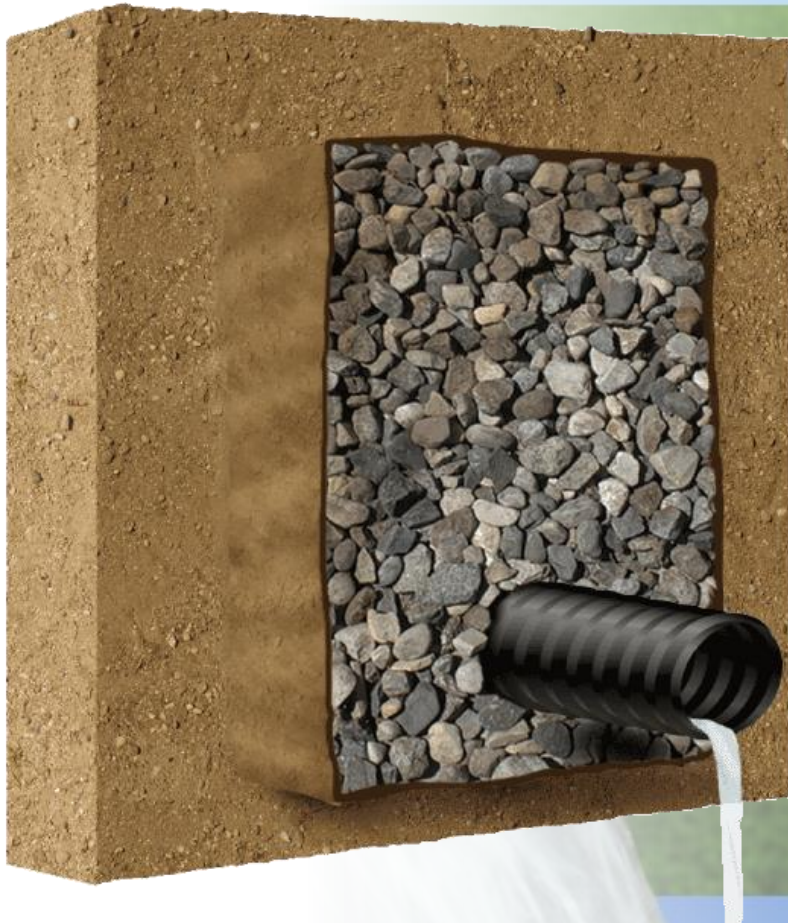
A close-up photograph of a grey, multi-hole pipe with several streams of clear water flowing out from the holes. The pipe is positioned on the left side of the frame, and the water flows downwards and to the right. The background is a bright blue sky above a green lawn.

Introduction to Multi-Flow Drainage Systems

Direct Replacement for the French Drain



Multi-Flow has been solving drainage problems world-wide since 1988:

- Russiaoil field
- El Salvador highway
- Nova Scotiahighway
- Ontarioathletic field
- Panamagolf course
- Taiwanplay ground
- Colombia oil field
- Japansludge
- ChinaBeijing highway
- Indonesiahighways
- Mexicohighway
- Albertagolf course
- Israelwater park
- Hawaiihotel court



WHERE IT'S USED

Multi-Flow™ prefabricated drainage system provides fairway drainage on Calgary's Carnmoney golf course.



**... because drainage is the same
all over the world.
Water is water.
Gravity is gravity.**

*Variations in the system are needed
to address only three factors:*

- Rainfall amounts
- Soil types
- User expectations



A close-up photograph of a grey plastic drainage pipe with multiple circular openings. Water is gushing out of the openings, creating a powerful, white, turbulent stream that falls towards the bottom left of the frame. The background is a clear blue sky above a green lawn.

Five unique features set Multi-Flow apart from all other drainage media:

A. Preferential Shape

B. Enclosed Flow Channels

C. Superior Filter Design

D. Exceptional Strength

E. Unparalleled Flow Rates

Unique Multi-Flow Features:

A. Preferred Shape



A close-up photograph of a grey, multi-tube drainage system. Water is flowing through several of the tubes, creating a large, clear stream. The background is a bright blue sky above a green lawn.

A. Preferred Shape

1. Extra surface area means more water intake area.

1. Extra Surface Area

Multi-Flow

- 6" Multi-Flow
 - 168 sq. in. per foot

Traditional Round

- 3" round
 - 113 sq. in. per foot

- 12" Multi-Flow
 - 312 sq. in. per foot

- 4" round
 - 150 sq. in. per foot

- 18" Multi-Flow
 - 456 sq. in. per foot

- 6" round
 - 226 sq. in. per foot

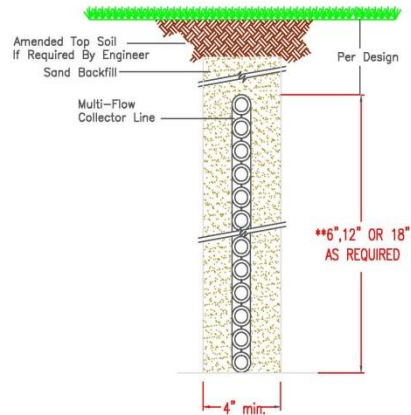
1. Extra Surface Area

- Extra surface area means that water has more opportunity to enter the system.
 - Product height gives Multi-Flow a profile more likely to intercept the movement of water through the ground.
 - More saturated soil is in contact with drainage media.

A. Preferred Shape

1. Extra surface area means more water intake area.
2. **Can be installed in a narrow trench or laid flat.**

Can Be Installed in a Narrow Trench or Laid Flat



THE VERTICAL HEIGHT OF THE MULTI-FLOW SYSTEM (6", 12", 18") AND INSTALLATION DEPTH SHOULD BE CHOSEN BASED ON EXISTING CONDITIONS AND DESIGN CRITERIA ESTABLISHED BY THE ENGINEER.

INSTALL MULTI-FLOW IN THE CENTER OF THE TRENCH. BACKFILL MATERIAL SHOULD BE A VERY COARSE SAND. MIN. RECOMMENDED SLOPE 1%.

UNDER TURF INSTALLATION
EXAMPLE INSTALLATION

MULTI-FLOW
www.varicore.com

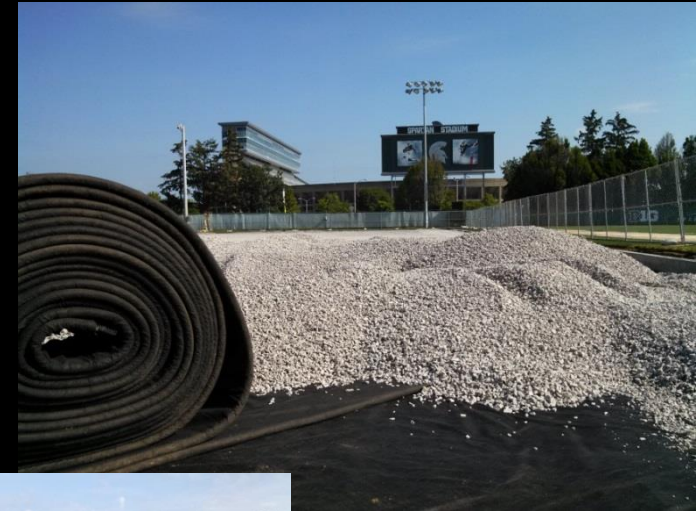


SYNTHETIC TURF
INSTALLATION
EXAMPLE INSTALLATION

MULTI-FLOW
www.varicore.com

- Smaller, less expensive equipment

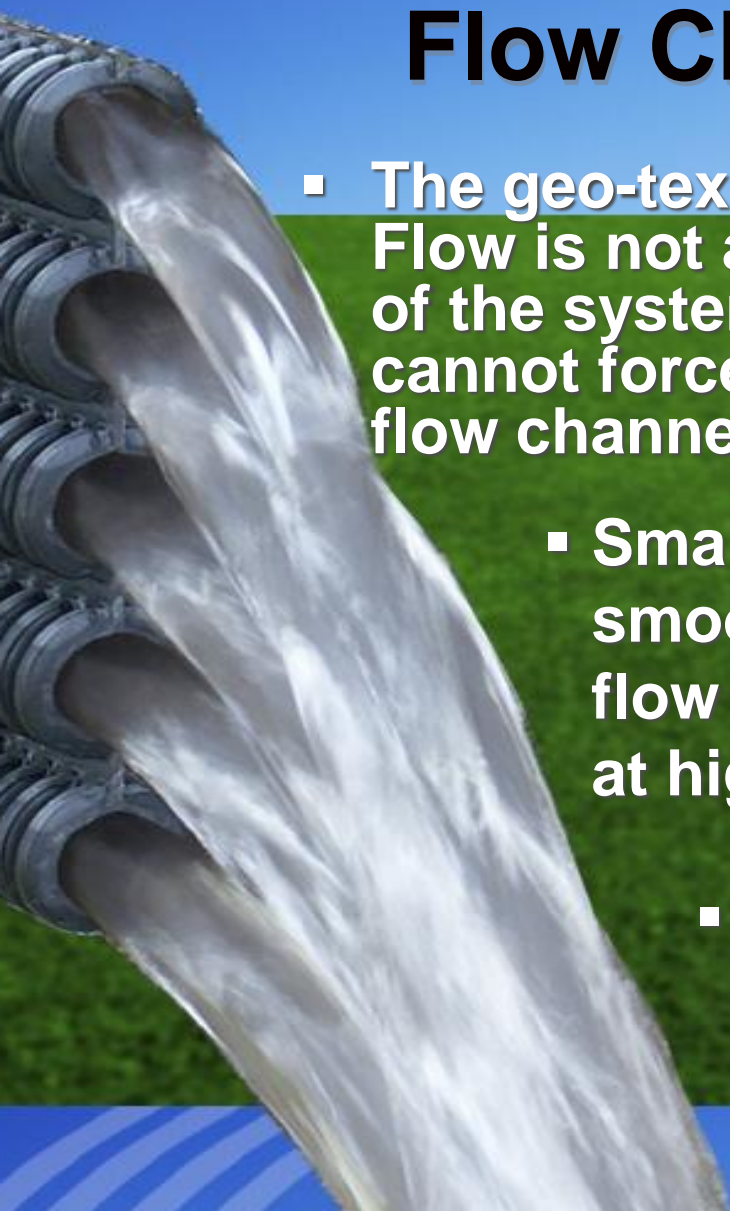
Can Be Installed in a Narrow Trench or Laid Flat



- Smaller, less expensive equipment

B. Individual and Enclosed Flow Channels

- The geo-textile filter on Multi-Flow is not a structural part of the system. Backfill cannot force the filter into the flow channels.
- Smaller ribs mean a smoother hydraulic flow pattern especially at higher velocities.
- Built-in redundancy: if part of the system is damaged, the rest remains intact.





Multi-Flow's channels carry water.
The geo-textile is simply a filter.



A close-up photograph of a grey, multi-tube pipe with several parallel channels. Clear water is flowing out of the top channel, creating a white, turbulent stream. The background is a bright blue sky above a green lawn.

Unique Multi-Flow Features:

A. Preferred Shape

B. Individual and Enclosed Flow Channels

C. Superior Filter Design

C. Superior Filter Design

The Multi-Flow drainage system employs two independent levels of protection for the drainage core.

1. The first line of defense is the sand backfill used to surround the Multi-Flow as it rests in a narrow trench.
2. Secondly, the geo-textile filter that encases the drainage core, keeps the sand from entering.

Secondary Filter: Geo-textile

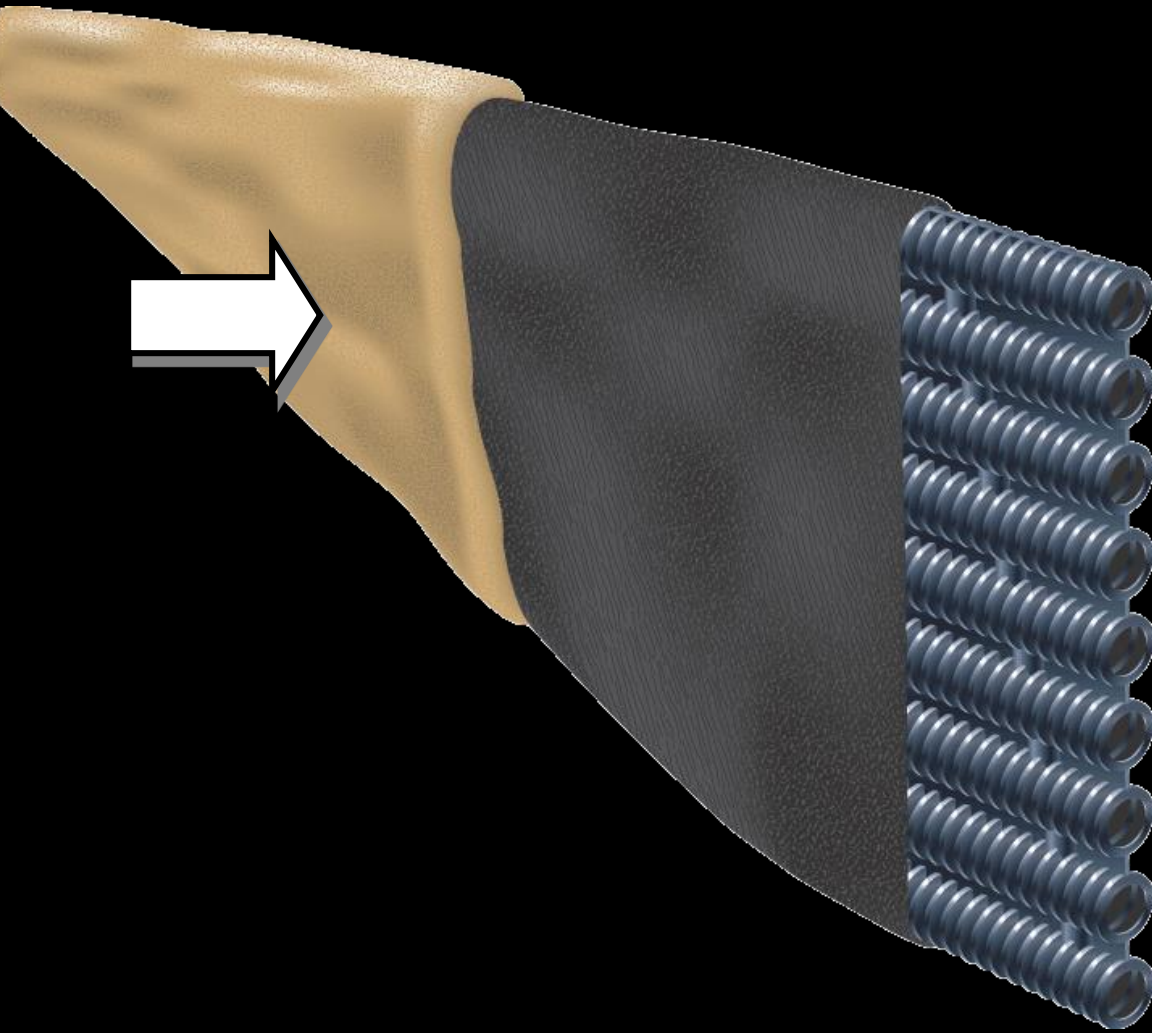
Multi-Flow comes with a

- factory-wrapped
- 4-ounce
- needle punched
- polypropylene

... fabric filter

This filter lasts longer and performs more effectively than the filters on competing products.

Primary filter: very coarse sand



Very coarse sand serves as an excellent filter for small particles of clay and silt.



Old fashioned French drain systems place the filter outside of the rock. This is fine at first.



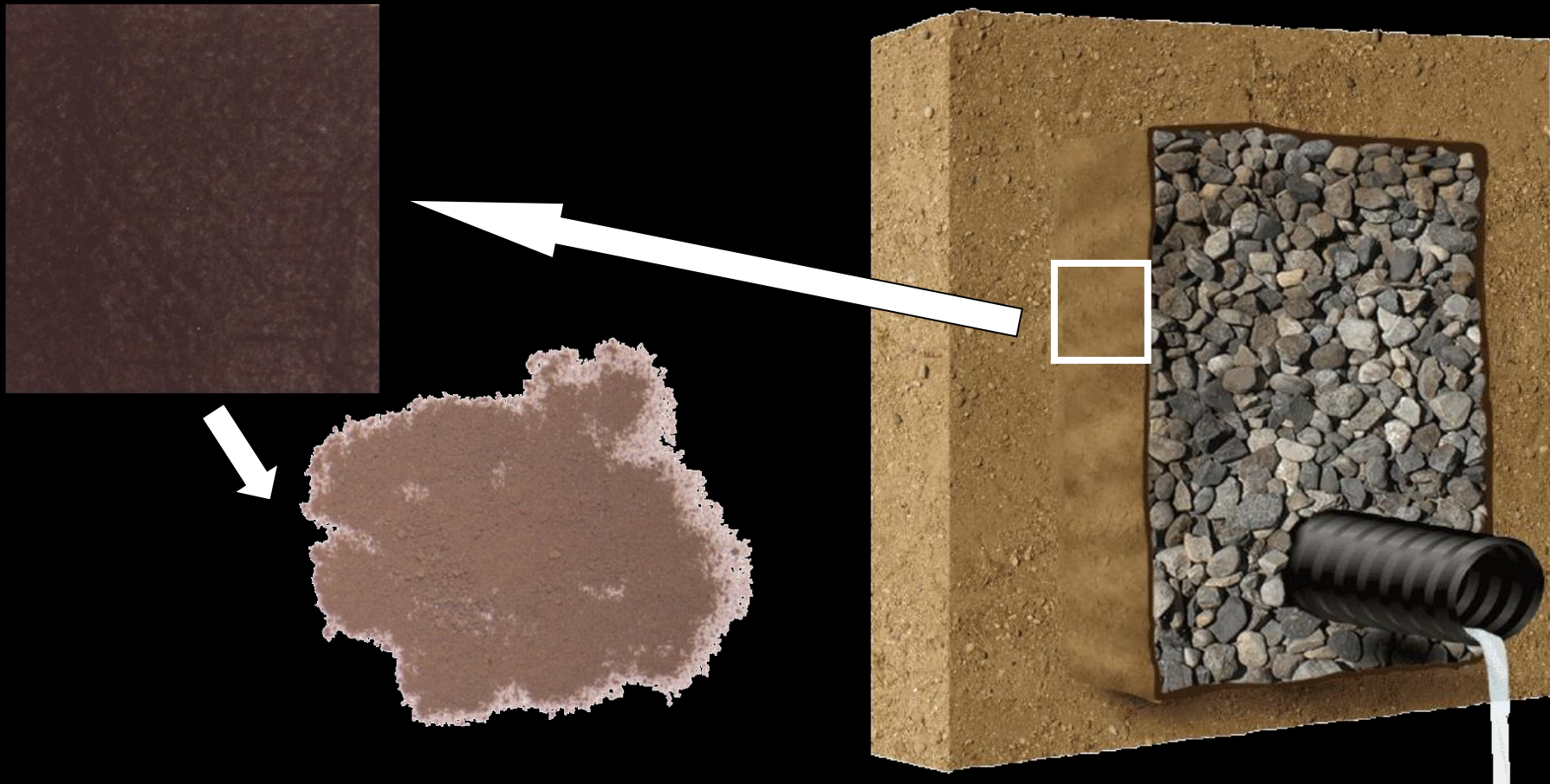
But, inevitably they blind and slow down over time.



Eventually, they block altogether.

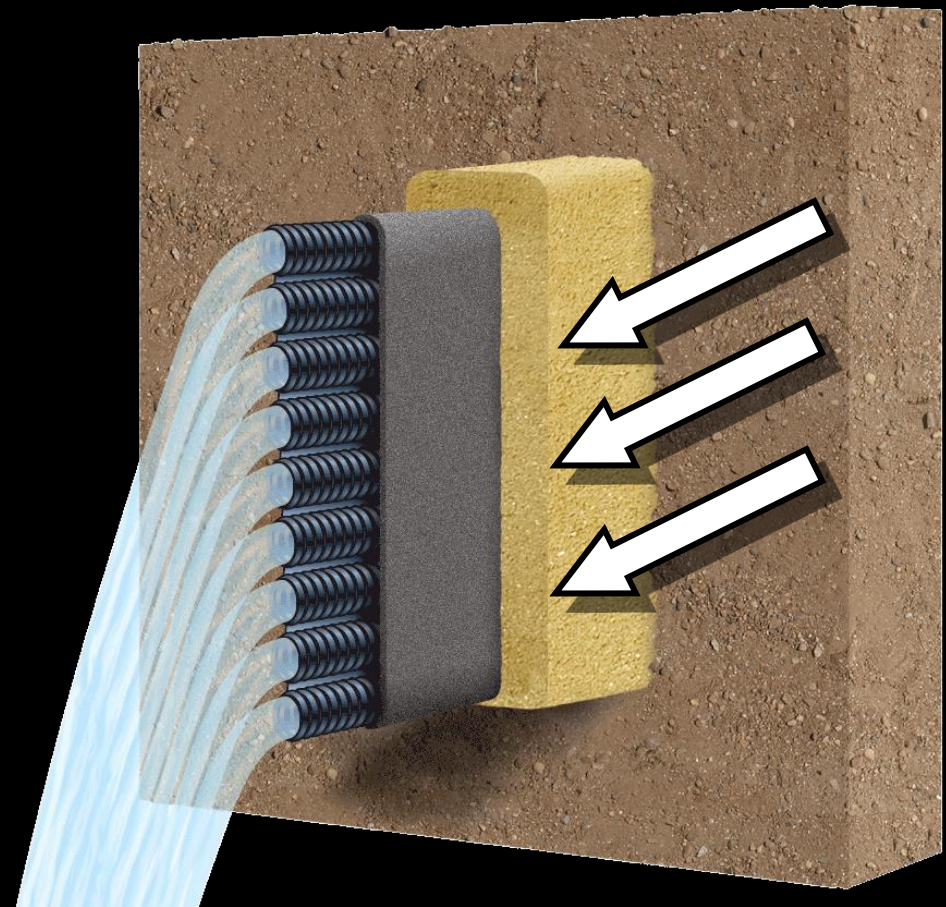


.8 oz. of silt/clay was removed from this 4 inch square section of blinded French drain filter.



Multi-Flow is the solution to French drain blockage because:

- Multi-Flow welcomes select sand backfill
- And coarse sand dramatically extends the life of the system.







Very coarse sand has an approximate particle size of between 1.0 and 2.0 mm



Unique Multi-Flow Features:

- 
- A close-up photograph of a grey, multi-channel pipe. Water is flowing through the channels, creating a white, turbulent stream. The pipe is set against a background of a clear blue sky and a green lawn.
- A. Preferred Shape
 - B. Individual and Enclosed Flow Channels
 - C. Superior Filter Design
 - D. Exceptional Strength

D. Exceptional Strength



Multi-Flow withstands in excess of 6,000 psf. That is three times the pressure exerted by a typical bulldozer!

Don't try this with round pipe!



**Even at 10,000 PSF,
Multi-Flow flow rates are not
seriously compromised!**



Unique Multi-Flow Features:

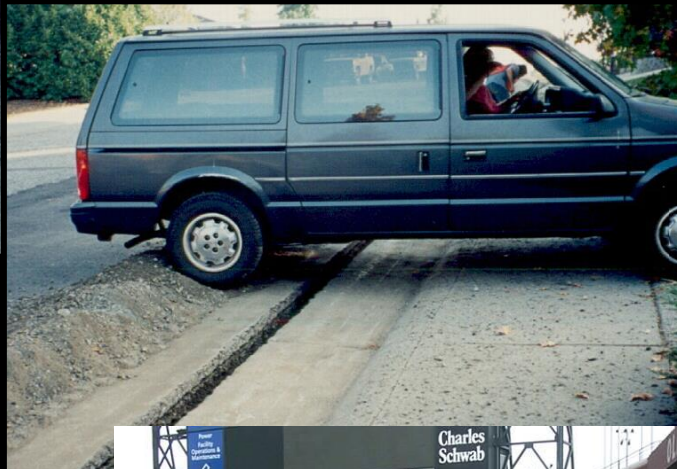
- 
- A close-up photograph of a grey, multi-channel pipe. Water is flowing through several of the channels, creating a dynamic, multi-stream effect. The background is a bright blue sky above a green lawn.
- A. Preferred Shape**
 - B. Individual and Enclosed Flow Channels**
 - C. Superior Filter Design**
 - D. Exceptional Strength**
 - E. Unparalleled Flow Rates**



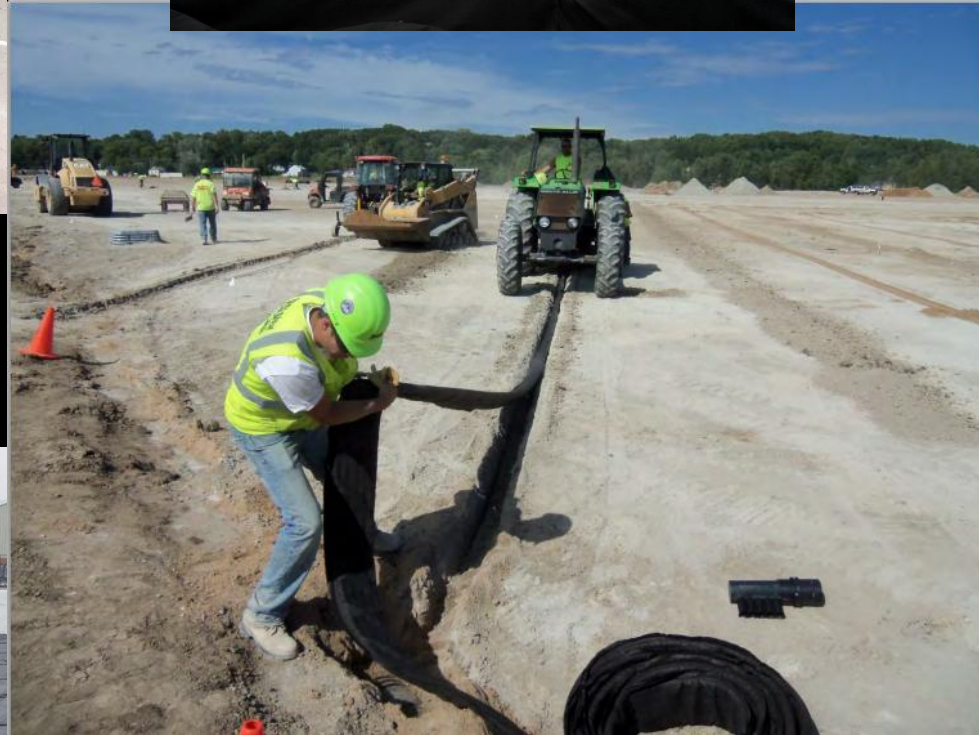
A line of 6 inch Multi-Flow can carry away 17 gallons of water a minute

A line of 12 inch Multi-Flow carries 30 gallons of water a minute

A line of 18 inch Multi-Flow carries 45 gallons of water a minute

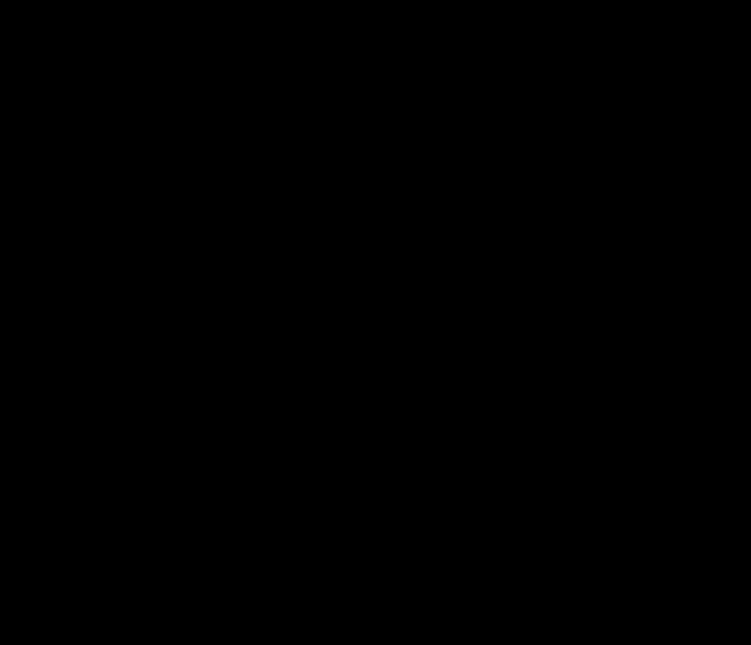


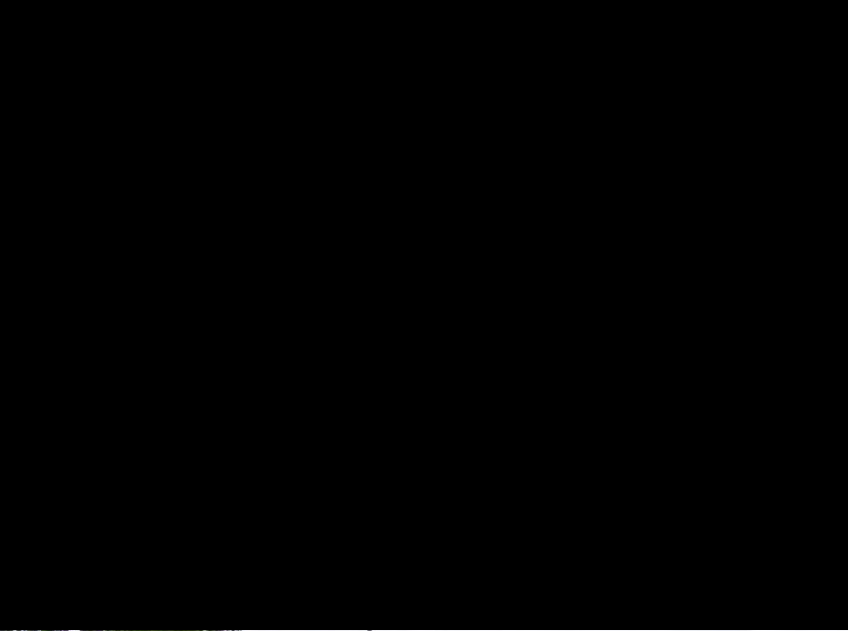
The narrow trench is an obvious benefit for cost and convenience.





05/25/2006







WHERE IT'S USED

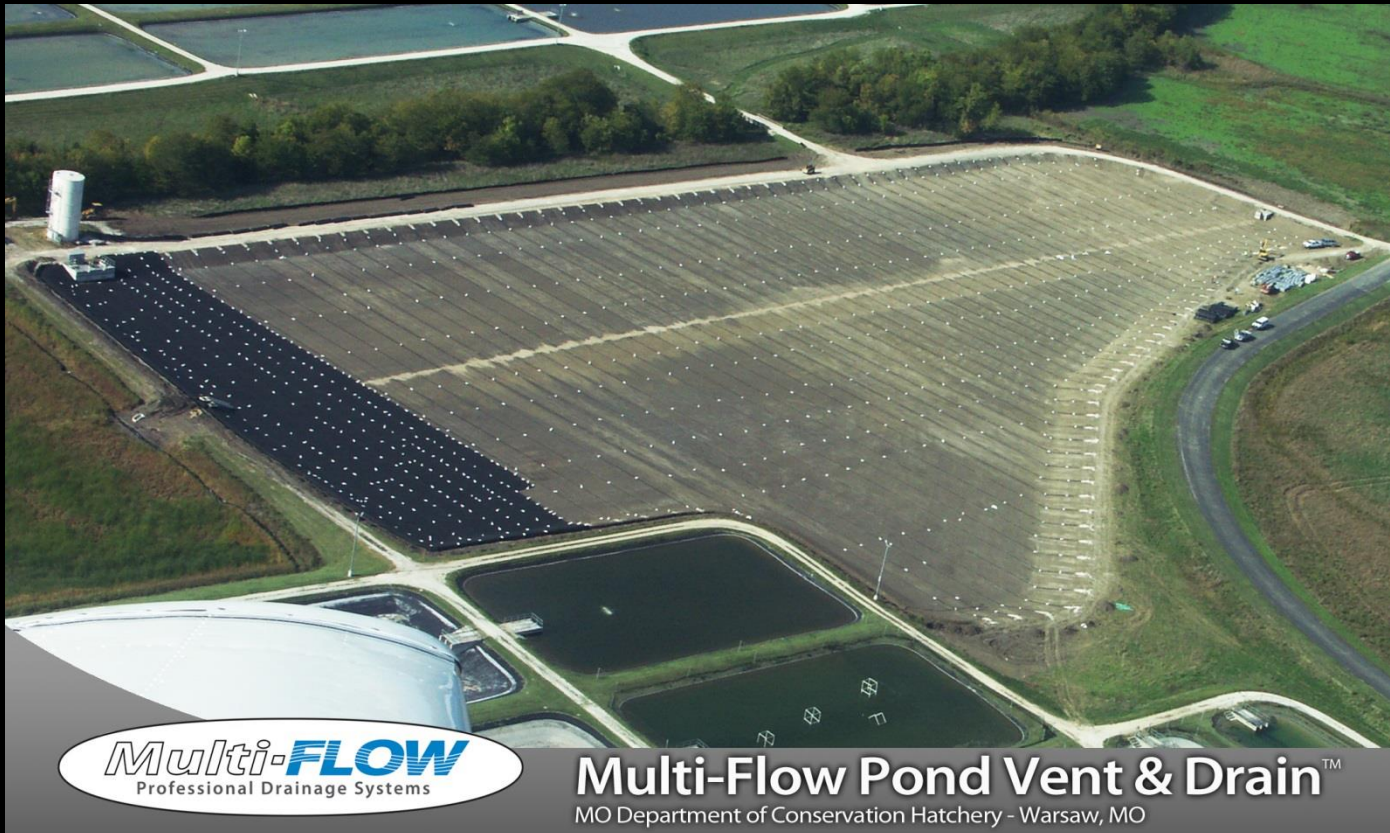
Multi-Flow™ prefabricated drainage system provides fairway drainage on Calgary's Carnmoney golf course.

Multi-Flow can be used in civil applications:



Fresh Kills, NY – Landfill De-Watering Project
Deep drain installation (27 ft, +/-), effective in lowering
Contaminated ground water level.

Leak Detection and Venting Systems (LDVS)



Agricultural, municipal, wastewater,
resource mining, etc.



Multi-Flow Pond Vent & Drain™
MO Department of Conservation Hatchery - Warsaw, MO



Civil Applications:



The largest Multi-Flow projects are civil in nature. Desaturation projects, landfill sites, leech piles, mines, and airports.



City Streets, Auburn, CA

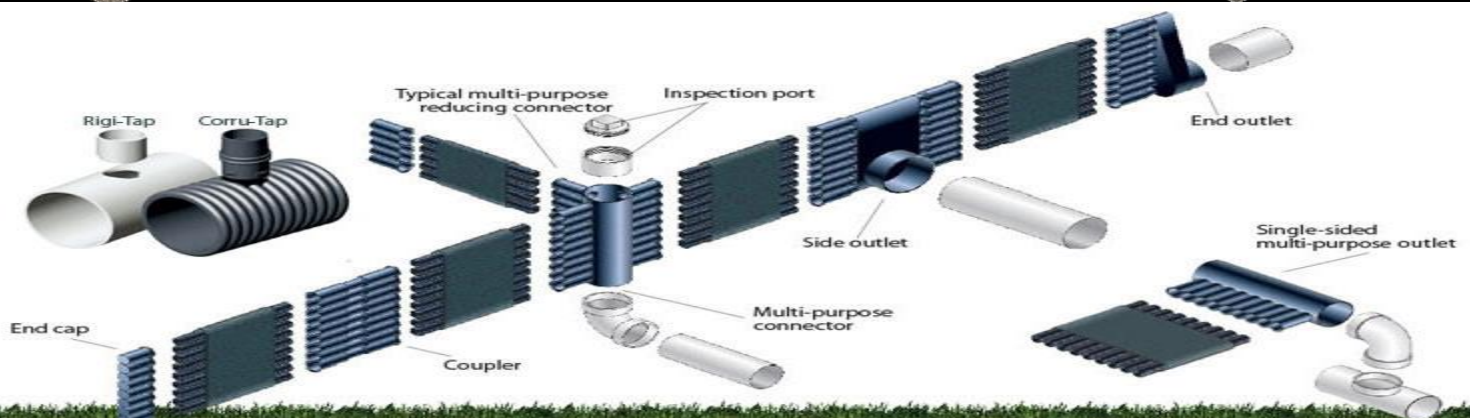
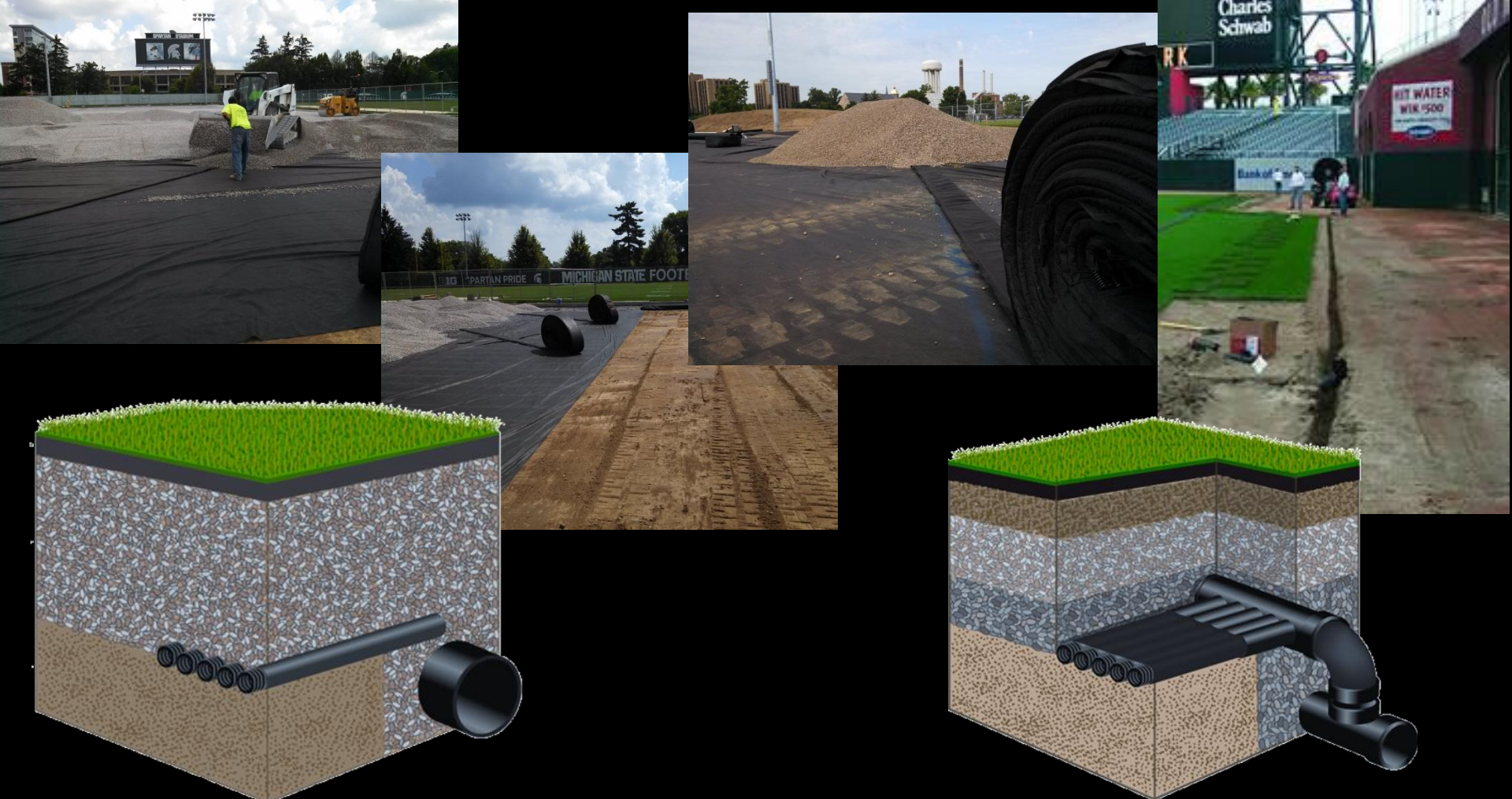






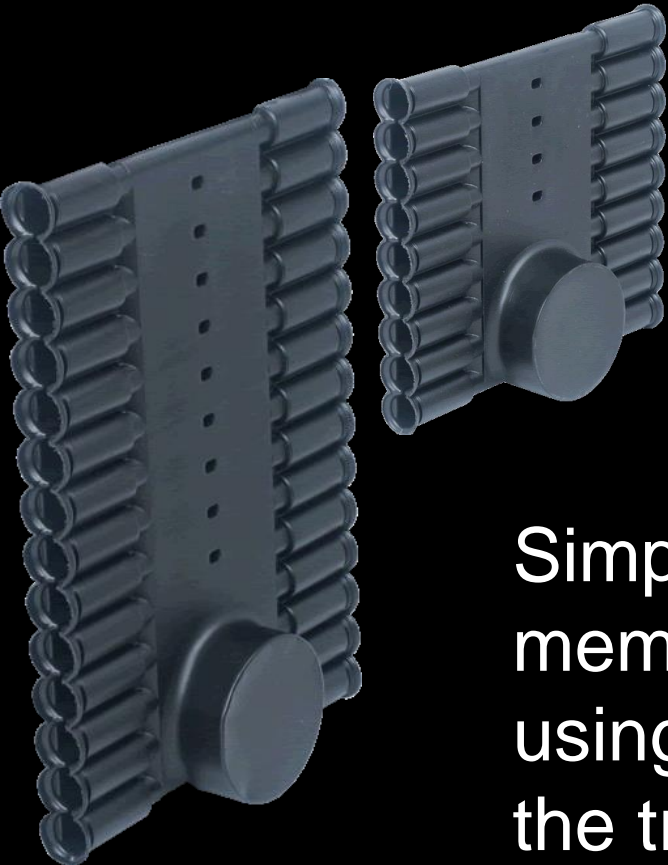
© 2019 Google

Google earth





End outlets and side outlets allow for the discharge of water on the same level as it is collected.



**6-inch outlets have a 3" diameter.
12 and 18-inch outlets have a 4" diameter.**



Simply cut away the flange membrane to the desired size using a utility knife and insert the transport pipe.



Connecting to
corrugated pipe
vertically or
horizontally is a snap!



8. Connecting to the Transport System – Corru-Tap



Available in
three sizes:

6-inch

12-inch

18-inch



Choose

Multi-Flow



Multi-Flow is more than just a drainage system.

Multi-Flow is a comprehensive soil water management strategy. This site offers valuable design tools, a wealth of installation advice, and insightful drainage education... showing how Multi-Flow solves drainage problems simply and affordably.

Our knowledgeable design team and our helpful customer service staff are ready to answer any additional questions you might have. Have a look around or get in touch with us to discover the Multi-Flow drainage solution.

800-978-8007



www.varicore.com

It's the solution.

