



# MANCHESTER (UK)

## COBDEN STREET

*Mechanical-Biological Treatment Plant for Sorting,  
Recycling and Energy Recovery of Municipal Residual Waste*

**HEC Environmental Consulting**  
Spreestrasse 3 | 24539 Neumuenster  
Phone +49.4321.2675-0 | Fax 2675-199  
info@haase-ec.de | www.haase-ec.de



### Project

*Mechanical-biological waste treatment plant (MBT) for 90,000 t/a of municipal solid waste, start of construction February 2010*

### Customer

*Costain Ltd as the main Contractor for Greater Manchester Waste PFI / Viridor Laing*

### Supplier of Process Engineering

*HAASE Environmental Consulting GmbH*

### Mechanical Treatment

*Generated fractions from input material:*

- Organic fraction (for further treatment)
- RDF fraction (for incineration plant)
- Ferrous metals (for recycling)
- Non-ferrous metals (for recycling)
- Heavy fraction (to be disposed of in landfill sites)

### Anaerobic Digestion

- Approx. 35,000 t/a of the organic fraction from mechanical pretreatment
- 2-stage wet AD, hydrolysis 1 x 2,750 m<sup>3</sup>, digestors 2 x 4,000 m<sup>3</sup>,
- Aeration of the substrate, subsequent separation of solid/liquid matter and thermal drying
- The dried substrate will be delivered to an incineration plant

### Gas Engineering

- Gas storage tank 970 m<sup>3</sup>
- Booster station for 650 m<sup>3</sup>/h of biogas
- Biogas flare HT type, 3.75 MW
- Containerised biogas CHP (2 units), 2.8 MW<sub>el.</sub> / 2.8 MW<sub>therm.</sub>
- VocsiBox® for the treatment of max. 75,000 m<sup>3</sup>/h of process air

### Water Treatment

- Containerised membrane plant with gravel filter and 2-stage reverse osmosis for the treatment of 100 m<sup>3</sup>/d of water from digestion process