

ZURN *Linear Drainage*

Z882

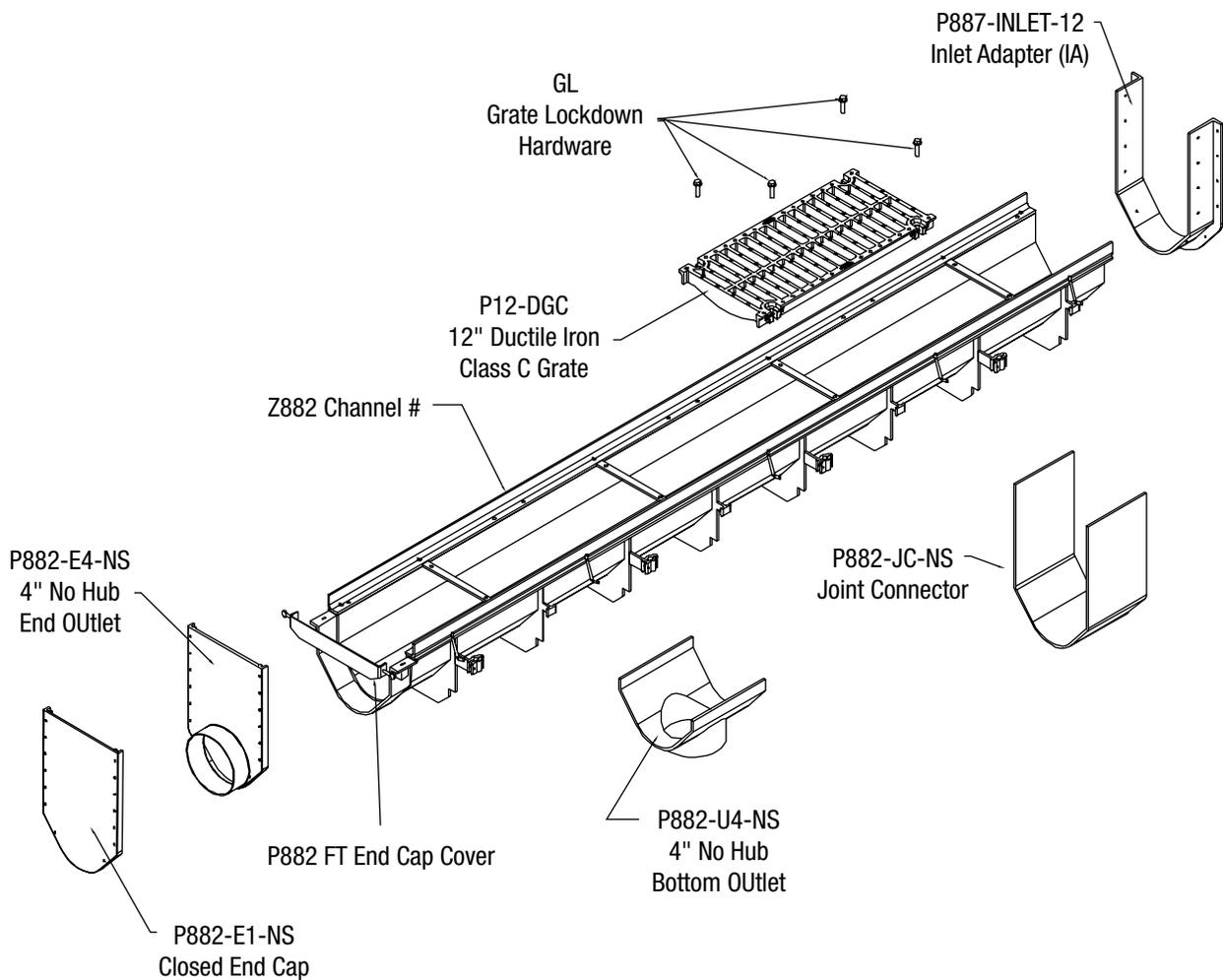
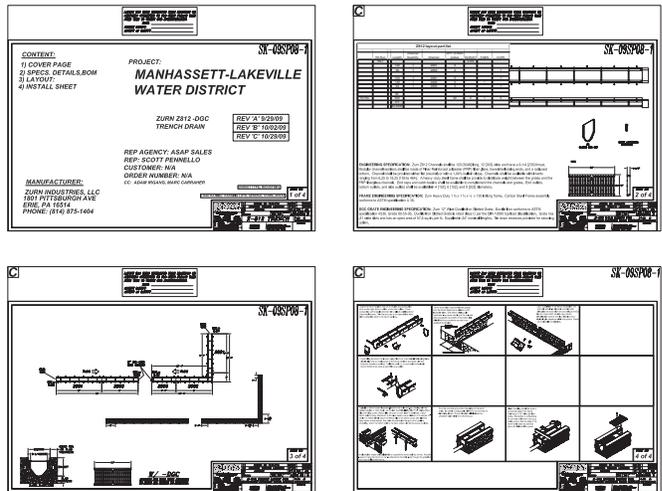
12" Perma-Trench



Installation Instructions

Flo-Thru Accessories

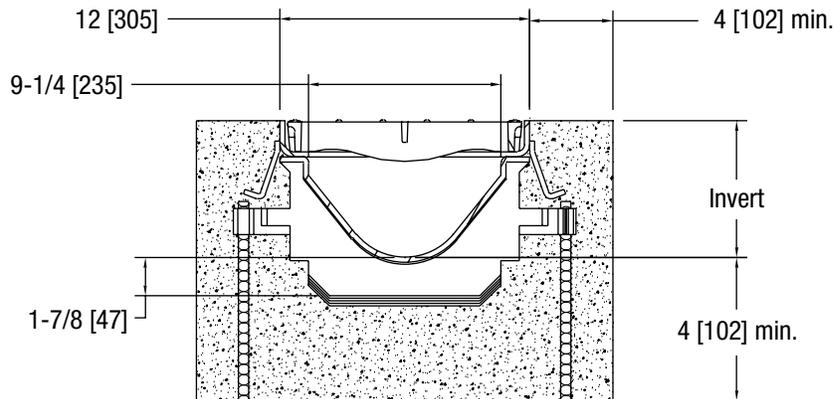
Below are some of the Z882 trench drains components typical to an installation. Check your order to ensure that you have all components particular to your job before beginning your installation. Contact customer service at 855-ONE-ZURN (855-663-9876) should additional material be required.



Encasement

Four inch concrete encasement is minimum. Local codes and/or engineer specified concrete encasement and reinforcement based upon application suggested. Guidelines for reinforcing and encasement, would be to use the same

thickness and reinforcing used in the surrounding concrete slab. Concrete must be vibrated to remove air voids in encasement, especially under the frame rails.

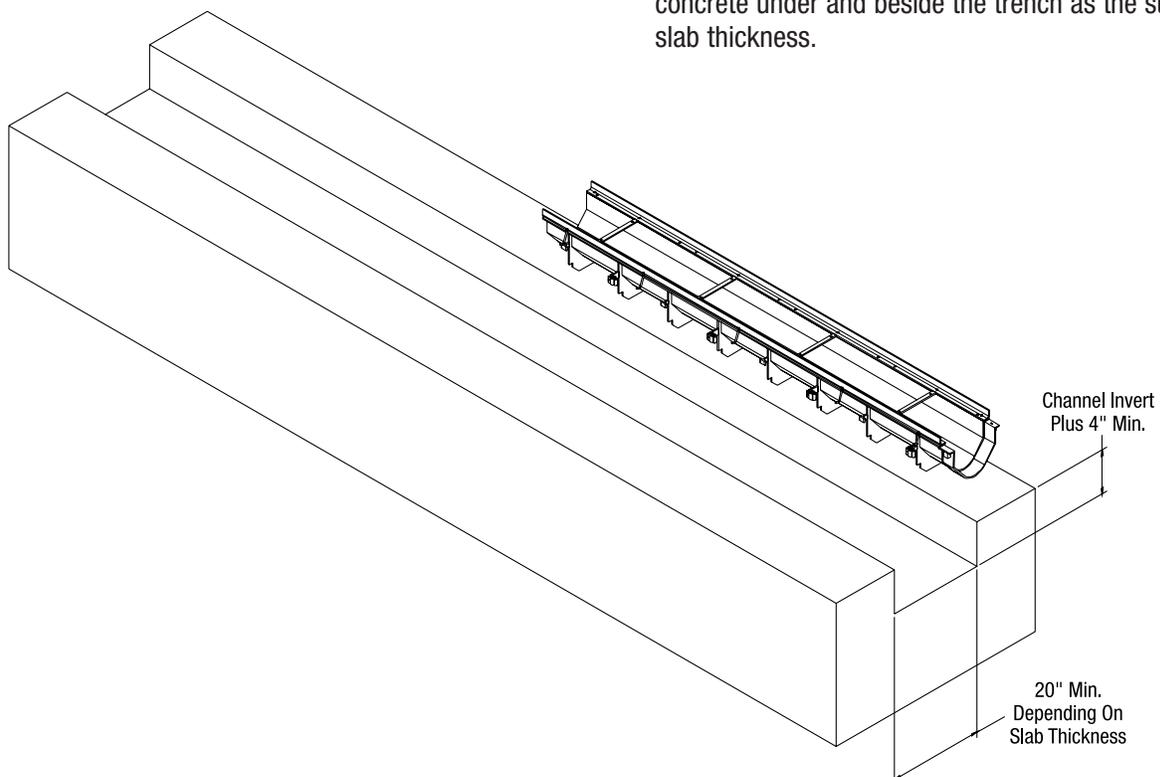


Specifying engineer is responsible for concrete encasement and reinforcing based upon application and local codes.

Excavation

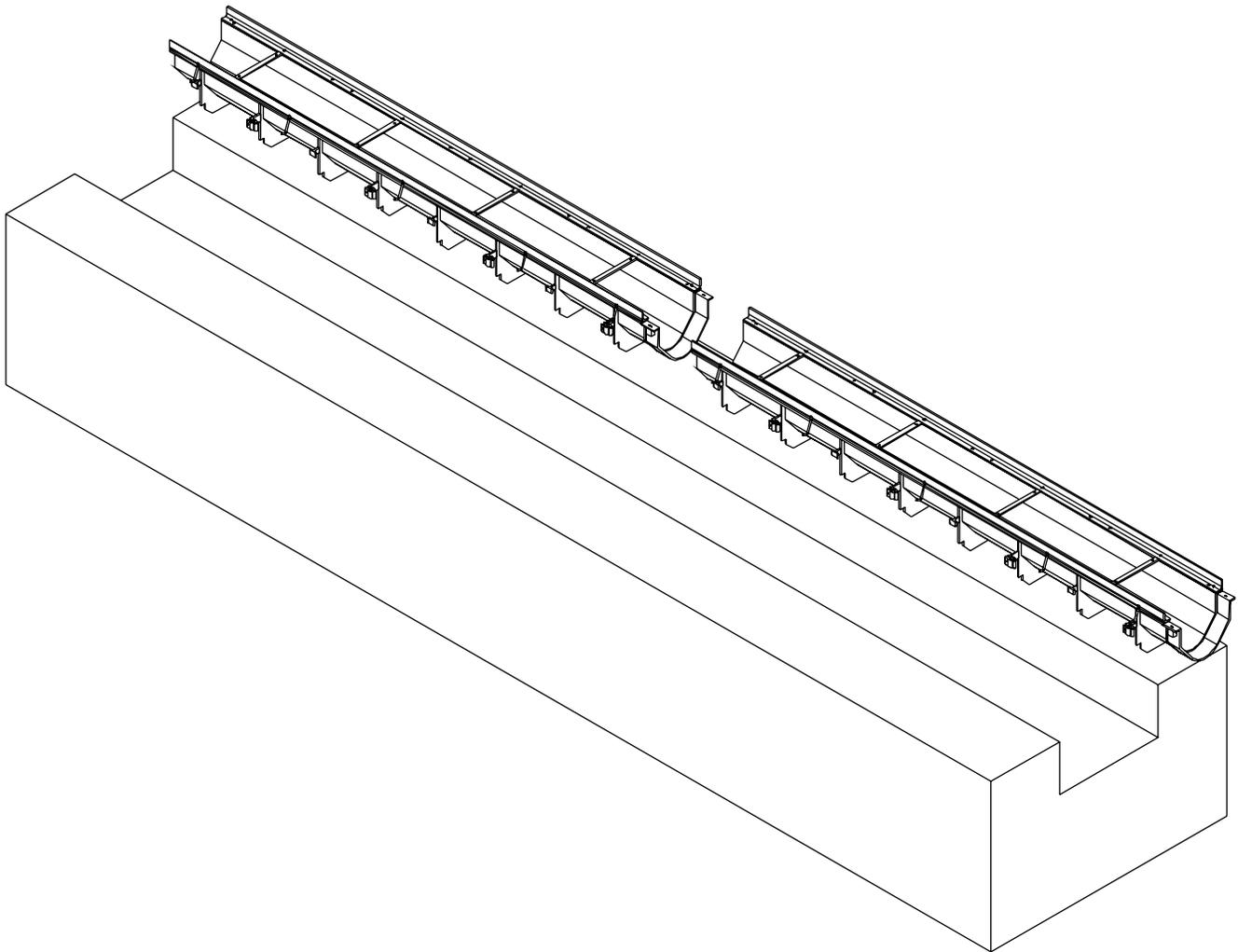
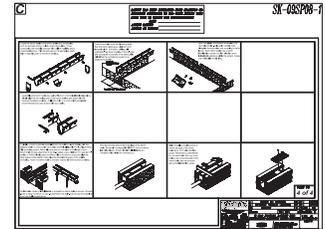
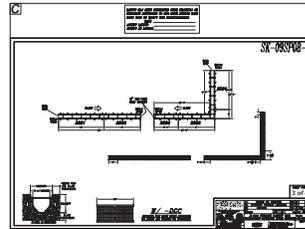
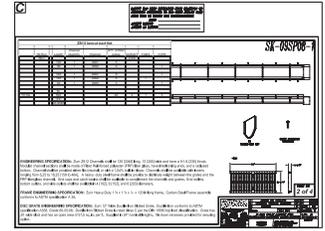
Trench excavation must include the minimum of 4 inches or the slab thickness surrounding the trench. Soft and/or shifting soil substrates may cause cracking of the concrete

and consequent movement of the trench. It is critical that the concrete be poured on an adequate foundation. Verify depth of trench excavation allows for the same thickness of concrete under and beside the trench as the surrounding slab thickness.



Job Layout

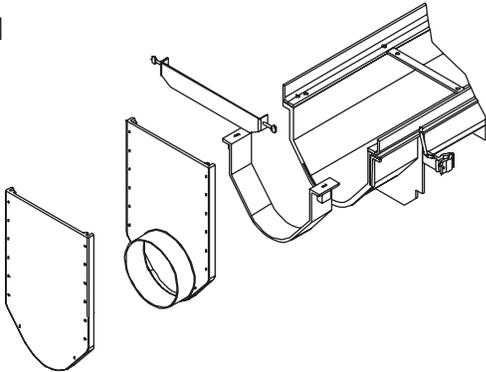
Upon completion of the excavation, the channel should be placed in numeric order along side the excavation according to the job layout. Each trench section has a trench identification number and flow direction indicating its sequence within the system. It is best to work from the deep to the shallow. Grates are not installed at this time.



End Outlet Options

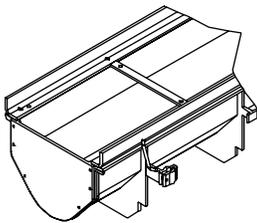
When installing end cap or end outlet, cut the female channel connection so the channel and end of frame are flush.

Step 1



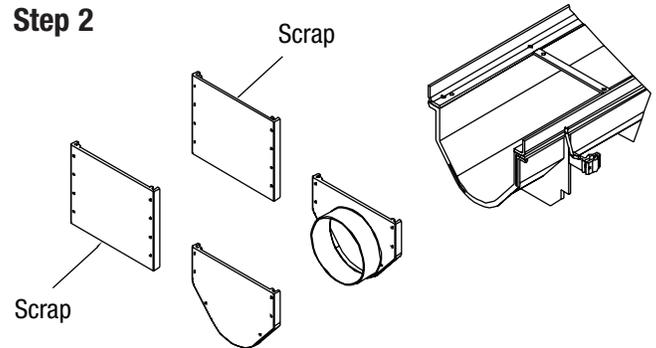
Attach end outlet or end cap with provided hardware to the channel.

Step 3



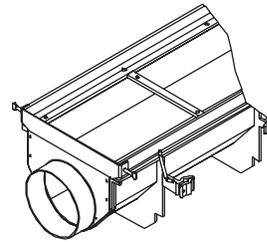
Once overlap is removed, cut end outlet or end cap excess height to just below the frame.

Step 2



At this time attach the frame end piece with the thumb screws.

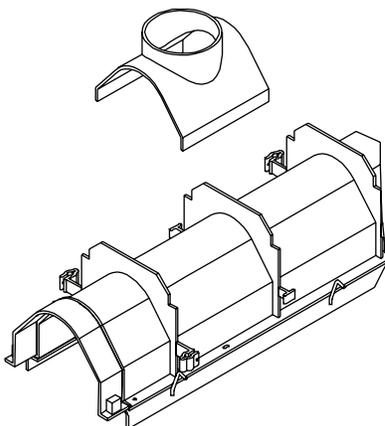
Step 4



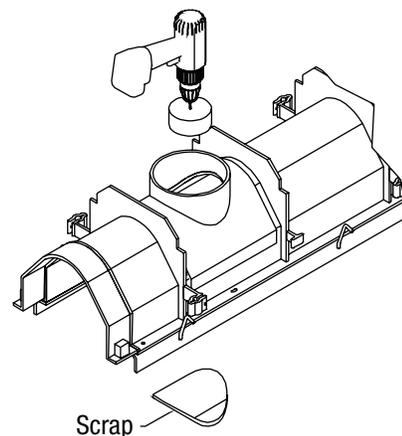
Attaching End Caps and Outlets: Make sure all overlaps on trench are trimmed off prior to installing the end caps to ensure the finish installation has a frame above the trench channel, this ensures all trench will have a grate on it.

Bottom Outlet Options

Attach bottom outlet to channel with provided hardware. Score both sides of the rib with utility knife, tap rib with a hammer to remove rib when necessary.

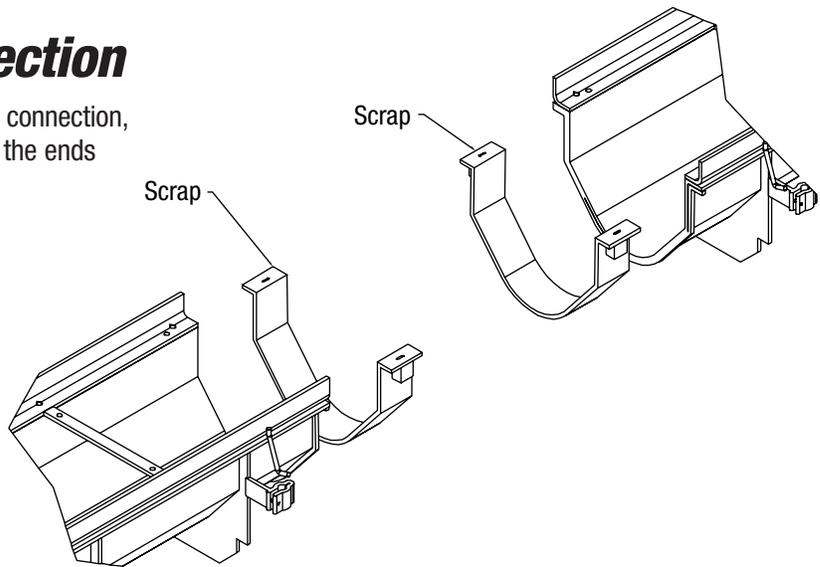


Cut out hole with hole saw that matches inside diameter of outlet, and attach with hardware provided.



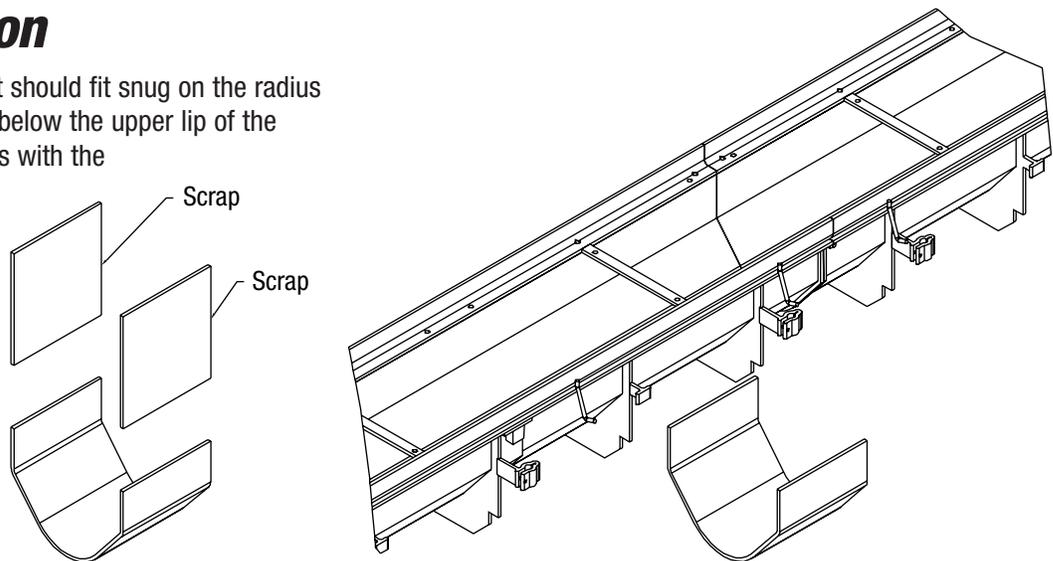
Female to Female Connection

When job layout calls for female to female channel connection, cut female to end to be flush with end of frame on the ends that will be connected.



Joint Connection

Cut joint connector to height. It should fit snug on the radius portion of the trench, and just below the upper lip of the channel. Attach to the channels with the provided hardware.



Connecting The Trench

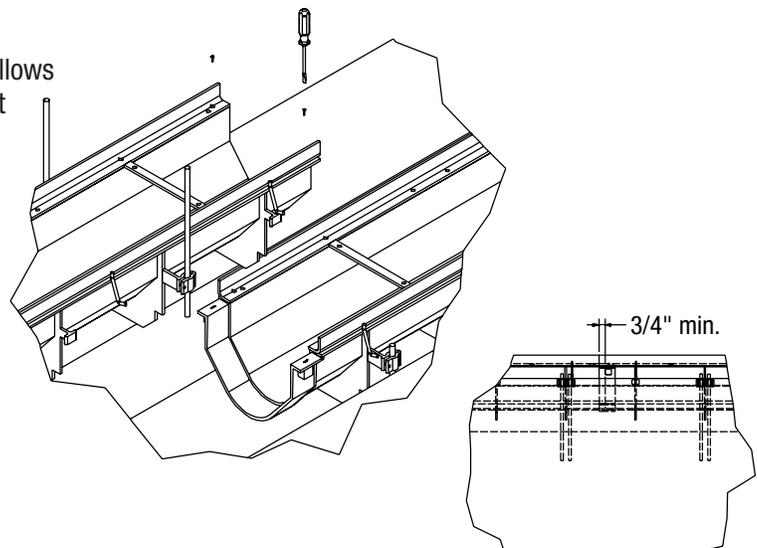
Channels should be installed from deep to shallow. This allows the next shallower channel's male connection to easily set onto the previous channel lip. Stack in place and attach with the provided connection hardware.

Sealing:

- Channel connections are designed to be a good seal. Concrete aggregate shall not intrude into the trench.
- Silicone sealant may be used as a gasket between the channels for a better seal.
- Channel connections may be welded with a HDPE welding gun for the best seal.

Connections:

Minimum overlap of 3/4" is acceptable in the overlap connection, frames shall be flush.

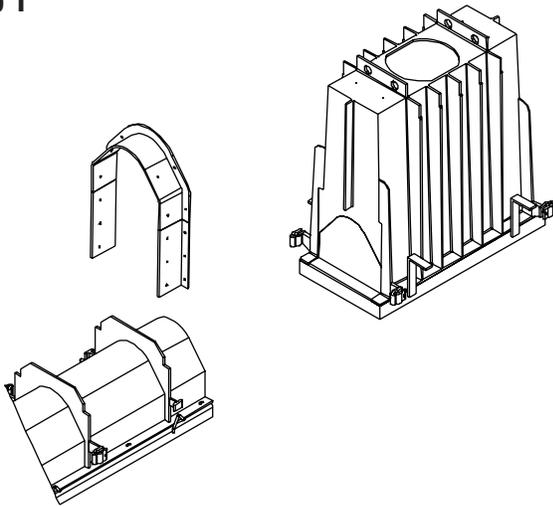


Catch Basins

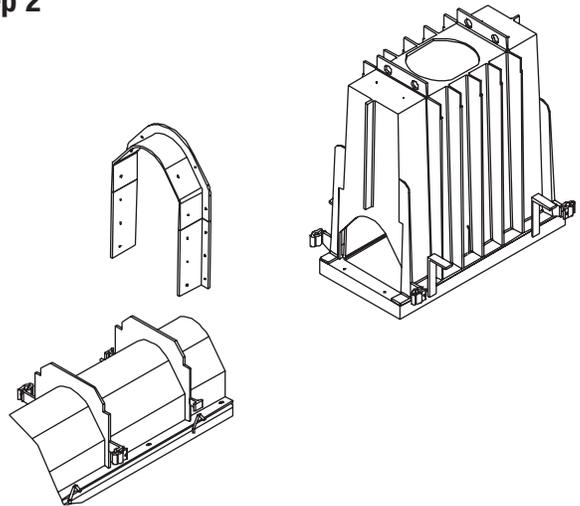
To make connection to a basin, simply invert the basin and channel and trace the outline of the channel onto the basin. This should be done for all sizes of basins.

Cutting the hole in the basin can be easily accomplished with the use of a hand saw or power reciprocating saw. Cut out the material inside of the traced area, including the upper lip under the frame. **DO NOT CUT THE FRAME.**

Step 1



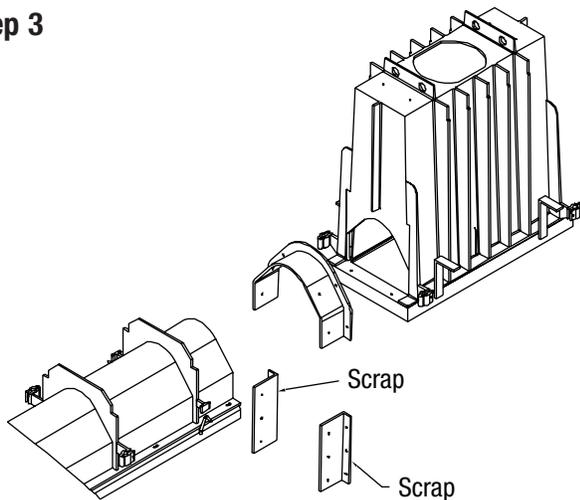
Step 2



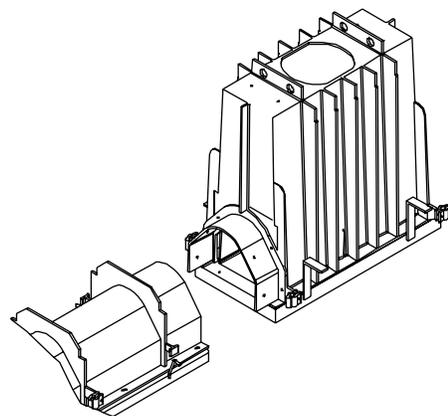
After the channel outline is removed from the catch basin, cut the inlet adapter to the height of the hole in the basin. Secure the inlet adapter to the basin using the hardware provided. Be sure to use silicone caulk or construction adhesive to seal the adaptor to the basin.

Slide the male end of the channel into the inlet adapter attaching them together with the supplied hardware and silicone caulk or construction adhesive.

Step 3



Step 4

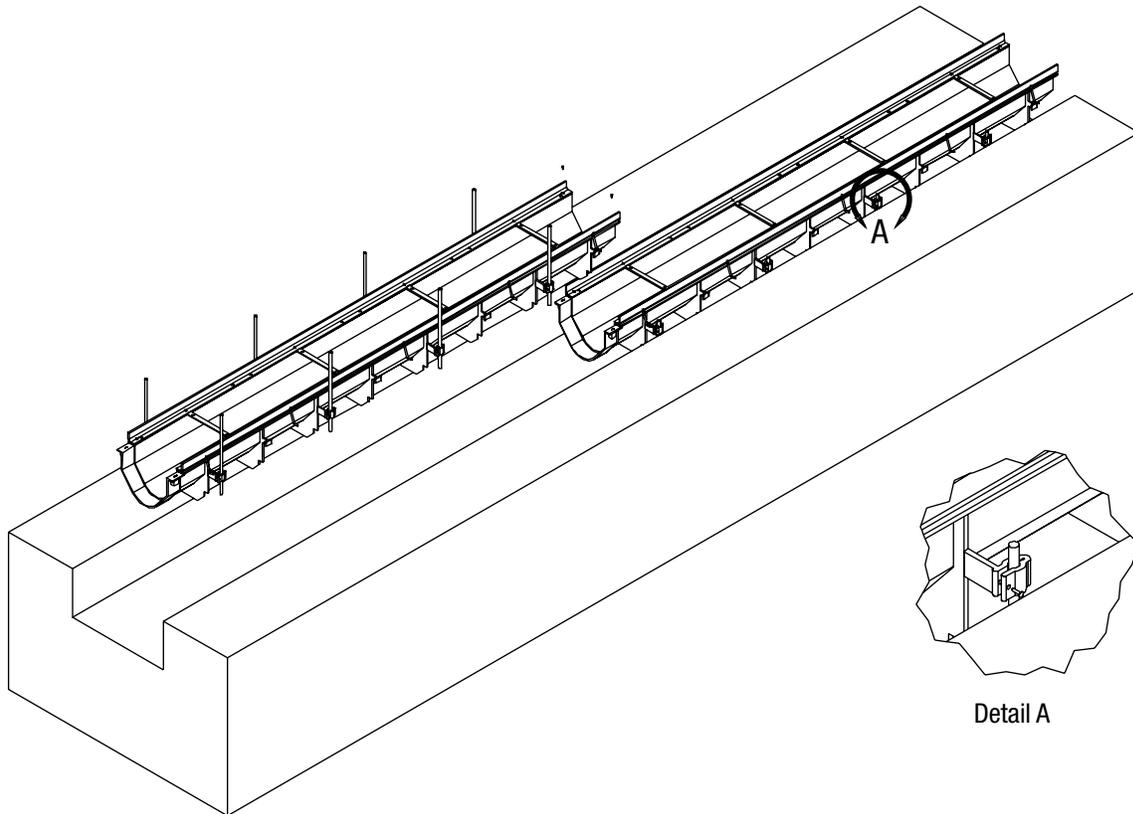


Setting The Trench

New Construction

Typically, a trench system is assembled from the outlet back. Starting with the deepest section or catch basin, set the first channel utilizing the integral Rebar Clip anchoring system. Rebar clips are on both sides of each trench drain for easy attachment to #4 rebar stakes. Slide the rebar

clips. Then drive the stakes into the ground for positive anchoring. Secure the trench to the rebar stakes with the provided hardware. Adjust the trench to the desired elevation and repeat the process with the next channel.



Setting Trench:

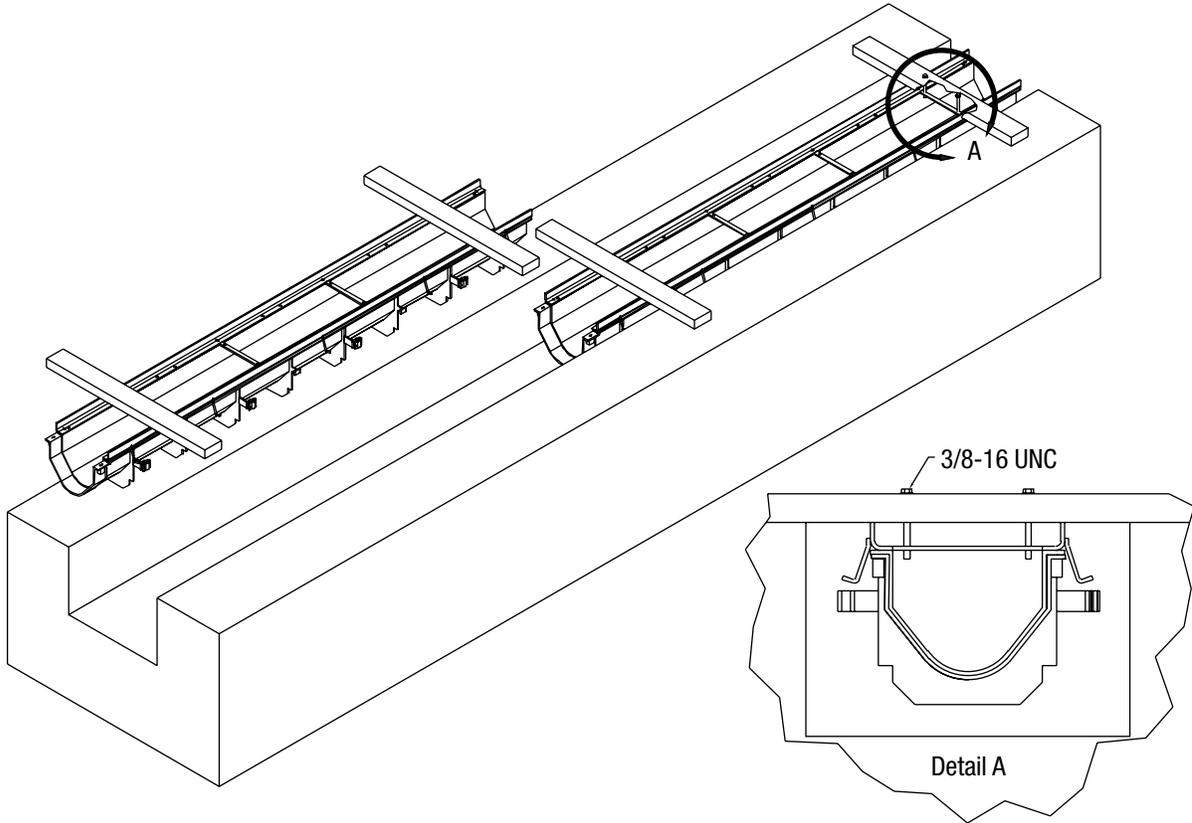
Set trench on rebar 1" above final grade, this allows final elevation adjustment with a hammer prior to pouring concrete.

Setting The Trench

Blockout, Retrofit, Hanging

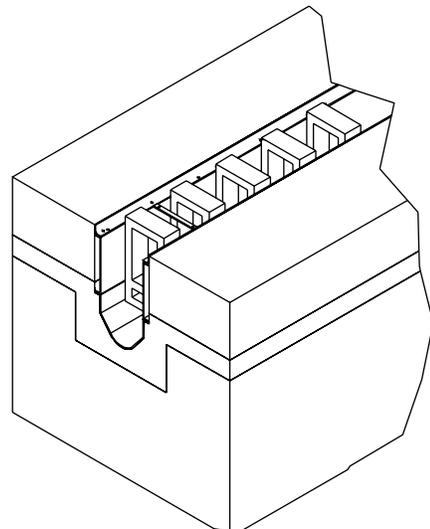
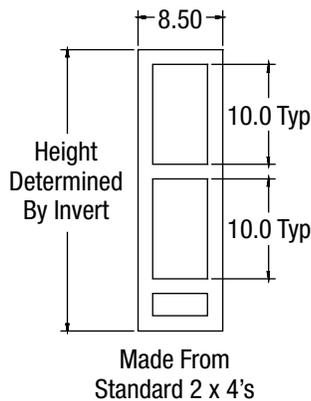
An alternative means of installation is to suspend the trench drain as shown. Wooden braces to hang the trench run can

be attached to the drain body through the grate lock down bars as illustrated above.



Internal Sidewall Bracing

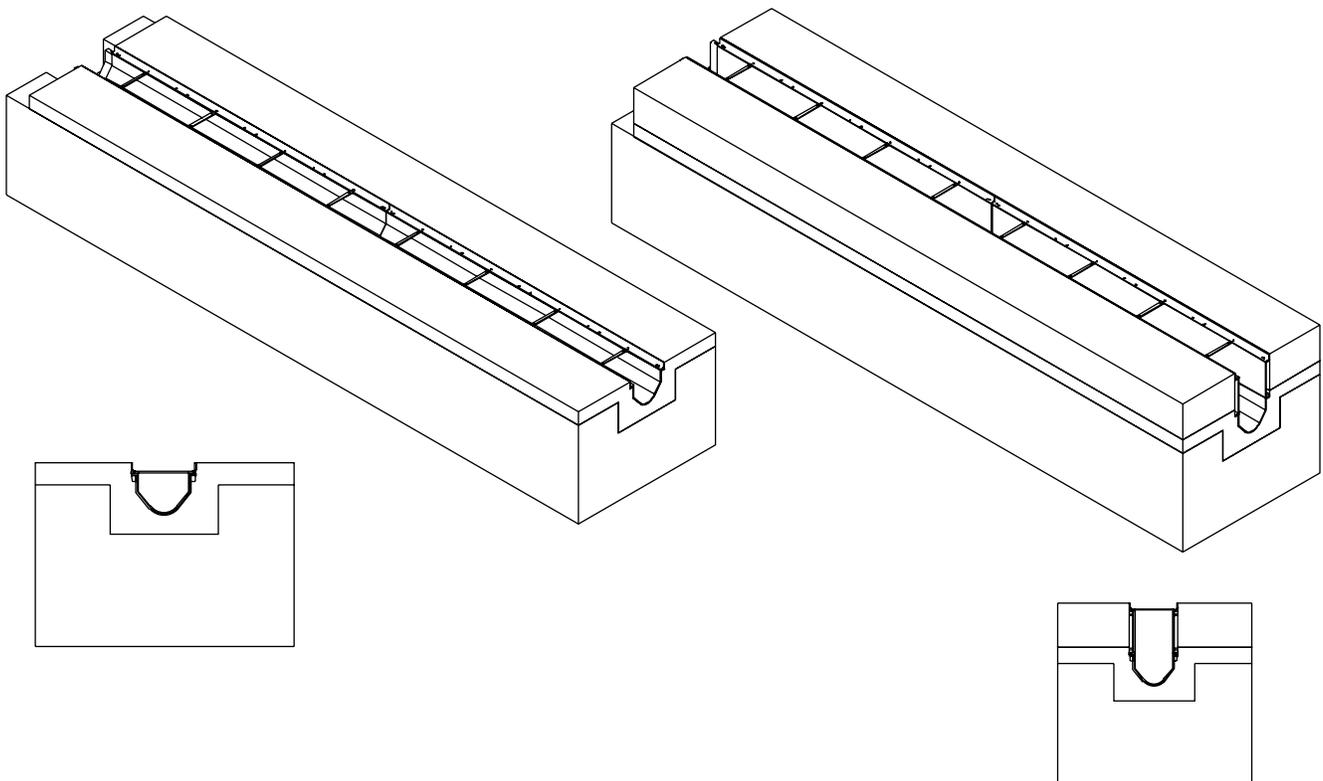
Installation With Sidewalls:
Use reinforcing every 10" per bracing schedule.



Pouring The Concrete

Verify layout is correct prior to pouring concrete. Be sure to keep debris out of the lock down holes during concrete pour. Pour the concrete around the three sides of the trench drain. Be certain to adequately VIBRATE the concrete as it is being placed. Proper vibration will eliminate any unwanted voids within the concrete pour. If sidewalls are used a first and

second pour are recommended. Finish troweling should be done to set the top edge of the drain 1/16" below the floor grade. Remember to compensate for the concrete shrink that may occur during cure so that the edge of the trench drain does not protrude above the finished floor grade.



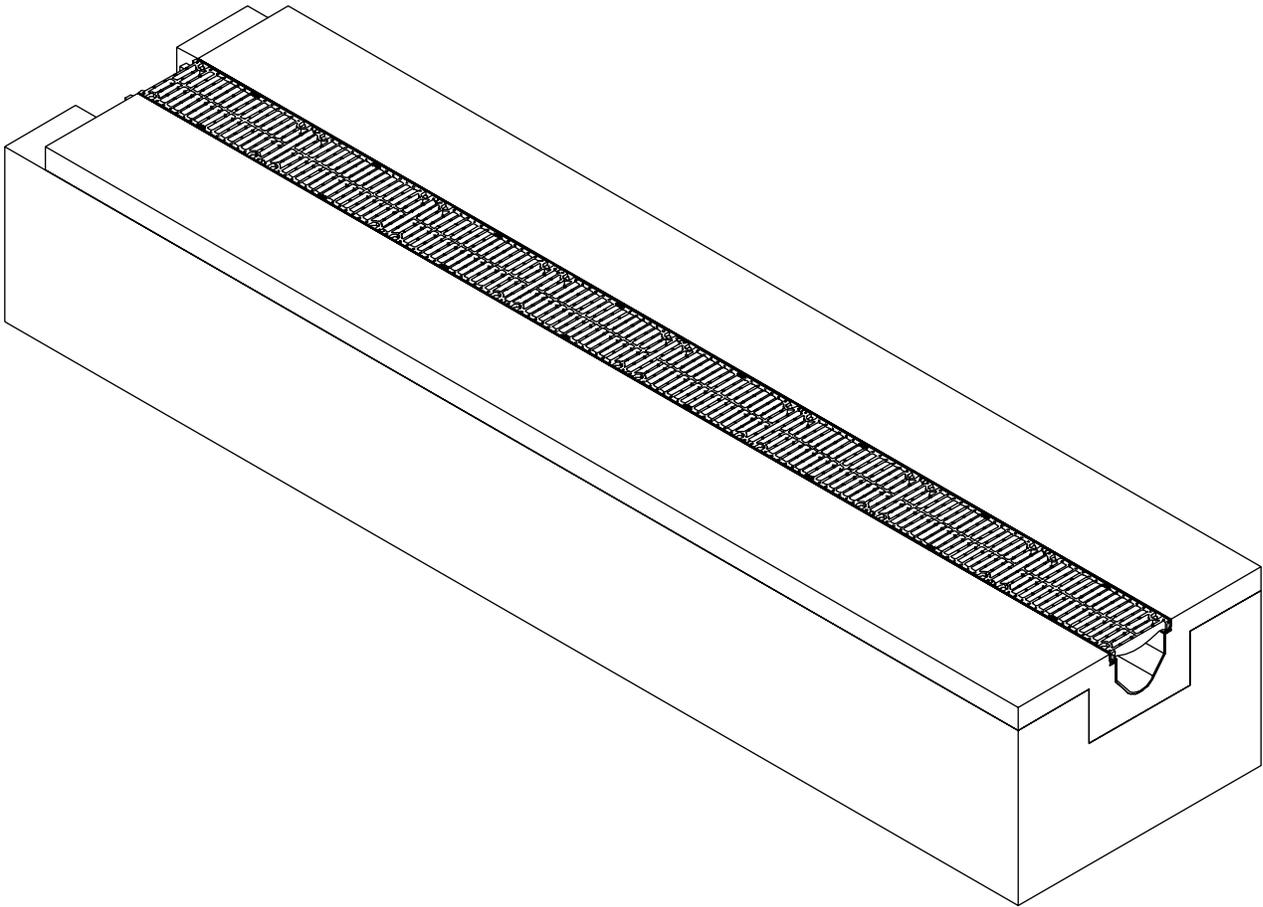
Placing Concrete:

- Triple check that the trench drain is in the location required per the layout drawings prior to pouring concrete.
- Standard concrete practices with expansion and crack induction joints shall be followed based upon local codes and standards.
- The trench drain shall not be used as an expansion joint.

Installation of Grates

After the concrete has been poured, vibrated, and given sufficient time to dry, the grate lock down bolts must be installed. The center of the grate should straddle the tie strap that spans the frame. The exception is when both

channels and frames are cut. To place these grates, line up the lockdown hole in the grate with the lockdown hole in the tie strap. Lockdown bolts can be installed using a 9-16" socket.



Locking Down Grates

Start all lockdown bolts on each grate into the frame prior to tightening them down.



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