



# STREAM

AUTOMATED WASTE COLLECTION SYSTEM



# HISTORY

## MISSION

To design and manufacture products that help to improve the environment.

## VISION

We desire to become a leading company in automated waste collection products.

***"Quality in every aspect of the business."*** is the motto driven by our founders (Sri Skanda Rajah and Jason Gan) and practised by our employees.



Now renamed to STREAM Group, we are focusing on business development in expanding dealerships in ASIA countries such as India, Australia, Qatar, and China.

STREAM in the United Arab Emirates secured contracts valued over AED 400 million.

# 2017

# 2007

# 2020

# 2010

# 2004

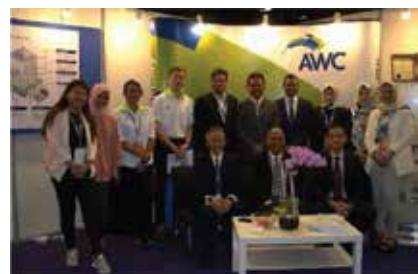
STREAM is present in 7 countries including:

**MALAYSIA**  
**SINGAPORE**  
**CHINA**  
**UAE**  
**QATAR**  
**AUSTRALIA**  
**INDIA**

A new company named STREAM Environment was established alongside Nexaldes Group as a holding company.



STREAM became a member of AWC Berhad.





The first milestone of STREAM conveying solid municipal waste took place in Singapore. STREAM developed its own solid waste pneumatic conveying system, the Automated Waste Collection System (AWCS).

# 1999

# 1993

# 1996

# 1991

The brand name 'STREAM' was established, representing the meaning of vacuum conveying technology for all streams of homogenous waste.



Acquired by Aldes Corporation of France, Nexa Corporation renamed Nexualdes.



Started Hexa Corporation, the first Malaysian made Central Vacuum System.

# ACCREDITATION

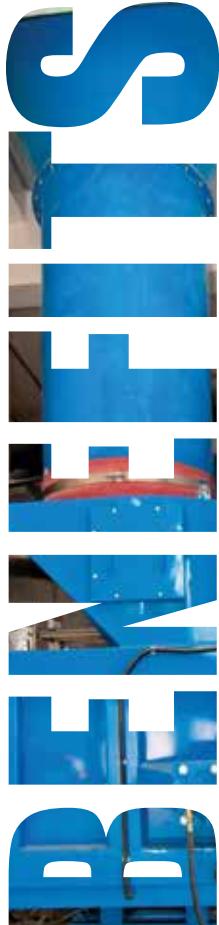
## Product Quality

From the basic design of our system, we place a strong emphasis in sustainability without forfeiting quality and efficiency. We promise to demonstrate our full commitment by complying with the ISO 9001:2015 standard through:

-  The establishment and implementation of policy, objectives, manuals and procedures.
  -  Continuous improvement to ensure that the quality system generated is understood by all employees.

With the principle of "OUR CUSTOMER SATISFACTION IS OUR SUCCESS", we strive to exceed our customer expectations and fulfill their requirements of a product of quality equipped with excellent services, quality -project management and prompt delivery.





## ENVIRONMENTAL

Encourage waste separation at source  
Environmental friendly  
Contribute to green building tools  
More space  
Higher sustainability

## SYSTEMATIC

Automated and sealed system  
Applicable for retrofitting  
Remote accessible and mobile troubleshooting

## IMPROVE

Hygienic and pest free  
Treat and deodorise waste odour  
Cleaner environment  
Enhance ambience  
Improve living conditions

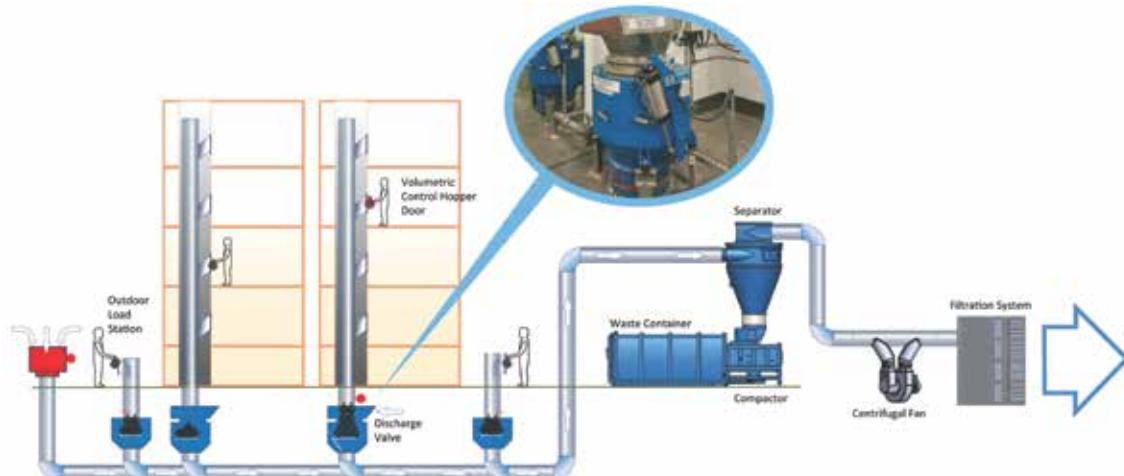
## REMOVE

Eliminate direct contact with waste during transportation  
Eliminate security threats  
No waste spillage

## REDUCE

Reduce movement of garbage trucks in a development  
Minimise carbon emissions  
Low operation cost  
Reduce labour  
Reduce energy consumption

## GRAVITY VACUUM SYSTEM

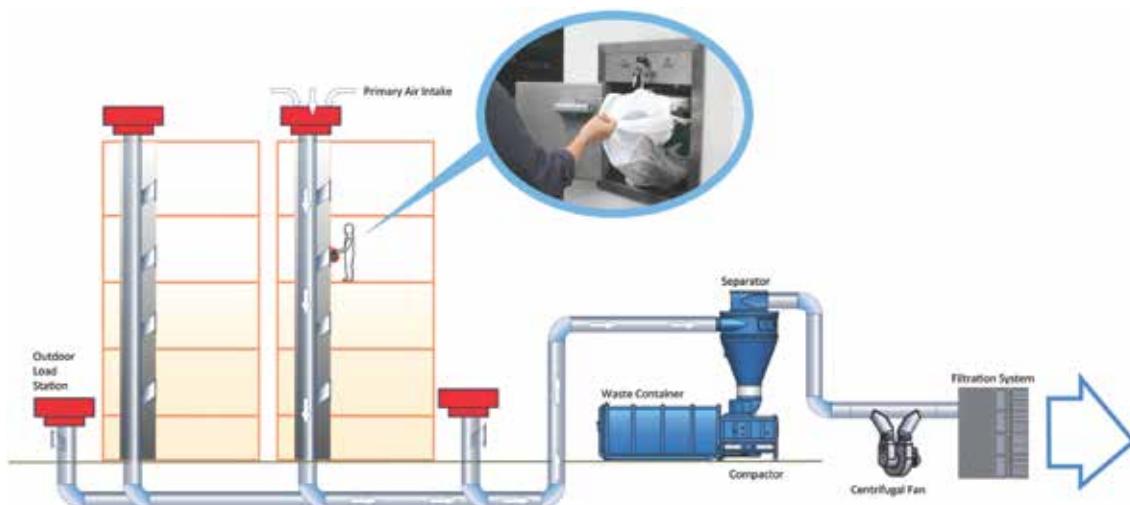


STREAM offers 3 types of Automated Waste Collection System with our mission to serve the community. Firstly, the **Gravity Vacuum System** has the following features:

- ❖ Volumetric control hopper door to encourage recycling.
- ❖ Waste can be thrown by multiple users all at once.
- ❖ Uses free gravity energy at the verticle chute section.
- ❖ A temporary storage section for periodical removal of waste.

Gravity Vacuum System is best suited for Residential Developments, Office Buildings and Hospitals.

## FULL VACUUM SYSTEM



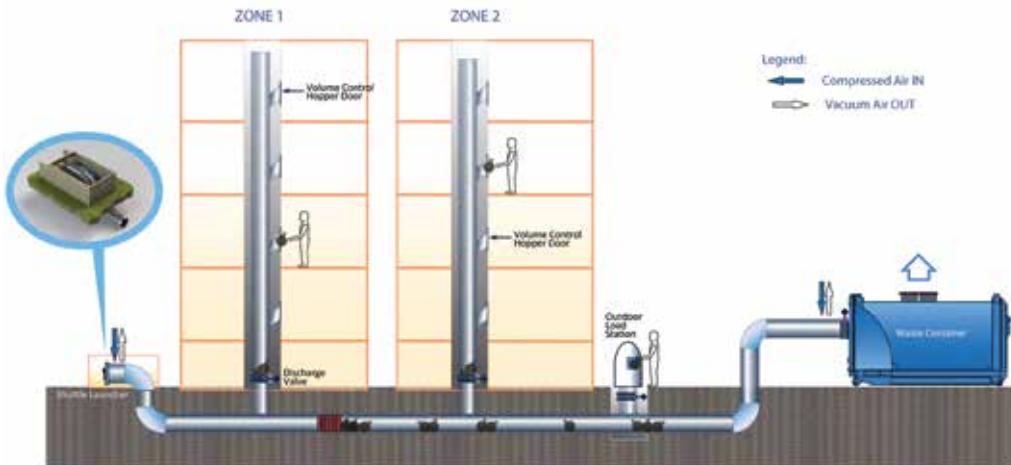
Secondly, the **Full Vacuum System** comprises of the following:

- ❖ Ability to handle high volume of waste.
- ❖ Safe handling with key-operated load station.
- ❖ 24/7 accessibility.

Full Vacuum System supports Commercial Developments, Office Buildings, Hotel Theme Parks, Food Catering Centres, Hospitals, Transport Terminals and Airports.

# INNOVATION

## SHUTTLE SYSTEM



Thirdly, the patented and award winning **Shuttle System**:

- ❖ A compact system with a smaller footprint.
- ❖ Lower Capital Expenditure (CAPEX).
- ❖ Space frees up to valuable real estate.
- ❖ Pipe cleaning capability and lower airflow requirement facilitate longer lifespan of system.

Shuttle System is best applicable to Residential Developments.

## STREAM system can handle:

- ❖ General Waste/Municipal Solid Waste
- ❖ Food Waste
- ❖ Linen
- ❖ Paper
- ❖ Mixed Recyclables

## AWCS is applicable to:

- ❖ Residential Developments
- ❖ Commercial/Mixed Developments
- ❖ Office Towers and Developments
- ❖ Hotels and Theme Parks
- ❖ Food Catering Centres
- ❖ Hospitals and Medical Facilities
- ❖ Transport Terminals and Airports
- ❖ Smart Districts/Cities

# 115 RESIDENTIAL DEVELOPMENTS

From luxury condominiums to landed properties, AWCS 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.

**TAMPINES GREEN RIDGES**  
 Country: Singapore  
 Project Duration: 2015-2019  
 Type of AWCS: Gravity Vacuum System  
 Total Pipe Length: 2000m  
 Number of Fraction(s): 2  
 Estimated Waste per Day: 6 metric tons



**SENADA RESIDENCE**



**THE GLADES**



**ICON RESIDENCE**



**BARTLEY RESIDENCE**



**NORMANTON PARK**



**TAMPINES GREEN RIDGES**



**LAMAR RESIDENCE**



**LULUAT COURTYARD RESIDENCE**



**KHOR**

# 33 COMMERCIAL/ MIXED DEVELOPMENTS

The scalability of the STREAM system allows for waste to be consolidated from several buildings. AWCS is ideal for office buildings, retail parks, shopping malls, hotels and convention centres, as well as recreational and tourists parks. What makes our system more desirable is our compact system, which requires less commercial space that can be utilised for other revenue-generating purposes.

## M VERTICA

City: Kuala Lumpur

Country: Malaysia

Project Duration: 2018-2021

Type of AWCS: Hybrid System

Total Pipe Length: 454m

Number of Fraction(s): 1

Estimated Waste per Day: 15.2 metric tons



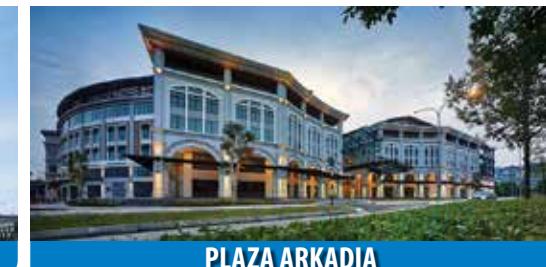
M VERTICA



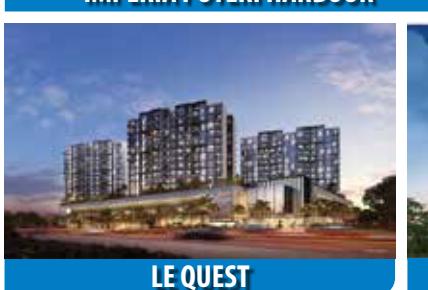
D'SARA SENTRAL



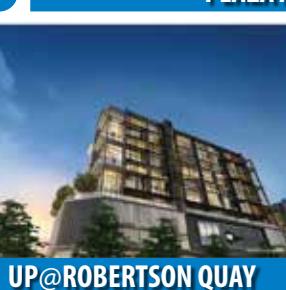
IMPERIA PUTERI HARBOUR



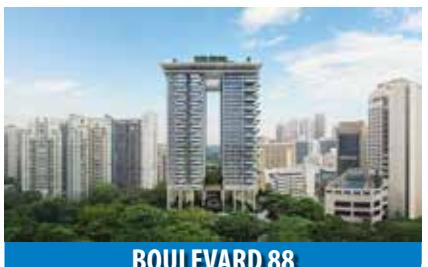
PLAZA ARKADIA



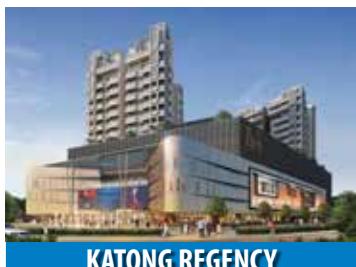
LE QUEST



UP@ROBERTSON QUAY



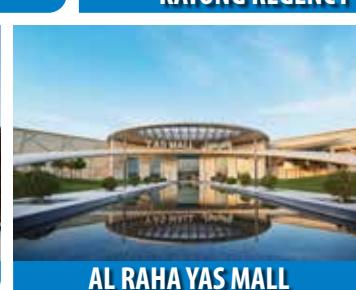
BOULEVARD 88



KATONG REGENCY



AL RAHA GARDEN PLAZA



AL RAHA YAS MALL



# OFFICE TOWERS AND DEVELOPMENTS

A clean workplace improves employee productivity. A garbage free surrounding brings conducive, stress free and pristine environment which amplifies employee productivity at work. This is where STREAM comes in, streamlining the process of waste disposal and keeping the environment pleasant.

**ALDAR HEADQUARTERS AL RAHA BEACH**

City: Abu Dhabi

Country: United Arab Emirates

Project Duration: 2009-2011

Type of AWCS: Gravity Vacuum System

Total Pipe Length: 400m

Number of Fraction(s): 2

Estimated Waste per Day: 3.4 metric tons



MERDEKA PNB 118



TNB HQ TOWER



KOTA ISKANDAR



KL SENTRAL LOT E



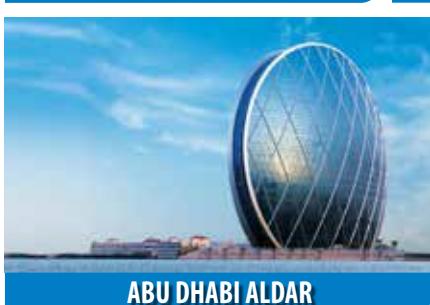
KL ECO CITY



BIOPOLIS PHASE 3



BULIM SQUARE



ABU DHABI ALDAR



BARWA FINANCIAL  
DISTRICT



## HOTELS AND THEME PARKS

Cleanliness is a prime priority especially to tourism developments with global visitors. STREAM system not only helps to keep these places clean, it also gives a comfortable and tranquil ambience to the guest experience. The efficiency and ease of use of the STREAM system will ensure that customers are pleased in terms of cleanliness.

### FOUR SEASONS PLACE KUALA LUMPUR

City: Kuala Lumpur

Country: Malaysia

Project Duration: 2015-2017

Type of AWCS: Hybrid System

Total Pipe Length: 796m

Number of Fraction(s): 1

Estimated Waste per Day: 3.9 metric tons



CORAL BAY



FOUR SEASONS PLACE KUALA LUMPUR



THE RUMA HOTEL  
AND RESIDENCES



MERDEKA PNB 118



SUASANA ISKANDAR



ST REGIS



RESORT WORLD SENTOSA

3

# FOOD CATERING CENTRES

Vast quantities of waste generated from food preparation and food waste are norms in large catering kitchens, banquet kitchens and canteens. Our innovative solutions offer either the Full Vacuum 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.

**SINGAPORE IN-FLIGHT CATERING CENTRE 2**  
 Country: Singapore  
 Project Duration: 2010-2010  
 Type of AWCS: Full Vacuum System  
 Total Pipe Length: 200m  
 Number of Fraction(s): 1  
 Estimated Waste per Day: 6 metric tons



IN-FLIGHT CATERING CENTRE 2



CATHAY PACIFIC CATERING SERVICE II



EVERGREEN SKY CATERING



# 8

# HOSPITALS AND MEDICAL FACILITIES

Hygiene is a key concern in the handling of medical or hazardous clinical waste. The STREAM systems are able to ensure general waste and linen are disposed in accordance to strict hygiene standards. This minimises health risks to medical staff as well as patients, while preserving a sanitised environment.

**CHANGI GENERAL HOSPITAL (MEDICAL CENTRE)**  
Country: Singapore  
Project Duration: 2014-2017  
Type of AWCS: Gravity Vacuum System  
Total Pipe Length: 200m  
Number of Fraction(s): 1  
Estimated Waste per Day: 12 metric tons



WOODLANDS HEALTH CAMPUS



GENERAL HOSPITAL H9A



CHANGI GENERAL HOSPITAL (MEDICAL CENTRE)



CHANGI GENERAL HOSPITAL (INTERGRATED BUILDING)



MOUNT ELIZABETH NOVENA



INTERGRATED HUB CARE



GENERAL HOSPITAL OCH



GENERAL HOSPITAL NATIONAL CANCER CENTER



# TRANSPORT TERMINALS AND AIRPORTS

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 centralised collection point swiftly, quietly and safely. This eliminates the need for garbage trucks and unsightly bins in the terminal area.

**GOMBAK INTEGRATED TRANSPORT TERMINAL**  
City: Kuala Lumpur  
Country: Malaysia  
Project Duration: 2016-2018  
Type of AWCS: Full Vacuum System  
Total Pipe Length: 168m  
Number of Fraction(s): 1  
Estimated Waste per Day: 1.4 metric tons



KUALA LUMPUR INTERNATIONAL AIRPORT 2



GOMBAK INTEGRATED TRANSPORT TERMINAL



TERMINAL BERSEPADU SELATAN



CHANGI AIRPORT TERMINAL 3



CHANGI AIRPORT TERMINAL 4

# 4

## SMART DISTRICTS/ CITIES

Information and Technology - When incorporated into a city greatly elevates the quality of life; taking into account the welfare of its citizens and governance. Hence, STREAM provides a smarter form of sustainable and efficient waste management to aid in consolidating the rapid urban development of the 21st century.

### NOIDA SMART CITY

City: Noida

Country: India

Project Duration: 2016-2019

Type of AWCS: Hybrid System

Total Pipe Length: 10,000m

Number of Fraction(s): 1

Estimated Waste per Day: 60 metric tons



LULUAT ISLAND



AL RAHA



AL RAHA MALL



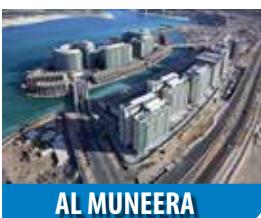
ALDAR

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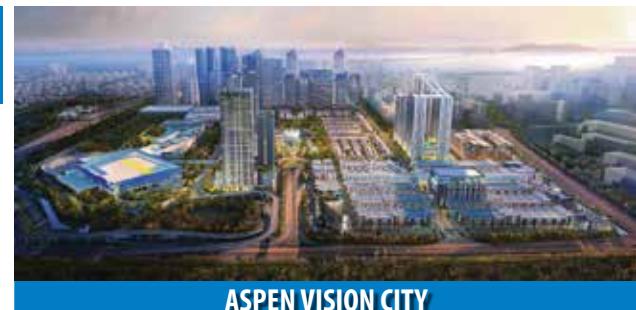
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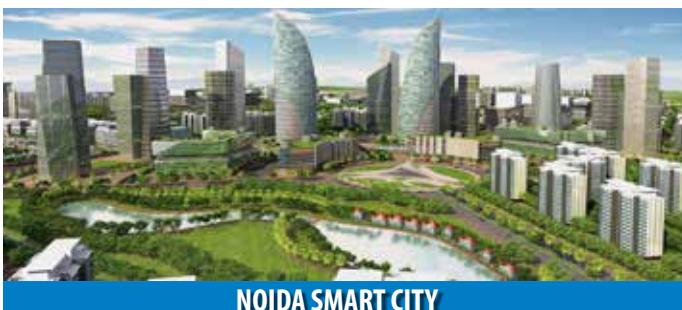
AL MUNEERA



AL REEM ISLAND



ASPEN VISION CITY



NOIDA SMART CITY



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