Republic of Rwanda
Ministry of Education

NATIONAL EXAMINATION AND SCHOOL INSPECTION AUTHORITY

SCHOOL INFRASTRUCTURE NORMS AND STANDARDS

January, 2025

Foreword

Rwanda has made remarkable progress in transforming its education system and now leads a crucial evolution in school infrastructure. These school infrastructure norms and standards aim to align with Rwanda Vision 2050 and key Sustainable Development Goals (SDGs 2015-2030), including Quality Education (SDG 4), Sustainable Cities and Communities (SDG 11), and Climate Action (SDG 13). These school infrastructure norms and standards reflect our commitment to creating school environment that is child-friendly, effective and environmentally sustainable.

Historically, school infrastructure has depended on conventional construction techniques, frequently neglecting environmental and climate factors. This document presents guidelines and standards for creating green and climate-resilient school buildings, aimed at promoting healthy, clean, and safe educational settings. It marks an important advancement in incorporating environmental sustainability and climate resilience into our school facilities, ensuring they contribute to both high-quality education.

I would like to express my sincere gratitude to everyone who contributed to this work, including the Ministry of Education (MINEDUC), the Ministry in Charge of Emergency Management (MINEMA), Rwanda TVET Board(RTB), Rwanda Basic Education Board (REB), Rwanda Polytechnics (RP), Rwanda Environment Management Authority (REMA), Rwanda Housing Authority(RHA), National Land Authority (NLA), Education sector working group and other education stakeholders. Your commitment has been essential in developing these school infrastructure norms and standards.

 Sincerely,

Director General

National Examination and School Inspection Authority (NESA)

Table of Contents

LIST ACRONYMS/ABBREVIATIONS

CSR	Corporate Social Responsibility
CCTV	Closed-Circuit Television
DRA	Disaster Risk Assessments
EAC	East Africa Community
EMS	Environmental Management Systems
ESIA	Environmental and Social Impact Assessments
ESSP	Education Sector Strategic Plan
GGCRS	Rwanda Green Growth and Climate Resilience Strategy
IgCC	International Green Construction Code
ICT	Information and Communication Technology
IT	Information Technology
LED	Light Emitting Diode
MINALOC	Ministry of Local Government
MINECOFIN	Ministry of Finance and Economic Planning
MINEDUC	Ministry of Education
MINEMA	Ministry of Emergency Management
MININFRA	Ministry of Infrastructure
MoE	Ministry of Environment
m^2	Meter Square
NESA	National Examination and School Inspection Authority
NLA	National Land Authority
NLUDMP	National Land Use and Development Master Plan
NST2	National Strategy for Transformation
PWD	Person With Disability
REB	Rwanda Basic Education Board

RHA	Rwanda Housing Authority
REMA	Rwanda Environment Management Authority
RTB	Rwanda TVET Board
RP	Rwanda Polytechnics
SDGs	Sustainable Development Goals
TVET	Technical and Vocational Education and Training
TRC	Teacher Resource Center
TTC	Teacher Training Center
UN	United Nations

LIST OF TABLES

DEFINITION OF KEY TERMS

Child-Friendly:
Design and environments that ensure safety, accessibility, and age-appropriate facilities for children, creating spaces where they can learn, play, and grow comfortably.

Climate-Resilient Infrastructure:
Infrastructure designed to withstand and adapt to climate change and extreme weather conditions, incorporating durable materials and effective stormwater management.

Climate-Resilient School
A school that is able to withstand and adapt to climate change impacts.

Eco-Friendly Materials:
Using materials that have a minimal negative impact on the environment.

Energy Efficiency:
Refers to the use of technologies and practices that minimize energy consumption while maintaining performance. This includes LED lighting, energy-efficient ICT facilities, and effective ventilation systems.

Green Infrastructure:
Environmentally sustainable design practices that focus on enhancing sustainability, resource efficiency, and reducing environmental impact.

Green School:
A school that promotes environmental sustainability and reduces its ecological footprint.

Inclusive Design:
Designing spaces and facilities to be accessible and usable by all individuals, including those with disabilities, ensuring equal participation and integration.

Inclusive School:
A school that is accessible and supportive of all students, regardless of their abilities or backgrounds.

Norms and Standards:
Established guidelines and criteria that define best practices and benchmarks for construction and design, ensuring safety, accessibility, and quality in school infrastructure.

Special Needs Resource Room: A space for providing specialized support to students with disabilities.

Sustainable Practices: Involves implementing environmentally friendly strategies such as natural ventilation, waste management for recycling and e-waste, and the use of eco-friendly materials to minimize environmental impact and support climate resilience.

Teacher Resource Center (TRC): A space for teachers to access resources and professional development.

CHAPTER 1: INTRODUCTION

1.1. Rationale

The need for standardized school infrastructure has become increasingly evident as we strive to create a Healthy, clean, safe, and inclusive educational environment that supports effective learning and incorporates sustainable design. Historically, school infrastructure has focused on functionality and capacity, often missing considerations for environmental aspects, climate resilience, and disaster risk prevention and reduction. As a result, many schools have inadequate green, climate-resilient, and inclusive infrastructures. To address this issue, it is imperative to integrate sustainable design, planning, and construction practices, including eco-friendly materials, energy-efficient systems, and climate-resilient infrastructure. These updated school infrastructure norms and standards will enhance the achievement of green, climate-resilient, disaster risk prevention and reduction as well as inclusive school infrastructures.

1.2. Objectives

- To provide norms and standards for school infrastructure that are comprehensive, realistic, and regarding the national and international best practices.
- To provide practical guidance and support for stakeholders in applying these norms and standards.

1.3. Scope

The norms and standards for school infrastructures are designed for pre-primary, primary, general secondary, Technical secondary schools, and professional education, covering private, government-subsidized, and public schools.

The norms and standards are intended for public and private organizations involved in the design, construction, maintenance, and rehabilitation of school infrastructures.

1.4. Institutional, Legal, and Policy Framework

1.4.1. Institutional Framework

The institutional framework for school infrastructure norms and standards outlines the roles, responsibilities, and collaboration mechanisms among key institutions involved in designing, constructing, and maintaining educational facilities. The framework covers coordination between institutions, resource management, and adherence to norms and standards. It also includes monitoring, evaluation, and capacity-building provisions to ensure efficiency, accountability, and the successful implementation of school infrastructure projects.

The table below highlights the institutions involved in the implementation of school infrastructure norms and standards, linking their mandates to the execution of these standards:

Table 1: Institutions, their mandate, and linkage with norms and standards

S/N	institutional	Mandate	Linkage with Norms and Standards
1	MINEDUC	Transform Rwandan citizens into skilled human capital for socioeconomic development through quality education	Drives the alignment of school infrastructure with norms and standards, providing strategic guidelines and ensuring compliance through quality assurance.
2	MINEMA	Lead disaster management and refugee affairs, providing timely responses and resources for emergencies.	Promotes disaster risk assessment and management in schools, ensuring that school infrastructure is resilient to hazards
3	MININFRA	Develop and oversee national infrastructure policies, ensuring quality, cost-effectiveness, and sustainability.	Oversees school construction to ensure adherence to environmental, safety, and quality standards, aligning with national infrastructure policies.

4	MINECOFIN	Mobilize and manage internal and external financial resources for national development	Ensures adherence to financial norms for school projects, managing budgets and resources for quality and compliance with school infrastructure standards.
5	Ministry of Environment (MoE)	Coordinate environment and natural resource management to support sustainable development	Ensures green and climate-resilient practices are integrated into school infrastructure, supporting environmental protection.
6	MINALOC	Promote good governance and territorial administration for socio-economic development.	Coordinates local implementation of policies and strategies, monitoring adherence to school infrastructure standards.
7	NESA	To ensure quality of education in basic education and Technical Secondary School (TSS) from level one (1) to five (5), and to regulate the comprehensive assessments of students and national examinations.	Monitors the compliance and enforcement of the implementation of norms and standards in education infrastructure to enhance learning environments.
8	REB	To coordinate and fast-track basic education programs and activities aimed at providing quality education to all categories of Rwandans the quality education and advise the Government on all activities that may fast-track basic education development in Rwanda.	Track the availability of school infrastructure that meets the established standards to provide effective and inclusive learning environments.
9	RTB	Coordinate the development of technical and vocational education and training (TVET) in Rwanda	Track the availability of school infrastructure that meets the established norms and standards, supporting the development of technical education.

10	REMA	Protect and manage the environment, providing advice on environmental and climate change issues.	Ensures that school construction adheres to environmental standards, incorporating sustainability and climate resilience
11	National Land Authority (NLA)	to implement land laws and policies, provide technical assistance to local government and other land-related institutions, conduct land research and analysis, and ensure the efficient and effective management of land resources in Rwanda.	Ensures school sites are aligned with land use plans, land law, policies, and regulations, optimizing land use for sustainable development.
12	Rwanda Housing Authority (RHA)	to improve the quality of life of Rwandans through planning, organizing, and spearheading rural settlement, urban settlement, public building construction, affordable housing, management of public office space and Government Assets, and regulation of the construction industry	Ensures school buildings are constructed in line with national standards for safety, functionality, and accessibility.
13	Districts	Promote socio-economic development through democratic governance and community participation.	Supervise local implementation of school infrastructure projects, ensuring adherence to quality and safety standards. Supervise local implementation of school infrastructure projects, ensuring adherence to quality and safety standards. Supervise local implementation of school infrastructure projects, ensuring adherence to quality and safety standards.Implement the school infrastructure projects, and ensure adherence to the norms and standards by the private sector.

14	Private Sector	Drive economic growth by investing in infrastructure, innovation, and job creation. Top of Form Bottom of Form	Provides investment/ financial support, expertise, and green technologies for sustainable school infrastructure development through public-private partnerships.
15	Civil Society	Engage citizens in civic participation and socio-economic development activities.	Advocates for green school infrastructure and mobilizes communities to support sustainable educational projects.

1.4.2. Legal and Policy Framework

In Rwanda, the development of school infrastructure is guided by a legal and policy framework that integrates national laws and international standards. The following legal and policy framework highlights key principles for ensuring green, climate-resilient, and inclusive school infrastructures

The Constitution of the Republic of Rwanda: This overarching framework has provisions that address education, environmental protection, and climate change.

Article 20 of the Constitution guarantees the right to education for all citizens, making primary education compulsory and free in public schools. It further emphasizes the State's duty to facilitate the education of children with disabilities. This provision underscores the government's commitment to equitable access to education, which directly influences school infrastructure standards. To fulfill this constitutional mandate, school buildings must be designed to be accessible, inclusive, and conducive to learning for all children, including those with disabilities. Adequate facilities that promote quality education for all learners align with the goals of national development and human capital growth.

Article 22 establishes the right to a clean and healthy environment, while **Article 53** requires the State to protect the environment and promote sustainable development. These articles highlight the importance of environmental protection and sustainable resource management, which are critical in the context of school infrastructure. School buildings must be constructed with environmental sustainability in mind, incorporating green technologies and climate-resilient designs to reduce their ecological footprint and mitigate climate change impacts. Ensuring that school infrastructure adheres to environmental standards helps protect natural resources, fosters a healthier learning environment, and contributes to Rwanda's broader goals of sustainable development.

Rwanda Vision 2050: It aims to transform Rwanda into a high-income, knowledge-based economy by 2050. Its key pillars include improving quality of life, developing modern

infrastructure, promoting industrialization and innovation, and fostering environmental sustainability. The vision emphasizes inclusive growth, urbanization, and climate resilience. In line with Vision 2050, school infrastructure norms and standards must support high-quality education, modern facilities, and sustainability to contribute to Rwanda's long-term socio-economic transformation and human capital development.

National Strategy for Transformation (NST2): Under the **National Strategy for Transformation (NST2)**, improving education quality is one of the five key priorities, closely linked to school infrastructure norms and standards. The economic transformation pillar of NST2, which emphasizes building resilience to climate change and the sustainable management of the environment and natural resources, aligns with the need for school facilities to be environmentally sustainable and climate-resilient. School infrastructure norms must incorporate eco-friendly designs, energy efficiency, and sustainable resource management practices, ensuring that schools contribute to both quality education and environmental sustainability. By integrating these principles, Rwanda can enhance the quality of its education system while promoting resilience to climate change in line with NST2 goals.

National Environment and Climate Change Policy (2019): The policy offers strategic direction for addressing environmental and climate change issues in Rwanda, considering their connection to socio-economic development. It promotes and incentivizes the use of low-carbon materials in construction and enforces Rwanda's building code to include green construction practices. These measures aim to enhance resource efficiency, sustainability, and affordability in building projects including school infrastructures projects.

National Disaster Risk Reduction Management Policy (2023): It provides a framework for effective disaster management that focuses on prevention and preparedness for effective response, recovery and longer-term resilience to future disasters. In alignment with school infrastructure norms and standards, this policy highlights the importance of integrating disaster risk reduction into school design, construction, and maintenance. Schools must be built with safety measures that account for potential hazards, such as floods, earthquakes, and fires, ensuring they are resilient to disasters. This includes incorporating emergency evacuation plans, structural reinforcements, and climate-resilient features. By adhering to these standards, school infrastructure can ensure the safety of students and staff, while enhancing the community's ability to recover and withstand future disasters.

Education Sector Policy (2003): The policy strategy focuses on improving infrastructure by promoting initiatives from civil society and faith-based organizations for the construction and management of schools and equipment that necessitate to comply with school infrastructure norms and standards, while ensuring adherence to established standards. This approach aims to enhance access to educational facilities. Additionally, the policy seeks to educate children about the importance of environmental awareness and protection.

Revised Rwanda Green Growth and Climate Resilience Strategy (2022): The strategy defines a development pathway for Rwanda to become a climate-resilient, low-carbon economy by 2050.

Capability, Inclusion and Training is highlighted amongst the GGCRS's enabling pillars. The target is to expand school curricula, tertiary education, technical and vocational training and farmer field schools to build the skills base for climate resilience and low carbon development. In alignment with school infrastructure norms and standards, this strategy calls for the integration of green technologies and climate-responsive designs in school buildings.

Education Sector Strategic Plan (ESSP) 2018-2024: Focuses on enhancing educational infrastructure with an emphasis on safety and sustainability.

International standards also inform these regulations:

Ministerial Order Nº. 001/MINEDUC/2021 of 20/10/2021: This order establishes the standards for education in Rwanda. It outlines specific criteria for educational infrastructure, ensuring that schools meet required benchmarks for safety, quality, and environmental sustainability. The order aims to guide the development and maintenance of educational facilities, ensuring they provide a conducive learning environment and align with national educational goals.

Law N°48/2018 of 13/08/2018 on Environment: This law determines modalities for protecting, conserving and promoting the environment. The law sets out the general legal framework for environmental protection and management in Rwanda. It also constitutes environment as one of the priority concerns of the Government of Rwanda. In relation to school infrastructure norms and standards, this law mandates that educational facilities be designed and constructed with environmental sustainability in mind.

Presidential order N° 058/01 of 23/04/2021 establishing the national land use and development master plan: This Order establishes the National Land Use and Development Master Plan. The National Land Use and Development Master Plan (NLUDMP) is one of the most prioritized plans stemming from Vision 2050. It is a national spatial plan (location/space-based) that is structured around the following thematic areas such as Public Services such as Health, Education, Public Administration, Religious, Recreational facilities, etc. In relation to school infrastructure norms and standards, this plan ensures that educational facilities are strategically located and developed in line with national land use priorities.

EAC Vision 2050-Regional Vision for Socio-Economic Transformation and Development (2016) aims to transform the region's economy by harnessing natural resources for value addition and sustainable management, with a critical focus on urgent climate change adaptation and mitigation. This strategy seeks to drive economic growth while ensuring environmental resilience and long-term prosperity for all Partner States. In alignment with

school infrastructure norms and standards, this vision emphasizes the need for climate-resilient and environmentally sustainable school buildings. Educational facilities must be designed to withstand climate impacts and promote resource efficiency, reflecting the region's commitment to long-term prosperity and environmental protection.

The EAC Climate Change Master Plan (2011–2031) ensures that "The People, the Economies and the Ecosystems of the EAC Partner States are climate resilient and adapt accordingly to Climate Change". In the context of school infrastructure norms and standards, this master plan underscores the importance of designing and constructing educational facilities that can withstand climate impacts and support adaptation efforts.

Guidance Note on Using Climate and Disaster Risk Management to Help Build Resilient Societies-Integrating Disaster Risk Reduction and Climate Change Adaptation in the UN Sustainable Development Cooperation Framework (2020). It outlines the impacts of climate and disaster risks on progress towards achieving the SDGs and suggests appropriate actions for each phase in the UN Sustainable Development Cooperation Framework lifecycle to make them risk-informed. In relation to school infrastructure norms and standards, this guidance emphasizes the need to incorporate climate and disaster risk management into the planning, design, and construction of educational facilities.

The 2021 International Green Construction Code® (IgCC®) provides the design and construction industry with the single most effective way to deliver sustainable, resilient, high-performance buildings. It envisions building design and construction that includes environmental health and safety as code minimums. For school infrastructure norms and standards, the IgCC® guides the creation of educational facilities that prioritize sustainability, resilience, and performance.

ISO 14001: It is the internationally recognized standard for environmental management systems (EMS), offering a framework to design, implement, and continually enhance environmental practices. It helps organizations minimize their environmental impact, comply with legal requirements, and achieve environmental goals. The standard covers aspects such as resource usage, waste management, and performance monitoring.

This integrated legal and policy framework ensures that school infrastructure development in Rwanda is aligned with national priorities and international best practices, promoting safe, sustainable, and effective educational facilities.

CHAPTER 2: REQUIREMENTS FOR GREEN, CLIMATE-RESILIENT AND INCLUSIVE SCHOOL INFRASTRUCTURES.

2.1 Concept

A green, climate-resilient, and inclusive school infrastructure is designed to be child-friendly, healthy, environmentally sustainable, and accessible to all students both males and females. It creates a safe and welcoming environment that promotes student well-being while fostering climate adaptation and environmental stewardship. Such a school integrates energy-efficient systems, renewable energy sources, and water conservation practices like rainwater harvesting and greywater recycling. It integrates also eco-friendly building materials and green infrastructures, such as permeable surfaces and green roofs, are used to manage storm water and mitigate climate impacts.

The infrastructure is fully accessible, ensuring that all students, including those with disabilities, can easily navigate and benefit from the entire school environment. By combining sustainability and inclusivity, the school fosters a climate-resilient, secure, and equitable atmosphere where every student can participate fully and feel valued.

2.2. Essential criteria for a green, climate-resilient, and inclusive school.

At a minimum, a green, climate-resilient and inclusive school must integrate the following components:

1. Constructed according to the approved district land use master-plan;

2. Appropriate, sufficient and secure infrastructures that are free from hazards (physical, emotional, or environmental), and accessible to all students.

3. Appropriate and inclusive facilities for all school infrastructures.

4. Accessible, operational and inclusive hygienic and sanitation facilities.

5. Efficient use of energy, water and other natural resources.

6. Promoting the use of clean, renewable energy.

7. Built using environmentally friendly and climate resilient materials to withstand extreme weather events.

8. A healthy, clean, secure, learner-protecting and barrier free environment that promotes inclusive access and equal rights for all.

9. Safety, security facilities and disaster risk prevention measures: CCTV camera, fire protection, lightning arrestor, rain-water harvesting, stormwater management, an evacuation plan, disaster preparedness drills, and warning systems to protect students during emergencies;

10. Operational and effective waste management system (liquid and solid waste) and partnership with authorized waste collectors.

11. Greened compound (planting trees, grass pitches, flowers and gardening supporting the school feeding program).

12. School should have enough plot and closely to the community.

Table 2: the Maximum distance traveled by students for each level

S/N	Level of Education	Radius (less or equal)
1	Pre-Primary	0.5 Km
2	Primary	1Km
3	Primary and secondary combined (day school)	1.5-2 Km
4.	Secondary and TVET (Day school)	2 Km

Source: *Urban planning code 2019*

Table 3: Maximum area of the plot for the school

S/N	Level of Education	Maximum area
1	Pre-Primary	0.5ha
2	Primary	1ha
3	Secondary	1.5ha
4	Primary and Secondary combined (day)	2.8 ha

5	TVET	2ha

Source: Land use Plan-zoning regulations (2022)

2.3 Specific requirements of School infrastructures

2.3.1. Administration office

The school administrative office serves as the hub for managing the daily operations and functions of the school. It must be designed and constructed per the requirements for a green, climate-resilient and inclusive school.

The following are specific features required for a school administration office:

1. A welcoming space for visitors, with comfortable seating and clear signage.

2. Private offices for key administrators.

3. A staffroom providing a comfortable and well-equipped space allowing staff to relax, collaborate, and prepare for their school duties.

4. A boardroom equipped with appropriate seating and ICT facilities for effective meetings.

5. A dedicated archive area for securely storing and organizing important documents and records.

6. Storage space for office materials.

7. Inclusive, clean, gender-segregated and accessible washrooms

8. Electricity with efficient lighting (Eg. use of LED lighting) maximizing natural light during the day.

9. ICT facilities

10. Appropriate waste collection facility enabling reuse and recycling.

11. Adequate fire protection.

2.3.2. Classroom

A classroom must be designed and constructed in accordance with the minimum requirements for a green, climate resilient and inclusive school to provide a safe, supportive, engaging, and ensuring environmentally friendly and inclusive learning space.

To achieve this requirement, the classroom must have the following specific elements:

1. Equipped with adequate, inclusive furniture such as adaptive chairs, accessible tables, and storage units that accommodates diverse needs and supports comfortable and effective teaching and learning.

2. Include at least two child-friendly writing boards that are ergonomic, accessible, and designed to facilitate ease of use and effective interaction for all students.

3. Adaptive ICT facilities with energy efficiency.

4. Electricity with efficient lighting (Eg: LED lighting) and maximize natural light during the day.

5. Adequate airflows, promoting natural ventilation or energy-efficient ventilation systems to maintain healthy indoor air quality.

6. Effective sound insulation materials and acoustic design strategies to minimize noise interference, ensuring a quiet and conducive environment for learning and teaching.

7. Sufficient interior circulation space to ensure safe, easy movement and accessibility for students and teachers.

8. At least two doors (both entrance and exit) opening outward, spaced at a minimum of 5 meters apart with signposts, to facilitate safe and efficient evacuation in case of emergencies.

9. Appropriate solid waste collection facility;

10. Adequate fire protection (at least one fire extinguisher of 12kg for 3 classrooms).

2.3.3. Smart classroom

A smart classroom integrates Information Technology infrastructure that facilitates the digitalization of learning and teaching processes at all levels of education for all subjects.

The following are specific features that a smart classroom must have:

1. IT office and control room.

2. Adaptive ICT facilities (computers, projectors, internet connectivity, smart boards, among others) with energy efficiency.

3. Electricity with efficient lighting (use of LED lighting) maximizing natural light during the day.

4. Equipped with adequate, inclusive furniture such as adaptive chairs, accessible tables, and storage units that accommodates diverse needs and supports comfortable and effective teaching and learning.

5. Sufficient interior circulation space to ensure safe, easy movement and accessibility for students and teachers.

6. Adequate airflows, promoting natural ventilation or energy-efficient systems to maintain healthy indoor air quality,

7. Effective sound insulation materials and acoustic design strategies to minimize noise interference, ensuring a quiet and conducive environment for learning and teaching,

8. At least two doors opening outward, spaced at a minimum of 5 meters apart with signposts, to facilitate safe and efficient evacuation in case of emergencies,

9. Safety and Security systems and signage,

10. Adequate fire protection,

11. Appropriate solid waste collection facilitating the sorting of hazardous and E-waste.

2.3.4. Science Laboratories

A science laboratory is a specialized workspace designed for conducting scientific experiments, research, and education in various fields such as chemistry, biology and physics. It must be designed and constructed per the requirements for a green, climate resilient and inclusive school to provide students with the opportunity to engage in experiential learning, enabling them to observe, experiment, and discover scientific principles on a firsthand basis.

The following are specific requirements a science laboratory must have:

1. Safe and adequate storage room,

2. Adequate, inclusive furniture such as adaptive chairs, accessible tables, and storage units (cupboards) that accommodates diverse needs and supports comfortable and effective learning and teaching,

3. Access to water, gas, and electricity with proper controls and safety shut offs and lavatories for washing equipment and hands.

4. Inclusive workbenches and countertops resistant to chemicals, heat, and mechanical impact;

5. A child-friendly writing board that is ergonomic, accessible, and designed to facilitate ease of use and effective interaction for all students.

6. Adaptive ICT facilities (computers, projectors, internet connectivity, smart boards, among others) with energy efficiency.

7. Electricity with efficient lighting (Eg: use of LED lighting) maximizing natural light during the day.

8. Sufficient interior circulation space to ensure safe, easy movement and accessibility for students and teachers.

9. Adequate airflows, promoting natural ventilation or energy-efficient systems to maintain healthy indoor air quality,

10. Effective sound insulation materials and acoustic design strategies to minimize noise interference, ensuring a quiet and conducive environment for learning and teaching.

11. At least two doors open outward, spaced at a minimum of 5 meters apart with signposts, to facilitate safe and efficient evacuation in case of emergencies.

12. Appropriate solid waste collection facilitating the sorting of hazardous including chemical, biological, and general laboratory waste.

13. Appropriate Collection and disposal of expired chemical hazardous wastes.

14. Safety and security (equipped with fire extinguishers, fire detection system and CCTV cameras).

2.3.5. Language Laboratory

A language laboratory is a specialized educational facility designed to enhance language learning through the use of technology and audio-visual aids. It provides a structured environment where students can practice listening, speaking, reading, and writing skills in a target language. The Essential Features of Language Laboratories:

1. Safe and adequate storage room;

2. Adequate and inclusive furniture such as adaptive chairs, accessible tables, adjustable desks, screen readers, or captioning for video content) that accommodate diverse needs and support comfortable, effective learning and reading for all students;

3. Adequate and inclusive student working area;

4. Effective sound insulation materials and acoustic design strategies to minimize noise interference, ensuring a quiet and conducive environment for learning and teaching;

5. Whiteboards or Smart Boards (for interactive teaching, displaying lesson content, and engaging students in language exercises).

6. Adaptive ICT facilities with energy efficiency.

7. Electricity with efficient lighting (use of LED lighting) maximizing natural light during the day.

8. Sufficient interior circulation space to ensure safe, easy movement and accessibility for occupants.

9. Adequate airflows, promoting natural ventilation or energy-efficient systems to maintain healthy indoor air quality.

10. At least two doors open outward, spaced at a minimum of 5 meters apart with signposts, to facilitate safe and efficient evacuation in case of emergencies.

11. Safety and security (equipped with fire extinguishers, fire detection system and CCTV cameras).

12. Appropriate waste collection facility allowing reuse and recycling

2.3.6. Special need resource room

A Special needs resource room is for those students who belong to a regular class but need some special instructions in an individualized or small group setting for a portion of the day to receive special education services. These services may include academic, emotional, welfare, health and other support as needed.

The following are specific requirements for the special need resources room:

1. Inclusive therapy and counseling facilities.

2. Assistive technology.

3. Adequate and inclusive furniture such as adaptive chairs, accessible tables, and storage units that accommodates diverse needs and supports comfortable, effective learning for students with special needs.

4. Electricity with efficient lighting (Eg: use of LED lighting) maximizing natural light during the day.

5. Sufficient interior circulation space to ensure safe, easy movement and accessibility for students and teachers.

6. Adequate airflows, promoting natural ventilation or energy-efficient systems to maintain healthy indoor air quality.

7. Effective sound insulation materials and acoustic design strategies to minimize noise interference, ensuring a quiet and conducive environment for learning and teaching.

8. Safety and Security systems and signage.

9. Appropriate solid waste collection facilitating the sorting of hazardous and E-waste.

2.3.7. Library

A library is a dedicated space where students, teachers, and staff can access a variety of resources to support their learning and educational activities. A library must be designed and constructed in accordance with the requirements for a green, climate resilient and inclusive school to provide a dynamic, accessible, resource-rich space that supports diverse learning and reading needs. The following are facilities and features required for a library:

1. Adequate and inclusive reading space;

2. Librarian working area;

3. Books' shelves reserved space;

4. Adequate and inclusive furniture such as adaptive chairs, accessible tables that accommodate diverse needs and support comfortable, effective learning and reading for all students;

5. Adaptive ICT facilities with energy efficiency;

6. Electricity with efficient lighting (use of LED lighting) maximizing natural light during the day;

7. Sufficient interior circulation space to ensure safe, easy movement and accessibility for occupants;

8. Adequate airflows, promoting natural ventilation or energy-efficient systems to maintain healthy indoor air quality,

9. At least two doors open outward, spaced at a minimum of 5 meters apart with signposts, to facilitate safe and efficient evacuation in case of emergencies.

10. Safety and security (equipped with fire extinguishers, fire detection system and CCTV cameras);

11. Appropriate waste collection facility allowing reuse and recycling.

2.3.8. Technical Secondary School Workshop

Technical and Vocational Education and Training workshop provides hands-on, practical training that prepares students for specific careers in various technical and vocational fields. It must be designed and constructed per the requirements for a green, climate-resilient and inclusive school.

The following are specific requirements for a TVET workshop:

1. Electricity with efficient lighting (Eg: use of LED lighting) maximizing natural light during the day;

2. Adequate airflows, promoting natural ventilation or energy-efficient systems to maintain healthy indoor air quality.

3. Changing room (gender sensitive).

4. Storage room.

5. Office of trainer;

6. Space for instructions;

7. Space for practical sessions;

8. Adequate, inclusive furniture and equipment;

9. Inclusive writing board;

10. Sufficient interior circulation space to ensure safe, easy movement and accessibility for occupants;

11. Appropriate solid waste collection facilitating the sorting;

12. Safety and security (equipped with fire extinguishers, fire detection system).

2.3.9. Teacher Resources Center (TRC)

A Teacher Resource Center (TRC) is a dedicated facility designed for TTC's teachers by TRCs serving as hubs for teachers to enhance their teaching skills, access instructional materials, and engage in continuous professional growth. TRC must be designed and constructed per the requirements for a green, climate-resilient and inclusive school.

TRC's specific requirements as set as follows:

1. Accessibility Features (Inclusive Resources and Accessible Facilities)

2. Adequate, inclusive furniture such as adjustable chairs, accessible tables, and storage units (cupboards) that accommodates diverse needs and supports comfortable, effective learning for all students

3. Writing board

4. Resource Library

5. Adaptive ICT facilities (computers, projectors, internet connectivity, smart boards, among others) with energy efficiency;

6. Electricity with efficient lighting (Eg. use of LED lighting) maximizing natural light during the day (openings strategically placed and occupying not less than 25% of total floor area)

7. Sufficient interior circulation space to ensure safe, easy movement and accessibility for students and teachers;

8. Adequate airflows, promoting natural ventilation or energy-efficient systems to maintain healthy indoor air quality,

9. Effective sound insulation materials and acoustic design strategies to minimize noise interference, ensuring a quiet and conducive environment for learning and teaching;

10. At least two doors open outward with signposts, spaced at a minimum of 5 meters apart, to facilitate safe and efficient evacuation in case of emergencies

11. Appropriate solid waste collection facilitating the sorting;

12. Safety and security (equipped with fire extinguishers, fire detection system

2.3.10. Kitchen

A kitchen for a school must be designed to efficiently support meal preparation, ensure safety and hygiene, sustainable use of resources, minimize pollution and accommodate the needs of the school. It must be designed and constructed per the requirements for a green, climate-resilient and inclusive school facility. The following are required specific components:

1. A clean food preparation area;

2. Refrigeration and storage room with energy efficiency;

3. Storage room with sufficient ventilation;

4. Cooking area with eco-friendly cooking system (promote energy-efficient cooking methods, clean energy, and resource efficiency);

5. Storage area for cooking fuel;

6. Gender-sensitive changing rooms;

7. Washing area with clean water;

8. Clean water storage facilities;

9. Adequate handwashing facilities;

10. Potable drinking water facilities;

11. Adequate airflows, promoting natural ventilation or energy-efficient systems to maintain healthy indoor air quality;

12. Electricity with efficient lighting (Eg. use of LED lighting) maximizing natural light during the day (openings strategically placed and occupying not less than 25% of total floor area);

13. Appropriate solid waste collection enabling sorting,

14. Appropriate liquid waste collection and treatment,

15. Adequate fire protection;

16. Drying area

17. Safety and security systems and signs.

2.3.11. Dining hall

A dining hall must be designed and constructed per the requirements for a green, climate-resilient and inclusive school facility to ensure a healthy environment for students.

Below are specific requirements for the school's dining hall:

1. Clean dining space with adequate furniture providing ergonomic chairs and tables at appropriate heights for students of all ages and efficient flow to ensure easy movement and minimize congestion, with clear pathways;

2. Appropriate handwashing (inclusive of sensor using energy and water efficiency);

3. Drinking water facilities

4. Adequate airflows, promoting natural ventilation or energy-efficient systems to maintain healthy indoor air quality;

5. Appropriate solid waste collection enabling sorting

6. Electricity with efficient lighting (Eg. use of LED lighting) maximizing natural light during the day (openings strategically placed and occupying not less than 25% of total floor area);

7. Adequate fire protection

8. Safety and security systems and signs

9. Appropriate solid waste collection enabling sorting

2.3.12. Multipurpose Hall

A multipurpose hall must be designed and constructed in accordance with the requirements for a green, climate-resilient and inclusive school mentioned above (section 2.2) to ensure a healthy environment for students.
Below are specific requirements for the school's multipurpose hall:

1. Adequate airflows, promoting natural ventilation or energy-efficient systems to maintain healthy indoor air quality;

2. Adequate furniture providing ergonomic chairs and tables at appropriate heights for students of all ages and efficient flow to ensure easy movement and minimize congestion, with clear pathways;

3. Appropriate stage area

4. Changing room

5. Electricity with efficient lighting (Eg. use of LED lighting) maximizing natural light during the day (openings strategically placed and occupying not less than 25% of total floor area);

6. Inclusive, clean, and accessible washroom, gender-segregated and provided at a ratio of 1 per 15 persons;

7. Storage space for electronic materials;

8. Inclusive, clean, and accessible washroom, gender-segregated

9. Appropriate waste collection facility enabling reuse and recycling.

10. Adequate fire protection

11. Safety and security systems and signs

2.3.13. Sport and recreation infrastructure

Sport and recreation infrastructure refers to the facilities and equipment within a school that support sports, physical education, and recreational activities. They must be designed and constructed per the requirements for a green, climate-resilient, and inclusive school mentioned above (section 2.2) to ensure a healthy environment for students.

The following specific requirements for Sport and recreation infrastructure:

1. Inclusive playgrounds built on safe surfaces taking into consideration disaster risk prevention and reduction;

2. Inclusive kids exercise

3. Electricity with efficient lighting (Eg. use of LED lighting) maximizing natural light during the day

2.3.14. Sleeping room

A sleeping room is designed to provide a safe, comfortable, and restful environment where young children of pre-primary can take naps or sleep during the day. It must be designed and constructed per the requirements for a green, climate-resilient, and inclusive school mentioned above (section 2.2) to ensure a healthy environment for the young students. The specific requirements for a Sleeping Room are the following:

1. Inclusive Furniture (Safe and Comfortable Bedding)

2. Adequate airflows, promoting natural ventilation or energy-efficient systems to maintain healthy indoor air quality;

3. Electricity with efficient lighting (Eg. use of LED lighting) maximizing natural light during the day (openings strategically placed and occupying not less than 25% of total floor area);

4. Appropriate solid waste collection enabling sorting

5. Safety and security (equipped with fire extinguishers, fire detection system and CCTV cameras)

6. Inclusive, clean and accessible washroom, gender-segregated

2.3.15. Dormitories (see Sleeping room mentioned above)

Dormitories provide a safe, comfortable, and restful environment for students. They must be designed and constructed per the requirements for a green, climate-resilient, and inclusive school facility to ensure a healthy environment for the students. The specific requirements for dormitories are the following:

1. Inclusive Furniture (Safe and Comfortable Bedding)

2. Room for Patron/ Matron

3. Storage room

4. Inclusive, clean, and accessible washroom, gender-segregated

5. Clothes cleaning and drying area

6. Adequate airflows, promoting natural ventilation or energy-efficient systems to maintain healthy indoor air quality;

7. Electricity with efficient lighting (Eg. use of LED lighting) maximizing natural light during the day (openings strategically placed and occupying not less than 25% of total floor area);

8. Appropriate solid waste collection enabling sorting

9. Safety and security (equipped with fire extinguishers, fire detection system and CCTV cameras)

10. Fence

2.3.16. Sickbay

A sick bay in a school is a dedicated area designed to provide immediate medical care and support to students and staff who are feeling unwell or have been injured.

1. Inclusive Furniture (Safe and Comfortable Bedding)

2. Medical First aid kit

3. Communication facilities

4. Adequate airflows, promoting natural ventilation or energy-efficient systems to maintain healthy indoor air quality;

5. Electricity with efficient lighting (` Eg. use of LED lighting) maximizing natural light during the day (openings strategically placed and occupying not less than 25% of total floor area);

6. Appropriate solid waste collection enabling sorting of hazardous wastes

7. Safety and security (equipped with fire extinguishers, fire detection system and CCTV cameras)

8. Inclusive, clean, and accessible washroom, gender-segregated

2.3.17. Girl's room

Girls room is a dedicated space within schools designed to support the health, hygiene, and well-being of females students.

1. Inclusive Furniture (Safe and Comfortable Bedding)

2. Medical First aid kit

3. Communication facilities

4. Adequate airflows, promoting natural ventilation or energy-efficient systems to maintain healthy indoor air quality;

5. Electricity with efficient lighting (Eg. use of LED lighting) maximizing natural light during the day (openings strategically placed and occupying not less than 25% of total floor area);

6. Appropriate solid waste collection enabling sorting of hazardous wastes

7. Safety and security (equipped with fire extinguishers, fire detection system and CCTV cameras)

8. Inclusive, clean, and accessible washroom, gender-segregated

2.3.18. Washrooms for the school

Washrooms are facilities designed for personal hygiene and sanitation. They must be designed and constructed per the requirements for a green, climate-resilient and inclusive school facility to ensure a healthy environment for the all students. The specific requirements for schools' washrooms are the following:

1. Inclusive, clean, and accessible toilets, gender-segregated

2. Urinals for boys accessible for all;

3. Appropriate handwashing (inclusive with the sensor using energy and water efficiency);

4. Appropriate liquid waste collection and treatment

5. Electricity with efficient lighting (Eg. Eg. use of LED lighting

6. Appropriate waste collection facility enabling sorting.

2.3.19. Residential House for Head Teacher

A residential house for a head teacher is a designated housing facility, often located on the school premises. This residence serves as a convenient living space for the head teacher, helping them stay close to the school, reduce commuting time, and be more readily available for school-related duties. It must be designed and constructed per the requirements for a green, climate-resilient and inclusive school facility . The specific requirements for a Residential House for a Head Teacher are the following:

1. Residential house complying with building minimum requirements for residential houses;

2. Furniture and Fittings (Basic furniture such as beds, tables, chairs, and wardrobes to provide a functional living space and Fittings like curtain rods, shelves, and basic kitchen cabinets)

3. Electricity with efficient lighting (Eg. use of LED lighting) maximizing natural light during the day;

4. Adequate airflows, promoting natural ventilation or energy-efficient systems to maintain healthy indoor air quality;

5. Inclusive, clean, and accessible washroom,

6. Appropriate waste collection facility enabling reuse and recycle

7. Refrigeration and storage room with energy efficiency;

8. Storage room with sufficient ventilation;

9. Cooking area with eco-friendly cooking system (promote energy-efficient cooking methods, clean energy, and resource efficiency);

10. Washing area with clean water;

11. Clean water storage facilities;

12. Adequate handwashing facilities;

13. Safety and security (equipped with fire extinguishers, fire detection system)

2.3.20. Outdoor Space

The outdoor space refers to the external areas within and around the school grounds designed to support a variety of activities, functions, and needs.

1. Green Parking (built with eco-friendly and climate-resilient materials and allowing water permeability to reduce stormwater runoff volume

2. Pathways (Accessible) with permeable materials

3. Sustainable landscaping (fruit trees, vegetables, shrubs, and other plants)

4. External lighting with efficient lighting (Eg. use of LED lighting) or solar light

5. Escape route with signs

6. Safety and security systems and signs (CCTV Camera)

7. Proper stormwater management system

8. Rainwater harvest systems

9. Appropriate cleaning and washing point for all students (Minimum 1 washing point per 100 pupils) with adequate drainage channels;

10. Appropriate solid waste collection (1 per 3 classrooms) enabling sorting;

11. Appropriate solid waste collection area for all waste collected from classrooms, offices, dormitories, and kitchens, among others enabling sorting; and one composting facility with two compartments to gather biodegradable materials;

12. Appropriate (sensor using energy and water efficient) and inclusive handwashing facilities at the school entry for students and visitors

2.3.21. School Fencing

Fencing is a system of barriers or enclosures constructed around a property or area to delineate boundaries, enhance security, and ensure safety. Fencing a school will help to prevent theft and destruction of school property and prevent children from leaving the school grounds unattended.

1. Fencing with environmentally friendly and climate resilient materials;

2. Accessible Entrance

3. Passive surveillance against harassment and abuse

4. Guardhouse

5. Compliance with standard (height and materials used)

Table 4: Quantification requirements for Pre-Primary school/ Dimension requirement

Minimum Infrastructure per school	minimum Area/ (m²)	Maximum number of students	Minimum area per 1student (m²)	Minimum number infrastructure	Other Considerations
Classroom	51	30	1.5	3	• Minimum Opening25% of total floor area • 1.5 m² area for student and 6m² area circulation for teacher • Two or more exit doors are required , they shallbe positioned as far apart as is practicable, but not closer than 5m from each other and opened outward
Administration block	81	-	-	1	• Including Headteacher. Minimum area: 13 m², • Washroom for Headteacher: Minimum area 3.2 m², • Staff room Minimum area of 16 m² for 6 staff (2.6 m2/staff for additional staff), • Washroom from 1 to 15 staff (1 toilet for male staff with 1Urinal and 1 toilet for females staff): Min area 5.5 m² • Minimum two toilets for PWD, sizes: minimum 1.6m x 2.3m door opening outward; should be gender segregation. • 15% (11) reserved for circulation and waiting area • Archive minimum area: 15m², • Storage: 10m².
TRC	118	-	-	-	• Working space required minimum of 54 m² • Storage of minimum of 10 m² • Showroom area of 54 m²
Smart classroom	78	30	1.92	1	• Opening: minimum 25% oftotal floor area • Two or more exit doors are required, they shallbe positioned as far apart as is practicable, but not closer than 5m from each other and opened outward • Including Store (10 m²) • IT office and control room (10m²)

Special need resource rooms	128	-	-	1	Minimum size of the resource room's components: • Library: 30m² • Private Space: 12 m² • Work Space: 56 m² • Managers space: 12 m² • Storage of Equipment :30 m²
Library	73	30	1.6	1	• Minimum 19 m² occupied by shelves • 6 m² for minimum size of librarian • Two or more exit doors are required, they shall be positioned as far apart as is practicable, but not closer than 5m from each other and opened outward.
Dining hall	-	-	1.05	1	• Minimum area for 90 students: 95 m² • Minimum 2 entrance/exit doors withmin width of 1.5m each they shall be positioned as far apart as is practicable, but not closer than 5m from each other and opened outward.
Kitchen	74	-	-	1	Should have: • Drinking water facility of minimum 1000 l capacity for a school of not more than 500 pupils should be provided • Cooking area of minimum 28.26m² for 4 cooking stoves, • Preparation area of minimum 28.26 m² • Storage area of minimum 10m² • Changing room of minimum 7.54m²

Space	No.	Area (m²)	Qty	Specifications
Multipurpose hall	-	0.917	1	• Sitting area:0.917 m² per seat including circulation podium/Stage occupies 15% of the totalseating area, • Changing room minimum 10m² • Storage room: minimum 10m² • Control room: minimum 10m² • Bathroom of 1.5 m² • WCRooms of 15.18m² • Minimum 2 entrance/exit doors with a width of 1.5m each
Sports and recreation	300	-	-	• Including Green space/ Grass pitches minimum area of 100 m2 and playing area/passive recreation with at least three types of swings *e.g. slides, swing sets, motion play equipment, tunnels, activity panels themed equipment and sandboxes etc (areas minimum Area of 200 m²)*
Latrines	-	-	-	The following are to be taken into consideration: • One toilet per 15 students/sex • Size: minimum 0.85m x1.25m, • At most one toilet for PWDs for 50 pupils or less, sizes: minimum 1.6m x 2.3m • Door opening outward, • Urinals provided for boys. • Storage of hygiene equipment • Handwashing facilities.
Sleeping room	75	30	2.178	1 · Storage room minimum 10 m² and Mattress size 0.9m x 1.8m plus 0.5m on each side reserved for circulation • Room hosting 30 pupils havingan area of 75.34 m² minimum (Minimum 2.178 m² per child) • Storage room minimum 10 m²

Space					Requirements
Sickbay	18	2	-	1	**Should have:** • Two (2) hospital size beds (200X90) cm, • One (1) shelf (40X90) cm, and • One (1) workbench table of 150x60 cm. • The clearance between the bed and table should be a minimum 80cm, • Clearance from wall to bed should be 80cm. • Clearance from bed to shelf longitudinally should be 80cm and from shelf to wall there is 80cm • Washroom of Min area 3.2 m^2
Outdoor Space (Parking, Pathways Landscaping)	28% of total plot area	-	-	-	**Car Park & Pathways** • At least one parking for Head teacher: (2.5m by5m for each parking space) 12.5 m^2 • Min 5 parking space for Visitors: (2.5m by 5m foreach parking space) 62.5 m^2 • Min. 3 parking space • for coaster 54 m^2 (3m by 6m for each parking space)Minimum Landscaping (including pathways) of 20% of all the school area
FENCE				1	• The school should have min. 2 exits; • Solid fencing materials that complement the architecture may be provided at the rear and side fences; • The front fencing shall be visually permeable or landscaped fencing only shall be allowed; • Max. Ranging between 1.5mand 2m • Gate: min Size of gate 3.8 m for vehicle • With pedestrian gate of min. 1.1m;

Table 5: Quantification requirements for Primary school/ Dimension requirement

Minimum Infrastructure per school	minimum Area/ (m2)	Maximum number for students	Minimum area per 1student (m2)	Minimum number infrastructure	Other Considerations
Classroom	54	46	1	6	• Minimum Opening 25% of total floor area • Two or more exit doors are required, they shall be positioned as far apart as is practicable, but not closer than 5m from each other and opened outward.
Administration block	81	-	-	1	• Including Headteacher. Minimum area: 13 m^2, • Washroom for Headteacher: Minimum area 3.2 m^2, • Staff room Minimum area of 16 m^2 for 6 staff (2.6 m2/staff for additional staff), • From 1 to 15 staff provide at least 1 toilet for males with 1 urinal and 1 toilet for females; • Minimum two toilets for PWD, sizes: minimum 1.6m x 2.3m door opening outward; should be gender segregated. • 15% (11) reserved for circulation and waiting area • Archive minimum area: 15m^2, • Storage: 10m^2.
TRC	118	-	-	-	• Working space required a minimum area of 54 m^2 • Storage minimum area of 10 m^2 • Showroom including changing room area of 54 m^2
Smart classroom	134	46	1.6	1	Should including: • Store (min 18.8m^2) and IT office and control room (min 18.8m^2) • Maximum 50 computers capacity.

					Description
Computer Lab.	134	46	1.6	1	Should including: • Store (min 18.8m^2) • IT office and control room (min 18.8m^2) • Maximum 50 computers capacity.
Special need resource rooms	128	-	-	1	Minimum size of the resource room's components: • Library: 30m^2 • Private Space: 12 m^2 • Work Space: 56 m^2 • Managers space: 12 m^2 • Storage of Equipment :30 m^2
Library	98.6	46	1.6	1	Should include: • Minimum 6 m^2 reserved for librarian • 19% of total floor area occupied by shelves and librarian working area/offce
Dining hall	-	-	1.05	1	• Minimum Area for 276 students: 290 m^2 and Opening: minimum 25% of total floor area.
Kitchen	115	-	-	1	Should include: • Cooking area of minimum 28.46m^2 for 4 cooking stoves, • Food preparation area of minimum 28m^2 • Storage area of minimum 51m^2 and • Changing room of min. 7.54 m^2

Room				Specifications
Multipurpose hall	-	0.917	1	• Sitting area:0.917 m² per seat including circulation Stage occupies 15% of totalseating area, • At least two changing rooms of minimum of 10m² • Storage room of minimum 10m² • Control room of minimum 10m² • From 1 to 15 students provide at least 1 toilet for males with 1 urinal and 1 toilet for females; • Two toilet for PWD, sizes: minimum 1.6m x 2.3m door opening outward • Minimum 2 entrance/exit doors with a width of 1.5m each.
Sports and recreation	-	-	3 different games	• Handball: 264 m², • Minimum Mini-Football: 1135m², • Volleyball: 220 m², • Basketball: 608m², • Tennis: 338 m² **Note:** Every playground should have appropriate runoff water management.
Girl's room	18	-	1	• Area of Two beds 11.4m² • Cupboard=0.6m² • Bathroom & WC Room=3.2 m² • Chair and Table with circulation Area 3 m²

Item	Description			
Latrines	The following are to be taken into consideration: • One toilet per 50 boys and 1 toilet per 30 girls, Size: minimum 0.85m x1.25m, • At most one toilet for PWDs for 50 pupils or less, sizes: minimum 1.6m x 2.3m • Door opening outward, • Urinals provided for boys; • Storage of hygiene equipment • Handwashing facilities	-	-	-
Sickbay	• Area of Two beds 11.4m², • Cupboard=0.6m², • Bathroom Room=3.2 m² and • Chair and Table with circulationArea 3m²	1	-	18
Outdoor Space (parking's, Pathways, Landscaping)	• Should at least occupy 28% of the total plot area; • Should include parking, pathway and landscaping. Having at least: • One (1) parkingfor Headteacher: (2.5mx 5m for each parking space; • Five (5) parking spaces for Visitors: (2.5mx 5m for each parking space); • Minimum area reserved for school bus: 108 m² • Minimum landscaping area (including pathways) of 20% of all the school area.	-	-	-

Table 6: Quantification requirements for General Education Secondary Schools / Dimension requirement

Minimum Infrastructure per school	minimum Area/ (m2)	Maximum number of students	Minimum area per 1student (m2)	Minimum number infrastructure	Other Considerations
Classroom	54	46	1	At least 3 classrooms for ordinary level and/ or 3 classrooms by each combination	• Minimum Opening of 25% of the total floor area • two or more exit doors are required, they shall be positioned as far apart as is practicable, but not closer than 5m from each other and opened outward.
Administration block	162	-	-	1	**Should have:** • Headteacher minimum area: 13m² • Office of School accountant/Bursar minimum area: 9.86 m² • Office of Secretariat and Reception minimum area: 9.86 m² • Archive minimum area: 15m² • Storage minimum area: 10m² • From 1 to 15 staff provide at least 1 toilet for males with 1 urinal and 1 toilet for females. • Minimum two toilets for PWD, sizes: minimum 1.6m x 2.3m door opening outward; should be gender segregated. • 15% (24) reserved for circulation and waiting area • Washroom for Headteacher: Min area 3.2 m² • Staff room Min area of 16 m² for 6 staff (2.6 m2/staff for additional staff) • Office of Deputy head teacher in charge of studies: 9.86 m2 • Office of Deputy head teacher in charge of discipline: 9.86 m² • Office of matron and patron: 12.24 m²

Room					Requirements
TRC	118	-	-	-	• Working space required a minimum area of 54 m² • Storage minimum area of 10 m² • Showroom including changing room area of 54 m²
Smart classroom	134	46	1.6	1	**Should have:** • Store of minimum 18.8m²; • IT office and control room of min 18.8m²; • Maximum 50 computers capacity.
Computer Lab.	134	46	1.6	1	**Should including:** • Store (min 18.8m²) • IT office and control room (min 18.8m²) • Maximum 50 computers capacity.
Special needs resource rooms	128	-	-	1	**Minimum size of the resource room's components:** • Library: 30m² • Private Space: 12 m² • Work Space: 56 m² • Managers space: 12 m² • Storage of Equipment :30 m²
Library	98.6	46	1.6	1	**Should include:** • Minimum 6 m² reserved for librarian • 19% of total floor area occupied by shelves and librarian working area/office
Dining hall	-	-	1.05	1	**Should have:** • Minimum Area for 276 students: 290 m² and Opening: minimum 25% of total floor area, • A drinking water facility of a minimum 1000 liters capacity for a school of not more than 500 pupils should be provided
Kitchen	115	-	-	1	**Should have:** • Minimum cooking area 28.46m² for 4 cooking stoves, • Minimum 28m2 food preparation area, • Food stuff storage area of min. 51 m² • Changing room of minimum 7.54m²

Facility	Requirements				
Multipurpose hall	**Should include:** • Sitting area: 0.917 m² per seat including circulation Stage occupies 15% of totalseating area, • At least two changing rooms of minimum 10m² • Storage room of minimum 10m² • Control room of minimum 10m² • From 1 to 15 students provide at least 1 toilet for male with 1urinal and 1 toilet for females; • Two toilets for PWD, sizes: minimum 1.6m x 2.3m door opening outward • Minimum 2 entrance/exit doors withmin width of 1.5m each	1	0.917	-	-
Girl's room	**Should have:** • Area of Two beds 11.2m² • Cupboard of 0.6m² • Bathroom and WC Room of min 3.2 m² • Chair and table with circulation Area 3m²	1	-	-	18
Sickbay	**Should have:** • Resting space • Area of two beds 11.2m² • Cupboard of 0.6m² • Bathroom with WC Room of min 3.2 m² • Chair and table with circulation Area 3m²	1	-	-	18
Latrines	**The following to be taken into consideration:** • At least one toilet per 50 boys and 1 toilet per 30 girls, Size: minimum 0.85m x1.25m, • At most one toilet for PWDs for 50 pupils or less, sizes: minimum 1.6m x 2.3m • Door opening outward, • Urinals provided for boys; • Storage of hygiene equipment • Handwashing facilities	-	-	-	-

SCHOOL INFRASTRUCTURE NORMS AND STANDARDS

Facility	Area (m²)			Should have
Science Laboratories	145 or 182.2 depending on the type	-	-	**Should have:** • Minimum area of 145m² for a standalone laboratory • Minimum area of 182.2 m² for a 3 in 1 laboratory (chemistry, physics and biology) with preparation room of min 48 m2 and practical room of 134.2m² • For an upper secondary level school with science combinations, at least 2 standalone laboratories are required.
Language laboratories	98.8	-	1.6	1	**Should have:** • working area: minimum 80 m² • Server and storage room of minimum 18.8m² • Minimum Opening 25% of total floor area • Two or more exit doors are required, they shall be positioned as far apart as is practicable, but not closer than 5m from each other and opened outward
Dormitory	-	-	Sleeping area min. area 4.6 m² per a double-decker bed of 2 students	2	**Should have:** • Matron/Patron Room: (sleeping area with Washroom), with minimum size of 15 m² • Laundry Area: 26.5 m² • Washrooms: 1 bath or shower for every 10 boarding pupils, and 20 pupils per 1 bath or shower, where shared facilities are available. sizes: one shower minimum 0.9m x1.5 m with door opening inward; • At most one toilet for PWDs for 50 pupils, sizes: minimum 1.6m x 2.3m with door opening outward. • The females toilet with a ratio of 25/1, sizes: minimum 0.85m x1.25m, door opening outward. • The male toilet with a ratio of 30/1, sizes: minimum 0.85mx1.25m, door opening outward Note: For a boarding school that accept only girls or boys school should at least have one dormitory

Residential House for Head Teacher	-	-	-	**Should have:** • Living room, Dining room, 3 Bedrooms, Storage washroom and Fence. • The reserved space should not be beyond 300m2
Sports and recreation infrastructure/ facilities	-	-	3 different games	• Handball: 264 m², • Minimum Mini-Football: 1135m², • Volleyball: 220 m², • Basketball: 608m², • Tennis: 338 m² **Note: Every playground should have appropriate runoff water management.**

Outdoor Space	28% of total plot area (Including parking, pathway and landscaping)			• Should at least occupy 28% of the total plot area.
				• Should include parking, pathway and landscaping. Having at least:
				  • One (1) parking for Headteacher: (2.5mx 5m for each parking space.
				  • Five (5) parking spaces for Visitors: (2.5mx 5m for each parking space).
				• Minimum area reserved for school bus: 108 m²
				• Minimum landscaping area (including pathways) of 20% of all the school area.

Fences				• The school should have min. 2 exits; • Solid fencing materials that complement the architecture may be provided at the rear and side fences; • The front fencing shall be visually permeable or landscaped fencing only shall be allowed; • Max. Ranging between 1.5mand 2m • Gate: min Size of gate 3.8 m for vehicle With pedestrian gate of min. 1.1m;

Table 7: Quantification requirements for TSS

Table 7.1 Quantification requirements for TSS General Infrastructure / Dimension requirement

Minimum Infrastructure per school	minimum Area/ (m2)	Maximum number of students	Minimum area student per (m2)	Minimum number infrastructure	Other Considerations
Classroom	54	46	1	3 per trade	• Minimum Opening 25% of total floor area • Two or more exit doors are required, they shall be positioned as far apart as is practicable, but not closer than 5m from each other and opened outward.
Administration block	216	-	-	1	Should have: • Headteacher office minimum area: 13m^2 • Office of School accountant/Bursar minimum area: 9.86 m^2 • Office of Secretariat and Reception minimum area: 9.86 m^2 • Archive minimum area: 15m^2 • Storage minimum area: 10m^2 • From 1 to 15 staff provide at least 1 toilet for male with 1 urinal and 1 toilet for females. • Minimum two toilets for PWD, sizes: minimum 1.6m x 2.3m door opening outward; should be gender segregated. • 15% (24) reserved for circulation and waiting area • Washroom for Headteacher: minimum area 3.2 m^2 • Staff room minimum area of 16 m^2 for 6 staff (2.6 m^2/staff for additional staff) • Office of Deputy head teacher in charge of studies: 9.86 m^2 • Office of Deputy head teacher in charge of discipline: 9.86 m^2 • Office of matron and patron: 12.24 m^2

Facility					Description
Smart classroom	134	46	1.6	1	Should have: • Store of minimum 18.8m²; • IT office and control room of min 18.8m² • Maximum 50 computers capacity.
Computer Lab.	134	46	1.6	1	Should including: • Store (minimum 18.8m²) • IT office and control room (minimum 18.8m²) • Maximum 50 computers capacity.
Special resource rooms	128	-	-	1	Minimum size of the resource room's components: • Library: 30m² • Private Space: 12 m² • Work Space: 56 m² • Managers space: 12 m² • Storage of Equipment :30 m²
Library	98.6	46	1.6	1	Should include: • Minimum 6 m² reserved for librarian • 19% for total floor area occupied by shelves and librarian working area/office.
Dining hall	-	-	1.05	1	Should have: • Minimum Area for 276 students: 290 m² and Opening: minimum 25% of total floor area, A drinking water facility of a minimum 1000 liters capacity for a school of not more than 500 pupils should be provided
Kitchen	115	-	-	1	Should have: • Min cooking area 28.46m² for 4 cooking stoves, • Min 28m2 food preparation area, • Food stuff storage area of min. 51m² • changing room of minimum 7.54m²

Facility				Details
Multipurpose hall	-	-	0.917	1	• Sitting area:0.917 m^2 per seat including circulation Stage occupies 15% of totalseating area, • At least two changing room of Minimum $10m^2$ • Storage room of minimum $10m^2$ • Control room of minimum $10m^2$ • From 1 to 15 students provide at least 1 toilet for male with 1urinal and 1 toilet for females; • Two toilets for PWD, sizes: minimum 1.6m x 2.3m door opening outward • Minimum 2 entrance/exit doors withminimum width of 1.5m each
Girls room	-	18	-	1	Should have: • Area of Two beds 11.2m^2 • Cupboard of 0.6m^2 • Bathroom and WC Room of min 3.2 m^2 • Chair and table with circulation Area 3m^2
Sickbay	-	18	-	1	Should have: • Resting space • Area of two beds 11.2m^2 • Cupboard of 0.6m^2 • Bathroom with WC Room of minimum 3.2 m^2 • Chair and table with circulation area 3m^2
Latrines	-	-	-	-	The following are to be taken into consideration: • At most one toilet per 50 boys and 1 toilet per 30 girls, Size: minimum 0.85m x1.25m, • At most one toilet for PWDs for 50 pupils or less, sizes: minimum 1.6m x 2.3m • Door opening outward, • Urinals provided for boys; • Storage of hygiene equipment • Handwashing facilities

Item				Should have
Science Laboratories	145 or 182.2 depending on the type	-		Should have: • Minimum area of 145m² for a standalone laboratory • Minimum area of 182.2 m² for a 3 in 1 laboratory (chemistry, physics and biology) with preparation room of min 48 m² and practical room of 134.2m² • For an upper secondary level school with science combinations, at least 2 standalone laboratories are required.
Dormitory	-	Sleeping area min. area 4.6 m2 per a double-decker bed of 2 students	2	Should have: • Matron/Patron Room: (sleeping area with Washroom), with minimum size of 15 m² • Laundry Area: 26.5 m² • Washrooms: 1 bath or shower for every 10 boarding pupils, and 20 pupils per 1 bath or shower, where shared facilities are available. sizes: one shower minimum 0.9m x1.5 m with door opening inward; • At most one toilet for PWDs for 50 pupils, sizes: minimum 1.6m x 2.3m with door opening outward. • The females toilet with a ratio of 25/1, sizes: minimum 0.85m x1.25m, door opening outward. • The male toilet with a ratio of 30/1, sizes: minimum 0.85mx1.25m, door opening outward **Note:** For a boarding school that accept only girls or boys school should at least have one dormitory
Residential House for Head Teacher	-	-	1	Should have: • Living room, Dining room, 3 Bedrooms, Storage washroom and Fence. • The reserved space should not be beyond 300m²

Item		Requirements
Sports and recreation infrastructure/ facilities	3 different games	• Handball: 264 m², • Minimum Mini-Football: 1135m², • Volleyball: 220 m², • Basketball: 608m², • Tennis: 338 m² • Every playground should have appropriate runoff water management.

Outdoor Space	28% of the total plot area (Including parking, pathway and landscaping)	• Should at least occupy 28% of total plot area.
		 • Should include including parking, pathway and landscaping. Having at least:
		   • **One (1) parking for Headteacher:** (2.5mx 5m for each parking space.
		   • **Five (5) parking space for Visitors:** (2.5mx 5m for each parking space).
		   • **Minimum area reserved for school bus: 108 m²**
		 • Minimum landscaping area (including pathways) of 20% of all the school area.

Fence		• The school should have min. 2 exits; • Solid fencing materials that complement the architecture may be provided at the rear and side • Max. Ranging between 1.5mand 2m • Gate: min Size of gate 3.8 m for vehicle with pedestrian gate of min. 1.1m;

Table 7.2 : Quantification requirements for Workshops/ Dimension requirement

	Workshops	Minimum Area/ (m2)	Other Considerations (Minimum infrastructures and Minimum dimensions)
1	Wood technology	416	• Machine room: 102m^2, • Space for practical area :102m^2, • Finishing room :51m^2, • Store: 82m^2, • Two changing Rooms each :5m^2, • Toilet :2.5m^2, • Trainer Office :12.5m^2 • Place for Instruction :54m^2
2	Building construction	380	• Space for practical area:196m^2, • Material testing Laboratory :51m^2, • Heavy equipment store:18m^2, • Consumables store :18m^2, • Hand tools &protective gears store:18m^2, • Two hanging Rooms, each :5m^2, • Toilet :2.5m^2, • Trainer Office :12.5m^2 • Place for Instruction :54m^2
3	Automobile Technology	327	• Space for practical area (Including space of equipment): 218m^2, • Toilet :2.5m^2, • Two hanging rooms, each :5m^2 • Store:30m^2, • Trainer Office :12.5m^2, • Place for Instruction :54m^2)

#	Trade	Area	Details
4	Manufacturing Technology	416	• (Machine room: 102m², • Space for practical area:102m², • Finishing room :51m², • Store :82m², • Two hanging rooms, each: 5m², • Toilet :2.5m², • Trainer Office :12.5m², • Place for Instruction :54m²)
5	Plumbing	327	• Space for practical area including space of equipment:218 m², • Toilet :2.5m², • Two hanging room, each :5m² • Store:30m², • Trainer Office :12.5m², • Place for Instruction :54 m²
6	Public Works	380	• Space for practical area:196m², • Material testing Laboratory: 51m², • Heavy equipment's store:18m², • Consumables store:18m², • Hand tools &protective gears store:18m², • Two changing room, each :5m², • Toilet :2.5m², • Trainer Office :12.5m², • Place for Instruction :54m²

#			**Minimum area per student:1.6m2 including:**
7	Land surveying	96	• circulation area of teacher 8.4 m² • Store :14m² • Openings: 2 Doors as minimum to be opened outward (min. width 90 cm clear opening and Minimum clear height of 200 cm) • Opening: minimum 25% of total floor area
8	Food and Beverage Operations	237	• Space for practical area: 96m², • Kitchen area:48m² • Trainer Office :12.5m², • Food Store :14m² • Toilet :2.5m², • Two hanging rooms, each :5m² • Place for Instruction :54 m²)
9	Front Office & Housekeeping	121	• Hostel :62m² • Reception area /switch boardroom: 30m², • Store :10m² • Trainer Office :12.5m², • Laundry and ironing room :2m x 3 m, • Openings:2 Doors as minimum to be opened outward (minimum width 90 cm clear opening and minimum clear height of 200 cm) • Opening: minimum 25% of total floor area

#	Name	Area	Specifications
10	Electrical Workshop	327	• Space for practical area including space of equipment: 218m², • Toilet :2.5m², • Two hanging rooms, each :5m², • Store:30m², • Trainer office :12.5m², • Place for Instruction :54m², • Openings: 2 Doors as minimum to be opened outward (minimum width 90 cm clear opening and minimum clear height of 200 cm), • Opening: minimum 25% of total floor area
11	Renewable Energy	327	• Space for practical area (Including space of equipment) :218m², • Toilet :2.5m², • Two changing rooms, each :5m², • Store:30m², • Trainer office :12.5m², • Classroom :54m², • Openings: 2 doors as minimum to be opened outward (minimum width 90 cm clear opening and Minimum clear height of 200 cm), • Opening: minimum25% of total floor area
12	Electronic and Telecommunication	327	• Space for practical area (Including space of equipment): 218m², • Toilet :2.5m², • Two changing rooms, each :5m², • Store: 30m², • Trainer Office :12.5m², • Place for Instruction :54m²

No.	Trade	Area	Rooms
13	Multimedia Production	198	• Audio recording room: 36m², • Video recording room: 36m², • Computer lab: 96m², • Toilet :2.5m², • Store:15m², • Trainer Office :12.5m²
14	Fashion design	271	• Space for practical area:108m², • Showroom: 54m², • Toilet :2.5m², • Two changing rooms, each :5m², • Store:30m², • Trainer Office :12.5m² • Place for Instruction :54m²
15	Leather Technology	368	• Space for practical area: 102m², • Art Room :54m², • Finishing room :51m² • Store :82m², • Two changing rooms, each :5m², • Trainer Office :12.5m², • Toilet :2.5m², • Place for Instruction :54m²

No	Course	Area	Specifications
16	Animal Health	250	• Space for practical area:7.9m*6.8m:54m², • Pharmacy and Mini laboratory:4m*5m:20m², • Slaughter area:8m*6m:48m², • Cattle Shelter:14m², • Shelter small ruminants: 20 m², • Store :15m², • Toilet :2.5 m², • Two changing rooms, each :5m² • Trainer Office :12.5m² • Place for Instruction :54m²
17	Agriculture	744	• Space for practical area:110m², • Cold room: 10m² • Consumable Store:14m², • Chemical Store :12m² • Tools Store :15m², • Toilet :2.5m², • Two changing room, each :5m² • Trainer Office :12.5m², • Place for Instruction :54m², • Green house of at least, 14x36m with permanent top ridge ventilation. With the following accessories example drip irrigation system and water tank. Min. area:504m²

No	Subject	Value	Specifications
18	Music and performance arts	156	• Space for practical area (For Music):12m*9.6m: 115.2m², • Two changing Rooms:5m², • Store :15m², • Toilet :2.5m², • Trainer Office :12.5m²
19	Fine plastic art	184	• Art Room :54m², • Finishing room :51m² • Showroom: 54m², • Toilet :2.5m², • Two changing rooms, each :5m², • Trainer Office :12.5m²
20	Interior design	320	• Space for practical area: 12 m * 9.6m: 115.2m², • Drawing room :96m², • Painting room :30m² • Classroom: 54m², • Toilet :2.5m², • Two changing room, each :5m², • Trainer Office :12.5m²
21	Software Development	150	• IT troubleshoot and repair Room:54m², • Smart classroom:10m*9.6m:96m²
22	Networking and internet technology	150	• IT troubleshoot and repair Room:54m², • Smart classroom:10m*9.6m:96m²
23	Software Programming and embedded system	150	• IT troubleshoot and repair Room:54m², • Smart classroom:10m*9.6m:96m²

No	Name	Area	Details
24	Computer system and Architecture	398	• IT troubleshoot and repair Room:54m², • Working area including space of equipment and store: 248m², • Smart classroom:10m*9.6m:96m²
25	Food Processing	248	• Laboratory for analyzing food:15m², • Meat processing room:15m², • Milk processing room:47m², • Fruit processing room:23.5m², • Bakery or pastry, processing room:23.5m², • Store of raw materials room:15m², • Tools and Ingredients store:15m², • Processed items store15 m², • Toilet :2.5m², • Two changing Rooms, each :5m², • Trainer Office :12.5m² • Classroom :54m²
26	Forestry workshop	694	• Plant nursery:20*30:600m², • Store:15m², • Toilet :2.5m², • Two changing room each :5m², • Trainer Office :12.5m², • Classroom: 54m²

No	Name	Code	Details
27	Water and irrigation	139	• Pipes store :30m², • Pumps and other machines store:30m², • Toilet :2.5m², • Two changing rooms, each :5m², • Trainer Office :12.5m², • Classroom :54m²
28	Tourism workshop	104	• Reception area :10m², • Tour guide practice area: 54m², • Store :15m² • Toilet :2.5m², • Two changing room:5m², • Trainer Office :12.5m²
29	Heavy Machine	286	• Simulation room :96m², • Machines shelter :150m², • Two changing room, each :5m², • Trainer Office :12.5m², • Toilet :2.5m², • Tools store: 15 m²
30	Mining Workshop	283	• Mineral processing plant:102m², • Showroom:102 m², • Toilet :2.5m², • 2 Changing room:5m², • Trainer Office :12.5m², • Classroom :54m²,

Table 8: Quantification requirements for Professional Education (Associate Nursing Program, Accounting, Teacher Training Education) school/ Dimension requirement

Professional education refers to the specialized training and education that individuals pursue to develop the skills, knowledge, and competencies required for a specific profession. The following infrastructure are relevant for a school teaching professionals Education specially Teacher training, Accounting and associate nursing program

Minimum Infrastructure per school	Minimum Area/ (m2)	Maximum number for students	Minimum area per student (m2)	Minimum number infrastructure	Other Considerations
Classroom	54	46	1	3 (for each Option)	• Minimum Opening 25% of total floor area • Two or more exit doors are required, they shall be positioned as far apart as is practicable, but not closer than 5m from each other and opened outward
Administration block	216			1	Should have: • Headteacher. Min area: 13m^2 • Office of School accountant/Bursar min area: 9.86 m2 • Office of Secretariat and Reception min area: 9.86 m2 • Archive min area: 15m^2 • Storage min area: 10m^2 • From 1 to 15 staff provide at least 1 toilet for male with 1 urinal and 1 toilet for females; • Minimum two toilets for PWD, sizes: minimum 1.6m x 2.3m door opening outward; should be gender segregated. • 15% (24) reserved for circulation and waiting area • Washroom for Head teacher: Min area 3.2 m^2 • Staff room Min area of 16 m2 for 6 staff (2.6 m2/staff for additional staff) • Office of Deputy head teacher in charge of studies: 9.86 m2 • Office of Deputy head teacher in charge of discipline: 9.86 m^2 • Office of matron and patron: 12.24 m^2

Room					Specifications
Smart classroom	134	46	1.92	1	• Minimum area per student=1.92m² including circulation area and working space of teacher; • Minimum Store =18.8 m² • Minimum IT office and control room=18.8 m² • Openings:2 Doors as minimum to be opening and Min. clear height of 200 cm) • Opening: minimum 25% of total floor area
Computer Lab.	134	46	1.6	1	Should including: • Store (min 18.8m²) • IT office and control room (min 18.8m²) • Maximum 50 computers capacity.
Special resource rooms	128	-	-	1	Minimum size of the resource room's components: • Library: 30m² • Private Space: 12 m² • Work Space: 56 m2 • Managers space: 12 m² • Storage of Equipment :30 m²
TRC	118	-	-	-	• Working space required minimum area of 54 m² • Storage minimum area of 10 m² • Showroom including changing room area of 54 m²
Smart classroom	134	46	1.6	1	Should have: • Store of minimum 18.8m²; • IT office and control room of min 18.8m² • Maximum 50 computers capacity.
Library	98.6	46	1.6	1	Should include: • Minimum 6 m² reserved for librarian • 19% for the total floor area occupied by shelves and librarian working area/office

Room	Should have	No.		
Dining hall	Should have: • Minimum Area for 276 students: 290 m² and Opening: minimum 25% of total floor area, • Drinking water facility of minimum 1000 liters capacity for a school of not more than 500 pupils should be provided	1	1.05	-
Kitchen	Should have: • Minimum cooking area 28.46m² for 4 cooking stoves, • Minimum 28m2 food preparation area, • Food stuff storage area of minimum 51 m² • changing room of min. 7.54m²	1	-	115
Multipurpose hall	• Sitting area:0.917 m² per seat including circulation Stage occupies 15% of totalseating area, • At least two changing room of minimum 10m² • Storage room of minimum 10m² • Control room of minimum 10m² • From 1 to 15 students provide at least 1 toilet for male with 1 urinal and 1 toilet for females; • Two toilets for PWD, sizes: minimum 1.6m x 2.3m door opening outward • Minimum 2 entrance/exit doors withmin width of 1.5m each	1	0.917	-
Girls room	Should have: • Area of Two beds 11.2m² • Cupboard of 0.6m² • Bathroom and WC Room of minimum 3.2 m² • Chair and table with circulation area 3m²	1	-	18

				Specifically used for Nursing program
Simulation room	197	-	-	• Debriefing room of minimum 54 m^2 • Nurse's station of minimum 12.5 m^2 • Control Room of minimum 12.5 m^2 • Simulation area of minimum 08 m^2 • Two (2) changing Room, each of minimum 5 m^2 • Toilet of minimum 2.5 m^2
	1			
Sickbay	18	-	-	Should have: • Resting space • Area of two beds 11.2m^2 • Cupboard of 0.6m^2 • Bathroom with WC Room of min 3.2 m^2 • Chair and table with circulation Area 3m^2
	1			
Latrines	-	-	-	The following to be taken into consideration: • Latrines for staff (different for females and males); • At most one toilet per 50 boys and 1 toilet per 30 girls, Size: minimum 0.85m x1.25m, • At most one toilet for PWDs for 50 pupils, sizes: minimum 1.6m x 2.3m • Door opening outward, • Urinals provided for boys; • Storage of hygiene equipment • Handwashing facilities

					Should have:
Science Laboratories	145 or 182.2 depending on the type	-	-	-	• Mandatory for TTCs • Minimum area of 145m2 for a standalone laboratory • Minimum area of 182.2 m2 for a 3 in 1 laboratory (chemistry, physics and biology) with preparation room of min 48 m^2 and practical room of 134.2; • For an upper secondary level school with science combinations, at least 2 standalone laboratories are required.
Language laboratories	98.8	-	1.6	1	• Working area: minimum 80 m^2 • Server and storage room of minimum 18.8m^2 • Minimum Opening 25% of total floor area • Two or more exit doors are required, they shall be positioned as far apart as is practicable, but not closer than 5m from each other and opened outward

Facility	Requirements	Details	Quantity		
Dormitory	Should have: • Matron/Patron Room: (sleeping area with Washroom), with minimum size of 15 m² • Laundry Area: 26.5 m² • Washrooms: 1 bath or shower for every 10 boarding pupils, and 20 pupils per 1 bath or shower, where shared facilities are available. sizes: one shower minimum 0.9m x1.5 m with door opening inward; • At most one toilet for PWDs for 50 pupils, sizes: minimum 1.6m x 2.3m with door opening outward. • The females toilet with a ratio of 25/1, sizes: minimum 0.85m x1.25m, door opening outward. • The male toilet with a ratio of 30/1, sizes: minimum 0.85m x1.25m, door opening outward **Note:** Every boarding school should have at least two separate dormitories for boys and girls.	Sleeping area min. area 4.6 m2 per a double-decker bed of 2 students	1	-	-
Residential House for Head Teacher	Should have: • Living room, Dining room, 3 Bedrooms, Storage washroom and Fence. • The reserved space should not be beyond 300m²	-	1	-	-
Sports and recreation infrastructure/ facilities	• Handball: 264 m², • Minimum Mini-Football: 1135m², • Volleyball: 220 m², • Basketball: 608m², • Tennis: 338 m² **Note:** Every playground should have appropriate runoff water management.	-	3 different games	-	-

| Outdoor Space | 28% of total plot area (Including parking, pathway and landscaping) | - | - | - | Should at least occupy 28% of the total plot area. Should include including parking, pathway and landscaping. Having at least: One (1) parkingfor Head teacher: (2.5mx 5m for each parking space. Five (5) parking space for Visitors: (2.5mx 5m for each parking space). Minimum area reserved for school bus: 108 m2 Minimum landscaping area (including pathways) of 20% of all the school area. |

CHAPTER 3: IMPLEMENTATION GUIDELINES FOR SCHOOL INFRASTRUCTURE NORMS AND STANDARDS

3.1. Site Selection and Confirmation

The construction of green, climate-resilient and inclusive school infrastructure is essential to creating a learning environment that addresses both the educational needs of students and the unpredicted challenges of climate change and disasters. Construction of school infrastructure should be planned with sustainability in mind, incorporating eco-friendly practices that promote energy efficiency, natural resource conservation as well as climate and disaster resilience.

A well selected site enhances the sustainability and the resilience of the school to environmental footprint, climate chocks and disaster risks. To ensure this, a site exploration and investigation must be conducted in accordance with existing laws and regulations to ensure that the selected site will lead to the creation of a healthy, safe, resilient and inclusive learning environment.

3.2. Site investigation

Site investigation is an initial, broad, and primarily observational evaluation of a potential construction site. It focuses on gathering preliminary data about the site's visible characteristics, environmental conditions, and potential constraints that may affect the construction and operation of school infrastructure. The purpose of site investigation is to provide a general understanding of the site's physical features, accessibility, utilities, and natural or legal challenges, helping to determine whether the site necessitates further detailed assessment.

The following are key considerations during the site investigation:

- **Environmental and social conditions:** Evaluate potential environmental impacts, including effects on critical ecosystems and water resources. Assess the social implications, considering the potential impact on nearby communities, cultural heritage, and sensitive social areas.

- **Site accessibility:** Assess the site's access points, including road networks, pedestrian pathways, and proximity to transport hubs. Ensure the site can support construction logistics and access for students, teachers, staff and emergency services.

- **Utilities availability:** Verify the availability of key utilities such as water, electricity, internet, and waste management systems. Ensure that the existing infrastructure can meet the demands of school operations or determine if additional investments are required.

- **Vulnerability to natural hazard risks:** Identify risks from natural disasters such as floods, landslides, earthquakes, thunder and storms, and assess how these hazards might impact the safety and durability of the school infrastructure and propose mitigation measures.

- **Vulnerability to climate risks**: Evaluate the site's exposure to climate risks, including extreme weather conditions like high temperatures, heavy rainfall, strong winds, and the potential for heat islands. Determine whether the site can accommodate climate-resilient design features such as natural ventilation, shading, and stormwater management.

- **Legal compliance:** Ensure that the site complies with existing national land use regulations and environmental protection policies. Verify land ownership and any legal constraints that could impact development.

- **Topographic conditions:** Examine the site's topography to assess slope stability, drainage patterns, and potential erosion issues that may affect construction feasibility and long-term use of school infrastructure.

- **Site historical data:** Investigate past land use to identify any issues, such as previous contamination, former construction, or activities that could affect the site's suitability for school construction activities. Review any records of previous environmental or structural challenges encountered on the site.

3.3. Site Exploration

Site exploration is a detailed and technical process that involves conducting in depth analyses and specialized tests to assess the underlying physical, environmental and geotechnical conditions of a site. Its purpose is to gather specific data that informs the design, construction methods, and risk mitigation strategies, ensuring that the site can safely support the intended infrastructure and withstand environmental and climate related challenges.

The following are key considerations during site exploration:

- Soil conditions: Conduct geotechnical surveys to assess the soil's composition, stability, and bearing capacity. Test for soil drainage capabilities to manage stormwater effectively and prevent flooding or erosion. Identify any soil contamination or pollutants that may pose risks during construction or operation.

- Hydrological conditions: Analyze groundwater levels and flow patterns to assess the risk of flooding or waterlogging. Evaluate the site's water table depth to ensure proper foundation design. Study drainage patterns to implement efficient stormwater management systems.

3.4. Environmental and Social Impacts and Disaster Risks Assessments

To ensure the development of green, climate-resilient and inclusive school infrastructure in Rwanda, it is mandatory to conduct both **Environmental and Social Impact Assessments (ESIA)** and **Disaster Risk Assessments (DRA)**. These assessments aim to minimize environmental degradation, address social impacts, enhance sustainability, and mitigate risks from natural disasters, ensuring the long-term safety, functionality and well-being of schooling communities.

Both ESIA and DRA are critical for creating safe, sustainable, and resilient educational environment that prioritize environmental protection and social inclusivity in Rwanda.

Before a public or private investor begins school construction, conducting an ESIA is a legal requirement per existing laws and regulations. The findings from the ESIA must be considered throughout the design, construction, and operational phases of the school infrastructure.

Conducting a DRA is essential for building climate-resilient and disaster-resistant school infrastructure in Rwanda. The DRA identifies potential natural hazards and assesses the site's vulnerability to these risks, informing the design to ensure structural resilience. Techniques such as earthquake-resistant construction and effective flood management systems are vital components. Compliance with national regulations and incorporation of community input are crucial in the DRA process.

The disaster risk assessment must be conducted alongside the Environmental and Social Impact Assessment (ESIA) to guide site selection, design, construction and operation of school infrastructure. The DRA may be embedded within the ESIA report or presented as a standalone document.

3.5 School Infrastructure Design

Designing school infrastructure involves creating detailed plans and documents, budgeting, and securing regulatory approvals. The design of school infrastructure must incorporate modern standards for inclusion, safety, energy efficiency, and climate resilience to meet the growing needs of Rwandan educational communities.

The design must adhere to laws and regulations governing construction in Rwanda. It must particularly comply with the provisions set forth to the present norms and standards.

3.6. School Infrastructure Construction

The construction of school infrastructure involves several critical phases: preliminary works, building elevation, finishing, and landscaping among others. Each phase must be meticulously planned and executed in accordance to laws and regulations governing construction in Rwanda, to ensure that the final structure is inclusive, safe, sustainable and resilient to environmental challenges and disaster risks.

Construction materials must be sourced from certified and authorized suppliers. The quality of both industrial and local construction materials must comply with standards set by competent authorities.

3.7. Maintenance of school infrastructure

Effective maintenance and facility management are essential to ensure that school infrastructure remains safe, sustainable, and operationally efficient. Proper maintenance extends the lifespan of infrastructure and facilities, reduces the need for costly repairs, and creates a secure, clean, healthy, and conducive learning environment.

The proper maintenance of school infrastructure must be done in compliance with guidelines and regulations set by relevant authorities.

To ensure the safety of school users during maintenance activities, the school owner must have maintenance plan for managing school facilities.

3.8. Demolition of school infrastructure

Demolishing school infrastructure can be driven by various reasons: Space Needs, Urban Development, Modernization and Safety Concerns. Demolishing school infrastructure requires a meticulous approach to ensure safety, environmental responsibility, and regulatory compliance. A comprehensive building survey and assessment of the type and volume of debris expected must be conducted prior any demolition work. Demolition activities must comply with related laws and regulations.

CHAPTER 4: COMPLIANCE AND ENFORCEMENT

To ensure that school infrastructures adhere to established norms and standards, it is essential to implement enforcement and compliance mechanisms that align with national regulatory frameworks and international best practices. This chapter explores the various types of school construction projects subject to these norms and standards, the mechanisms and tools used to monitor their implementation, and the extent of enforcement required

4.1. School infrastructure projects subject to norms and standards compliance

The refurbishment of the existing school infrastructure

Refurbishing existing school infrastructure involves upgrading facilities to meet current norms and standards. This includes ensuring compliance with safety, accessibility, and environmental guidelines. The process aims to enhance the quality and functionality of educational environments

The school infrastructure extension

School infrastructure extension involves expanding an existing educational facility or introducing new facilities while complying with school infrastructure norms and standards.

New school infrastructure:

The planning, design and construction of new school infrastructure must align with school infrastructure norms and standards.

4.2. Mechanisms and tools for monitoring and evaluation of the implementation of school infrastructure norms and standards

4.2.1. Mechanisms

Monitoring and evaluation of the implementation of school infrastructure norms and standards are crucial for ensuring compliance and effectiveness. The following are key mechanisms to be used:

- **Regular Audits and Inspections:** Conduct systematic reviews and inspections to assess whether norms and standards are being implemented; carry out random inspections without prior notice to ensure that the construction teams consistently adhere to standards, rather than only when they know an inspection is imminent. This helps in identifying hidden non-conformities or some lapses in compliance.

- **Data Analytics for Predictive Monitoring**: Employ data analytics to analyze trends, identify potential compliance risks, and predict areas of non-compliance, enabling proactive measures to be taken. This can help in identifying trends, discrepancies, and areas of concern.

- **Compliance Reporting:** Requiring regular reports from responsible authorities to document adherence to norms and standards.

- **Surveys and Feedback Mechanisms:** Giving feedback to the stakeholders, including school owners, employees, customers, and other relevant parties, to gauge compliance and identify any issues or areas for improvement.

- **Internal Controls and Checks:** Implementing processes and controls within the organization to ensure that norms and standards are adhered to.

- **Benchmarking:** Comparing performance and practices against industry standards or best practices to ensure that norms and standards are being met.

- **Third-Party Inspection/Audit:** Engaging independent Inspectors or auditors to assess compliance with norms and standards. This provides an unbiased view and can uncover issues that might not be apparent through internal reviews.

- **Incident Reporting and Resolution:** Establishing mechanisms for reporting and addressing non-compliance or deviations from norms and standards. Ensuring that there is a clear process for investigating and resolving issues;

- **Accountability for non-compliance with Norms and Standards:** The institution in charge of school infrastructure norms and standards proposes the sanctions for non-compliance with school infrastructure norms and standards;

- **Policy Reviews and Updates:** Regularly reviewing and updating policies and procedures to ensure they remain relevant and aligned with current norms and standards;

- **Documentation and Record-Keeping:** Maintaining thorough records of compliance efforts, including audits, training sessions, and corrective actions, to provide evidence of adherence and facilitate reviews.

4.1.2 Tools

To ensure effective monitoring and evaluation of school infrastructure norms and standards, tools will be developed and utilized according to the specific objectives of the preferred mechanisms.

4. 3. Effectiveness

The School Infrastructure Norms and Standards is a living document and will come into force immediately upon its publication by the responsible authority. These norms and standards apply to both the establishment of new schools and existing schools undergoing new developments, such as extensions or refurbishments. All stakeholders are required to comply with these norms and standards from the date of enforcement.

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