

CARSON[®] NexGen

Installation Guide

WARNING: All installations must be performed by qualified personnel with proper safety equipment. When installing any surface-level underground enclosures installers must follow all national and local electrical, safety and building codes.

Please note: Typical installations are sidewalks, right-of-ways, and other non-deliberate traffic locations. Always ensure the product load rating matches the anticipated load rating of the application.

I. EXCAVATION PROCEDURE

1. Plan excavation approximately twelve to sixteen inches (12" – 16") longer and wider than the actual dimensions of the enclosure to be installed. Excavate six to eight inches (6" – 8") deeper than the overall dimensions of the enclosure with cover in place.
 - a. If installation is to be within a sidewalk, it is generally more practical to use a masonry saw and remove the entire sidewalk width to facilitate proper soil removal.
2. Excavate the hole to the appropriate dimensions with a mechanical excavator or hand dig as appropriate. Be sure to confirm the excavation floor is flat and level.



II. INSTALLATION STEPS

1. Add crushed stone to the excavated hole. It is recommended to fill the hole with a 6-8" layer of crushed stone to the bottom of the hole. A crushed stone base of 6"-8" is recommended in high water table areas. Using a deeper layer of crushed stone may reduce the chances of settling over time. 2-4" of stone may be used in areas with high soil stability.

NOTE: Base material shall be crushed stone $\frac{3}{4}$ " and smaller, angular stone, not 'river rock or round stone'. Desired compaction and equivalent resistance to lateral loading will not be achieved with round stone. The rock should be free of soil and organic material.

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2. Use a mechanical or hand tamper to tamp down the crushed stone in the excavated hole to be flat and level.
3. Set the enclosure into the excavated hole and adjust height to grade. Be sure the enclosure is centered in the hole and is parallel with the sidewalk or curb. When the enclosure needs to be level and installed on a slope or hillside, the enclosure should be installed and have a retaining wall built to hold the soil to prevent erosion above the enclosure.
4. When tamping down the backfill, internal bracing is required to be installed within the enclosure to protect the sides from bowing during the tamping operation. Suitable bracing could be one or multiple wooden 2x4's cut to length and installed snug against the inside walls of the enclosure as shown in Figure 1 below.
5. Install the cover and bolt the cover into place prior to backfilling. Installing the cover prevents debris from entering the enclosure and helps maintain box rigidity during the backfilling procedure.
6. Backfill along the open outer sides of the excavated hole by adding crushed rock and/or soil, or dry lean mix in eight- inch (8") lifts or layers. Be sure to remove any stones 3" or larger from the backfill.
 - a. Alternate "lean dry mix" Backfill: A 'dry lean mix' may be prepared for backfill using Portland cement and crushed rock in a ratio of 1:10. This higher strength alternative is useful where known traffic is anticipated within the vicinity of the enclosure that could cause surcharge loading.
7. Once backfilling is complete and internal bracing installed, tamp down the soil around the enclosure with hand tamping tools.

NOTE: It is recommended not to use mechanical tamping tools such as a tamping ram or plate compactor when tamping down the backfill material around the enclosure to prevent bowing to sides of the enclosure. DO NOT use heavy equipment, like backhoes, for tamping as damage will occur.

 - a. Soil in the immediate vicinity should be tamped down and sloped away from the enclosure. Be sure not to slope the grade towards the enclosure as debris could make the cover difficult to remove.
8. For installations in a parking lot or any other area that may be subject to unintentional vehicular loading, a 6" wide by 6" depth concrete collar surround is required.

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Figure 1

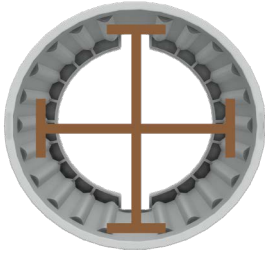


Figure 2

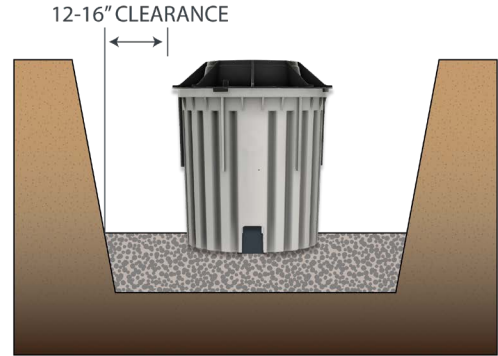


Figure 3

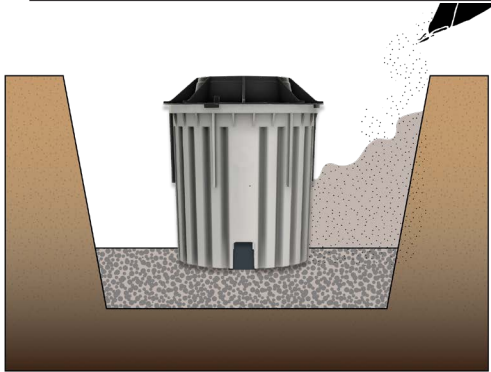


Figure 4

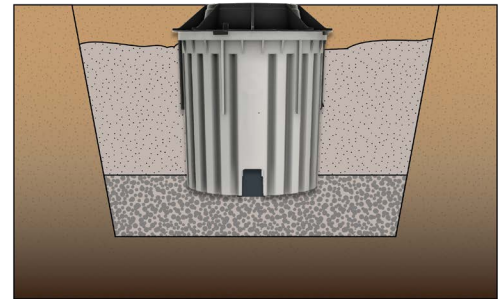


Figure 5

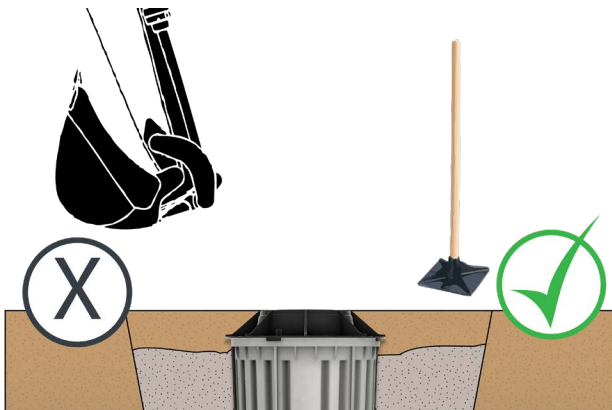
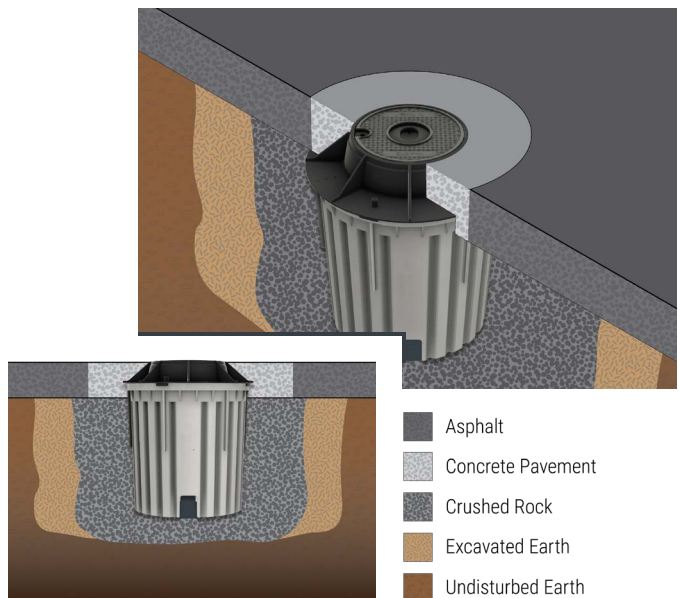


Figure 6



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