

Proposed site layout narrative new plant:

The proposal will enhance operational capacity, achieve a wider variety of recyclable materials, and increase the amount of recyclate from waste streams.

The two existing sheds, identified as shed one and shed two, will be used of for tipping and pre-sorting waste, this will increase number of vehicles able to tip simultaneously and improve traffic flow on the site. The proposed extension will house the new state-of-the-art recycling plant.

The proposed new recycling plant is innovative embracing the very latest technology including Artificial Intelligence (AI), the latest technological dynamic waste screens and automated technologies including Nihot and Impact-Air wind-technology.

At the start of the plant is an M&J 4000 Shredder that sizes material to 350mm that allows the plant to have an annual throughput of circa 200,000 tonnes of waste material including waste from Construction and demolition sites as well as from Commercial and Industrial sites.

Nihot Air Technologies provides high-efficient systems to “Separate Waste By Air” into three fractions: heavy, mid-heavy and light fraction. This piece of equipment is crucial in this process for several reasons. Firstly, for ‘stream management’ into three manageable streams, and secondly due to their physical properties, can determine which subsequent processes are required.

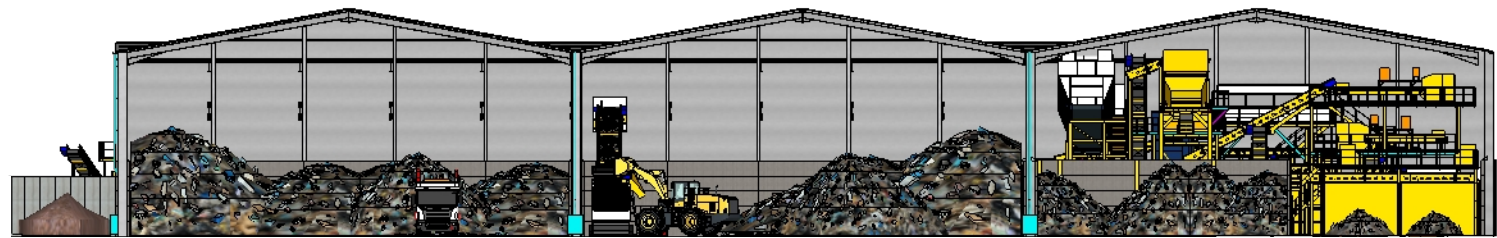
AI is provided by three Optical Sorters that use “Sharpe Eye” Near Infrared Red (NIR) using Flying Beam Spectrometer Sensor technology to extract recyclable materials such as for example: plastics, fibre, wood, and many other recyclable materials. Traditional manual labour sorting can produce approximately 50 picks per minutes, each optical sorter can produce about 2,000 picks per minute.

The use of AI in recycling plants make it possible to maximise the recyclate from waste streams, increase throughput whilst ensuring consistency and quality standards are met. For example, applications include sorting thermoplastics into: PET, PP, PVC, LDPE, LLDPE, HDPE, trays, bottles, injection or blow moulding qualities, PET bottles vs PET trays. It is impossible for the human eye to identify many of these plastics.

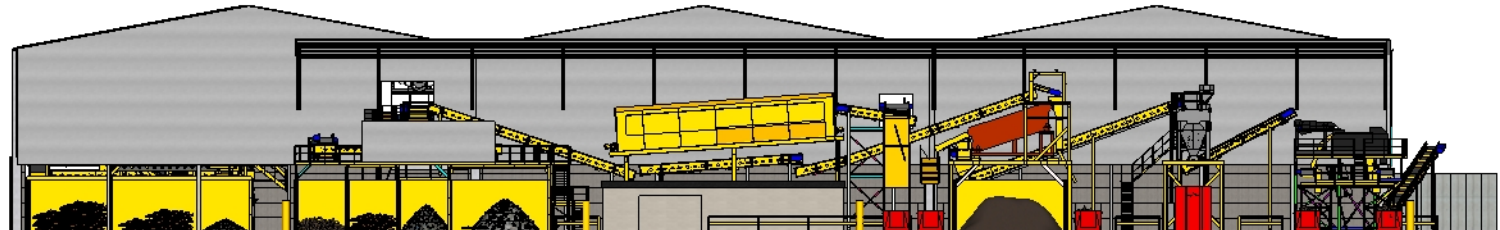
Siebertechnik Tema provide “Elliptical-motion screening” providing the very latest screening technology combining linear and circular motion screening, enabling space saving and high material throughput, the benefits amongst other things, altering the throw angle essential for transport speed and by adaption of parameters such as vibration amplitude and speed. The net benefits provide precise, careful screening and high separating accuracy during classification.

Impact Air Technology provide Specialist Extraction Solutions for sub 60mm material streams utilising density separation by power of air in an upwards travelling air stream to sperate light weight material particles from heavier particles. The application of Air-Classification is ideally suited to low moisture, free flowing consistently sized material particles such as separation of paper, plastic, from heavier stone, glass, or metal.

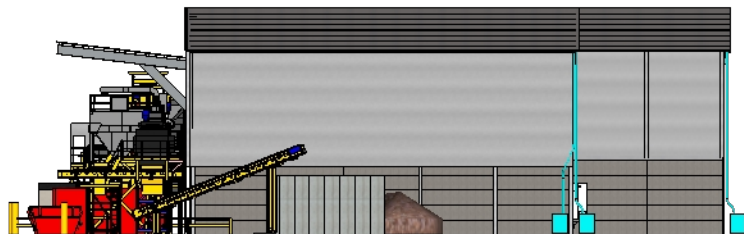
The design and layout of the new recycling plant allows modification to add additional equipment to the system as the market or legislative changes dictate, that other waste types must be separated and recycled allowing the company to adapt to new perceived challenges.



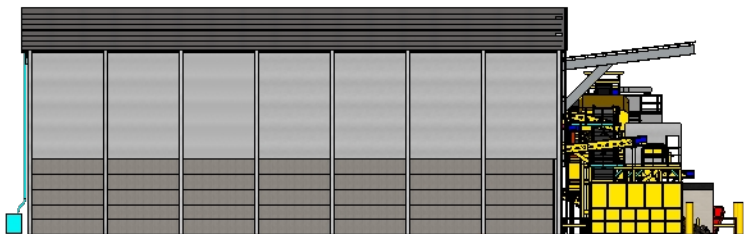
ELEVATION NORTH SIDE VIEW 1:500



ELEVATION SOUTH SIDE VIEW 1:500



ELEVATION EAST SIDE VIEW 1:500



ELEVATION WEST SIDE VIEW 1:500

PROPOSED SITE RECYCLING PLANT LAYOUT 1 of 3

SCALE 1:500