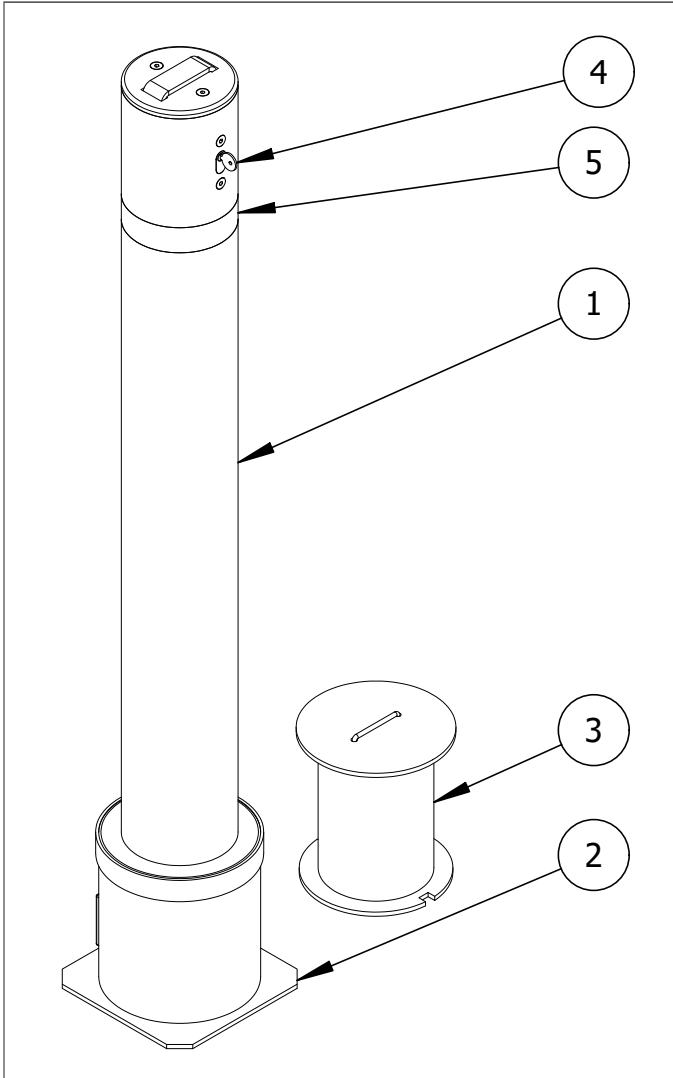






# R-8464 Removable Bollard Installation

# R-8464 Removable Bollard



-  To protect the finish, keep bollards in original packaging until exact moment of installation.
-  Handle with care to avoid scratching or damaging bollard surfaces.
-  Once scratched, bollards cannot be repaired to original form without re-finishing the entire surface.
-  Consider local soil conditions before proceeding with bollard installation.

### Before Installation

**STEP 1:** Study the site plans and mark the intended location of each bollard on the plan.

**STEP 2:** Always check for hazards such as water pipes, gas lines, and underground wiring before digging.

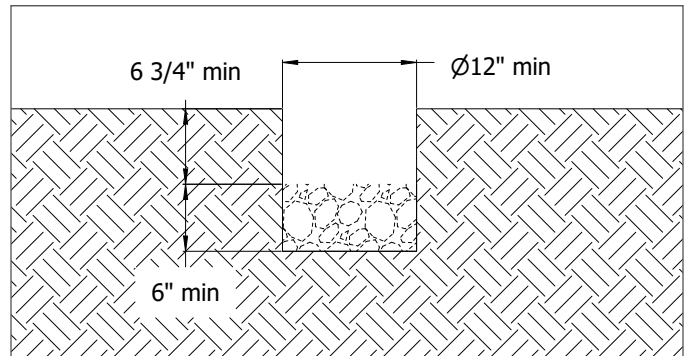
**STEP 3:** Please consult your local Building Code Department to determine the recommended depth below the frost line for digging in your area. Choose a minimum of this or 6-3/4", whichever is greater. Then add a minimum of 6" for holding the drain rock.\* This is the total depth. The diameter of the hole should extend to a minimum of 12".

### Parts List

#	PART	QTY
1	Removable Bollard	1
2	Receiver	1
3	Receiver Cover	1
4	Key	2
5	Reflective Tape (optional)	1

### Installation Equipment

Auger	Chalk/Marker
Dirt Tamper	Level
Measuring Tape	

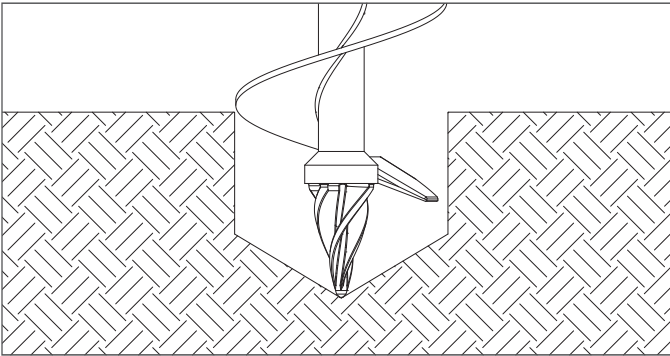


\* Recommended depth for drain rock is a minimum of 6". Depth will also depend on local soil conditions, weather conditions, and engineering requirements.

# R-8464 Removable Bollard Installation

# R-8464 Removable Bollard

STEP 4

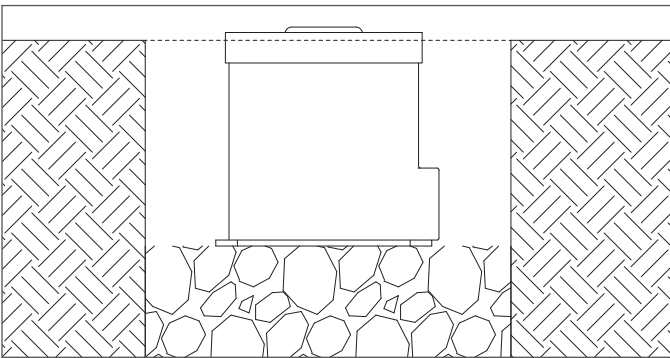


**STEP 4:** Center an auger on the installation mark and bore a hole to the required measurements.

**STEP 5:** Ensure the area is properly formed to create a perimeter that will hold wet concrete. Use a dirt tamper\*\* to compact the soil below the intended surface.

**STEP 6:** Prepare the bollard and receiver for designated location. Keep the bollard in its protective packaging. Add the drain rock to the excavation site, keeping in mind that the receiver will be installed so that the top edge of the receiver is slightly above surface grade. A slight berm is recommended to help with water drainage.

STEP 6

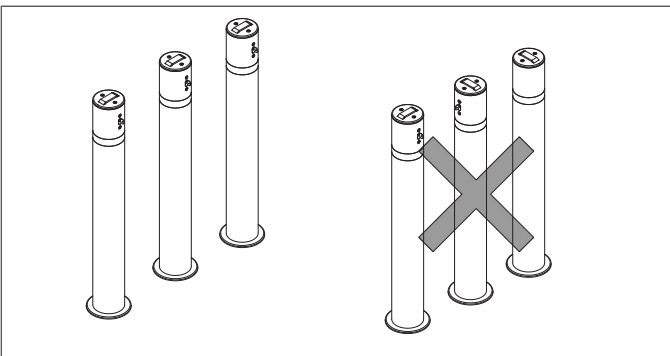


## Prepare the Concrete

**STEP 7:** Ensure that the proper ratio of water and concrete mix is used. The concrete should have a similar texture to moldable clay.

**STEP 8:** Place the receiver in the designated location and ensure that the top edge of the receiver is slightly above surface grade. *Note: If necessary, try dry fitting the bollard (with packaging still on) into the receiver and use a level to ensure it is plumb before proceeding with pouring concrete.*

STEP 9



**STEP 9:** Be sure to orient the receiver in such a way that the keyhole will point in the desired direction. **It is recommended that the orientation of all receivers be the same.**

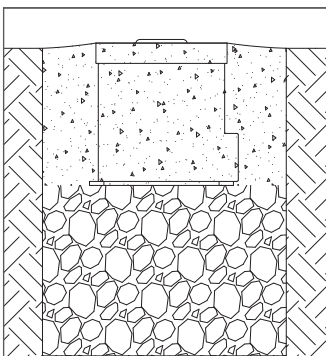
## Pour the Concrete

*Before pouring the concrete, determine if your local frost line is less than or greater than 6-3/4". When pouring concrete, be sure to pour it evenly. The concrete should also be slightly raised up towards the top edge of the receiver plate to create a slight berm.*

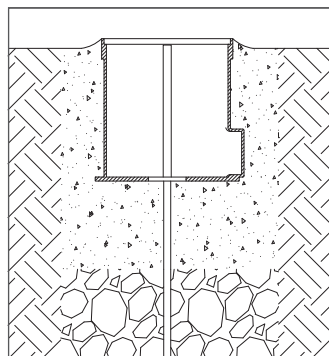
**STEP 10 (A):** If the local frost line is less than 6-3/4", simply pour the concrete into the site.

**STEP 10 (B):** If the local frost line is greater than 6-3/4", pour the concrete into the site and then provide adequate drainage by piping through the concrete and connecting to the drain rock layer underneath.

STEP 10 (A)



STEP 10 (B)

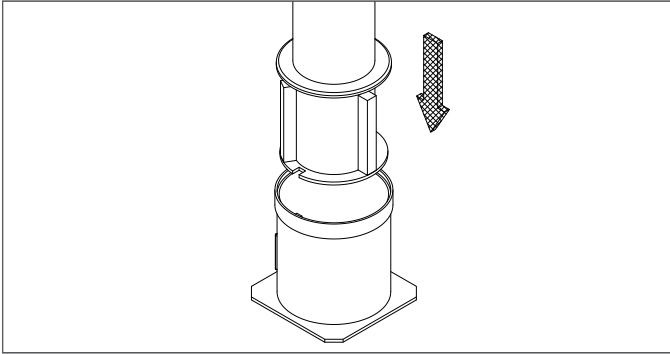


\*\*Dirt tamping is not required if working on undisturbed soil.

# R-8464 Removable Bollard Installation

# R-8464 Removable Bollard

## STEP 14



**STEP 11:** Allow the concrete to cure for a minimum of 2–3 days. *Note: Moisture in the environment and cool temperatures can significantly slow the process.*

### Secure the Bollard

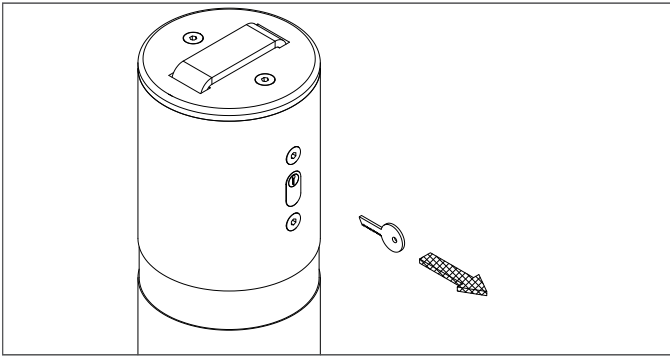
**STEP 12:** Keep the bollard in its protective packaging. After ensuring the concrete surface has fully cured, carefully place the bollard near the installation site.

**STEP 13:** When ready to install, remove the bollard's protective packaging.

**STEP 14:** Remove the receiver cover and turn the key in order to retract the plunger and lower the bollard into the receiver.

**STEP 15:** After setting the bollard in the receiver, lift and hold it while releasing and removing the key.

## STEP 15



**Inspect the installation.** Abrasions should be covered as soon as possible. For damage repair or other servicing needs, please contact Reliance Foundry's sales department.