

MASILONYANA LOCAL MUNICIPALITY



2020/2021 **ASSET MANAGEMENT POLICY** **(DRAFT)**

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1. INTRODUCTION

1.1 The utilization and management of property, plant and equipment is the prime mechanism by which a municipality can fulfil its constitutional mandates for :

- 1.1.1 Delivery of sustainable services,
- 1.1.2 Social and economic development,
- 1.1.3 Promoting safe and healthy environments; and
- 1.1.4 Providing the basic needs to the community.

1.2 As trustees on behalf of the local community, the municipality has a legislative and moral obligation to ensure it implements policies to safeguard the monetary value and future service provision invested in property, plant and equipment.

1.3 The asset management policy deals with the municipal rules required to ensure the enforcement of appropriate custodianship of property, plant and equipment.

1.4 This policy shall be approved by the council and shall be implemented immediately.

1.5 The review of the policy shall be done annually.

2. DEFINITIONS

In this Policy, unless the context indicates otherwise

- **“Accounting Standards Board”** was established by the Public Finance Management Act to set standards of Generally Recognized Accounting Practice (GRAP) as required by the Constitution of the Republic of South Africa.
- **“Assets”** are resources controlled by an entity as the result of past events and from which future economic benefits or potential service provision are expected to flow to the entity.
- **“Asset Manager”** is the “senior manager” who has the functional accountability for and control of the physical management of a particular set of assets in order to achieve the municipality’s strategic objectives relevant to his/her directorate. The execution of this responsibility will require the asset manager to control the acquisition, utilization, management and disposal of this set of assets to optimize the achievement of these objectives.
- **“Asset categories”** are the five main asset categories defined by GRAP 17. These are:

- **“Infrastructure assets”** – are defined as any asset that is part of a network of similar assets. It is specialized in nature and do not have an alternative use. It is immovable and may be subject to constraints on disposal. Examples are roads, water reticulation schemes, sewerage purification and trunk main, transport terminals and car parks.
- **“Investment property”** -land or a building (or part of a building); held by the owner or by the lessee under a finance lease to earn rentals or for capital appreciation or both, rather than for: use in the production or supply of goods or services or for administrative purposes; or sale in the ordinary course of operations.
- **“Community assets”** – are defined as any asset that contributes to the community’s wellbeing. Examples are parks, libraries and fire stations.
- **“Cash-generating assets”** are assets held with the **primary objective** of generating a commercial return.
- **“Heritage assets”** – are defined as culturally significant resources. Examples are works of art, historical buildings and statues.
- An **“intangible asset”** is an identifiable non-monetary asset without physical substance.
- **“Land and buildings”** – are defined as owner-occupied property held by the owner, or by the lessee under a finance lease, for use in the production or supply of goods and services or f administration purposes.
- **“Other assets”** – are defined as asset utilized in normal operations.Examples are plant and equipment, motor vehicles and furniture andfittings.
- **“Asset Champion”** is a senior official appointed by the Asset Manager inhis/her Department or Section to assist the Asset Manager in performinghis/her functions and duties.
- **“Capitalization”** is the recognition of expenditure as an Asset.
- **“Carrying amount”** is the amount at which an asset included in theStatement of Financial Position after deducting any accumulated depreciationthereon.
- **“Cost”** is the amount of cash or cash equivalents paid or the fair value of theother consideration given to acquire an asset at the time of its acquisition orconstruction plus costs incidental to the acquisition or acquirement. Alsoknown as historical cost/value.
- **“Cost of acquisition”** is all the costs incurred in bring an item of plant,property and equipment to the required condition and location for its intendeduse.
- **“Deferred maintenance”** is the extent of preventative maintenance that hasnot been performed

- **“Depreciation”** is the systematic allocation of the depreciable amount of asset over its useful life.
- **“Depreciable amount”** is the cost of an asset, or other amount of an asset, or other amount substituted for cost in the financial statements, less its residual value.
- **“Fair value”** is the amount for which an asset could be exchanged between knowledgeable willing parties in an arm’s length transaction.
- **“Financial asset register”** is the controlled register recording the financial and other key details for all municipal assets recognized in accordance with this policy (FAR).
- **“GRAP”** stands for “generally recognized accounting practice”.
- **“Non-cash generating assets”** are **primarily** held for service delivery purposes
- **“Impairment”** is when the recoverable amount of an asset is less than the carrying value of such an asset.

“Inventories” are assets:

- ✓ in the form of materials or supplies to be consumed in the production process;
- ✓ in the form of materials or supplies to be consumed or distributed in the rendering of services;
- ✓ held for sale or distribution in the ordinary course of operations; or ✓ in the process of production for sale or distribution.
- **“Preventative maintenance”** is the maintenance which is required on a systematic basis to ensure that the originally assessed future economic benefits or potential service position of the relevant asset is realized hence that the fixed asset reaches its estimated useful life.
- **“Property, plant and equipment”** are tangible assets that:
 - a) Are held by a municipality for use in the production of goods or supply of goods or services, for rental to others, for administrative purposes; and*
 - b) Are expected to be used during more than one period.*
- **“Recoverable amount”** is the amount that the municipality expects to recover from the future use of an asset, including its residual value on disposal.
- **“Recognition”** is the process by which expenditure is included in the Financial Asset Register as an asset.
- **“Replacement Value”** is the amount which is needed in current terms to replace an asset.

- **“Residual Value”** is the net amount that the municipality expects to obtain for an asset at the end of its useful life after deducting the expected costs for disposal.
- **“Senior manager”** is a manager referred to in Section 56 of the Municipal Systems Act being someone reporting directly to the Municipal Manager.
- **“Custodian-ship”** is the act of taking care of and managing property, plant or equipment on behalf of another.
- **“Useful Life”** is the estimated period of time over which the future economic benefits or future service potential embodied in an asset is expected to be utilized by the municipality.

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3. ACRONYMS

AM	Asset Management
AMIS	Asset Management Information System
AR	Asset Register
BRE	Business Risk Exposure
CIP	Comprehensive Infrastructure Planning
CMIP	Comprehensive Municipal Infrastructure Plan
CRC	Current Replacement Cost
COGTA	Department of Co-operative Governance and Traditional Affairs
DPLG	Department of Provincial and Local Government
DRC	Depreciated Replacement Value
EUL	Expected Useful Life
FAR	Fixed Asset Register
GAMAP	Generally Accepted Municipal Accounting Practice
GIS	Geographical Information System
GRAP	Generally Recognised Accounting Practice
IAM	Infrastructure Asset Management – also referred to as Asset Management
IAMP	Infrastructure Asset Management Plan
IAMS	Infrastructure Asset Management System
IDP	Integrated Development Plan
IIMM	International Infrastructure Management Manual
IMESA	Institute of Municipal Engineers of South Africa
LM	The Local Municipality
LOS	Level of Service
MFMA	Municipal Finance Management Act
O&M	Operations and Maintenance
RUL	Remaining Useful Life
SANS	South African National Standards

4. STATUTORY AND REGULATORY FRAMEWORK

This policy must comply with all relevant legislative requirements including:

- a. The Constitution of the Republic of South Africa, 1996
- b. Municipal Structures Act 117 of 1998
- c. Municipal Systems Act 32 of 2000
- d. Division of Revenue Act (enacted annually)
- e. Municipal Finance Management Act, Act 56 of 2003
- f. The Government Immovable Asset Management Act, No19 of 2007 (GIAMA).

Also, this policy must comply with the standards specified by the Accounting Standards Board.

This policy does not over rule the requirement to comply with other policies like Supply Chain Management, tendering or budget policies.

5. ADDITIONAL REFERENCE DOCUMENTATION

In addition to the above requirements and legislation, the following documentation has been referred to for the generation of the Fixed Asset register (FAR)

- a. IIMM: International Infrastructure Asset Management Manual;*
- b. DPLG Asset Management Guidelines;*
- c. Local Government Capital Asset Management Guidelines 2008;*
- d. Construction Industry Development Board Act, 2000 (Act No. 38 of 2000);*
- e. National Treasury Guidelines.*

6. OBJECTIVE

- a. To ensure the effective and efficient control, utilization, safeguarding and management of a municipality's property, plant and equipment.
- b. To ensure asset managers are aware of their responsibilities with regard to property, plant and equipment.
- c. To set out the standards of physical management, recording and internal controls to ensure property, plant and equipment are safeguarded against inappropriate loss or utilization.
- d. To specify the process required before expenditure on property, plant and equipment occurs.

- e. To emphasize a culture of accountability over assets.
- f. To ensure compliance with all legal and accounting prescriptions and requirements.

7. STATEMENT

Masilonyana Local Municipality believes that an asset management policy is essential to ensure effective and efficient utilization of public monies and accountability thereof is heavily dependent on accurate recording and accounting.

8. DELEGATION OF POWERS

- This policy should be applied with due observance of the Municipality's policy with regard to delegated powers. Such delegations refer to delegations between the Municipal Manager and other responsible officials as well as between the Council and the Mayor and the Council and the Municipal Manager. All delegations in terms of this policy must be recorded in writing.
- In accordance with the Municipal Finance Management Act, the Municipal Manager is the accounting officer of the Municipality and therefore all designated officials are accountable to him/ her. The Municipal Manager is therefore accountable for all transactions entered into by his/ her designates.
- The overall responsibility of asset management lies with the Municipal Manager. However, the day to day handling of PPE should be the responsibility of all officials in terms of delegated authority reduced in writing.

9. PURPOSE OF THE POLICY

The purpose of this policy is to ensure that proper management of PPE forms part of the financial management procedures of Masilonyana Local Municipality and to ensure that prudent PPE management procedures as outlined in GRAP and MFMA are applied consistently.

10. RESPONSIBILITIES AND ACCOUNTABILITIES

9.1. The **Mayor** shall:

- Approve the temporary and/or permanent transfer of all moveable assets exceeding approved limits, as stipulated in the "Powers of Delegation" of the municipality.
- Approve the writing off, disposal of obsolete or redundant assets.

9.2. The **Municipal Manager** is responsible for the management of assets of the municipality, including the safeguarding and the maintenance of those assets. The municipal manager shall ensure that:

- The municipality has and maintains a management, accounting and information system that accounts for the assets of the municipality;
- The municipality's assets are valued in accordance with standards of generally recognized accounting practice and generally accepted municipal accounting practice;
- The municipality has and maintains a system of internal control of assets, including an asset register; and
- The senior managers and their teams comply with this policy.
- Approve temporary and/or permanent transfers of a movable asset between departments as determined in the "Powers of Delegation" of the municipality.

9.3. The **Chief Financial Officer** is responsible to the Municipal Manager to ensure that the financial investment in the municipality's' assets is safeguarded and maintained.

The chief financial officer shall ensure that:

- Appropriate systems of financial management and internal control are established and carried out diligently;
- The financial and other resources of the municipality are utilized effectively, efficiently, economically and transparently;
- Any unauthorized, irregular or fruitless and wasteful expenditure, and losses resulting from criminal or negligent conduct, are prevented;
- The systems, processes and registers required to substantiate the financial values of the municipality's assets are maintained at standards sufficient to satisfy the requirements of the Auditor-General.
- Financial processes are established and maintained to ensure that the municipality's financial resources are optimally utilized through an appropriate IDP, budgeting, purchasing, maintenance and disposal decisions.
- The senior managers and asset champions are appropriately advised on their powers and duties pertaining to the financial administration of assets.
- The senior managers and asset champions are appropriately advised on the exercise of powers and duties pertaining to the financial administration of assets.

- The chief financial officer may delegate or otherwise assign responsibility for performing these functions but they will remain accountable for ensuring these activities are performed.
- The policy and supporting procedures or guidelines are established, maintained and effectively communicated.
- Approve the temporary or permanent transfers of movable assets between departments as determined in the “Powers of Delegation” of the municipality.
- Ensure that all assets of the municipality are adequately ensured.

9.4. The **Asset Manager** shall ensure that:

- Update Fixed assets register monthly and depreciation
- Ensure that assets are tagged when procured
- Conduct periodic impairment; residual value and useful life reviews for all classes of assets.
- Conduct periodic physical inventory counts of fixed assets.
- Advise and recommend to management whether fixed assets should be disposed of also removed from the FAR
- Conduct analyses related to fixed assets as requested by management.
- Reconcile fixed asset sub accounts to the GL monthly.
- Ensure that all inventory transfers to and from departments are appropriately accounted.
- Recommend ways of improving the existing system and processes.
- Record fixed asset acquisitions and dispositions in the accounting system.
- Ensure strict compliance with GRAP and Assets Management policy.
- Report in writing to the Chief Financial Officer the full facts in the event of an asset or attractive item being demolished, destroyed, and damaged or occurrence of any other event materially affecting its value.
- Approve the temporary or permanent transfers of a movable asset between departments as determined in the “Powers of Delegation” of the municipality.
- *develop strategic asset management plans that cover :*
 - ✓ Alignment with the Integrated Development Plan
 - ✓ Operation guidelines;
 - ✓ Performance monitoring;
 - ✓ Maintenance programs;
 - ✓ Renewal, refurbishment and replacement plans;

- ✓ Disposal and Rehabilitation plans;
- ✓ Operational, financial and capital support requirements; and
- ✓ Risk mitigation plans including insurance strategies
- ✓ The operational budgets are the short to medium term plan for implementing this strategic asset management plan.

9.5. The **Asset Champion** shall:

- Assist the Asset Manager in performing his/her functions and duties in terms of asset management.
- Ensure asset control lists are verified and kept current in collaboration with the Finance Department.
- Identify obsolete and redundant assets and attractive items every second quarter per financial year, compile a report and obtain the necessary approval for the disposal thereof.
- Once identified such assets, list should be sent to the Assets Manager

9.6. The **supply chain department** shall:

With regard to acquisitions and disposals of assets:

- Ensure that all assets are acquired in terms of the SCM Policy;
- Ensure that prior to disposing assets a comprehensive list of obsolete/damaged items is obtained from asset management unit.
- Ensure that all obsolete or damaged assets are disposed of as per the requirements of the SCM Policy.

9.7. The **Human resource department** shall:

- Ensure that no monies are paid out to staff on termination of their service prior to receiving the relevant asset resignation form signed off by the relevant directorate.
- Shall ensure that every asset return form is counter signed by the Asset Management Division before processing the termination of service.

9.8. The **Directorates** of all other departments must:

- Ensure that employees in their departments adhere to the approved Asset Management Policy;
- Ensure that all assets are procured in terms of the SCM Policy;
- Ensure that each custodian report any assets without barcodes under their custodianship to asset management unit;

- Ensure that all interdepartmental transfers are supported with fully completed asset transfer form authorized by the relevant directorate;
- Ensure that all damaged/ obsolete/ stolen assets are reported immediately to asset management unit;

9.9. **Users/Custodians of Assets**

- Each user is responsible for the assets under their control, allocated to/used by them in the performance of their duties.
- Each user must sign the room inventory list containing the bar-coded assets allocated to them. These lists must be visibly displayed for audit purposes, preferable at the back of the doors. The Asset Controllers and the Asset Management Division must keep copies of the movable assets lists.
- Asset users are prohibited to move/transfer assets from the location recorded in the asset register without proper authorization.
- Each user must take all reasonable precautions to protect their assets against losses and/or damage.
- Each user must maintain or take steps to maintain their assets for their useful life. Users must check and verify their physical assets against their assets lists regularly and ensure that changes in physical assets in their possession are updated in their assets lists.
- Any damage to the asset items must be immediately reported to superiors as well as to their responsible Asset Controllers who will recommend appropriate steps to be taken in relevant incidents.
- The assets users must avail assets under their control at any time, at the request of the Asset Management Division or External Audit or Internal Audit Section for verification purposes.
- In the event of such assets being missing stolen or lost, the responsible user shall accordingly report the incident to the SAPS. The reported case information will be the source document used to report missing/stolen/lost assets to their superiors, as well as to their responsible Asset Controllers who will take further appropriate action in the relevant incidents.
- Should it be found that users were not properly utilizing/maintaining/securing assets under their control/stewardship leading to asset/s damages/losses such users' Head of Department must recover the replacement costs of such assets from relevant users
- Privately owned assets may only be used on council premises with the written authorisation of the HOD. The authorization must contain a detailed description of the asset (serial number, make model, etc.) to clearly identify the asset and should be presented to representatives of the Asset Management Division or External Audit or Internal Audit Section for verification purposes.

10. FINANCIAL MANAGEMENT

10.1. Pre-Acquisition Planning

10.1.1 Before a capital project is included in the draft municipal budget for approval, the **Director Technical services** must prove that they have considered:

- The projected acquisition and implementation cost over all the financial years until the project is operational;
- The financial sustainability of the project over its life including revenue generation and subsidization requirements;
- The physical and financial stewardship of the asset through all stages in its life including acquisition, installation, maintenance, operations, disposal and rehabilitation; and
- The inclusion of the capital project in the Integrated Development Plans and future budgets.

10.2 . APPROVAL TO ACQUIRE PROPERTY PLANT & EQUIPMENT

10.2.1 Money can only be spent on a capital project if :

- The money has been approved in the capital budget;
- The project, including the total cost, has been approved by Council;
- The Chief Financial Officer confirms that funding is available for that specific project; and
- Any contract that will impose financial obligations more than two years after the budget year is appropriately disclosed.

10.3 . FUNDING OF CAPITAL PROJECT

10.3.1 Within the municipality's ongoing financial, legislative or administrative capacity, the Chief Financial Officer will establish and maintain the funding strategies that will optimize the municipality's ability to achieve its strategic objectives as stated in the Integrated Development Plan (IDP).

11. CUSTODY & SECURITY

11.1. Physical verification shall be done bi-annually.

- 11.2.** Each custodian shall sign an asset acknowledgement form to acknowledge all assets under their custodian-ship and the form shall be handed over to the asset management unit.
- 11.3.** Any interdepartmental transfers shall be reported to the asset management unit and an asset transfer form shall be completed.
- 11.4.** All assets shall be fully and adequately insured with a reputable insurance company which will ensure that the municipality is fairly compensated for any losses suffered.

12. DONATION

- 12.1. Donation received:** the authority to endorse and approve the acceptance of assets contributed to the municipality vests with the council.
- 12.2.** A report including the fair value/cost price of the contributed asset as well as the financial implications of acceptance of the contributed asset must be submitted to Council, so that acceptance of the asset can be confirmed.
- 12.3.** If the asset donated is a second hand asset the depreciation amount, accumulated depreciation up to the date of donation, useful life and residual value of that asset should also be included in the report.

13. RECOGNITION AND CLASSIFICATION OF ASSETS

13.1. RECOGNITION

13.1.1. An item shall be recognised as an asset if:

- it is probable that future economic benefits or service potential associated with the item will flow to the entity, and
- the cost or fair value of the item can be measured reliably.

13.1.2. PPE assets are recorded at cost which shall include the purchase price and other acquisition costs directly attributable to bringing the asset to the location and condition necessary for it to be capable of operating, such as:

- ✓ Purchase costs (less any discount given)
- ✓ Cost of site preparation
- ✓ Delivery costs
- ✓ Installation costs
- ✓ Professional fees for architects and engineers

- ✓ Import duties
- ✓ Non-refundable taxes
- ✓ Site development costs
- ✓ Contractor fees

13.1.3. For a contributed capital asset, cost is deemed to be the fair value at the date the asset is contributed.

13.1.4. Subsequent expenditure relating to PPE is capitalized if it is probable that future economic benefits or potential service delivery of the asset is enhanced in excess of the originally assessed standard of performance.

Asset Register.

13.1.6. Major spare parts / standby equipment (strategic stock) qualify as PPE when it is a significant cost in relation to the total cost of the item, and it is expected to use them during more than one year.

13.2. DIFFERENT CATEGORIES WITHIN FAR

The Fixed Asset Register (FAR) for the Municipality will contain the following types of assets categorized as tangible assets (movable and immovable) and intangible assets.

Tangible Assets

(a) *Immovable Assets:*

- ☐ Infrastructure assets:
 - Electricity assets
 - Water networks and related assets
 - Waste water networks and related assets
 - Roads, bridges, Storm water and Dams
- ☐ Land and Buildings
- ☐ Investment properties
- ☐ Community assets
- ☐ Heritage assets
- ☐ Other assets

13.1.5. Assets held under finance leases are capitalized and will be reflected in the Fixed

(b) Movable Assets:

- Office Equipment
- Furniture and Fittings
- Bins and Containers
- Emergency Equipment
- Motor Vehicles
- Plant and Equipment

(c) Intangible Assets

- Computer programs
- Licensing rights

(d) Heritage assets

13.3. INFRASTRUCTURE ASSETS

13.3.1. Some assets are commonly described as “infrastructure assets”. While there is no universally accepted definition of infrastructure assets, these assets usually display some or all of the following characteristics:

- ✓ they are part of a system or network;
- ✓ they are specialised in nature and do not have alternative uses;
- ✓ they are immovable; and
- ✓ they may be subject to constraints on disposal.

13.3.2. The major components of the infrastructure asset shall be depreciated separately provided they:

- ✓ Have a significantly different useful life or usage pattern to the main asset;
- ✓ The benefits justify the costs of separate identification;

13.4. MEASUREMENT AT RECOGNITION

Only once the municipality has taken physical delivery of a fixed asset will the process commence of recording the purchase of the asset in the fixed asset register.

13.4.1. Carrying values of Fixed Assets

Current Replacement Cost

- Infrastructure Assets are valued in terms of their Current Replacement Cost (CRC), by engineers.
- CRCs of all assets should be updated at least every 5 years.
- If fair value at the measurement date cannot be determined for an item of property, plant and equipment, an entity may estimate such fair value using depreciated

replacement cost at the measurement date for an item of property, plant and equipment.

- The asset CRCs will not determine the cost of replacing each individual structure, but rather determine an average cost (or rate) for the replacement of the asset with an equivalent infrastructure asset.
- The CRC of an asset will be determined using calculations based on engineering design principles and market rates for asset components or materials. For

example, as determined by the Bureau for Economic Research (BER)¹ and based on first principle engineering calculations that consider:

- ✓ Key asset components as well as current market costs where the BER indices cannot be used for the CRC calculation;
- ✓ The market rates upon which the CRC calculations will be based are those contained in the BER “Report for Building Costs”;
- ✓ The CRC rates for each asset class will be determined in accordance with the units of measurement listed in Annexure 6, Material Costs.

¹ Bureau for Economic Research based at Stellenbosch University, South Africa

The calculation of the CRC rates for each asset class will be determined based on first principles of engineering design requirements for an equivalent similar or typical structure, or based on information received from recent similar contracts or quotations from suppliers. *The cost build up for assets is done according to the factors applied to the raw CRC as shown in the following table:*

Table 1: CRC Factors

Capital expenditure	1.00
Access	0.05
Accommodation for Traffic	0.05
Demolition	0.20
Consulting/design Fee	0.10
Supervision	0.15
Escalation	0.05
Administration Cost	0.05
Management Cost 0.05 Contingencies	0.10
Brown Fields/Reinstatement	0.20
Sundries	0.05
Total CRC	2.05

13.4.2. Replacement norms

The municipal manager, in consultation with the Chief Financial Officer and Directors /Heads of departments, shall formulate norms and standards for the replacement of all normal operational fixed assets. Such norms and standards shall be incorporated in a formal policy, which shall be submitted to the council of the municipality for approval.

This policy shall also cover the replacement of motor vehicles, furniture and fittings, computer equipment, and any other appropriate operational items. Such policy shall also provide for the replacement of fixed assets which are required for service delivery but which have become uneconomical to maintain.

13.5. DATE OF ACQUISITION

13.5.1. Movable assets: The date of acquisition of property, plant and equipment is deemed to be the time when legal title and control passes to the municipality. The item of PPE shall however be recorded in the FAR at invoice date.

13.5.2. Infrastructure assets: The date of acquisition shall be upon completion of the project and a completion certificate signed by all relevant parties is received in the asset management department confirming such completion.

13.6. CLASSIFICATION

13.6.1. Acquisitions of items that do not meet the definition of an asset must be recorded in the inventory register.

13.6.2. Examples of items that do not qualify as assets are:

- a) Stationery
- b) Consumables
- c) Minor spare parts
- d) Water and purification chemicals

13.6.3. Acquisitions of items that meet the definition of an asset will be bar-coded and recorded in the Fixed Asset Register.

13.6.4. *The Asset Register will include the following information pertaining to individual assets:*

- ☐ The measurement based used
- ☐ The depreciation methods used
- ☐ The useful life
- ☐ Depreciation charges (current year)
- ☐ The carrying amount
- ☐ The accumulated depreciation
- ☐ Date of acquisition
- ☐ Date and price of disposal (if relevant)
- ☐ Increase or the decrease resulting from re-valuations (if relevant)
- ☐ Physical location
- ☐ The responsible Asset user
- ☐ Cost Centre of user department
- ☐ Function code
- ☐ Brief but meaningful description
- ☐ Barcode/Identification number where applicable
- ☐ Valuation
- ☐ Impairment losses
- ☐ Source of finance

14. RESIDUAL VALUE, USEFUL LIFE & DEPRECIATION METHOD

14.4.1. The residual value, and the useful life and depreciation method of each asset are reviewed at the end of each reporting date if the expectations differ from previous estimates; the change is accounted for as a change in accounting estimate.

14.4.2. Reviewing the useful life of an asset on an annual basis does not require the entity to amend the previous estimate unless expectations differ from the previous estimate.

14.4.3. Item of PPE shall be depreciated on a straight-line method.

14.4.4. Each part of an item of property, plant and equipment with a cost that is significant in relation to the total cost of the item is depreciated separately.

15. PERFORMANCE OF ASSETS

15.1 . Expected Useful Life

The purpose of expected useful life is to provide a benchmark for the lifecycle condition and performance monitoring of an asset.

15.2. Determination of the Expected Useful Life

- The Expected Useful Life (EUL) of an asset may be defined as the anticipated life of an asset from acquisition or renewal until practical failure taking cognizance of the operating environment and the maintenance regime.
- For civil assets it is the design or design working life factored to take account of the time an asset is fit for purpose and natural deterioration. Since many assets contain a combination of civil, electrical and mechanical components, the EUL of the asset is based on the asset component that has the longest expected lifespan, which is typically the civil component.
- Where the asset condition cannot be easily identified or determined, the MFMA ranges for the EUL's are to be used. For such purposes refer to Annexure 2.1 – Fixed Asset Lives.

15.3. Specification of EUL in a Municipal Environment

- Environmental conditions will influence the lifecycle management, maintenance requirements and ultimately the EUL of an asset. This implies that the EUL adopted for the infrastructure assets owned by the municipality will be adjusted according to environmental conditions.
- Some municipal assets are not designed specifically to design codes of procedure but rather on functional requirements e.g. park benches, fencing, sidewalks etc. These assets will have expected EUL's based on experience of what is „reasonable“ and will be set by the relevant department heads. For the EUL's currently in use in various Departments refer to Annexure 2.2.

15.4. Condition Assessment

- In engineering terms the performance of assets is measured by engineers by their condition. Condition assessments of assets are used to obtain information relating to both the condition and the deterioration of assets using specific guidelines including the Asset Management System Inspection Manuals. These condition assessments inform the RUL and Impairment of assets. The methods of inspection and reporting for various types of assets are described below.

15.5. Methodology and Approach to Condition Assessments

Civil Infrastructure Assets:

Structural Condition Assessments

- The condition of structural infrastructure assets is based on a visual interpretation by engineers of the structural integrity of components of the asset. During a visual inspection, each of the component defects is to be identified and rated in terms of one of the following criteria:
 - ✓ A simplistic condition (Annexure 1 to 5); and
 - ✓ A more detailed condition (0 to 100), measured in percentage which requires the assessment of the Degree, Extent and Relevance (D-E-R) of defects for each inspection item;
- The defect ratings for each asset component can be rated in terms of the relative importance of each component to the asset performance. The sum of the weighted component conditions is used to generate a "Condition Index" (CI) for each asset. The same inspection elements and criteria apply to all assets within each asset category.
- A further criterion, namely the Urgency of repair for each fault should also be recorded. The D-E-R visual inspection process must apply the established assessment guidelines set out in the BU Asset Management System Inspection Manuals. (Refer Annexure 10)
- Condition Indices, established either by the simplistic approach or detailed approach are to be converted and reported as a percentage value on the FAR (0100%).

Road Network Condition Assessments

- The condition of the various types of paved roads is determined visually according to recognized assessment manuals and guidelines. The output of the road condition assessments must include condition assessment ratings for:
 - ✓ Surfacing;
 - ✓ Pavement structure;
 - ✓ Formation / earthworks;
 - ✓ Road furniture assets;
- The first 3 items listed above may be used to determine the Visual Condition Index (VCI). The VCI assessment data, as defined by South African Road Visual Inspection standards, is used to calculate a Reseal Need Index (RNI) to reflect the surface condition of the pavements, indicating whether a reseal of the road is required and a Pavement Condition Index (PCI) to indicate whether a more structural rehabilitation is required.

Pipe Networks

The condition of the pipe networks is ascertained using various non-destructive methods, such as:

- CCTV (Close Circuit TV) cameras, which are inserted into the pipes and which travel along the length of the pipes relaying video footage of the internal pipe conditions. This method of inspection is used to determine the condition of the internal pipe surface, which is graded according to an international standard (WINCAN) or a local pipe assessment grading system (PICDATA). The pipe condition is ascertained by scoring the pipe faults identified within the pipe.
- Other methods of pipe condition assessment include ultrasound propagation along the pipe length (used for steel and cast iron pipes) to determine anomalies such as excessive rust or scaling of the pipe material.
- When pipe bursts are repaired, the portion of original pipe removed during the repair is often inspected, with pipe conditions reported if the condition of the pipe is deemed to have deteriorated to the extent that further action is required.
- Due to the cost and difficulty of pipe inspections, as well as disruption to services, pipe networks are inspected on a sample basis, with the average condition of the pipes inspected assumed to be representative of the surrounding pipe network. The measured condition of the pipes (as determined by the above inspections) would then be applied to the surrounding pipes or network at the discretion of the asset manager.

Electrical Infrastructure Assets:

Distribution Networks

The condition of the electrical distribution networks can be estimated based on the following:

- Amount of maintenance required to maintain the required levels of service; or condition of distribution network components such as poles.

Major Electrical Infrastructure Components

- The condition of major electrical components or assets is not determined using the structural D-E-R (Degree-Extent-Relevance) rating, therefore these assets must be inspected visually; but may require additional testing. This testing includes, for example, analysis of oil samples or thermography to identify whether the asset or component is functioning within the expected operational ranges.

Mechanical Assets:

Major Mechanical Components

Major mechanical components must be inspected in a non-destructive and nonobtrusive manner (i.e. the inspection must be carried out without the asset being taken out of service). Visual inspections of mechanical assets and mechanical components must establish tell-tale signs of wear and tear, such as:

- undue vibration,
- leaking seals/joints, □ high operating temperatures,
- Frequent failures, etc.

Asset operating temperatures can be established using thermography or a thermal imagery camera, which should be taken when the asset is performing under full load conditions.

Frequency of Asset Condition Assessments

The frequency of asset condition inspections is as shown in Annexure 4

Where the condition of assets is reported annually but inspections are required less frequently, the asset manager may report on the condition of the asset in one of the following ways:

- Use the asset condition determined as per the most recent asset inspection; or
- Predict the asset condition based on an expected or likely asset deterioration that would have occurred subsequent to the previous inspection.

15.6. Remaining Useful Life

The purpose of remaining useful life is to provide an estimate of the remaining life of an asset prior to reaching practical failure in terms of assessment criteria.

- The application of remaining useful life is in the prioritization of the renewal of assets. It provides one of the parameters along with condition index and financial resources available in the decision-making process.

Remaining Useful Life (RUL) calculation

The Remaining Useful Life of the asset is to be based on the condition of the asset at the time of inspection.

Condition based RUL calculation:

$$RUL \text{ (months)} = EUL \text{ (months)} \times [1 - CI_Coeff \times (1 - CI/100) ^ (1 / n)] \times 12$$

Where, CI = Condition Index (%), n is power coefficient, CI_Coeff is condition index coefficient.

Default for $n = 2$ and $CI_Coeff=1$

- The inspected condition of an asset and resulting CI is allocated to the asset and the remaining useful life is calculated according to the asset condition, therefore the RUL calculated for this method will be independent of the age of the asset.
- If the value of a fixed asset has been diminished to such an extent that it has no or a negligible further useful operating life or value such fixed asset shall be fully depreciated in the financial year in which such diminution in value occurs.

After altering the EUL, the additional or lesser depreciation expenses shall be debited to the department or vote controlling or using the fixed asset in question.

15.7. Capitalization of Reinstatement, Maintenance and Other Expenses

- Only expenses incurred in the enhancement of a fixed asset (in the form of improved or increased services or benefits flowing from the use of such asset) or in the material extension of the useful operating life of a fixed asset shall be capitalized.
- Expenses incurred in the daily operations, maintenance or service reinstatement of a fixed asset shall be considered as operating expenses incurred in ensuring that the useful operating life of the asset concerned is attained, and shall not be capitalized, irrespective of the quantum of the expenses concerned.
- Expenses which are reasonably ancillary to the bringing into operation of a fixed asset should be capitalized as part of such fixed asset. Such expenses may include but need not be limited to import duties, forward cover costs, transportation costs, surveying, design, installation, assembly and commissioning, decommissioning as well as demolition and disposal costs.

16. WORK IN PROGRESS

An item of property, plant and equipment that qualifies for recognition as an asset shall be measured at its cost.

At the end of each Financial Year the CFO and Director Technical Services must prepare a schedule of "Work in Progress" for all Infrastructure Assets under his/her control. The schedule must be prepared by Vote number and should include the following information:

☐ Vote / Project No

☐ Vote / Project Name

Vote / Project Description

Funding

Budget / MIG Approval Value

Actual Start Date

Expected Completion Date

Contractor Name

Consultants Name

Last Certificate / Invoice Value – Contractor

Last Certificate / Invoice Value – Consultant

Retention

The CFO and Director Technical Services must ensure that a File is available for inspection which includes a copy of the following:

Service level agreement

Appointment letter

☐ MIG Application & Approval

☐ All Contractors Payment Certificates

- ☐ ☐ ☐ ☐ ☐

☐

- ☐ ☐

- ☐

- All Consultants Payment Certificates

- Bill of Quantities

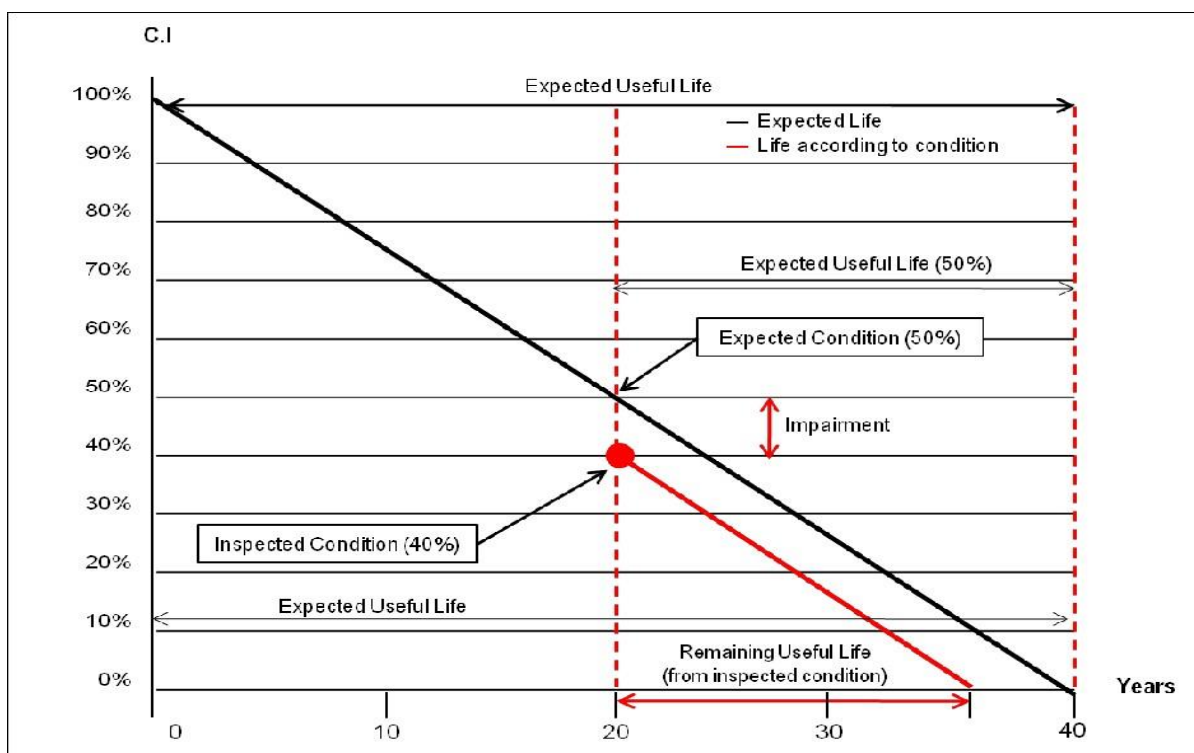
- Designs

17. IMPAIRMENT

17.4. Purpose of determining Impairment

The purpose of determining the asset deterioration and impairment is to establish whether the asset is performing according to the design and operational expectations for a similar asset of the same age.

- The annual asset review is used to assess the RUL leading to a determination of impairment which guides future investment requirements. The impairment of assets is carried out by the CFO and Director Technical Services. The procedure used is as follows:
 - ✓ Calculate the Fair value = Depreciated replacement costs (CRC – accumulated depreciation (base on CI))
 - ✓ Calculate current Residual Value (value if disposed of at end of UL or its value after renewal rather than replacement at the end of its life). Equals value at the end of the Useful life (always>0)
 - ✓ Calculate the Depreciable amount = (CRC- residual value at end of useful life).
 - ✓ Review Useful Life (o/a) – may be >< initial EUL (Asset is depreciated from DRC to Residual Value over RUL)
 - ✓ Determine impairment (if any) based on condition.
- An asset deterioration curve is a graphical representation of the predicted/ expected decrease in the condition or performance of an asset over the useful life of an asset. The impairment of an asset is the difference between the expected and actual condition index after a specific inspection.
- The relationship between the condition of an asset and the age of the asset is shown graphically in **Figure 1 below**. The asset deterioration curve is shown in its simplest form as a straight line from date of acquisition or construction over its EUL.



17.2. Impairment Triggers

Asset impairment is triggered by a variety of causes. Typical "impairment triggers" are given in Annexure 5.

18. DISPOSAL OF ASSETS

18.4. The municipality may dispose of its PPE in terms of the SCM policy.

18.5. PROCEDURES

18.5.1. All **classes of movable assets**: It is the responsibility of each custodian to report any obsolete/ damaged or stolen asset under their custodian-ship to the asset management unit.

18.5.2. **Vehicles**: Fleet coordinator with the assistance of a mechanic (Service provider) shall assess the working condition of all vehicles and identify all vehicles which are no longer working and can no longer be rehabilitated. A list of such vehicles shall be provided to the asset management unit.

18.5.3. **IT equipment**: The working condition of all IT related equipment shall be assessed by the IT team and a written recommendation on whether to dispose or rehabilitate shall be provided to asset management unit by the IT manager.

18.5.4. **Infrastructure assets**: a service provider specializing in the assessment of the working condition of the infrastructure assets and based on the recommendations the infrastructure asset shall either be rehabilitated or refurbished. If disposal as a separate component is possible that shall be exercised as the last alternative.

19. DERECOGNITION

19.4.1. Items of property, plant and equipment are derecognised when the asset is disposed of or when there are no further economic benefits or service potential expected from the use of the asset.

19.4.2. The gain or losses arising from de-recognition of an item of property, plant and equipment is included in surplus or deficit when the item is derecognised. The gain or loss arising from the derecognition of an item of property, plant and equipment is determined as the difference between the net disposal proceeds, if any, and the

amount of the item. carrying

20. INVESTMENT PROPERTY

- 20.4.1. An asset held for capital appreciation as well as to earn rentals shall be classified as investment property.
- 20.4.2. Investment property is recognised as an asset when, it is probable that the future economic benefits or service potential that are associated with the investment property will flow to the municipality, and the cost or fair value of the investment property can be measured reliably.
- 20.4.3. Investment property shall initially be recognised at cost and transaction cost shall be included in initial measurement. Where an asset is obtained at no cost or nominal cost, its cost should be measured at fair value on the date of acquisition.
- 20.4.4. Costs include costs incurred initially and costs incurred subsequently to add to, or to replace a part of, or service a property. If a replacement part is recognised in the carrying amount of the investment property, the carrying amount of the replaced part is derecognised.
- 20.4.5. Investment property is derecognised on disposal or when the investment property is permanently withdrawn from use and no future economic benefits or service potential are expected from its disposal.
- 20.4.6. Gains or losses arising from the retirement or disposal of investment property is the difference between the net disposal proceeds and the carrying amount of the asset and is recognised in surplus or deficit in the period of retirement or disposal.
- 20.4.7. Compensation from third parties for investment property that was impaired, lost or given up is recognised in surplus or deficit when the compensation becomes receivable.
- 20.4.8. Property interests held under operating leases are classified and accounted for as investment property in the following circumstances:
- land held for long-term capital appreciation rather than for short-term sale in the ordinary course of operations;
 - land held for a currently undetermined future use;
 - a building owned by the entity (or held by the entity under a finance lease) and leased out under one or more operating leases on a commercial basis and a building that is vacant but is held to be leased out under one or more operating leases on a commercial basis to external parties.

21. INTANGIBLE ASSETS

21.4.1. An intangible asset is separable, i.e. is capable of being separated or divided from the entity and then sold, transferred or used on its own or together with other assets

21.4.2. It arises from contractual or other legal rights, regardless of whether those rights are transferable or separable from the entity or from other rights and obligations.

21.4.3. Where software is an integral part of the related hardware, i.e. the hardware cannot

21.4.4. Where the software is not an integral part of the related hardware, i.e. the hardware can operate without the software, the municipality shall determine whether the cost meets the definition and recognition criteria of an intangible asset and if met, capitalise the cost as an intangible asset.

21.4.5. An intangible asset shall be recognised when it meets all the recognition criteria as outlined in GRAP 31.

operate without the software, the software will be treated as property, plant and equipment together with the related hardware already recognised, which will normally be computer equipment.

22. INVENTORY

22.1. Recognition of inventory shall be:

- ✓ When it's probable that future economic benefits will flow into the entity; and ✓
Cost of the inventory can be reliably measured.

22.2. Initial Measurement

Inventories shall initially be recognized at **cost** which includes all costs of purchases, cost of conversion and any other costs incurred to bringing the inventories to its present location and condition.

22.3. Subsequent measurement

Inventory shall subsequently be measured at the lower of cost and net realizable

22.4. Cost Formula

The cost of inventories is assigned using the weighted average cost formula. The same cost formula is used for all inventories having a similar nature and use to the

22.5. Types of Inventory

Masilonyana Local Municipality has the following types of inventory:

22.6. Requisition of Inventory

- An internal requisition form for inventory to be ordered is issued out to the main value.

municipality.

- Consumables
- Water
- Vacant stands

store in Theunissen.

- The inventory requisition form must be signed for authorisation.
- On a daily basis the inventory module must be updated accordingly with inventory issued.
- Monthly reconciliations must be performed between the inventory module and general ledger to ensure accuracy.

22.7. Inventory Count

- The inventory count is performed once a month to identify obsolete and slow moving stock and to prevent stock theft.

The inventory stock sheet is printed out and following count process is followed for consumables:

- Stock count is performed on a systematic basis from one point of the store room to the other ensuring that all stock is counted. All stock that is counted should be clearly marked (with stickers or some other method) to ensure that all stock was counted and to avoid double counting.
- All items where deviations between theoretical and actual stock are identified should be recounted and the stock clerk should be notified to investigate possible reasons for deviations.
- When the amount of stock found by physical examination fails to agree with the balance of stock records, a discrepancy exists.
- If the stock found exceeds the recorded figure there is a surplus and, conversely, if the physical stock is less than the book figure, there is a deficit.
- After the stock controller has agreed that a discrepancy exists, the procedure depends upon the nature and the value of the discrepancy. Large amount will have to be investigated. The degree of the investigation is a matter of judgement in circumstances of each case.

The following list of steps to be taken should be considered:

- Examine the transactions since the date of the last check to make sure that there are no errors or obvious omission or duplication in recording.
- See that there has been no confusion over units of issue.
- Check the basic documents (e.g. receipts).
- Report with the details of the discrepancies is given to the HOD of the department for the final decision of discrepancies.

A journal is processed for any obsolete or damaged stock written off after approval is obtained from the council.

22.8. LAND INVENTORY

- Any land or buildings owned or acquired by the Municipality with the intention of selling such property in the ordinary course of business, or any land or buildings owned or acquired by the Municipality with the intention of developing such property for the purpose of selling it in the ordinary course of business, shall be accounted or as inventory,

and not included in either property, plant and equipment or investment property in the Municipality's statement of financial position.

- Such inventories shall, however, be recorded in the assets register in the same manner as other assets, but a separate section of the assets register shall be maintained for this purpose.

DRAFT

23. INSURENCE CLAIM

23.1. All the theft/damaged to the municipal PPE shall be reported by the responsible custodian to the ASSET management department within 48hours after such incident has taken place. The following information shall be submitted to asset management unit for the purposes of insurance claim:

- Detailed report by the custodian of the asset
- ☐ Photos as evidence of the incident
- ☐ Two quotations *(to be obtained from SCM)*
IT equipment: in cases of damage *(a report from IT assessing the extent of damage)*

PS: *In cases of damage the onus is with the custodian of the asset to proof that the damage was not due to negligence. Should the internal investigation reveal that the damage was due to negligence; the custodian shall be held liable for all the costs associated with repairing or replacing that asset.*

- In cases of theft a report from SAPS

☐

24. RISK ASSESSMENT AND MANAGEMENT

The purpose of calculating asset risks is to inform the municipality of their business risk exposure (BRE), in respect of the likelihood of asset failure and resulting consequences of failure of the asset.

Section 41 of the MFMA states that Risk management must include –

- a) The identification of risks on an asset by asset basis;
- b) The allocation of risks to the party best suited to manage such risks;

- c) Acceptance of the cost of the risk where the cost of transferring the risk is greater than that of retaining it;
- d) The management of risks in a pro-active manner and the provision of adequate cover for residual risks; and
- e) The assignment of relative risks to the contracting parties through clear and unambiguous contract documentation.

25. ANNEXURES

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ANNEXURE 1: FIXED ASSET LIVES

1.1. National Treasury Guidelines

The following is the list of infrastructure assets, with the estimated useful life in years as documented by MFMA, Local Government Capital Asset Management Guideline document. The lives stated below are design lives and economic life spans that should be achieved by different classes of assets.

In the event of no substantiating or supporting engineering advice or evidence to support infrastructure asset lives, the lives stated below may be used as a guideline to such.

Infrastructure Assets

Accounting Policy Classification (APC)	Estimated Useful Life (EUL)
Buildings	25-50
Electricity	7-50
Fence and Gates	15-25
Paving	50
Recreational Facilities	7-50
Roads	8-50
Stormwater	30-50
Water and Sanitation	10-50

The following is a list of Components, showing the Adopted Expected Useful Lives.

APC	Asset Type	Asset Sub Type	Component Type	Unique Code	E U L
Buildings	Buildings	High Spec Building	High Spec Building - Electrical	BUHS-EL	25
Buildings	Buildings	High Spec Building	High Spec Building - Finishes, fittings & fixtures	BUHS-IFF	25
Buildings	Buildings	High Spec Building	High Spec Building - Foundations	BUHS-FND	50
Buildings	Buildings	High Spec Building	High Spec Building - Roof	BUHS-RF	30
Buildings	Buildings	High Spec Building	High Spec Building - Structural Fabric	BUHS-SFB	50
Buildings	Buildings	Low Spec Building	Low Spec Building - Electrical	BULS-EL	25
Buildings	Buildings	Low Spec Building	Low Spec Building - Finishes, fittings & fixtures	BULS-IFF	25
Buildings	Buildings	Low Spec Building	Low Spec Building - Foundations	BULS-FND	50
Buildings	Buildings	Low Spec Building	Low Spec Building - Roof	BULS-RF	30
Buildings	Buildings	Low Spec Building	Low Spec Building - Structural Fabric	BULS-SFB	50
Buildings	Buildings	Medium Spec Building	Medium Spec Building - Electrical	BUMS-EL	25
Buildings	Buildings	Medium Spec Building	Medium Spec Building - Finishes, fittings & fixtures	BUMS-IFF	25
Buildings	Buildings	Medium Spec Building	Medium Spec Building - Foundations	BUMS-FND	50
Buildings	Buildings	Medium Spec Building	Medium Spec Building - Roof	BUMS-RF	30
Buildings	Buildings	Medium Spec Building	Medium Spec Building - Structural Fabric	BUMS-SFB	50
Electricity	Electrical Reticulation	Transformers	100 KVA Transformer	EL-TRF100	45
Electricity	Electrical Reticulation	Overhead Cable	Cable - Airdeck (B/N Cu) - 16mm	EL-Cu10	30
Electricity	Electrical Reticulation	Overhead Cable	Cable - OH XPLE - 120mm	EL-XLPE120	30
Electricity	Electrical Reticulation	Minisubs	200 KVA Minisubs	EL-MSS200	45
Electricity	Electrical Reticulation	Transformers	200 KVA Transformer	EL-TRF200	45
Electricity	Electrical Reticulation	Minisubs	315 KVA Minisubs	EL-MSS315	45
Electricity	Electrical Reticulation	Overhead Cable	Cable - OH (3 Core) - 35mm ABC	EL-ABC35	30
Electricity	Electrical Reticulation	Overhead Cable	Cable - OH (B/N Cu) - 35mm	EL-35Cu	30
Electricity	Electrical Reticulation	Transformers	400 KVA Transformer	EL-TRF400	45
Electricity	Electrical Reticulation	Minisubs	500 KVA Minisubs	EL-MSS500	45
Electricity	Electrical Reticulation	Overhead Cable	Cable - OH (3 Core) - 50mm XLPE PVC	EL-XLPE50	30
Electricity	Electrical Reticulation	Overhead Cable	Cable - OH - 50mm ABC 3C	EL-ABC50	30
Electricity	Electrical Reticulation	Overhead Cable	Cable - OH - 70mm ABC 3C	EL-ABC70	30
Electricity	Electrical Reticulation	Underground Cable	Cable - UG PILC Conductor - 70mm	EL-PILC70UG	35
Electricity	Electrical Reticulation	Overhead Cable	Cable - OH - 95mm ABC 3C	EL-ABC95	30

Electricity	Electrical Reticulation	Overhead Cable	Cable - OH - 95mm PILC Conductor	EL-PILC95	30
	Electrical Reticulation	Overhead Cable	Cable - OH ACSR FOX	EL-FOX	
	Electrical Reticulation	Overhead Cable	Cable - OH ACSR GOPHER	EL-GOPHER	
	Electrical Reticulation				
Electricity	Electrical Reticulation	Overhead Cable	Cable - OH ACSR RABBIT	EL-RABBIT	30
Electricity	Electrical Reticulation	Area Lighting	Lumanaire	EL-LED	7
Electricity	Electrical Reticulation	Area Lighting	Lumanaire	EL-L1000	7
Electricity	Electrical Reticulation	Area Lighting	Lumanaire	LG-L150	7
Electricity	Electrical Reticulation	Area Lighting	Lumanaire	EL-L250	7
Electricity	Electrical Reticulation	Area Lighting	Lumanaire	EL-L400	7
Electricity	Electrical Reticulation	Area Lighting	Lumanaire	EL-L600	7
Electricity	Electrical Reticulation	Electricity Pole	Pole - Wooden	EL-LP10	25
Electricity	Electrical Reticulation	Electricity Pole	Pole - Wooden	EL-LP11	25
Electricity	Electrical Reticulation	Electricity Pole	Pole - Wooden	EL-LP12	25
Electricity	Electrical Reticulation	Electricity Pole	Pole - Wooden	EL-LP7	25
Electricity	Electrical Reticulation	Electricity Pole	Pole - Wooden	EL-LP9	25
Electricity	Electrical Reticulation	Area Lighting	Lumanaire	EL-LSLED	7
Electricity	Electrical Reticulation	Area Lighting	Streetlight	LG-LISM	20
Electricity	High Mast Lighting	High Mast Lighting Civil Components	Lighting Mast Foundation (40m mast)	LG-LILF	50
Electricity	High Mast Lighting	High Mast Lighting Civil Components	High Mast Light Pole	LG-LIPO	25
Electricity	High Mast Lighting	High Mast Lighting Electrical Components	Mast Luminaires - 1000W	LG-LU10	7
Electricity	Mechanical	Generator	Generator	MG-GEN100	7
Other	Fence and Gates	Security Wall/ Fence	Rigid Wall/Fence-Concrete/Steel Palisade (2.4m)	FC-FERF	25
Other	Fence and Gates	Public Wall/ Fence	Rigid Wall/Fence-Concrete/Steel Palisade (1.8m)	FC-FEDU	20
Other	Fence and Gates	Gate	Gate: Single pedestrian 1,0m wide	FG-FEGP	15
Other	Fence and Gates	Public Wall/ Fence	Flexible Wire Fencing (1,2m)	FC-FEFL	15
Other	Fence and Gates	Gate	Gate: Double leaf (4m wide, 2,4m high)	FG-FEGV	15
Paving	Paving	Low traffic	Internal Road/Parking lot	PA-PALT	50
Paving	Paving	Pedestrian	Pathway/Paved walkway	PA-PAPE	50
Recreational Facilities	Grandstands	Grandstand/Canopy roof	Grandstand Canopy roof - Metal	GR-GRCR	50
Recreational Facilities	Grandstands	Grandstand	Pavillion - open Grandstand	GR-GRPA	50
Recreational Facilities	Grandstands	Stands	Stands -steel	GR-GRST	10

Electricity

30

Water and Sanitation					
Water and Sanitation					
Water and Sanitation					
Water and Sanitation					
Electricity					30
Electricity		Overhead Cable	Cable - OH ASCR MINK	EL-MINK	30

Sanitation

Water and Sanitation				
Water and Sanitation				
Water and Sanitation				

Recreational Facilities	Minor Structure	Shade Cloth Shelter	Low specification buildings generally used as	MS-MSSC	15
Recreational Facilities	Minor Structure	Feature structure	Minor structures/Walls etc	MS-MSFS	15
Recreational Facilities	Gardens	Garden Furniture	Garden features- Gazebo/Irrigation/Benches/Picnic Table/Pergola	GF-GAFU	10
Recreational Facilities	Ponds	Pond Low Spec	Low spec Pond	WF-WFPO1	25
Recreational Facilities	Sports Facilities	Sports Furniture	Sports equipment for sporting use- Practice Net/Goal Post	SF-SFFU1	7
Recreational Facilities	Sports Facilities	Sports Furniture	Sports equipment for sporting use- Practice Net/Goal Post	SF-SFFU2	7
Recreational Facilities	Sports Facilities	Sports Furniture	Sports equipment for sporting use- Practice Net/Goal Post	SF-SFFU3	7
Recreational Facilities	Sports Facilities	Sports Furniture	Sports equipment for sporting use- Practice Net/Goal Post	SF-SFFU4	7
Recreational Facilities	Sports Facilities	Sports Furniture	Sports equipment for sporting use- Practice Net/Goal Post	SF-SFFU5	7
Recreational Facilities	Sports Facilities	Sport Field - soft surface	Sports fields for sporting use- Rugby/Soccer/Cricket/Hockey	SF-SFSF	50
Recreational Facilities	Sports Facilities	Swimming pool	Swimming pool/Tidal pool	WF-SFSP	20
Recreational Facilities	Sports Facilities	Sport Fields, hard surface	Tennic court, basketball court	SF-HDSURF	20
Recreational Facilities	Sports Facilities	Sports Furniture	Sports equipment for sporting use- Practice Net/Goal Post	SF-SFFU6	7
Roads	Roads	Stormwater Pipe Lined	Concrete Pipe	RD-SWPL	50
Roads	Roads	Urban Local Streets (Light Traffic)	Drainage	RD-A-L-D	40
Roads	Roads	Urban Collectors (Medium Traffic)	Drainage	RD-A-M-D	40
Roads	Roads	Urban Local Streets (Light Traffic)	Formation	RD-A-L-F	50
Roads	Roads	Gravel - Light to Medium Traffic	Formation	RD-G-M-F	10
Roads	Roads	Urban Collectors (Medium Traffic)	Formation	RD-A-M-F	50
Roads	Roads	Urban Local Streets (Light Traffic)	Layers	RD-A-L-P	30
Roads	Roads	Urban Collectors (Medium Traffic)	Layers	RD-A-M-P	30
Roads	Roads	Road Furniture	Road sign	SG-G6	15
Roads	Roads	Paved Sidewalk	Side walk	RDF-SW	12
Roads	Roads	Urban Local Streets (Light Traffic)	Surface	RD-A-L-S	12
Roads	Roads	Urban Collectors (Medium Traffic)	Surface	RD-A-M-S	12
Roads	Roads	Traffic Light	Road Furniture Traffic Light	RDF-TL	20
Roads	Roads	Gravel - Light to Medium Traffic	Wearing Course	RD-G-M-S	8
Stormwater	Stormwater	Stormwater Inlet	Grid Inlet	RDF-SWG	50
Stormwater	Stormwater	Manhole	Manhole	SW-MH	30
Stormwater	Stormwater	Stormwater Lined	Stormwater Lined	SW-LIN	50
Stormwater	Stormwater	Stormwater Un-lined	Stormwater Un-lined	SW-UL	30
Water and Sanitation	Borehole	Power	kW 0-40	WT-BH1	50
Water and Sanitation	Borehole	Power	kW 40-85	WT-BH2	50

Water and Sanitation					
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a shelter from elements

Sanitation

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Water and Sanitation					
Water and Sanitation	Mechanical	Inlet works screens	Inlet works screens	WW-SCRNS	50
Water and Sanitation	Buildings	Pumpstation/SubStation	SubStn/Pstn - Electrical	BUOP-EL	25
Water and Sanitation	Buildings	Pumpstation/SubStation	SubStn/Pstn - Finishes, fittings & fixtures	BUOP-IFF	25
Water and Sanitation	Buildings	Pumpstation/SubStation	SubStn/Pstn - Foundations	BUOP-FND	50
Water and Sanitation	Buildings	Pumpstation/SubStation	SubStn/Pstn - Roof	BUOP-RF	30
Water and Sanitation	Buildings	Pumpstation/SubStation	SubStn/Pstn - Structural Fabric	BUOP-SFB	50
Water and Sanitation	Motors	Motors for Pumps	0.37 Kw Motor	MT-0.37kw	10
Water and Sanitation	Motors	Motors for Pumps	0.75 Kw Motor	MT-0.75kw	10
Water and Sanitation	Motors	Motors for Pumps	0.98 Kw Motor	MT-0.98kw	10
Water and Sanitation	Motors	Motors for Pumps	1.1 Kw Motor	MT-1.1kw	10
Water and Sanitation	Motors	Motors for Pumps	1.5 Kw Compressor	MT-1.5kw	10
Water and Sanitation	Motors	Motors for Pumps	11 Kw Blower Motor	MT-11kw	10
Water and Sanitation	Motors	Motors for Pumps	18.5 Kw Motor	MT-18.5kw	10
Water and Sanitation	Motors	Motors for Pumps	2.2 Kw/150Lt Compressor Motor	MT-2.2kw	10
Water and Sanitation	Motors	Motors for Pumps	2.25 Kw Close Coupled Motor	MT-2.25kw	10
Water and Sanitation	Motors	Motors for Pumps	22 Kw Motor 1	MT-22kw	10
Water and Sanitation	Motors	Motors for Pumps	30 Kw Motor	MT-30kw	10
Water and Sanitation	Motors	Motors for Pumps	30+ Kw Motor	MT-30kw+	10
Water and Sanitation	Motors	Motors for Pumps	4.2 Kw Close Coupled Motor	MT-4.2kw	10
Water and Sanitation	Motors	Motors for Pumps	Motor & Gearbox	MT-7.5kw+	10
Water and Sanitation	Motors	Motors for Pumps	Motor 15Kw	MT-15kw	10
Water and Sanitation	Pipes - Gravity	Pipes	HDPE 450 mm	PG-SAN-uPVC-450	40
Water and Sanitation	Pipes - Gravity	Pipes	uPVC 110 mm	PG-SAN-uPVC-110	40
Water and Sanitation	Pipes - Gravity	Pipes	uPVC 160 mm	PG-SAN-uPVC-160	40
Water and Sanitation	Pipes - Gravity	Pipes	uPVC 200 mm	PG-SAN-uPVC-200	40
Water and Sanitation	Pipes - Gravity	Pipes	uPVC 250 mm	PG-SAN-uPVC-250	40

Water and Sanitation					
Water and Sanitation					
Water and Sanitation					
Water and Sanitation					
	Pipes - Gravity	Pipes	uPVC 300 mm	PG-SAN-uPVC-300	40
	Pipes - Pressure	Pipes	Bulkpipelines 250 mm	PP-BPL5	50
	Pipes - Pressure	Pipes	Bulkpipelines 300 mm	PP-BPL11	50
	Pipes - Pressure	Pipes	Bulkpipelines 400 mm	PP-BPL12	50
Water and Sanitation	Pipes - Pressure	Pipes	Bulkpipelines 450 mm	PP-BPL7	50
Water and Sanitation	Pipes - Pressure	Pipes	Bulkpipelines 600 mm	PP-BPL13	50
Water and Sanitation	Pipes - Pressure	Pipes	Bulkpipelines 300 mm	PP-BPL6	50
Water and Sanitation	Pipes - Pressure	Pipes	Pipelines 110 mm	PP-BPL2	50
Water and Sanitation	Pipes - Pressure	Pipes	Pipelines 160 mm	PP-BPL3	50
Water and Sanitation	Pipes - Pressure	Pipes	Pipelines 200 mm	PP-BPL4	50
Water and Sanitation	Pipes - Pressure	Pipes	Pipelines 75 mm	PP-BPL1	50
Water and Sanitation	Ponds	Retention/Detention Ponds	Pond lining concrete	WW-PLC	50
Water and Sanitation	Ponds	Pond Liner	Pond lining geosynthetic	WW-PLG	50
Water and Sanitation	Pumps	Pumps	Submersible pump above 20kW	PS-SB21+	10
Water and Sanitation	Pumps	Pumps	Dry installation pump up to 5kW	PS-SB1-5	10
Water and Sanitation	Pumps	Pumps	Dry installation pump 15 to 40kW	PS-SB16-40	10
Water and Sanitation	Pumps	Pumps	Dry installation pump up to 15kW	PS-DI0-15	10
Water and Sanitation	Pumps	Pumps	Dry installation pump up to 15kW	PS-SB6-10	10
Water and Sanitation	Pumps	Pumps	Dry installation pump greater than 40kW	PS-SB40+	10
Water and Sanitation	Specials	Specials - Mechanical	Surface Aerator	WW-AER37	15
Water and Sanitation	Specials	Electronic Equipment	Control Panel	EL-CNTRPNL	20
Water and Sanitation	Specials	Meter	Water - Domestic meters (15mm)	ME-DM15	15
Water and Sanitation	Specials	Meter	Water - Domestic meters (25mm)	ME-DM25	15
Water and Sanitation	Specials	Electronic Equipment	Electrical equipment- DB Panel	EL-ELDB	20
Water and Sanitation	Specials	Electronic Equipment	Flowmeter-sewage	WW-MET	15
Water and Sanitation	Specials	Fabricated Steelwork	Overhead Crane	ME-OHDCRN	25
Water and Sanitation	Specials	Electronic Equipment	Small Pump telemetry & controls	EL-ELPU	10
	Valves	Gate Valve	Gate Valve 110 mm	MEV-GV110	25
	Valves	Gate Valve	Gate Valve 150 mm	MEV-GV150	25

Water and Sanitation				MEV-GV250	
Water and Sanitation					
Water and Sanitation					
Water and Sanitation					
	Valves	Gate Valve	Gate Valve 250mm	MEV-GV250	25
	Valves	Gate Valve	Gate Valve 350 mm	MEV-GV350	25
	Valves	Gate Valve	Gate Valve 50 mm	MEV-GV50	25
	Valves	Gate Valve	Gate Valve 65 mm	MEV-GV65	25
Water and Sanitation	Valves	Gate Valve	Gate Valve 75 mm	MEV-GV75	25
Water and Sanitation	Valves	Gate Valve	Gate Valve 90 mm	MEV-GV90	25
Water and Sanitation	Valves	Non-Return Valve	Non-Return Valve 110 mm	MEV-NRV110	25
Water and Sanitation	Valves	Non-Return Valve	Non-Return Valve 150 mm	MEV-NRV150	25
Water and Sanitation	Valves	Non-Return Valve	Non-Return Valve 160 mm	MEV-NRV160	25
Water and Sanitation	Valves	Non-Return Valve	Non-Return Valve 350 mm	MEV-NRV350	25
Water and Sanitation	Valves	Non-Return Valve	Non-Return Valve 50 mm	MEV-NRV50	25
Water and Sanitation	Valves	Non-Return Valve	Non-Return Valve 65 mm	MEV-NRV65	25
Water and Sanitation	Valves	Non-Return Valve	Non-Return Valve 75 mm	MEV-NRV75	25
Water and Sanitation	Valves	Non-Return Valve	Non-Return Valve 90 mm	MEV-NRV90	25
Water and Sanitation	Valves	Pressure Reducing Valve	Pressure Reducing Valve 110 mm	MEV-PRV110	25
Water and Sanitation	Valves	Pressure Reducing Valve	Pressure Reducing Valve 150 mm	MEV-PRV150	25
Water and Sanitation	Valves	Pressure Reducing Valve	Pressure Reducing Valve 160 mm	MEV-PRV160	25
Water and Sanitation	Valves	Pressure Reducing Valve	Pressure Reducing Valve 350 mm	MEV-PRV350	25
Water and Sanitation	Valves	Pressure Reducing Valve	Pressure Reducing Valve 50 mm	MEV-PRV50	25
Water and Sanitation	Valves	Pressure Reducing Valve	Pressure Reducing Valve 65 mm	MEV-PRV65	25
Water and Sanitation	Valves	Pressure Reducing Valve	Pressure Reducing Valve 75 mm	MEV-PRV75	25
Water and Sanitation	Valves	Pressure Reducing Valve	Pressure Reducing Valve 90 mm	MEV-PRV90	25
Water and Sanitation	Valves	Scour Valve	Scour Valve 110 mm	MEV-SV110	25
Water and Sanitation	Valves	Scour Valve	Scour Valve 150 mm	MEV-SV150	25
Water and Sanitation	Valves	Scour Valve	Scour Valve 160 mm	MEV-SV160	25
Water and Sanitation	Valves	Scour Valve	Scour Valve 350 mm	MEV-SV350	25
Water and Sanitation	Valves	Scour Valve	Scour Valve 50 mm	MEV-SV50	25
	Valves	Scour Valve	Scour Valve 65 mm	MEV-SV650	25
	Valves	Scour Valve	Scour Valve 75 mm	MEV-SV75	25

Water and Sanitation					
Water and Sanitation					
Water and Sanitation					
Water and Sanitation					
	Water	Fire Hydrant	Fire Hydrant	WA-FH	20
	Water Retaining Structure	Reservoir	Foundations	RES-FND	50
	Water Retaining Structure	Elevated Steel Tanks/Reservoir	Tank - Foundations	TNK-ELST-FND	25
	Water Retaining Structure	Plastic tank	Jojo Tank	TK-WFJ1	30
Water and Sanitation	Water Retaining Structure	Reservoir	Roof	RES-RF	30
Water and Sanitation	Water Retaining Structure	Reservoir	Structural Fabric	RES-SF	50
Water and Sanitation	Water Retaining Structure	Elevated Steel Tanks/Reservoir	Tank - Structural Fabric	TNK-ELST-SF	25
Water and Sanitation	Water/WW Retaining Structure	Tanks	Tank - Foundations	TNK-FND	50
Water and Sanitation	Water/WW Retaining Structure	Tanks	Tank - Structural Fabric	TNK-SF	50

Heritage Assets

The following is a list of at least some typical heritage assets encountered in the municipal environment (no asset lives are given, of course, as no ordinary depreciation will be charged against such assets):

- ✓ Museum exhibits
- ✓ Historical sites (for example, an Iron Age kiln, historical battle site or site of a historical

It is not possible to provide an exhaustive list of investment assets, as the actual list will depend very much on the local circumstances of each municipality. However, the following will be among the most frequently encountered:

- ✓ Office parks (which have been developed by the Municipality itself or jointly between the Municipality and one or more other parties)
- ✓ Shopping centres (again developed along similar lines)

Movable Assets

The following is a list of movable assets, again showing the estimated useful life in years:

Other Property Plant and Equipment	Estimated Useful Life (EUL)
Office Equipment	2-7
Furniture and Fittings	3-10
Motor Vehicles	3-7
Heavy Machinery and Vehicles	3-10

- ✓ Works of art (which will include paintings and sculptures)
- ✓ Public statues
- ✓ Historical buildings or other historical structures (such as war memorials)

settlement)

Investment Assets

ANNEXURE 2: PARAPHRASE OF SECTION 14 OF THE MUNICIPAL FINANCE MANAGEMENT ACT 2003

A municipality may not alienate any capital asset required to provide a minimum level of basic municipal services.

A municipality may alienate any other capital asset, but provided

- the council, in a meeting open to the public, has first determined that the asset is not required to provide a minimum level of basic municipal services, and
- The council has considered the fair market value of the asset and the economic and community value to be received in exchange for the asset.

ANNEXURE 3: FREQUENCY OF ASSET CONDITION INSPECTIONS

The frequency of asset condition inspections for various groups is as follows:

- 1. Civil assets:** At least every 5 years (unless otherwise indicated);
- 2. Electrical assets:**

Distribution networks – every 5 years;

All other electrical assets and components – every 2 years

3. Mechanical assets:

Lifts and lifting equipment: as required by legislation;

Other mechanical assets – every 2 years;

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ANNEXURE 4: TYPICAL IMPAIRMENT TRIGGERS

NO.	CAUSE OF DEFECT / IMPAIRMENT TRIGGERS	EXAMPLE DESCRIPTION
1	Accident damage / 3rd party interference	Damaged by vehicle, Damaged due to unforeseen/uncontrollable circumstances, Broken member(s)
2	Bad workmanship	Inadequate design / Honeycomb concrete / inadequate cover / design error / incorrect installation / poor quality repair / construction
3	Chemical damage / decay	ASR / AAR / chemical attack / carbonation / corrosion / chloride attack
4	Mechanical damage	Expansion joint nosing's / restrained bearings / bearing failure
5	Natural event	Flooding / fire / wind / earthquake / erosion / wave action
6	None	In good condition
7	Poor maintenance	Failure of corrosion protection / blocked drainage / debris / vegetation / water damage
8	Service deterioration	Corrosion / Rutting / settlement / subsidence / deflection / loss of structural integrity / UV deterioration / Natural degradation at a rate faster than anticipated
9	Capacity failure	Condition loss due to overloading or overuse / Condition loss or failure due to lack of capacity of the asset to handle required demands
10	Vandalism / theft	Graffiti / broken with malicious intent / missing member(s) or components

ANNEXURE 5: ASSET VALUATION MEASUREMENT UNITS

The CRC calculation methods are generally taken from standard specifications and methods of measurement.

- Assets are valued in terms of their Deemed Cost, the cost of assets that were acquired prior to the measurement date 1 July 2008.

- Cost code rates are applied at component level and multiplied by the quantity of the component, as measured in the field. Cost code rates are sourced from various

The following guidelines are used for the valuation of Assets:

DPLG - Guidelines for Infrastructure Asset Management in Local Government 2006 – 2009;

COGTA – Municipal Infrastructure an Industry Guide to Infrastructure Service Delivery Levels And Unit Costs June 2010; and

SASR - Norms and Standards for Sport and Recreation Infrastructure Provision and Management an Active and Winning Nation Volume 2 - Technical Specifications, September 2010.

Assets acquired subsequent to 1 July 2008 are valued at actual cost.

technical documents and infrastructure guidelines including quotations where no valuations could be obtained from guideline documents.

□

□

□

ANNEXURE 6: BUSINESS RISK EXPOSURE METHODOLOGY

Treatment or mitigation strategies are identified with different levels of risk and renewal costs can be applied across the group of assets and compared with the renewal budget to prioritise the available expenditure.

This assessment of Business Risk Exposure (BRE) is used to ensure that the scarce resources and budgets are focused in the greatest risks faced by the municipality. The BRE helps optimize expenditure and management activities in other ways, including maintenance prioritization, data collection, condition assessment programs and the development of Emergency Management Plans (EMP)

Business Risk Exposure Calculation Methodology

Business risk exposure is the combination of the consequence of the risk and probability of the occurrence of the risk. Where there is a matrix of probabilities and consequences – as with infrastructure assets – a weighting factor is included so that the quantitative value of risk exposure based on the type of service considered.

The weighting applied to the risk exposure relates to the importance of the asset. The following service risk weightings are used by the municipality:

Water	19
Electricity	17
Sanitation	14
Roads	12
Bridges & retaining walls	12
Stormwater	7
Buildings	7
Parks	4

's).

Asset risk must be estimated not only to assess business risk but also in order to prioritise maintenance and renewal decision-making especially when there is a limited budget.

$BRE = (\text{Probability of Failure}) \times (\text{Consequence of Failure}) \times \text{Weighting}$

Note: the asset risk calculation does not distinguish between critical and non-critical components of an asset. The relevance of each component must be determined for the asset category/class, which would influence the structural integrity of the asset.

Probability of Failure (PoF)

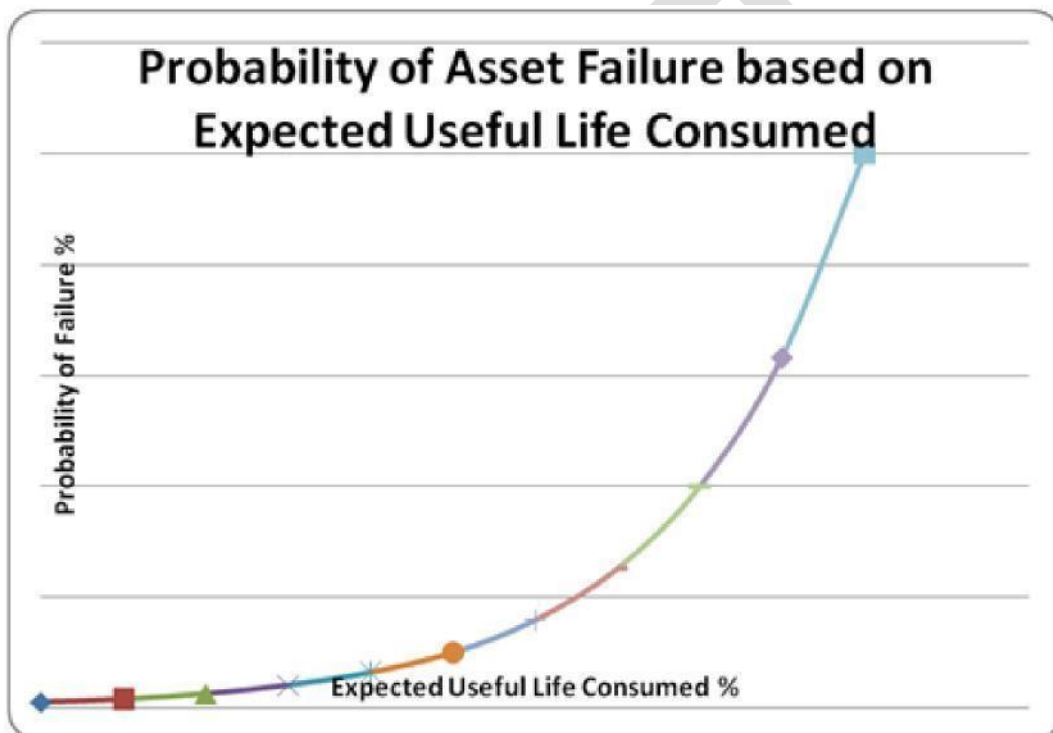
The calculation of infrastructure asset risk is based on the probability of failure as well as the consequence of failure. The probability of asset failure is calculated according to the methodology outlined below:

$PoF = 0.01 \times 100 (EUL - RUL)/EUL$ Where

PoF = Probability of Failure (in %),

EUL = Expected Useful Life (determined by asset class/type),

RUL=Remaining Useful Life (an estimate from the generic asset deterioration curve and using asset).



Example only Asset Probability of Failure based on Effective Life Consumed

Consequence of Failure (CoF)

The consequence of a risk event is defined as the severity or impact that a risk event poses. This can be measured in many ways depending on the risk event itself. It can be measures qualitatively ranging from insignificant to catastrophic. A more sophisticated approach is to measure the risk quantitatively in terms of e.g. the number of people affected by the event.

The Consequence of Failure is determined in terms of the number of people affected in a particular day multiplied by the number of days that they are affected.

Adjusted Business Risk Exposure

The adjusted Business Risk Exposure is calculated by multiplying a factor relating to the asset redundancy to the Business Risk calculated above.

The factor to be used must be applied as follows:

Full redundancy (no loss of service)	0.25
Partial redundancy (service can resume but at lower level of service)	0.50
Minimal redundancy (service can resume with severe impacts in levels of service)	0.75
No redundancy (i.e. full loss of service)	1.00

ANNEXURE 7: STANDARISATION OF ASSETS/COMPONENTS

Hierarchy Structure Adopted

The image below illustrates the generally accepted hierarchy structure as adopted by IIMS. The structure has been formulated in accordance with best practice asset

management guidelines and hence allows for effective roll up of component and asset information to higher hierarchy levels.

The structure, as illustrated in Figure 1, therefore facilitates efficient reporting, as well as producing a comprehensive asset register that meets all legislative requirements.

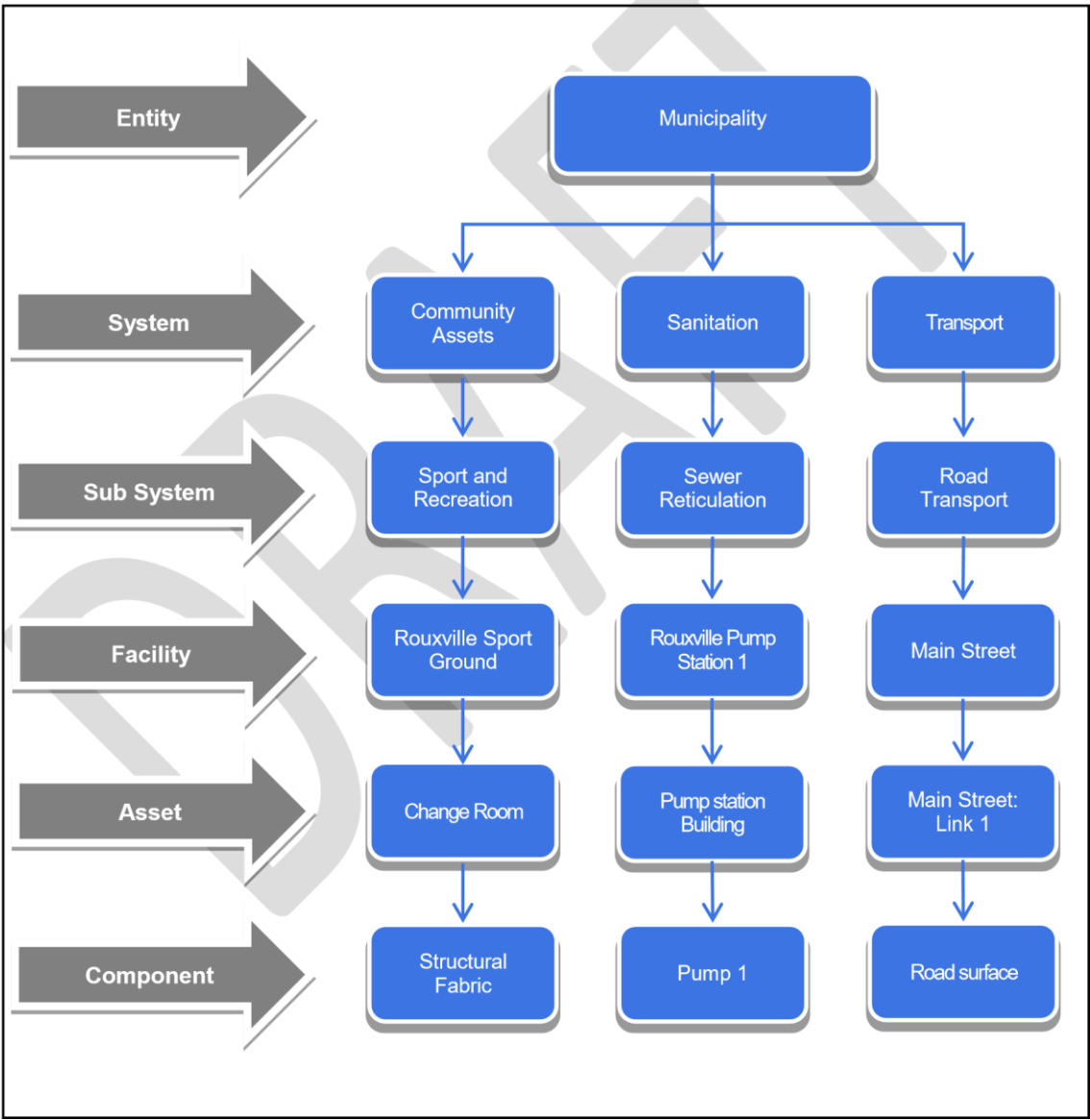


Figure 1Example IIMS Hierarchy Structure

Classification of Assets

Table 1 Financial Classification of Assets

FacilityClassification	FinancialClassification
Community and Admin	Community Assets
Parks and Cemeteries	
Sports Facilities	
Community and Admin	Heritage Assets
Electricity	Infrastructure Assets
Roads	
Rail	
Airports	
Sewage Reticulation	
Sewage Treatment	
Solid Waste Disposal	
Storm Water	
Bulk Water	
Water Reticulation	
Servitudes	Intangible Assets
Improved Property	Investment Property
Unimproved Property	
Housing	Land and Buildings
Operational Buildings	

Hierarchy Types

The tables below are examples of the different Hierarchy Types that can be used in the FAR.

Table 2 IIMS System Examples

System	System ID
Community Assets	CA
Heritage Assets	HA
Intangible Assets	ITA
Investment Properties	IP
Land & Buildings	LB
Electricity	EL
Sanitation	SN
Solid Waste	SW
Stormwater Systems	ST
Transport	TR
Water	WA

Table 3IIMS SubSystem Examples

System ID	System	Subsystem ID	Subsystem Description
CA	Community Assets	CA01	Community and Admin
CA		CA02	Parks & Cemeteries
CA		CA03	Sport Facilities
HA	Heritage Assets	HA01	Community and Admin
ITA	Intangible Assets	ITA01	Servitudes
IP	Investment Properties	IP01	Improved Property
IP		IP02	Unimproved Property
LB	Land and Buildings	LB01	Housing
LB		LB02	Land
EL	Electricity	EL01	Lighting
EL		EL02	HV
EL		EL03	MV
EL		EL04	LV
SA	Sanitation	SA01	Sewage Treatment
SA		SA02	Sewer Reticulation
ST	Stormwater Systems	ST01	Bulk Stormwater
ST		ST02	Road Stormwater
SW	Solid Waste	SW01	Solid Waste Disposal
TR	Transport	TR01	Road Transport
TR		TR02	Rail Transport
TR		TR03	Airports
WA	Water	WA01	Water Bulk
WA		WA02	Water Reticulation
WA		WA03	Water Supply & Treatment
WA		WA04	Water Storage

Facility Types

The tables below are examples of the different Facility Types that can be indicated in the FAR.

System	Subsystem	Facility Type
Community Assets	Community and Admin	Admin Office
		Care Centre
		Clinic
		Community Hall/Centre
		Craft Centre
		Library
		Multi-Purpose Hall
		Stores/Warehouse

System	Subsystem	Facility Type
	Parks & Cemeteries	Cemetery
		Park / Garden
	Sport Facilities	Sports Ground
		Stadium
Heritage Assets	Community and Admin	Heritage Site
Intangible Assets	Servitudes	Land
Investment Properties	Land	Unimproved Property
	Land & Buildings	Improved Property
Land & Buildings	Housing	Residential Accommodation
	Land	Land
Electricity	HV	HV Conductor
		HV Substation
	Lighting	Area Lighting
	LV	LV Conductor
	MV	MV Conductor
		MV Substation
Sanitation	Sewage Treatment	Wastewater Treatment Works
	Sewer Reticulation	Bulk Sewers
		Sewage Pump Station
		Sewer Reticulation
Solid Waste	Solid Waste Disposal	Solid Waste Dump
Stormwater Systems	Bulk Stormwater	Stormwater Collection
	Road Stormwater	Stormwater Collection
Transport	Road Transport	Road Network
	Rail Transport	Rail Network
	Air Transport	Airport
Water	Water Bulk	Bulk Water Pipeline
	Water Reticulation	Water Reticulation Pipeline
	Water Storage	Water Storage
	Water Supply & Treatment	Water Pump Station
	Water Supply & Treatment	Water Source
	Water Supply & Treatment	Water Treatment Works

System	Subsystem	Facility Type	Asset Type	Component Type

Hierarchy with Asset and Component Types

System	Subsystem	Facility Type	Asset Type	Component Type
Community Assets	Community and Admin	Admin Office	Building	Foundation
		Clinic		Walls
		Community Hall/Centre		Roof
		Craft Centre		Internal Finishes & Fittings
		Library		Electrical
		Multi-Purpose Hall	Fence	Fence/Wall - Fabric
		Stores/Warehouse		Fence/Wall - Gate
		Care Centre	Paved Area	Paving
			Tank	Containment Structure
			Shelter	Supporting Structure
				Roof
	Parks & Cemeteries	Park / Garden	Building	Foundation
				Walls
				Roof
				Internal Finishes & Fittings
				Electrical
			Fence	Fence/Wall - Fabric
				Fence/Wall - Gate
			Garden	Garden - Landscaping
				Garden - Furniture
			Minor Structure	Foundation
				Structural Fabric
			Water Feature	Structural Fabric
				Motor
				Pump
		Cemetery	Building	Foundation
				Walls
				Roof
				Internal Finishes & Fittings
				Electrical
			Fence	Fence/Wall - Fabric
				Fence/Wall - Gate
	Sport Facilities	Sports Ground	Building	Foundation
				Walls
				Roof
				Internal Finishes & Fittings
				Electrical
			Fence	Fence/Wall - Fabric

System	Subsystem	Facility Type	Asset Type	Component Type
				Fence/Wall - Gate
			Ball Court	Ball Court Surface
			Swimming Pool	Structural Fabric
				Pipework
				Pump
				Motor
			Pavilion	Structural Fabric
				Foundation
				Roof
				Seating
			Sports Field	Sports Field - Grassed Surface
				Sports Field - Furniture
			Spot Light	Foundation
				Mast
				Luminaires
				Distribution Box
		Stadium	Building	Foundation
				Walls
				Roof
				Internal Finishes & Fittings
				Electrical
			Fence	Fence/Wall - Fabric
				Fence/Wall - Gate
			Sports Field	Sports Field - Grassed Surface
				Sports Field - Furniture
			Pavilion	Structural Fabric
				Foundation
				Roof
				Seating
			Spot Light	Foundation
				Mast
				Luminaires
				Distribution Box
Heritage Assets	Community and Admin	Heritage Site	Building	Foundation
				Walls
				Roof
				Internal Finishes & Fittings
				Electrical
			Fence	Fence/Wall - Fabric
				Fence/Wall - Gate
			Garden	Garden - Landscaping

System	Subsystem	Facility Type	Asset Type	Component Type
				Garden - Furniture
			Minor Structure	Foundation
				Structural Fabric
			Water Feature	Structural Fabric
				Motor
				Pump
Electricity	Lighting	Area Lighting	High Mast Light	Foundation
				Mast
				Luminaires
				Distribution Box
	HV	HV Substation	Building (Substation)	Foundation
				Walls
				Roof
				Internal Finishes & Fittings
				Electrical
				Battery
				Switchgear
				Transformer
			Electrical Yard	Auto Recloser
				Circuit Breaker
				Gas Breaker
				Insulator
				Ring Main Unit
				Transformer
				Surge Arrestor
				Steel Super Structures
				Vacuum Breaker
		HV Conductor	Overhead Line	Electrical Cable
				Pole
			Underground Cable	Electrical Cable
	MV	MV Substation	Mini Substation	Foundation
				Structural Fabric
				Battery
				Transformer
				Circuit Breaker
				Isolator
				Switchgear
		MV Conductor	Overhead Line	Electrical Cable
				Pole
				Pole Transformer
				Isolator
	LV	LV Conductor	Overhead Line	Electrical Cable

System	Subsystem	Facility Type	Asset Type	Component Type
				Pole
Investment Properties	Land & Buildings	Improved Property	Building	Foundation
				Walls
				Roof
				Internal Finishes & Fittings
				Electrical
			Land	Land
		Unimproved Property	Land	Land
Intangible Assets	Servitudes	Land	Electrical Servitude	Land
			Water Servitude	Land
			Sewer Servitude	Land
Sanitation	Sewage Treatment	Wastewater Treatment Works	Building	Foundation
				Walls
				Roof
				Internal Finishes & Fittings
				Electrical
				Pump
				Motor
				Dosing Equipment
				Switchboard
				Switchgear
			Fence	Fence/Wall - Fabric
				Fence/Wall - Gate
			Inlet Works	Meter / Gauge
				Grit Channel
				Structural Fabric
				Screen
			Pond	Lining
			Pipework	Pipe
				Valve
			Tank	Structural Fabric
				Gearbox
				Mixer
				Motor
				Pump
				Rotating Arm
				Sluice Gate
				Splitter Box
				Walkway
	Sewer Reticulation	Bulk Sewers	Bulk Sewer Pipeline	Pipe
				Manhole

System	Subsystem	Facility Type	Asset Type	Component Type
				Pipe
				Manhole
		Sewer Reticulation	Sewer Pipeline	Pipe
				Manhole
		Sewage Pump Station	Building (Pump station)	Foundation
				Walls
				Roof
				Internal Finishes & Fittings
				Electrical
				Pump
				Motor
				Valve
				Pipe
				Crane
			Fence	Fence/Wall - Fabric
				Fence/Wall - Gate
Solid Waste	Solid Waste Disposal	Solid Waste Dump	Building	Foundation
				Walls
				Roof
				Internal Finishes & Fittings
				Electrical
			Fence	Fence/Wall - Fabric
				Fence/Wall - Gate
			Waste Containment Cell	Cover Material
				Lining
			Weighbridge	Concrete Works
				Scale / Load Cell
				Scoreboard / Display
Stormwater Systems	Bulk Stormwater	Stormwater Collection	Stormwater Pipeline	Pipe
			Culvert	Structural Fabric
			Catchpit	Catchpit
			Canal	Canal
			Channel	Structural Fabric
	Road Stormwater	Stormwater Collection	Kerb Inlet	Kerb Inlet
			Culvert	Structural Fabric
			Catchpit	Catchpit
			Canal	Canal
			Channel	Structural Fabric
Transport	Road Transport	Road Network	Road - Paved	Road - Surface
				Road - Layers

System	Subsystem	Facility Type	Asset Type	Component Type
				Road - Formation
				Road - Drainage
				Road - Sign
				Sidewalk
				Traffic Light
				Road Furniture
			Road - Gravel	Road - Wearing Course
				Road - Layers
				Road - Sign
			Road - Earth Track	Road - Wearing Course
				Road - Sign
			Bridge	Bridge - Abutment
				Bridge - Balustrade
				Bridge - Bearing
				Bridge - Deck
				Bridge - Joints
				Road - Sign
Water	Water Bulk	Bulk Water Pipeline	Pipeline (Bulk)	Pipe
				Meter / Gauge
				Valve
		Bulk Water Channel	Chamber	Valve
				Strainer / Dirt Box
				Meter / Gauge
				Structural Fabric
		Bulk Water Channel	Cathodic Protection	Structural Fabric
				Electrical
	Water Reticulation	Bulk Water Channel	Channel	Structural Fabric
		Water Reticulation Pipeline	Pipeline (Reticulation)	Pipe
				Valve
				Meter / Gauge
				Fire Hydrant
			Standpipe	Standpipe
	Water Supply & Treatment	Water Source	Borehole	Enclosure
				Shaft & Casing
				Pump
				Motor
				Control Panel
			Fence	Fence/Wall - Fabric
				Fence/Wall - Gate
		Water Pump Station	Building (Pump station)	Foundation
				Walls
				Roof

System	Subsystem	Facility Type	Asset Type	Component Type
				Internal Finishes & Fittings
				Electrical
				Pump
				Motor
				Transformer
				Crane
				Meter
				Switchgear
			Fence	Fence/Wall - Fabric
				Fence/Wall - Gate
			Pipework	Pipe
				Valve
				Meter
			Shelter (Pump Shelter)	Supporting Structure
				Roof
		Water Treatment Works	Building	Foundation
				Walls
				Roof
				Internal Finishes & Fittings
				Electrical
				Filters
				Dosing Equipment
				Chemical Stirrer
				Filtration Equipment
				Control Panel
			Fence	Fence/Wall - Fabric
				Fence/Wall - Gate
			Tank	Foundation
				Supporting Structure
				Containment Structure
			Pipework	Pipe
				Valve
				Meter
	Water Storage	Water Storage	Reservoir	Foundation
				Containment Structure
				Telemetry
				Valve
				Meter
				Pipe
			Chamber	Valve
				Strainer / Dirt Box
				Meter / Gauge

System	Subsystem	Facility Type	Asset Type	Component Type
			Fence	Structural Fabric
				Fence/Wall - Fabric
			Tank	Fence/Wall - Gate
				Foundation
				Supporting Structure
			Tower	Containment Structure
				Foundation
				Containment Structure
				Telemetry
				Valve
				Meter
			Tower	Foundation
				Structural Fabric

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ANNEXURE 8: CONDITION INDEX

Visual Assessment is the direct evaluation of those properties of a physical asset that are visible by the naked eye and can be evaluated directly in the field. The primary purpose of a visual assessment is to determine the present condition of the assets. This information can also be used to build up a record of asset condition over time and to identify whether any capital improvements or maintenance works are required to maintain or improve the required levels of service.

During visual assessment, no testing, that causes some form of damage to an asset/component is done. This includes, cutting out a section of pipe or underground cable or taking a core sample from a concrete structure or road. All of these tests are usually regarded as destructive.

Visual assessment cannot:

- Provide information about the inside of an enclosed structure. The visual assessment cannot confirm the condition of the bulk fabric of a structure or the presence or state of internal defects or the state of the inside surface.

Visual assessment is also limited in its ability to:

- Distinguish between surface features and features that affect the bulk of the structure;
- Identify the underlying causes of a problem; and
- Confirm the internal configuration of assets.

More specialist assessment may be required to address the above factors or to determine whether a more specialist assessment would be useful. Specialist assessments are usually more expensive and time consuming so will be conducted less often, whereby visual assessments are relatively cheap, quick and is non-destructive.

The grading of assets in order to arrive at a condition index (CI) can be done in 3 ways:

- Simple Inspection – Selected CI: Assigning a CI based on the overall condition of the asset, measured either as a selected CI (a defined% group between 0% - 100%, Very Poor to Very Good)
- Simple Inspection – Custom CI: Assign a custom CI (any % between 0% - 100%).
- Detailed Inspection: By assessing the degree, extent and relevance

Each inspection item contains the inspection date, details of the capturer/inspector and a CI. Inspections are usually carried out and uploaded at component level which then rolls up to the parent asset to generate an overall asset condition.

Simple Inspection

Simple inspections can be added either as a Selected Condition Index or a custom Condition Index. Both types of simple inspections can either be bulk uploaded or manually created for each component on IIMS.

Selected Condition Index

A Selected CI is generated based on a defined % range describing the overall condition of the component.

Note that the selected Condition Index is uploaded as a defined % value when using the bulk upload tool where as a range value is selected when manually creating the simple inspection item using the Selected Condition Index method.

The Selected Condition Index Values are listed in the table below:

Table 4 Selected Condition Index Values

CI (value)	CI Definition	% Value	IIMS CI Equivalent (%)
0	Unable to Inspect	Unable to Inspect	0%
1	Very Good	(80% - 100%)	92%
2	Good	(60% - 80%)	75%
3	Fair	(40% - 60%)	50%
4	Poor	(20% - 40%)	30%
5	Very Poor	(0% - 20%)	20%

Custom Condition Index

A Custom Condition Index is any % between 0% - 100% used to describe the overall condition of a component. The Custom Condition can be bulk uploaded as a % value decided.

Detailed inspection

A detailed inspection is used to grade an asset by assessing the degree, extent and relevance (D/E/R) of the defects/problems identified on each of its children components.

The degree, extent and relevance for the inspection of each component of an asset is as follows:

Table 5 DER Descriptions

Degree (D)	The severity of each identified defect.
Extent (E)	The extent to which defects occur for the entire asset.
Relevance (R)	The relevance of that fault in relation to the asset performing its intended function or impact of the defect on the safety of the asset.

Defects/problems identified on each component are reviewed and documented as follows:

Table 6 Degree Values and definitions

Degree	
0	Not applicable or no visible defects
1	No real defects, generally good condition
2	Fair condition, still performing adequately but could get worse if neglected
3	Poor condition, not performing its function properly or in such a state that it will shortly become a major problem
4	Poor condition, not performing its function and requires immediate attention

Table 7 Extent Values and definitions

Extent	
0	Unable to inspect, underground or no access
1	Local, at one or few localities
2	Intermittent, at more localities than local
3	Almost general, at several widely spread localities
4	General, occurring extensively at all localities

Table 8 Extent Values and definitions

Relevance	
0	No Relevance
1	Minimum, very little effect on either function or safety
2	Minor, unlikely to have serious consequences
3	Major, could threaten structural integrity and / or safety of people
4	Maximum, could cause structural collapse and /or is a severe hazard

The rating table will typically have the following combinations:

Table 9 DER Rating Combinations

D	E	R
0		
	0	
1		
2	1 to 4	1 or 2
3	2 to 4	2 or 3
4	2 or 3	3 or 4

- Notes:
1. No character must be entered in the blank spaces.
 2. Only items not in use could have a high D combined with a low R
 3. You cannot have a 0 value for R with blank values for D & E as R is only applicable when there is a defect present.
 4. R cannot be 0 and no defect has No Relevance, therefore minimum value is 1.

ANNEXURE 9: INTERNAL ASSET TRANSFER FORM

Masilonyana Local Municipality



Name: Department: Date:

A. ASSET DETAIL:

Item Description	Barcode/Serial no	Registration no (<i>If it's a vehicle</i>)	Room no

B. TRANSFER DETAILS:

Current Department: **Current Location:** **Current Custodian:**

New Department: **New Location:** **New Custodian:**

Date Transferred: *Month*..... *Day* *Year 20*.....

Briefly explain why the asset is being transferred:

.....

.....

.....

.....

C. AUTHORISATION:

Recommended by (*Manager Assets*): **Date:** (*DDMMYYYY*) **Signature:**

Approved by (*HOD of transferring department*): **Date:** (*DDMMYYYY*) **Signature:**

Received by (*HOD of the receiving department*): **Date:** (*DDMMYYYY*) **Signature:**

ANNEXURE 10: ASSET ACKNOWLEDGEMENT FORMS

SECTION A

PERSONAL DETAILS	
Surname:	
First name:	
Employee no:	
Physical address:	
	Postal code:
Cellno:	
Alternative no:	
Emailaddress:	

SECTION B

DETAILS OF ASSETS			
ASSET DESCRIPTION	BARCODE/SERIAL NUMBER	LOCATION (e.g. Theunissen)	Room number

SECTION C

I..... (Initial & Surname) hereby declared that the information and particulars furnished above are true and correct to the best of my knowledge and belief that nothing has been concealed. I further acknowledge that I have received all the assets listed above and take full responsibility of the assets in my position and will therefore be held accountable should these assets get lost in my position.

Signature: Date:

Initial & Surname (Supervisor)..... Signature:
