

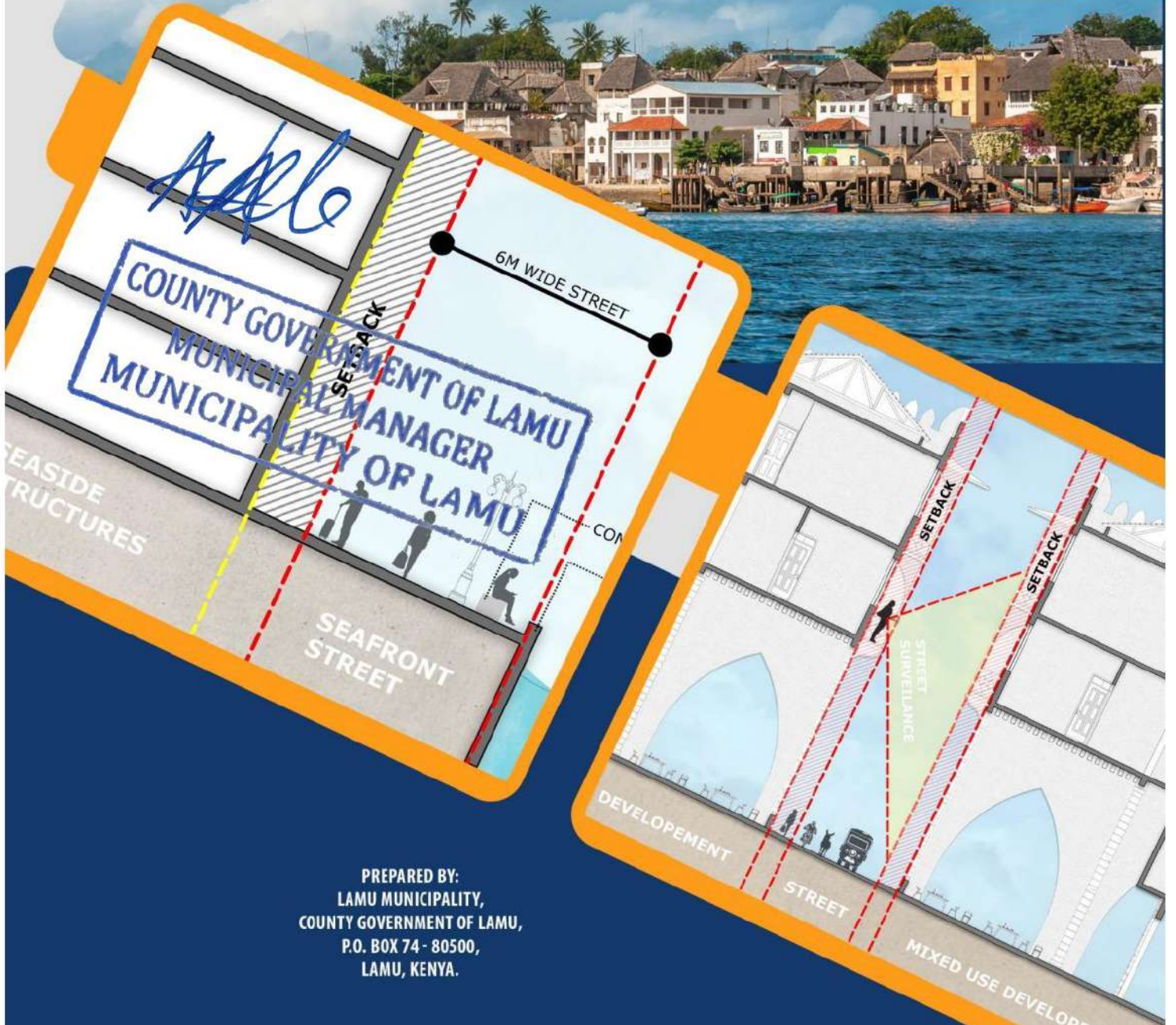


LAMU COUNTY

ZONING STANDARDS, REGULATIONS AND GUIDELINES FOR AMU OLD TOWN AND WIYONI (2023 - 2033)

FINAL REPORT

DECEMBER 2023



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Vision: *Delivering Sustainable Communities; Settlements; and Places*

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ENDORSEMENTS, CERTIFICATIONS & APPROVAL

I Certify that these Zoning Standards, Regulations, and Guidelines have been prepared and published as per the requirements of the County Governments Act, 2012; the Urban & Areas Cities Act, 2011; the Physical and Land Use Planning Act, No. 13 of 2019; and other Planning standards and guidelines.



Signed

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Approved


Date 6th May 2025

The County Assembly
County Government of Lamu

Hansard No.

036



FOREWORD



The County Government of Lamu is dedicated to the execution of the county planning and development function assigned to county governments by the Constitution of Kenya 2010. Through the County Department in charge of matters Lands, Physical Planning, and Urban Development and in collaboration with other departments and relevant stakeholders, deliberate actions have been taken to promote sustainable urbanization in the County through land use planning, survey, development control, and sound urban governance.

The County Government has further devolved planning and development control functions to Lamu Municipality upon its conferment and granting of the Municipal Charter. Located on the eastern side of Lamu Island, Amu Old Town is a UNESCO-inscribed World Heritage Site whose conservation status is continually threatened by the dynamic development trends within the Island. As the town continues to expand in size, uncontrolled urban sprawl and unregulated developments are noticeable within its surrounding areas of Wiyoni, Mkomani, and Langoni.

It is for these reasons that the need arises for the preparation of these zoning standards, regulations, and guidelines for Amu Old Town and Wiyoni. The exercise is timely and a necessary call to action to promote sustainable urban development within the Old Town and Wiyoni. It is also an opportunity to further enhance the technical capacity of Lamu Municipality in the delivery of its development control mandate and in achieving good urban governance. I, therefore, call upon the cooperation and support of all stakeholders to ensure the successful and effective implementation of these zoning standards, regulations, and guidelines.

A handwritten signature in blue ink, appearing to read 'Issa', written over the printed name of the Governor.

H.E. Hon. Issa Abdalla Timamy
The Governor, Lamu County.

PREFACE



Amu Old Town plays important cultural and historical roles within Lamu Municipality. Its continued preservation as a World Heritage Site is a key priority for UNESCO, the County Government of Lamu, Lamu Municipality, and the National Museums of Kenya among other stakeholders. The town, however, faces the challenges of uncontrolled urban sprawl into surrounding areas, pressure from modern development trends within the Island, lack of a well-defined street hierarchy, and informality along the Seafront. In addition, haphazard and

unregulated construction works and buildings within the outer buffer areas and Urban sprawl into Wiyoni has introduced challenges of uncontrolled land subdivisions, tenure insecurity, poor solid and liquid waste management, and unregulated construction works.

To promptly address these urban challenges and ensure controlled urban development, Lamu Municipality with technical support from the County Department in charge of Lands, Physical Planning, and Urban Development has made various land use planning and development control approaches. Among them was the preparation of the Lamu Island Local Physical and Land Use Development Plan (2020-2035), and the Lamu Municipality Integrated Development Plan (2022-2028). These plans provide an overall land use development framework for the urban settlements within the Island and the Municipality as a whole respectively. They also form the basis for the preparation of lower-level land use plans and zoning guidelines for specific urban centers within the Municipality.

The preparation of these zoning standards, regulations, and guidelines was necessary given the uniqueness of Amu Old Town as a World Heritage Site, the impact it has on its surrounding areas, and the growth of Wiyoni as an upcoming unregulated urban settlement. The standards, regulations, and guidelines are perceived as development control tools to further guide urban development and ensure harmonious, coordinated, and sustainable development within these two urban settlements. They will also contribute to the continued preservation of the cultural and historical significance of Amu Old Town.

In addition, these regulations and development standards have provided the institutional framework intended to improve the capacity of Lamu Municipality in matters development control and urban governance. I am confident that the proper implementation of these zoning standards, regulations, and guidelines will avert further urban challenges that arise with urbanization, its resultant urban sprawl, and the dynamic urban development character. I wish to rally the support of all stakeholders in their active implementation for the good of our urban settlements and the Municipality at large.



Hon. Tashrifah Bakari Mohamed,
County Executive Committee Member (CECM),
Lands, Physical Planning, Urban Development, Energy, Water and Natural Resources,
Infrastructure and Public Works,
County Government of Lamu.

ACKNOWLEDGEMENT

The preparation of these zoning standards, regulations, and guidelines for Amu Old Town and Wiyoni was a highly consultative, collaborative, and participatory exercise involving inputs from various stakeholders and residents of the two urban settlements.

I begin by expressing my sincere gratitude for the support we received from the County Government of Lamu under the leadership of H.E. the Governor Hon. Issa Timamy and through the representation of the County Executive Committee Member in charge of Lands, Physical Planning, and Urban Development Hon. Tashrifa Mohamed. Her presence and active involvement throughout all technical and stakeholder engagement forums were humbly appreciated.

I would also like to appreciate the County's technical team from the Department of Lands, Physical Planning, Urban Development, Energy, Water and Natural Resources, Infrastructure and Public Works led by the Chief Officer Mr. Ahmed Mohamed and the County Director for Physical Planning Mr. Patrice Lumumba. Their technical input, together with that of the County Physical Planners, surveyors, architects, and environmentalists, was instrumental in the preparation of these zoning standards, regulations, and guidelines.

Earnest gratitude goes to the strong-willed coordination, technical expertise, output validation, and timely correspondence offered by the Lamu Municipality team led by the Municipal Administrator Mr. Ahmed Kombo and the Municipal Planner Mr. Lewis Mwandiki. Further, I appreciate the inputs of the Municipality technical team comprising the architects, surveyors, and environmentalists, as well as the enforcement officers for active participation during the validation of outputs.

I profoundly recognize and appreciate the National Museums of Kenya led by the Lamu Museum Curator Mr. Mohammed Mwenje and the Conservation Officer Mr. Haji Mohamed. Indeed, their technical guidance, zoning recommendations, and vast knowledge of the conservation status and past efforts to preserve the cultural and historical significance of Amu Old Town as a World Heritage Site came in handy in the formulation of these zoning standards, regulations, and guidelines.

Additional gratitude goes to the consulting team KREIS Spatial Planning and Consulting Associates for the successful and timely execution of the assignment and submission of the expected outputs led by the Lead Consultant Plan. Samuel Mburu Gituara and his team including Plan. Dr. Elizabeth Kanini Wamuchiru, the GIS & mapping expert Mr. Solomon Karani, Plan. Fridah Nzuki, Plan. Cynthia Wamukota, and Arch. Kennedy Ngunjiri.

Further, I thank all other relevant stakeholders who heeded our call for participation and involvement in validating the outputs including Lamu Water and Sewerage Company, NEMA, and representatives of Nyumba Kumi, PLWDs, women and youth groups.

Finally, I wish to thank the people of Amu Old Town and Wiyoni for their valuable contribution during stakeholder engagement forums that ensured that the zoning standards, regulations, and guidelines addressed the development concerns of the people.



Mr. Abduswamadu Abdalla Ali,
Municipal Manager, Lamu Municipality.

EXECUTIVE SUMMARY

Urban settlements within Lamu Municipality have been experiencing rapid urbanization and expansion which has resulted in urban sprawl to agricultural lands within their peripheral areas. This has induced challenges of unplanned settlements, poor land use management, rapid land subdivision and fragmentation, poorly serviced areas in terms of infrastructure and social amenities, resource competition, environmental degradation due to poor waste management, lack of well-defined circulation networks, and tenure insecurity of tenure to mention a few.

These challenges have necessitated strategic intervention by the County Government of Lamu and Lamu Municipality in a bid to address the existing development concerns and prevent further negative urbanization impacts. Land use planning and development control have become fundamental urban management and governance tools, which have led to the realization of a positive transformation of the development character of urban settlements within the Municipality. This has been achieved through the preparation of the Lamu County Spatial Plan, the Lamu Island Local Physical and Land Use Development Plan, the Lamu Municipality Integrated Development Plan, and the surveying and regularization of selected urban centers.

While these plans have provided an overall development framework to guide sustainable urban development and land use management in the Municipality and county as a whole, challenges of unregulated developments within a majority of the urban settlements persist. Population increase and the resultant increase in demand for housing and commercial facilities have led to rapid land use conversions and subdivisions into smaller plots. The urban settlements have continued to expand outwardly despite the zoning of their peripheral areas as agricultural zones to ensure food security for the growing urban population. This threatens the sustainability of the agricultural zones and induces competition for resources such as clean water.

Amu Old Town is no exception to this development trend. The town continues to grow in size beyond the boundaries of the demarcated World Heritage Site and into its

surrounding buffer areas. While the core Heritage Site assumes a compact development character, the outer buffer areas have space for further growth and construction of residential buildings, social amenities, and infrastructure utilities. Within the Heritage Site, challenges of poor waste management, use of motorcycles and *tuk-tuks* along the Seafront, narrow streets that only allow for NMT, non-conformity to building standards and use of construction materials, obstruction of streets due to exterior building extensions and informal commercial activities, and pressure from the changing development trends within the Island are visible.

The outer buffer area continues to grow, with some buildings still maintaining the ancient Swahili architecture and decorative designs used in the Old Town. However, other buildings have adopted modern architecture and construction materials, which is noticeable in the design of balconies, windows, door frames, ceilings, walls, and roofs. A dilemma emerges between the conservation of the historical development character and the need to embrace modernity and changing development patterns and trends. This predicament is fueled by the unavailability and high cost of the ancient construction materials – mangrove timber and coral lime. Conservation efforts of mangrove forests have limited their commercial harvesting which was once a common economic activity in the Island.

Wiyoni, located north of Amu Old Town, has emerged as an unregulated urban settlement due to urban sprawl effects. The settlement is characterized by rapid land subdivisions and fragmentations, an irregular street hierarchy that hinders efficient circulation, tenure insecurity, poor solid and liquid waste management, and the rise of numerous haphazard and unregulated construction works. Unlike the Old Town's compact urban development character, Wiyoni has undeveloped parcels of land which present an opportunity for further growth and expansion. The town, however, lacks social amenities, public spaces, designated waste collection sites, and well-established drainage systems making it highly susceptible to flooding due to its flat terrain.

Therefore, these zoning standards, regulations, and guidelines have been prepared to address the aforementioned development challenges in Amu Old Town and Wiyoni.

Contained herein are specific land use zones for each of the urban settlements, detailing the permitted land uses, building typologies, construction materials, color codes, roofing materials, window and door designs, building heights and setbacks, street layout, and designs for building frontages and courtyards. The building standards for Amu Old Town emphasize the continued use of ancient Swahili architecture and decorative designs, which are also recommended within its outer buffer areas and in Wiyoni. The standards and regulations allow for controlled modernity aspects in Wiyoni, especially regarding the use of locally available construction materials and the permissible building color codes.

To enhance the capacity of the Municipality's technical team and ensure successful and effective implementation of the zoning standards, regulations, and guidelines, the report further contains development control instruments as provided for in the regulations of the Physical and Land Use Planning Act of 2019. These include the various forms for the application of development permission encompassing change of use, extension of use, subdivision, amalgamation, extension/renewal of lease, densification, demolition, surrender of land for public purpose, submission of building plans, architectural and structural drawings, certificate of compliance, issuance of occupation certificate, notification for revocation of development permission, and notice of inspection among others.

The report also details the procedure for the application of development permission by clearly stating the general requirements that should accompany a technical planning brief. It highlights the conditions that the approving authority will consider before issuance of approval or disapproval. For the various development control instruments, the expected timelines for processing the applications have been indicated while the application fees remain as outlined in the Public Finance Management Act of the County Government of Lamu.

For purposes of ensuring the inclusion of all relevant offices in the development control evaluation process, proposals have been made for the circulation of the application forms to those offices to enable timely issuance of comments. These offices include the National Museums of Kenya, NEMA, public health, public works, survey, land administration, Lamu

Water and Sewerage Company, KeRRA, and KURA among others. The Municipality's Physical Planning Department has been charged with receiving the development applications, checking for consistency with the zoning requirements and planning standards, circulating the applications to the relevant offices and receiving comments, constitution of the planning review committee, and dispatching approvals or disapprovals.

While the Municipality has an existing institutional structure, it is necessary to further enhance its technical capacity and eliminate challenges that emanate from poor implementation and enforcement. Therefore, the report outlines the proposed institutional organization and coordination structure to enable the effective implementation of these zoning standards, regulations, and guidelines. There is a proposal for the composition of various sectoral directorates which should be preferably headed by registered professionals. These include municipal planning and architecture, public health and environment, housing and community services, public works and disaster management, and finance and economic planning. These directorates are to comprise a pool of experts in the various professional fields.

The report concludes with several recommendations to the County Government and Lamu Municipality including the adoption of digital governance in development application and revenue collection; upscaling the geographical extent of the zoning regulations to capture the entire municipality through continuous phasing; and championing for mangrove planting programmes and initiatives to ensure its sustainable availability as a construction material within the Old Town.



Mr. Ahmed Mohamed Ali

Chief Officer – Lands, Physical Planning, Urban Development, Energy, Water and Natural Resources, Infrastructure and Public Works
County Government of Lamu.

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ABBREVIATIONS AND ACRONYMS

BTS	Base Transceiver Station
CECM	County Executive Committee Member
CGI	Corrugated Galvanized Iron
CGL	County Government of Lamu
CSP	County Spatial Plan
EBK	Engineers Board of Kenya
ECDE	Early Childhood Development Education
EMCA	Environmental Management and Coordination Act
GDP	Gross Domestic Product
ICT	Information and Communication Technology
KNBS	Kenya National Bureau of Statistics
KUSP	Kenya Urban Support Programme
LAPSSET	Lamu Port, South Sudan, Ethiopia Transport Corridor
LP&LUDP	Local Physical and Land Use Development Plan
NEMA	National Environment Management Authority
NMK	National Museums of Kenya
NUA	New Urban Agenda
NUDP	National Urban Development Policy
NMT	Non-Motorized Transport
OHS	Occupational Health and Safety
PLUPA	Physical and Land Use Planning Act
RIM	Registry Index Map
SDGs	Sustainable Development Goals
UACA	Urban Areas and Cities Act
UNESCO	United Nations Educational, Scientific and Cultural Organization
WHS	World Heritage Site

1 CHAPTER ONE: INTRODUCTION

1.1 Overview

Urbanization is a strong and potentially positive force in development throughout the world today. However, the increasing rate of urbanization in Kenya often supersedes the capacity of national and county authorities in dealing with urban development needs and challenges. These include urban housing, infrastructure systems, social and community facilities, local economic development and environmental conservation. Urban centers are estimated to contribute about 70% of the Gross Domestic Product (GDP) to national development. It is therefore crucial to harness the huge potential of urbanization as a pathway to growth and development while sustainably addressing the resultant challenges.

Sustainable development, urbanization and governance in Kenya is supported by the Constitution of Kenya 2010, the County Governments Act 2012, the Physical and Land Use Planning Act 2019, the Urban Areas and Cities Act 2011 (Amendment of 2019), the Lands Act 2012, the Land Registration Act 2012, the Survey Act Cap 299, the National Land Commission Act 2012, the Environmental Management and Co-ordination Act 1999, and the Environment and Land Court Act 2011.

Urban planning, governance and development is wanting hence a series of challenges like environmental degradation, emergence of informal settlements, unplanned developments, unsafe building structures, poor land use management, urban sprawl, high rates of unemployment, poor waste management, increasing prevalence of urban poverty, and inequality. These challenges highlight the significance of the National Urban Development Policy (NUDP) in guiding sustainable urban development through strengthening urban governance and management, development planning, urban investment, and delivery of social and physical infrastructure in the Country.

Situated in Kenya's coastal region, Lamu County is uniquely placed to access a myriad of blue economy services, tourism and hotel industry, trade and commerce, energy access, and agriculture, to name a few. Lamu Island is one of the islands that form the archipelago within Lamu County and hosts one of the oldest Swahili towns in East Africa.

The Island is home to four historic settlements i.e., Lamu Old Town, Matondoni Village, Kipungani Village and Shela. Lamu Old Town was inscribed by UNESCO as a World Heritage Site (WHS) on the 14th December 2001 in recognition of its outstanding universal value arising from its cultural diversity and historic role in the Indian Ocean maritime trading activity over many centuries as expressed through its architecture and urban structure. The WHS status guarantees international exposure and gives the tourism industry in Lamu a much-needed boost.

However, urban centers in the county have been experiencing haphazard and unregulated developments attributed to rapid urbanization, urban sprawl, industrialization, consumerism, changing lifestyle patterns, and economic growth. The resultant challenges are poor circulation and mobility, competing land uses, lack of spatial order, environmental degradation, and poor waste management among many others. The need arises for proper planning and development control in these centers and urban settlements to guide future expansion and promote sustainable urban development.

The County Government of Lamu and Lamu Municipality are committed to build the county's capacity to respond to urbanization-induced challenges through sound urban governance approaches, one being the preparation of development control regulations and implementation frameworks for selected urban centers. Amu Old Town and Wiyoni Settlement have been prioritized for the preparation of zoning standards, guidelines and regulations. The long-term goal of the zoning regulations is to guide their physical development in a coordinated and compatible way, taking into consideration social, cultural, economic and environmental use and implications.

The regulations will help achieve well planned urban living and working environments that are capable of attracting further investments for enhanced revenue collection, economic growth, employment creation, and infrastructure development in realization of the Kenya Vision 2030, and achievement of the Sustainable Development Goals (SDGs). They also form a basis upon which lower-level development control tools for other urban centers in Lamu County will be formulated.

1.1 Justification

Amu Old Town is characterized by narrow streets that only allow for pedestrianization, limited motorable transport and use of donkeys as the main modes of movement and circulation. The streets terminate into house entrances or into open spaces. Residential buildings line the streets in an orderly manner but becomes less orderly as you get to the interior of the town. Notably, there is mushrooming informal settlements due to urban sprawl of the Old Town to the adjacent areas. Other challenges facing the Old Town include congestion due to increase in population, poor liquid and solid waste management practices; management of donkey poo; the use of motorcycles at the sea front; risky jetties that are not universally accessible; lack of landing sites for various types of goods e.g household goods, construction material, fish, retail items, as well as passengers; and lack of recreational grounds.

The town's uncontrolled urban sprawl has led to the growth of Wiyoni, an irregular settlement located north of the Old Town and bordering the Indian Ocean to the east. It assumes a nucleated settlement pattern with a concentration of residential housing structures served with a few public amenities such as Wiyoni Primary school, Wiyoni Secondary school, mosques and hotel facilities. The settlement lacks proper well-defined circulation networks, though movement of goods and services is enabled through the existing footpaths/ irregular street layout.

Currently, Amu Old Town and Wiyoni are experiencing immense development pressure which accentuated the urgency of these zoning regulations and development guidelines. The high population growth rate is particularly exerting pressure on the low-density residential neighbourhoods due to the rising demand for housing, office and commercial developments. Other notable issues include:

- i. Space competition among different users occasioned by the narrow streets and circulation paths;
- ii. Uncoordinated and incompatible land uses due to poor development control and rampant change of land use;

- iii. Inadequate and ineffective implementation of plans for infrastructure development;
- iv. The lack of established liquid waste management systems;
- v. Problems of flooding coupled by the wearing off of the street surfaces since the streets/ pathways have not been upgraded to match the increase in storm water surface runoff;
- vi. Proliferation of squatter settlements on very small pieces of land; and
- vii. Weaknesses and loopholes in the implementation and enforcement of urban development policies.

Therefore, these zoning regulations fortify the cultural and historical importance of Amu Old Town while embracing the changing dynamics in land use, architecture and urban development character of its adjacent areas – primarily Wiyoni Settlement. Key focus is on the integration of physical, cultural, social, environmental, economic and institutional aspects to ensure sustainable development and spur economic growth while maintaining its heritage significance.

The regulations are anticipated to guide the spatial growth and development of these two centers for the next 10 years and beyond, with the flexibility of periodic reviews every three to five years. In addition to promoting good urban management and governance, the regulations are a basis for public and private investments, and coordinating sector programmes and projects.

1.2 Objectives

The main objective of this consultancy is to prepare zoning standards, regulations and guidelines for Amu Old Town and Wiyoni that will play a central role in guiding and controlling development as well as help spur sustainable urban growth within Amu Old Town Heritage Site, its surrounding areas, and Wiyoni environs to achieve a well serviced, prosperous, secure, beautiful and livable human settlements.

This overall objective is supported by the following specific objectives:

- i. To review the existing land use zoning and institutional framework so as to get in-

- depth analysis of Amu Old Town Heritage area and Wiyoni environs;
- ii. To conduct participatory planning exercises within the study areas as a way of identifying the citizens' priorities;
 - iii. To determine the Amu heritage site waterfront protection, development and regulations;
 - iv. To set regulations, standards and guidelines for development control within and around Amu Old town and Wiyoni environs;
 - v. To mitigate urban sprawl and forestall emergence of informal settlements;
 - vi. To provide a detailed basis for provision of modern infrastructural services within the Old Town and Wiyoni;
 - vii. To formulate measures for environmental conservation/improvements and aesthetics;
 - viii. To provide hands-on training to key staff of the Planning Department on the preparation and implementation of the zoning guidelines and regulations.

The formulated development control institutional framework provides the instruments, requirements, processes and institutional roles to ensure that the proposed zoning standards, regulations and guidelines are effectively and successfully implemented.

1.3 Scope

The planning horizon for the zoning standards, regulations, and guidelines is set at 10 years (2023-2033). The geographical extent of the zoning regulations covers approximately 40 Ha and close to 1,500 land parcels within Amu Old Town and approximately 17.5 Ha and close to 750 land parcels within Wiyoni Settlement.

1.4 Approach and Methodology

1.4.1 Technical Approach

A multifaceted approach has been employed in the preparation of these zoning regulations and development control institutional framework; including integrated, multi-disciplinary, environmental, and participatory approaches.

Figure 1-1: Approaches used in Preparation of the Zoning Standards, Regulations, and Guidelines



The detailed application of each approach is described in table 1-1 below:

Table 1-1: Application of the various Approaches

Approach	Application
Integrated	It involved the combination of both vertical integration at macro and micro-planning levels, as well as horizontal integration of the different sectors and players – including Lamu Municipality, property owners, NMK, various business operators, beach management units, conservation groups, developers, institutions, and members of the public among others.
Multi-Disciplinary	The process involved a wide range of consultations and peer reviews for purposes of knowledge-sharing and drawing expertise from relevant professional fields – such as land use planning, marine spatial planning, environmental conservation, cultural and historical preservation, architecture, and natural resource management.
Environmental	Due to the strategic location of Amu Old Town and Wiyoni Settlement along the Indian Ocean’s seafloor, an environmental approach was used

	to prioritize ecological conservation and ensure the protection of fragile marine resources and ecosystems.
Participatory	As mandated by the Constitution of Kenya (2010), the County Governments Act (2012), and the Physical and Land Use Planning Act (2019) multi-stakeholder engagements and reviews were conducted at different stages and decision-making processes. Concerns and opinions from the County Government, Lamu Municipality, members of the public, relevant institutions, and various community groups were taken into consideration.

1.4.2 Methodological Process

The preparation of the zoning standards, regulations, and guidelines was approached at four levels; town, neighborhood, street and building level customized to the uniqueness of the Old Town as a World Heritage Site and Wiyoni as an upcoming urban settlement.

Figure 1-2: Methodological Process



At the lowest level, the zoning standards and regulations focus on the building character with regards to architectural designs and decorations, building heights, color schemes, building typologies and orientation, construction materials, and building facades/frontages. The proposed building standards specify the standard materials permissible for roofing,

ceilings, walls, doors, windows, and verandahs, as well as the allowed color schemes within the Old Town and in Wiyoni Settlement.

The street level analysis allows for the determination of the interaction of various buildings with the narrow streets, with some having beautiful arcades and stone verandas which enhance the cultural significance of the Old Town. The regulations provide for the maintenance of the narrow streets within the Old Town, while specifying the permitted uses and restricting vehicular movement especially along the Seafront and Kenyatta Street. The regulations aim to enhance the functionality of the narrow streets as NMT circulation paths, communication channels, stormwater and wastewater drainageways, and recreation spaces where children can play and religious festivals can take place.

At the neighborhood level, the regulations address residential zones, commercial streets, the Seafront area, educational zones, public purpose areas, and transportation nodes within the Old Town, its buffer area, and in Wiyoni Settlement. They seek to shape the social, economic and environmental character of the various neighborhood zones in order to improve the general aesthetics, quality of life, and spatial orientation and organization.

Consolidation of the building, street, and neighborhood analysis levels forms the town-level approach that summarizes the general zoning regulations, standards and guidelines for the two urban centers. The relevant instruments, requirements, processes, and considerations for the application of development permission have been outlined, as well as the overall development control institutional framework for coordinated and effective implementation.

2 CHAPTER TWO: LEGAL, POLICY AND INSTITUTIONAL FRAMEWORK

2.1 Legal and Policy Framework

The zoning standards, regulations and guidelines for Amu Old Town and Wiyoni Settlement are anchored within the following legal, policy and institutional framework:

Table 2-1: Legal and Policy Framework

S/No.	Legal/Policy Document	Description	Relevant Provision	Relevance to the Assignment
2.1.1 Legal Framework				
1.	Constitution of Kenya, 2010	The supreme law in Kenya which provides for a devolved system of governance.	<ul style="list-style-type: none"> ▪ Article 60(1) mandates the use and management of land in an equitable, efficient, productive, and sustainable manner. ▪ Article 66(1) provides for the regulation of land use and property in the interest of defense, public safety, public order, public morality, public health, or land use planning. ▪ Part 2(8) of the Fourth Schedule outlines the county planning and development function assigned to county governments. 	<ul style="list-style-type: none"> ▪ The preparation of these zoning standards, regulations, and guidelines for Amu Old Town and Wiyoni Settlement is an exercise of the county's planning function. ▪ These regulations and building standards will act as tools for development regulation through sustainable land use planning.
2.	County Governments Act, 2012	It operationalizes county governments by outlining their allocated powers and functions.	<ul style="list-style-type: none"> ▪ Each county government is tasked with guiding, facilitating, and harmonizing development within its area of jurisdiction. ▪ In doing so, Section 111(1) mandates county governments to prepare city or municipal land use plans, city or municipal building and zoning plans, and 	This assignment falls under the preparation of urban areas' building and zoning plans; which will be regulatory instruments for guiding and facilitating development within Amu Old Town and Wiyoni.

S/No.	Legal/Policy Document	Description	Relevant Provision	Relevance to the Assignment
			<p>city or urban areas building and zoning plans.</p> <ul style="list-style-type: none"> Section 111(2) directs that these plans shall be the instruments for development facilitation and development control within the respective city or municipality. 	
3.	Physical and Land Use Planning Act, 2019	The Act provides for the planning, use, regulation, and development of land.	<ul style="list-style-type: none"> Part IV, Section 55(g) outlines the objectives of development control in ensuring orderly and planned building development, planning, design, construction, operation, and maintenance. In Section 56(a), county governments shall have the power, within their areas of jurisdiction, to prohibit or control the use and development of land and buildings in the interests of proper and orderly development. Section 56(b) gives county governments the power to consider and approve all development applications and grant all development permissions. Further, Section 56(e) mandates county governments to formulate by-laws to regulate zoning with respect to use and density of development. 	The zoning standards, regulations and guidelines for Amu Old Town and Wiyoni are viewed as development control tools to be used by the County Government of Lamu and Lamu Municipality in regularizing current and future urban developments within these centers.
4.	Urban Areas and Cities Act, 2011 (Amendment, 2019)	The Act provides for the classification, governance, and management of urban areas and cities.	<ul style="list-style-type: none"> Part V, Section 38 provides for the preparation of integrated development plans for cities or urban areas as instruments for development control. Under the First Schedule of the Amendment Act, planning and 	These zoning standards, regulations, and guidelines for Amu Old Town and Wiyoni will act as development control instruments in line with the provisions of this Act.

S/No.	Legal/Policy Document	Description	Relevant Provision	Relevance to the Assignment
			development control is listed as an essential provision for classification of a municipality.	
5.	National Museums and Heritage Act, 2006	The Act provides for the identification, protection, conservation, and transmission of the cultural and natural heritage of Kenya.	<ul style="list-style-type: none"> ▪ Under its subsidiary legislation, the National Museums (Open Spaces and Areas of National Heritage) Protection and Management Rules of 2009 provide for the appointment of a guardian who shall be responsible for the maintenance and conservation of any protected area. ▪ Section 12(1) mandates the guardian to ensure that the protected area is as far as possible preserved in its condition at the time of declaration as a protected area. ▪ Section 14 mandates that a person shall not undertake the construction of any infrastructure in a protected area, in a manner that endangers the ecological equilibrium or alters the general appearance of the area. ▪ Section 18 provides for the use of the original or historically significant building materials and maintenance of the original architectural features during any restoration works. Where necessary to replace the original building materials, the guardian shall ensure the use of alternative materials which match those to be replaced in composition, design, color, texture and other visible qualities. ▪ The Rules recommend for conservation and maintenance of the original 	<ul style="list-style-type: none"> ▪ Amu Old Town is an inscribed UNESCO World Heritage Site and, therefore, a protected area under this Act. ▪ It also houses the Lamu Museum which is a national heritage conservation site. ▪ Other historically significant buildings within the town include Lamu Fort, Swahili House, and the German Post Office. ▪ The zoning regulations and building standards for the Old Town will, thus, adhere to the provisions of these Rules through maintenance of the Swahili architecture, building typology, color, and orientation.

S/No.	Legal/Policy Document	Description	Relevant Provision	Relevance to the Assignment
			landscape, materials and features within the surrounding areas of a national heritage site.	
6.	Environment Management and Coordination Act, 1999	This Act provides for the establishment of an appropriate legal and institutional framework for the management of the environment.	In its environmental quality standards, the Act prohibits the discharge of poison, toxic, noxious or obstructing matter, radioactive wastes or other pollutants into the aquatic environment.	These zoning regulations are key in reiterating this provision since open wastewater discharge into the ocean is a key challenge notable in Amu Old Town and Wiyoni.
2.1.2 Policy Framework				
1.	Kenya Vision 2030	Kenya's development blueprint which aims to transform the country into a newly industrializing, middle-income country by 2030.	Its Economic Pillar aims at moving the country's economy up the value chain by increasing global competitiveness in economic sectors such as tourism.	Amu Old Town Heritage Site plays a significant role in attracting tourists to Lamu Island and consequently contributes to revenue generation from tourism-related activities.
2.	National Land Use Policy, 2017	It aims to ensure that land and land-based resources in Kenya are used in an environmentally and socially responsible manner.	It provides for proper management of land resources, land use planning to enhance sustainable development, and promoting environmental conservation and preservation.	The implementation of these zoning standards, regulations, and guidelines for the Old Town and Wiyoni will promote sustainable urban development.
3.	National Urban Development Policy, 2016	It provides a framework within which urban areas and cities contribute to realizing the broad goals of Kenya's Vision 2030.	It highlights strengthened urban governance and management, development planning, urban investments, and the delivery of social and physical infrastructure for urban areas and cities.	Therefore, these zoning regulations and building standards are an approach to promote development planning in Amu Old Town and Wiyoni Settlement.
4.	2030 Agenda for Sustainable Development	It provides global transformative goals and targets to guide sustainable development.	<ul style="list-style-type: none"> ▪ Sustainable urbanization and participatory human settlement planning are key targets for the 11th goal of making 	These zoning standards and regulations for Amu Old Town will ensure the continued conservation and preservation of

S/No.	Legal/Policy Document	Description	Relevant Provision	Relevance to the Assignment
			<p>cities and human settlements inclusive, safe, resilient, and sustainable.</p> <ul style="list-style-type: none"> Target 11.4 aims to strengthen efforts to protect and safeguard the world's cultural and natural heritage. 	its significance as a World Heritage Site.
5.	New Urban Agenda	It provides a guideline for the achievement of the SDGs through establishing partnerships to find solutions to urban challenges.	It aims at readdressing the way cities and human settlements are planned, designed, financed, developed, governed, and managed to promote sustained and inclusive economic growth, while protecting the environment and mitigating against climate change.	These zoning regulations and guidelines for Amu Old Town and Wiyoni will help achieve well-planned, developed, and governed urban settlements in line with the New Urban Agenda (NUA).

2.2 Institutional Framework

Table 2-2: Institutional Framework

Institution	Role/Function
County Government of Lamu	<ul style="list-style-type: none"> As stipulated in the Constitution of Kenya (2010) and the County Governments Act (2012), the preparation of these zoning standards, regulations and guidelines for Amu Old Town and Wiyoni Settlement is a planning function of the County Government of Lamu. Domiciled under the Department for Lands, Physical Planning, Urban Development, Energy, Water and Natural Resources, Infrastructure, and Public Works, the regulations will be a tool for effective development control within these two urban settlements.
Lamu Municipality	<ul style="list-style-type: none"> Under its Municipal Charter, Lamu Municipality is mandated with, among other functions, the development and enforcement of municipal plans and development control. The Municipality's Board is tasked with controlling land use, land subdivision, developments, and zoning within the municipality. It is also assigned the formulation and implementation of an integrated development plan, which it has successfully achieved through the preparation of the Lamu Municipality Integrated Development Plan (2022-2028). The Plan provides a spatial development framework that outlines the basic guidelines for land use management within the municipality. As a basis for development control, the Plan's land use regulations for the conservation zone (World Heritage Site) are in conformity with

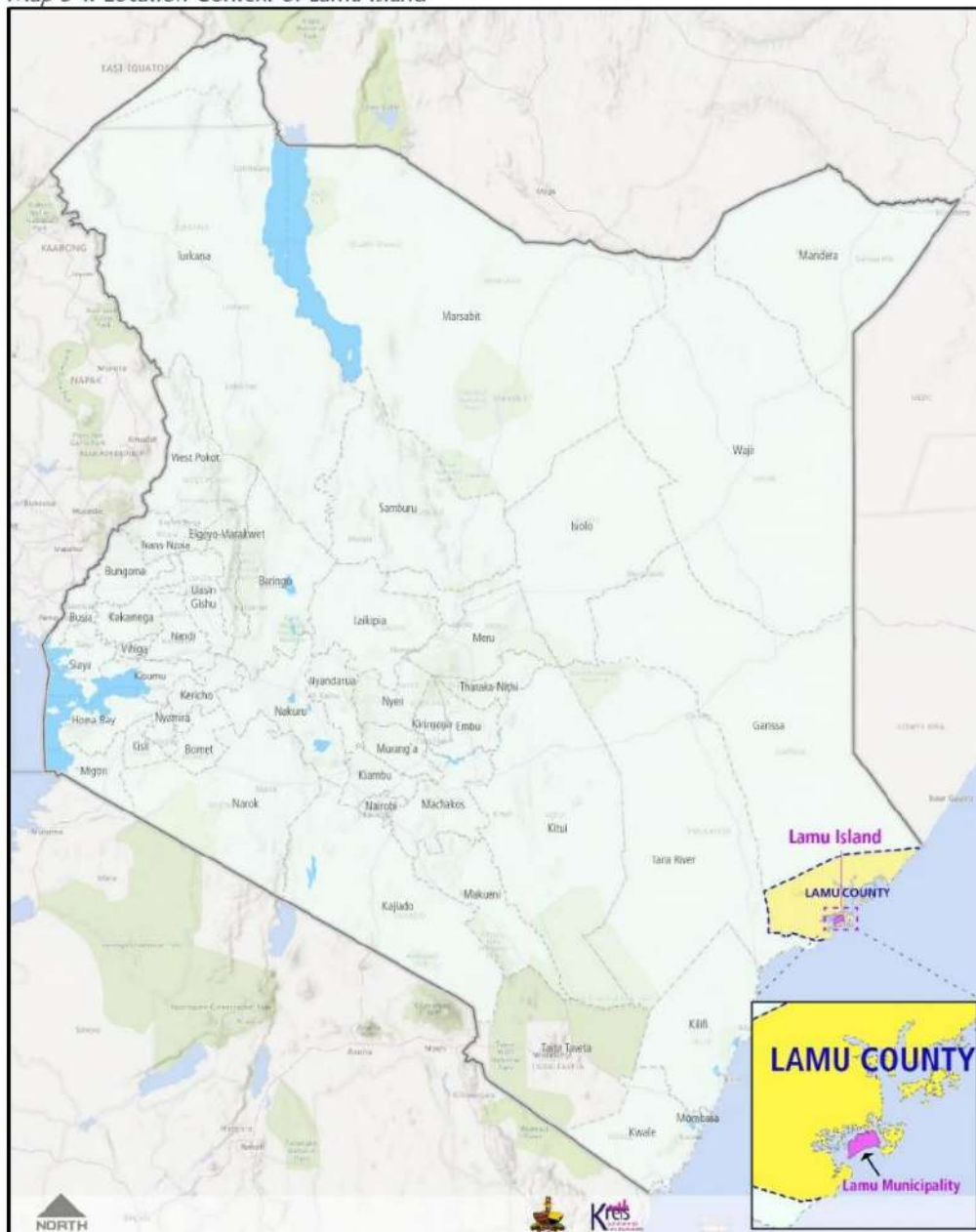
Institution	Role/Function
	<p>the stipulated guidelines as per the National Museums of Kenya and UNESCO regulations. The Plan also provides for the regulation of the building character, form, and function of the various permitted uses within the Old Town.</p>
National Museums of Kenya (NMK)	<ul style="list-style-type: none"> ▪ As a protected area under the National Museums (Open Spaces and Areas of National Heritage) Protection and Management Rules of 2009, the management, day-to-day protection, and preservation of the Amu Old Town Heritage Site falls under the National Museums of Kenya. ▪ The hierarchy of management comprises the Director General of NMK, the National Museums' Board of Directors, and the Chief Curator of Lamu Museum who acts as the site manager/guardian.
UNESCO World Heritage Convention	<ul style="list-style-type: none"> ▪ The inscription of Amu Old Town as a World Heritage Site in 2001 allows for the examination of its state of conservation by the World Heritage Committee through a joint reactive monitoring mission. ▪ The assessment focuses majorly on the potential threats to the heritage site – a recent one being the oil and gas exploration of the LAPSSET project, the need to extend the buffer zone for effective conservation and protection of the site, and to determine the overall sustainability of the site.
State Department for Housing and Urban Development	<ul style="list-style-type: none"> ▪ Oversees matters relating to urban housing, urban planning, and urban development. ▪ Development and enforcement of planning and zoning regulations is a function of its Urban and Metropolitan Department. ▪ In collaboration with the World Bank, the Kenya Urban Support Programme (KUSP) was launched to help in establishing and strengthening urban institutions for infrastructure and service improvements in municipalities. ▪ The KUSP funding and capacity development have enabled Lamu Municipality to improve its infrastructure, connectivity, accessibility, safety, and security.

3 CHAPTER THREE: LAMU ISLAND DEVELOPMENT OVERVIEW

3.1 Location Context

Lamu Island forms part of the larger Lamu archipelago in Lamu County and hosts one of the oldest Swahili towns in East Africa. The Island is home to four historic settlements i.e., Lamu Old Town, Matondoni Village, Kipungani Village and Shela.

Map 3-1: Location Context of Lamu Island



Source: Kreis, 2023

The Island assumes a significant cultural heritage function, as well as being a tourism hub. As shown in Map 3-2 below, Amu Old Town and Wiyoni are located on the eastern side of Lamu Island in Mkomani Sub-Location within Mkomani Ward. The Old Town lies to the north of Langoni and Shella sub-locations, and borders Mashambani and Langoni areas. Wiyoni settlement lies to the north of Amu Old Town and borders Mashambani to the west.

Map 3-2: Lamu Island with Neighboring Regions



Source: Kreis, 2023

The Old Town was inscribed on the UNESCO World Heritage List in 2011. It houses the administrative headquarters of Lamu Municipality. The boundary extent of the municipality includes Mkomani, Shella-Manda, Hindi, and part of Basuba wards (Kiangwe and Milimani). According to the 2019 Population and Housing Census report, the population of Lamu Municipality is 48,704 persons as shown in table 3-1 below.

Table 3-1: Population Data of Lamu Municipality

Location	Total	Male	Female	No. of HH
Langoni	13,386	6,617	6,769	3,343
Matondoni	2,541	1,326	1,215	576
Mkomani	8,401	4,406	3,994	2,065
Shella/Manda	3,704	2,083	1,621	1,095
Hindi	19,193	11,348	7,845	6,895
Basuba	1,479	910	569	534
Total	48,704	26,690	22,013	14,508

Source: KNBS, 2019

The Old Town and Wiyoni are located in Mkomani location which has a population of 8,401 persons. The annual average county population growth rate is estimated at 2.9%. Using the population projection formula $N_t = P e^{rt}$

Where N_t is the expected population at a future date (time); P is the base year population (8,401); e is a natural logarithm base of 2.71828; r is the rate of increase (2.9) divided by 100 and t represents the time period (5-year interval). The population of Mkomani is expected to increase to 13,361 persons by 2035 as shown in table 3-2 below.

Table 3-2: Population Projections of Lamu Municipality

Location	2019	2025	2030	2035
Langoni	13,386	15,930	18,416	21,290
Matondoni	2,541	3,024	3,496	4,042
Mkomani	8,401	9,998	11,558	13,361
Shella/Manda	3,704	4,408	5,096	5,891
Hindi	19,193	22,784	26,285	30,323
Basuba	1,479	1,756	2,026	2,337
Total	48,704	57,900	66,877	77,244

Source: KNBS, 2019

This indicates an increased demand for housing, socio-economic opportunities, social amenities, and infrastructure utilities. Congestion, competition for scarce resources such as fresh water, informality, unplanned settlements and poor waste management are anticipated in Amu Old Town and Wiyoni. This calls for sound zoning regulations to enable effective development control.

3.2 Previous Planning and Development Control Efforts

Lamu County has a well-developed planning framework consisting of a County Spatial Plan, Local Physical and Land Use Development Plans for several urban centers, a County Integrated Development Plan, and various sectoral plans including a Solid Waste Management Policy. All these plans form the basis upon which lower-level plans and development control regulations are formulated, for this case zoning standards, regulations and guidelines for Amu Old Town and Wiyoni.

3.2.1 Lamu County Integrated Development Plan (2018-2022)

The 2018-2022 CIDP outlines various sectoral development programmes and projects across the County, some of which have a direct net impact on the development scenario in Lamu Island and the urban centers within it. For instance, under the land sub-sector flagship projects, countywide land mapping, regularization, and titling exercises were prioritized. This included Wiyoni Phase I and II regularization projects to enhance tenure security within the settlement.

The plan outlined budgetary provisions for the development of integrated strategic urban development plans for selected urban centers among them being Amu Old Town. This has been achieved through the preparation of the Lamu Island Local Physical and Land Use Development Plan (2020-2035) and the Lamu Municipality Integrated Development Plan (2022-2028). Additionally, the rehabilitation of stormwater drainage systems and pavements and the construction of a sewer system in Amu Old Town are among the infrastructure flagship projects intended to improve stormwater management and sanitation respectively.

3.2.2 Lamu County Spatial Plan (2016-2026)

The Plan guides the spatial development of Lamu County by providing a basis for socio-economic development, environmental conservation, sustainable utilization of natural resources, heritage conservation, urban development, and efficient delivery of infrastructure and social services.

The Plan outlines the Lamu Island Action Plan that spells out the zoning guidelines with specific focus on the conservation of fragile ecosystems, development control around the heritage site and its hinterland, infrastructural linkages of all settlements within the Island, and the diversification of economic livelihoods among others.

In regards to conservation efforts for the Old Town Heritage Site, the Plan recommends for the protection of the heritage value through the preparation of a zoning guide to regulate developments and land use patterns, as well as increasing awareness among members of the public on the importance of preservation of the site for continued revenue generation through tourism-based activities. It is upon this basis that detailed development control guidelines for Amu Old Town and Wiyoni Settlement are drawn to contribute towards the achievement of the CSP's vision.

3.2.3 Lamu Island Local Physical and Land Use Development Plan (2020-2035)

The Plan assesses both the development constraints and potentials of the Lamu Island from an integrated point of view and provides a spatial framework to guide future development and growth. It provides proposals on land use regulations and development standards for the growth of the entire Lamu Island through settlement Plans for Amu Old Town, Kashmiri, Shella, Wiyoni, Matondoni, and Kipungani urban settlements.

Provisions in the Plan aim at achieving a balance between historical conservation and modernization by promoting the conservation of the heritage site and proposing new commercial and dense development within the adopted urban boundary of the adjoining area. It recommends the preservation of the Old Town's cultural and historical significance through the delineation of a circumferential road separating the town and the outer buffer areas. It also proposes that surrounding areas should adopt a similar development character where possible to that in the Old Town.

In its transport strategy, the Plan proposes the specialization of jetties as cargo and passenger jetties, and the construction of a road around the Old Town terminating at a new proposed cargo Jetty near Wiyoni area. Cargo jetties are proposed on the outer edges of the town and connected to the proposed circumferential streets/roads.

Donkey sheds are to be located near cargo jetties to restrict their movement along the circumferential and inner streets. Motorcycle movement is restricted to certain streets within the old town and prohibited on certain sections of the seafront to maintain its vibrance and non-hindered pedestrian movement.

To preserve the Old Town’s cultural and historic significance, the following development control guidelines, land use regulations, and design standards are proposed in the Plan:

Table 3-3: Existing Land Use Guidelines for Amu Old Town

Land Use Guidelines
<p>Residential Land Use</p> <ul style="list-style-type: none"> ▪ Building designs should adopt Swahili architecture; the choice of color and construction materials for new buildings and renovations should be compatible with those traditionally allowed in the Old Town. ▪ The immediate properties abutting the outer edge of the Old Town should adopt development character, building typology, construction material, and massing similar to that of the Old Town so as to act as a graduating buffer area. ▪ Buildings fronting the ocean should integrate access to the seafront in their architectural designs as part of recreational and public spaces. ▪ New commercial and dense mixed-use developments are permitted within the adjoining areas forming the outer buffer zone. ▪ Design of residential courts and neighborhoods should incorporate recreational spaces in the form of verandas, street furniture, and public squares.
<p>Commercial Land Use</p> <ul style="list-style-type: none"> ▪ Commercial and mixed development land uses comprising tourist-oriented developments such as guest houses, restaurants, retail stores, and curio shops are allowed along the seafront and Bazaar Street.
<p>Transportation Land Use</p> <ul style="list-style-type: none"> ▪ No motorized transport, including the use of motorcycles and tuk-tuks, is allowed within the heritage site and especially along the seafront unless it is for purposes of garbage collection and emergency response.

- The Plan proposes the delineation of a 6-meter circumferential road from Tamarind restaurant and terminating behind the Municipality offices. This road will act as a boundary, separating the Old Town and the buffering outer areas.

Source: Lamu Island Local Physical and Land Use Development Plan (2020-2035)

The Plan conceptualizes the Wiyoni settlement as an extension area of the Old Town by prescribing the following development control guidelines, land use regulations, and design standards:

Table 3-4: Existing Land Use Guidelines for Wiyoni Settlement

Development Control Guidelines
<p>Residential Land Use</p> <ul style="list-style-type: none"> ▪ Building designs should adopt the Swahili architecture similar to that of the Old Town. ▪ In the high-density residential zone, construction of multi-dwelling residential buildings with a maximum of 4 floors (Ground+3) is allowed. ▪ High-rise residential developments along the seafront can double up as holiday homes and cottages. ▪ The building façade- proportions, scale, and modeling of the various façade elements should be harmonious with the surrounding elevations. ▪ Buildings fronting the ocean should integrate access to the seafront in their architectural designs as part of recreational and public spaces. ▪ Design of residential courts and neighborhoods should incorporate recreational spaces in the form of verandas, street furniture, and public squares. ▪ The minimum plot size within the medium-density residential and mixed-use zones is 0.045Ha. ▪ All buildings should observe building setbacks of not less than 2 meters. ▪ Every plot should be served by a road that is not less than 9 meters in width.
<p>Commercial Land Use</p> <ul style="list-style-type: none"> ▪ Convenient retail stores, and corner shops within residential buildings are allowed on the ground and 1st floors of the buildings. ▪ Commercial recreational places such as restaurants and hotels are allowed along the seafront and major streets. ▪ Discharge of untreated wastewater and solid waste into the ocean is prohibited.

Transportation Land Use

- There is a proposed jetty, that incorporates a multi-modal interchange facility, to facilitate the movement of goods and people.

Source: Lamu Island Local Physical and Land Use Development Plan (2020-2035)

The review of the aforementioned general zoning guidelines for Amu Old Town and Wiyoni identified several gaps that necessitated more detailed standards, regulations, and guidelines within the neighborhood, street, and building levels. Some of these gaps include:

- i. Lack of a well-defined street hierarchy;
- ii. Buildings that do not conform to set regulations – e.g. use of uncoordinated building color codes and construction materials; non-adherence to building setbacks
- iii. Haphazard and unregulated construction works, especially within the heritage site’s buffer area and in Wiyoni;
- iv. Poor liquid and solid waste management practices;
- v. Tenure insecurity, particularly in Wiyoni Settlement;
- vi. Lack of harmonized development control instruments, tools, processes and institutional roles;
- vii. Lack of a development control institutional framework for effective implementation of the zoning standards, regulations and guidelines.

3.2.4 Lamu Municipality Integrated Development Plan (2022-2028)

This is the principal strategic planning instrument that guides and informs all planning, budgeting, management, and decision-making in Lamu Municipality. It is a tool for aligning development to the Municipality’s vision of satisfying the needs of the whole community in an equitable and sustainable manner. The Plan highlights the importance of preserving the cultural heritage of Amu Old Town in line with UNESCO and NMK guidelines, through the construction of a ring road to act as an outer buffer. This road is envisioned to start past Wiyoni and rejoin the seafront near Lamu County Hospital (King Fah’d) in Langoni, thereby acting as a physical structuring element.

3.2.5 Lamu Municipality Solid Waste Management Policy

Lamu municipality has poor waste segregation and handling at the source, with many people mixing waste in single receptacles. Outdoor dumping of waste in streets and open spaces is rampant due to the lack of designated waste collection points and transfer stations. The narrow streets in Amu Old Town impede the passage of solid waste collection trucks.

This policy provides the guiding framework for integrated solid waste management in the municipality. It aims to steer the municipality towards realizing the Zero Waste Principle through efficient waste collection, separation/segregation at source, reuse, and recycling. Among its proposed policy measures for solid waste management in the municipality are:

- i. Adopting a door-to-door solid waste collection system;
- ii. Increasing the number of waste trailers to act as transfer stations;
- iii. Zoning/designating waste operational areas (transfer stations & disposal sites);
- iv. Establishing segregated waste receptacles along the seafront at strategic places to offer an alternative collection of waste from the public;
- v. Installing appropriate waste collection containers, receptacles, and bins in strategic public/private places;
- vi. Developing public-private partnership programs for sustainable solid waste collection services;
- vii. Planning and opening up a ring road to facilitate solid waste management in Lamu Island specifically to connect Wiyoni, Kanu Bajuri, Gardeni Langoni, Mararani and Matondoni;
- viii. Establishing a solid waste sanitary landfill for the municipality;
- ix. Promoting clean-up exercises and waste collection festivals to create awareness and increase public participation in solid waste management.

3.2.6 LAPSSET Corridor Development Project & Associated Development Plans

LAPSSET is a major flagship project under vision 2030 with several components including the Port, LAPSSET Corridor, Port City, Railway terminal station and the Resort city. Implementation of the project is anticipated to induce socio-economic and infrastructure

transformation within affected counties and especially Lamu County which will house the Lamu Port on 88,500 hectares of land at Manda Bay.

Given the proximity of Lamu Island to Manda Island and their linkage via water transport modes, the Port is anticipated to induce employment opportunities for the population of Lamu, in the form of both skilled and unskilled labor, which will contribute to income generation and overall livelihood transformation. Infrastructure utility systems comprising a highway, railway line, pipeline, fibre optic cable, electricity, water and sewer provisions along the corridor are expected to influence infrastructure improvement in the Island's urban centers, among them being Amu Old Town and Wiyoni.

3.3 Influence of Lamu County and Lamu Island Development Trends on Amu Old Town and Wiyoni

The strategic location of Amu Old Town and Wiyoni along the Indian Ocean's seafloor presents opportunities to tap into the benefits of the blue economy through the utilization of marine resources for trade, transport linkages, mangrove preservation, cultural heritage, sporting and tourism activities, local livelihood sustenance, and marine ecosystem conservation. Proximity to Manda Airport creates regional connectivity that facilitates the movement of people, goods, and services in and out of the Old Town and Wiyoni. The implementation of LAPSSSET's infrastructure developments will foster further economic development in the county, presenting an enabling environment within which activities in tourism, trade, and commerce can take place.

As urban settlements within Lamu Municipality, Amu Old Town and Wiyoni currently experience and have the potential to further benefit from development actions and projects prioritized within the extent of the municipality. These include the construction and maintenance of urban access roads and walkways; stormwater drainage, water reticulation and sanitation systems; municipal markets and abattoirs; refuse collection and solid waste management sites; recreational parks, public squares, and green spaces; and emergency preparedness and disaster management.

Connectivity to the mainland in Mokowe through marine transport and the associated infrastructure (jetties) enables easy access and delivery of services, while also facilitating the movement of goods and people, through road transport, to other parts of the county, coastal region, and country. Intra-linkages within Lamu Island are facilitated by both water and road transport which boost trade and commerce activities among its various urban settlements, as well as access to social services such as schools and health facilities.

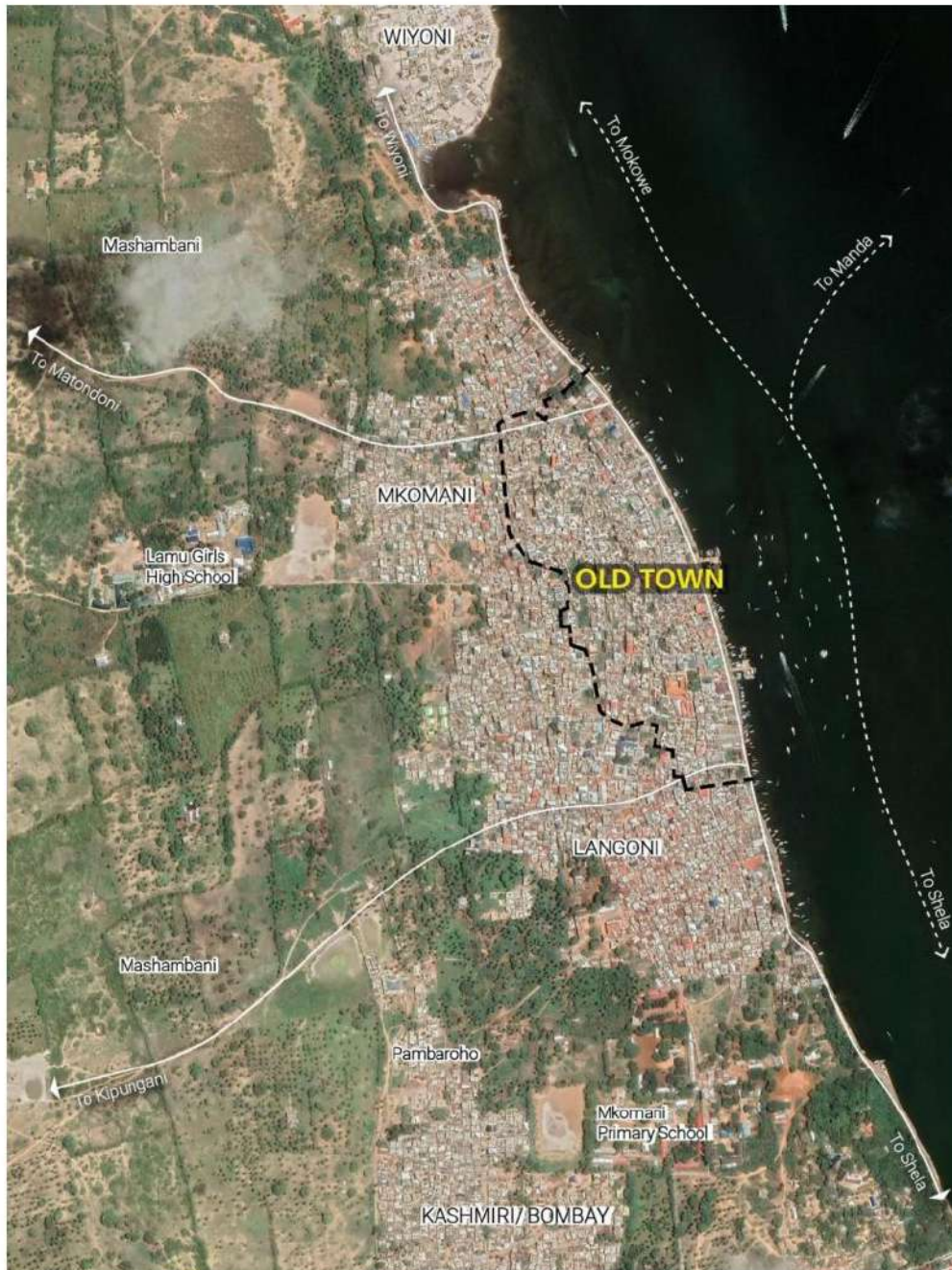
However, modernization brought about by the changing socio-economic dynamics in the county and the island poses an imminent threat to the preservation of the cultural and historic significance of Amu Old Town. The introduction of modern architectural designs and construction materials has influenced the character of new buildings and the renovation of dilapidated buildings. Restoration and rehabilitation efforts for mangrove forests have eliminated commercial harvesting of mangrove timber, in turn making it a locally unavailable construction material. Modern multi-storey buildings have become a common housing typology within the urban settlements adjacent to the Old Town, as seen in Wiyoni. Also, the use of *boda boda* and *tuk-tuks* for the movement of goods and people on the island has increased and is gradually becoming an informality concern in the town.

4 CHAPTER FOUR: AMU OLD TOWN DEVELOPMENT CONTEXT

4.1 Locational Context

The Old Town lies to the north of Langoni and Shella and borders Mashambani, Makomani, and Langoni settlement areas as shown in Map 4-1 below.

Map 4-1: Locational Context of the Old Town

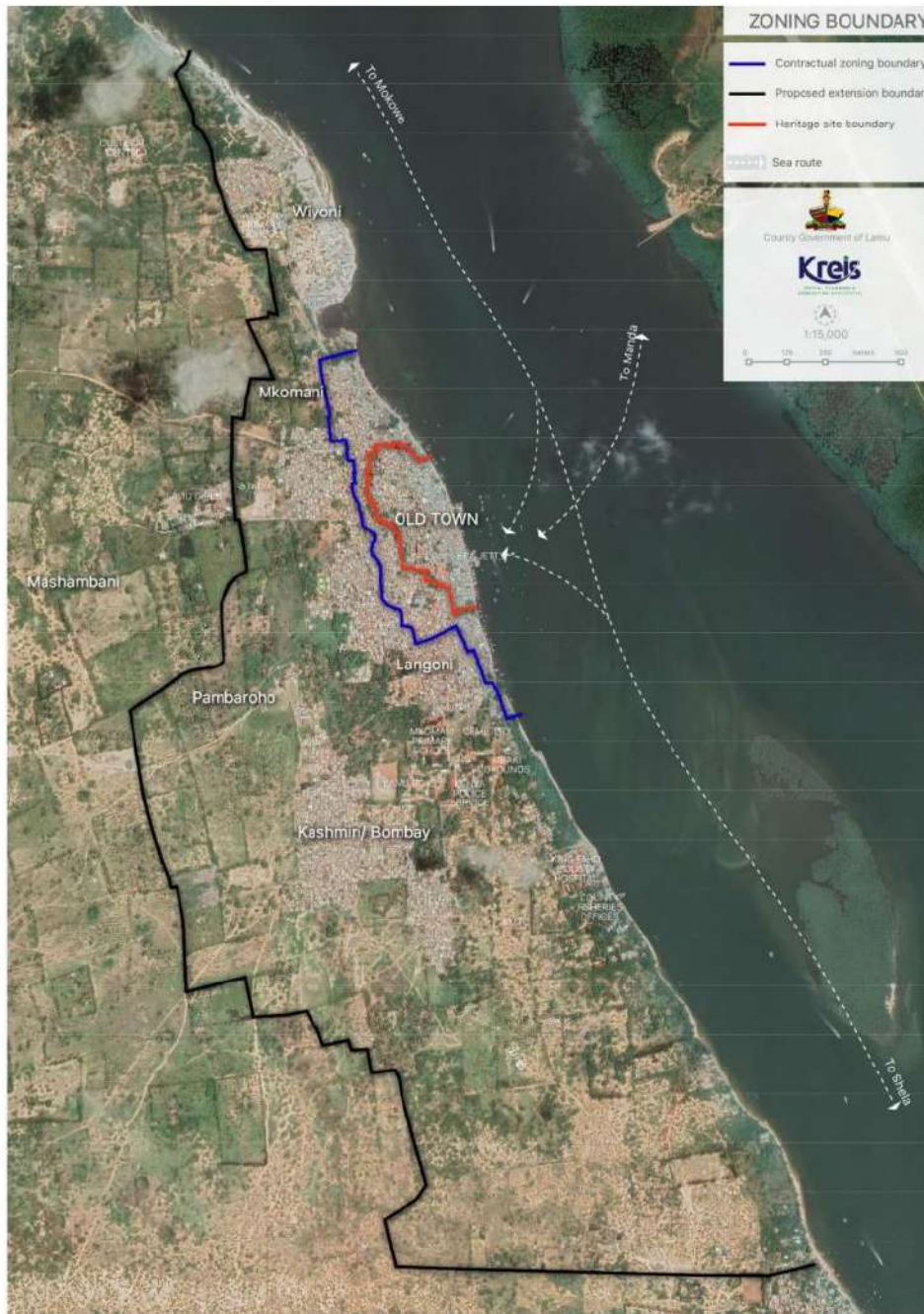


Source: Kreis, 2023

4.2 Zoning Scope

The proposed zoning boundary covers approximately 40 Ha and about 1,500 land parcels, encompassing the core heritage site and its surrounding outer buffer areas as shown in map 4-2 below.

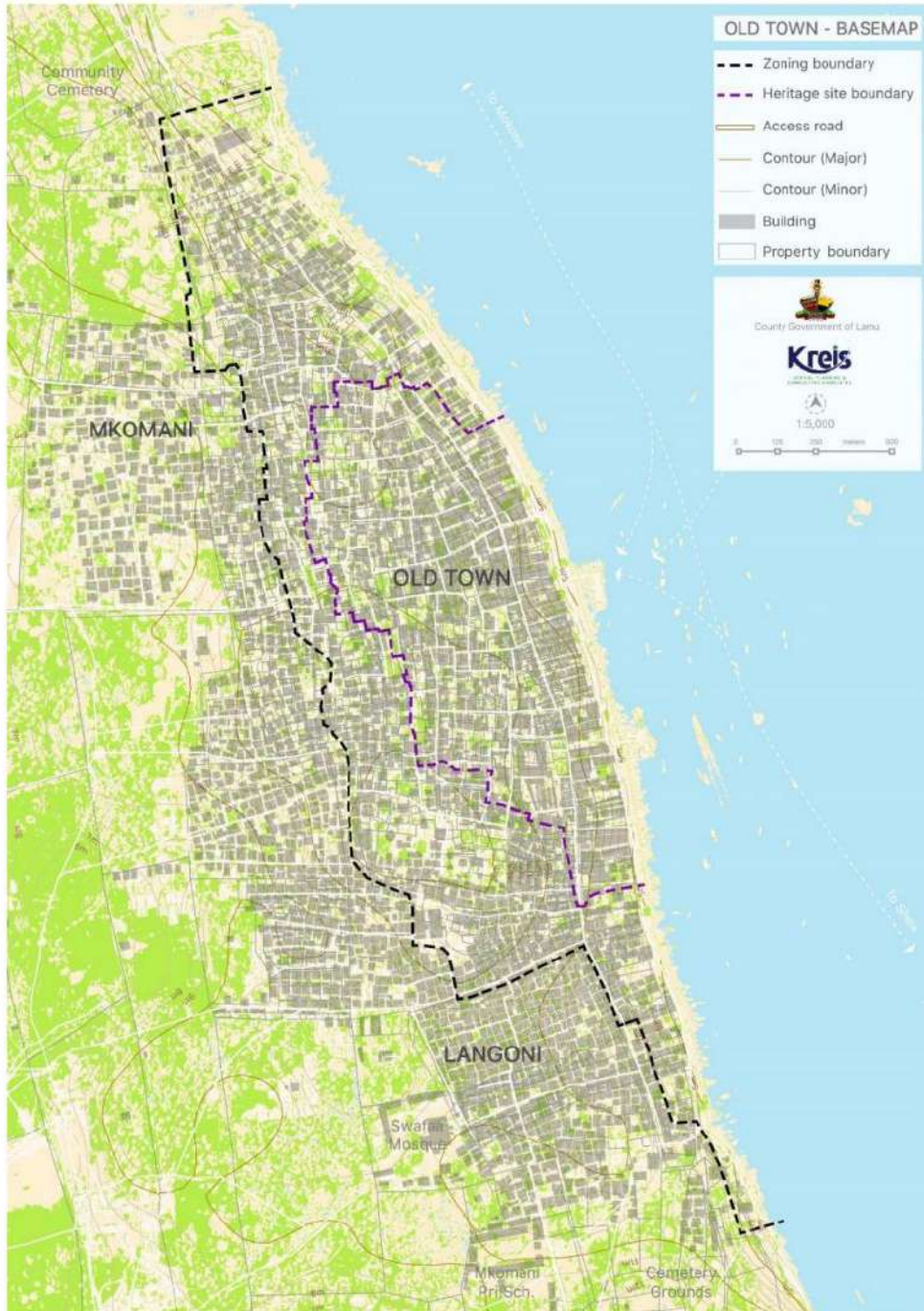
Map 4-2: Zoning Boundary of the Old Town



Source: Kreis, 2023

Map 4-3 shows the topographical layout of the Old Town’s landscape including the ocean, contours, and man-made features i.e., buildings, property boundaries, street layout and the zoning boundary. Agricultural farmlands can be seen beyond the zoning scope.

Map 4-3: Base Map of the Old Town



Source: Kreis, 2023

4.3 Historical Significance

Amu Old Town is the oldest and best-preserved Swahili settlement in East Africa, retaining its traditional cultural heritage functions. Built using coral stone and mangrove timber, the town is characterized by verandas, inner courtyards, and elaborately carved wooden doors. The town first gained regional significance as a commercial center and later as an administrative center during the 19th century. Commercial activities along Bazaar Street, the town's main commercial street, sprung up as a result of barter and slave trade between the Sultan of Zanzibar and Indian merchants. Upon the establishment of the East Africa Protectorate in 1895, the town became the headquarters of Lamu District and housed the District Commissioner's residence, which became the present-day Lamu Museum (Siravo & Pulver, 1986).

Built in the 19th century, Lamu Fort was originally a garrison for Baluchi soldiers sent by the Sultan of Oman. It later served as a prison from 1910-1984 to both the British colonial regime and the Kenyan Government, before it was handed over to the National Museums of Kenya in 1984. Being the largest building in the town, the Fort now acts as a community center for the residents of Amu Old Town, being a venue for weddings, meetings and theater productions. It has a permanent exhibition at its ground floor, which is divided into marine, freshwater and terrestrial sections with further subdivisions for different ecosystem types. The administrative offices, laboratories, and workshop are located on the upper floor and a restaurant named *Mazingira* (Swahili for "Environment") at the rooftop.

Completed in 1892, the Lamu Museum is a significant historical building along the Old Town's Seafront. Its management and preservation is done by the National Museums of Kenya. Another important ancient building is the double-storey Swahili House built after the reclamation of a strip of land from the sea in the early 19th century, during which the Germans who had settled on the mainland at Witu established the German post office in 1888. It became the first post office in East Africa. In 1995, the National Museums of Kenya acquired the old building and restored it. Presently, an exhibition of the early post office occupies the ground floor of the building by the main street.

4.4 Cultural Significance

Since the 19th century, the town has hosted major Muslim religious festivals and has become a significant center for the study of Islamic and Swahili cultures. Much of its culture remains conservative and primarily based on Islam. Annually, in the month of June, the town hosts a four-day Islamic festival termed '*Maulidi Celebrations*' that comprises music and dancing, calligraphy and art exhibition, religious recitals and veneration, boat/dhow racing, donkey races, and a parade through the narrow streets of the town. This festival attracts numerous pilgrims and visitors to the town, which promotes the livelihoods of the local people by buzzing activities in trade, commerce, marine transport, accommodation, and hotel services.

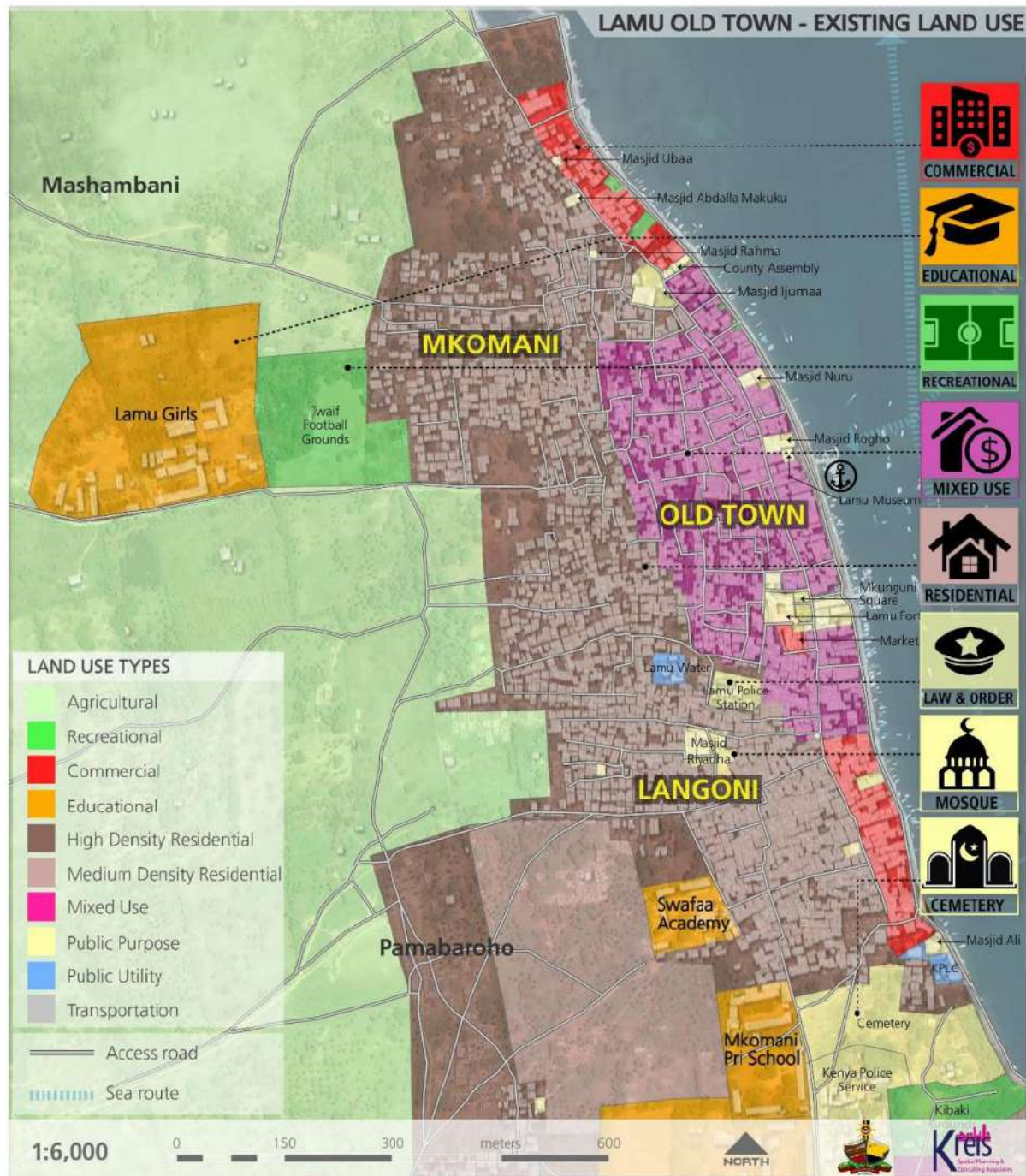
4.5 Overall Development Character

The preservation of the cultural significance, ancient Swahili architecture, and historical character of Amu Old Town have been prompted by its inscription as a UNESCO World Heritage Site and management by the National Museums of Kenya. Generally, the town assumes a compact grid pattern structured by the Seafront and the street layout. The dominant building character is the Swahili architecture which creates a distinct urban morphology dictated by color, building materials, roof, ceiling, door and window designs, inner courtyards, stone verandahs, and arched frontages. The town is characterized by narrow streets that act as open channels for circulation, movement, and siting of commercial activities. Buildings with different uses such as residential, commercial, public purpose, and religious use front the streets, although are less ordered towards the interior of the town.

The town's compact urban structure is constrained by limited space for further expansion and for accommodating additional infrastructure. Cemeteries located at the northern and southern extremes of the town preclude further expansion. The narrow streets are a key structuring element that impedes vehicular movement within the town. Gradual population increase in the town has led to congestion, pressure on the utilization of land and water resources, high cases of unemployment, informality, and an increase in the amount of waste produced. These factors, coupled with the high cost of coral stone, the

unavailability of mangrove timber, and the introduction of modern, affordable and locally available construction materials continuously threaten the conservation status of the heritage site.

Map 4-4: Existing Land Uses within Lamu Old Town



Source: Kreis, 2023

Population pressure and lateral growth and expansion of the town have resulted in urban sprawl within its abutting areas, such as Langoni and Wiyoni settlements. Notably, the building character within the heritage site's outer buffer area is gradually changing to incorporate the use of modern architectural designs and building materials. While the Old Town is characterized by old buildings, some of which exhibit dilapidated conditions, its outer buffer area mainly comprises new modern buildings. This creates contention between the preservation of the town's heritage significance and the need to embrace modernity brought about by the changing socio-economic dynamics of the people.

The examination of the state of conservation by the World Heritage Committee through a joint reactive monitoring mission focused on the potential threats to the site including the prospective oil and gas exploration in Lamu East, the consequential outcomes of the full implementation of the LAPSSSET project, the difficulties encountered during the implementation of the Committee's recommendations to extend the buffer zone against the overall sustainability of the site i.e., Lamu Island. A key outcome of the joint Mission was the need for a set of effective planning and management tools and enforcement of by-laws that will protect the values of the heritage site while allowing for improvement in the quality of life through infrastructure upgrades and controlled development.

The mission team recommended the extension of the buffer zone to encompass the whole of the Lamu Archipelago for effective conservation and protection of the World Heritage Site and its setting. The team also noted the changing building character that deviated from the traditional Swahili architecture and highlighted the need for effective monitoring, control and enforcement by the County Government of Lamu.

4.6 Spatial Organizational Structure

Analysis of the existing spatial layout of Amu Old Town has been divided into three distinct sub-zones, namely; the Seafront, the core heritage site, and the outer buffer area as detailed in the sections below.

4.6.1 The Seafront

The structuring elements at the Seafront are the retaining seawall, jetties, docking sites, and the cascading building facade. The seawall, running along the Seafront, is a protection measure against threats of unusual high tides. The main housing typology for the buildings fronting the Seafront is multi-storey stone houses built using Swahili architecture, comprising mangrove wood-engraved doors and ceilings, concrete floors and roofs, stone verandas, and coral limestone walls. Buildings such as mosques and several restaurants have a single-storey housing typology.

The Seafront's cabro-paved main street allows circulation and movement and acts as a grey open space, recreational area, and landing site for goods ferried into the town. Motorized transport is allowed only for purposes of garbage collection, school transport, emergency response, and to facilitate the administration of municipality functions.



Plate 4-1: Cabro-paved Seafront Main Street: Concrete Street Furniture along the Seafront

Source: KREIS, 2023

Restriction of motorized transport along the Seafront increases the vibrancy of the seafront, maintains spatial order and safety, and enables unhindered non-motorized circulation. The dominant activities within the Seafront include marine transport, informal trading

activities, hotel and accommodation services, informal goods landing sites, offices, and religious buildings.



Plate 4-2: Boats docked at the Jetty; Informal Landing Sites for various Types of Goods

Source: KREIS, 2023

4.6.2 The Heritage Site

The extent of the heritage site is approximately 15.6 Ha. The structure and general orientation of the buildings are inclined along a north-south axis parallel to the seafront. White-colored, flat-roofed, storeyed coral stone buildings are dominant, the majority of which assume Swahili architecture; with mangrove wood-engraved doors and ceilings, concrete floors and roofs, stone verandas, and coral limestone walls. The buildings have a plain façade with little or no exterior decoration and stone verandahs within the buildings' frontages.

Traditionally, the upper-level rooms of buildings were designed with an extension '*wikio*' that allowed women from related households to visit each other without exposure to the streets. Stone verandas '*daka*' are both architectural and social features that were used by the master of the house to entertain casual visitors, and the wood-engraved doors have decorative features that adorn the narrow streets. A building's interior courtyard '*kiwanda*'

acts as a social space and a design feature for natural lighting and ventilation (Siravo & Pulver, 1986).



Plate 4-3: Mangrove Wood-engraved Door Design; Coral Stone-decorated Wall Design

Source: KREIS, 2023

Walls of buildings and open galleries are designed to trap and channel the cool ocean breezes, which aids in regulating the hot and humid climatic condition of the town. The walls are massive constructions of thickness between 40 cm to 60 cm and are made of undressed coral in lime mortar. Construction materials include quick lime, coral rag, and squared hard wood beams of local species of hardwood. These materials are compatible with the coastal climatic condition and are not affected by salinity.

Before the 19th century, the predominant building use was domestic/residential and religious buildings. The construction of the Lamu Fort, originally known as '*the Omani Fort*', introduced vernacular architecture that made buildings more functional. Over the years, the use of buildings has changed to accommodate commercial, office space, mixed-use, and public amenities. With a central courtyard '*Mkunguni Square*' and standing in the middle of the town, Lamu fort still holds a strong identity as a social cultural center, providing a venue for weddings, meetings and theater productions.



Plate 4-4: Frontal View of the Lamu Fort; Mkunguni Square's Function as an Open Public Space

Source: KREIS, 2023

The Lamu Museum portrays the town's ancient architecture of storeyed houses with an open stone arcade formed by several arches at the street level and a simple wooden balcony on the upper storey. It was built in the verandah building style of the 19th century which was a radical departure from the traditional stone house of the earlier period. The verandah is a unique freestanding stone arcade on the ground floor tied to the main structure with wooden beams.

The building's upper level has carved teak columns and railings. At the center of the building are arches that surround a grand covered courtyard and all ground floor exterior doors have beautifully carved frames and center posts. The main door is further embellished with imported brass studs. The building's architecture, decorations, and construction materials act as a benchmark of the ancient Swahili buildings within the Old Town. Other historically significant buildings include Lamu Fort, Swahili House and the Germa Post Office, all of which form national conservation sites under the National Museums and Heritage Act of 2006.



Plate 4-5: Frontal View of Lamu Museum

Source: KREIS, 2023

The Kenyatta (Bazaar) Street originally known as the *'Usita wa Mui'* runs parallel to the seafront and acts as the main commercial street within the heritage site. On both sides of the street are two or three storey houses and shops, creating a corridor of commercial activities. The streetscape is characterized by shops, residential quarters in the upper rooms, and stone benches on the buildings' frontage.



Plate 4-6: Commercial Activities along the Bazaar Street; Stone Benches on the Buildings' Frontages

Source: KREIS, 2023

Circulation within the heritage site is through narrow streets that only allow for pedestrian movement and the use of donkeys. Hand-drawn carts and loaded donkeys comprise the main means of ferrying goods along the narrow streets. The street layout is oriented in the North/South and East/West axis. They are inclined in relation to the topography of the Island, thus determining the drainage pattern for stormwater and wastewater. The streets also act as wind tunnels and communication areas, as well as meeting places and playing grounds for children due to limited public open spaces in the town.



Plate 4-7: Narrow Streets that allow for Pedestrian Movement; Drainage Pattern for Wastewater along Narrow Streets

Source: KREIS, 2023

As seen in plates 4-7 above, open storm water drains run in a West-East direction from the high sand dunes behind the town to the seafront, along a natural gradient on the paved streets.

4.6.3 The Outer Buffer Area

This forms the immediate zone engulfing the heritage site. It is characterized by mixed-use single and multi-storey buildings. While some buildings have retained the ancient Swahili architecture, the majority have adopted modern designs and construction materials. The

modern high-rise buildings have corrugated iron sheet roofs, varied color codes for walls, modern ceiling designs, tiled floors, metal-grilled doors and windows.



Plate 4-8: Modern High-Rise Buildings with Corrugated Iron Sheet Roofs and Uncoordinated Color Codes

Source: KREIS, 2023

The dominant use of buildings within this outer ring is residential, commercial, and public purpose including schools, health facilities, government offices, and institutions. There are several other land uses such as light industrial activities involving carpentry and boat making, and a few public utilities such as cemeteries.

There is poor circulation within this zone due to the lack of a well-defined street hierarchy. Some residential areas have very narrow streets that only allow for NMT – pedestrian movement and the use of donkeys while limiting any means of motorized transport.



Plate 4-9: Narrow Streets that allow for NMT while limiting Motorized Transport

Source: KREIS, 2023

Other sections have wider cabro-paved streets which allow for the use of motorcycles i.e., *boda boda* and *tuk-tuks*.



Plate 4-10: Cabro-paved Streets that allow for Motorized Transport within the Outer Buffer Zone

Source: KREIS, 2023

4.7 Synthesis of Development Issues

The seafront structures the Old Town's façade, building orientation and street layout. However, it faces several challenges including urban sprawl into the surrounding buffer

areas, a rise in the use of motorcycles and *tuk-tuks* along the Seafront, informal trading activities within the Seafront, poor liquid and solid waste management practices, non-conformity to building standards and use of construction materials, lack of a well-defined street hierarchy, and lack of designated landing sites for various types of goods e.g household goods, construction materials, fish, and passengers.



Plate 4-11: Lack of designated Landing Sites; Rise in the Use of Motorcycles within the Seafront's Main Street

Source: KREIS, 2023

Lamu Island Local Physical and Land Use Development Plan (2020-2035) proposes the conservation of the cultural and historical heritage of Amu Old Town in accordance with the UNESCO World Heritage Sites guidelines. However, the existing development character is limited by the archaic ancient Swahili architecture, emphasis on the use of mangrove wood-engraved doors and ceilings, and the narrow street layout. This has resulted in notable development deviations such as the use of modern materials for building renovation, modern door and window designs, and color-code changes. The provision of modern infrastructure remains a challenge due to limited space and restrictions on preservation.

Urban sprawl into the outer buffer area has resulted in uncontrolled developments which do not conform to the set development regulations of the heritage site. Thus, these areas are characterized by modern high-rise buildings, uncoordinated building color schemes,

haphazard and unregulated construction works, poor liquid and solid waste management practices, and the lack of a well-defined street hierarchy.



Plate 4-12: A Modern High-Rise Building with Uncoordinated Color Codes; Unregulated Building Works
Source: KREIS, 2023



Plate 4-13: Poor Solid and Liquid Waste Management along the Seafront is an Environmental Concern
Source: KREIS, 2023

In light of the aforementioned development challenges, there is need for a development control framework to guide current and future development patterns of Amu Old Town. The zoning standards and regulations will provide a basis for the enforcement of development regulations within the three identified zoning districts in the town. The proposed development control institutional framework will ensure strict enforcement of the zoning regulations and instill accountability of the various management institutions.

5 CHAPTER FIVE: WIYONI SETTLEMENT DEVELOPMENT CONTEXT

5.1 Locational Context

Wiyoni is an urban settlement located north of the Old Town, and bordering the Indian Ocean to the east and Mashambani area to the west.

Map 5-1: Locational Context of Wiyoni Settlement



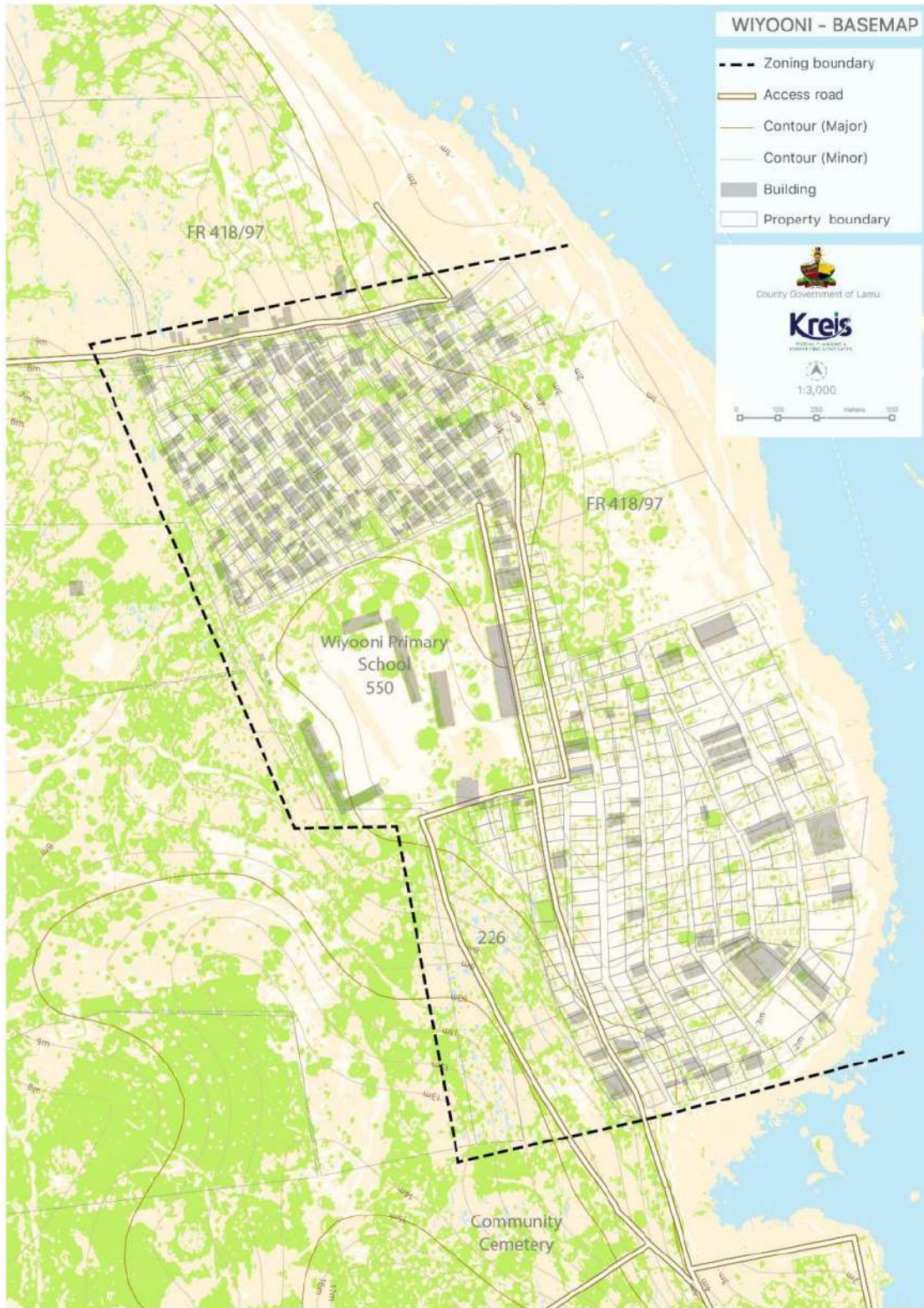
Source: Kreis 2023

Map 5-3: Wiyoni Zoning Boundary



Source: Kreis 2023

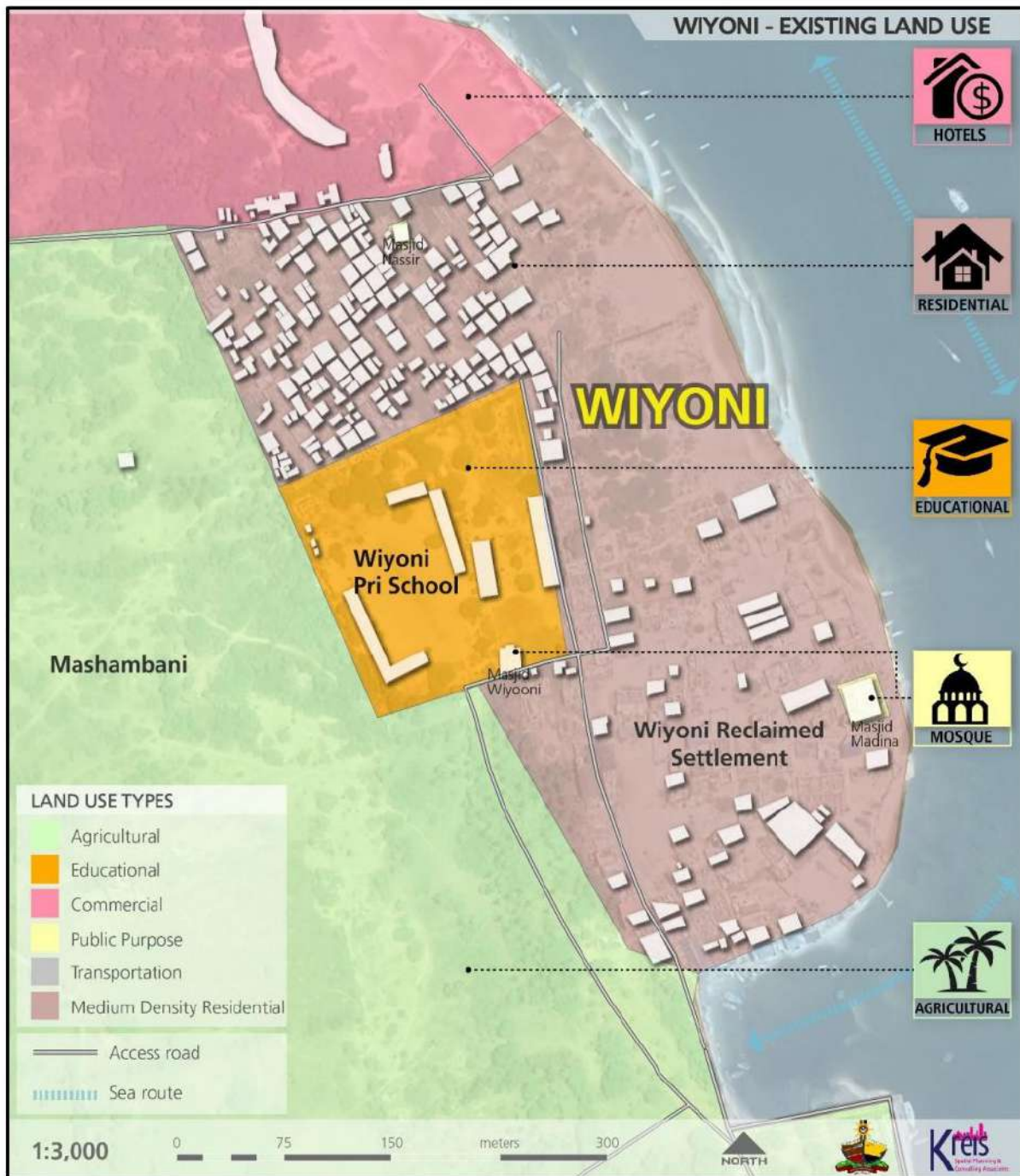
Map 5-2: Wiyoni Settlement Base Map



Source: Kreis 2023

As seen in map 5-4 below, the main land uses in Wiyoni include residential, educational, public purpose (mosques), and commercial (retail shops, hotels and accommodation facilities)

Map 5-4: Existing Land Uses in Wiyoni Settlement



Source: Kreis, 2023

5.2 Overall Development Character

Wiyoni's growth is attributed to urban sprawl due to its proximity to Amu Old Town. With reference to the Old Town, Wiyoni's façade presents high-rise buildings within the reclaimed settlement area.



Plate 5-1: Wiyoni's Building Façade viewed from Amu Old Town

Source: Kreis, 2023

Wiyoni has a nucleated settlement pattern with a concentration of residential housing structures served with a few public amenities such as Wiyoni Primary School, Wiyoni Secondary School, mosques and hotel facilities. The settlement lacks proper circulation networks due to the undefined street layout and unregulated land subdivisions.



Plate 5-2: Wiyoni Primary School; Wiyoni Secondary School

Source: Kreis, 2023

5.3 Spatial Organizational Structure

Analysis of the existing zoning layout of Wiyoni has been divided into three distinct sub-zones, namely; the seafront, the reclaimed settlement area, and the residential cluster.

5.3.1 The Seafront

Wiyoni's Seafront presents extensive sand deposits that act as public sporting areas, scattered mangrove trees and some sections with retaining walls. There are several multi-storey buildings whose use includes residential, commercial hotel and accommodation services. Light industrial activities are notable uses within the seafront comprising boat making and a plastic recycling facility.



Plate 5-3: Public Sporting Area; Retaining Wall in Wiyoni's Seafront

Source: Kreis, 2023

The private tenure system of the land parcels fronting the ocean limits free public access to the Seafront, a challenge that necessitates zoning intervention.

5.3.2 The Reclaimed Settlement Area

The non-uniform building character within the reclaimed settlement area is dominated by high-rise residential and mixed-use buildings, built using modern architectural designs and construction materials. Incomplete structures are common in most parts of Wiyoni, especially areas that lack tenure regularization. Circulation within the settlement is through undefined and informal streets.



Plate 5-4: Uncoordinated Building Character; Incomplete Building Structures

Source: Kreis, 2023

5.3.3 Residential Cluster

Similar to the development character within the reclaimed settlement area, the residential cluster is characterized by established and upcoming mixed-use multi-storey apartments. The buildings have adopted modern architecture and construction materials. Tenure insecurity and unregulated land subdivision have led to the emergence of informality in the building character. Circulation within the settlement is through irregular narrow streets.



Plate 5-5: Irregular Street Layout; Residential Buildings under Construction in Areas with Tenure Insecurity

Source: Kreis, 2023

5.3.4 Synthesis of Development Issues

Given that Wiyoni is experiencing a rapid unplanned growth, it faces challenges of uncontrolled land subdivisions and fragmentations into smaller parcels, tenure insecurity in some areas, lack of an established drainage system due to blockage of drainage lines, inadequate provision of infrastructure and social amenities, poor circulation due to lack of a well-defined street hierarchy, restricted access to the seafront, haphazard and unregulated building works, and poor solid and liquid waste management.



Plate 5-6: Poor Solid Waste Management in Wiyoni; Waste from Fibre Glass used in Boat Making Activities

Source: Krels, 2023

From the analysis on the existing development characters of both Amu Old Town and Wiyoni Settlement, it is paramount to have detailed lower-level zoning standards, regulations, and guidelines which are specific to buildings, streets, and distinct neighborhoods. These will be tools for guiding and facilitating sustainable urban development within the two urban settlement areas.

6 CHAPTER SIX: THE ZONING STANDARDS, REGULATIONS AND GUIDELINES

6.1 General Regulations and Building Standards

6.1.1 Building Character

The general architecture in Lamu old town is a fusion of Swahili, Arabic, Persian, Indian and European building style that utilize traditional Swahili techniques to produce a distinct culture. This unique and rare historical living heritage must be conserved and preferably adopted in adjacent settlements. Regulations to conserve the Swahili building character and preserve the historical and cultural significance of the Old Town include:

- i. Buildings within the World Heritage Site should maintain their current state in accordance with the National Museums and Heritage Act and UNESCO guidelines.
- ii. No alterations should be made on the existing buildings within the World Heritage Site unless authorized for maintenance and structural integrity.
- iii. Development permission to carry out any renovation, maintenance and rehabilitation work within the World Heritage Site shall be sought from the National Museums of Kenya, the County Government of Lamu, and Lamu Municipality as detailed in the specific development control instruments section and implementation chapter outlined below.
- iv. All renovations, maintenance works and rehabilitation work within the World Heritage Site should be approved by the County Government of Lamu, Lamu Municipality. The National Museums of Kenya (NMK)-UNESCO office shall be consulted.
- v. All renovations, maintenance and rehabilitation work within the World Heritage Site should be consistent with the building's original character.
- vi. All buildings within the World Heritage Site to maintain use of original material namely; coral stone, mangrove timber and lime.
- vii. All new buildings in the adjacent areas including Wiyoni should emulate the existing architectural form, character and material of Swahili houses.
- viii. To alter, modify or relax the building character prescribed in this section, if required, for the conservation or preservation or retention of historic or aesthetic or cultural or

architectural or environmental quality, a development permission should be sought accompanied by justifiable grounds for the intended development. This approval will be granted by the Lamu Municipality jointly with the NMK.

6.1.2 Building Typology

The traditional stone Swahili houses dominate the building typology in Lamu. Therefore:

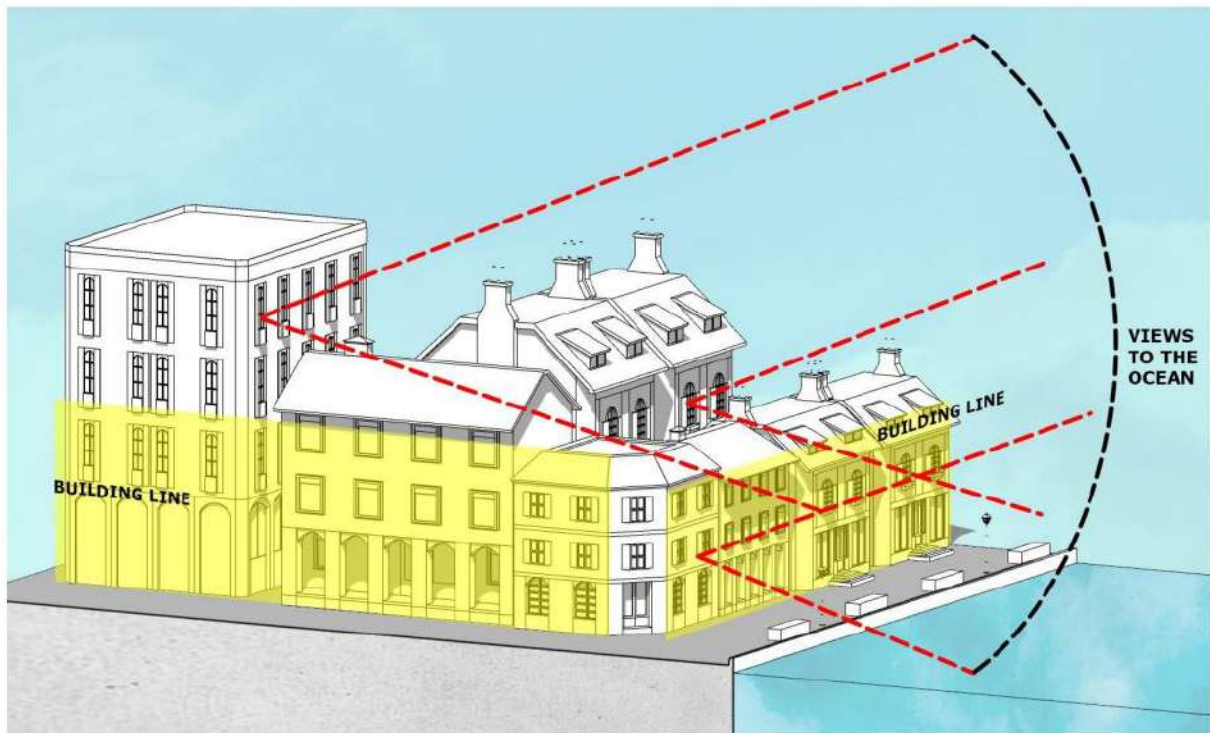
- i. The permitted building typology in Lamu old town and Wiyoni consist of multi-level building blocks of mixed-use function with residential units being located in the upper floors and commercial purposes on the ground and first floors.
- ii. All buildings should maintain simple structural forms with uniform exteriors and elaborately carved wooden doors. Metal door frames are permitted for security purposes.
- iii. All buildings should maintain the following features: an entrance porch (daka), an interior vestibule with seats (tekani), inner courtyards (kiwanda), open galleries (misana), verandas, carved wooden doors, internal decorations with painted ceilings, large niches (madaka), small niches (zidaka), and pieces of Chinese porcelain.
- iv. All new buildings should conform to the typology stated in i-iii above.
- v. To alter, modify or relax the building typology prescribed in this section, if required, for the conservation or preservation or retention of historic or aesthetic or cultural or architectural or environmental quality, a development permission should be sought accompanied by justifiable grounds for the intended development.

6.1.3 Building Orientation

The regulations include:

- i. The massing and scale of development should ensure buildings contribute to the character of specific zones.
- ii. All buildings should be oriented in accordance with the religious practice of the people of Lamu and sun protection.
- iii. All buildings should ensure optimal view over Lamu old town, the Indian ocean and Manda Island.

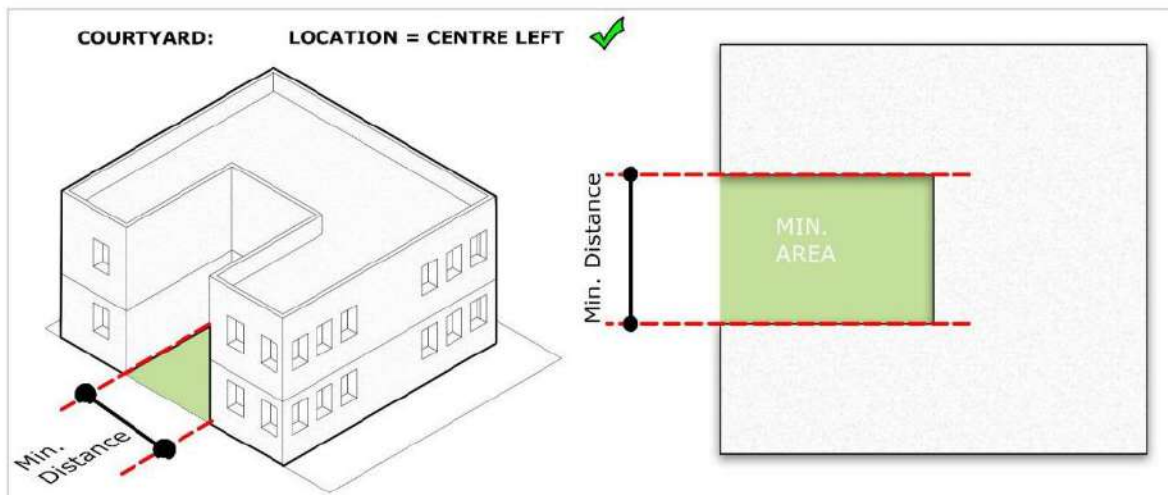
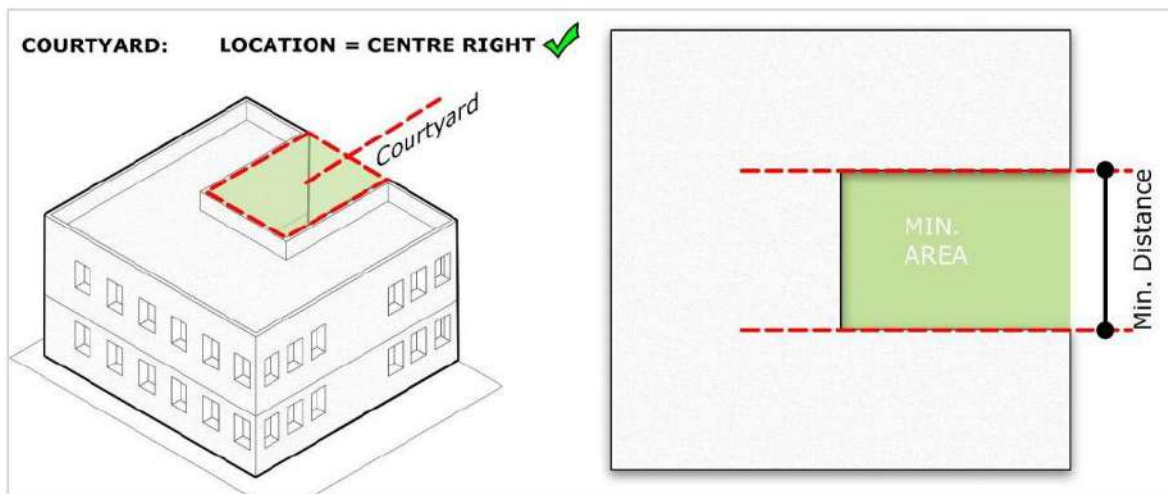
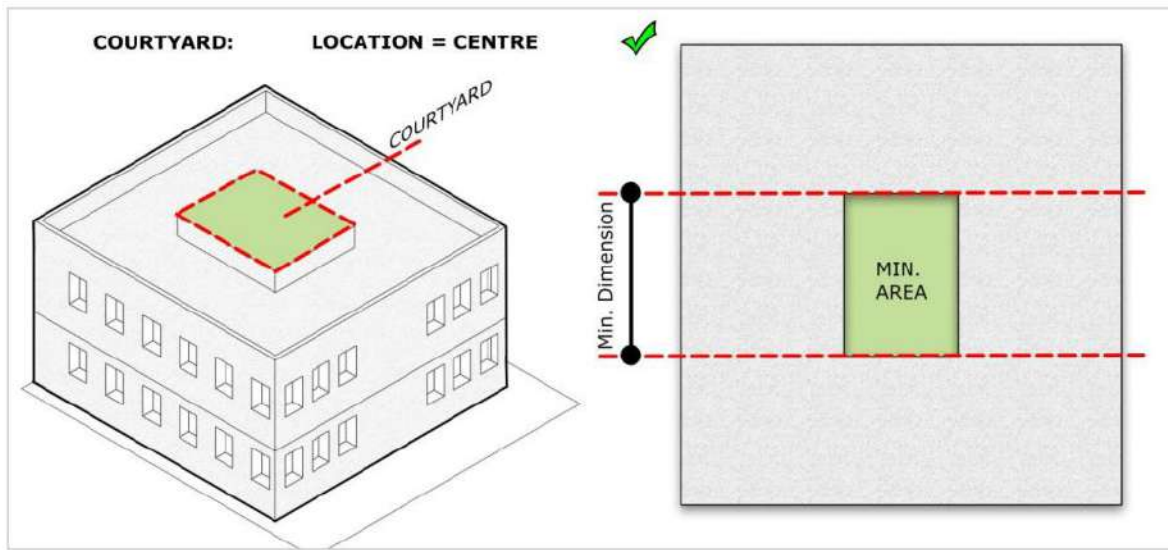
Figure 6-1: Proposed Building Orientation for Optimal Ocean Views



Source: KREIS, 2023

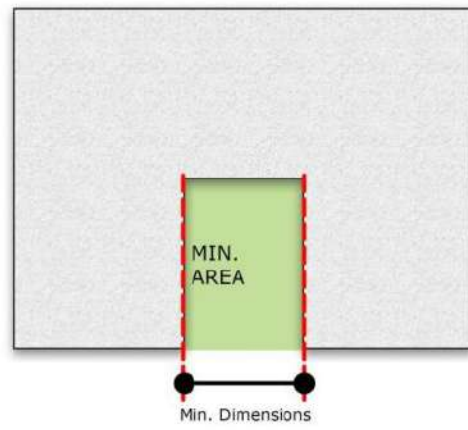
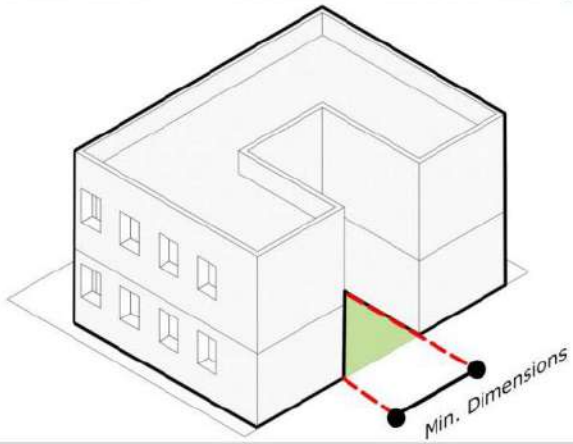
- iv. All buildings should ensure good sunlight, wind directions/sea breeze, and clear views.
- v. All buildings should be designed as an inward-looking self-contained complex with a plan organized around a central courtyard as indicated in the diagrams below.

Figure 6-2: Proposed Central Courtyard Designs



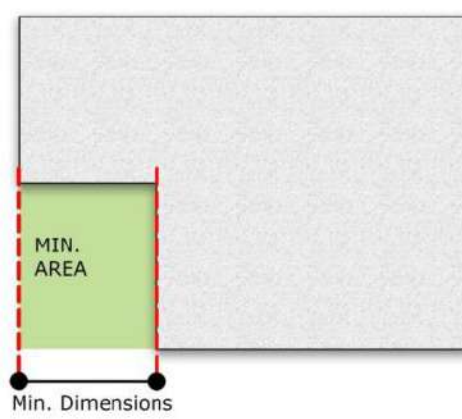
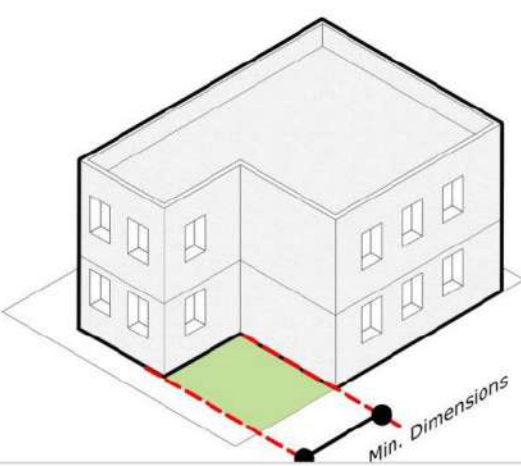
COURTYARD:

LOCATION = REAR CENTRE ✓



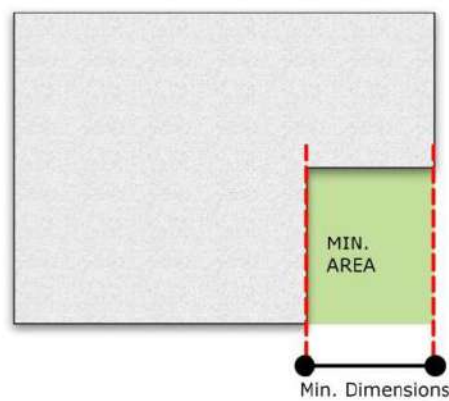
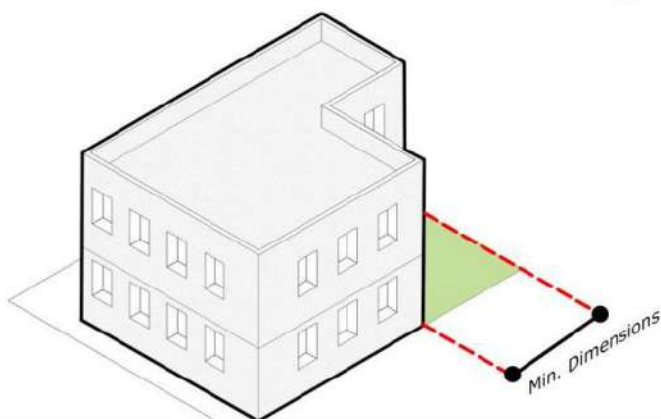
COURTYARD:

LOCATION = REAR LEFT ✓



COURTYARD:

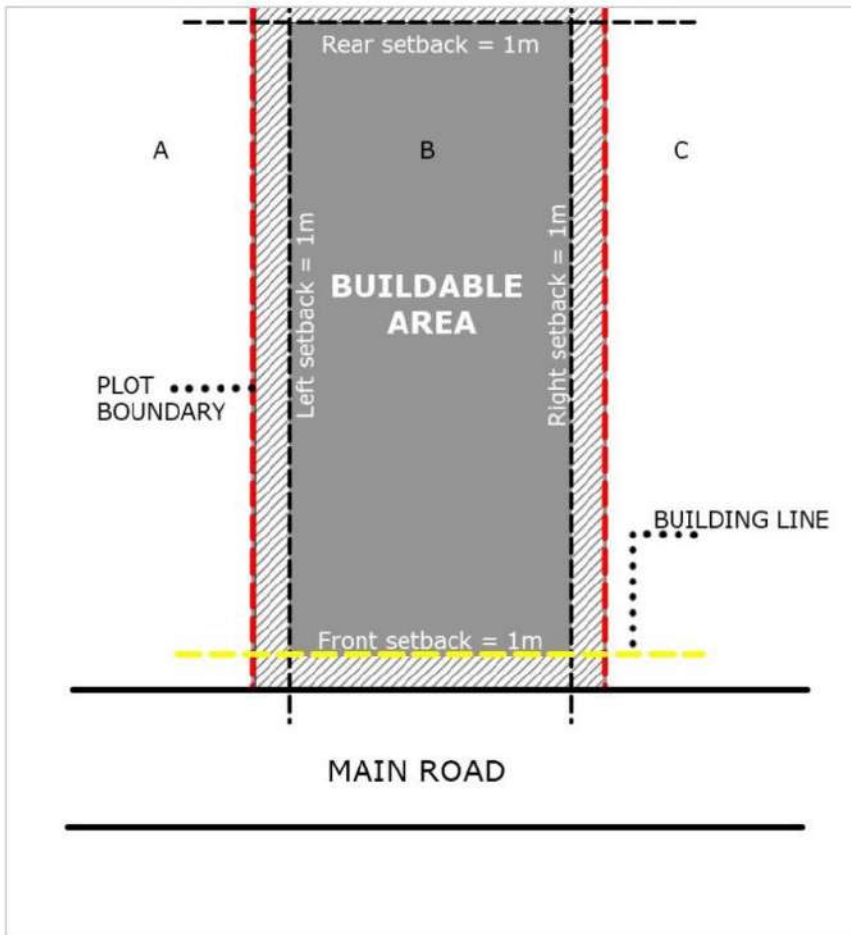
LOCATION = REAR RIGHT ✓



Source: KREIS, 2023

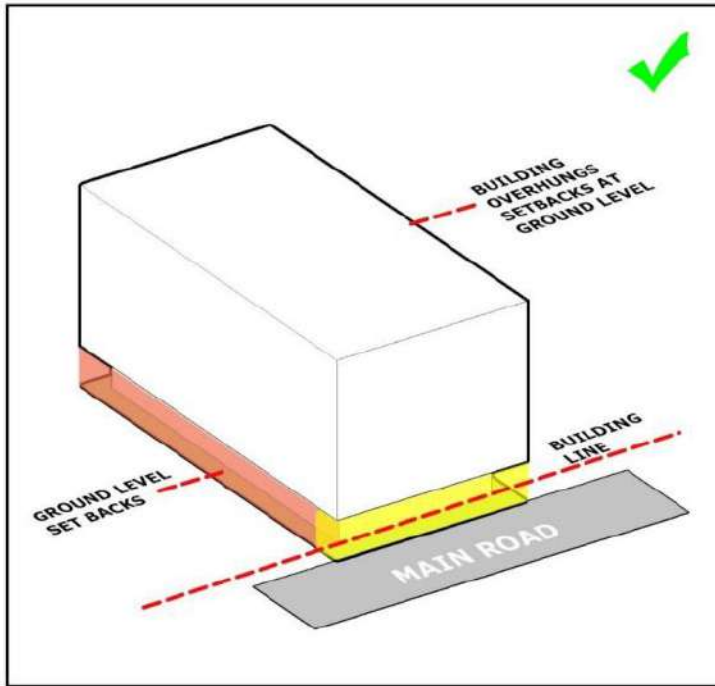
- vi. A minimum setback of 1m (3 feet) on all sides of a plot should be maintained in all new developments.

Figure 6-3: Proposed Building Setback



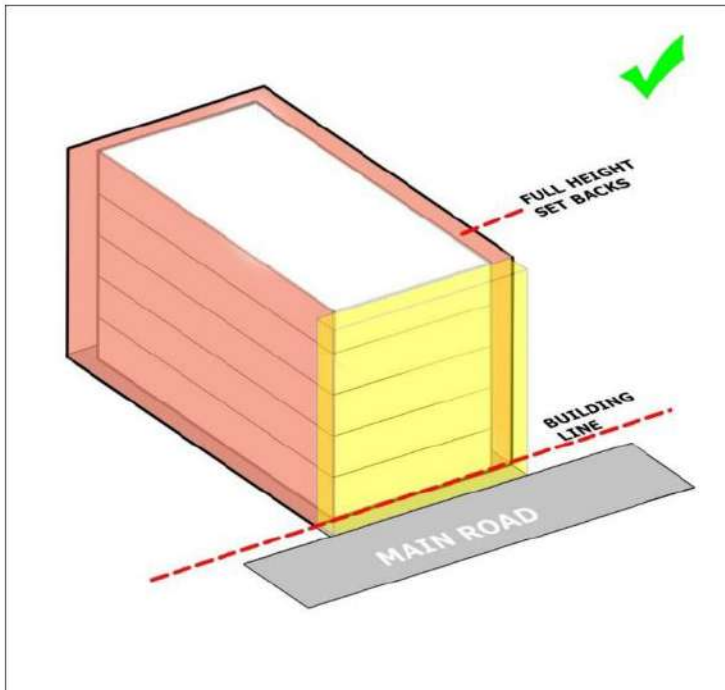
Source: KREIS, 2023

Figure 6-4: Building Overhanging Setbacks at Ground Level



Source: KREIS, 2023

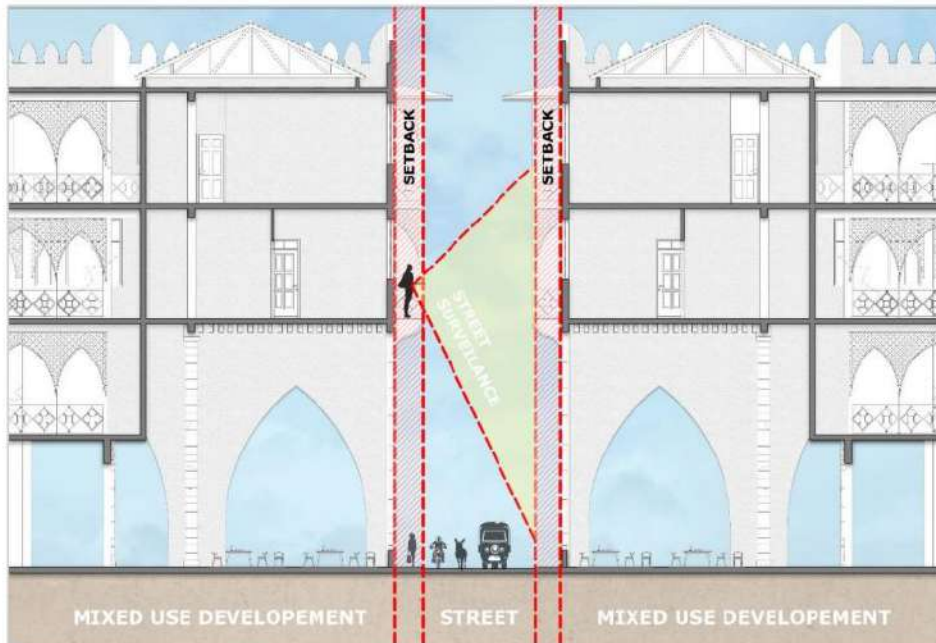
Figure 6-5: Full Heights Setbacks



Source: KREIS, 2023

- vii. All building developments should orient active fronts to the street to enhance natural surveillance and pedestrianization as demonstrated in the diagram below.

Figure 6-6: Proposed Orientation of Buildings' Active Fronts



Source: KREIS, 2023

6.1.4 Building Material

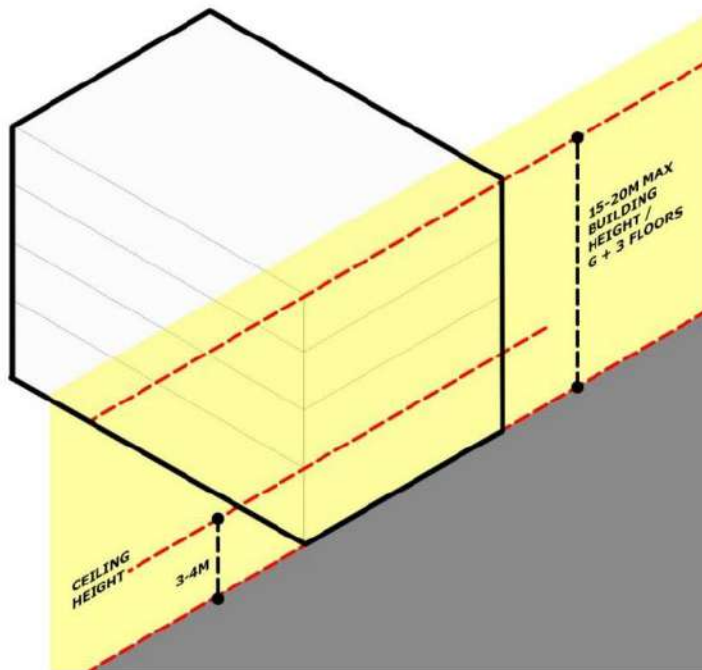
- i. Permissible roofing material shall consist of makuti, iron sheet, terrace slab, CGI sheets, and tiles. Permitted color of roofing material is maroon and brown.
- ii. The heritage site should maintain use of mangrove timber. Similarly, adjacent areas should adopt use of timber. Aluminium with timber finish is permitted in Wiyoni and outer buffer areas of Amu. The use of metal door frames is permitted for security purposes.
- iii. Building walls should maintain a soft outer finish with prescribed colour codes. Use of coral stone finish is also permissible.

6.1.5 Building Heights

To maintain ocean views for buildings within the interior of the town:

- i. All buildings should maintain a maximum of four (4) floors. That is, ground + 3 floors as demonstrated in the diagram below.

Figure 6-7: Proposed Building Height showing the Permitted Number of Floors



Source: KREIS, 2023

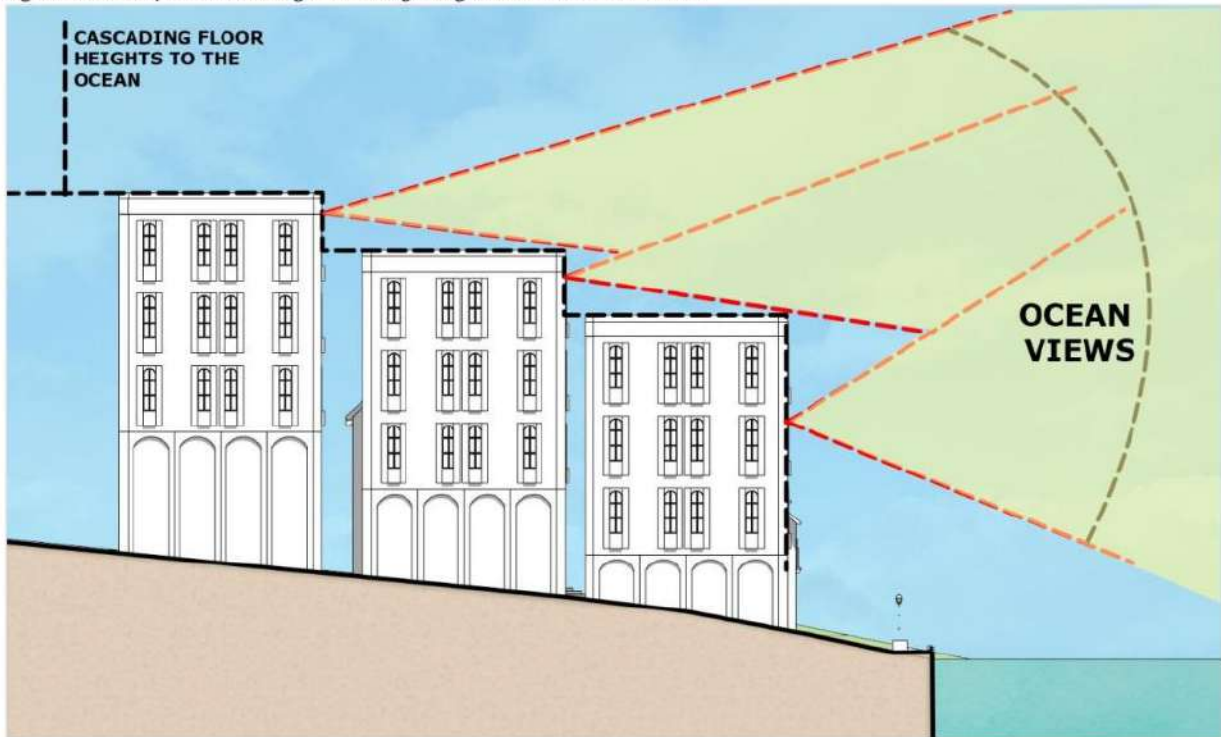
- ii. A ceiling height maximum of four (4) metres should be maintained for all the buildings.
- iii. Buildings should cascade from low to higher heights as they recede further from the Seafront as demonstrated in the diagram below.

Figure 6-8: Cascading Heights for Optimal Views of the Ocean and Manda Island



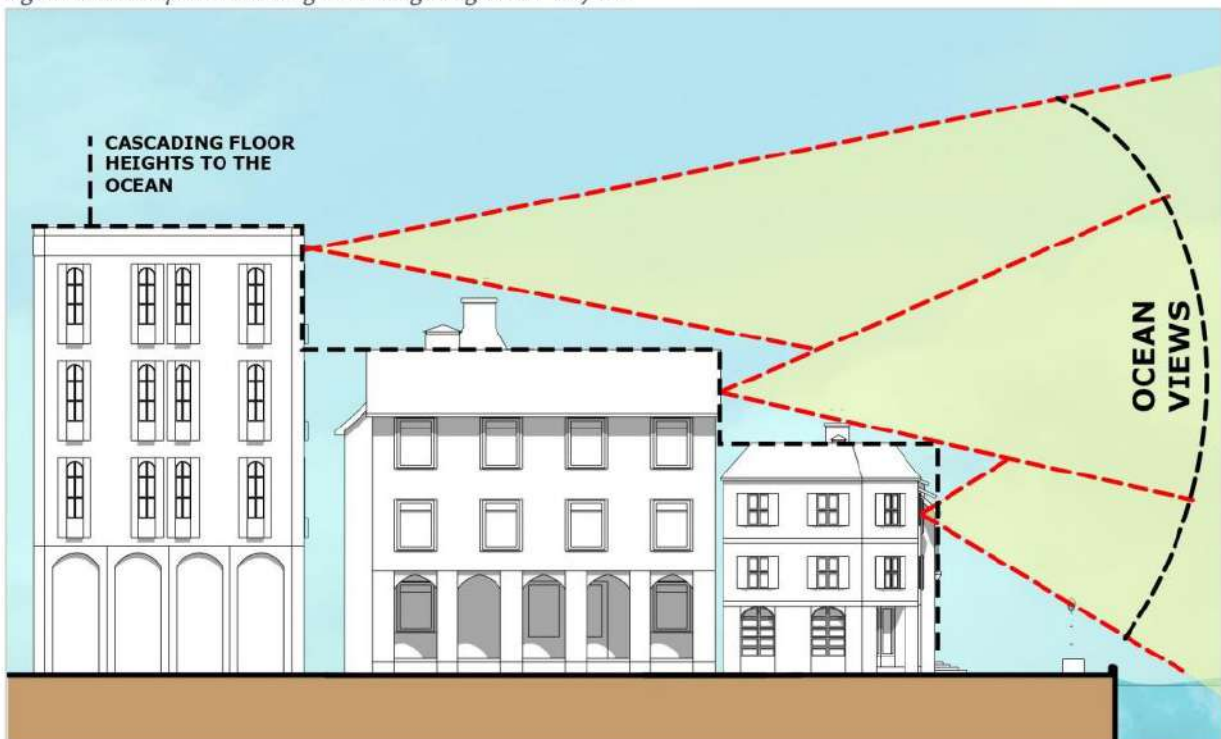
Source: KREIS, 2023

Figure 6-9: Proposed Building Cascading Heights for Amu Old Town



Source: KREIS, 2023

Figure 6-10: Proposed Building Cascading Heights for Wiyoni



Source: KREIS, 2023

6.1.6 Color Schemes

The use of color and the choice of building material should be compatible with those traditionally allowed in the Old Town. The recommended building color is as follows:

Amu: the Seafront developments should maintain a white colour and black skirting. The rest of buildings to the interior of the town should maintain either white walls, soft white wall exteriors or cream. A coral wall finish is also permissible. This is preferably in an alternating pattern.

Wiyoni: the color scheme to be adopted for buildings in Wiyoni include: white, soft white, cream, and light blue.

6.1.7 Facades

The arcades and open verandas of all buildings on the seafront should maintain a unified visual impression of the Old Town when approaching it from the sea. There should be restrictions for cantilevered balconies.

**Annex 1 outlines some of the preferred and listed standards and building designs including the proposed building designs for the doors, windows, balconies etc.*

6.1.8 Street Character

The Old Town is presently defined by labyrinth street pattern that owes its origin from Arabs tradition of land distribution and urban development. Due to its unique history, culture and development, the recommended street character and pattern will not fit in the conventional standards as provided in Kenyan planning legislations such as the physical planning handbook. As such, the recommended street reserve is provided according to the function of the street, activities allowed on the street and the prevailing historic development. The proposed street category within the Old Town and Wiyoni is as presented in table 6-1 below.

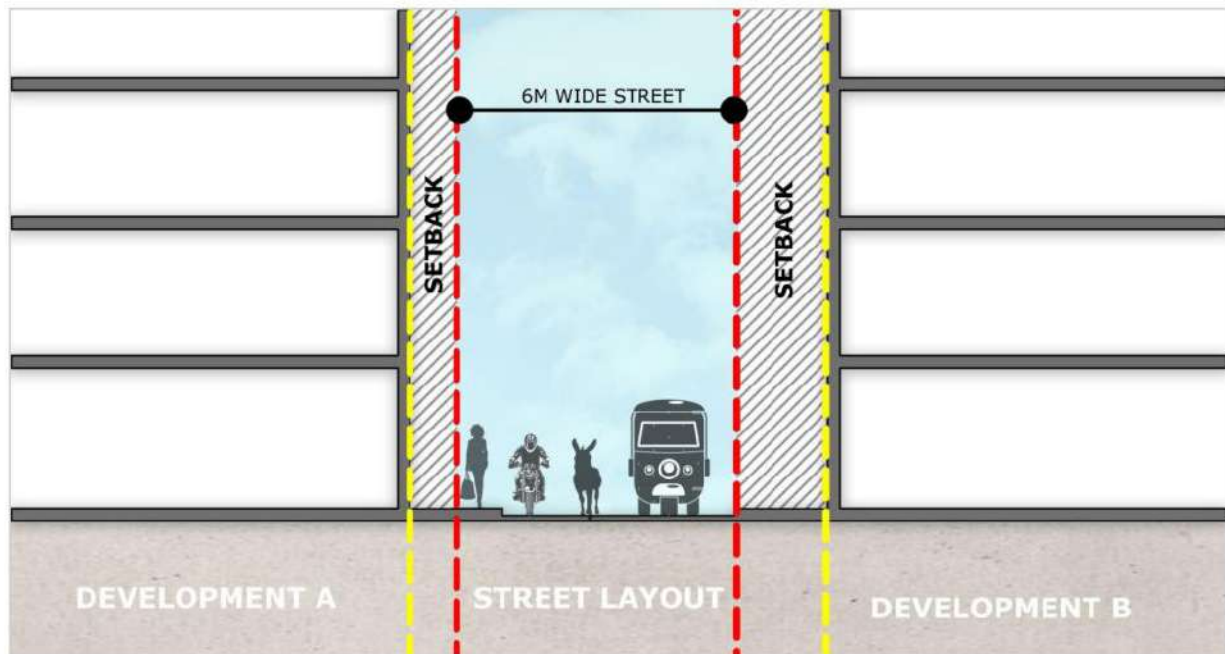
Table 6-1: Recommended Street Reserve per Category of Streets in the Old Town and Wiyoni

Street No.	Street Name	Reserve
1.	Seafront Street	6M

Street No.	Street Name	Reserve
2.	Outer buffer street within Old Town	6M
3.	Circumferential street	6M
4.	Narrow streets of the Heritage Site	All the narrow winding street within the world heritage site to be retained in their current width.
5.	Access streets within Wiyoni	6M

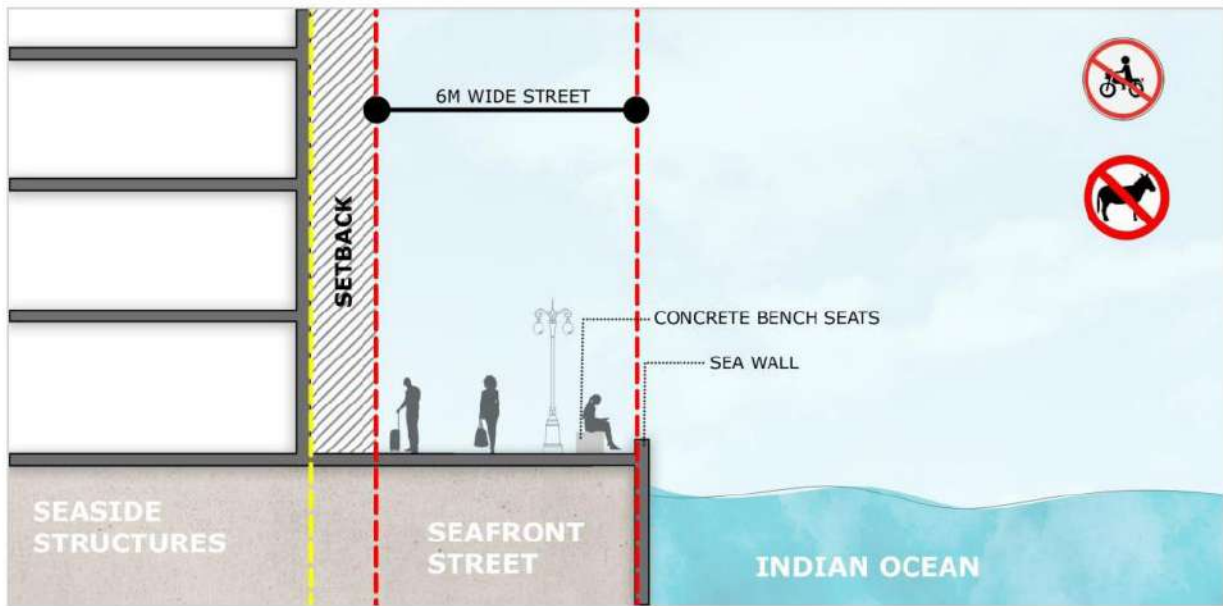
Source: KREIS, 2023

Figure 6-11: Typical Cross-Section Layout of the Inner Streets



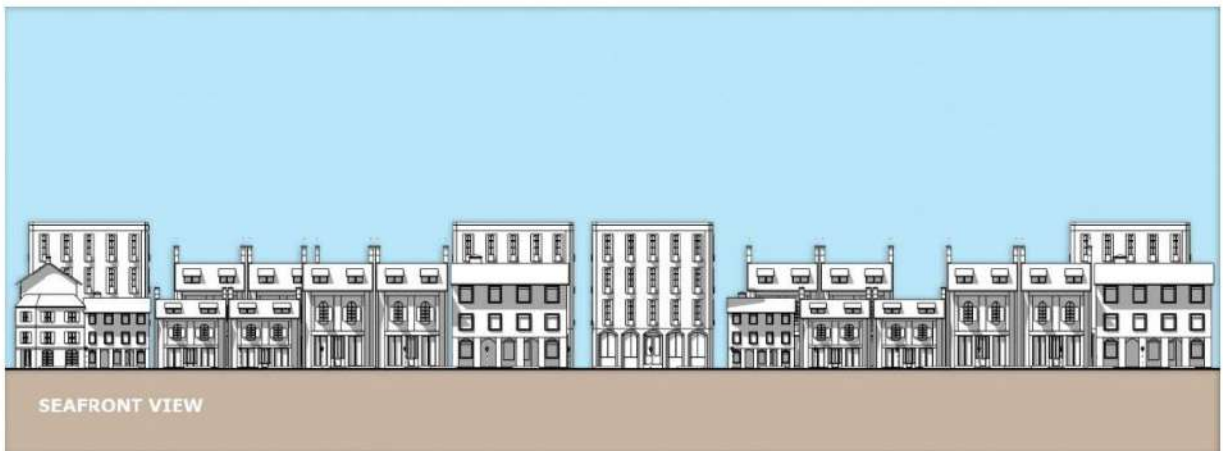
Source: KREIS, 2023

Figure 6-12: Typical Cross-Section Layout of the Seafront's Main Street



Source: KREIS, 2023

Figure 6-13: Typical buildings elevation along the Seafront from the ocean view



Source: KREIS, 2023

Figure 6-14: Proposed Building Line along the Seafront's Main Street



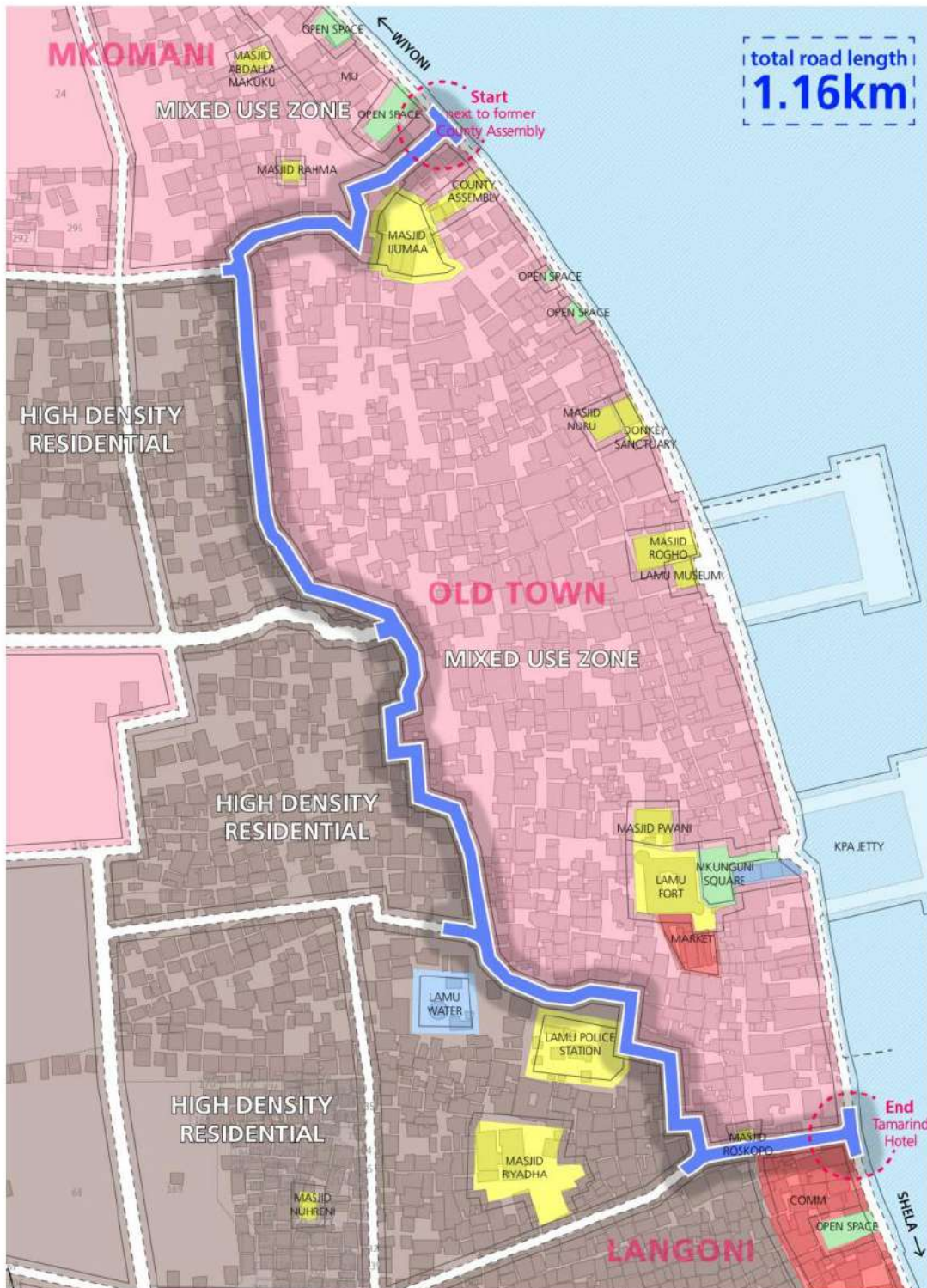
Source: KREIS, 2023

The following street regulations and standards should be observed:

- i. A six (6) meter street of cabro standards should be maintained at the Seafront.
- ii. The proposed six (6) meters inner buffer circumferential street of cabro standard should be maintained as a buffer to the World Heritage Site.
- iii. A minimum of 2 meters should be maintained for all pedestrian walkways.
- iv. All six (6) meters streets should be designed to take account of access for emergency vehicles and waste/garbage trucks among other municipal functions.
- v. Integrate and prioritize pedestrian movement with public open spaces in all streets.
- vi. Pedestrian use and motorcycles (*boda boda*) should be physically separated for safety, aesthetic and convenience of pedestrians.
- vii. Consistent to the provisions of the approved Lamu Island LP&LUDP, the use of donkey transport and motorcycles (*boda boda*) is prohibited along the sea front on the section between the start and end of the proposed 1.16km inner circumferential street.

*** (Reference to Map 6-1)**

Map 6-1: Proposed 1.16km Inner Circumferential Street for the Old Town



Source: Lamu Island LP&LUDP (2020-2035)

- i. Motorcycle (boda boda) and donkeys should be parked at designated terminus at the proposed cargo jetties in consistence with the Lamu Island LP&LUDP.
- ii. All streets should be paved to cabro standards and well drained.
- iii. Release of sewer and other effluents is not permissible on street drainage. Street drainage should only channel grey water.
- iv. Streets should be maintained in clean condition.
- v. No littering is allowed on the streets and drainage ways.
- vi. Streets with permitted donkey use should be swept on regular basis to maintain poo free streets.
- vii. New developments should create universally accessible, safe and convenient streets to enhance pedestrian movement and character of the place.
- viii. Placement of vegetation, furniture and convenient facilities and services should be well aligned to promote visual aesthetics and barrier-free streets.
- ix. The color and material of all street elements such as street surface, furniture and convenient facilities should be coordinated for visual aesthetics and harmony.
- x. All streets should be provided with convenient facilities including tree linings, drinking fountains, benches, waste bins, public toilet for public user comfort.

6.1.9 Public Spaces

- i. Public spaces should be provided in graduation from the town level to neighborhood up to street level.
- ii. Principles of connectivity and continuity should be observed in the design of public spaces.
- iii. Public spaces should be overlooked by building frontages.
- iv. All public spaces should be designed to be universally accessible to all genre of culture and people.
- v. All public spaces should be designed to allow multifunctional flexibility, inclusivity and promote social interactions.
- vi. Design of public spaces should carefully consider suitability of color, patterns and types of surfaces for ground cover for visual aesthetics and harmony.

- vii. All public spaces should be connected to pedestrians' streets and walkways.
- viii. All public spaces should be designed in a manner to promote safety and security.
- ix. All public spaces should be well-maintained and appropriately managed.
- x. All public spaces should be provided with convenient facilities including tree linings, drinking fountains, benches, waste bins, public toilet for public user comfort.

6.1.10 Solid waste management

- i. The Municipality is responsible for garbage collection, transportation and disposal, and management of waste handling sites within their jurisdiction.
- ii. The municipality shall provide refuse disposal means and sites commensurate to waste generated and accessible by all households.
- iii. Each refuse collection sites shall be located far from residential areas along the main seafront street and buffered with trees to contain foul smell and vectors.
- iv. Individual developers are responsible for providing appropriate bins for garbage disposal. Separation of waste at source and disposal should be adhered to.
- v. Discharge of untreated sewers, garbage, hazardous substance, chemical, oil or mixture of oil into any waters or other segments of the environment is prohibited in line with provisions of the water management regulations.

6.1.11 Abattoirs

- i. All abattoirs should be certified and inspected before operating.
- ii. Abattoirs and their activities should uphold public health and maintain clean environment.
- iii. Abattoirs should ensure proper treatment, disposal and management of solid and liquid wastes.
- iv. Planting of trees as buffer from adjacent land uses is encouraged.

6.1.12 Cemetery

- i. Cemeteries should be landscaped with natural greenery for beautification of its environment.
- ii. Trees should be planted around cemeteries to act as buffer from adjacent land uses.

6.1.13 Floating Petrol Filling Stations

Upon the full realization and implementation of the approved Local Physical & Land Use Development Plan for Lamu Island, the floating petrol stations are supposed to be transferred from the waters to the designated sites within/around the proposed cargo jetties. In the meantime, the following general regulations should abide:

- i. Restrict discharge of untreated waste water and petroleum products into the ocean;
- ii. Liaison with Kenya Maritime Authority and NEMA in the management of the areas where the filling stations operate; and
- iii. Restrict commercial fishing within the areas where the sale of the petroleum products is carried out.

6.2 Development Control Instruments

In this context, development control is seen as the framework through which good management practices in land use and property development will be regulated to ensure that all development takes place at an appropriate time and place and in such a manner that it will conform to the zoning standards and regulations as well as the approved Lamu Island Local Physical & Land Use Development Plan provisions. To effectively manage these land-based developments and activities, the following tools are outlined and elaborated on as the land use management tools upon which development will be assessed against within the Lamu old town and Wiyoni to process applications.

6.2.1 Change of Use

This will be interpreted as any proposed development that will seek to put land into a use other than that which it is registered under, whether specific or through the special conditions of the title. Where such is the case, a change of use application will be tendered for consideration and approval by the Municipality before development is taken up on the land.

6.2.2 Land Subdivision

This will be interpreted as any division of a parcel of land into two or more plots, for whichever purpose (inheritance; succession; allocation; sale or property development), whether for immediate disposal or for future purposes.

6.2.3 Land Amalgamation

Land amalgamation will be the process of combining any piece of land to one large piece and under one title deed. This process will also be known as land consolidation and will be carried out in accordance to the Physical & Land Use Planning Act, No. 13 of 2019 and the regulations contained in the Land Consolidation Act (Cap 283).

6.2.4 Extension of Use

This will be interpreted as any development that will seek to add any other use other than that registered on the land while maintaining the dominance of the existing registered use of the land. Such additional use will be capped at a maximum of 20% of the registered and primary land use.

6.2.5 Extension/Renewal of Lease

Five (5) years before any registered lease is expired, a lessee will be required to apply for extension of the lease and in the event that the lease is expired, a renewal of lease.

Other development control applications to be made will include but not limited to:

- i. Building Plans and Structural drawings applications
- ii. Processing of easements and way-leaves;
- iii. Siting of education institutions, base transmission station, petrol stations, eco lodges, camp sites, power generation Plants, factories;
- iv. Outdoor advertisement; and
- v. Any other as the county executive committee member may prescribe from time to time.

6.3 Specific Regulations, Requirements and Considerations for various Development Control Tools

6.3.1 Change of Use

A change of use will be necessary when:

- i. The proposal consists of a significant change of the registered use of the land and constitutes a change of more than twenty per cent of the registered use of the land based on the plot coverage and plinth area; and
- ii. The existing registered use of land does not conform to the approved Lamu Island Local Physical & Land Use Development plan or the zoning regulations contained therein.
- iii. While considering applications for Change of Use within the heritage site, the Municipality will consult with the NMK office before issuing the approval. In Wiyoni, the consultation might not be necessary unless the Municipality deems it fit to consult. However, this should not be construed to mean that circulation for comments to the NMK office will not be done.

6.3.1.1 Contents of the Technical Brief for Change of Use

- i. The technical brief must outline the provisions of an approved physical and land use development Plan within the area where the proposed development is set to take place;
- ii. The report must also bring out the probable effects on the character of the neighborhood that the proposed development will cause;
- iii. The report will also need to detail out the effects on vehicular and pedestrian safety; visual impact; effect on the right to a view (like the ocean view);
- iv. The surrounding building character, water and sewer availability; and
- v. The infrastructure availability and adequacy including waste generation and collection capabilities.

These parameters will assist the reviewing committee in the consideration of the application.

6.3.2 Land Subdivision and Amalgamation

On a basic minimum, all subdivision proposals will need to outline the following:

- i. Land reference number, Size, shape of land and the north arrow.
- ii. The location plan/inset and contours within a good contour range depending on the size e.g., 2m contour range for small sizes and up to 10m for large scale subdivisions.
- iii. Plan presented in appropriate planning scales of the multiples of 5.
- iv. Resultant subplots and their access; where possible especially within the outer areas of the Old Town and Wiyoni, show adequate truncations (for instance 1mX1m considering the island is not heavily motorized).
- v. The owner of the property, name, signature, identification and telephone number/email.
- vi. Linkage and indication of classified roads, and other Infrastructure availability and adequacy.
- vii. Allocation of land for public utilities for large scale subdivision of sizes 0.2Ha and below for any land above 10Ha.
- viii. Consent from the relevant agency in case of agricultural land.
- ix. Unless site conditions prohibit, each plot shall be at right angles to the road, with the shorter side fronting the road and with a regular shape for optimum use of land and integration with the general spatial form of the area.
- x. Streets shall be aligned in such a manner as to facilitate natural stormwater flow and, where necessary, the scheme shall demarcate stormwater easements.
- xi. The scheme shall respect riparian and ocean reserves, wayleaves and easements. The subdivision scheme shall provide for the preservation of the natural flora and fauna as much as possible in the case of a large-scale subdivision.
- xii. For land amalgamation, the owner of the land must be the same person and the plots must be adjacent to each other.

**** Annex 2 brings out different templates for land subdivision and amalgamation that can be used as reference on acceptable bare minimums of the scheme plans.***

6.3.3 Extension of Use

The extension of user application shall be required when the proposal consists of a change of the registered land use not exceeding twenty per cent in any case where a developer intends to comply with any revised physical and land use plans and land use zoning regulations.

Before granting the Extension of Use approval, the reviewing committee will need to establish if the intended use shall be consistent with the desired urban form and character of the area. If the extended use is likely to generate human traffic, then the technical brief will be required to provide a detailed elaboration on how the space will be managed and utilized to balance with other competing space requirements.

6.3.4 Extension/Renewal of Lease

Before an application for the extension or renewal of lease is done, the applicant will need to show that:

- i. The land they were allocated (leased) was developed in accordance to the lease conditions set therein;
- ii. That the development remained consistent with the various land management policies and the zoning regulations;
- iii. In case the area has been rezoned, that they are capable of developing in accordance with the new conditions of the approved plan or land use zoning regulations of the area;
- iv. The land is not required for environmental conservation or preservation; and neither is it required for any public purposes including the registration of easements and wayleaves or any planned infrastructural facilities
- v. All the special conditions of the lease were abided to.

6.3.5 Building Plans

Building plans will be assessed in accordance to the following conditions:

- i. The use of the building; the orientation of the building within the plot;
- ii. The elevations of the building, plinth area, canopies and height of buildings;

- iii. The design, shape, civic design and facade and appearance of the building;
- iv. The set back and the building line;
- v. Provision for rainwater harvesting facilities and water storage tanks in every building; landscaping; character; ventilation and lighting; environmental, health and cultural considerations; and any other matter that the Municipality will consider necessary for purposes of planning and development control.

The building Plans or drawings to be submitted include:

- i. Architectural drawings and specifications;
- ii. Civil and Structural engineer's drawings and specifications;
- iii. Electrical engineer's drawings and specifications;
- iv. Mechanical and plumbing drawings and specifications.

Other applications that will be carefully considered will include those that require wayleaves or easements including the laying of telecommunication networks and fibre optic, BTS, electricity lines etc. and outdoor advertising.

6.4 Specific Regulations and Zoning Guidelines

6.4.1 Amu Old Town

Specific permitted land uses and zoned areas are as indicated in map 6-2 below.

Map 6-2: Land Use Zones within and around the Old Town



Source: KREIS, 2023

Table 6-2: Zoning Guidelines for Planning and Development Control within Amu Old Town

Zone Name	Permitted Use	Building Typology	Building Height	Facades Orientation &	Plot/ Density Ratio	Color Scheme
Heritage site	<ul style="list-style-type: none"> ▪ Conservation (preservation of the world heritage site) ▪ Recreational and socio-cultural activities ▪ Residential (single use and mixed-use buildings) ▪ Commercial (retail shops, banking halls, offices, hotels, guest houses, restaurants & curio shops) ▪ Transportation; strictly NMT ▪ Public purpose & utilities 	<p>Maintaining original architectural styles with decorative styles.</p> <p>Swahili House, Lamu Fort, Lamu Museum, Mkunguni Square should not be altered.</p>	<p>Maintain single and double storey buildings</p> <p>Maximum of 4 floors (G+3)</p>	<p>North facing the Ocean, Manda Island or facing courtyards and active streets</p> <p>Active frontage to the seafront and streets</p>	95	White
Sea Front	<ul style="list-style-type: none"> ▪ Commercial (retail shops, banking halls, offices, restaurants, hotels, guest houses, curio shops) ▪ Recreational (public space for socio-cultural festivals & celebrations) ▪ Transportation (circulation, goods and passengers landing sites, docking sites) ▪ Residential (mixed-use buildings) ▪ Public purpose (administrative and religious functions) 	Multi-dwelling & mixed-use building blocks of Swahili architecture.	Maximum 4floors	North facing the Ocean and Manda Island	95	White with black skirting
Kenyatta Street	<ul style="list-style-type: none"> ▪ Commercial (retail shops, banking halls, offices, restaurants, Guest houses, Curio shops) 	Multi-dwelling & mixed-use	Maximum 4floors	North facing the Ocean, Manda	95	White

Zone Name	Permitted Use	Building Typology	Building Height	Facades Orientation &	Plot/ Density Ratio	Color Scheme
	<ul style="list-style-type: none"> Residential (mixed-use buildings) Transportation (circulation-strictly no vending activities on circulation path) 	building blocks of Swahili architecture.		Island and /or internal courtyards Active fronts to the streets		
Mkunguni Square	<ul style="list-style-type: none"> Public space and baraza Recreation and social-cultural activities 	No structures allowed Conserve existing tree	Open to the sky		-	-
Lamu Fort	<ul style="list-style-type: none"> Administrative Library, recreation and social-cultural activities 	Maintain original building	Maintain the two-storey building	Facing the internal courtyard		Maintain original colour
Passenger Jetty	<ul style="list-style-type: none"> Passenger landing site. Cargo related activities are prohibited. 	Redesign to Universal Design & Access Standards	-	Facing Lamu Old Town	-	-
Outer Buffer Zone	<ul style="list-style-type: none"> Residential (single-use and mixed-use buildings) Commercial (retail shops, banking halls, offices, hotels and restaurants, guest houses & curio shops) Educational Public purpose (administrative, religious) Recreational and socio-cultural activities Transportation (NMT circulation) Public utilities (cemeteries, waste collection sites) 	Swahili architecture and decorative designs (windows, ceilings, doors)	Single-storey buildings Multi-dwelling and mixed-use building blocks Maximum 4floors	Unified impression of arcades and verandas Active frontages to the streets	95	White, soft white, cream

6.4.2 Wiyoni Settlement

Wiyoni settlement has four distinct zones namely; high density residential, mixed-use, educational and public purpose as shown in the map below.

Map 6-3: Land Use Zones within and around Wiyoni Settlement



Source: KREIS, 2023

Table 6-3: Zoning Guidelines for Planning and Development Control within Wiyoni Settlement

Zone Name	Permitted Use	Building Typology	Building Height	Facades & Orientation	Plot/Density Ratio	Color Scheme
High-Density Residential	<ul style="list-style-type: none"> ▪ Residential (high-density buildings) ▪ Commercial (retail shops, banking halls, offices, hotels and restaurants, guest houses & curio shops) ▪ Recreational (public space for sports and socio-cultural festivals & celebrations) ▪ Transportation (circulation, landing and docking sites) ▪ Free public access to the beach front 	Multi-dwelling building blocks of modern Swahili architecture.	<p>Maximum 4 Floors</p> <p>Setbacks of 1m (3 feet)</p> <p>Minimum plot size of 0.045Ha</p>	<ul style="list-style-type: none"> ▪ North facing the Ocean and Manda Island ▪ Unified visual impression of arcades and verandas ▪ Active frontages to the seafront 	90	White, soft white, cream, blue and white
Education	Wiyoni Primary and Secondary School	Multiple row buildings	Maximum 4 floors	Facing internal courtyards and the Ocean	-	-
Mixed-use development	<ul style="list-style-type: none"> ▪ Mixed-use: ▪ Residential (retail shops, hotels, restaurants, guest houses) ▪ Public purpose (religious facilities, parks and open spaces) 	<p>Multi-dwelling houses</p> <p>Modern Swahili architecture</p>	<p>Maximum 4 floors</p> <p>Setbacks of 1m (3 feet)</p> <p>Minimum plot size of 0.045Ha</p>	<p>North facing the Ocean</p> <p>Unified visual impression of arcades and verandas</p> <p>Active frontages to the seafront and streets</p>	90	White, soft white, cream, blue and white

Zone Name	Permitted Use	Building Typology	Building Height	Facades Orientation &	Plot/Density Ratio	Color Scheme
	<ul style="list-style-type: none"> Compatible light industrial development e.g weaving 					
Transportation	<ul style="list-style-type: none"> Passenger jetty Fish landing site Cargo landing site 	<ul style="list-style-type: none"> Redesign to Universal Design & Access Standards 	-	-	-	-
Public purpose	<ul style="list-style-type: none"> Mosques Churches Social hall 	<ul style="list-style-type: none"> Modern Swahili Architecture 	-	Active frontages to the seafront and streets	-	

7 CHAPTER SEVEN: IMPLEMENTATION FRAMEWORK

As discussed in previous chapters, all the cited applications will be made through prescribed development control tools and tendered to the Municipality through the Municipal Manager's office. The Manager will cause the application to be circulated to the Physical Planning department within the structures of the municipality for review and assessment on compliance with the approved LP&LUDP and these zoning standards and regulations.

Before any application is fully processed, the Municipal Planning office will circulate it to other relevant departments and government agencies for purposes of checking the consistency of the proposed developments with their strategic roles. The responses made by the different departments and/or government agencies will be in form of writing and will be submitted to the Municipal Planning office as comments. The Planning office will consider these comments before recommending/issuing any approvals or disapprovals to submitted applications.

Table 7-1: Crucial offices where circulations will be made for purposes of comments and advise

Office	Role	Proposed No. of days to issue comments
Municipal Physical Planning Department	<ul style="list-style-type: none"> ▪ Receiving of the applications and circulations recording ▪ Checking consistency of the proposed development with the zoning requirements and planning standards ▪ Receiving and collating comments from other departments or agencies ▪ Constitution of the Planning committee to process and review the application ▪ Chairing technical committee meetings ▪ Dispatching approvals/disapprovals 	5
Environment (NEMA)	<ul style="list-style-type: none"> ▪ Checking on the impact of the proposed development to various environmental standards and guidelines including riparian reserves ▪ Checking on the compliance levels of the proposed development to various NEMA (EMCA) provisions and other environmental policies ▪ To advise on general environmental aspects related to the proposed development 	3

Office	Role	Proposed No. of days to issue comments
Public Health	<ul style="list-style-type: none"> ▪ Comment on the impact of the proposed development to various public health aspects ▪ To advise on general public health aspects 	3
Engineering/ Works Survey	Public <ul style="list-style-type: none"> ▪ To advise on adequacy of the proposed roads, sewer and other utility infrastructure 	3
	<ul style="list-style-type: none"> ▪ To ensure that surveyed or property boundaries are accurately captured ▪ To advise on proposed developments that maybe impacted on by existing wayleaves; easements etc and to ensure they are also reflected as part of the proposed development ▪ To advise on all land survey matters touching on the proposed development 	3
Land Administration	<ul style="list-style-type: none"> ▪ To advise on the ownership status of the property where the development is proposed and specifically inform on any encumbrances, caveats, restrictions etc that may be imposed on the ownership document ▪ Advise on any other land administration issues that may affect the proposed development 	3
Water & Sewerage Company	<ul style="list-style-type: none"> ▪ Advise on the adequacy of the water and sewer coverage to serve the proposed development ▪ To comment on any proposed water and sewer utility within the submitted proposal ▪ Any other advice that may relate to water and sewer 	2
Roads Agencies (KeNHA/KeRRA/KURA)	<ul style="list-style-type: none"> ▪ Elaborate and advise on trunk infrastructure that may be passing through the proposed development ▪ Advise on the classification of roads and road sizes within and outside the proposed development ▪ Advise on future transportation plans either of the authority may have and the impact that could have to the proposed development 	5
UNESCO & NMK	<ul style="list-style-type: none"> ▪ Lamu old town and Wiyoni are highly impacted by the guidelines of the <i>gazetted</i> World Heritage Site by UNESCO. It is therefore important that the Lamu curator's office be made an integral part of the plans review committee. ▪ This office will check consistence of all submitted applications to the World Heritage guidelines ▪ They will also advise on mitigation measures to ensure compliance while still fostering and promoting growth and development in the lens of modernity 	2

7.1 The Application Procedure & General Requirements for all Applications

Every application shall have the following documents attached as a minimum requirement before any processing is done:

- i. Ownership document
- ii. Land search
- iii. Rates clearance certificate/most recent rates payment receipt
- iv. Survey plan/RIM
- v. A location plan of the site overlaid on a google/satellite image
- vi. Etc.

The applications will be done in the manner prescribed in the Physical and Land Use Planning Act (PLUPA) No. 13 of 2019. More specifically, these applications will be submitted on behalf of the clients by qualified professionals i.e. registered and practicing in private practice (Physical Planners; Architects; or Engineers) depending on the service sought. The applications will be done in form of technical briefs and submitted using prescribed submission forms as defined by PLUPA. These are outlined below.

Table 7-2: An Outline of all Applicable PLUPA Forms for Submission of Various Applications

S/N	SERVICE	PLUPA FORM	INTENTION
1.	Change of Use	PLUPA/DC/1A	For purposes of tendering an application for the listed services. They will be listed under various sections in the form and only relevant sections to the service being sought approval for will be filled by a registered and practicing planner in private practice.
	Extension of use		
	Land Subdivision / Amalgamation		
	Extension / Renewal of Lease		
	Densification		
	Demolition		
2.	Building Plans Application	PLUPA/DC/1B	To be duly filled by a registered and practicing architect in private practice on behalf of the client as the application form forwarding the building plans for approval processing
3.	Structural Drawings Application	PLUPA/DC/1C	To be duly filled by a registered and practicing structural engineer in private practice on behalf

			of the client as the application form forwarding the structural drawings for approval processing
4.	Public Notice for Subdivision	PLUPA/DC/2	<p>The form outlines the manner in which all proposals for subdivision will be communicated to the general public for purposes of raising comments and/or objections. All public notices should align to the manner in which the prescribed form outlines the contents therein.</p> <p>Most important to note:</p> <ul style="list-style-type: none"> ▪ All notices should bear the name of the registered planner making the application ▪ Plans can only be inspected within 14 days of this notice and objections can be made within 21 days of the first date of the notice publishing
5.	Public Notice for Change of Use; Extension of Use; Extension of Lease; Demolitions etc	PLUPA/DC/3	The form outlines the manner in which all proposals for the listed services will be communicated to the general public for purposes of raising comments and/or objections on the proposed development within 14 days of the notice since first date of publishing. All public notices should align to the manner in which the prescribed form outlines the contents therein.
6.	General Circulation Sheet	PLUPA/DC/6A	This indicates the general outline of how the circulation sheets for comments tracking and receiving by the Municipal Planning and Architecture office will look like. It also outlines various offices where circulations for
7.	Architectural Circulation Sheet	PLUPA/DC/6B	

			comments will be made as outlined in Table 1 above.
8.	Circulation Register	PLUPA/DC/7A/B	This outlines the format of the circulation register indicating how comments are going to be made and registered from the various departments at the Municipal Planning office.
9.	Notification of Approval/Refusal	PLUPA/DC/8	This form outlines the contents and format that will be used to communicate the approval/disapproval of a proposed development. It includes generic conditions that may be applicable to a certain development in addition to specific conditions.
10.	Surrender of land for public purpose	PLUPA/DC/9	This form prescribes the format that the Municipal Planner will use to communicate to the NLC and other Lands departments of lands that has been surrendered to the Municipality/County free of cost as a consequence of granting approval to a submitted application.
11.	Certificate of compliance	PLUPA/DC/10	The format prescribed in the form will be used to issue compliance certificates to proponents whose application has been approved and implementation carried out as stipulated in the approval conditions.
12.	Issuance of occupation certificate	PLUPA/DC/11	This form will be use to issue occupation certificates for completed projects. The format and details provided can be improved by the Municipality while still remaining consistent with the provisions of PLUPA.
13.	Notification of revocation of	PLUPA/DC/6A	Where an application has been approved but for some reason, either new information that was not previously available at the point of

	development permission		issuing the approval surfaces, or the implementation of the project being in contravention to the approval conditions etc. this form will be used to revoke such approvals.
14.	Commencement notice for development	PLUPA/DC/14	Where development application has not been processed or granted for a period of sixty (60) days, then, the proponent will invoke the provisions of article 58(6) and issue a commencement notice for the development to the Municipality and other agencies using the prescribed format in the form.
15.	Notice of inspection	PLUPA/DC/15	The format prescribed in the form will be used to issue inspection notices by the Municipality upon visiting various project development sites.

****All the forms as captured and reference from PLUPA are annexed to the report****

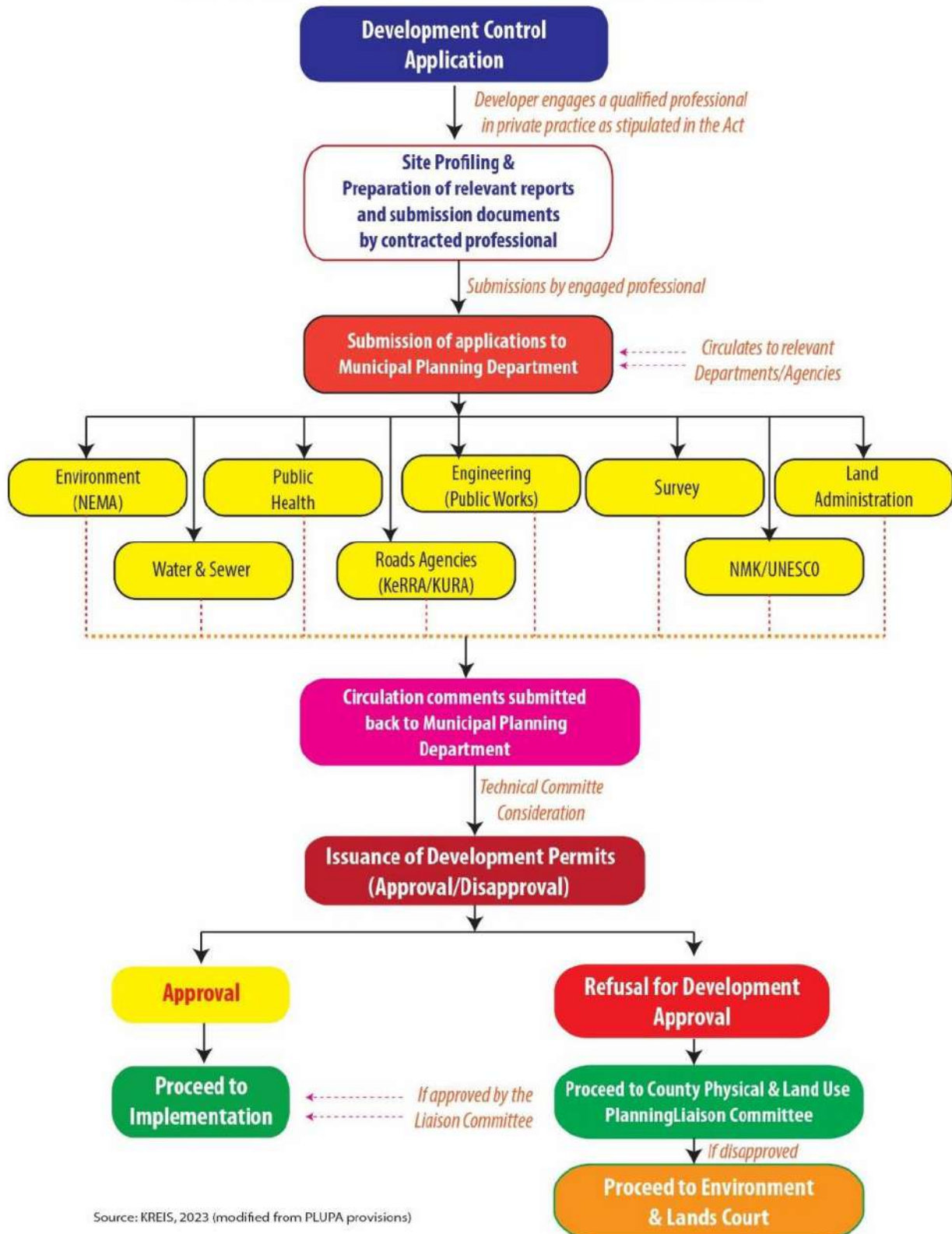
7.1.1 Issuance of Approvals or disapprovals

The Municipality shall take into consideration the following when processing a development application:

- i. The provisions of the approved Lamu Island Local Physical and Land Use Development Plans;
- ii. The provisions of other relevant national and county policies;
- iii. Have regard to the health, safety, amenity, efficiency, aesthetics and conveniences of the community generally and to the proper Planning and density of development and land use in the area;
- iv. Have regard to any comments received from the officers or authorities and or relevant stakeholders as referred to in section 60 of the Physical Planning and Land Use Planning Act; and
- v. in the case of a leasehold, have regard to any special conditions stipulated in the lease.

In summary, any development control will require to follow the process shown in the figure below:

GENERIC DEVELOPMENT CONTROL APPLICATION AND APPROVAL PROCESS ALIGNED TO THE PHYSICAL & LAND USE PLANNING ACT, NO. 13 OF 2019 FOR LAMU MUNICIPALITY



Source: KREIS, 2023 (modified from PLUPA provisions)

7.2 Service Delivery Schedule for Development Control Related Activities

The following table outlines the proposed number of days and cost for various development control services to be offered by the Municipality of Lamu

SERVICE	SERVICE SUB-CATEGORY	PROPOSED TIMELINES TO PROCESS DEVELOPMENT APPROVALS
Change of Use	Application Form (PLUPA/DC/1A)	To be availed online
	From registered land use to Single Dwelling Residential use	5 Days
	From registered land use to Multi dwelling residential use	21 Days
	From registered land use to commercial land use	21 Days
	From registered land use to Light Industry	45 Days
	From registered land use to Medium/Heavy Industry	60 Days
	From registered land use to Mixed Use/Comprehensive development	60 Days
	From registered land use to public purpose (privately owned)	21 Days
	From registered land use to public purpose (publicly owned)	21 Days
	Land Subdivision and Amalgamation	Application Form (PLUPA/DC/1A)
Amalgamation/subdivision of land for up to 10 plots		5 Days
Amalgamation/subdivision of land for 10 plots or more		21 Days
Industrial related subdivisions/amalgamations		60 Days *Must be accompanied by an approved Change of Use
Mutation/Amalgamation/Subdivision compliance certificate		5 Days
Extension/Renewal of Lease		Application Form (PLUPA/DC/1A)
	Single dwelling residential	21 Days
	Multi dwelling residential	21 Days
	Commercial use	21 Days
	Agricultural Use	21 Days
	Light Industrial	21 Days
	Medium/Heavy Industry	21 Days
	Public Purpose	21 Days
Renewal for Approved applications	Change of Use/Extension of Use	21 Days
	Land Subdivision/ Amalgamation	21 Days

SERVICE	SERVICE SUB-CATEGORY	PROPOSED TIMELINES TO PROCESS DEVELOPMENT APPROVALS
	Extension/Renewal of Lease	21 Days
	Application Form (PLUPA/DC/1B)	To be availed online
	Sale of building plan	1 day
Building Plans	Minor alterations/General repair/Rehabilitation works per unit	5 Days
	Residential (0-150 sqm.)	15 Days
	Commercial (0-150 sqm.)	21 Days
	Industrial (0-150 sqm.)	45 Days
Renewal of Approved Building Plans	Residential	15 Days
	Commercial	21 Days
	Industrial	21 Days
Utility Infrastructure permits	Communication Mast/GSM Base Station	45 Days
	Wind Pylons (per turbine)	45 Days
Perimeter/Boundary Walls Approvals: Charged by linear meter (LM)	Residential	5 Days
	Commercial	5 Days
	Light Industry	5 Days
	Medium/Heavy Industry	5 Days
Demolition of Building Permits	Temporary Structures	1 Day
	Residential	15 Days
	Commercial	15 Days
	Industrial	15 Days
Occupation Certificates	Residential	5 Days
	Commercial	5 Days
	Light Industry	5 Days
	Medium Industry	5 Days
	Heavy Industry	5 Days
	Filling/Petrol Station	5 Days
	Small hotel, guest house, restaurant	5 Days
	Medium hotel, guest house	5 Days
	Large Hotel	5 Days
	Comprehensive developments	5 Days
** Costs as outlined in the Public Finance Management Act of the County will apply **		

7.3 Management of the Development Applications

7.3.1 Manual development applications & permitting system

As it is, the County and Municipality at large receive all development applications manually. Through the same channels, approvals and/or refusals are communicated to the developers or their representatives. This has earned the County Government and the Municipality good revenues which have translated to development albeit not to the optimum potential. It is the view of this document that the County Government needs to transit the development applications and permitting system to an electronically managed system to enhance service provision and revenue collections.

7.3.2 Electronic development applications & Management system

This is highly recommended to be put in place within the County Government structures with a shared platform that links directly to the Municipality functions on development control. The system will bring planning and building departments onto the same system, from design through inspections to occupying a building, with streamlined and standardized processes.

On the part of the applicants and developers, they will gain significant time back in their day when they can apply for a development permit online rather than travelling to the government office to drop off their application. This will ensure that they save time not just from travel, but also from reduced back-and-forth communication with the Municipal planning department. Applicants can stay updated on their permit and inspection status via email, communicate online and complete all needed pieces from home (no more countless and hard-to-follow emails or phone calls). The preferred E-permitting system should not just be for tech-savvy applicants but should be an all-encompassing user-friendly system for all levels of tech comfort. This will benefit everyone in the long run, and finding a user-friendly software will make all the difference. Some of the input to feed into this system will be the development control application forms annexed into this report. They will be converted into easy to access online forms that can be filled and received on the backend by an assessor within the Municipal Planning department.

7.4 Governance & Management of the Municipality

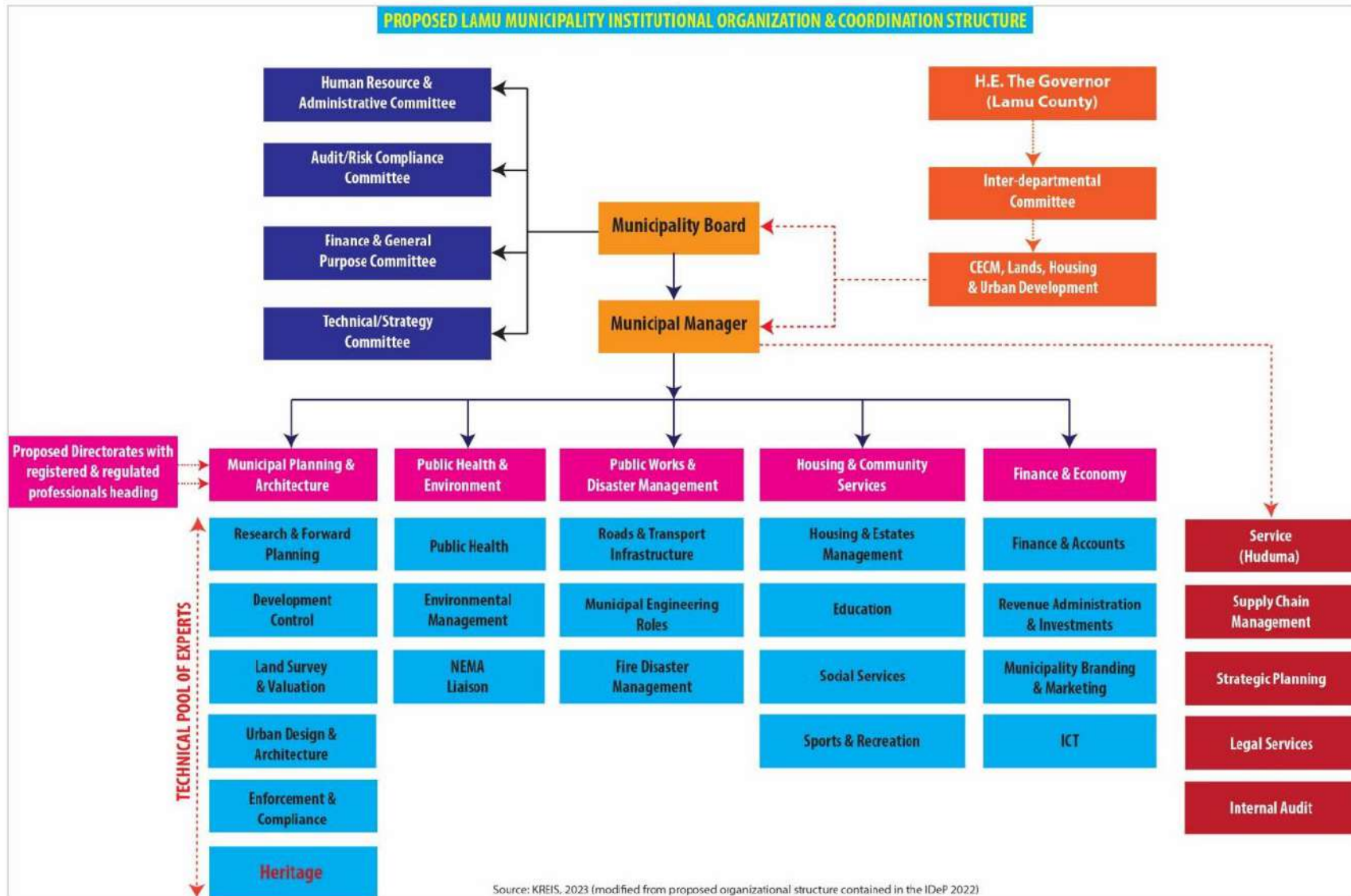
7.4.1 Proposed Institutional Coordination & Management of Functions at the Municipality

For the County government to be able to deliver on development at the local level, it needs to properly empower the two decentralized units implement the assigned functions, and additional responsibilities arising from the planning efforts particularly the urban areas governed by the Municipality. The Municipality is expected to derive its power from the County Government on a *'Principal – Agency'* type of way. While doing so, it is also appreciated that the Municipality should operate as an autonomous entity with the free will to collect revenue, budget for, and expend. This in essence has the potential to create overlap in roles since the area of adjudication and service provision between the two governance organs is one. To mitigate this, it would be expected that a good institutional framework that supports the functioning of the Municipality is developed.

The view of this report is that the best link between the two government organs would be the CECM in charge of Lands, Housing, and Urban Development. The CECM is seen as the link between the County Government management and development aspirations and the Municipality's vision as per the Municipal service charter. It would be ideal that the CECM be involved and made aware of the day-to-day development intentions of the Municipality to relay to the County Government through an interdepartmental committee composed of all the CECMs to avoid overlaps in service provision.

Where there might be real and unavoidable overlap, it should be mutually consulted by the two organs on the best placed organ to implement or provide the service. This includes development control; revenue collection and administration which within the Municipality boundaries, is its function. Such may overlap and hence the need for a well-coordinated cooperation and consultation to ensure a healthy performance of the County Government as a whole. With that synergy, an autonomous municipality institutional structure can be set up. As per the Urban Areas & Cities Act, the day-to-day coordination and management of the Municipality would be by the Municipal Manager where other institutions and/or departments would be proposed as outlined below:

Figure 7-1: Proposed Lamu Municipality Institutional Organization and Coordination Structure



7.4.2 Staffing Schedule for Lamu Municipality

Given the extent of Lamu Municipality and anticipated functions that the Municipality will be handling, the following staff are proposed to fill the positions:

7.4.2.1 Municipal Planning & Architecture Department

Under this department, it is expected that a director with more than five (5) years post qualification experience will be employed. The qualified person will be expected to be a Physical and Land Use Planner duly registered by the Physical Planning Registration Board (PPRB). Under the Director, there will be four (4No.) Physical Planners (Two senior Planner (also to serve as the development control officers); and a Junior Planner); One (1No.) architect; one (1No.) development control officer; two (2No.) Land Surveyors; two (2No.) Land Valuers; 2No. Municipal Engineers; 6No. building inspectorate officers (preferably recruited from the built environment disciplines especially construction management; architecture; engineering; Physical Planning); and 2No. officers who will be working in close relationship with the County team seconded from the UNESCO heritage (NMK) office.

This directorate/department will constitute the Municipality's development control and enforcement organ and will coordinate related day-to-day affairs in close consultation with the Manager. It is expected that this department through the Director will initiate the processing of all development control applications including circulations to other departments discussed below.

7.4.2.2 Public Health & Environment Department

On the bare minimum, this department must have 2No. environmental officers who will be registered by NEMA. One is desired to be a Lead expert with at least four years of practical work experience and the other to be an Associate expert with at least one year of experience. In addition, the department will have public health practitioner with over three (3) years of experience. The department will be headed by a director who will have certification in Occupational Health and Safety (OHS) and over 5 years of professional experience.

7.4.2.3 Public Works & Disaster Management Department

This department will consist of a director who will be a registered engineer by the Engineers Board of Kenya (EBK) with over 2 years post registration experience. Alternatively, the qualified director could be an engineer with over 8 years of experience. Under the director, there will be a civil engineer with at least five years of experience, a construction manager with at least five years of experience, and an architect. This Directorate will also leverage on the staff under the Municipal Planning & Architecture and will be able to deploy them for service provision in consultation with the Director of that department. In addition, fire response and disaster risk management will be domiciled under this department.

7.4.2.4 Housing & Community Services Department

This department will be in charge of managing all public buildings and civil service housing schemes. It will be headed by a registered valuer with over 2 years post registration experience as the Director. Under this directorate, a land valuer will be employed to assist in the day-to-day administration of the department. He/She will be assisted by valuers employed under the Municipal Planning & Architecture department. In addition, it is expected that the Municipality will hire 2 No. educational officers (1 will be an ECDE officer); about 2 social services officers; and a sports and recreation officer. This officer will be deployed to closely work with the department of youth, sports and culture within the County for localization of County plans within the Municipality.

7.4.2.5 Finance & Economy Department

This will be the department in charge of finance and revenue administration in the County. It will be a very important department as budgets and expenditure will be administered and appropriated under this department. It will be headed by a director who will be a qualified finance practitioner with a good understanding of both finance and accounting. Under the director, there will be a few officers drawn from the fields of finance and accounting and especially those who are qualified bachelors of commerce and CPA holders. Depending on the identified own source revenue streams, more numbers for these officers might be required and vice versa. In addition, the Municipality may require the services of a digital media strategist officer who will double up as a marketing and graphic designer

officer. This is aimed at enhancing the image of the Coastal Municipality as a way of marketing its products for tapping into tourism and other ventures. Further, the Municipality will require to hire an ICT officer to sort out ICT related issues and management of systems that the Municipality will progressively deploy.

In conclusion, the Manager in consultation with the Board will evaluate the demand of services in respective stations and deploy officers of the various departments to either work from Lamu Island, Mokowe, or other areas as they deem fit to ensure service provision is taken where it is most is needed.

7.4.3 Critical Issues of Municipal Management and Governance

The sustainability of the Municipal boards beyond the external financing support: Currently, the City/Municipal boards in Kenya have been established through an externally financed fund. The fund has a limited lifespan and at some point, the funding support will come to an end. By this time, the Boards are expected to have identified own source revenue streams to guarantee continuance of their operations. This is a possibility, however, the framework within which financial management is structured in the country might not favor their smooth operations.

This is because, as opposed to generating revenue and spending at source, the Cities/Municipalities will still be expected to channel their revenue collections to the National Government consolidated fund for later allocation as per budgeted needs. This therefore limits the financial autonomy and operational viability of the City/Municipality boards as there is no guarantee that collected revenues will be re-allocated back to the same Municipality for targeted expenditure. This would require a review of the various legal and policy finance instruments governing the country's financial outlook.

At the County level, there is a real or perceived weak financial capacity resulting from inadequate collection of its source revenue, and inadequate allocations from the National Government. In addition, there is limited matching of functions with power to deliver (financial, human resource, political, legislative, organizational system and roles) by the Municipality. To a large extent, there might be need for clarification on assignment of

functions in view of some being provided under decentralized units of sub county administrator, ward administrator and village administrator to rationalize other budgetary allocations for offices that may deliver same services.

Other issues that may need sustainable solutions revolve around political interference in the management and running of the Municipality affairs. This is important to ensure that the tenure of the leadership within the Municipalities can outlive the changing political regimes within the counties to ensure healthy transitions as opposed to political transitions where the City/Municipality Boards leadership is changed every time there is a change in the political regime of the County.

7.5 Monitoring and Evaluation Framework

A monitoring and evaluation framework is hereby outlined to enable tracking of progress and realization of benefits that accrue from having the development control guidelines, regulations and standards set in this document.

No.	Development Aspect	Outcome	Indicators	Responsible actors	Time frame
1.	Seafront	Vibrant public space	<ul style="list-style-type: none"> Organized docking activities Separated passenger and cargo jetties Pedestrian friendly environment Clearance of informal vending activities Proper solid & liquid waste management practices Free public access to the sea NMT prioritization; lack of motorized means 	<ul style="list-style-type: none"> County Government of Lamu Lamu Municipality Lamu residents and developers 	Short-term 1-5 years
2.	World Heritage Site	Heritage preservation	<ul style="list-style-type: none"> Preserved historical building developments, design & culture of the World Heritage Site Maintained UNESCO conservation status 	<ul style="list-style-type: none"> County Government of Lamu Lamu Municipality NMK; UNESCO 	Immediate
3.	Residential Clusters	Compact mixed-use (residential, commercial & public purpose)	<ul style="list-style-type: none"> Approved building plans Approved land sub-divisions and amalgamations Approved change of use and extension of use Approved extension of lease/ lease renewal Legal land ownership Compliance with zoning regulations, guidelines and building standards 	<ul style="list-style-type: none"> County Government of Lamu Lamu Municipality Lamu residents and developers 	Short-term 1-5 years
4.	Building Character	Harmonized building developments	<ul style="list-style-type: none"> Adherence to Swahili architecture Adherence to approved building height Adherence to approved building color and material Full compliance to all set building regulations & standards 	<ul style="list-style-type: none"> County Government of Lamu Lamu Municipality Lamu residents and developers 	Short-term 1-5 years

8 RECOMMENDATIONS

For effective implementation of these zoning standards, regulations, and guidelines, the County Government of Lamu and Lamu Municipality should:

- i. Transition to a digital development control and management system:
 - a. Adopt a digital governance in development application and revenue collection policy. Specifically, the Municipality should move with speed to develop the electronic development and Management System (e-DAMs);
 - b. All the development control instruments prepared under this consultancy should be translated to electronic web forms for access by respective professionals within the built environment when tendering their applications;
 - c. The Municipality should also ensure that the approved Local Physical and Land Use development plan for Lamu Island is hosted on a web GIS platform where developments within the Island can be regularly updated;
- ii. Upscale the geographical extent of the zoning regulations to capture the entire Municipality through continuous phasing; and
- iii. Champion for mangrove planting programmes and initiatives to ensure its sustainable availability as a construction material within the Island.

9 REFERENCES

- County Government of Lamu. (2016). *Lamu County Spatial Plan (2016-2026)*.
- County Government of Lamu. (2018). *County Integrated Development Plan (2018-2022)*.
- County Government of Lamu. (2020). *Lamu Island Local Physical and Land Use Development Plan (2020-2035)*.
- Government of Kenya. (1968). *Local Government (Building) By-laws*.
- Government of Kenya. (2007). *The Physical Planning Handbook*. Nairobi: Government Printers.
- Government of Kenya. (2010). *Constitution of Kenya*. Nairobi: Government Printers.
- Government of Kenya. (2011). *Urban Areas and Cities Act 2011*. Nairobi: Government Printers.
- Government of Kenya. (2012). *County Governments Act*. Nairobi: Government Printers.
- Government of Kenya. (2012). *National Museums and Heritage Act No. 6 of 2006: Revised Edition of 2012*. Nairobi: Government Printers.
- Government of Kenya. (2016). *National Urban Development Policy*. Nairobi: Government Printers.
- Government of Kenya. (2017). *National Land Use Policy*. Nairobi: Government Printers.
- Government of Kenya. (2019). *Physical and Land Use Planning Act*. Nairobi: Government Printers.
- Government of Kenya. (2019). *Urban Areas and Cities Act 2011 (Amendment 2019)*. Nairobi: Government Printers.
- KNBS. (2019). *Kenya Population and Housing Census*. Nairobi: Government Printers.
- Lamu Municipality. (2022). *Lamu Municipality Integrated Development Plan (2022-2028)*. County Government of Lamu.

Lamu Municipality. (2022). *Lamu Municipality Solid Waste Management Policy*. County Government of Lamu.

NMK. (2020). *State of Conservation Report*. National Museums of Kenya.

Siravo, F., & Pulver, A. (1986). *Planning Lamu: Conservation of an East African Seaport*. Nairobi: National Museums of Kenya.

WHC, ICOMOS & ICCROM. (2019). *Report on the Joint Reactive Monitoring Mission to Lamu Old Town, Kenya*.

WS Atkins International Limited. (2017). *Preliminary Master Plan for Lamu Port City and Investment Framework*.

10 ANNEXES

10.1 Annex 1: Proposed Building Design Elements

NEW LAMU ARCHITECTURE

Lamu town is a designated World Heritage Site by the UNESCO. The town, culturally, is born of African, Arab and Asian heritage. The passage of time and the need for growth possess a new challenge to this already existing rich heritage. The growing young population within the region demands for expansion, which in turn creates new opportunities for work and livelihood.

The conundrum - how can Lamu grow to accommodate this new demand for expansion while still holding true to its preserved rich heritage?

Urban designers, town planners and architects need to come up with solutions to provide an answer this new problem.

As an architectural designer, any new architecture coming up within the confines of the heritage site has to have its footing grounded in the existing past heritage while at the same time stretching forward to incorporate contemporary and sustainable (eco-friendly) architecture.

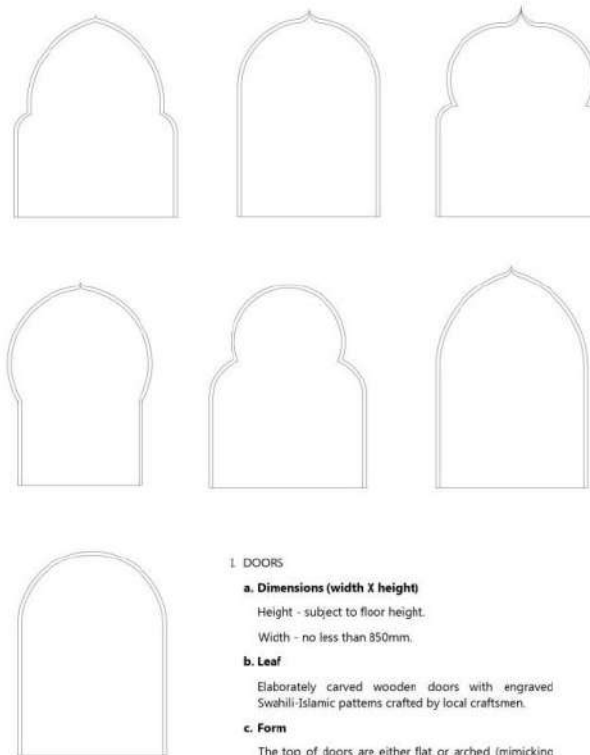
The existing architectural site buildings are informed by their peculiar Swahili-Islamic components that make up the form of the building and shape the framework of site as a result. Thus any new architecture in order to fit into this fabric has to borrow pieces of these built architectural components and fuse them with contemporary design.

I took to task to disseminate and analyse these components in basic details.

**All these design templates are to act as guidelines to new architecture coming up within the Lamu heritage site. The aim of this is to preserve the heritage while still creating new architecture in the process.*



DOOR OPENINGS



1. DOORS

a. Dimensions (width X height)

Height - subject to floor height.

Width - no less than 850mm.

b. Leaf

Elaborately carved wooden doors with engraved Swahili-Islamic patterns crafted by local craftsmen.

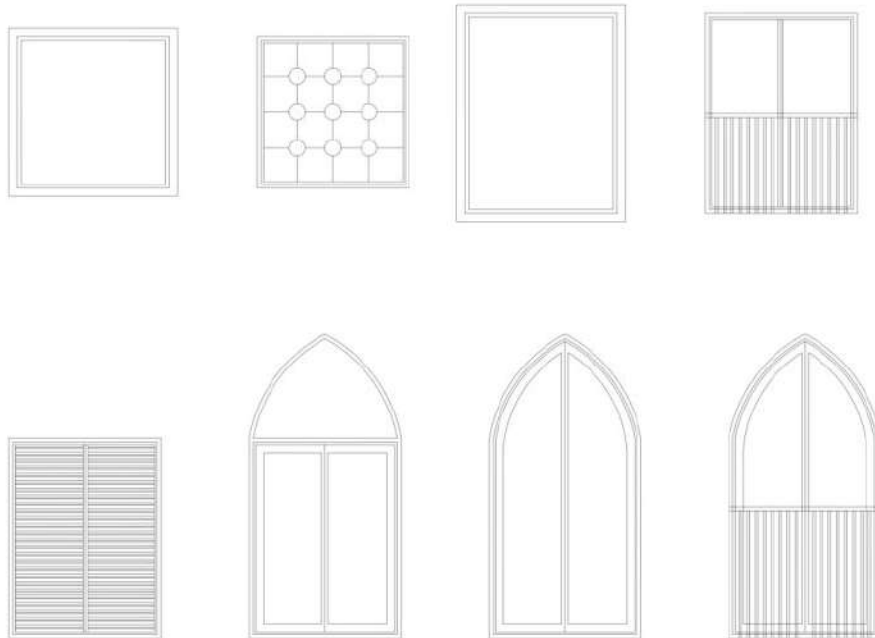
c. Form

The top of doors are either flat or arched (mimicking Islamic forms and patterns).

d. Material

Wood or steel.

WINDOW OPENINGS



I. WINDOWS

a. Dimensions (width X height)

**includes but not limited to*

300X300	600X600	900X900	1200X1200	1500X1500
300X600	600X900	900X1200	1200X1500	1500X1800
300X900	600X1200	900X1800	1200X1800	1500X2100

b. Shading devices - passive temperature control

Shutters - horizontal wooden slats angled to admit light and air but keep out direct sunlight, heat and rain.

Lattices - fixed, wooden and hand designed by local craftsmen to Swahili-Islamic patterns.

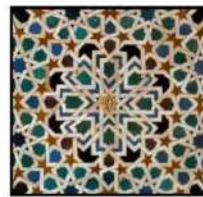
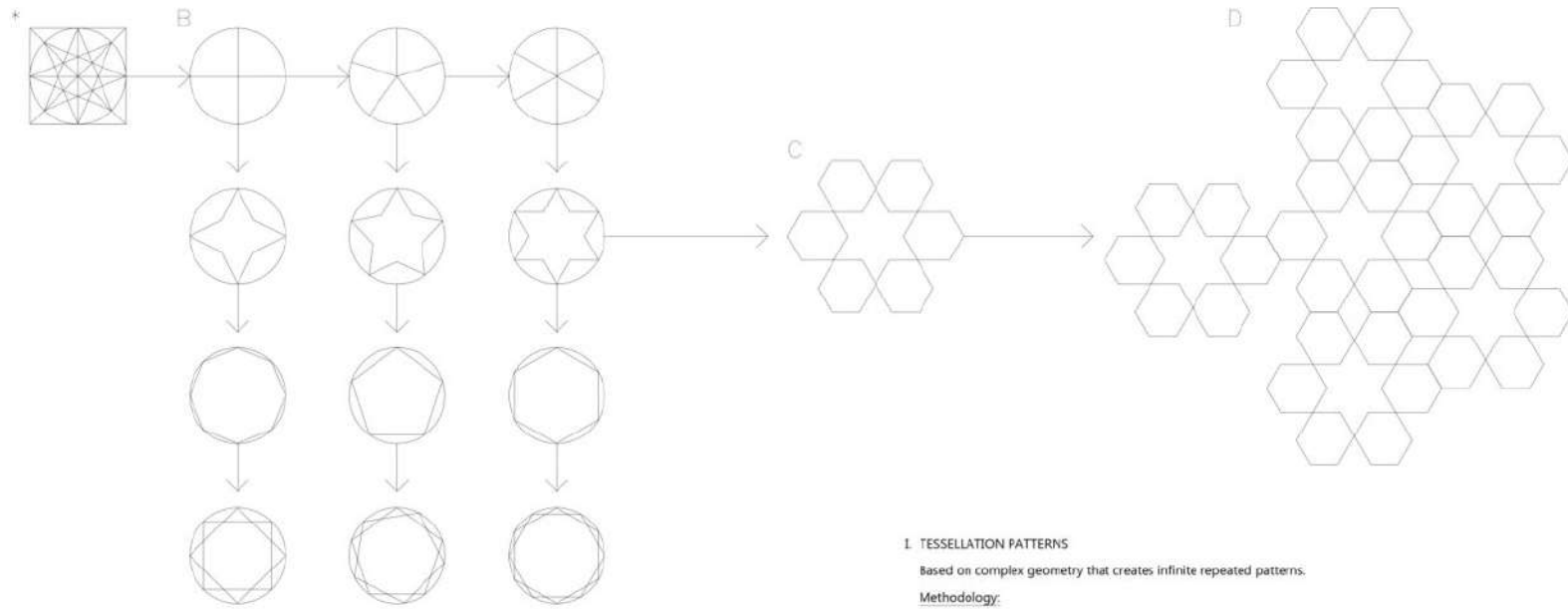
c. Form

The top of windows are Venetian style of origin at the same time mimicking Islamic forms and patterns.

d. Material

Wood or steel.

TESSELLATION PATTERNS



I. TESSELLATION PATTERNS

Based on complex geometry that creates infinite repeated patterns.

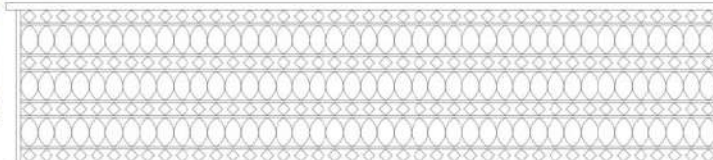
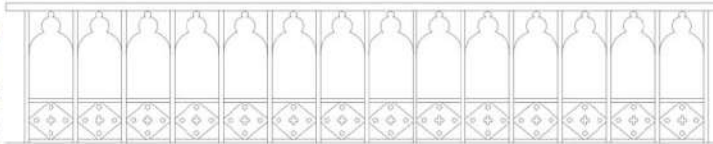
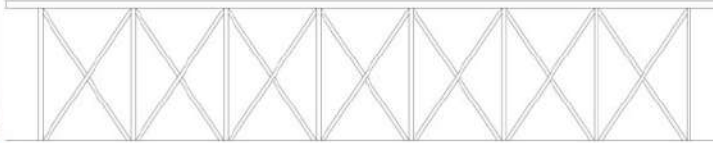
Methodology:

- a. Everything starts with a circle.
- b. Then the circle is divided into sections. Most patterns split the circle to 4, 5 or 6 sections. Each division giving rise to distinctive patterns - **fourfold, fivefold or sixfold**.
- c. These are later surrounded by stars or petal shapes.
- d. A repetition of a particular tile pattern is called **tessellation**.

There is an existing **underlying grid that determines the scale and the style of the pattern. All the lines within the grid form the **construction lines** - the basis of the repeating pattern.*



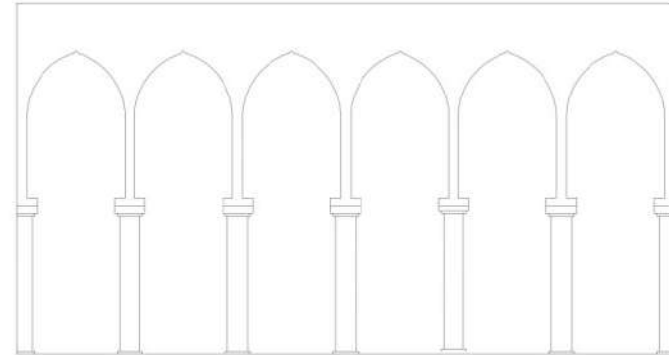
RAILINGS



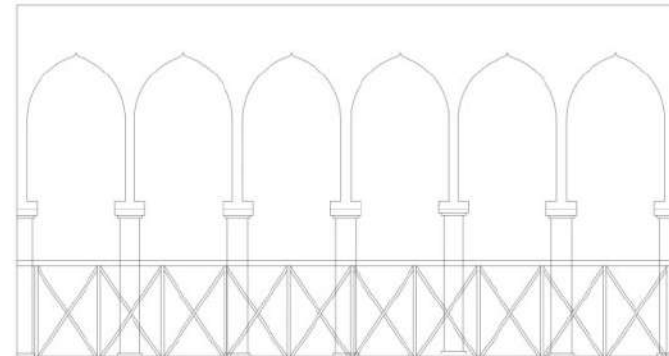
I. BALCONY RAILING

- a. **Wooden balustrade** crafted by local artisans to Swahili-Islamic patterns.
- b. Height - **minimum 900mm**.

INTERIOR COLONNADE



COVERED BALCONY

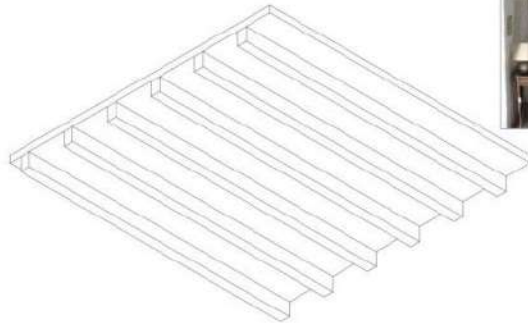


I. WALLS/FACADES

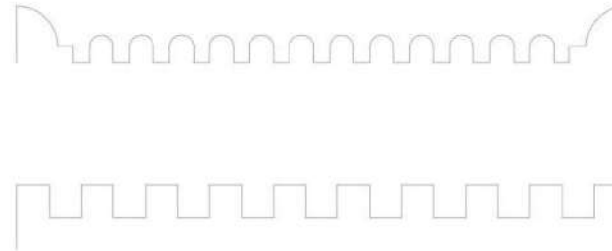
- a. Thick **load bearing** coral stone walls of minimum **width 300/400mm**.
- b. Plastered exterior finish with **antifungal treatment** mixture to protect the building and increase duration.

Passive Temperature control - White wash exterior finish for aesthetic appeal and also reflect the sun reducing heat gain.

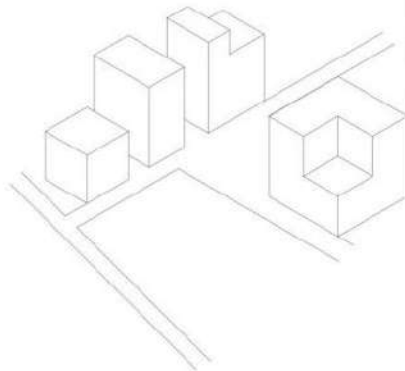
EXPOSED CEILING BEAMS



TOP OF PARAPET WALL



VOLUMES & GEOMETRY



I. FORM/VOLUME

- a. The **overall form** of the building should fit into the **fragmented geometry** and scale of Lamu heritage site with its preexisting offsets and setbacks.
- b. **Floor heights minimum 3000mm** for adequate interior air circulation for temperature control.

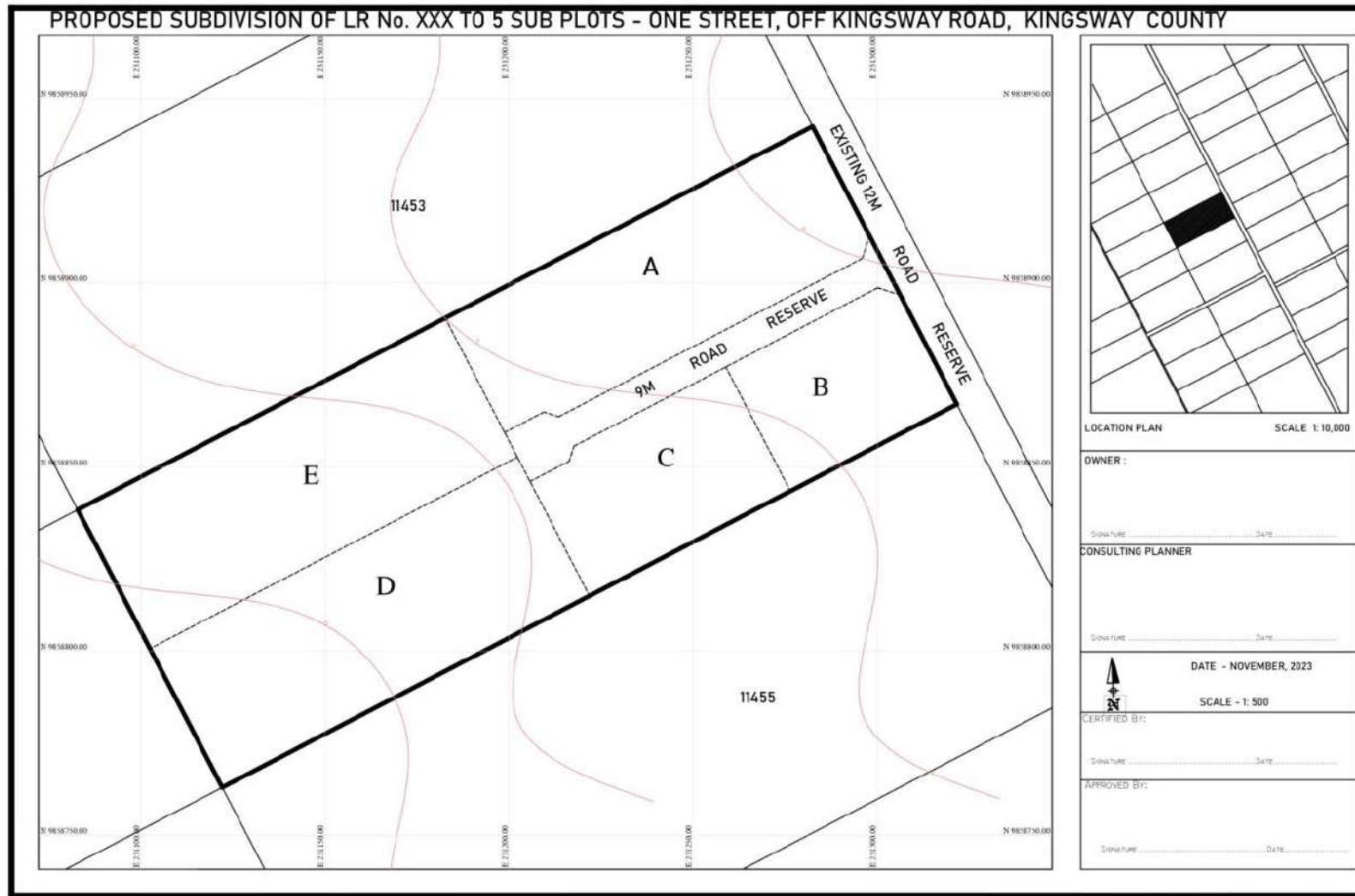
II. FLOOR SLAB

- a. **Reinforced concrete slab** supported by load bearing walls.
- b. **Polished floors**, a mixture of clay and cement. Epoxy flooring also as an alternative.
- c. Ceiling - **exposed beam** ceiling
- d. Ceiling cornices to have Swahili-Islamic patterns to local craft design.

III. PARAPET WALL

- a. Installed at all accessible flat roofs.
- b. Top finish in accordance to Swahili architecture.
- c. Heights - **minimum 900mm**.

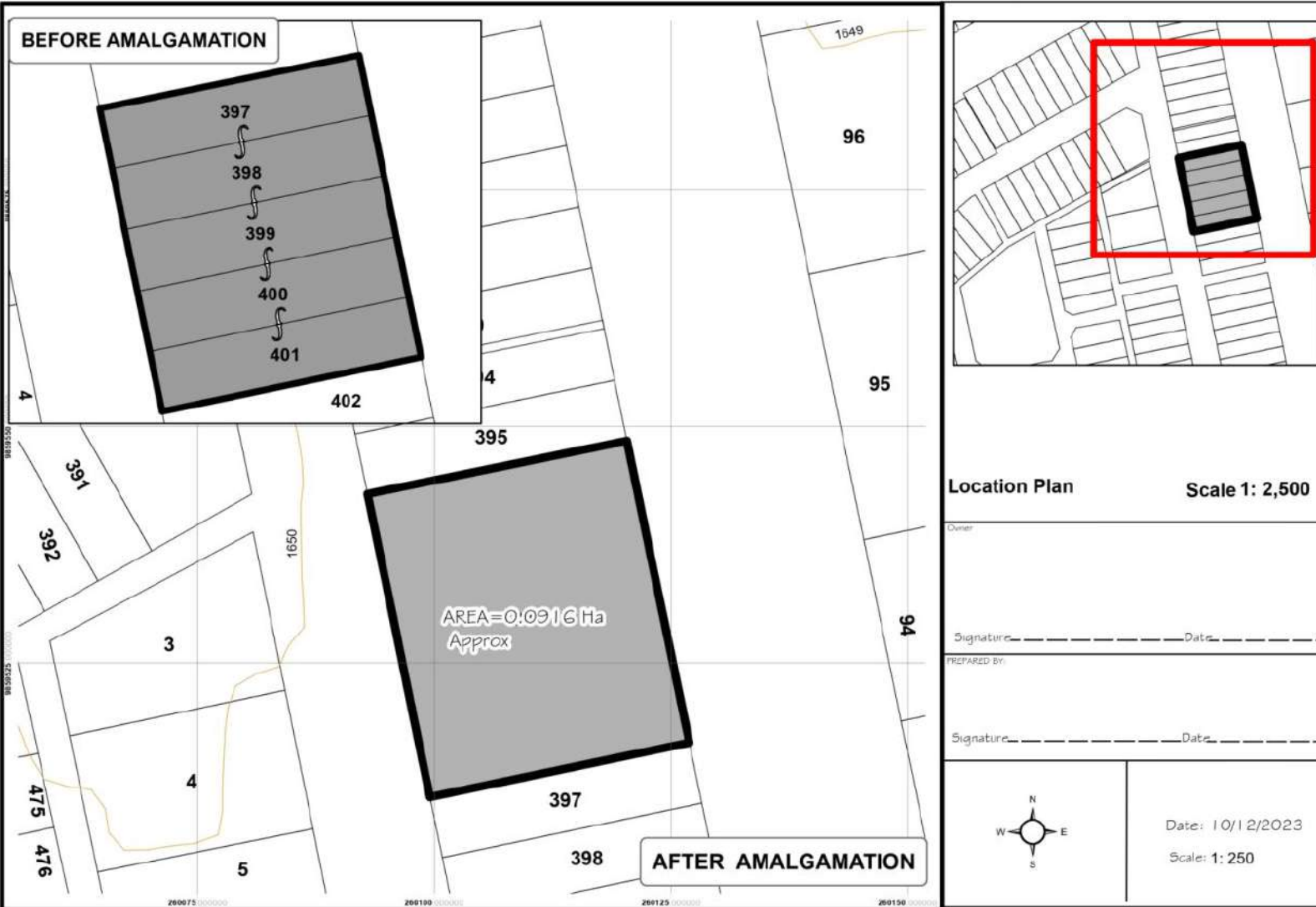
10.2 Annex 2: Bare Minimum Requirements for the Presentation of Land Subdivision and Amalgamation Scheme Plans



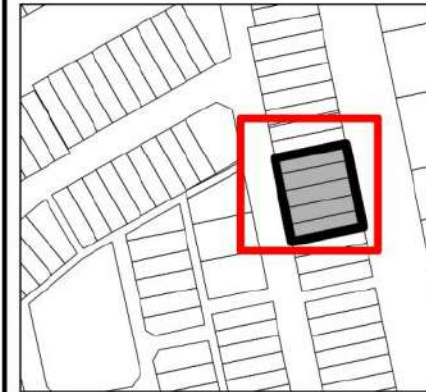
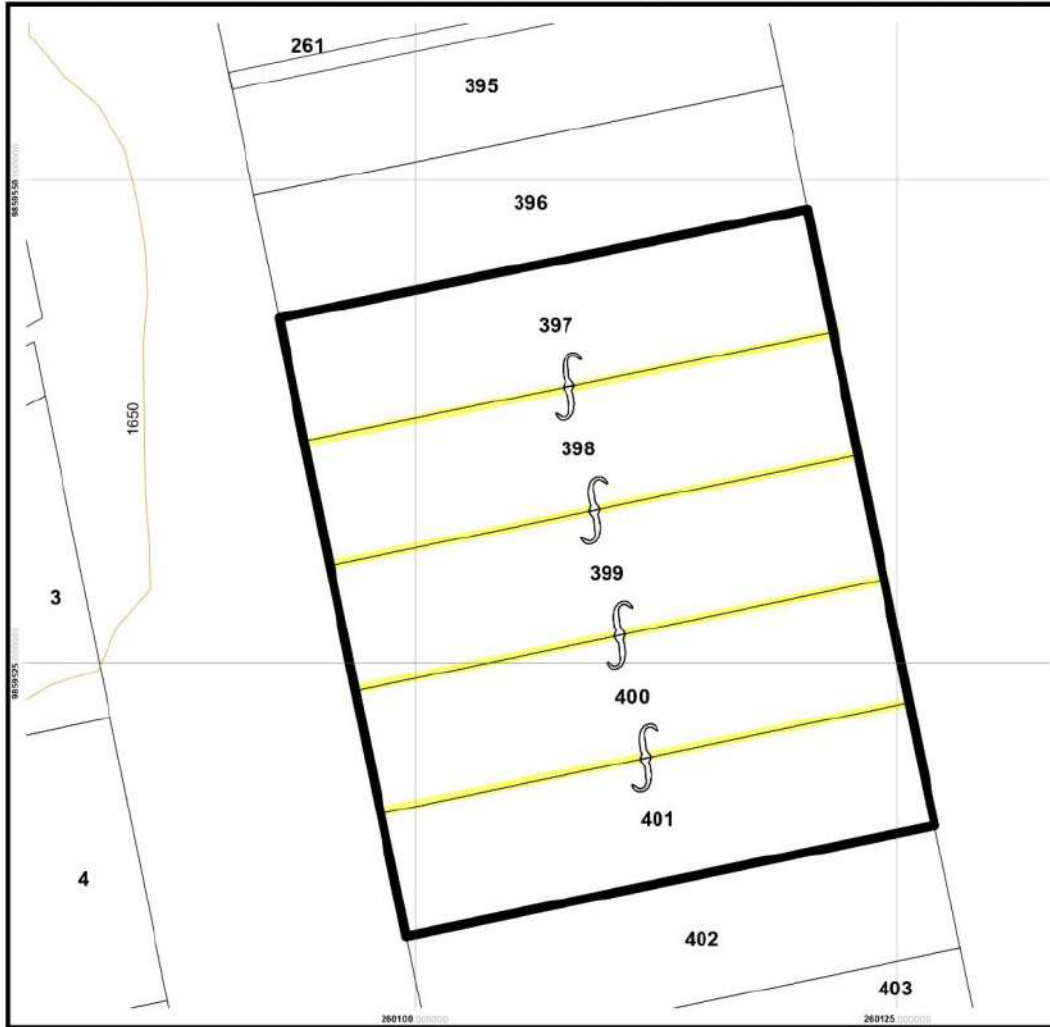
9857300					
9857250					
PROPOSED SUBDIVISION OF LR No. XXX TO 5 PLOTS - ONE STREET, OFF KINGSWAY ROAD, KINGSWAY COUNTY					
SCALE: 1: 1,250 DATE: APRIL, 2022	OWNER: SIGNDATE.....	PREPARED BY: SIGNDATE.....	APPROVAL: SIGNDATE.....		

LOCATION PLAN **SCALE: 1: 2,500**

PROPOSED AMALGAMATION PLAN OF LR No. XXXX- GURAINA STREET ROAD OFF KHOJA ROAD, TABIBU COUNTY



PROPOSED AMALGAMATION PLAN OF LR No. XXXX- GURAINA STREET ROAD OFF KHOJA ROAD, TABIBU COUNTY



Location Plan

Scale 1: 2,500

Owner:

Signature: _____ Date: _____

PREPARED BY:

Signature: _____ Date: _____



Date: 10/12/2023

Scale: 1: 250