REQUIREMENTS FOR SITE DEVELOPMENT PLANS

12.1 Site Development Plan

12.1.1 The land-owner shall submit a Site Development Plan for approval on all developments other than a single dwelling house on a property.

12.1.2 The Site Development Plan shall be approved by the Municipality prior to the approval of building plans for the development. The Municipality may request that the Site Development Plan be submitted in support of and to be considered and decided simultaneously with the consideration and deciding of the application for land use rights.

12.1.3 The Municipality may, at its sole discretion, accept a “draft” Site Development Plan submitted in support of an application and approve of both the “draft” Site Development Plan and the concerned application. Such draft Site Development Plan may digress from the regulations under section 12.1.8 but must contain sufficient information to enable the consideration of the application.

12.1.4 If a draft Site Development Plan has been approved on a property, the Site Development Plan submitted for approval shall not deviate from the approved draft.

12.1.5 The Municipality shall not approve any building plan which does not comply with the proposals in the approved site development plan with particular reference to the elevational and architectural treatment of the proposed building or structure.

12.1.6 No building shall be erected on the property before such Site Development Plan has been approved by the Municipality and the whole development on the property shall be in accordance with the approved Site Development Plan, with the understanding that the Municipality may approve building plans that deviate within reason from the approved site development plan.

12.1.7 Buildings may be sited contrary to any provision of the Municipal building by-laws, if such siting is in accordance with an approved site development plan.
12.1.8 The Site Development Plan shall be presented in A3 BOOK format and drawn to a scale of 1:500, or such other scale as may be acceptable to the Municipality, and shall show at least the following:

12.1.8.1 A key plan with a north arrow,
12.1.8.2 The property lines and dimensions of the site,
12.1.8.3 The 1:100 year floodline,
12.1.8.4 The approximate or estimated locations of land uses and landscaping on adjacent sites,
12.1.8.5 The existing and final site grading of an applicable contour interval,
12.1.8.6 The siting, extent, height, coverage and floor area ratio of all existing and intended buildings and structures,
12.1.8.7 Overhead, surface and underground utilities, if any,
12.1.8.8 A clear description and indication of the different land uses, existing and intended, on the property, including the grouping of uses within the same building or on a portion of the property,
12.1.8.9 The extent, FAR, Coverage and Height of all different land uses envisaged in the development,
12.1.8.10 Open areas, children’s play grounds, screen walls, security fencing, entrance structures, boom gates, refuse and storage areas, gate-houses and methods of screening and landscaping,
12.1.8.11 Areas and features of environmental and cultural value, if any,
12.1.8.12 Vehicular and pedestrian entrances and exits to and from the property to a public street system,
12.1.8.13 The proposed Parking and Loading spaces,
12.1.8.14 Entrances and access roads to buildings, parking areas and loading areas, including on-site vehicular and pedestrian traffic systems and access control points,
12.1.8.15 Building restriction areas, if any,
12.1.8.16 Servitudes and other encumbrances to development, including physical, if any,
12.1.8.17 The proposed subdivision lines if the property is to be subdivided or the existing erf boundaries if properties are to be consolidated,
12.1.8.18 The elevation and architectural treatment of buildings and structures, and
12.1.8.19 The programming of the phasing of the development, if the development is to be phased.
Energy Efficiency requirements applicable to all development

12.4.1 Context and Application

The various energy efficiency requirements below are regarded as the minimum standards necessary to qualify for a new electricity supply. While this is not an exhaustive list of best energy efficiency professional energy advisors will be expected to enhance levels of energy efficiency practices, an applicant and their professional energy advisors will be expected to enhance levels of energy and efficiency and electricity conservation where ever it is practical and prudent to do so.

12.4.2 Lighting

- No incandescent or other inefficient lighting technologies may be used.
- In all applications, the most efficient lamp must be used to attain the required levels of illumination.
- Occupation sensors must be utilized where practically possible.
- Automatic lighting control systems with relevant occupancy sensors to be deployed in low traffic building areas such as stairwells, store areas and underground parking areas.
- Not occupied office space lighting to be put off at night or level of illumination reduced to conserve electricity.
- Use daylight whenever possible in lieu of artificial light.
- External lighting where ever practical to do so.
- All relevant new building codes of practice and health and safety legislation to be fully adhered to.

12.4.3 Electrical appliances

- All electrical appliances to be SABS APPROVED.
- Electrical equipment such as computers, computer peripherals photocopying machines to be switched OFF at night and other times when not in use, when it is safe and efficient to do so.
- All heavy duty electrical appliances that require periodic servicing and maintenance, according to manufacturers instructions, are covered with an appropriate service contract.
12.4.4 HVAC

- Employ only high efficiency HVAC systems and make use of occupancy sensors where practical.
- Make use of most-efficient HVAC control systems to create optimum working environment using minimum energy.
- Ensure new HVAC plant have regular maintenance and service contracts in place with professional service companies.

12.4.5 Water-heating

- Employ solar water heating and heat pump technologies only.
- Insulate hot water pipes and hot water storage tanks.
- Properly functioning thermostatic controls are a core feature of all hot water systems and must be properly maintained.
- Thermostats must be set at the most efficient level.
- Low flow shower heads must be used, where applicable.

12.4.6 High-efficiency motors

- High-efficiency motors are available up to 90kW rating and these must be used on all applications of 90kW or less.
- Variable speed drives (VSD) should be used in all parts of the process where output and/or quality of product will not be compromised.

12.4.7 Steam Generation

- Steam must not be generated using electricity. Alternative energy sources such as solid fuel, heavy fuel oil and other liquid fuels should be deployed. In exceptional cases where environmental considerations preclude the use of alternative fuel, electricity may be used only with the explicit approval of the distributor.
- Optimum insulation thickness must be used for the boiler and all steam and condensation pipe work.
- Regular service and boiler maintenance contracts should be in place.

12.4.8 Electrical Infrastructure
ANNEXURE A

- Use appropriate electrical conductor size on new installations to reduce distribution losses.
- Optimize plant and large motor power factors to reduce maximum demand and to ensure a power factor of 0.9 lagging or better at all times.
- Exploit off peak electricity tariffs where they are available and it is practical to do so.
- Deploy automatic electricity control technology where ever it is prudent and practical to do so. Examples include automatic time control clocks and thermostatic controls.

12.4.9 Compressed Air

- Employ a compressor load management system if 2 or more compressors are to be used.
- Design pneumatic systems to minimize losses and wastage.
- Where practical and if alternative more efficient technologies/tolls exist, preference should be given to these over pneumatic applications.

12.4.10 Buildings

- Insulate walls, ceilings and roofs.
- Increase light reflectance on walls and ceilings.
- Use daylight whenever possible in lieu or artificial light.
- Employ a load management system to interrupt non-essential load when possible.
- Use energy efficient glass of 3M film and shade windows from direct sun.
- Design the electrical installation to ensure that non-essential loads are grouped on the same circuits. This will facilitate future remote shedding of these non-essential circuits by the distributor (using smart meter technologies).
- Where possible, orientate the building to maximize energy efficiency.

12.4.11 Lifts and Escalators

- Escalators to switch to crawl or off when not in use.

12.4.12 Process Efficiency

- Avoid the use of electricity in any thermal process application, unless only possible with an electrical technology.
• Optimise process to ensure maximum efficiency, benchmark against best practices.

12.4.13 Cooking and Food Preparation

- Use gas for cooking instead of electric hotplates.
- Deploy electric microwave rather than conventional electric cooking where ever possible to do so.
- Deploy high insulated containers for hot water dispensers for beverages.

12.4.14 Renewable Energy

- Any opportunity to use renewable forms of energy must be used.
- Renewable energy may be used alone or in combination with limited electricity top up for various end user applications. Examples include solar hot water systems and solar lighting.

12.4.15 Co-generation

- Co-generation should be considered where possible and where sufficient quantities of waste heat and/or processed by-product is available or when superheated steam can be generated and the low pressure steam used for process heating.
- Electricity so generated may either be used locally to offset own consumption, sold to any other party and wheeled across the networks of the distributor or it may be sold to Eskom/the distributor in terms of a Power Purchase Agreement (PPA).