

PRECAST PRODUCT HANDBOOK



ancu

We offer unique and innovative engineered solutions for all precast needs. From design to installation, we have dedicated over 40 years of service to our customers.

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UCP History:

Precast Concrete Manufacturer since 1970



From Left: Jamie Hawken, Bill Hawken, Russell Hawken

Born in 1924, William "Bill" Hawken spent his early years growing up in St. Joseph, Missouri. The only boy among three sisters, Bill quickly learned how to keep a good sense of humor and, in many cases, how to problem-solve. Graduating from high school in the midst of World War II, Bill enlisted in the Army Air Force where he trained to become a bombardier. As a Second Lieutenant in the 8th Air Force division, Bill flew in twenty six missions over Germany. In addition to achieving the position of division lead bombardier. Bill received four Air Medals and a Purple Heart. The flight that earned him the Purple Heart also resulted in the

bestowed honor of the Distinguished Flying Cross medal. A determined Bill Hawken finished his mission over hostile skies despite being severely wounded. Following Germany's surrender in 1945, Bill was honorably discharged as a First Lieutenant.

The only boy among three sisters, Bill quickly learned how to keep a good sense of humor and, in many cases, how to problem-solve.

Bill returned to the United States as a hero; as he would not hesitate to tell you! He immediately decided to take advantage of the G.I. Bill and continued his education at UCLA. After a couple of years, Bill transferred to USC to pursue industrial engineering. He graduated with his B.S. in 1950 and was ready to enter the business world. It was during his college years that he met his future wife, Evelyn Henkins. Many said that the beautiful Evelyn (known by those close to her as "Red") was far out of Bill's league, yet he continued his courtship with confidence and determination. On December 26, 1949 the couple began a marriage that was to last over 50 years.

With a degree in hand, Bill participated in a supervisor training program with General Motors. Shortly after, he acquired a position as an Industrial Engineer with Grayson Control focusing on time studies and production methods. It was this experience that first introduced Bill to the precast industry. Bill's next career move was as a Shop and Transportation Supervisor for eight years with American Pipe and Construction Company. This lasted until Bill accepted the position of national Production Manager for American Marietta. During his three and a half years with this company, Bill managed an impressive 126 plants in their concrete production division. Always displaying his outstanding potential, Bill was offered an opportunity with North Star Concrete Products as the Manager of Chicago Precast, a position he held for eight years until 1969.

With an exceptional background in management and a solid foundation in a variety of industries, Bill decided to go into business for himself. Bill discussed the idea with his friends and family and found that he had plenty of support to pursue this new endeavor. Several shareholders joined to serve as the financial backing for Utility Concrete Products and during the early months of 1970 they poured their first structure. A fire destroyed the original plant in 1973 and threatened the future of the company. As always, Bill found a way to fight through the challenge and drove Utility Concrete Products to an even higher level of excellence. With a decade of success under his belt, Bill Hawken became sole owner by 1980. Bill's son, Russell, now holds the title of CEO.

Jamie Hawken President



The UCP Difference:

Design Criteria and Manufacturing Specifications

Utility Concrete Products, LLC is the leading Midwest supplier of precast concrete for the communication, electrical and transportation industries. Our customers consider us one of their top suppliers because of our personalized customer service and properly engineered products.

The UCP plant specializes in self-consolidating concrete delivering consistent, exacting results for every project. Utilizing quality precast concrete products by Utility Concrete means little adjustment is needed in the field. This precision shortens installation timeframes, lessens the excavation required and lowers costs. Products are manufactured by well trained, union, highly skilled employees. At UCP there are no shortcuts, each self-consolidating concrete product is made to exacting specifications with quality materials. As our industry awards and longevity indicates, we deliver on quality and customer service.

Why Use Precast Concrete?

Precast concrete has proven to be one of the most versatile and enduring building products of all time. From pyramids to modern pavements, precast concrete is the choice for a structurally sound, everlasting product. The Precast Advantage is even more in demand for contemporary construction practices. Projects located in critical right-of-ways, project time tables and weather constraints dictate the time saving procedures and efficiencies offered by precast concrete. These advantages contribute to an overall low cost alternative to a cast-in-place design. When you combine these benefits with the traditional economies of precast concrete and the quality of a product manufactured in a controlled environment, the only choice is to get the precast advantage!



Precast Concrete Structural Design Criteria

The Standard Design Practice, C857, developed by the American Society for Testing and Materials (ASTM) for Minimum Structural Design Loading for Underground Precast Utility Structures, has been the criteria used to develop the proprietary utility vaults in this catalog. Many other products in this catalog are based on criteria provided by agencies other than UCP. The basis of the design criteria is noted on the individual product catalog pages.

UCP recommends that the suitability and application of these products be determined by a licensed Professional Engineer experienced in underground construction.

ASTM C857 utilizes AASHTO H-20 wheel loads as the assumed maximum live loads. UCP can also provide structures for more severe loading criteria such as: aircraft wheel loads, E-80 (railroad) and fire truck loads.

Precast Concrete Manufacturing Specifications

The Standard Specification, C858, developed by ASTM for Underground Precast Concrete Utility Structures is the guide used when manufacturing proprietary utility vaults. Several other products in this catalog are based on specifications provided by agencies other than UCP. The applicable specification is noted on the individual product catalog pages. UCP reserves the right to improve or modify these products or methods by change in design or composition without notice.

Precast Concrete Installation Instructions

The Standard Practice, C891, developed by ASTM, for Installation of Underground Precast Concrete Utility Structures is recommended as the guide for the installation of proprietary utility vaults. Many other products in this catalog are based on installation procedures provided by agencies other than UCP.

UCP recommends that the installation of these products be by experienced underground contractors under the oversight and inspection of a licensed Professional Engineer.

At UCP there are no shortcuts, each self-consolidating concrete product is made to exacting specifications with quality materials.

Quality Control & Self Consolidating Concrete

Our goal at UCP is to achieve complete customer satisfaction. This goal is impossible without the presence of a top notch quality control department. For a precast concrete manufacturer, quality excellence begins with the concrete itself. Due to our state of the art mixing system along with our highly trained staff, the quality of our concrete is remarkably consistent with less than 0.5% of our batches being discarded.

In addition to our concrete testing, each of our products is inspected no less than three times prior to making it to the jobsite. Prior to pouring concrete, our quality control team inspects the product to ensure that the rebar design and placement is correct along with any other accessories that may be embedded in the finished product. Once the product has been removed from the forming, a second check is completed on the finished product to ensure that overall dimensions are correct and that all accessories remained secure during the concrete placement. When the product is placed on a trailer for shipment to the jobsite a final check is undertaken to inspect for any damage that may have occurred during the yarding and loading process.

Our quality control department maintains three, plant specific quality control manuals—respectively for PCI, NPCA, and IDOT. The testing and inspection requirements vary between these three entities; because of this we are held to the most stringent procedures of the collective group resulting in constant testing of our product.

From our concrete testing to our vigorous inspection processes, UCP takes tremendous pride in the quality of our products, and we pledge to engage our best efforts to maintain and build upon our extremely high quality standards.



Self-Consolidating Concrete

Utility Concrete Products specializes in Self-Consolidating Concrete (SCC), also known as Self Compacting Concrete, which is a high-performing concrete that can be poured into place, flowing over obstacles such as heavily reinforced structures and into complex forms with little or no vibration needed without segregating. These features make Self-Containing Concrete highly workable. Flowable concrete has proven to deliver jobsite cost savings, better overall performance and greater design flexibility than other concretes. Selecting Self-Consolidating Concrete over a conventional mix does not compromise the durability and strength of the product.

At UCP we are achieving excellence with our Self Consolidating Concrete mix, delivering consistent, exacting results for every project.



Certifications & Partners

To ensure our commitment to excellence, we have secured the Quality Certifications of the National Precast Concrete Association (NPCA) and the Precast/Prestressed Concrete Institute (PCI). The NPCA and PCI independently, in conjunction with nationally recognized engineering firms, have developed certification programs dedicated to setting the highest standards for plant facilities, production operations and quality control procedures. In annual inspections by NPCA, and a minimum of two annual inspections by PCI, the independent nationally accredited engineering firms grade our plant with high standards on various critical aspects of plant operation, including safety, materials, mixing and batching, production practices and quality control.

Utility Concrete Products is also certified under the requirements of the Quality Assurance Programs of the Illinois Department of Transportation (IDOT), Indiana Department of Transportation (INDOT), and Wisconsin Department of Transportation (WisDOT).

UCP is dedicated to continuous improvements in safety, product design, raw material manufacturing processes, employee education and customer service.

UCP Partners

Utility Concrete Products, LLC has grown, developed and prospered because of the close working relationships built with our customers, associations and industry partners. Our professional staff is dedicated to providing precast concrete solutions for all our customers' concrete needs. We appreciate their partnership and will continue to help our customers reach their goals.

Associations

- IRTBA Illinois Road and Transportation Builders Association
- CAWGC Contractors Association of Will and Grundy Counties
- AGCI Associated General Contractors of Illinois



- UCA Underground Contractors Association of Illinois
- Ground Hog Club
- NPCA National Precast Concrete Association
- PCI Precast Concrete Institute



Industry Partners

- StormTrap
- Sine Wall
- Soundsorb
- Stone Strong
- ECI Concrete
- EASI-SET
- ECO-SPAN

Engineering

From transformer pads to electrical vaults to soundwalls, UCP's engineering department can help provide product drawings for whatever application your plans require. We have a wide variety of standard products that allow for the quickest onsite turnaround, along with the most competitive pricing. Starting as small as 2'-0" x 2'-0" x 2'-10" handholes to as large as 15'-0" x 12'-0" x 9'-0" manholes, we can supply standard product CAD files for nearly any situation.

When our standard product doesn't quite fit the job requirements, we can design the product that will work perfectly for your application. UCP has built a strong reputation over the past 40 years for our custom structures, as our shop has produced precast products of just about every shape and size. Whether you are starting from scratch on a custom precast structure or want to alternate a cast-in-place design, UCP's engineers can provide a solution.



Delivery Options & Lifting Hardware

Delivery

While many of our products are delivered on flatbed trailers with the contractor taking responsibility for offloading, we also have a self-unloading truck that can offload a wide range of products. The contractor is responsible for being on site and directing the driver where to place the product, as UCP is not a subcontractor. The boom truck is a convenient and cost effective option for offloading precast structures. Speak to a member of the Sales or Project Management team to see if the crane truck is a viable option for your project and jobsite conditions.



Lifting Hardware

A majority of our standard structures include cast in utility anchors, and the installing contractor is responsible for providing hooks that fit into the recess of the utility anchor and rigging in order to offload.

When one of our structures requires specialized lifting hardware, such as ring lifts or uni-lifts, we are happy to assist the installing contractor by allowing them to utilize our lifting hardware in order to offload. A member of the Sales or Project Management team will communicate with the installing contractor to ensure that the proper lifting hardware is being used and available at the jobsite.



Specialty Applications

There are times when job specifications call for concrete structures to have specialty applications applied.

We offer a wide range of these applications including:

- Damp Proofing: Interior, Exterior, Integral
- Painting & Staining
- Anti Graffiti Coating & Water Repellant Sealers
- Integral Pigment
- Formliner, Exposed Aggregate & Sandblasted Finishes





SECTION 1

Concrete Barrier













Notes

SECTION 2

Transformer Pads, Switchgear Foundations & Above Ground Electrical







ComEd SPEC.#	UCP#	"A"	"B"	"C"	"D "	•⊏"	WEIGHT
C5286B	5286B	12"	66"	6"	14"	14"	2,325#
C 5286C	5286C	72"	66"	6"	18"	14"	2,295#
C 5286D	5286D	84"	78"	6"	18"	18"	3,195#
C 5286E	5286E	84"	78"	6"	26 1/ 2 "	18"	3,115#
C 5286F	5286	60"	66"	6"	14"	14"	1,910#
C 5286G	5286G	12"	66"	6"	18"	14"	2,295#
C 5286H	5286H	96"	84"	7"	18"	18"	4,645#
C 5286J	5286J	102"	102"	8"	26 1/2"	18"	6,830#
C 5286K	5286K	84"	72"	6"	10"	8"	3,060#
C 5286L	5286L	96"	96"	8"	14"	14"	6,200#

18 // Section 2: Transformer Pads, Switchgear Foundations & Above Ground Electrical









UCP#	"A"	"B"	WEIGHT
249LPF	Ø24*	9'-0" *(12'-0" MAX.)	5,610# (12'-0")
164LPF	Ø16*	4'-0" *(16'-0" MAX.)	3,330# (16'-0")





Notes

SECTION 3

TUCIDICETEC'M

UTILITYCONCRETE.COM

Pad Vaults



Pad Vaults // Geneva Pad Vaults







Kit. Lan

SECTION 4

Handholes & Manholes



4

LICE










































Notes

<u>n</u>

SECTION 5

City of Chicago





NOTES:

1. DESIGN CRITERIA: MEETS CITY OF CHICAGO STANDARD.

UCP#	DESCRIPTION	"A"	"B"	WINDOW SIZE	WEIGHT
COC30	30"x36" TALL HANDHOLF	30"	42"	10"x 5"	1,986#
COC36	36"x36" TALLHANDHOLE	36"	48"	10"x 10"	2,265#



NOTES:

1. DESIGN CRITERIA: MEETS CITY OF CHICAGO STANDARD.

UCP#	DESCRIPTION	.v.	'В'	WINDOW SIZE	WEIGHT
SPL867	30"x36" TALL HANDHOLE	30"	42"	10"x5"	2,035#
SPL871	36"x36" TALL HANDHOLE	36"	48"	10"x10"	2,320#



City of Chicago // City of Chicago 3'-0" x 4'-0" x 4'-0" Handhole



UCP#	DESCRIPTION	WEIGHT
729	3'-0"x 4'-0"x 4'-0" W/ Ø32" ROOF OPENING	9,550#
730	3'-0"x 4'-0"x 4'-0" W/ Ø27" ROOF OPENING	9,715#





- 1. DESIGN CRITERIA: MEETS CITY OF CHICAGO STANDARD.
- 2. WEIGHT: SEE LIST

UCP#	DESCRIPTION	WEIGHT
SPL344MH32RO2X2	3'-0"x4'-0"x4'-0" W/ Ø32" ROOF OPENING	8,520#
SPL344MH27RO2X2	3'-0"x4'-0"x4'-0" W/ Ø27" ROOF OPENING	8,685#

City of Chicago // City of Chicago 4'-0" x 6'-0" x 6'-0" Manhole



UCP#	DESCRIPTION	WEIGHT
732	4'-0"x 6'-0"x 6'-0" W/ Ø27* ROOF OPENING	19,450#
733	4'-0"x 6'-0"x 6'-0" W/ Ø32" ROOF OPENING	19,280#









Notes



SECTION 6

Airport





Airport // 2'-0" x 2'-0" x 3'-6" Handhole








Airport // 8'-0" x 6'-0" x 6'-8" HS-20 Rated Manhole





Airport // 15'-0" X 9'-0" X 9'-0" Comed Aircraft Rated Straight Manhole





2. WEIGHT: TOP SECTION: 64,860#; BOTTOM SECTION: 54,805#; RISERS: VARIES

Airport // 5'-0" x 3'-6" x 3'-10" Type 1 Marker Light Base













Notes

SECTION 7

Drainage & Water Quality





DESIGNS TO A PRECAST SOLUTION.















							LON	BOLLOW	BAFFLE	TOTAL	MAX, GALLON
UCP#	'A'	"B"	"C"	"D"	Έ.	"F"	WEIGHT	WEIGHT	WEIGHT	WEIGHT	CAPACITY
SSWQ-8X4X6	4'-0"	8'-0"	4"-9"	8'-9"	6'-0"	6'-11"	6,620,4	6,850#	1,145#	14,615#	1,400
SSWQ-10X5X7	5'-0"	10'-0"	5'-10"	10'-10'	7'-0"	7'-11"	10,850#	11,200#	1,575#	23,625#	2,600
SSWQ-12X6X7	6'-0"	12'-0"	6'-10"	12'-10'	7'-0"	7'-11'	13,625#	13,480#	1,850#	28,955#	3,700







Notes

SECTION 8

Accessories & Hardware







UCP: Precast Product Handbook



Accessories & Hardware // Grade Rings



UCP#	DESCRIPTION	'A'	"6"	"C"	WFIGHT
GRADERING340D24ID 2	GRADE RING ø24"x2" TALL	34"	24"	2"	80#
GRADERING340D24ID-4	GRADE RING ø24"x4" TALL	34"	24"	4"	160#
GRADERING340D24ID 6	GRADE RING @24"x6" TALL	34"	24"	6"	240#
GRADERIN G420D24ID-2	GRADE RING ø24"x2" TALL	42"	24"	2'	165#
GRADERIN G420D24ID-3	GRADE RING Ø24"x3" TAH	42*	24"	3"	245#
GRADERING420D30ID-2	GRADE RING @30"x2" TALL	42"	30"	2	120#
GRADERING420D30ID 3	GRADE RING Ø0"x3" TALL	42"	30"	3"	180#
GRADERING420D30ID-4	GRADE RING ø30"x4" IALL	42"	30"	4"	235#
GRADERING480D36ID 2	GRADE RING @6"x2" TALL	48"	36"	2"	140#
GRADERIN G480D36ID-3	GRADE RING Ø36"x3" TALL	48"	36"	3"	210#
GRADERING480D36ID-4	GRADE RINC ø36"x 4" TALL	48"	36"	4"	275#

UCP: Precast Product Handbook











UCP#: SEE LIST STRUCTURE INFORMATION: HARDWARE PACKAGES

STANDARD HARDWARE PACKAGES								
	Hardw are	1/2" Nuts &						
UCP#	Package	Bolts	Cable Racks	Cable Rack Hooks	Ladders			
444SS	444HP	16 each	(8) 8 Hole - Pre-Installed	(8) 7.5" hooks	(1) 5'			
446SS	446HP	27 each	(8) 18 Hole	(8) 7.5" hooks	(1) 8'			
846ASS	846AHP	30 each	(10) 47 Hole	(10) 7.5" hooks	(1) 8'			
846JSS	846JHP	36 each	(12) 47 Hole	(12) 7.5" hooks	(1) 8'			
1057ASS	1057AHP	42 each	(14) 47 Hole	(14) 10' hooks	(1) 8'			
1057JSS	1057JHP	42 each	(14) 47 Hole	(14) 10" hooks	(1) 8'			
1267ASS	1267AHP	42 each	(14) 47 Hole	(14) 14" hooks	(1) 8'			
1267JSS	1267JHP	42 each	(14) 47 Hole	(14) 14" hooks	(1) 8'			

ComEd HARDWARE PACKAGES								
	Hardw are		30B Frame &	Edison Crown				
UCP#	Package	Ladders	Cover	Grate	Clay Tile			
701097	701097HP	(1) <mark>8</mark> '	1					
228131	ComedHP	(1) 11'	2	1	1			
228134	ComedHP	(1) 11'	2	1	1			

NOTE: HARDWARE PACKAGES INCLUDE SUGGESTED QUANTITIES OF ACCESSORIES AND RACKING. SPEAK TO A MEMBER OF THE SALES TEAM IF YOU WOULD LIKE TO ALTER THE QUANTITIES SHOWN, OR IF YOU ARE IN NEED OF SPECIALIZED RACKING OR ACCESSORIES.



Notes

SECTION 9

Specialty Structures

Contact a member of the Sales Team to discuss the specifics of your project and request pricing for the following specialty structures.
Over the years, UCP has produced countless precast concrete specialty structures using self-consolidating concrete for IDOT, INDOT, WisDOT, ISTHA, MWRD, O'Hare Airport and many other public and private customers. Our experience ranges anywhere from a 3,000# catch basin to a 350,000# fully assembled junction chamber, from square to octagonal shapes, and from designed as precast to cast-in-place alternates.

Custom Underground Vaults

From custom versions of our standard manholes, to massive underground tanks – UCP produces specialty vaults that will meet the specifications of your project.



Specialty Structures Specialty Drainage Products

We have produced a variety of specialty drainage products including: junction chambers, box culvert end sections, sewer structures, headwalls, along with many other custom precast structures used for drainage.



UTILITY CONCRETE PRODUCTS, LLC

Buildings & Enclosures

We can produce buildings and enclosures in a wide range of sizes to meet the specifications of your project. They can be made with a variety of finishes including: smooth, exposed aggregate, formliner finishes, and can be painted or stained if required.



Infrastructure Components

UCP offers several precast products that fall under the increasingly popular Accelerated Bridge Construction method of bridge construction. ABC reduces the amount of onsite construction time and saves money for the owner and contractor through introduction of precast products into the construction project. UCP produces a wide range of custom structures that aid in the Accelerated Bridge Construction Process. Speak to a member of the Project Management team to discuss the details of your project.

Precast Bridge Approach Slabs: Previously, approach slabs were poured in place, which over time would settle, resulting in increased road roughness, driver discomfort, accident potential and vehicle wear or damage. Utilizing precast bridge approach slabs saves the installing contractor time and accelerates the schedule for bridge reconstructions, provides increased durability and enhances user comfort. Precast approach slabs are produced with heavily reinforced 6,000 psi concrete and span from the footing or bent to the abutment, thus greatly reducing the risk of settling, by acting like a land bridge.



Infrastructure Components

Precast Deck Panels allow for high strength, thinner bridge sections and reduced delays and lane closures. Producing the precast concrete deck panels in a controlled setting with 6,000 psi concrete allows for a thinner, more efficient section than typical deck panels, but with the same or better durability and structural capacity.



Infrastructure Components

Precast Pavement Slabs are optimal for roadway repairs that need to be completed rapidly, within 8 hours, as they help minimize construction related congestion and are a durable option for high traffic areas. The top surface of the precast can either be the final driving surface or receive diamond grinding to achieve proper elevation.



Precast Concrete Pier Caps are an aspect of Accelerated Bridge Construction, which improves upon cast in place pier caps that are typically difficult to form on site and are prone to curing issues associated with massive pours in the elements. The use of precast eliminates this challenge while speeding up site time due to their modular nature.



Infrastructure Components

Precast Bridge Abutments support the loading of the bridge structure above and by utilizing a precast backwall they can also serve as a retaining wall for the fill under the bridge approach.



Precast Rail Platforms span alongside rail tracks at railway stations and are an ideal solution for Rail Projects where the objectives of quality, cost and schedule are imperative.



Retaining Wall

We build precast concrete retaining walls for a wide variety of applications including construction of new highway ramps, retaining earth along new or newly widened roads/railways, commercial walls surrounding parking lots, and small architectural walls between houses. Using precast concrete retaining walls results in the quickest installation time, a selection of aesthetically pleasing finishes, and the longest lasting product on the market.

Post & Panel

Post and panel retaining wall applications are typically the most competitive when dealing with cut situations or areas with poor bearing conditions. UCP designs their post and panel with steel columns that are galvanized and painted with marine grade coatings (when required) that may be connected to precast concrete deadmen when necessary. The panels can have a formliner texture to enhance the beauty of the wall depending on the application. Post and panel walls offer the following benefits:

- Cost-effective solution vs. cast-in-place soldier pile
- Minimal excavation compared to other precast systems
- Ease and speed of installation
- Many textured wall finishes available



Retaining Wall

MSE

MSE (Mechanically Stabilized Earth) retaining walls are an economical precast solution for highway walls, bridge abutments, and other projects that require little site prep, such as fill areas. MSE utilizes steel strips that extend from the back face of the precast panels through the earth to help reinforce and hold the soil together. The panels can be produced with a variety of architectural finishes.



Retaining Wall



Elevate

Precast concrete retaining walls have been a mainstay in roadway and railway construction for decades. Unfortunately, their design has been a constant for decades as well. Until now. Elevate's patent-pending counterfort wall is the latest advancement in engineered solutions, designed to bring sustainability and stiffness as well as ease, safety, and speed of installation to earth retention systems. As a two-piece precast wall system, Elevate simplifies on-site installation while providing the performance required by the most demanding roadway and railway applications.



www.elevateinfrastructure.com



Retaining Wall

The Elevate Advantage



BACKFILL

Structurally and sustainably designed to retain clay or soil backfill, eliminating the need to haul off "unsuitable" material and the costs associated with expensive aggregates.

CONNECTIONS

"Belt and suspender" or tapered and bonded connections that are completely protected from the elements.



UTILITIES ARE NO PROBLEM

Counterforts extend about 50% as far as typical stems and 25% as far as MSE straps. Easily able to accommodate various utilities with our system.

UNIQUE DESIGN

Unique design featuring extendable "toe" in front of the wall that reduces bearing pressure and minimizes undercuts.



STIFFNESS

Proven, simple counterfort design provides excellent stiffness to minimize settlement without relying on tedious install techniques or friction on straps or stems.

ONSITE PRODUCTION

Typical 200-300 square feet, full-height unit speeds production on site while minimizing joints for a clean aesthetic.

Retaining Wall

Gravity Block

Gravity block retaining walls rely on their own weight (and any soil resting on the concrete) to stand vertically and withstand lateral earth pressure. These walls are made of relatively small, lightweight components that are easy to install with minimal equipment, even around a radius. Their superior aesthetics and ability to be installed flexibly within a tight space make them ideal for residential, commercial, and small road projects.



StormTrap[®]

StormTrap[®] offers the industry's best solutions for managing runoff, protecting waterways and improving the use of your property. Our stormwater management systems are designed to reduce overall footprint, accommodate any site restraints, and lower overall costs.



SingleTrap[®]

StormTrap's SingleTrap design allows engineers to customize a durable and maintainable stormwater management system to your site's exact requirements. The SingleTrap design offers a wide range of options and benefits. Whether you are working in an extremely limited space or you are trying to preserve the land above for parks, buildings, or parking lots, StormTrap can help.

Features:

- A structure that exceeds HS-20 loading with 6" of cover, ideal for projects with a limited rim to invert
- A durable, reinforced, high-strength concrete available in internal dimensions of 1'1" to 5'8"
- Placement on a stone base that allows for a large infiltrative surface area for water to discharge back into the soil
- An option for watertight systems



DoubleTrap[®]

StormTrap's DoubleTrap design offers the stormwater management solutions you need to control the volume and discharge timing of runoff. Engineers can customize the DoubleTrap solution to meet your exact needs, and the modular design allows us to maximize your storage volume while minimizing your footprint and overall costs. Reduced installation costs combined with modular design and maximum land use makes the DoubleTrap system the smart choice.

Features:

- The lowest overall installed costs
- Durable, reinforced, high-strength concrete with internal height dimensions that range from 2'2" to 11'4"
- A flexible design that can allow stormwater infiltration or remain a completely contained system
- An innovative design that facilitates quick and efficient installations and the smallest overall footprint

StormTrap[®]



STORMWATER APPLICATIONS

Stormwater Detention

At StormTrap we can provide the underground stormwater detention system you need to manage and control the volume and discharge timing of stormwater runoff. These solutions were created to store runoff in large underground chambers for a given period of time before it is released at a controlled rate. This helps to mitigate many of the harmful effects of high volumes of stormwater runoff, such as erosion and flooding.

Stormwater Retention/Infiltration

At StormTrap we offer customized underground stormwater retention systems to meet your individual needs. Our stormwater retention system provides an infiltration surface area that allows water to recharge back into the soil. This stormwater management system also provides some stormwater quality advantages because it will filter the runoff water through the native soil. This is an effective way to reduce any pollutants and contaminants in the stormwater runoff.

Stormwater Treatment

StormTrap is committed to improving stormwater quality so that our streams, rivers, lakes, and wetlands won't be filled with pesticides, nitrogen, and heavy metals. Our stormwater treatment process was designed to preserve and protect those natural resources and the aquatic life that they support. We can also preserve these areas for our own enjoyment and recreation with careful stormwater management. At StormTrap we have created a range of products and services to help protect the environment.

- Filtration: Designed to remove pollutants utilizing various media
- Infiltration: Recharge/Infiltration needs
- Oil/Water Separation: Eliminates oil, grease, fats and other hydrocarbons
- Sedimentation: Designed to your specific particle size removal efficiencies

Stormwater Reuse/Harvesting

StormTrap offers stormwater harvesting applications that collect stormwater on site to use for irrigation or greywater use inside buildings.

Low Impact Development (LID) Solutions

StormTrap can also help your project reach LEED certification by contributing to LEED credits.

StormTrap®

STORMTRAP ADVANTAGES

- Modular design allows system to be quickly and easily customized to meet each project's requirements
- Engineered design maximizes storage volume while minimizing project's footprint and cost
- Total void storage for easy maintenance
- Innovative design allows for a quick and efficient installation
- HS-20, HS-25 and fire truck loading
- Minimum 6" Cover
- High strength precast concrete
- Manufactured in a NPCA (National Precast Concrete Association) certified facility
- Peace of mind for engineers, owners and developers



FreshCreek®

TREATMENT SOLUTIONS for Stormwater, Urban Runoff and Combined Sewer Overflow (CSO) Discharges

FreshCreek[®] is committed to improving water quality and offers the industry's best solutions for removing pollutants from stormwater before they are discharged into rivers, lakes and oceans. FreshCreek's patented treatment solution, SiteSaver[®], is a unique hydrodynamic separator that utilizes disposable mesh nets, inclined plate technology and baffles to capture and easily remove trash and debris, floatables, hydrocarbons and sediment from waterways.



STORMWATER TREATMENT SYSTEMS

SYSTEM FUNCTIONALITY

Stormwater enters the SiteSaver through the inlet pipe. The large particles immediately begin to settle and fall to the sedimentation containment area while hydrocarbons are contained in the area between the pipe opening and the inclined plate. Flow energy drives floating debris and trash into the netting component where pollutants are contained. Oil socks can be added to the net to provide additional hydrocarbon treatment. The stormwater, cleansed of debris and hydrocarbons, then begins to travel through the inclined plates where a large effective settling area enhances sedimentation for removal of finer particles. After the water moves through the inclined plates, the clean water is then discharged to the outlet pipe. During an overflow condition, the water crests over the hydraulic relief weir at the end of the inclined plates to prevent upstream flooding and other issues.





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UTILITY CONCRETE PRODUCTS, LLC







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UTILITY CONCRETE PRODUCTS, LLC







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