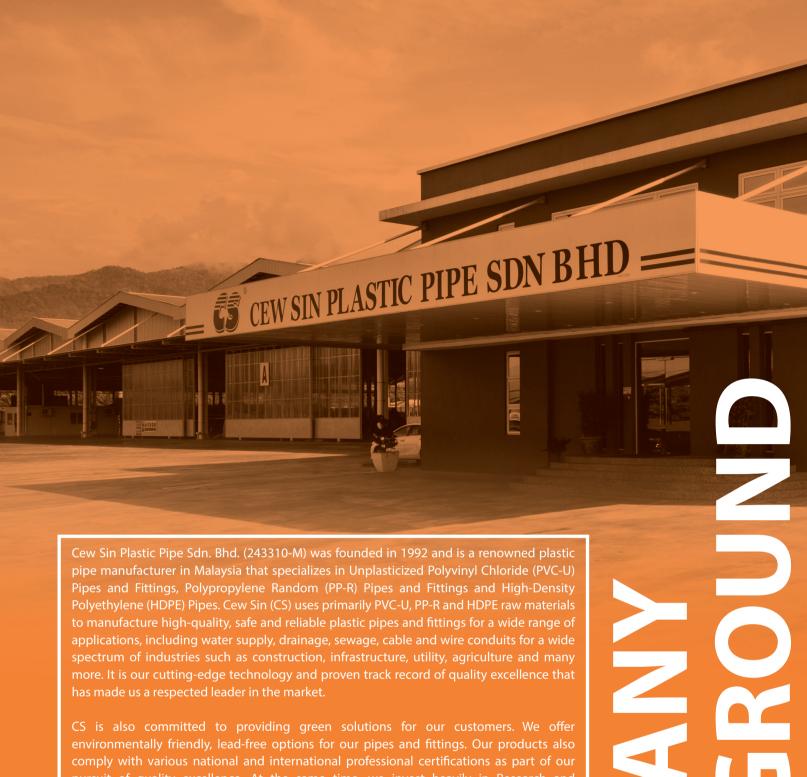


**Your Complete Piping Solutions** 

# PVC-U Underground Sewerage System







Development because we believe in continuously upgrading the quality of our products, as befitting our status as a market leader in Malaysia.

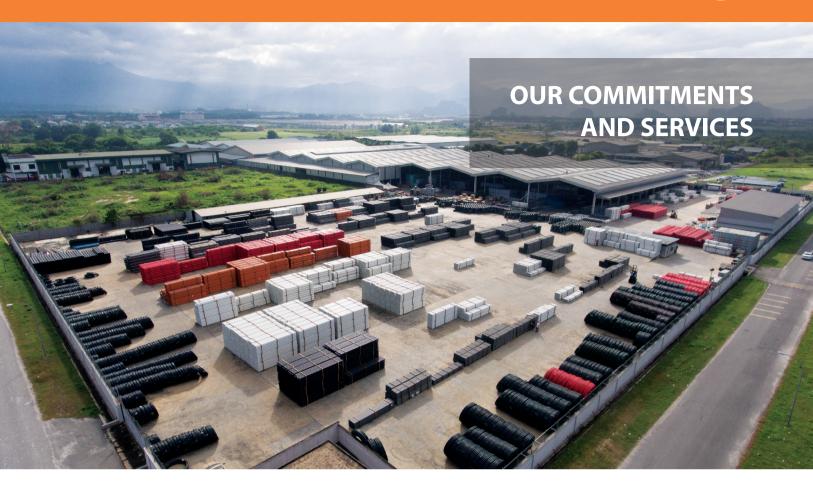
management, professional production, continuous upgrades and efficient services. Our endeavours over the years have made us a well-trusted brand in both the domestic and international market.

We are ISO 9001:2015 Quality Management System certified, while stringent measures are adopted to ensure a high product quality that meets our local and export customers' needs. Our products are also endorsed by SIRIM QAS (Standard of Industrial and Research Institute international standards.

Apart from international certification, our pipes and fittings meet the requirements of the Malaysian National Water Authority (Suruhanjaya Perkhidmatan Air Negara or SPAN), Jabatan Air Negeri Sabah, and the State Water Authority of Sarawak.

# 2 **Company Background** Vision, Mission and Quality Policy 6 Introduction and Product Code 8 **PVC-U Underground Sewerage Pipes Product Feature and Information** PVC-U Underground Sewerage Fittings **Product Size and Dimension** 15 **PVC-U Underground Sewerage Assembly System** 17 **Installation Guide** 19 Other Catalogues





# **VISION**

To become the leading manufacturer and distributor of complete PVC-U, PP-R and HDPE piping systems in the region.

# **MISSION**

To ensure total customer satisfaction through continuously improving our products, resources, facilities and services.

# **QUALITY POLICIES**

- ♦ Customer satisfaction is our top priorty
- Strive to be the best in the industry
- ♦ People competency is the key driver
- ♦ Plan for and commit to continuous improvement





# STATE-OF-THE-ART LABORATORY

CS strongly believes in the importance of high-quality, durable, safe, and reliable products. We have a comprehensive range of equipment in our laboratory where all products are rigorously tested in compliance with local and international standards. Fine raw materials and compounds are assessed in terms of temperature, pressure, and energy input, while pipe samples are put under stringent impact and tensile strength inspections. Our dedicated Research and Development team is also always working on developing new ways to upgrade the quality of our pipes and fittings as according to industry standards.

# **OUR ACCREDITED CERTIFICATION BODIES**

CS's wide range of products adheres to ISO 9001 certification, as well as both local and international standards, including but not limited to:











# **PVC-U UNDERGROUND SEWERAGE PIPES**

This range of PVC-U pipes is suitable for conveying normal domestic effluents and surface water. It complies with the MS 979 standard and is recommended for underground applications, including under gardens, fields, driveways, yards, and roads (excluding main roads). These pipes are highly resistant to corrosion, offer excellent chemical resistance, and are exceptionally durable. CS provides a comprehensive sewerage solution with pipe sizes ranging from 100mm to 315mm.

#### **Features:**

- Designed for underground use
- ♦ Wide range of size options available
- Suitable for installation under gardens, fields, driveways, and roads
- ♦ Low maintenance due to durable construction
- ♦ Superior abrasion resistance
- Impervious to chemicals found in domestic effluent
- Lightweight for easy handling, transportation, and installation
- ♦ Available in a golden-brown color

**Nominal Size** 

♦ Hassle-free assembly with solvent cement and rubber-ring joints

# **CS Pipe Marking**



LEAD-FREE Formulation



# **PRODUCT CODE**

## **PVC-U PIPE NEW CODE**



## **PVC-U FITTINGS NEW CODE**



## **GROUP**

Р	PIPE
F	FITTINGS
0	OTHERS

## **SERIES**

S	SIRIM
C	CUSTOM MADE

## **CLASS**

UG	UNDERGROUND SEWERAGE
D	CODE: D (MS 1063)

# **FITTINGS**

USB	UNDERGROUND SWEPT BEND
USB135	UNDERGROUND 135° BEND PLAIN
UBB	UNDERGROUND BOSSED BEND (M/F)
UESB	UNDERGROUND EQUAL SINGLE BRANCH
URSB	UNDERGROUND REDUCING SINGLE BRANCH
UYB	UNDERGROUND Y-BRANCH
URYB	UNDERGROUND REDUCING Y-BRANCH
UBC	UNDERGROUND BOSS CONNECTOR
USC	UNDERGROUND STRAIGHT COUPLING
ULIRS	UNDERGROUND LEVEL INVERT REDUCING SOCKET
UEC	UNDERGROUND END CAP
UPTR	UNDERGROUND P-TRAP
UPTR-UB	UNDERGROUND P-TRAP (U-BODY)
USTR	UNDERGROUND S-TRAP
USTR-UB	UNDERGROUND S-TRAP (U-BODY)
UUB	UNDERGROUND U-BODY
USWN	UNDERGROUND SWAN NECK

# **DIAMETER / SIZES**

100MM	4" (MS 979)
110MM	4" (MS 1063)
155MM	6" (MS 979)
160MM	6" (MS 1063)
200MM	8"
250MM	10"
315MM	12"

## LENGTH

5.8	5.8 MTR	
6.0	6.0 MTR	

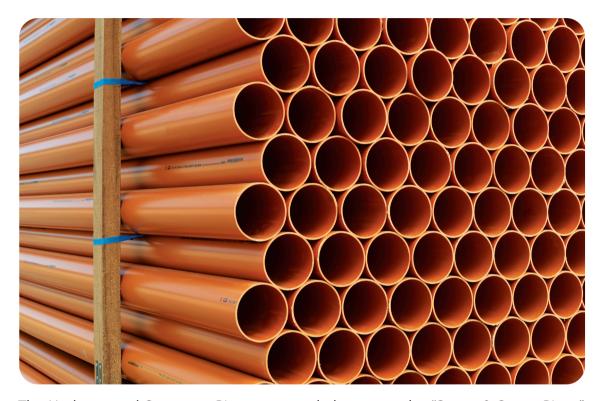
# **COLOR**

RR	GOLDEN BROWN



# **PVC-U UNDERGROUND SEWERAGE PIPES**

MS 979: PART1: 1985 & MS 979: PART 2:1985 (BS 4660, BSEN 1401 & ISO 4435)



The Underground Sewerage Pipes commonly known as the "Sewer & Storm Pipes" which are suitable for all underground usage.

Available from 100mm to 315mm diameter, these pipes are laid in the ground as scupper drain, sewer or drainage connections.

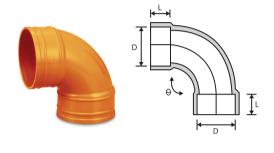
They are produce in golden brown colour.

The pipes are joined by solvent cement joint and rubbering joint.

PRODUCT CODE	NOMINA	AL/SIZES	OUTSIDE DIAMETER (MM)		MIN WALL	LENGTH
CODE	(IN.)	(MM)	MIN	MAX	THICKNESS (MM)	(METER)
PS-UG-100-5.8-BR	4	100	110.00	110.40	3.2	5.8
PS-UG-155-5.8-BR	6	155	160.00	160.60	4.1	5.8
PS-UG-200-5.8-BR	8	200	200.00	200.60	* 4.9	5.8
PS-UG-250-5.8-BR	10	250	250.00	250.70	* 6.1	5.8
PS-UG-315-5.8-BR	12	315	315.00	315.90	* 7.7	5.8

<sup>\*</sup> These values of wall thickness are for a standard dimension ration (SDR) of 41.

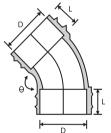




# UNDERGROUND SWEPT BEND

PRODUCT CODE	NOMINAL SIZE	DIMENSIONS (mm)		
CODE	(mm)	D	L	
F-USB-110-BR	110	110.50	52.30	
F-USB-160-BR	160	160.60	78.50	
F-USB-200-BR	200	200.70	81.60	
F-USB-250-BR	250	250.50	82.10	
F-USB-315-BR	315	315.50	103.10	

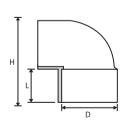




# **UNDERGROUND 135° BEND PLAIN**

PRODUCT CODE	NOMINAL SIZE	DIMENSIONS (mm)			
CODE	(mm)	Angle ( <del>0</del> )	D	L	
F-USB135-110-BR	110	135.00	110.40	48.00	
F-USB135-160-BR	160	135.00	160.80	77.40	
F-USB135-200-BR	200	135.00	200.40	81.10	
F-USB135-250-BR	250	45.00	250.60	85.60	
F-USB135-315-BR	315	135.00	315.50	100.20	



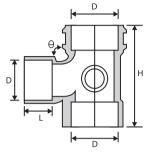


# **UNDERGROUND BOSSED BEND (M/F)**

PRODUCT CODE	NOMINAL SIZE	DIMENSIONS (MM)				
CODE	(MM)	Angle ( <del>0</del> )	D	L	Н	
F-UBB-110-WT	110	90.00	110.40	49.50	162.00	



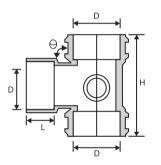




### UNDERGROUND EQUAL SINGLE BRANCH (swept)

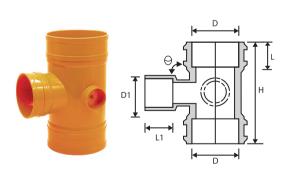
PRODUCT	NOMINAL SIZE	DIMENSIONS (mm)			
CODE	(mm)	Angle ( <del>0</del> )	D	L	Н
F-UESB-110-BR	110	92.50	110.60	52.50	249.00





# **UNDERGROUND EQUAL SINGLE BRANCH (unswept)**

PRODUCT	NOMINAL SIZE	DIMENSIONS (mm)			
CODE	(mm)	Angle ( <del>0</del> )	D	L	Н
F-UESB-160-BR	160	92.50	160.50	74.00	350.00
F-UESB-200-BR	200	90.00	200.40	81.50	403.00
F-UESB-250-BR	250	87.50	250.80	82.10	443.00
F-UESB-315-BR	315	91.50	315.90	90.70	546.00

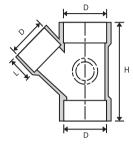


# UNDERGROUND REDUCING SINGLE BRANCH (unswept)

PRODUCT	NOMINAL SIZE	DIMENSIONS (mm)				
CODE	(mm)	D	D1	н	L	L1
F-URSB-160x110-BR	160x110	160.50	110.40	315.00	74.00	50.00
F-URSB-200x110-BR	200x110	200.70	110.40	410.00	82.00	50.00
F-URSB-200x160-BR	200x160	200.70	160.50	410.00	82.00	50.00
F-URSB-250x110-BR	250x110	250.80	110.50	310.00	80.00	48.00
F-URSB-250x160-BR	250X160	250.80	160.70	443.00	82.10	74.00
F-URSB-250x200-BR	250x200	250.80	200.80	443.00	82.10	81.50
F-URSB-315x110-BR	315x110	315.90	110.50	324.00	82.10	48.00
F-URSB-315x160-BR	315x160	315.90	160.70	375.00	90.00	59.00
F-URSB-315x200-BR	315x200	315.90	200.40	416.00	90.00	69.00
F-URSB-315x250-BR	315x250	315.90	250.80	467.00	90.00	80.00



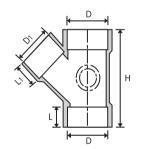




# **UNDERGROUND Y-BRANCH**

PRODUCT	NOMINAL SIZE	DIMENSIONS (MM)				
CODE	(MM)	Angle ( <del>0</del> )	D	н	L	
F-UYB-110-BR	110	135.00	110.40	260.60	51.20	

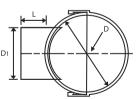




# **UNDERGROUND REDUCING Y-BRANCH**

PRODUCT	NOMINAL SIZE	(AABA)					
CODE	(MM)	D	D1	Н	L	L1	
F-URYB-160X110-BR	160X110	160.50	110.40	350.00	74.00	52.00	



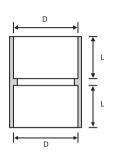


# **UNDERGROUND BOSS CONNECTOR**

PRODUCT	NOMINAL SIZE			
CODE	(MM)	D	D1	L
F-UBC-160X110-BR	160X110	160.50	110.40	50.50
F-UBC-200X110-BR	200X110	200.70	110.40	47.90
F-UBC-200X160-BR	200X160	200.70	110.40	58.20



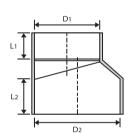




# UNDERGROUND STRAIGHT COUPLING

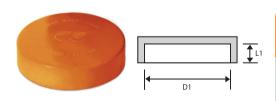
PRODUCT CODE	NOMINAL SIZE		ISIONS M)
CODE	(mm)	D	L
F-USC-110-BR	110	110.50	53.20
F-USC-160-BR	160	160.50	78.20
F-USC-200-BR	200	200.70	81.00
F-USC-250-BR	250	250.70	83.40
F-USC-315-BR	315	315.90	101.20





# UNDERGROUND LEVEL INVERT REDUCING SOCKET

PRODUCT	NOMINAL SIZE (MM)	DIMENSIONS (MM)			
CODE		D1	D2	L1	L2
F-ULIRS-160X110-BR	160X110	110.30	160.50	47.80	52.20
F-ULIRS-200X110-BR	200X110	110.50	200.90	62.80	68.80
F-ULIRS-200X160-BR	200X160	160.30	200.60	63.60	68.60
F-ULIRS-250X110-BR	250X110	110.60	250.70	52.00	84.00
F-UL <b>I</b> RS-250X160-BR	250X160	160.60	250.70	61.40	84.00
F-ULIRS-250X200-BR	250X200	200.45	250.70	72.00	84.00

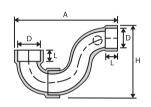


# **UNDERGROUND END CAP**

PRODUCT	NOMINAL SIZE	DIMEN (M	
CODE	(MM)	D1	L1
F-UEC-110-BR	110	110.40	23.50
F-UEC-160-BR	160	160.50	78.00
F-UEC-200-BR	200	200.60	90.00



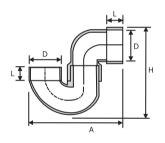




# UNDERGROUND P-TRAP (U-BODY)

PRODUCT	NOMINAL SIZE	AL DIMENSIONS (mm)				
CODE	(mm)	D	L	A	Н	
F-UPTR-110-BR	110	110.40	49.50	375.00	270.00	

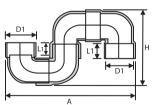




# **UNDERGROUND P-TRAP (U-BODY)**

PRODUCT	NOMINAL SIZE	DIMENSIONS (mm)					
CODE	(mm)	D	L	Α	Н		
F-UPTR-UB-110-BR	110	110.40	46.50	310.00	295.00		

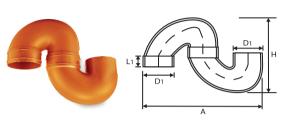




# UNDERGROUND S-TRAP

	PRODUCT	NOMINAL SIZE	DIMENSIONS (mm)					
	CODE	(mm)	D1	L1	Α	Н		
Ī	F-USTR-110-BR	110	110.40	49.50	460.00	295.00		

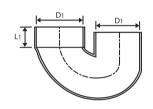




# **UNDERGROUND S-TRAP (U-BODY)**

PRODUCT	NOMINAL SIZE	DIMENSIONS (mm)				
CODE	(mm)	D1	L1	Α	Н	
F-USTR-UB-110-BR	110	110.40	46.50	380.00	280.00	

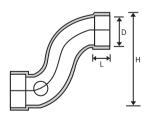




# **UNDERGROUND U-BODY**

PRODUCT	NOMINAL SIZE (mm)	DIMEN (m	
CODE		D1	L1
F-UUB-110-BR	110	110.40	46.50





# **UNDERGROUND SWAN NECK**

PRODUCT CODE	NOMINAL SIZE (mm)	DIMENSIONS (mm)		
		D	L	Н
F-USWN-110-BR	110	110.50	50.00	280.00



# PVC-U UNDERGROUND SEWERAGE ASSEMBLY SYSTEM



Solvent Cement is a cost effective and highly secure method for pipe assembly. It can be used on PVC-U pipes and socket end pipes. CS's Solvent Cement is recommended for use on PVC and PVC-U pipes. It features superior adhesion, fast setting, and waterproof bonding. Upon full cure, it is safe for drinking water, irrigation, waste water, sanitary pipes, conduits and more.

# **Features**

- ♦ Reliable and highly secure bonding
- ♦ Cost effective as small amount is needed for each application
- ♦ Strong resistance to vibration and pulsation leaks
- ♦ Watertight adhesion
- ♦ Fast setting and easy installation



# **POLYVINYL CHLORIDE (PVC) SOLVENT CEMENT**

cs solvent cement is a formulated premium quality liquid adhesive which is used to create an airtight seal that holds PVC-U pipe and fittings together. Our solvent cement features strong bonding strength, fast-dry, slow-dry and waterproof seal. It is safe for drinking-water supply piping, sanitary pipes, water irrigation and etc. All of our solvent cement has been certified by Sirim QAS International in compliance with MS 628-4:2015. (equivalent to British Standard BS 4346 Part 3)



**Product Code: SSCPVC500-T** 

Colour : Transparent (Fast Dry) Solid consists of : MEK & CYC



**Product Code: SSCPVC500-G** 

Colour : Green (Fast Dry) Solid consists of : MEK & CYC



**Product Code: SSCPVC500-B** 

Colour : Blue (Slow Dry)

Solid consists of: MEK, CYC & THF

Solid content: 24%

Consistency property: 1,000pcs

Quality: Tough & Resistance

Comply to Standard: MS 628-4: 2015

- ♦ A highly soluble **FAST DRY** and **SLOW DRY** PVC-U Solvent cement is available.
- ♦ When applied, it will instantly dissolve and blend with the pipe to produce a film (wall) of 0.4mm thick, so that the fitting gap will be strong and stable.

#### **RECOMMENDATIONS ON BRUSH:-**

A: Pipes with diameter 25mm (1") and below - recommended brush are provided with the can.

B: Pipes with diameter 32mm to 50mm (11/4" to 2") - use 1" brush

C : Pipes with diameter 75mm to 200mm (3" to 8" and above) - use 2" brush

PRESSURE TEST	TEST PRESSURE	<b>DRYING TIME</b>
Cold Water (20°C)	Below 12kg/cm <sup>2</sup> (171psi)	After 1 hour
Hot Water (60°C)	Below 12kg/cm <sup>2</sup> (171psi)	After 2 hour

#### MATERIAL SAFETY DATA SHEET

COMPOSITION/INFORMATION ON INGREDIENT:

Ingredient	PVC Resin	Cyclohexanone	Methyl Isobuty Ketone (MIBK)	T.H.F.	Methyl Ethynl Keltone (MEK)
CAS No.	9003-22-9	108-94-1	141-79-7	109-99-9	78-93-3
% - volume	24%	30%	11%	4%	55%

#### **ESTIMATED SOLVENT CEMENT REQUIREMENT:-**

NORMINAL/SIZES		Number of
(IN.)	(MM)	Possible Joints 500g
1/2	15	383
3/4	20	250
1	25	200
11/4	32	156

NORMINAL/SIZES		Number of Possible Joints
(IN.)	(MM)	500g
11/2	40	100
2	50	69
3	80	41
4	100	32

NORMINAL/SIZES		Number of
(IN.)	(MM)	Possible Joints 500g
6	155	19
8	200	10
10	250	6
12	300	4

#### **PHYSICAL AND CHEMICAL PROPERTIES**

Appearance: Clear Flash Point: 15°C DG Class: 3.2

## Flammable Mixture (UN No. 1133)

This solvent cement material will ignite at ambient temperatures. Colourless vapors may travel considerable distance to ignition sources and cause flash fires or explosions.

#### **HAZARD IDENTIFICATION**

May cause eyes and skin irritation, burns or dermatitis.

#### STORAGE

Store in well-ventilated area. Keep away from heat, sparks and flame.

#### **SAFETY PHASE**

- Keep away from sources of ignition No-Smoking.
- Avoid contact with eyes.
- In case of fire, use chemical powder, foam or carbon dioxide.



# **INSTALLATION GUIDE**



**Preparation** 

Prepare all the needed tools and equipment for the pipe installation.



**Marking** 

Mark the socket depth on the pipe end.



**Cutting the Pipe** 

Cut the pipe with the proper tool, using a fine-toothed saw.



**Joint Preparation** 

Slightly deburr the external pipe edge and break off any sharp edges.



#### Cleaning

Thoroughly clean all surfaces to be joined. Any dirt, moisture, oil and other foreign material will affect the joining's integrity.



**Test Dry Fit of the joint** 

Insert the spigot into the socket without the solvent cement to check the fit. An interference fit should occur between 1/3 and 2/3 of full entry.



Witness Mark the pipe

Draw a line on the spigot to show the depth of the socket.



**Apply Solvent Cement on Pipe** 

Apply an even coat of solvent to the pipe marked for joining.



**Apply Solvent Cement on Fitting** 

Apply an even coat of solvent to the inside of the spigot or socket.



## **Assembly of joint**

While both parts to be joined are still wet, put the spigot into the socket in a slightly twisting motion. Hold the cemented joint idle for a minimum of 30 seconds for secure adhesion.



**Clean off** 

Wipe off excess cement from the pipe at the end of the socket. Any gaps in the cement ring around the pipe perimeter may indicate a defective assembly.



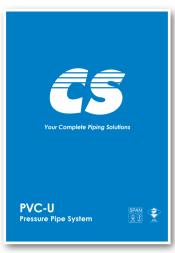
# **NOTEPAD**



# **OTHER CS CATALOGUES**



PVC-U Rainwater Drainage System



PVC-U Pressure Pipe System



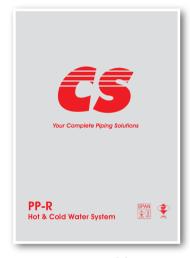
**HDPE PE100 Pipe** 



**Pipes For Infrastructure** 



PVC-U Soil, Wate, Vent System



PP-R Hot & Cold Water System





Water Storage Tank, Waste Water Management & Road Safety Management

# **CONTACT US**

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