1.2.1 Building Information Management System (BIMS)

The BIMS is a core module of the IMIS that serves as a comprehensive database of all buildings within a municipality. It encompasses detailed information about each building, including: Physical attributes (structure type, number of floors, and year of construction); Location details (address and geographical coordinates with building footprints; Usage and ownership (Building usage, ownership status, and associated tax codes); Utilities and services (sources of water, solid waste management services, access to sanitation, access to roads, etc); Demographics and classifications (basic demographic data and classifications for low-income community areas). Buildings are central to IMIS, functioning as the foundational entities that interconnect all other components essential for efficient municipal service delivery.

The building database in IMIS is established using a GIS framework. High-resolution satellite or drone imagery is used to digitize building footprints, which are then verified through field checks and house-to-house surveys. House-to-house survey also collects all other required attributes data about buildings.

New buildings constructed post-IMIS implementation are recorded through the IMIS mobile application during the building permit process and updated for new constructions. The app, currently available for Android, captures building footprints and related data for new structures. Additional building attributes are updated during municipality's business process in delivering various services such as sanitation assessments, sanitation service delivery and other services. However, this needs to be incorporated into the municipality's service delivery policy.

BIMS provides an interactive dashboard dedicated to building related information. This dashboard provides visual insights into building data from multiple perspectives. BIMS provides comprehensive interfaces and tools for data entry, updates, queries, and analysis. The system has a map-based integration feature that provides geospatial visualization tools for location identification. The module has data extraction tools that have capability for generating data in various formats, including CSV, Shapefiles, and KML files.

BIMS offers municipalities valuable insights into Building infrastructure status, utility and service access and the critical data for planning, management and monitoring and evaluation of sanitation system and services in CWIS approach.

The data maintained by BIMS helps municipality to monitor the CWIS indicators such as (i) % of LIC population with access to safe individual toilets / % of total population with access to safe individual toilets, (ii) Population with access to safe individual toilets, and (iii) Low-income community (LIC) population with access to safe individual toilets.