

# POLYLOK™ Inc.

Innovations in Precast, Drainage  
& Wastewater Products

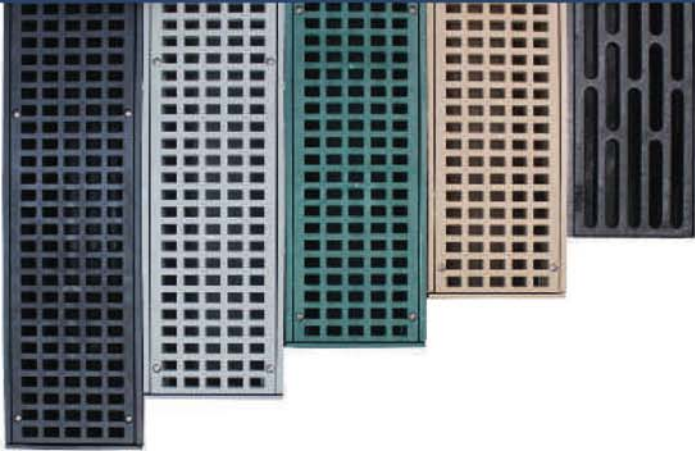


Zabel®  
A Division of Polylok Inc.



# HD TRENCH/CHANNEL DRAIN

## Polylok Drainage Products




### Polylok Heavy Duty Trench/Channel Drain System


Our trench/channel drain system is engineered to deliver the most flexibility in a heavy duty design. The Polylok Heavy Duty Trench/Channel Drain is H-20 wheel load rated when cast in reinforced concrete. It offers a modular design with interlocking components to enable quick and easy connections. Each segment is 4' in length and comes with a reversible ADA compliant grate that can either be flat or allow for a 3/16" convex surface.


Our trench/channel drain design isn't just a great design, it's engineered with a smooth installation in mind. Each 4' segment can be joined together or cut down to 12" increments. Each trench/channel drain segment has eight (8) anchor positions to allow rebar to be installed to prevent floating. There are two sections on each 4' trench to allow 2x4s to be installed to aid in leveling and anchoring prior to pouring concrete. There are four drainage ports on each 4' section to enable 3" and 4" SCH40 or 4" SDR35 connections. Each segment is shipped with #8 x 1 1/4 screws to fasten the grates to the channel and to secure the interlocking pieces, so there is no need to visit the hardware store.


Start using the Polylok Heavy Duty Trench/Channel Drain system and you will never use another one... we're sure of it!


### PART NUMBERS

	<b>4' HD Trench/Channel Drain</b> Part #: PL-90860 (Black) Part #: PL-90860-G (Grey) Part #: PL-90860-GR (Green) Part #: PL-90860-TN (Tan)
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	<b>Trench/Channel Tee</b> Part #: PL-90860-T (Black) Part #: PL-90860-TG (Grey) Part #: PL-90860-TGR (Green) Part #: PL-90860-TAN (Tan)
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	<b>Trench/Channel 90°</b> Part #: PL-90860-90 (Black) Part #: PL-90860-90G (Grey) Part #: PL-90860-90GR (Green) Part #: PL-90860-90T (Tan)
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	<b>Open Outlet End Cap</b> Part #: PL-90860-OE (Black) Part #: PL-90860-OEG (Grey) Part #: PL-90860-OEGR (Green) Part #: PL-90860-OET (Tan)
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	<b>Closed End Cap</b> Part #: PL-90860-CE (Black) Part #: PL-90860-CEG (Grey) Part #: PL-90860-CEGR (Green) Part #: PL-90860-CET (Tan)
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	<b>4' Ductile Trench/Channel Drain</b> Part #: PL-90860-CI (Black) (Trench/Channel Drain, Ductile Grate & Mounting Hardware)
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	<b>2' Ductile Grates &amp; Hardware</b> Part #: PL-90860-DIG (Black) (Ductile Grate & Mounting Hardware)
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	<b>4" Corrugated Adapter</b> Part #: PL-90860-V44
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	<b>3" Corrugated Adapter</b> Part #: PL-90860-A43
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# HD TRENCH/CHANNEL DRAIN

Polylok Drainage Products



## Ductile Grates for Polylok Heavy Duty Trench/Channel Drains

Polylok drains offer homeowners, architects, engineers, contractors and storm water managers a variety of superior surface drains for a myriad of applications. No matter what the situation requires, from residential to unlimited heavy industrial applications, our quality is unmatched. Polylok drains are engineered for simple one-step installations, minimizing contractor costs for installation. Polylok drains meet and exceed the ADA American Disabilities Act of 1990; Section 4.5.4. Polylok drains are a practical and cost-effective solution where runoff needs to be controlled or captured.



Ductile Grate Mounting Hardware

### Features:

- Comes with all stainless steel hardware
- Easily installed and removed with one bolt
- 47 sq. in. of open area
- Rust resistant
- Load Class C
- Application: Heavy Duty/Commercial
- Application proof load: 310 psi
- Typical application standard: A-A6005

## FEATURES & BENEFITS FOR EASY INSTALLATION



Each channel has four (4) drainage ports that will accept 3" or 4" SCHED 40, or 4" SDR 35 pipe.



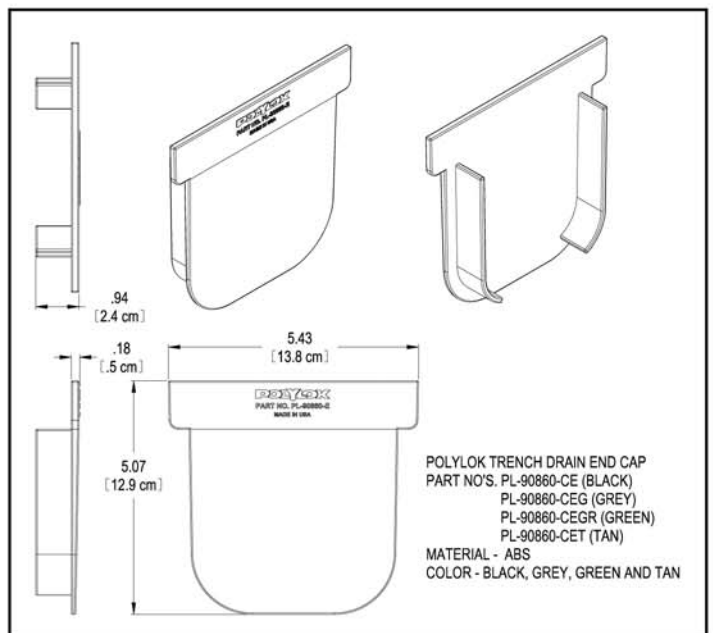
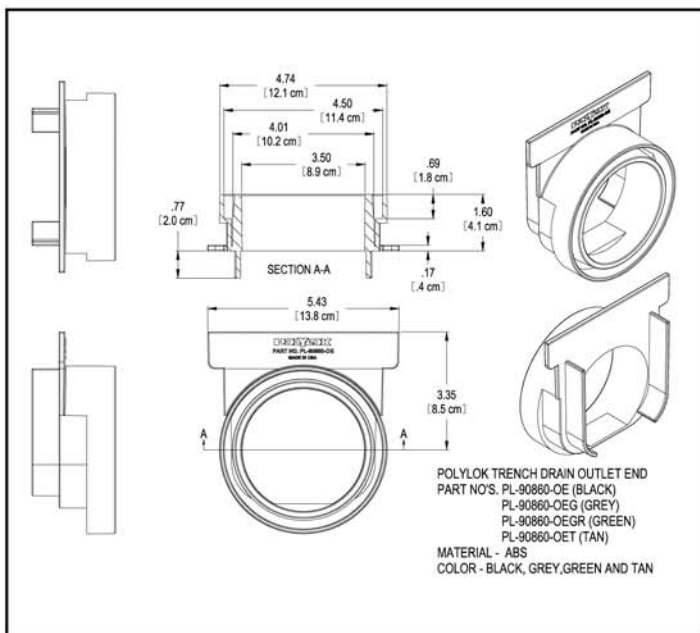
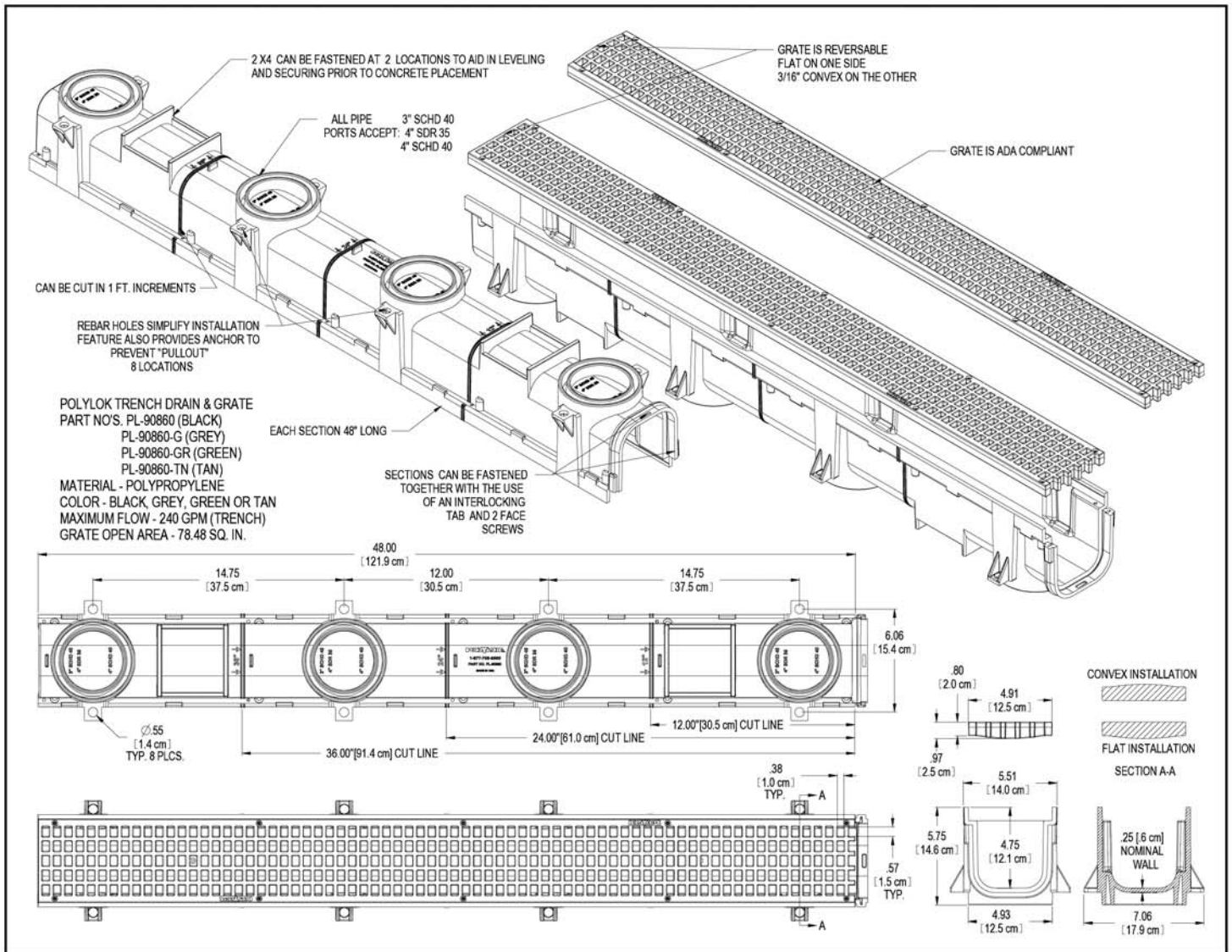
2x4s can be fastened to provide a wider footing.



Outside holes accept #4 rebar for fast positioning.

# HD TRENCH/CHANNEL DRAIN

## Polylok Product Specifications



# HD TRENCH/CHANNEL DRAIN

## Polylok Product Specifications



**POLYLOK TRENCH DRAIN TEE**  
 PART NO'S. PL-90860-T (BLACK)  
 PL-90860-TG (GREY)  
 PL-90860-TGR (GREEN)  
 PL-90860-TAN (TAN)  
 MATERIAL - POLYPROPYLENE  
 COLOR - BLACK, GREY, GREEN AND TAN

REVERSIBLE GRATE  
 FLAT ON ONE SIDE  
 3/16" CONVEX ON THE OTHER

Dimensions (inches [centimeters]):  
 5.43 [13.8 cm]  
 6.88 [17.5 cm]  
 6.18 [15.7 cm]  
 4.93 [12.5 cm]  
 3.90 [9.9 cm]  
 4.75 [12.1 cm]  
 5.00 [12.7 cm]  
 80 [2.0 cm]  
 57 [1.5 cm] TYP.  
 4.91 [12.5 cm]  
 6.91 [17.6 cm]  
 5.91 [15.0 cm]  
 4.91 [12.5 cm]  
 .38 [1.0 cm] TYP.  
 .97 [2.5 cm]  
 80 [2.0 cm]

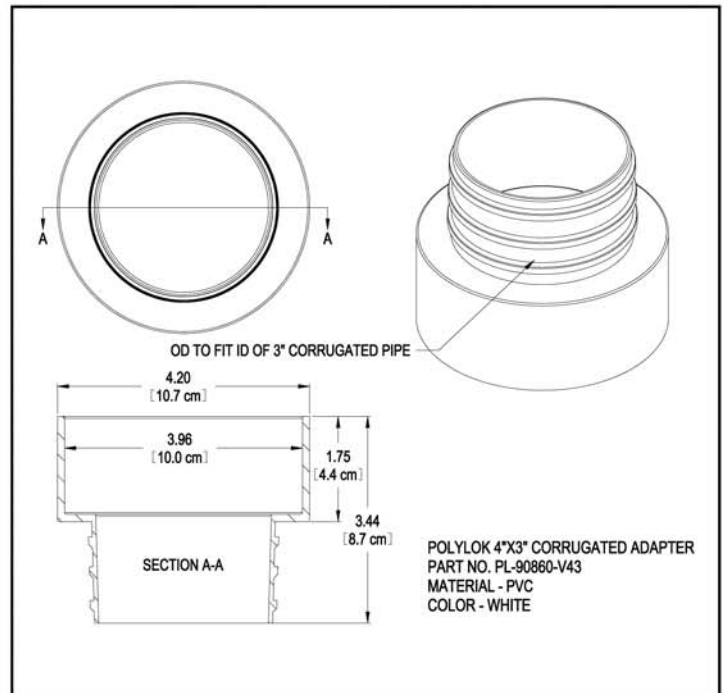
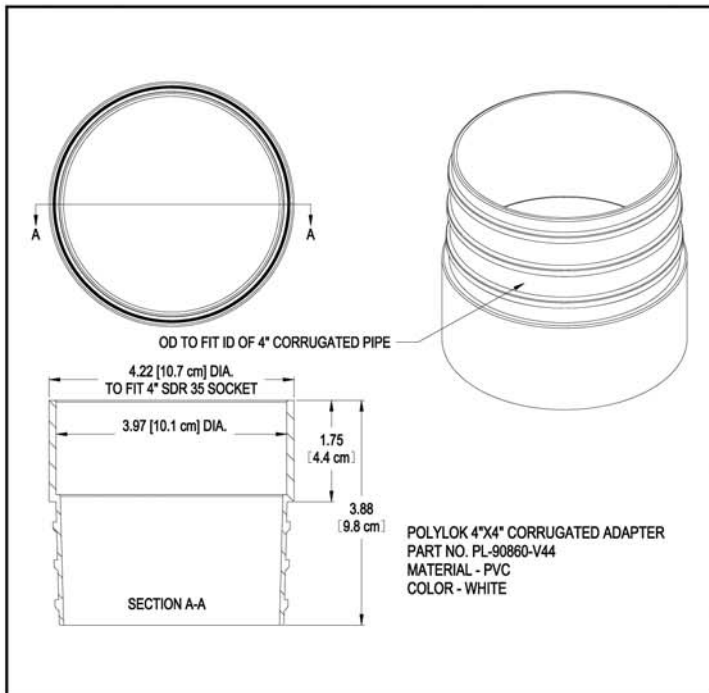
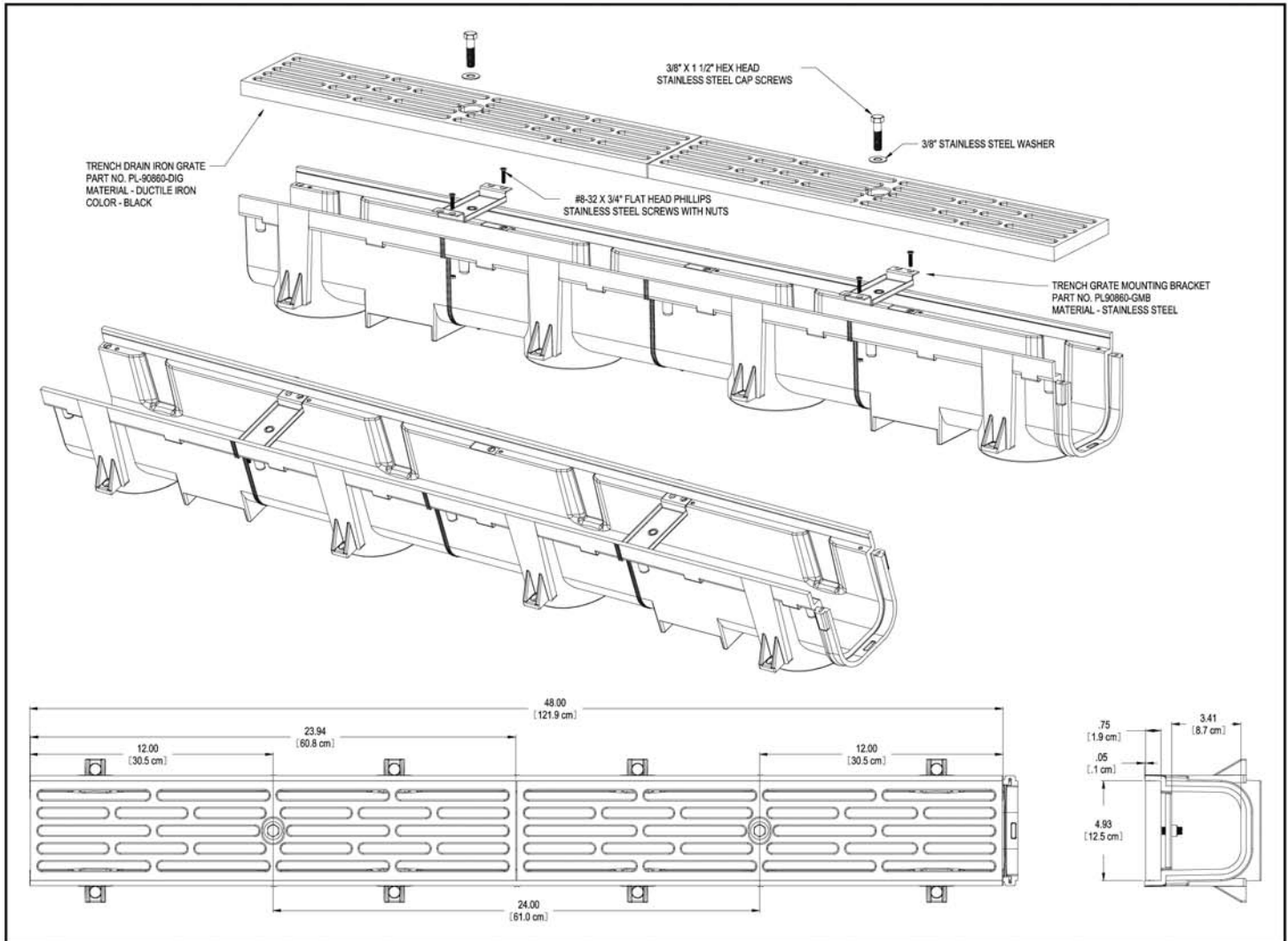
**POLYLOK TRENCH DRAIN 90 DEG.**  
 PART NO'S. PL-90860-90 (BLACK)  
 PL-90860-90G (GREY)  
 PL-90860-90GR (GREEN)  
 PL-90860-90T (TAN)  
 MATERIAL - POLYPROPYLENE  
 COLOR - BLACK, GREY, GREEN AND TAN

REVERSIBLE GRATE  
 FLAT ON ONE SIDE  
 3/16" CONVEX ON THE OTHER

Dimensions (inches [centimeters]):  
 6.18 [15.7 cm]  
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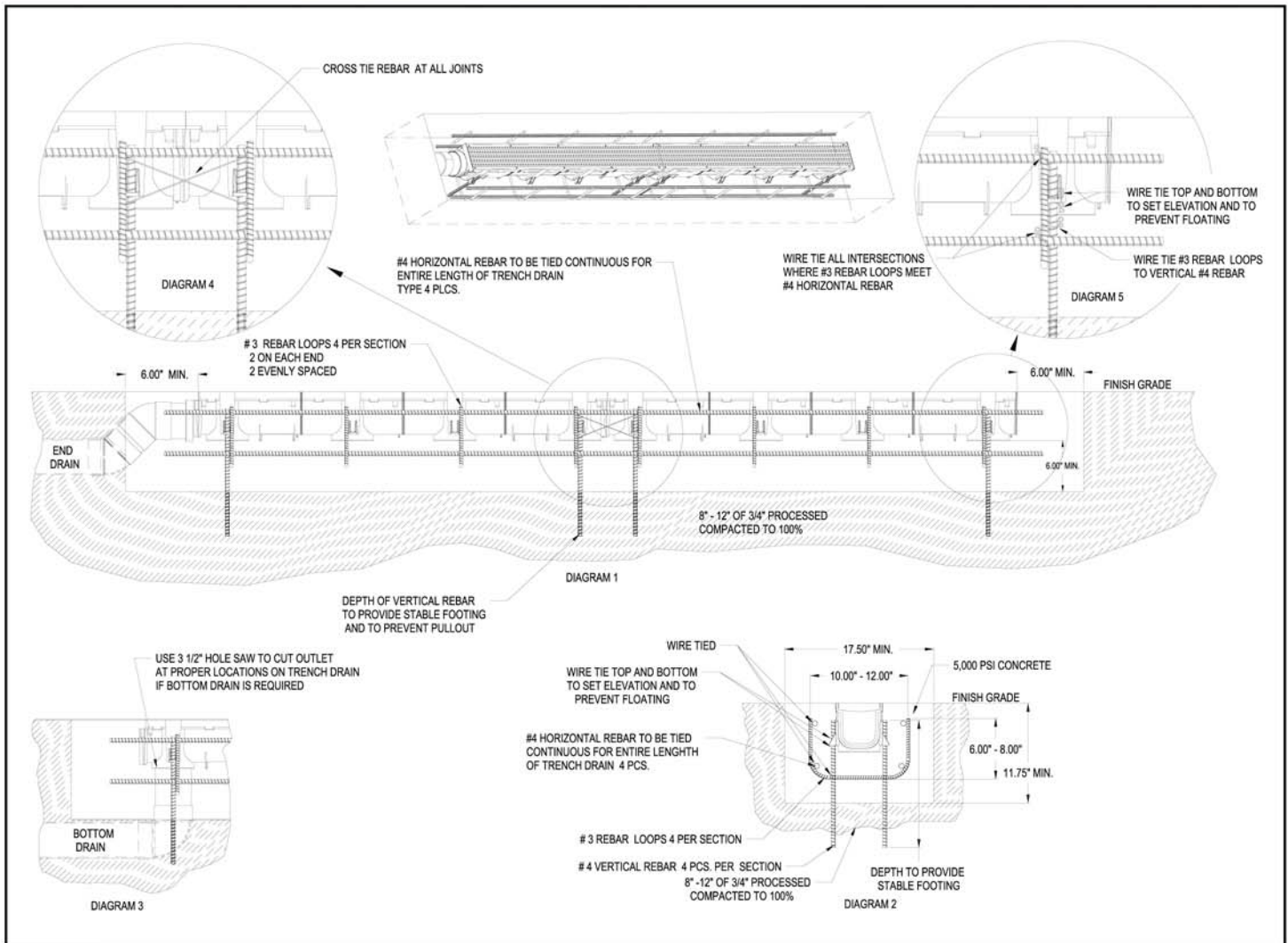
# HD TRENCH/CHANNEL DRAIN

## Polylok Product Specifications



# HD TRENCH/CHANNEL DRAIN

## Polylok Product Installations



### H-20 Installation Diagram for Traffic Load Bearing Applications



### H-20 Installation Instructions for Traffic Load Bearing Applications



### Polylok Trench Drain Installation in Soil or Non-Traffic Load Bearing Applications



# HD TRENCH/CHANNEL DRAIN

## Polylok Installation Instructions



### Polylok Trench Drain Installation in Soil or Non-Traffic Load Bearing Applications

A trench drain design and layout should be prepared prior to installation. Include discharge outlets in design. Trench drains should pitch away 1" per 20 feet from a building. Polylok trench channels accept leveling blocks to aid in installation, or rebar can be installed and wire-tied to aid in leveling the channel. Tees and 90° accessory fittings are available.

1. Clear the area of all debris where the trench is to be installed.
2. Set-up the area with grade stakes and lines for grade control.
3. Excavate the trench area two inches deeper than trench depth.
4. Make trench width wide enough to accept and align trench drain.
5. Install a sand base in trench channel and level; do not use excavated soil.
6. Check leveling and alignment of trench sections to ensure grate is at grade.
7. Install grates and connect the trench sections to required distance.
8. Trench sections may require removal of some installed screws to lift grate to connect the trench sections together. Re-install screws.
9. Install trench end cap and outlet cap to the discharge outlet pipe. If discharging from bottom, use two end caps.
10. The trench grate should be covered with tape to seal out any sand before the final fill to stabilize the trench.
11. There are several final fill materials that can be used to seal in the sides and ends of trench drains. Some materials have trade names, but many common filler materials can be used in this application. Interlocking shaped sizes that can be compacted down and stabilize the trench drain in position such as crushed stone is ideal. **Do not use excavated soil.**
12. After final trench leveling and backfilling, remove tape from the grate and ensure screws and grates are tightly secured.

Note: The above instructions are for non load-bearing applications and will not accept vehicle loads and are for drainage only applications. Additional instructions for H-20 load applications are available to the right. →

Note: These instructions are for installers who are familiar with excavation techniques and have experience with installations of these or similar products.

### H-20 Installation Instructions Traffic Load Bearing Applications

1. Determine location and length of required trench drain. Also determine drain outlet location.
2. Lay out and excavate for the trench drain. Allow for a minimum of 6" on all sides and 6" on the bottom. (17.5" wide X 11.75" deep) **(see diagram 2)**
3. Determine which style of outlet is to be used; end outlet or bottom outlet. Excavate for drain outlet pipe.
4. If bottom outlet is to be used, use a 3 1/2" hole saw to cut the outlet opening. If the end outlet is used do not cut the bottom outlets. **(see diagram 3)**
5. Install end caps and/or outlets on determined ends. Assemble all required sections together at grade level. Make sure all grates are screwed in place. Attach outlet pipe to trench drain.
6. Using duct tape, cover all grate openings. Carefully place the assembled trench drain into bottom of the trench.
7. Using temporary supports, bring drain up to within approximately 1" of grade. Center trench drain in trench.
8. Using #4 rebar, drive in 4 pieces of vertical rebar through the holes on trench drain at each corner per section. Make sure rebar is inserted deeply and tied to provide a firm footing and to prevent floating once the concrete is poured.
9. Raise the trench drain so that the top of the drain is even with the finish grade. Wire tie trench to rebar at the 4 corners of each section. Be sure to wire tie above and below at each corner hole position. Check drain elevation frequently while tying. **(see diagram 5)**
10. Wire tie #3 rebar loops to #4 vertical rebars. **(see diagram 5)**
11. Wire tie #4 horizontal rebars to #3 rebar loops at all intersections.
12. Wire tie remaining #3 rebar loops to #4 horizontal rebars. Space evenly in between already tied #3 rebar loops at all intersections.
13. Cross tie #4 vertical rebars at all drain joints. **(see diagram 4)**
14. Check that trench drain is still at proper elevation. Also check that drain outlet pipe is secured to trench drain and that it has required pitch.
15. Using a 5,000 psi air entrained concrete mix, pour concrete using proper vibration and consolidation practices.
16. Trowel finish flush with top of trench drain and even with grade. An edger tool may be used if desired.
17. After concrete begins to set, promptly remove all duct tape from grates.

← REFER TO INSTALLATION DIAGRAM INSIDE