



Automated Waste Collection



ADDING VALUE
TO **DEVELOPMENT**
ACROSS THE **WORLD**

THE SOLUTION

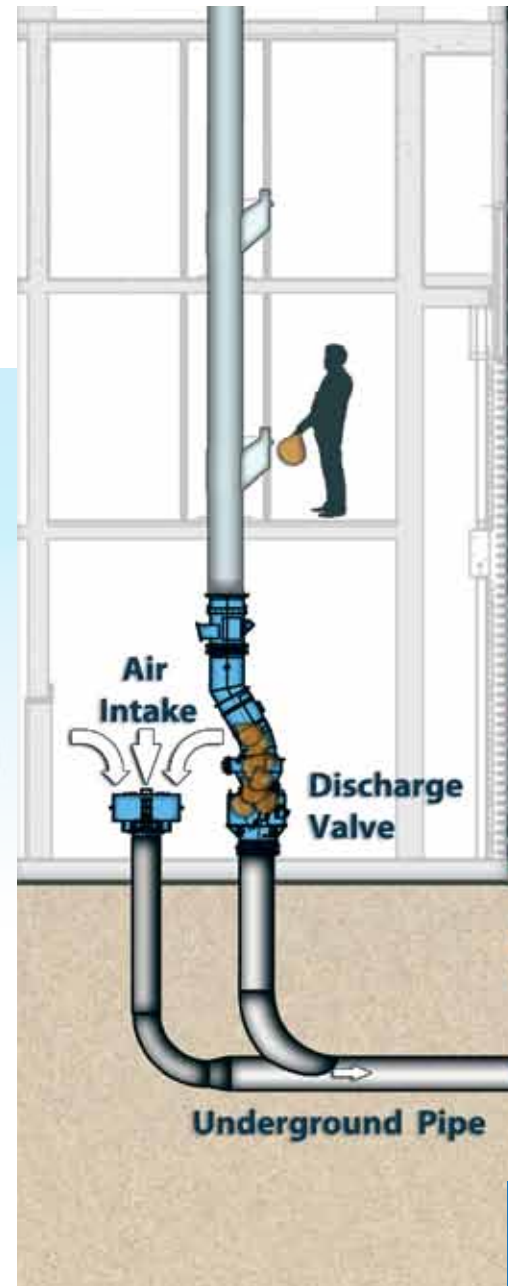
A CLEANER, GREENER & MORE COST-EFFICIENT WASTE MANAGEMENT SYSTEM

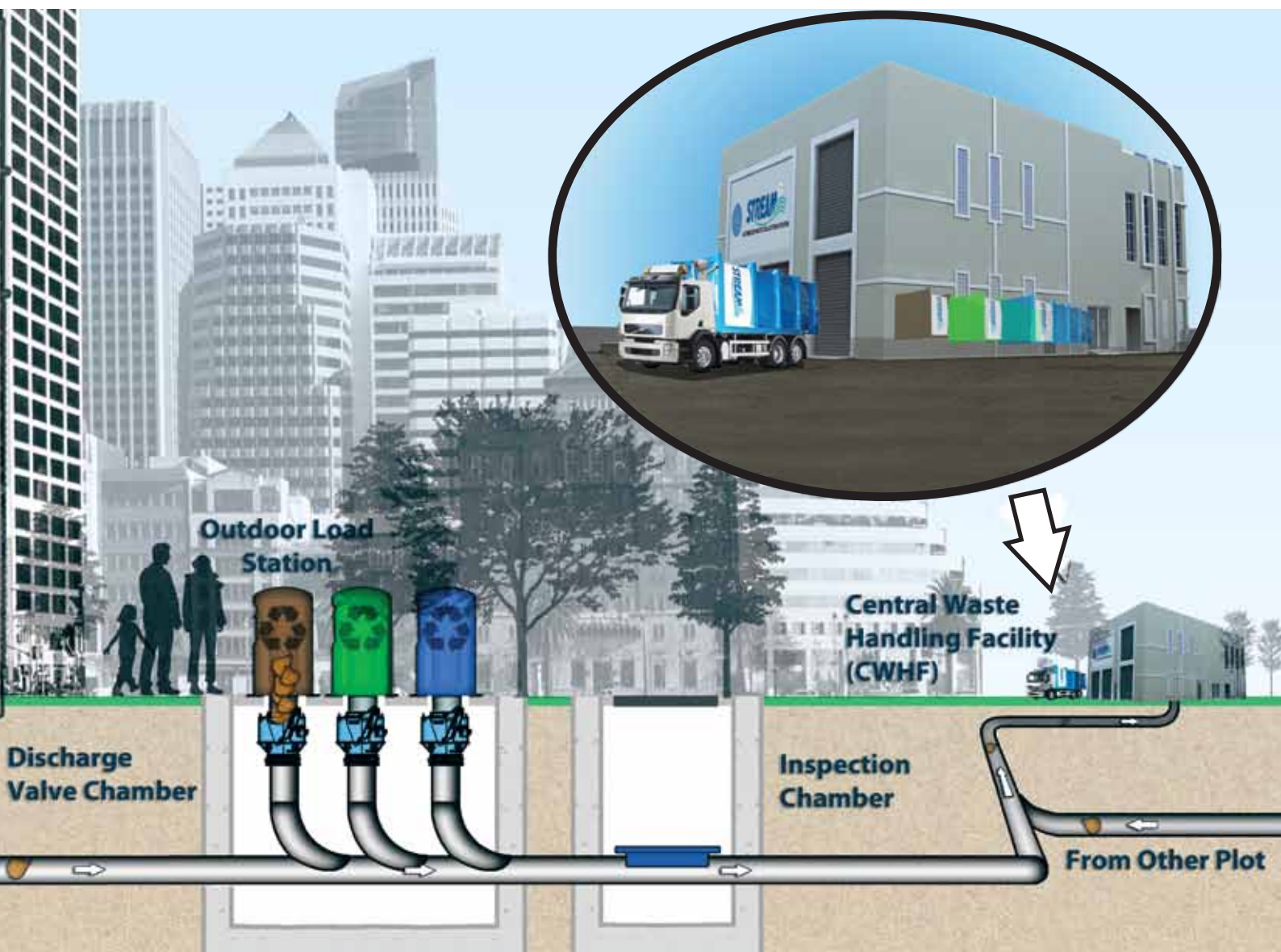


STREAM, with its innovative Automated Waste Collection System (AWCS) ensures waste is managed like it should: streamlined, fuss-free and efficiently.

The process is in fact simple, yet quite remarkable. AWCS collects and transports garbage in a fully sealed, underground system directly to a central collection centre located away from inhabitants.

And because we understand each development is unique, our system can be customised to meet any requirement or specification.





LOAD STATION

Waste is placed in hoppers and transferred into a chute.



DISCHARGE VALVE

Waste collects in a Discharge Valve, where it is periodically unloaded into the underground pipe network.



CENTRAL WASTE HANDLING FACILITY

Waste is then transferred into sealed waste containers.



TRUCK LOADING

Flatbed armroll trucks transport the filled waste containers to treatment facilities periodically.

THE BENEFITS

MULTIPLE ADVANTAGES FOR YOUR DEVELOPMENT

Our system is not only purpose-built to manage waste, but also adds value to your development.

AWCS is an innovation that is hygienic, well-concealed and works at regular intervals round-the-clock. Waste is removed from all floors and buildings to a Central Waste Handling Facility (CWHF) safely and efficiently.

This ensures your development is free from bad odours and is less labour intensive, keeping operating costs lower and enhancing security.

As an environmentally-conscious developer, you can also rest assured that our system offers high energy-efficiency, as well as low carbon emissions.



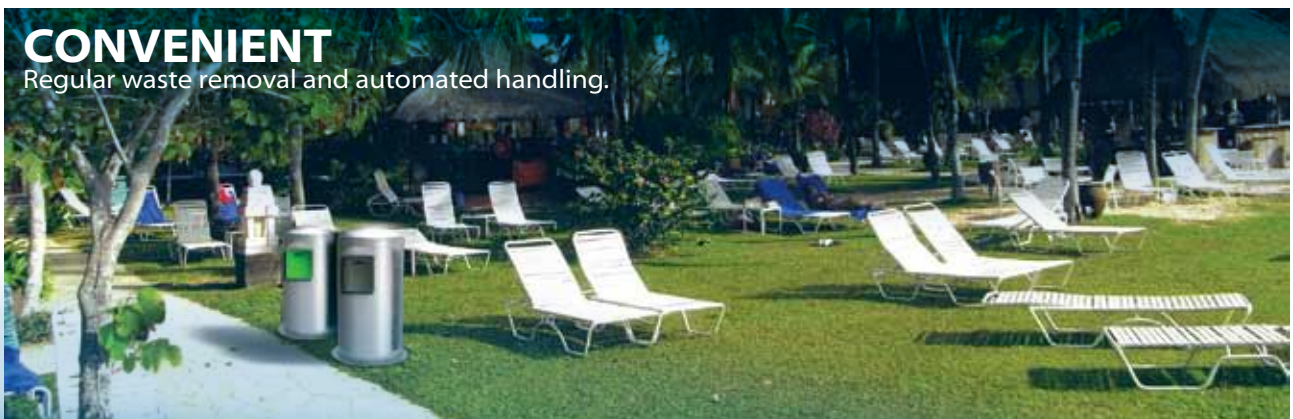
HYGIENIC

No more exposed filth and contamination, nor messy spills and stains.



HEALTHY

Odour-free and no heavy bins to lift.



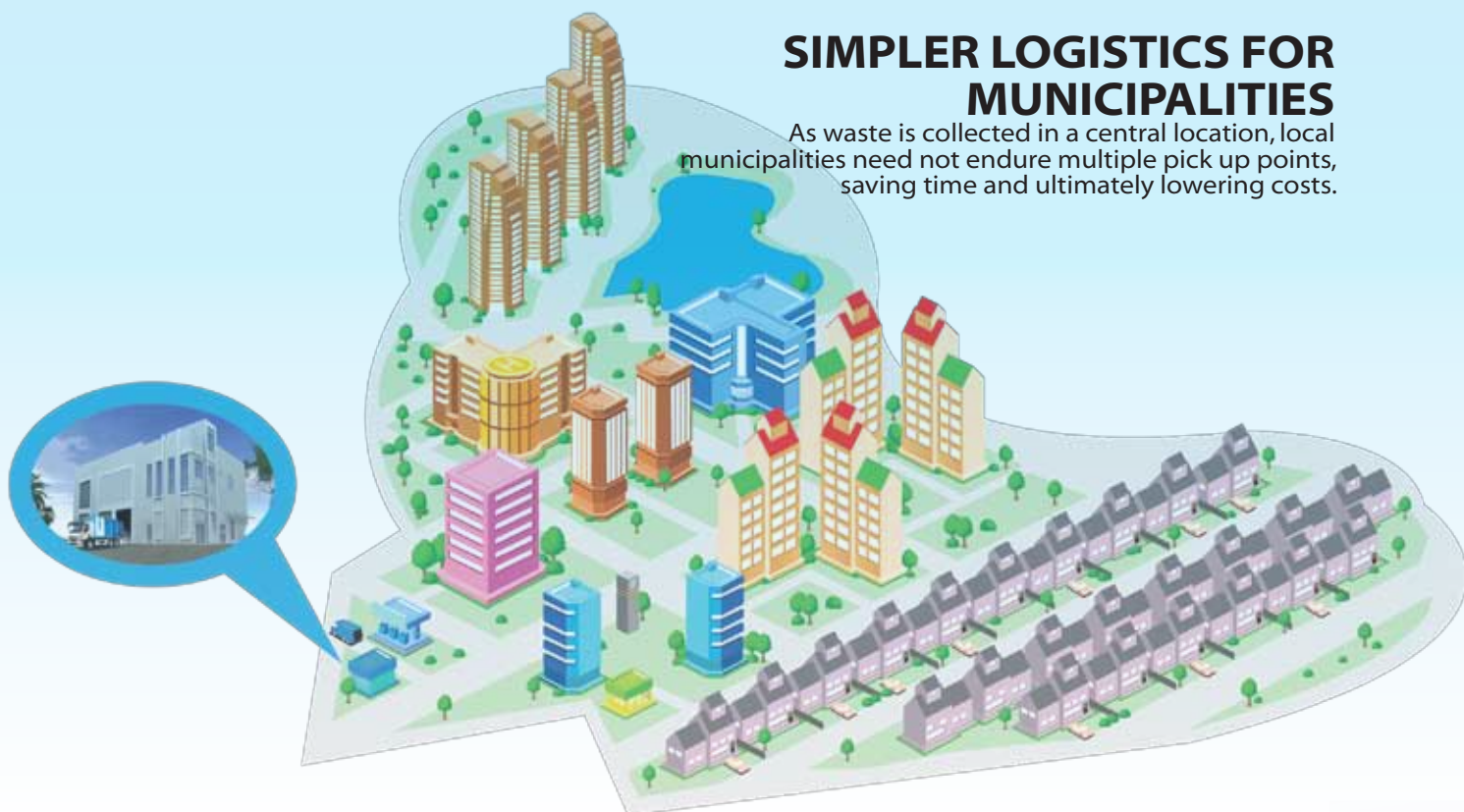
CONVENIENT

Regular waste removal and automated handling.



SIMPLER LOGISTICS FOR MUNICIPALITIES

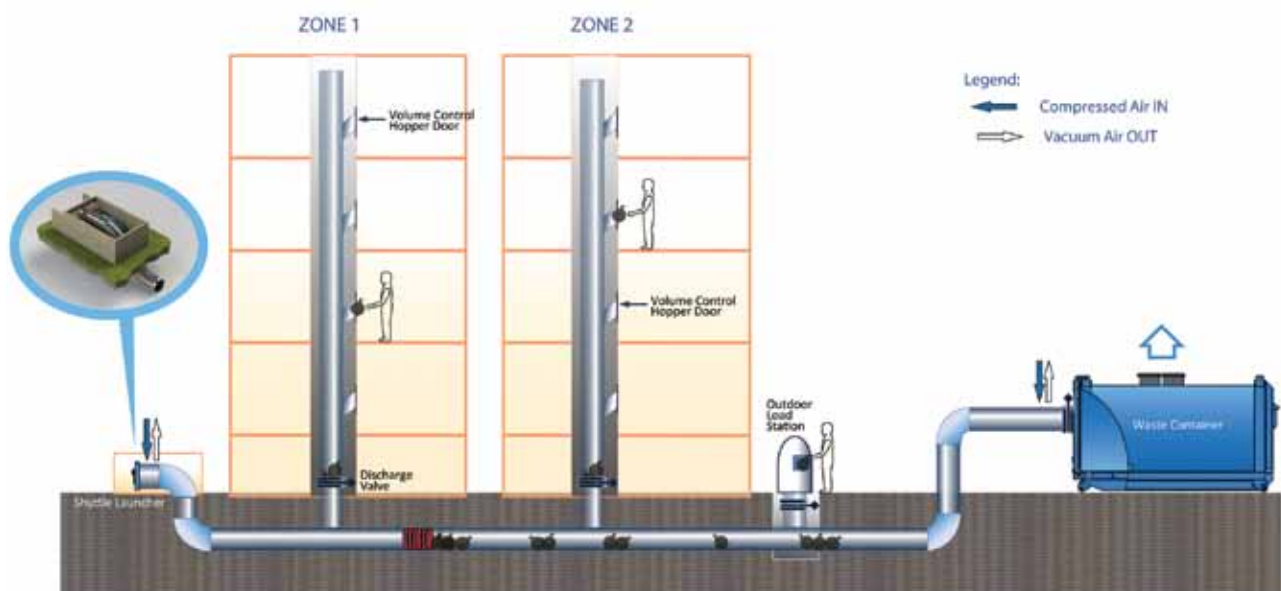
As waste is collected in a central location, local municipalities need not endure multiple pick up points, saving time and ultimately lowering costs.



THE TECHNOLOGIES

DISCOVER ADVANCED WASTE MANAGEMENT ENGINEERING

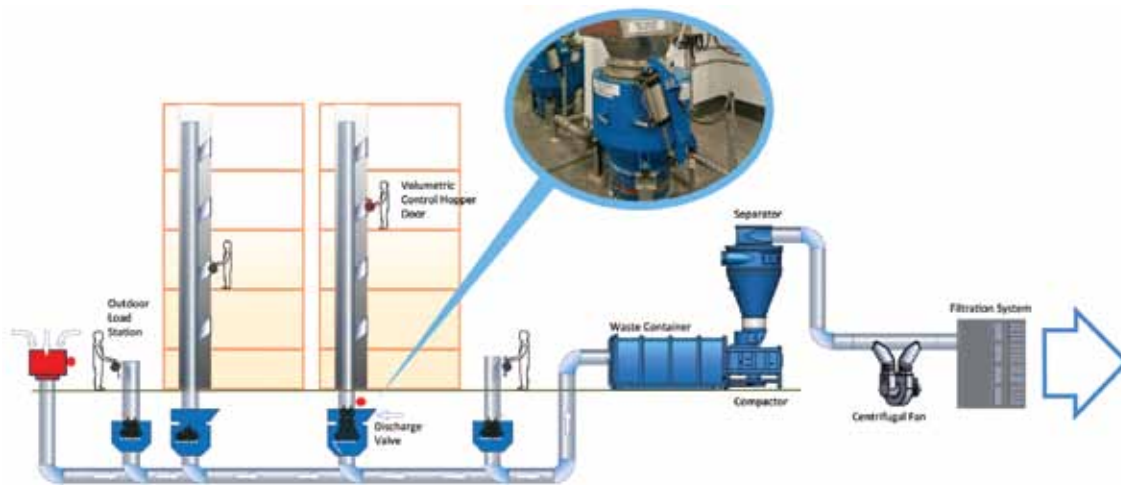
With over 2 decades of industry experience, **STREAM** is among the world leaders for creating tomorrow's waste management solutions. Our strength in research, development and innovation has resulted in various leading-edge waste management technologies.



Waste Shuttle

The patented, award-winning, next generation AWCS, is set to revolutionise the way waste is managed, it features:

- A more compact system with a lower footprint and height requirement, which reduces construction CAPEX and frees up valuable real estate for other revenue-generating purposes
- Longer lasting pipes as the system transports waste at a much slower pace, directly reducing wear and tear on pipes
- Improved scalability with a system that grows with the development, from just a single building all the way to a multi-feature integrated development
- Less energy use as the system features smaller powered equipment
- A system that uses less conveying air, which releases better quality discharge air into the environment



Gravity Vacuum System

An efficient system, with a built-in child safety mechanism suited for residential developments:

- Waste is discarded through volumetric controlled hoppers into chutes
- Waste is dropped and stored temporarily until the next transport cycle
- Once waste reaches a certain level or due to a preset timer, the exhaust fan is activated
- The discharge valve is opened to unload waste into the pipe network, transporting waste directly to sealed containers at the CWHF
- Containers are collected and emptied periodically by flatbed armroll trucks



Full Vacuum System

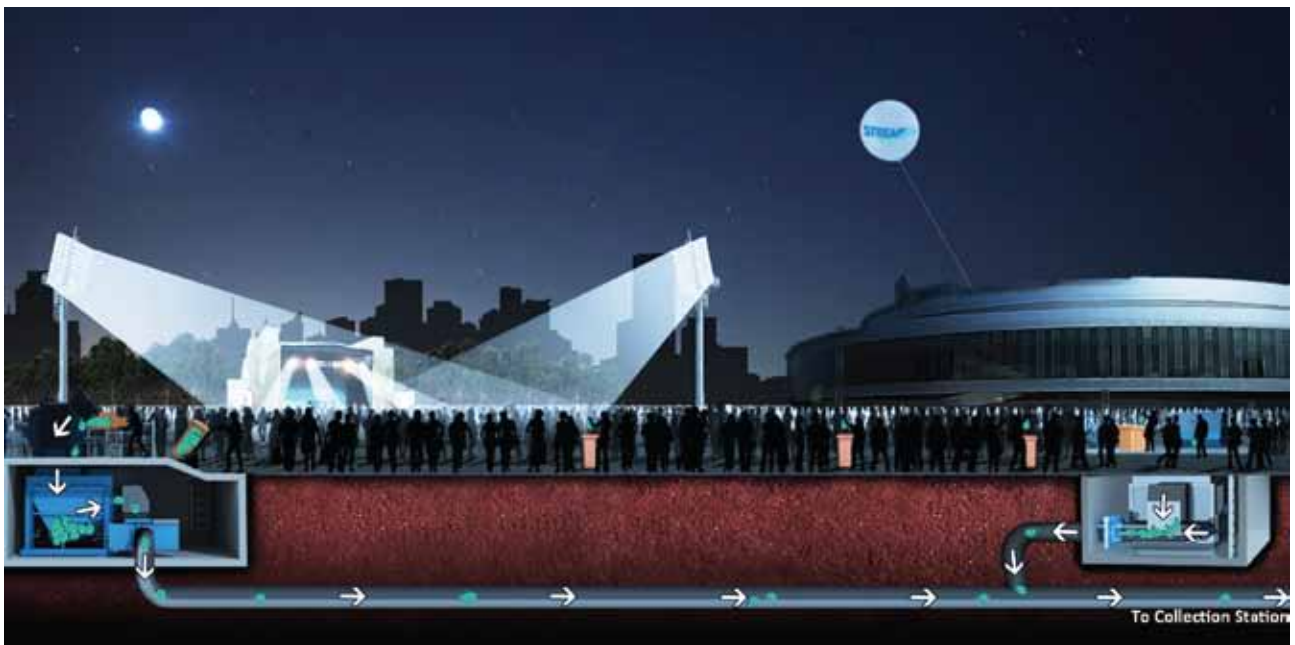
Simple yet effective, this system is able to handle heavy amounts of waste from commercial developments:

- Trained users dispose waste into key-operated load stations
- Exhaust fans start once the system is turned on
- Vacuum suction is activated at loading point for quick, easy disposal
- Waste is transported via chutes and pipes to a Central Waste Handling Facility (CWHF)

OTHER APPLICATIONS

PURPOSE-SPECIFIC WASTE MANAGEMENT SYSTEMS

Aside from residential and commercial development systems, **STREAM** also offers highly customised solutions for various other applications.



Ultra Large Outdoor Waste Loading System

When handling tonnes of waste per day efficiently is critical, this system ensures fuss-free operations.

It features an integrated feeder unit system, which is essentially a load station with an opening lid. Workers can haul various types of bins to the load station and tip the garbage into the system. From the load station, the garbage is fed into underground vacuum pipes for transport to a CWHF.

Suitable for

– Mammoth Public Gatherings | Sporting Events | Religious Pilgrimage Sites | Political & Social Gatherings
| Street & Music Festivals

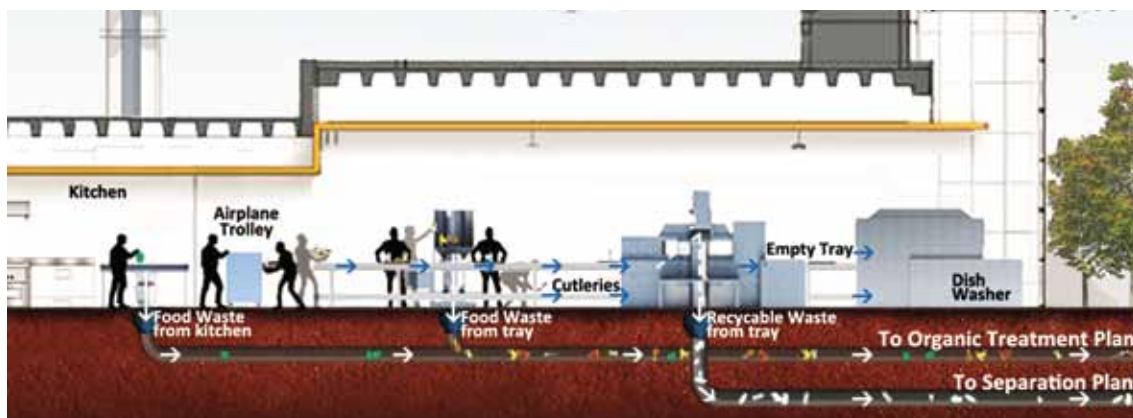


Regular Public Outdoor Load Station (Litter Bin System)

This is a public litter bin with a difference, as each bin is connected to an underground waste transport pipe. When the capacity of a particular bin is reached, a sensor activates the discharge valve where the waste is sucked through into the underground pipes, which leads to a CWHF.

Suitable for

– Public Parks | Barbeque Areas | High Streets | Pedestrian Walkways | Tourist Hot Spots | Boulevards | Beach Waterfronts | Night Markets | Stadiums | Shopping Areas



Food Waste System

STREAM has developed a patented system that manages food waste better than any other known AWCS in the world. The system is proven to be energy-efficient, compact, highly scalable and cost-efficient.

It effectively captures food waste from its source in kitchens, then collects them in containers or delivers directly to food waste treatment plants. High volume food waste generating industries will benefit from this economically sensible and environmentally conscious system.

Suitable for

– Hotels | Banquet Kitchens | Airports | Catering Centres | Restaurants | Food Courts | Wet Markets | Food Processing Plants

WHERE **STREAM IS USED**

OPTIMISED FOR COST AND FUNCTIONALITY ALMOST ANYWHERE

Be it just a single building or a mini city, **STREAM** has the experience and expertise to develop fully customised waste management systems.



RESIDENTIAL DEVELOPMENTS

From luxury condominiums to landed properties, our system makes residential areas cleaner and safer. Solid waste is conveniently collected and transported via chutes and underground pipes to sealed containers. A quiet, effective and safe system that residential communities will truly appreciate.



INTEGRATED DEVELOPMENTS

The extensive amount of waste churned out by integrated developments needs a comprehensive waste management solution. **STREAM** will work closely with developers, architects and planners to design the ideal system, while ensuring optimum efficiency in handling waste. Our systems will also help enhance the quality of the environment and keep operating costs low for long term savings.



MEDICAL & HOSPITAL FACILITIES

Hygiene is a key concern in the handling of medical or hazardous clinical waste. The **STREAM** system can ensure general medical waste and linen are disposed off according to strict hygiene standards. This minimises the health risks to medical staff as well as patients, while preserving the sanitary environment of these facilities.



COMMERCIAL DEVELOPMENTS

The scalability of the **STREAM** system allows for waste to be consolidated from several buildings. Our system is ideal for office buildings, retail parks, shopping malls, hotels and conventions centres, as well as recreational and tourist parks. Best of all, our compact system requires less commercial space, which can be utilised for other revenue-generating purposes.



CATERING

Vast quantities of waste from food preparation and food wastage are the norm in large catering kitchens, banquet kitchens and canteens. Our innovative solutions of either the full vacuums system or the patented Waste Shuttle System are able to transport food waste for treatment, which in turn can be converted into renewable energy and fertiliser.



TRANSPORT TERMINALS

Waste collection poses a major security issue for administrators of transport terminals. The automated system of **STREAM** transports waste away from terminal buildings to a bin centre swiftly, quietly and safely. This eliminates the need for on-site personnel, rubbish trucks and unsightly bins in the terminal area, which helps preserve security.

THE TRACK RECORD

**KEEPING THE WORLD CLEAN, ONE
CITY AT A TIME**

STREAM started as one of the world pioneers in central vacuum technology in 1991, and has now evolved to be the leading innovator in Automated Waste Collection Systems.

More and more cities around the world are beginning to discover the **STREAM** system of automated waste handling, as well as our customised solutions and highly dedicated service. Here are some of our noteworthy projects in recent years:

Qatar Petroleum District



Aalto Condominium



**Marina Square
Reem Island**



Al Zeina Al Raha Beach



The Binjai KLCC



M-Suites Ampang



**ICON Residence
Mont Kiara**



ALDAR Headquarters Al Raha Beach



Al Muneera Al Raha Beach



Blossom Residences



Changi Airport Terminal 3



Integrated Transport Terminal - Southern Sector



Johor State New Administrative Complex



Al Bandar Al Raha Beach



The Glades Putra Heights



Resort World Sentosa



The Rainforest



KDRM Housing Complex Gelugor



Dakota Residential



Maju Junction Shopping Complex



Hatten City



Tropez Residences



Biopolis Phase 3



NU Sentral



KDRM Housing Complex Kelana Jaya



KL Sentral Lot E



KLIA2 - Main Terminal Building



Parvis



Singapore In-Flight Catering Centre 2 Upgrading



KLIA2- Integrated Complex



Bartley Residences



Parkway Novena Hospital



Platinum Park KLCC

Sengkang H2O Residences



Meyer Rise



Putrajaya Convention Centre



THE SERVICE

WE'RE COMMITTED, EVERY STEP OF THE WAY

Right from the Design and Engineering stage to the entire Build, Test and Commission phase; you can count on us. Our service also extends beyond installation with best-in-class Operations and Maintenance programmes.

We're determined to be the world leader in waste management systems, as well as serving your exacting needs now and in future.



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