rectangular, square and high semicircular windows. Openings are controlled and shuttered on the ground level except for the entrance which is much wider and higher than the traditional and transitional styles.

All the grouping of elements, frames, openings and windows, are more flush with the different volumes of the buildings and there are little breaks on the façade. This is complemented by a flat and undecorated parapet as well as a stepped roofscape that blends with the different volumes more seamlessly.

There are no ornamentations used on the façade or above openings, and one abstracted and enlarged motif from the traditional sources is used as a decorative element. Generally, the design retains the privacy of the ground floor but introduces larger and wider openings for the building.

1 Wider and rectangular windows with no shutters.



2 Wide and high semicircular opening and a glass door for the building entrance with clear signage.



3 Ground level boasts recessed angular frames, ideal for planters, and adorned with decorative motifs.



4 Stepped roofscape with shaded outdoor terraces.

