

AlUla Central & South

Urban Design General Guidelines

May 2024



REVISION UPDATE

1st Edition

1st Revision

Document Name	Edition	Edition Date	Revision	Revision Date
AIUla Central and South: Urban Design General Guidelines	01	10/05/2024	01	10/05/2024



Urban Design General Guidelines

CONTENTS

1	Introduction	4
2	Purpose of this Document	6
3	Plot Parameters Design	8
4	Form and Massing Design	14
5	Access and Circulation Design	22
6	Parking Design	24
7	List of Abbreviations	32

1. Introduction

Master Plan Vision

‘Achieving sustainable urban transformation – future resilience and knowledge for the benefit of the local and global community.’

Master Plan 2: AIUla Central and South

The AIUla Master Plan 2 districts house the maximum population within the County and are strong anchors for urban growth. The key districts within Master Plan 2 are AIUla Central, AIUla South, Mughayra, Abu Zuraib and Outer Core Areas.

The intent of the Master Plan Area 2 is to provide support to the other 3 Master Plan Areas, as MP2 earmarks the arrival to AIUla. The MP2 area houses the primary urban and service areas for the wider county.

The Detailed Plan development for AIUla Central and South (2023) is a comprehensive Master Plan for those districts.





Villa Hegra

Old House
Boutique Hotel

HOP Housing

AlUla Central
Tram Station

Eastern Canyon
Urban Centre

Urban SEED

Tram Depot

Stadium

Hijaz Tram
Station

Hijaz Train
Station

Sayya Park

Urban SEED

Urban SEED

Urban SEED

AlUla Sports &
Outdoor Play
Centre

Urban SEED

Figure 1: AlUla Central and South Illustrative Master Plan (2023)

2. Purpose of this Document

The rich landscape, heritage and architectural vernacular of the AIUla Central and South districts warrant Guidelines that are firm in their conservation of the existing character, while equally flexible in their capability to promote contemporary interpretations of local architecture.

This guideline aims to regulate urban designs in AIUla County, and specifies the mandatory and advisory design requirements as the case may be. The following guidelines shall inform the general intent of development and embed the design characteristics required to ensure high-quality design and a strong sense of place. The guidelines will help to deliver functional and enjoyable places for people to live, work and play. Their aim is to create neighbourhoods that foster community interaction and provide accessible, safe, diverse and friendly places for people of all ages and abilities.

The following four sub-sections comprise guidelines that are applicable across the AIUla Central and South districts in relation to the following:

1. Plot parameters, including setbacks, plot coverage, level, frontages and protection of views.
2. Form and massing, including built form, massing, building footprints and building and floor heights.
3. Access and circulation, including plot access, universal accessible design, bicycle access, vehicle access and service access.
4. Parking including different parking typologies and structures.



3. Plot Parameters Design

3.1 Plot Planning

Rationale

In order to ensure a planned development, plots within AIUla Central and South districts shall follow built area restrictions. This section defines the guidelines pertaining to the location of buildings on site, within their respective plots. These factors affect the overall districts' character, privacy, the amenity and the sense of pedestrian scale on the streets and within open spaces.

Design Guidelines

- Plot parameters and planning shall be in-line with the land use guidelines as indicated in The Residential and Mixed-Use Typology Design Guideline AIUla Central and South Report.
- Buildings should be placed up to plot edge or mandated setback in order to frame the public streets.
- If not specified, Build-to-Line percentages shall be higher than 50% in urban settings to create compact grain, street presence and shading along street.
- Adequate internal plot circulation shall be planned for safe movement within the compact urban grain.
- Plots should identify shared walls with adjoining plots and adopt appropriate planning and construction techniques in accordance with Saudi Building Code.

Orientation Guidelines

As a response to the local climate, and as observed in traditional settlements in the region:

- It is preferred that the major axis of blocks go North to South. This ensures the streets are shaded during most of the day.
- Orient massing to provide maximum shading for the courtyards and streets within the plot and any adjacent key public space.
- Utilize streets and their alignments to funnel cool breezes through the plots.
- Provide frequent open spaces, widening and internal plazas – at least within 3 minutes walking distance of any point.
- Every building is shaded by its neighbour – building masses should be clustered.

Response to Context

- Respect the site context by integrating existing natural and built elements such as existing trees and important feature buildings.
- Frame views to key landmarks or natural features.
- Plan for the existing topography taking advantage of level changes across plot for lower level parking and other accessibility requirements

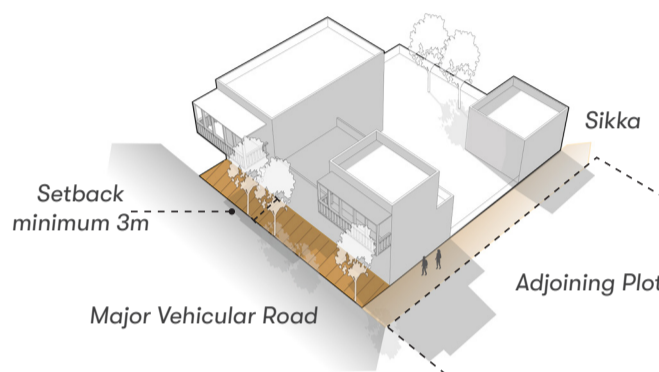


Figure 2: Indicative plot front setback adjoining major vehicular road

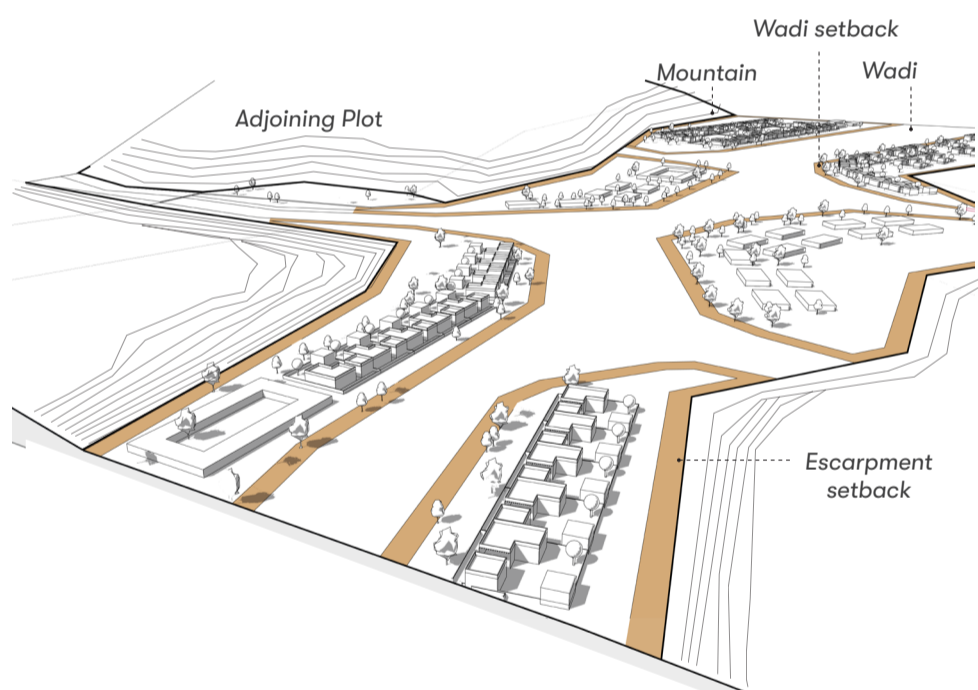


Figure 3: Example of escarpment setback

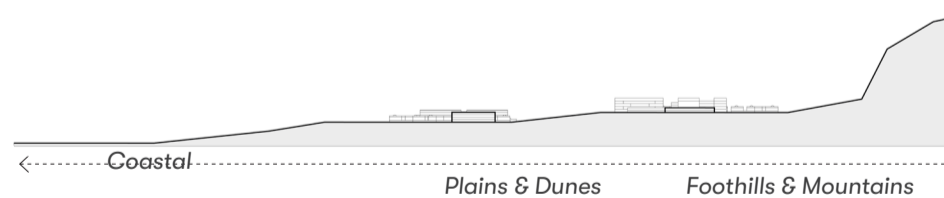


Figure 4: Indicative section of varied topography

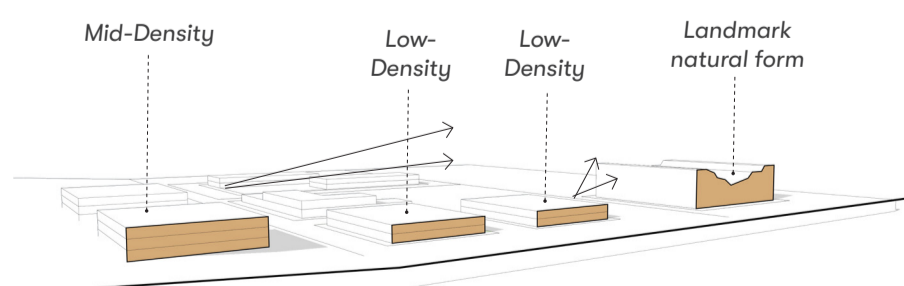


Figure 5: Example using varying topography and built form



3.2 Building Setbacks

Rationale

Setbacks are mandated to ensure buildings are located appropriately within the plot to allow for sufficient utility provisions, ensure compliance with Fire and Life Safety (FLS) codes and to ensure sufficient natural light and ventilation inside the buildings. This also ensures design consistency throughout the development, in order to achieve the overall design intent, ensure privacy and protect key views and vistas. Plots located in AlUla Central and South districts shall be subject to plot and escarpment setbacks.

Design Guidelines

- No habitable spaces (any area with enclosed walls and a roof) should be permitted within a setback zone.
- When determining distances for setbacks and structure dimensions, all distances are measured along a horizontal plane from the appropriate line, edge of the building, structure, external wall line or other object to the Public Right of Way. These distances are not measured by following the topography or slope of the land.
- There should be no obstruction to any emergency vehicles or any structures that might inhibit the requirements for FLS.
- Building setback requirement should consider the street typology that the building addresses, its use and the adjacent buildings or structures. A consistent street setback between neighbouring buildings can create a better defined streetscape and increase street animation and passive surveillance.
- Minimum building setback for commercial use and residential-led mixed use with ground floor commercial is recommended to promote active building frontage.
- Shops should have direct access from the pavement/public space without any vertical obstacles including stairs. No boundary walls are permitted beyond the building line to ensure a continuous public realm adjacent shop fronts
- Setbacks are only applicable to proposed buildings and does not apply for existing built form.

Plot Setback Guidelines

- Developers should obtain as-built levels relating to the public sidewalk and adjacent developments, ensuring the paving surface within their setback is seamlessly integrated.
- Building overhangs, canopies, terraces and balconies and any architectural features should be located within the plot boundary.
- Permitted uses within the setbacks include gatehouses, water tanks, utility rooms, projections, eaves, window ledge projections (0.6m), shade structures, at-grade car parks and landscaping. However, service areas, loading facilities, refuse collection areas are discouraged for setbacks along active frontage streets and public realm
- Setbacks can be used for F&B spill out areas and for retail edge zone movement.

Escarpment Setbacks Guidelines

- Additional setback requirements have been prepared for the sides which front along the escarpment edge. This is to retain the visual and physical integrity of the escarpment edge.
- A minimum of 6m setback is mandated from escarpment side however, the requirement should be further studied responding to the safety requirements of the natural edge conditions.
- Permitted uses within the setback include shading structures and landscaping.

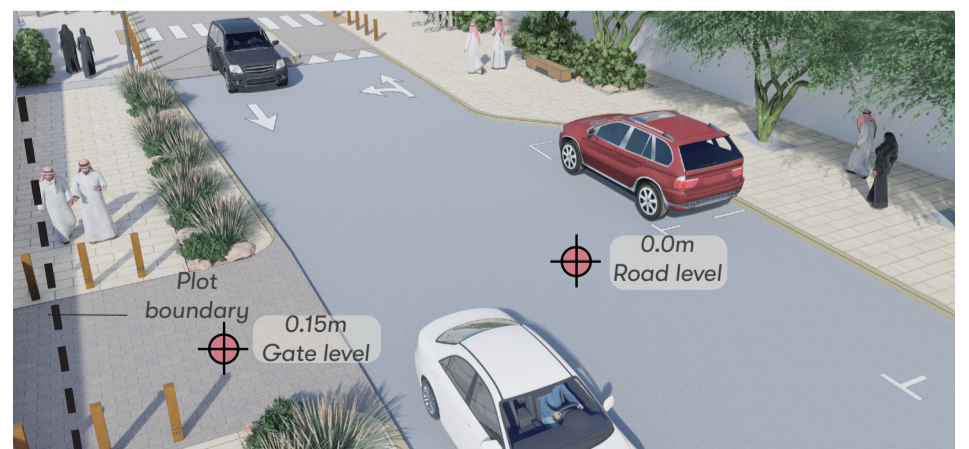


Figure 6: View showing an example of road and plot gate level deviation

3.3 Plot Levels

Rationale

To maintain a minimum cut and fill strengthening the sustainable and sensitive design approach a strategic understanding of the AIUla Central and South districts' existing levels is important. As the site is spread over different topographic levels, a degree of uniformity and consistency is required.

In general, the existing wadi and developable area around shall be defined by flooding studies and road levels by a combination of flooding analysis and existing road levels.

General Guidelines

- Development levels shall be defined based on the AIUla Central and South districts Infrastructure Master Plan which is developed by the RCU - D&C Team. Final outcome of this project should be adopted while determining the plot levels.
- Developments should embrace existing levels and shall sensitively design with existing topography.
- Plot levels are important to maintaining the overall development massing & volume intent.
- Developments in different urban design areas shall have regulations for maximum allowable ground levels pertinent to environmental conditions, existing built, heritage or natural context.
- As a specific region of the proposed development may be spread over different topographic levels, a degree of uniformity & consistency is required, and consideration of plot levels to determine maximum build-able floors to keep in line with maximum building heights is crucial.
- Site re-grading should not impact overall development building heights and visual parameters.

On plot considerations

- Plot Gate Levels derived from the adjoining roads should be followed.
- Average plot levels as specified for plots of each zone should be followed as much as possible. Any major plot re-grading shall undergo special approval from RCU and other relevant authorities.
- Plot designs should embrace existing levels and shall sensitively design with existing topography.
- Sloping sites could be treated with landscape features and terraces wherever applicable.

3.4 Plot Coverage / BCR

Building Coverage Ratio (BCR) / Plot Coverage is the ratio of the building area divided by the land area where the building is sited on. Depending on development zones, land use, public or private open spaces, building layout and typologies, the ratio is varied.

This guideline focuses on residential development on block and plot levels.

BCR for residential blocks:

BLOCK LEVEL	MIN RECOMMENDED. BCR	MAX RECOMMENDED. BCR
High Density	45%	60%
Medium Density	35%	55%
Low Density	30%	45%

NOTE: recommended minimum and maximum BCR may be exceeded following review and approval from the RCU.

Plot coverage

PLOT LEVEL		Min. Plot Coverage	Max. Plot Coverage
Residential - Single Family	Villa	30%	50%
	Townhouse	45%	60%
	Twin-house	40%	55%
Residential - Multi Family	Apartment	45%	85%

Note: Plot coverage may vary with given plot sizes. Typical plot sizes for low density residential development are 600sqm, 450sqm, 360sqm and 300sqm.

More details are in the land use guidelines as indicated in The Residential and Mixed-Use Typology Design Guideline of the AIUla Central and South Guidelines of this document.



3.5 Floor Area Ratio (FAR)

Unlike density (which is an indicator of population per hectare), FAR takes into consideration non-residential functions as well. Thus, the highest FAR shall be reserved for the primary corridors and special development zones, where there are mixed use development combining typically commercial or retail activities with residential uses within the same plot.

Conversely, FAR shall typically be lower in residential areas, with the lowest FAR reserved for rural areas where larger plot sizes are often the case.

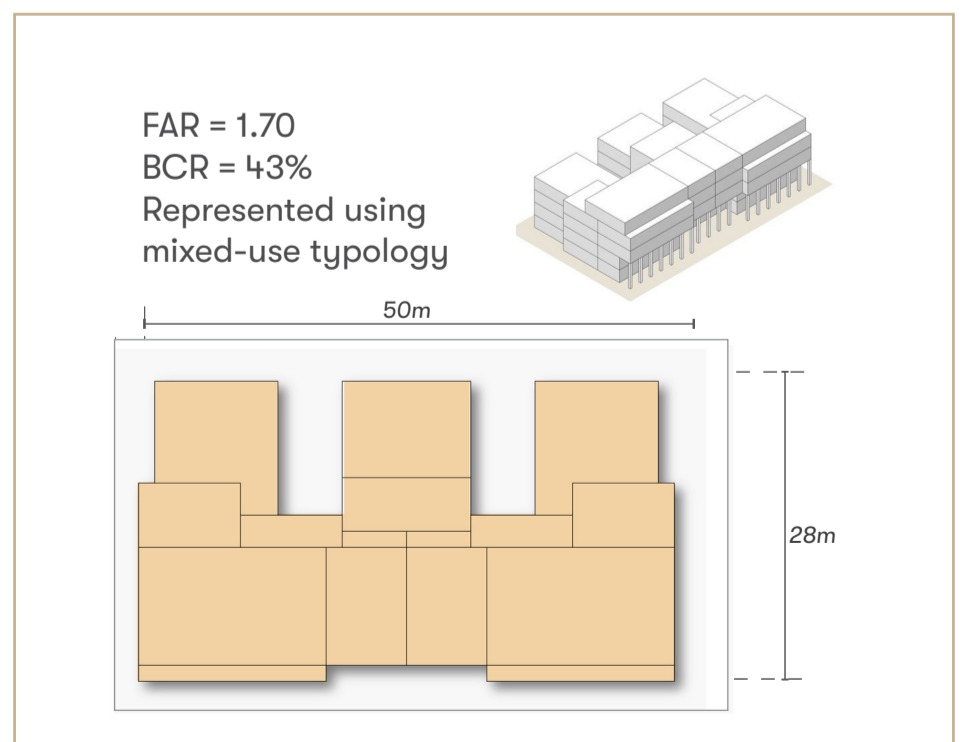
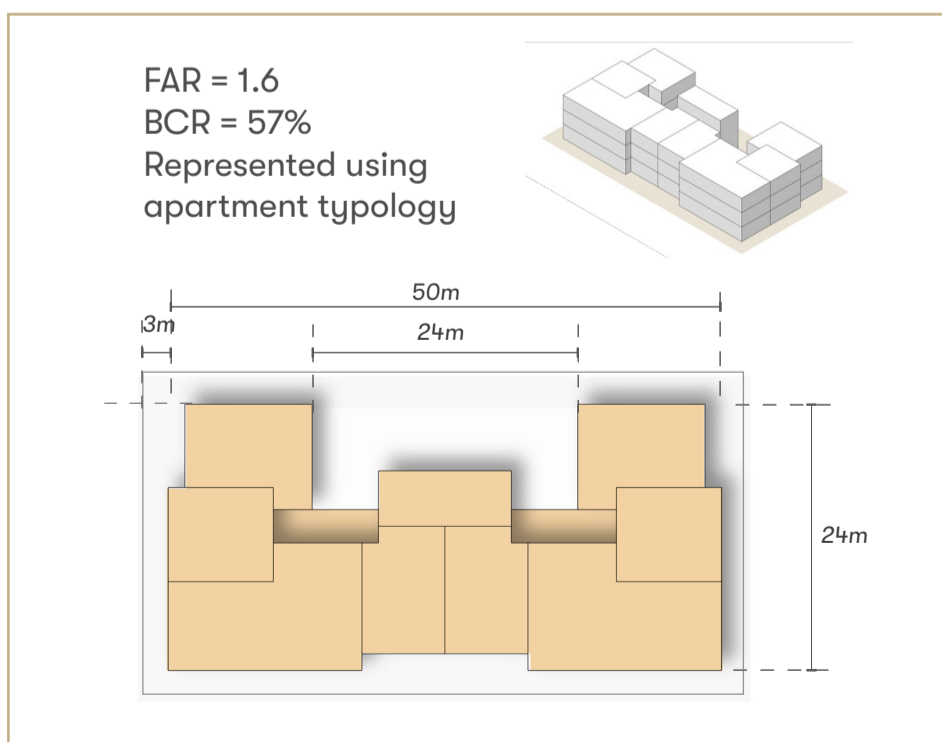
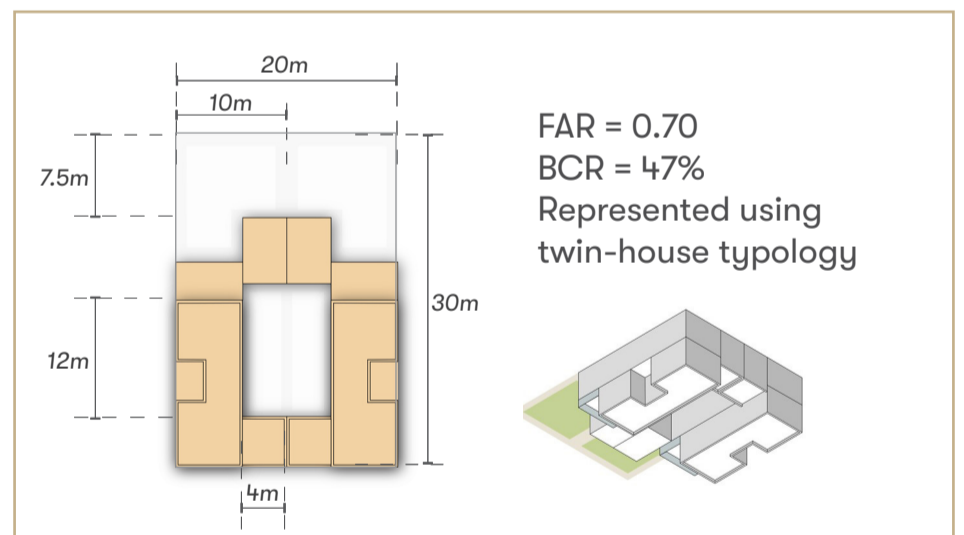
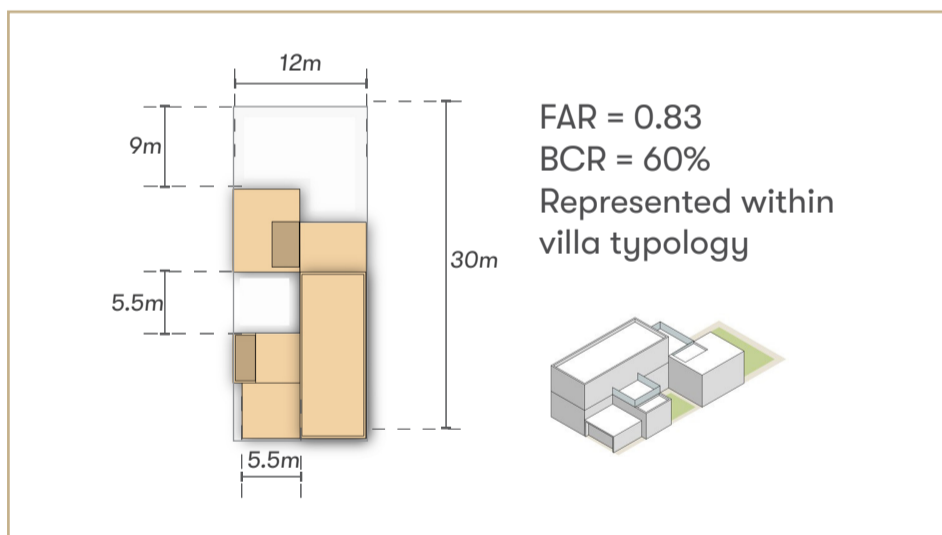
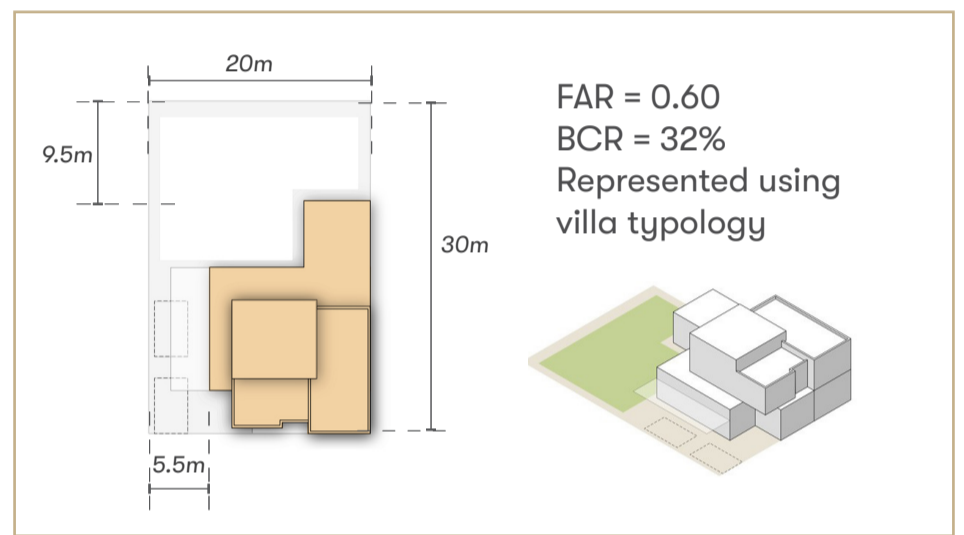
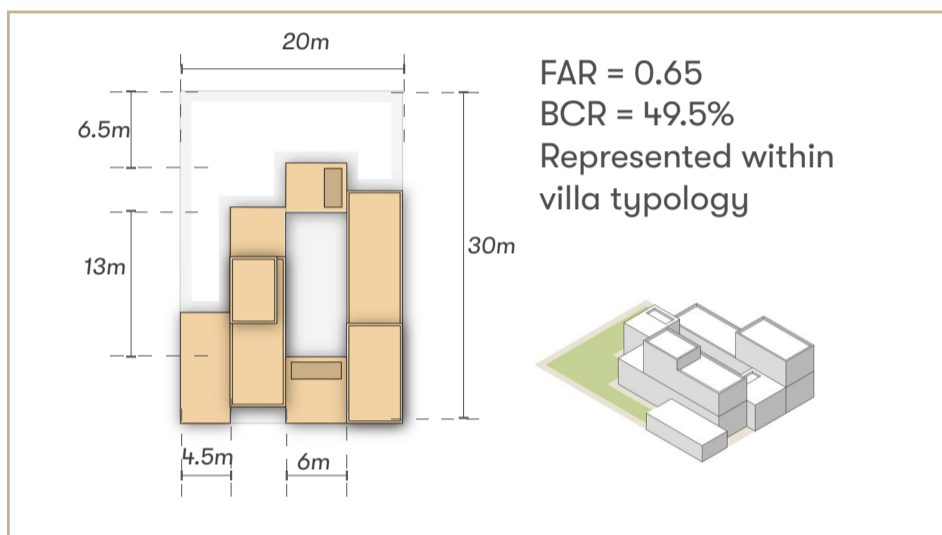


Figure 7: Example FAR & BCR for selected building typologies

3.6 Build-to-Line/Retail Activation/Active Frontage

Rationale

The build-to-line is used as a means of ensuring the continuity of building façades on a series of adjacent sites, in order to emphasize a street frontage or the definition of a public open space. Active frontages are required to facilitate a certain degree of activity along specific rights of way or around public spaces. An active edge shall activate the right of way, and hence the plot, bringing a vibrancy to the area and increasing the quality of life. Another benefit of active frontages is ensuring that the streetscape is utilised to its full potential without compromising the asset value along designated streets.

Design Guidelines

- Developments in the AIUla Central and South Districts shall be planned to respond to the larger build-to-line intent planned for each respective zone.
- Higher built-to-line percentages are encouraged in urban context to create compact development and street shading.
- The set compliance percentage for the build-to-line needs to be clearly defined and in correspondence with the adjacent plans during the design development stages. It should be noted that the build-to-line is applicable to ground floors only.
- Active frontages can be delivered through active retail frontages, suitable architectural articulation and ensuring structures are built to the build-to line.
- The design of the façade at ground level should allow direct transition from the street and pedestrian routes into the building.
- Non-residential active frontages should have shop/ office/ building signage. Shading structures such as canopies or awnings are encouraged to mark and accentuate shop/ building entrances, and in line with the design language of the development.
- Active frontages should be focused at key articulation locations on street frontages, such as street corners.
- Vehicle ingress and egress, loading facilities, and building services should not be located on active frontages.

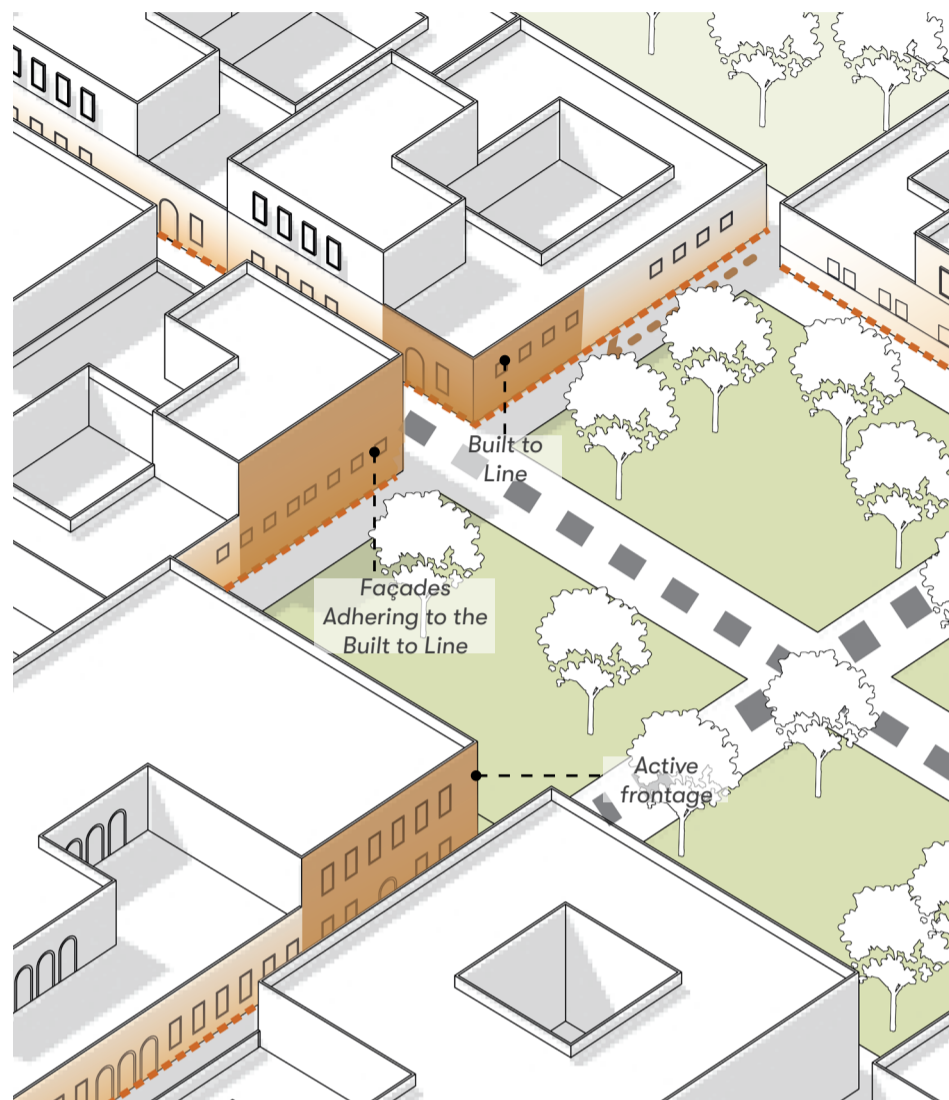


Figure 8: Example view of build-to-line and active frontage

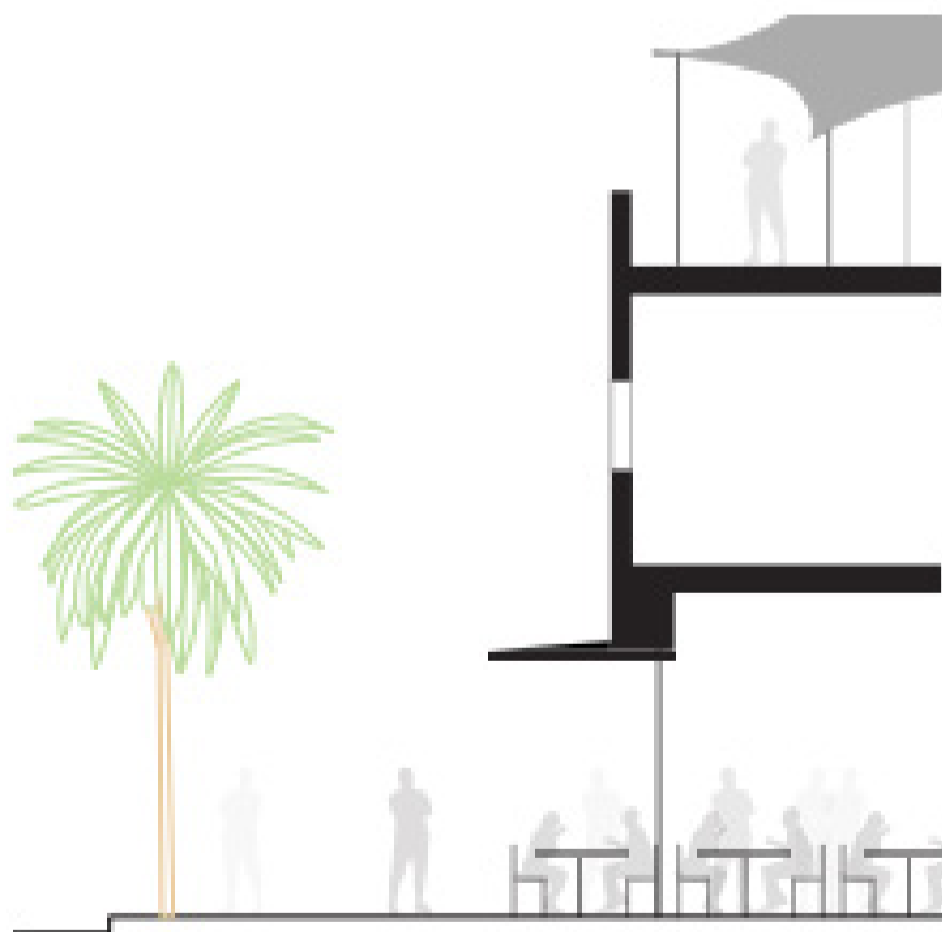


Figure 9: Example approach to active frontage



4. Form and Massing Design

4.1 Built Form

Rationale

The location, height and overall shape of a building within a plot or wider masterplan area can affect the overall character, level of privacy, pedestrian scale and visual amenity of an area. The use of traditional massing principles is particularly important in emphasising public vs. private, ensuring privacy, creating appropriate scale, encouraging a comfortable micro climate and creating usable indoor and outdoor spaces at different levels across the AlUla Central and South districts.

Design Guidelines

- The built form should take reference from traditional building form and massing principles as explained in the land use guidelines in The Residential and Mixed-Use Typology Design Guideline of AlUla Central and South Report, with heights ranging from one to four storeys in general and up to six storeys in city centres.
- Building heights and massing shall respond to its land use and the context to protect view lines towards landmarks, important landscapes and public facilities.
- New development should be sympathetic with the predominant form of its neighbouring buildings. Where a building form is highly repetitive within an area, variations to this form can appear discordant.
- Designers are encouraged to design houses with courtyard typology, whereby the house is built around one or more courtyard and connected with other houses as a part of an organic cluster.
- If free standing, the primary buildings could be located within a compound wall however to have majlis and semiprivate areas along the compound.
- Building articulation is essential in order to achieve the character typical to settlements within each respective character zone.
- It is encouraged to have a compact design where structures are built with shared side walls (sometimes from three sides) so they shade one another reducing the solar heat gain and glare.
- ‘Be a good neighbour’: Plots should identify shared walls with adjoining plots and adopt appropriate planning and construction techniques in accordance with Saudi Building Code.
- Courtyards, basements, pools and wind catchers can be used to provide passive pre-cooling and reduce convective heat gains from ventilation.
- Building form can be used to increase permeability to sea breezes, and provide protection of outdoor spaces from solar radiation, adverse winds and sand storms.

4.2 Massing Modulation

Rationale

Designers are encouraged to vary heights in building form to create an undulating urban form and visual interest influenced by the traditional urban morphology. Massing refers to the three dimensional form of a building which is largely a product of height modulation, step backs, terraces and creating emphasis through projections and taller components.

Design Guidelines

- Building heights for individual building types should be referred from the land use guidelines in The Residential and Mixed-Use Typology Design Guideline of AlUla Central and South Guidelines Report.
- Most traditional houses and common building type in the region are two storeys high, with usable spaces on the roof.
- Designers are encouraged to vary storey heights in buildings to create vertical interest in the development.
- Massing articulation can be proposed by adding architectural elements like courtyard, openings, extrusions and other facade articulation.
- Promote compact building forms, with low surface envelope to building volume ratio.
- The compact design is a joint outcome of the use of natural materials and an unwritten code regulating heights to prevent one dwelling from overlooking the courtyard or roof of another.
- Use of simple geometries in the arrangement of rooms and buildings is encouraged.



Example form articulation

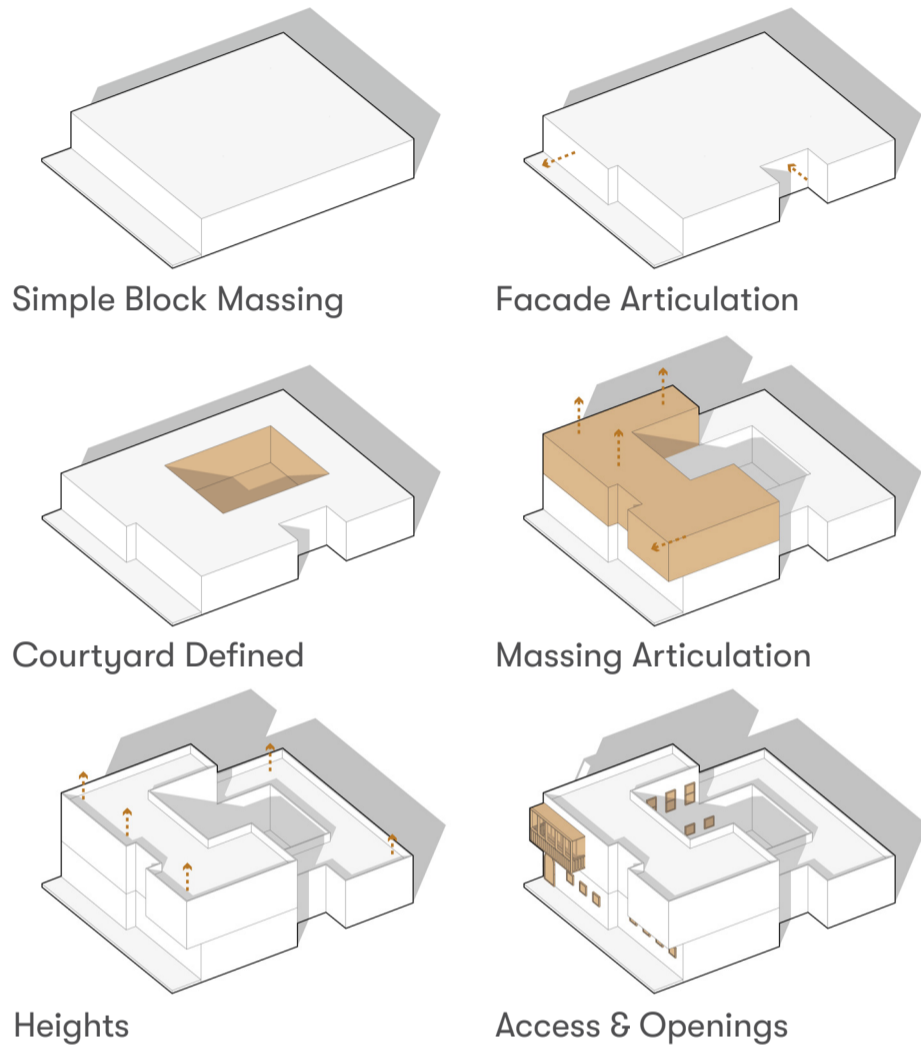


Figure 10: Form articulation

Example massing forms

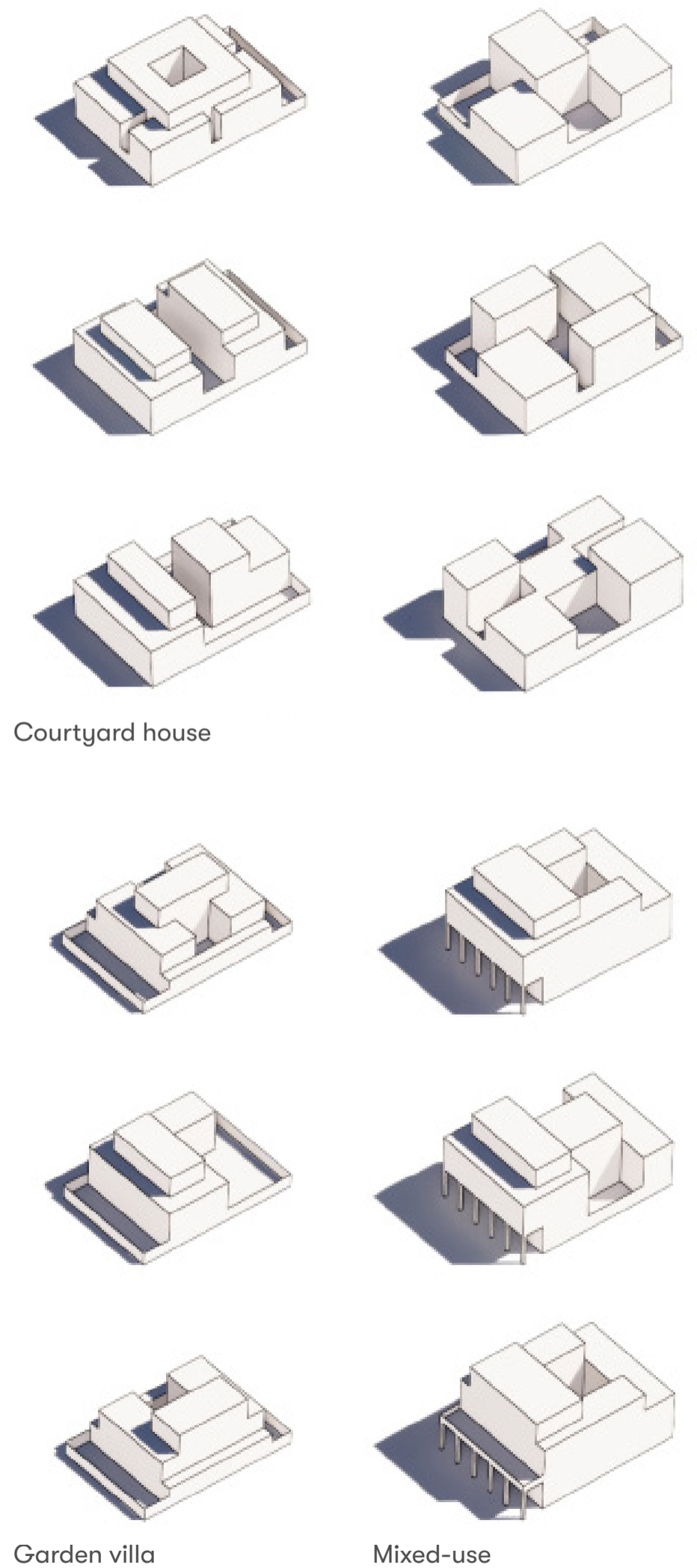


Figure 11: Example massing form diagrams (Source: AlUla Guidelines for Urban Areas May 2020 {AlUla Design Studio (UDS)})

4.3 Building Height

Rationale

Building height is key to develop the overall massing strategy for a development as they can directly influence the views, skyline and shading strategy. As such, building heights shall be clearly defined for each plot in order to achieve the massing vision of the development.

Building Heights refers to the total permissible finished development height of a building. This can be expressed as either total number of storeys (e.g. Ground + 2), or as a fixed height above existing ground level (e.g. 15m) measured to its highest point. For full definition please refer to the Saudi Building Code.

The purpose of the building height regulation is to preserve the visual character and setting of AIUla, as well as the integrity of its core heritage and tourism assets (e.g. Scenic Route). The building heights are intended to keep the proportions of the city in keeping with their setting and the existing development.

Building heights have been used to help with way-finding and legibility, and in particular to demarcate principal nodes or centres. Typically, building heights are at their greatest at denser urban centres to allow increased FAR to be achieved whilst ensuring adequate plot area remains vacant to provide for on-site parking and public realm. In contrast building heights are at their lowest at the urban fringes and more rural settings that blend into the landscape.

Building height guidelines demonstrate how to calculate the building height and minimum or maximum permissible height variation, which are common to all the character zones and building types.

Building heights are indicative and should be considered as maximum heights.

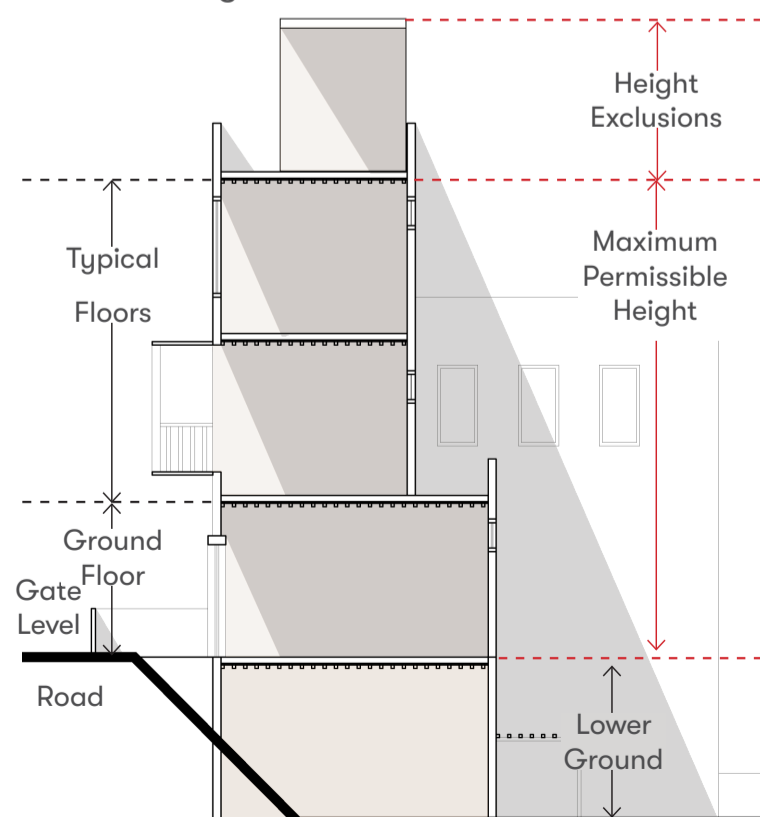


Figure 12: Building Height Calculations

Design Guidelines

- Development within the AIUla Central and South districts should adhere to the building heights as defined in the land use guidelines in the Residential and Mixed-USE design guidelines of AIUla Central and South Report.
- The building height shall be measured as maximum height from the Gate Level (GL) to the top of the building envelope. Refer to Guidance on Calculating Building Height in Table 1, Page 17.
- The maximum building height is G+4 for all developments, except for landmark buildings or for buildings demanding special requirements.
- In general, taller buildings should be located within urban centres and lower-rise buildings should be located on the fringe of settlements.
- Building heights should take into consideration the view corridors, existing landscape features or special elements.
- All building heights shall ensure the integrity of the setting of historic assets and the scenic route.
- All building heights shall be in keeping with the local built form and character using adjacent properties as a datum point for reference.
- Building massing should allow for a gradual change in height (between buildings or within an individual building) at the interface between different height allowances.
- A few permitted projections are permissible above the proposed height limit which are mentioned in the Table 1.
- Dramatic changes in building height (between buildings or within an individual building) at the interface between different height allowances should be avoided.
- Schemes of truly excellent, innovative and sustainable design may in some individual circumstances transcend some considerations, such as the use of vernacular detailing or materials, while meeting many of the requirements of the location.
- Penthouse Development: Where allocated, an additional upper storey 'penthouse' can be created on top of the building which exceeds the permitted height. These developments should be setback from the primary frontage so as to minimise their visual impact from the street, and be no more than 50% of the previous floor plate.



4.4 Floor to Floor Height

Rationale

The intent of these guidelines is to provide guidance on the permissible floor to floor heights for different land use categories.

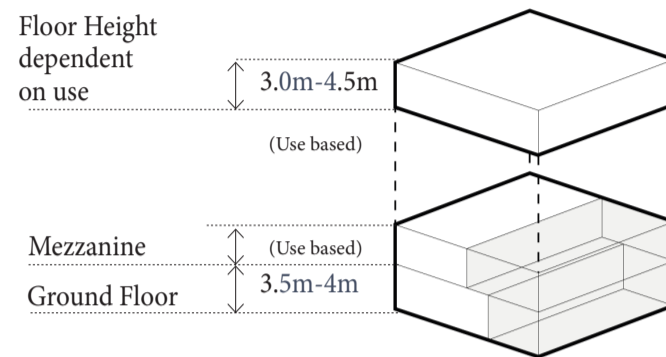
General Guidelines

- All required floor to floor heights to be followed are indicated in the adjoining table.
- Permissible maximum permissible plinth level is 1.2m.
- Permissible minimum parapet height on habitable terraces and balconies should be 1.2m.
- For calculation building heights, mezzanine is not counted as a separate floor but is included in the building height.
- For non-habitable use, the minimum floor height to be as per need.

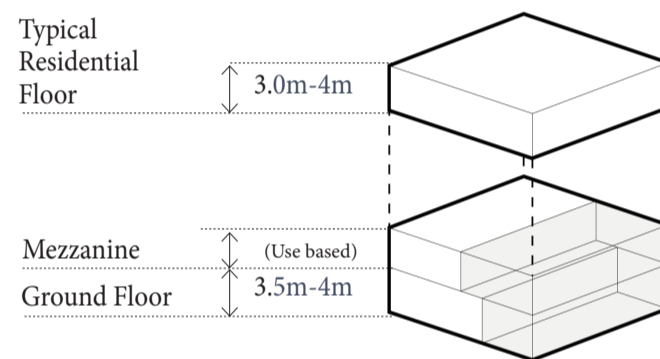
Table 1: Floor Height Guidelines

Max Floor Height				
LEVEL	USE	MAX HEIGHT	MIN HEIGHT	
Ground	Residential	4m (Typical), 6m (Lobbies)	3.0m	
	Non-Residential	6m		
	Juma Mosque	15m		
	Local Mosque	11m		
Mezzanine	Consideration	Not counted as separate floor but as part of overall height		
Typical Floor	Residential	4m	3.0m	
	Commercial	4m		
	Offices			
	Civic			
	Healthcare		4.5m	3.5m
	Retail			
	Hospitality			
	Cultural			
Landmark	Special Permissions			
Basement	Big Box / Warehouse	Special Permissions		

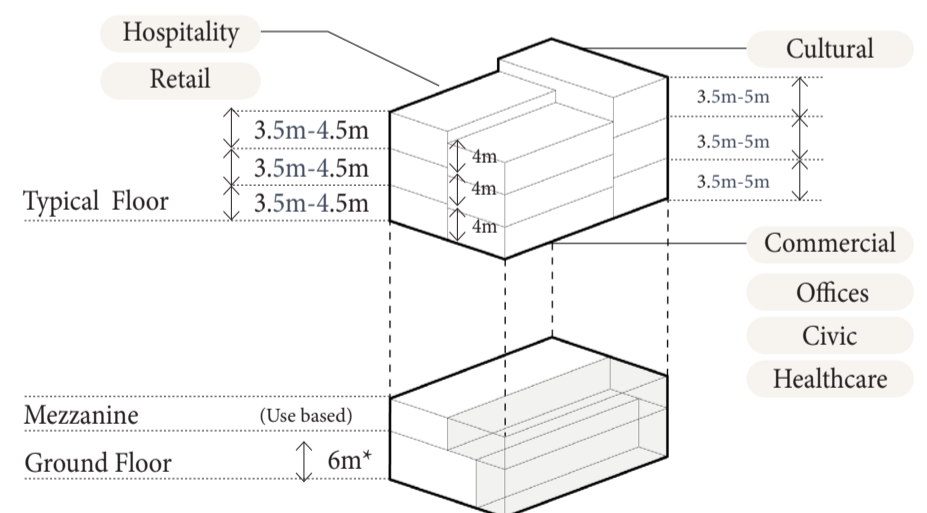
Mixed-Use Residential



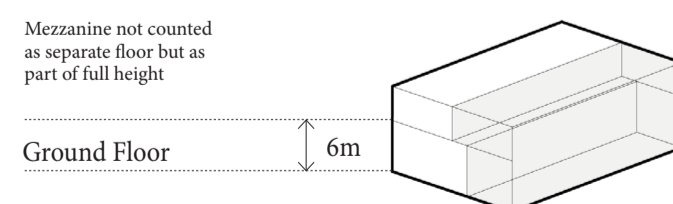
Residential



Non-Residential



Industrial



* All measurements mentioned are maximum, unless range is provided. Please refer the corresponding table for clarifications.



Figure 13: Example approaches to building height/massing



Figure 15: Example approach to light industrial use

4.5 Residential and Mixed Use Building typologies

Existing conditions

The grid-patterned planning has emerged as a result of modernism; land use planning policies have mostly focused on single family houses as detached villas. Land attributions related to grant policies have led to sprawl and large scale subdivisions plans in the southern areas of AlUla.

Existing building typologies are generally limited to zoning regulations that restrict buildings to mono-function in such as villas and apartments in large residential areas and shops along commercial roads or gateways.

The future

Housing typologies across AlUla Central and South have to match the changing needs following ongoing social trends, the evolution in the size and characteristics of Saudi families and the rapid growth of visitors and migrant workers. There is an aspiration to deliver a range of new typologies across AlUla Central and South. New typologies can help in a number of ways:

- Diversify the housing choice for a growing and changing population
- Densify the number of people per parcel and introduce more compact housing types
- Enhance community character and develop vibrant neighbourhoods
- Reduce environmental impact by limiting sprawl, lowering infrastructure costs and minimising land consumption.
- Stimulate the economy and diversification of the hospitality offer

Each of the present and future inhabitants should be catered for by a typology that suits their needs and allows everyone to live harmoniously. Specific forms and typologies shall be developed based on a number of factors, however the broad aim of diversifying the offer is to match the need of people while ensuring homes are affordable and investments are profitable.

Some indicative examples are shown below, while more information on appropriate densities, forms and architectural features can be found in the Architecture Design of AlUla Central and South Guidelines Report. Note details on typologies are adapted from AlUla Guidelines for Urban Areas May 2020 (AlUla Design Studio (UDS)).

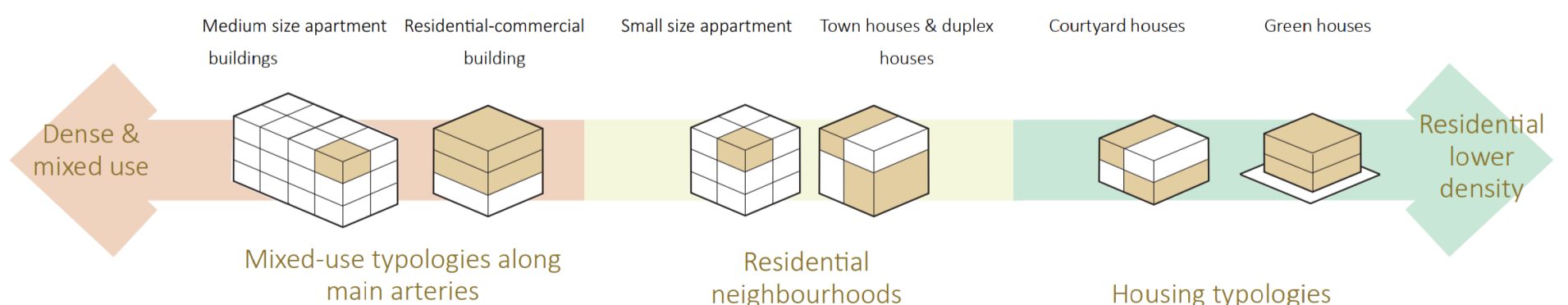


Figure 14: Indicative size of typologies (Source: AlUla Guidelines for Urban Areas May 2020 {AlUla Design Studio (UDS)})

Residential and Mixed Use Building Typologies Guidance

Courtyard house

The Courtyard House has been part of the traditional form of the Arab houses for centuries and was dictated by both climatic and cultural environments. The Islamic values, as well as socio-economic, have played critical roles in ordering and forming the built environment, creating its own privacy and micro-climate.

Re-introduction of the Courtyard house typology in the contemporary urban development has the purpose to take advantage of those intrinsic qualities

The courtyard creates an inner private open space where family can enjoy to stay, child can play safely and all the inhabitant can meet to do various activities during the day.

The evolution of the courtyard house could also accommodate different types and sizes of families; architectural form can express the benefits of the private open spaces by a subdivision of one unique courtyard in multiple open spaces organized on the same level or overlying each other in accordance with the hierarchy of privacy of each group inside the dwelling.

In order to implement this typology the setbacks should be removed, in agreement with the context, which allows the

houses to be adjacent with each other's, it makes them less exposed to solar radiation and gives wider possibilities for the open space.

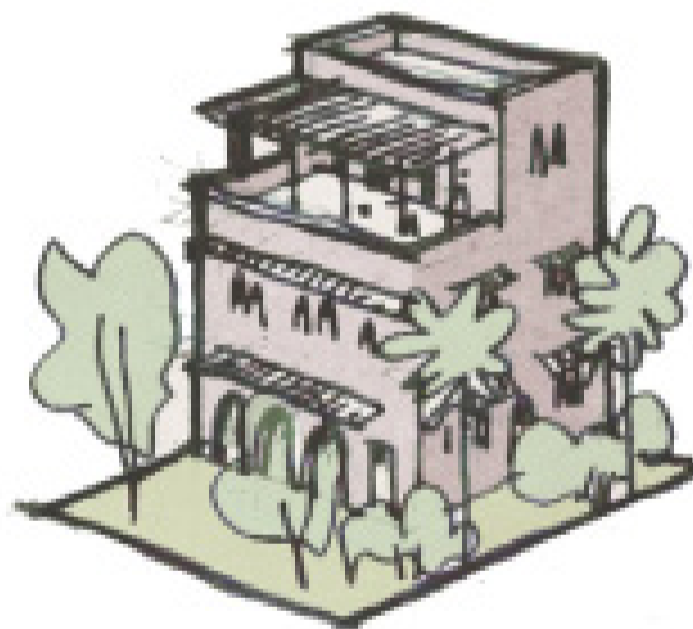


Garden villa

The layout of the traditional detached villa exposes all the façades to solar exposition and all the windows are on the perimeter of the houses facing toward neighbours, affecting the privacy of the inhabitant and creating dark interiors. Outside spaces are defined as result of the setbacks and they are also lacking from privacy and climatic protection.

In order to correct those issues several improvements have to be defined in his architectural form creating a new kind of Villa keeping the status and the in-dependency of these dwellings.

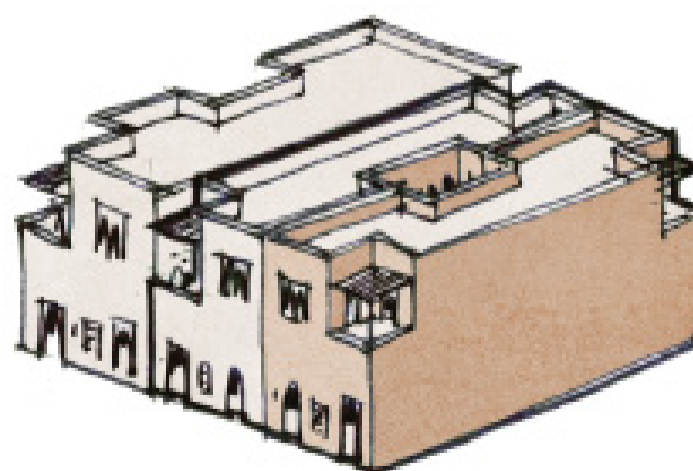
These improvements shall introduce new shaded and protected environments which a large family can benefit form. This Typology can be adapted easily and subdivided in two separate floors (or even three with the upper floor extension)



Town house

Town houses are a higher density housing typology. There are multi-level dwellings that cover only half of a typical AIUla parcel. This typology is an attractive housing choice for many new families; it can be more affordable than single-family detached homes but still have private open spaces and can express the individuality of each dwelling.

Grouped town house dwellings could benefit from shared outdoor amenity area and common parking lot near each of the units. This neighbourhood shall generate new clusters and a vibrant community. This context can easily attract ex-pat workers and their families.





Apartment building

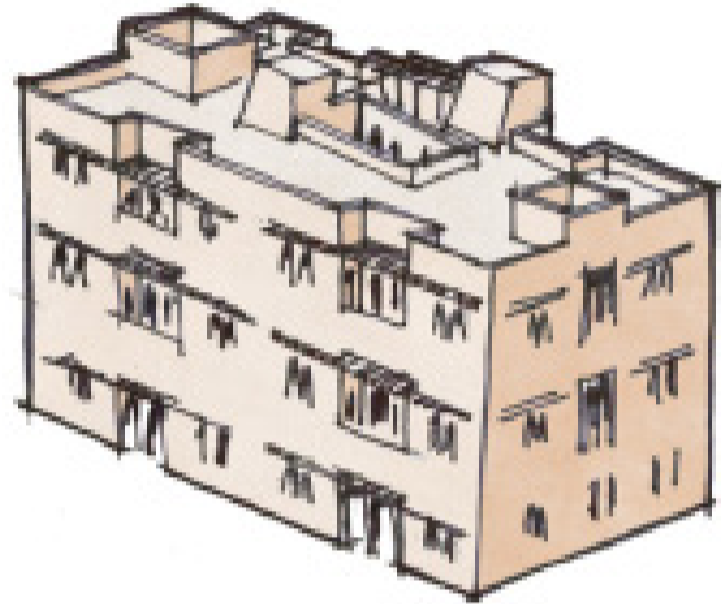
The new type of apartments should implement more variety in the offer and enhance the attractiveness for a larger group of people: ex-pat and Saudi workers, and families. The inhabitants shall benefit of the creation of shaded loggias and terraced open spaces to stay outside with their families.

Each dwelling should reserve a portion of the plot for vegetation and planted trees as a semi private open space. Several facilities should be integrated on the ground floor or on the rooftop.

Creation of several parking solutions parking plot on the back of the parcel and underground parking for the inhabitant.

The possibility to aggregate multiple parcels shall favour the construction of larger residential complex with important presence of vegetation and facilities for the inhabitants. The aggregation of multi plot shall create also the opportunity to test architectural forms.

Design should favour the construction of adjacent buildings as a way to create a continuous urban front



Mixed-use building

Commercial properties in AlUla are located along specific car-oriented streets with narrow passage for pedestrian and lacking from any shading protection. In order to increase the quality of a commercial street, all the buildings should integrate arcades and shading devices in order to create for pedestrians a comfortable and shaded pathway.

The buildings located on the main streets have the possibility to reach even G+3, in accordance with the width of the street. This opportunity could benefit to create high demanded small apartments and hospitality offer.

The layout of the small accommodations is also compatible with the creation of offices on the G+1. Creation of several parking solutions as parallel parking for the commercials on the street and underground parking for the inhabitant.

Design should favour the construction of adjacent buildings as a way to create a continuous urban front.

The new accommodations for overall tourist and ex-pat workers shall create synergies with the commercials and services developments on the main axis.



Figure 16: Example approaches to typologies (Source: AlUla Guidelines for Urban Areas May 2020 {AlUla Design Studio UDS})

5. Access & Circulation Design

5.1 Pedestrian Access

Rationale

An extremely efficient and well integrated, multi-modal circulation network which provides last mile connectivity is one of the major needs as the support infrastructure for a development aiming to be liveability and walk-ability focused.



Image showing pedestrian realm on street



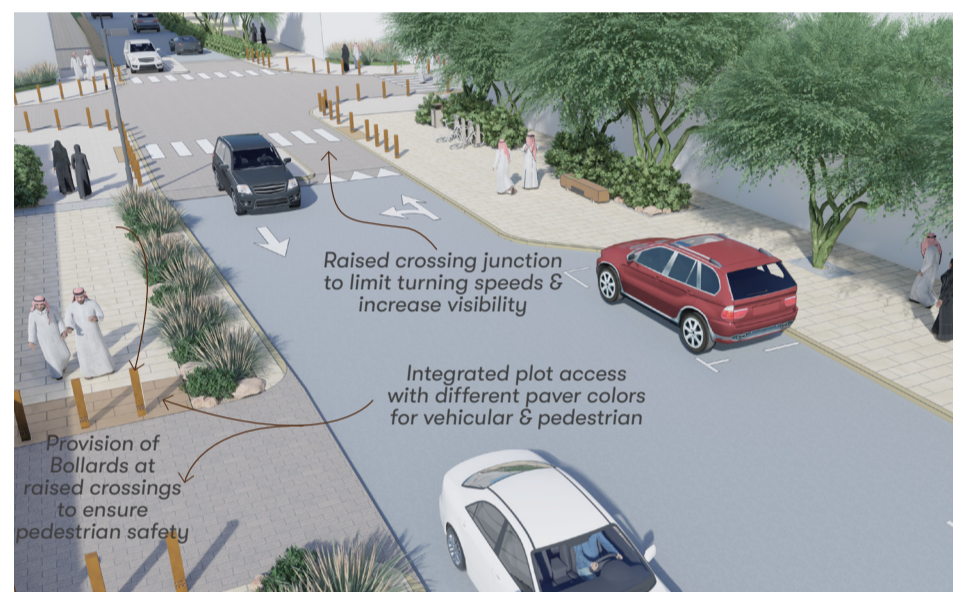
Image showing sikka connections between plots

General Guidelines

- Any development in AIUla Central and South districts should provide an integrated circulation strategy, with separate pedestrian access ways.
- Provide high quality accessible routes to public and semi-public areas of the building and the plot.
- Provide separate and distinguish access between pedestrian/cycle and vehicular access ways for non-residential uses.
- All public entrances to buildings shall be highly visible and accessible from the main road frontage, forming a prominent element of the building façade.
- Pedestrian entrances are encouraged directly from the street, with a minimum of one entry point provided from the abutting street as well as a courtyard and adjacent public open space.
- One pedestrian entry/access point is mandatory along with the vehicular ingress/egress for plots of all sizes.
- In case of the plot being in the vicinity of or abutting any open space - public park, recreational centre or a sikka, a minimum of one direct pedestrian connection should be provided from the building or plot to the public open space.

Safety

- All the pedestrian entrances should be separated from vehicular entrances, to ensure maximum safety to all users throughout the development.
- All public entrances should be visible and clearly marked, to accommodate better way finding and ease of access.



View showing safe pedestrian plot access and road crossing strategy



Example approach of vehicular access



5.2 Vehicular Access

Rationale

To provide convenient and efficient vehicle access while ensuring continuous safety and security for users of all modes of transit and not compromising overall movement.

General Guidelines

- Developments should provide an integrated circulation strategy, where vehicles are separate but complementary to non-motorised transit to achieve last mile connectivity.
- The vehicular circulation and access shall also be thoroughly integrated with overall public realm throughout the development by means of planning & design.
- Vehicular access should be appropriately integrated into the design of the building massing and public realm, in such a way that it complements the design and does not detract from the design of the building elevation and the overall character of the street.
- The material and level of the pavement/sidewalk shall be maintained where possible, with the driveway entrance designed as a 'kerb dip' as needed.

Safety

- Where possible, entrances and exits for vehicles need to be located as far from corner intersections as possible to minimize disruption of street traffic flow.
- The grouping of driveways in pairs with landscaping strips as dividers is encouraged where possible, to reduce the frequency of driveway cuts at the curb.
- All roads are to be accessible for emergency vehicles.
- Vehicular access ramps and service areas are to be appropriately screened from public areas.
- For master planned community, ensure that pedestrian safety is maintained by:
 - Limiting the number and width of vehicle access points
 - Ensuring clear sight lines at pedestrian/vehicle crossings
 - Utilising traffic calming devices
 - Distinguishing and separating pedestrian and vehicle access ways.

5.3 Service Access

To provide convenient and efficient access for building servicing while ensuring that the visual quality and pedestrian friendly orientation of the built environment remains undisturbed.



Example approach of service access

General Guidelines

- Servicing and deliveries shall be restricted to the rear or side of the building or basement wherever possible and shall minimise interference with the public uses/hotel / retail operations.
- Service vehicle access shall be provided away from the primary plot vehicular entry point as a separate entry.
- Reversing of vehicle is not recommended, a full turning radius for the service vehicle inside the plot should be considered.
- The appearance of car parking entries and service vehicle zones can be improved by:
 - Screening garbage collection, loading and servicing areas away from the street; possibly into the building envelope.
 - Setback or recess entries from the main facade line.

Safety

- Where possible, servicing points need to be located as far from corner intersections as possible to minimize disruption of street traffic flow.
- The grouping of driveways in pairs with landscaping strips as dividers is encouraged where possible, to reduce the frequency of driveway cuts at the curb.
- Vehicular access ramps and service areas are to be appropriately screened from public areas.

6. Parking Design

Rationale

Parking management is an important subject to take into consideration when designing. While it is widely acknowledged that dependencies on single-owner vehicular transport will decline over the coming decades due to alternative low-impact forms of travel or greater dependency on public transport, reliance on vehicular transport will remain important in smaller settlements and communities. Residential land uses, whether dense or less dense, shall provide their own parking solutions within private spaces.

The aim of this guidance document is to promote a safe, convenient and accessible community by providing parking design standards that:

- Minimize pedestrian-vehicular conflicts;
- Promote sustainable modes of transportation; and
- Enable efficient and safe movement of all types of vehicular traffic (cars, buses, service vehicles, motor bikes, bicycles, etc.).

This section covers general, accessible and on-plot parking guidelines, as well as the following parking typologies that shall typically be deployed across AlUla Central and South districts:

- Surface parking
- Semi-basement parking
- Basement parking
- Parking garage
- Parking structure

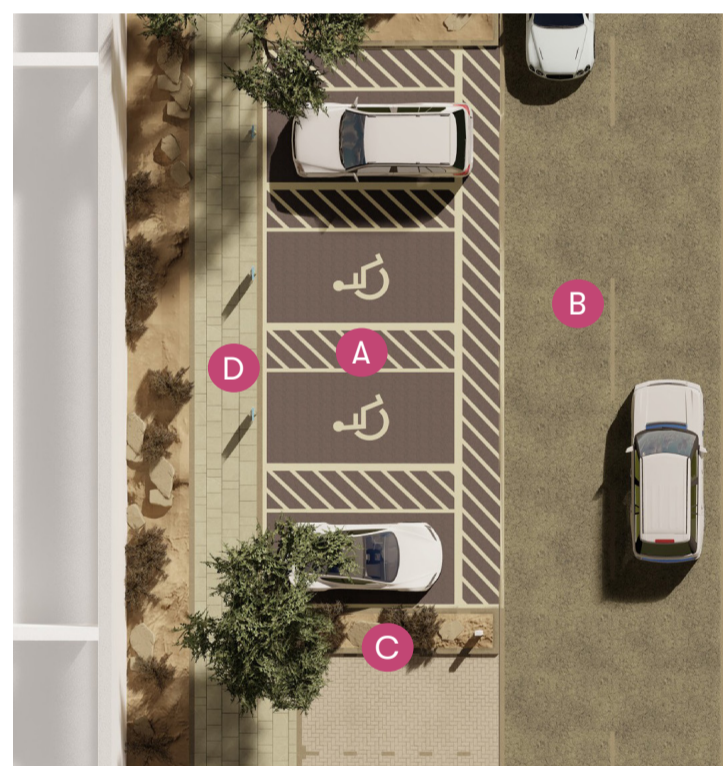
General Guidelines

- Pedestrian and automobile traffic paths should be separated through the development of physical barriers between each of these modes. The potential for conflict between these modes should be minimized at all times.
- Security kiosks and gates should be located/ positioned to allow queuing for a minimum of 3 cars within the plot for individual plot or basement entry.
- Parking along streets should be designed to reserve sufficient space for pedestrian movement.
- Parking lots shall have adequate directional signs for visitors, delivery vehicles and employees to ensure easy interpretation and way-finding for the user.
- For larger developments, public and private parking structures, EV (Electric Vehicle) Supply Equipment should be installed.
- Allocate on-street car parking to align with traffic standards but respond to the flexing needs to a pedestrianised public realm where designated

- Create a more sympathetic streetscape environment by breaking up existing car park bays with arid planting and native tree species
- Develop a hierarchy of material applications, both hard and soft that relate to the streetscape and car park environments

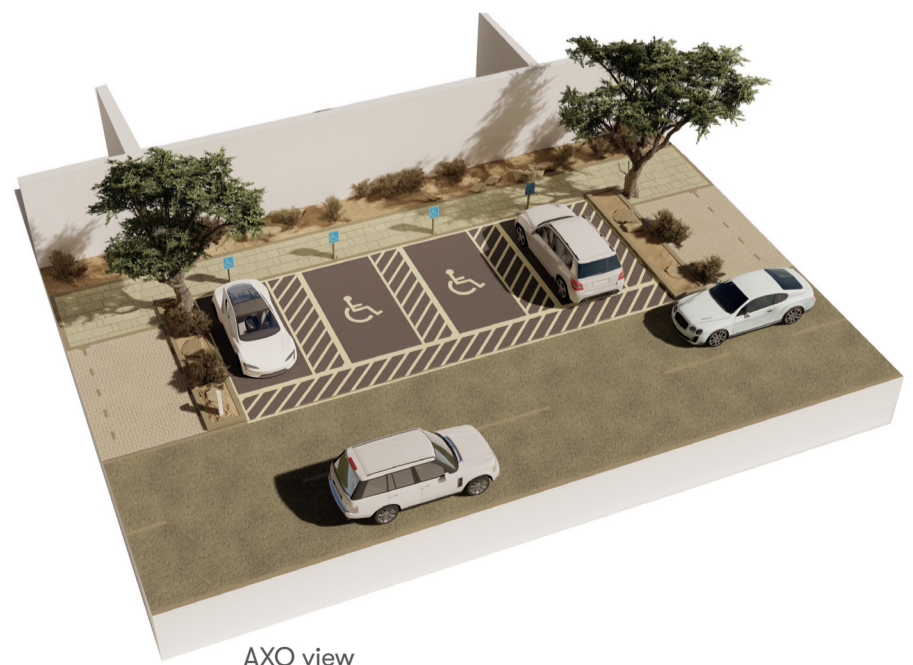
Accessible parking

- Accessible parking shall be implemented with a quantum as agreed by RCU and other relevant authorities.
- Accessible parking spaces shall meet dimensions as per the Saudi Building Code.



Plan view

- A Disabled parking
- B Driveway
- C Arid planting
- D Sidewalk



AXO view

Figure 17: Example approach of accessible parking



On-plot parking

- Where provided, on-plot parking shall be designed to improve the interface of the building and urban fabric.
- Pedestrian circulation from the public realm through the parking lot to buildings should be clearly defined and well-designed.

- The landscaping at the plot boundary should create a positive street presence for the development
- Landscaping and shading structures/plants should be interspersed with parking stalls to break up the expanse of parking and to shade vehicles.

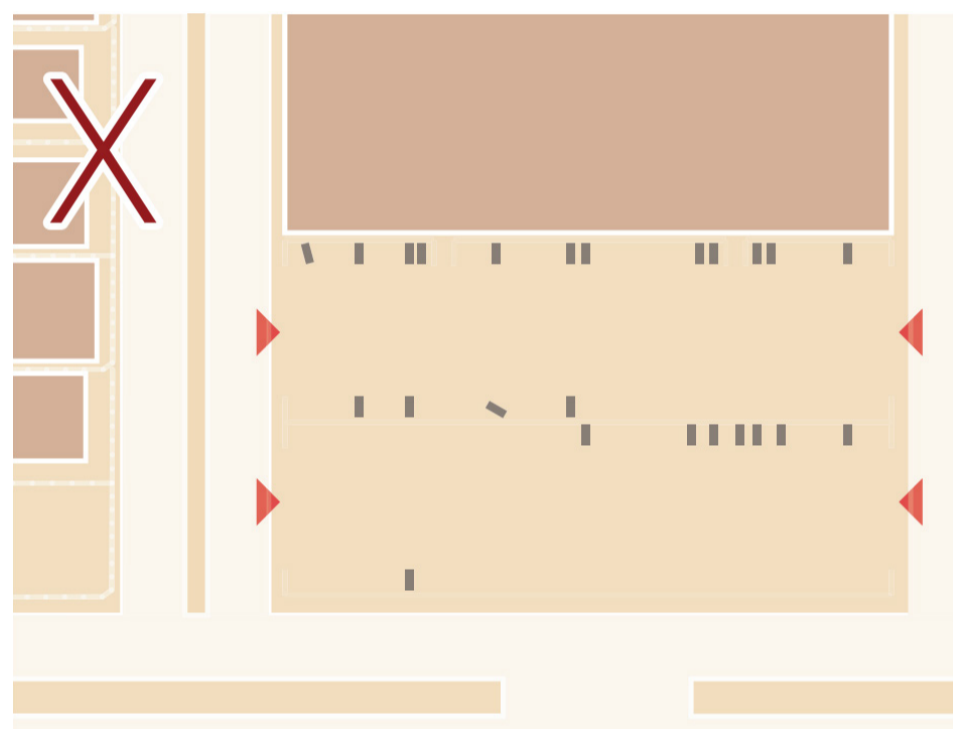
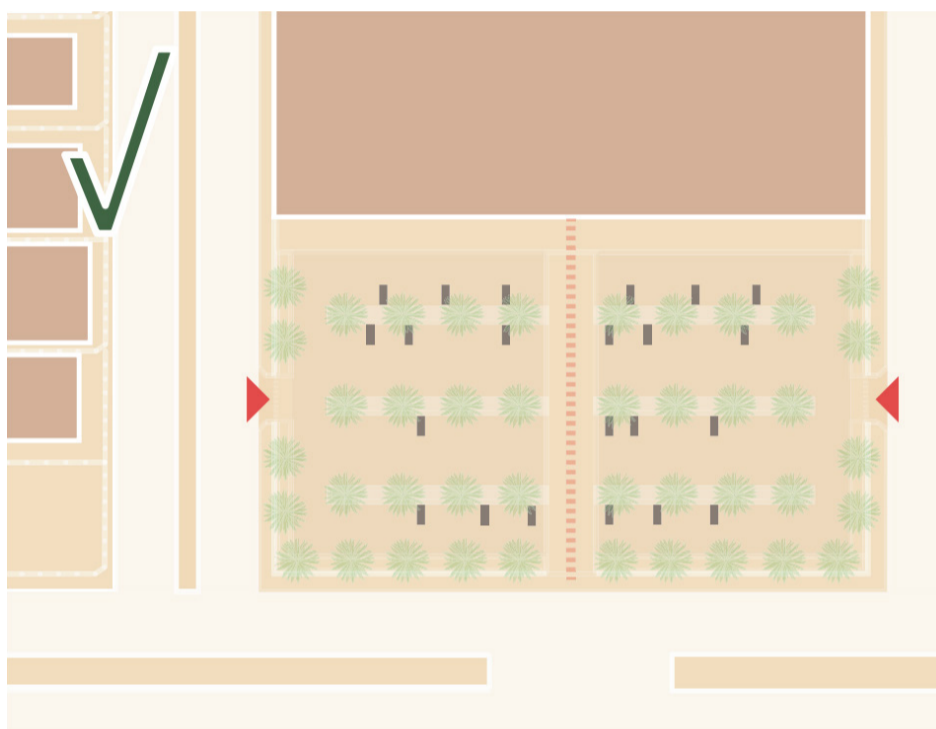
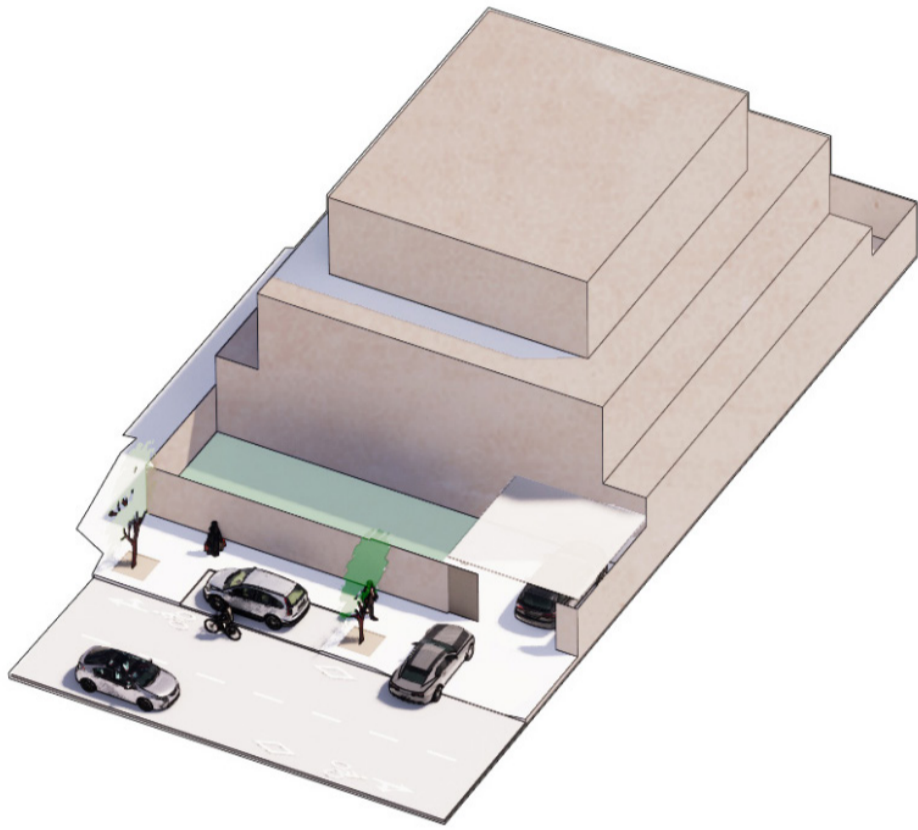
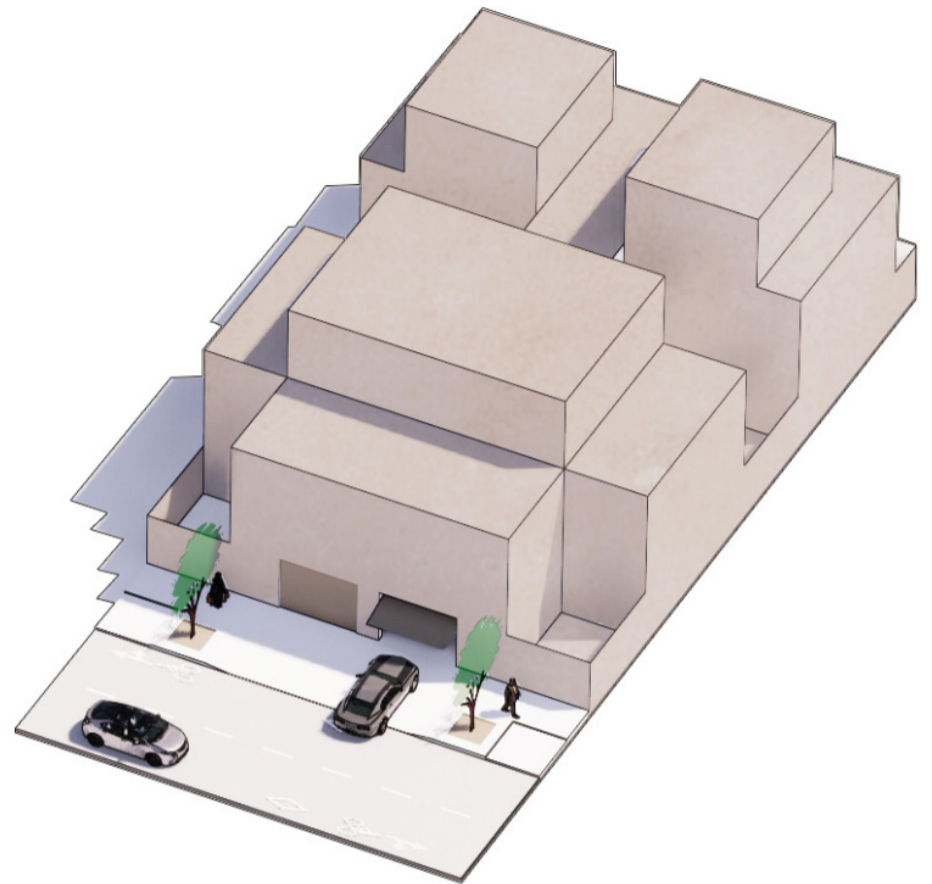


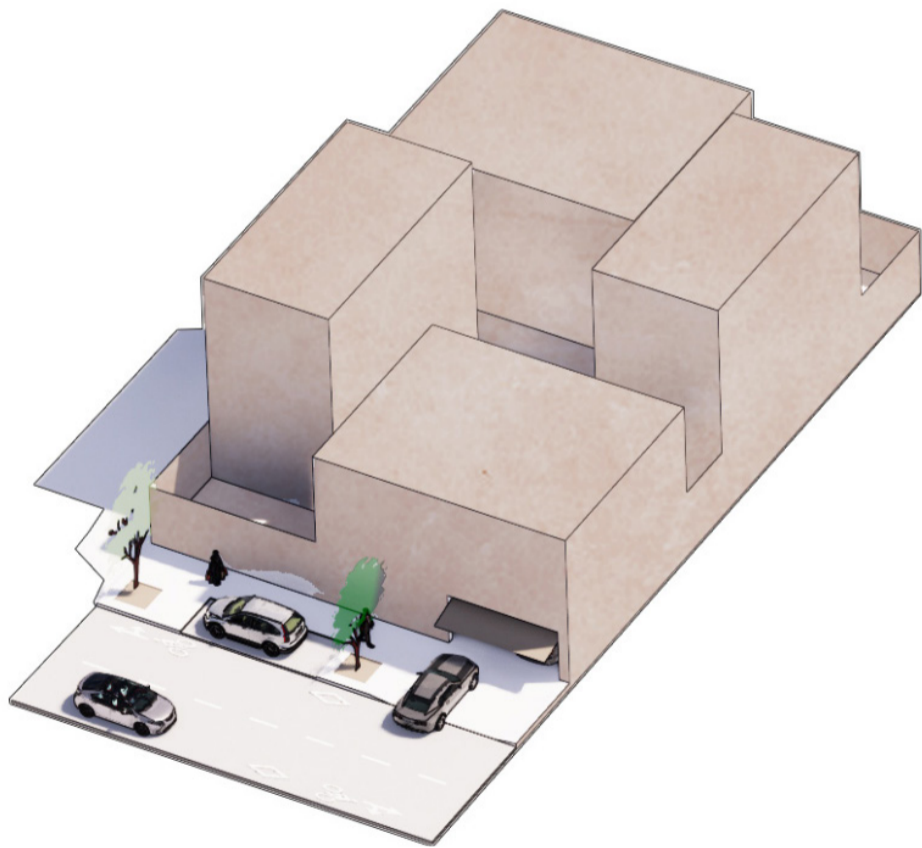
Figure 18: Example approach of on-plot parking courtyards (Source: AlUla Guidelines for Urban Areas May 2020, AlUla Design Studio UDS)



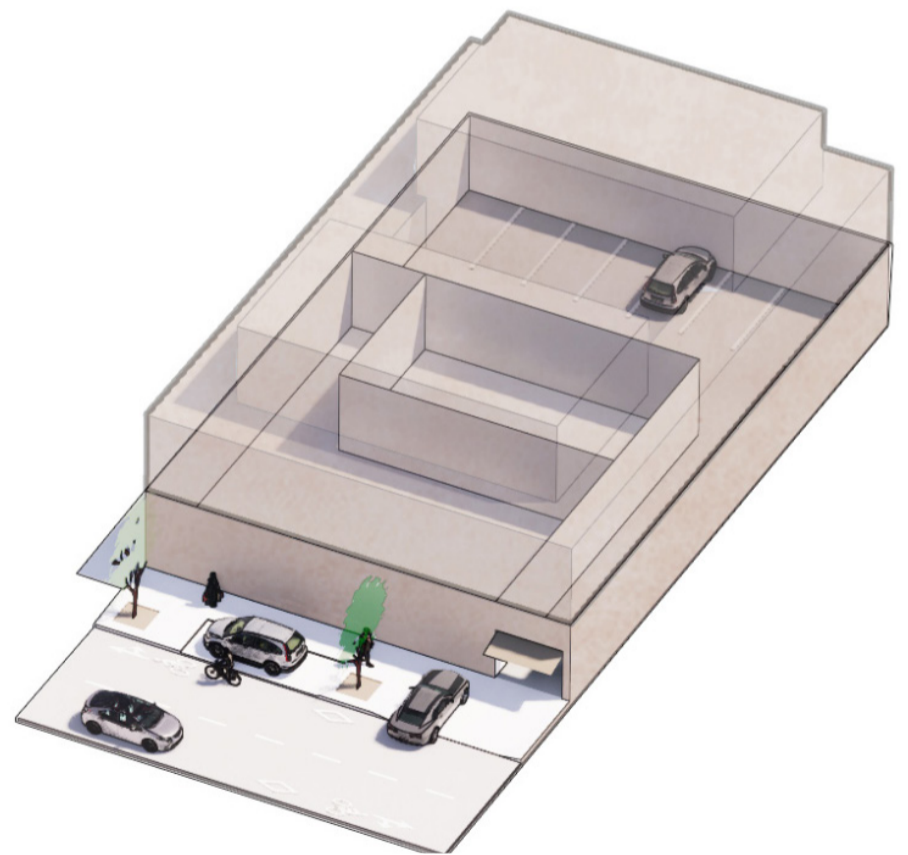
Parking within the setback for garden villa



Individual street-side parking for townhouse



Street-side parking for courtyard house



Backyard parking for apartment

Figure 19: Example approach of on-plot parking (Source: AIUla Guidelines for Urban Areas May 2020, AIUla Design Studio (UDS))

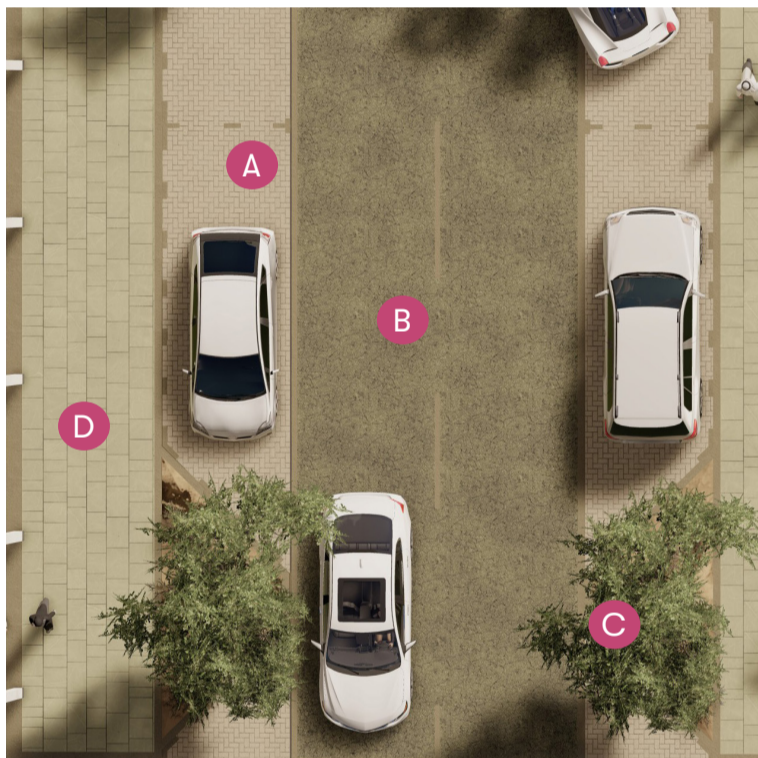


Surface Parking

- A high quality of landscaping and pedestrian paving materials is to be achieved in order to minimize the impact of parking areas on development.
- Major pedestrian routes through parking areas shall be defined through differentiated paving materials.
- The impact of parking areas should be minimized. One strategy for large plots involves the division of a large expanse of parking into smaller parking zones. These zones can be distributed across the plot at convenient locations.

- Parking shade structures should achieve a minimum Solar Reflectance Index (SRI) value.
- Where larger parking areas are used and their use cannot be avoided, landscaped islands at regular intervals, and pedestrian pathways and cross-walks should be used to mitigate their impact.
- Car parking should be unobtrusive, and should be avoided along an access road. It should be screened by plantations where possible, and form part of the overall composition of the exceptional development, rather than a separate element added on.

Typical condition - on-street parallel parking



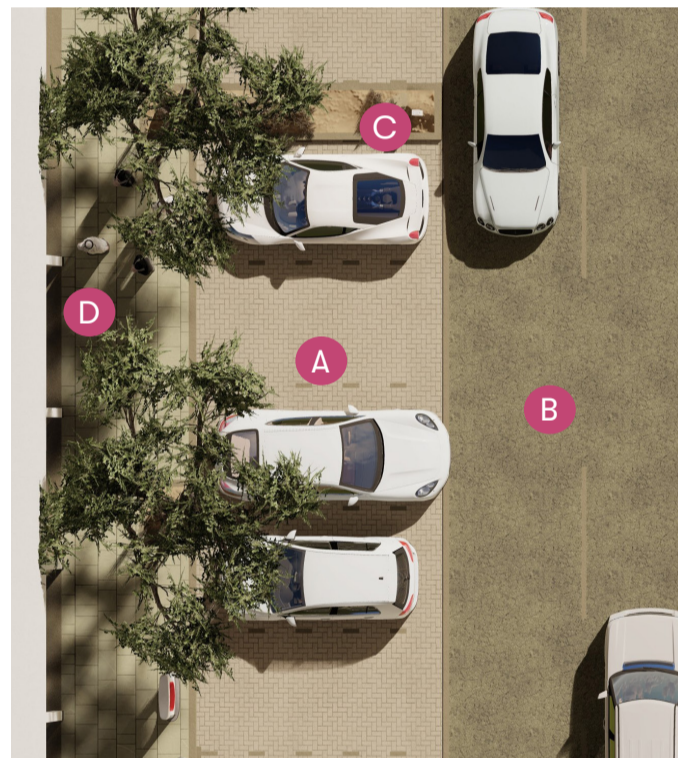
Plan view

- A** Disabled parking
- B** Driveway
- C** Arid planting
- D** Sidewalk



AXO View

Typical condition - on-street perpendicular parking



Plan view

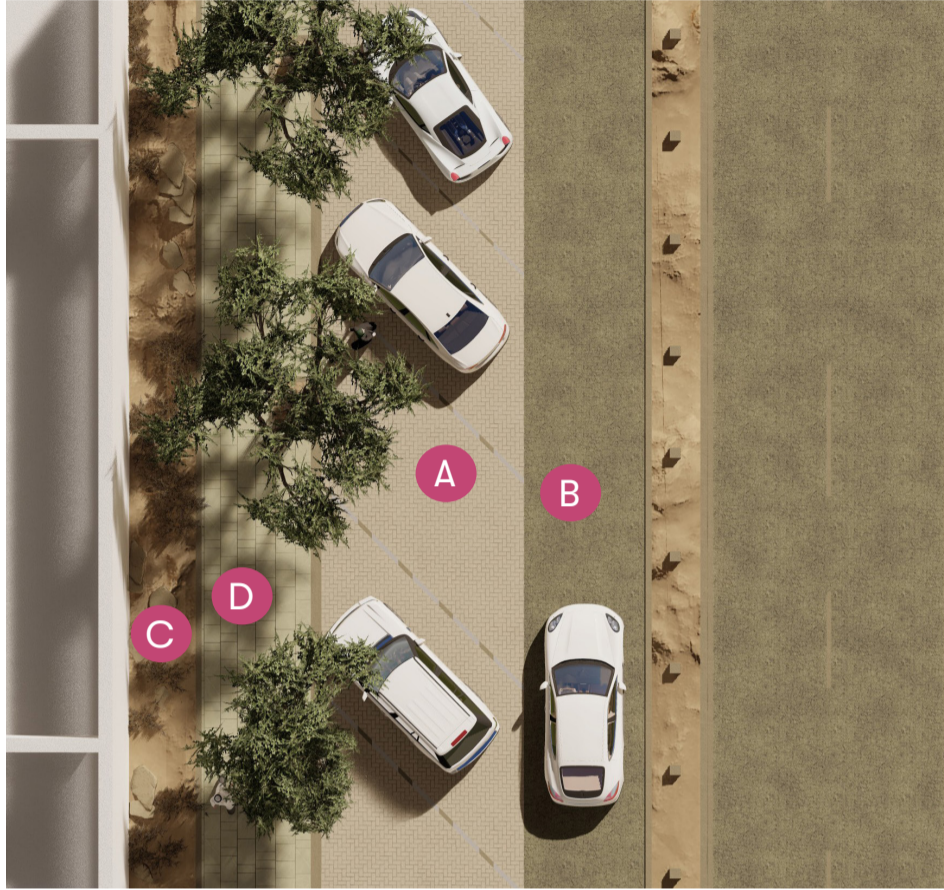
- A** Disabled parking
- B** Driveway
- C** Arid planting
- D** Sidewalk



AXO View

Figure 20: Example approaches of surface parking (Source: AlUla Central and South CMP, Volume 3 - Guidelines, AlUla Design Studio (UDS))

Typical condition - on-street chevron parking



Plan view

- A Disabled parking
- C Arid planting
- B Driveway
- D Sidewalk



AXO View

Typical condition - on-plot parking



Plan view

- A Disabled parking
- C Arid planting
- B Driveway
- D Sidewalk



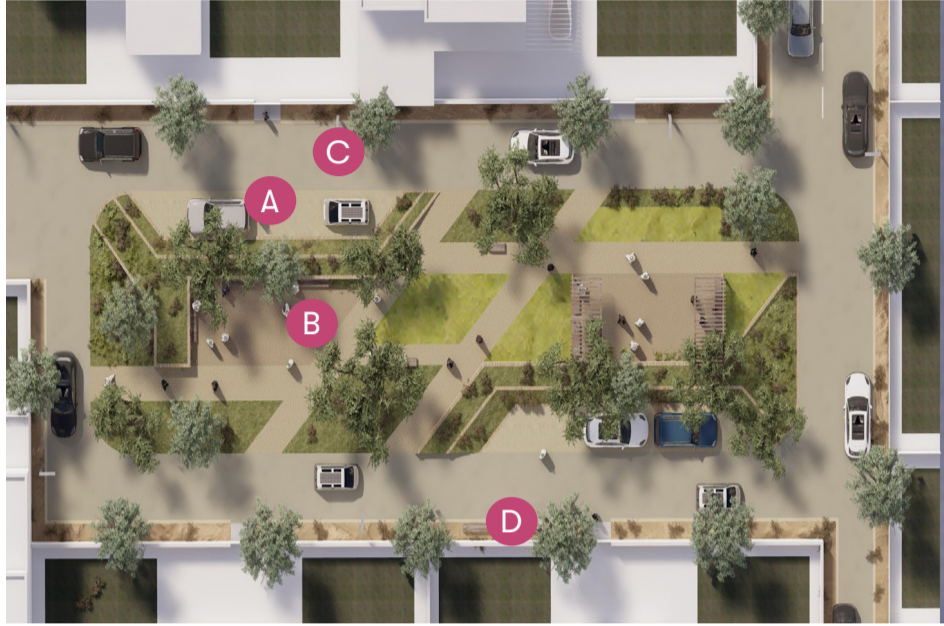
AXO View

- Uninhibited Pedestrian Flow (Raised Crossings)
- Landscape Swales

Figure 21: Example approaches of surface parking



Typical condition - residential common space



Plan view

- A** Cluster garden parking
- B** Leisure seating space
- C** Driveway
- D** Arid Planting



AXO View

Typical condition - Residential common space



Plan view

- A** Parallel parking
- B** Driveway
- C** Arid planting
- D** Private garden



AXO View

Semi-Basement Parking

- Semi basement parking is referred to parking which is sub plot gate level but exposed to public realm along one or more edges.
- Semi basement parking should be integrated within the design of the building, and should not be visible from the public realm. This can be achieved by wrapping the exposed parking with other land uses, such as basic retail, F&B, residential and civic uses where permitted.
- Semi basement parking should be added if the provision of surface level parking requires a significant land take, is visually obtrusive, or otherwise interferes with the continuity of the pedestrian public realm.
- Semi basement parking should, where possible: respond to the topography of the site; leverage natural slopes and grades as a form of natural screening; and ensure that access and egress points are taken directly from lower level.

Basement Parking

- Basement parking is encouraged for commercial and larger civic use plots.
- Basement parking raised above ground level is permitted up to a maximum of 1.5m as measured from the adjacent street level.
- Basement parking should be provided within the plot to meet the demand of the visitor and employee population of the subject plot.
- Natural ventilation should be provided to the basement car parking areas, where possible and integrate ventilation grills or screening devices of car park openings into the facade design and landscape design.
- Controlled access to basement parking areas for residents and visitors should be provided.
- Controlled access points within the building footprint should be provided, with no elements within the public ROW.

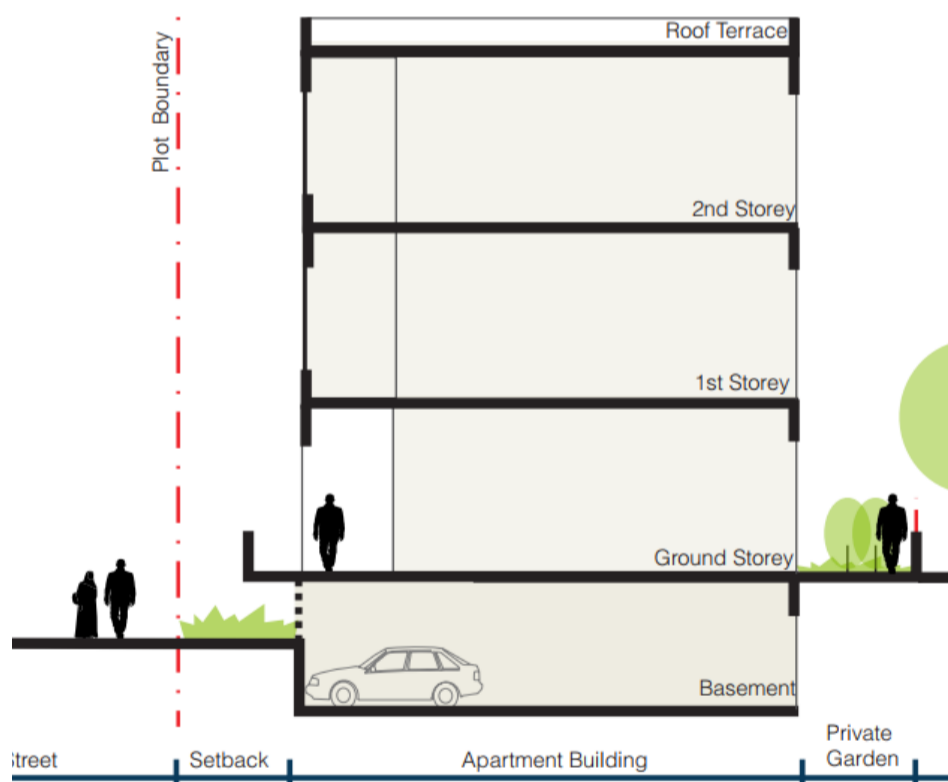


Figure 22: Section showing semi-basement approach

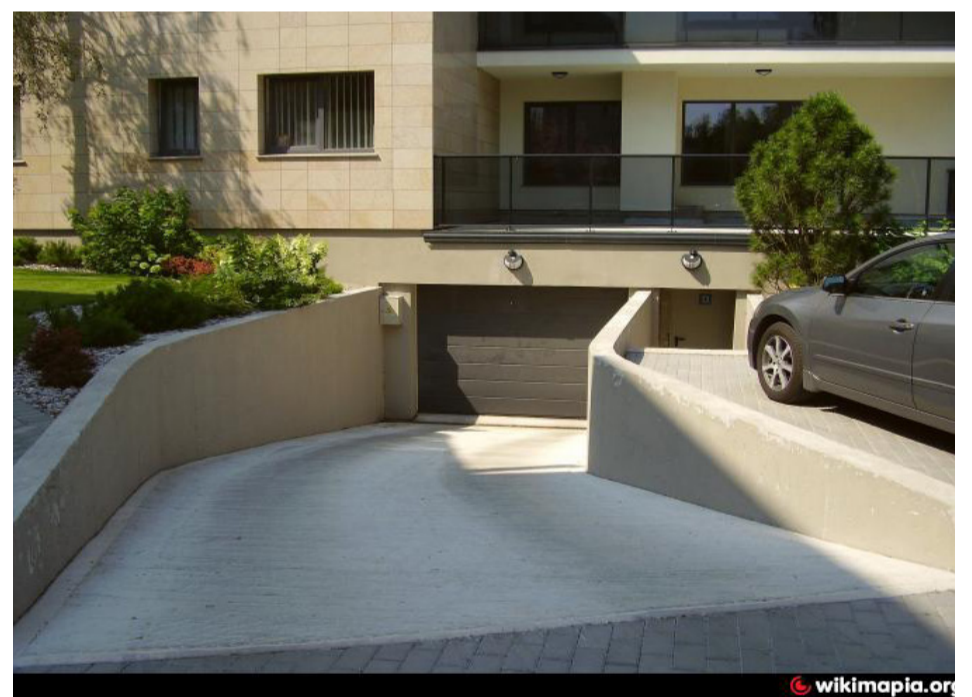


Figure 23: Example showing parking garage entry integrated with building design



Parking Garage

- Garages should be well integrated into the massing of the main building with good proportional detailing. Garages that are attached within the mass of the building, shall have roof design that integrates visually with the design of the building.
- Direct entries to parking garages from the access road is preferred.
- Parking garages are not counted towards the overall GFA of a plot and permissible to be covered only from three sides with one side.

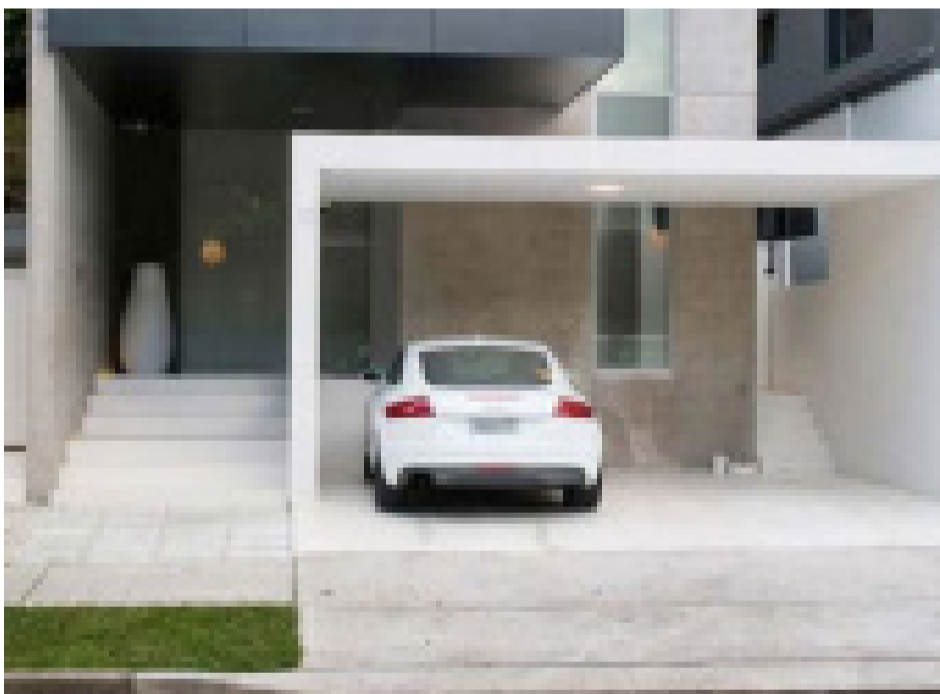


Figure 24: Image showing example of a carport parking for residential villas

Parking Structure

- Parking structures should be made available to promote district level walkability.
- These shall be provided at big-box and larger developments.
- Landscape screening in the form of mature trees and planters shall be used to soften the parking structure façade.
- No exposed services are allowed in the façade. Any services which are required to be located on the external walls (such as gas pipes), where authorities allow, are to be recessed and clad to match the façade they are located in.
- Charging stations, cafés and cycle rentals could be provided at ground level, creating an active frontage for cycles, electric cars, scooters and carts.
- Cycle bays should be provided in the parking structure, the number of bays shall be calculated based on land use requirements.



Figure 25: Image showing examples of parking structures

7. List of Abbreviations

Abbreviation	Full name
RCU	ROYAL COMMISSION FOR ALULA
RCU CZP	RZU COUNTY ZONING AND PLANNING
MP2	MASTER PLAN AREA 2
MP1	MASTER PLAN AREA 1
FAR	FLOOR TO AREA RATIO
GFA	GROSS FLOOR AREA
N/A	NOT APPLICABLE
ERBA	ENTERTAINMENT, RETAIL AND BUSINESS AREA
KSA	Kingdom of Saudi Arabia



Page Left Intentionally Empty

