

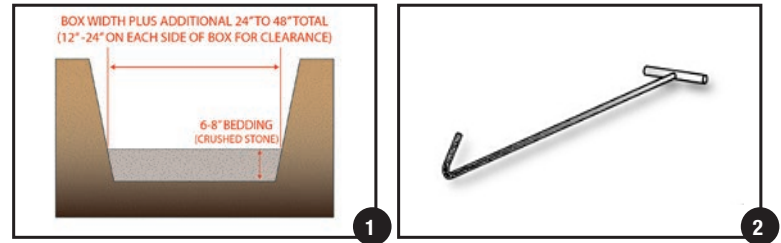
Oldcastle® underground enclosures are suitable for delivery to job sites on any construction vehicle. Enclosures can be safely handled by hand by the proper number of trained workers or proper lifting equipment for loading and unloading.

Site preparation

- Follow local guidelines and job requirements.

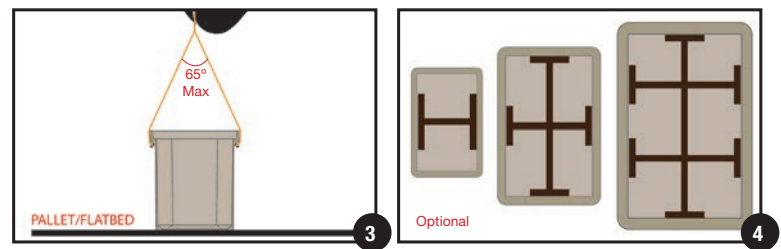
Excavation and preparation of enclosure hole (fig 1).

- Remove material to provide 1 – 2' of clearance all around the enclosure and 6" – 8" in additional depth allowing for bedding and rodent barrier.
- Place a suitable bedding material such as crushed stone at the base of the excavated hole.



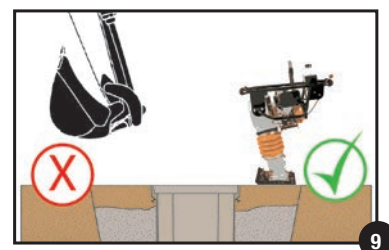
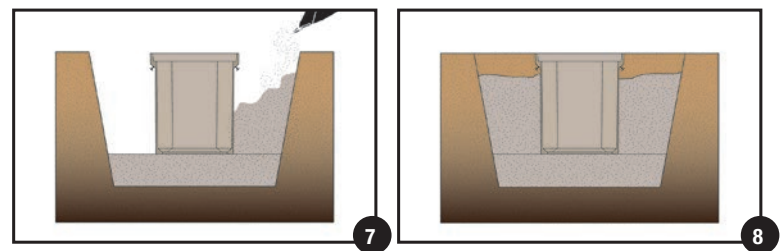
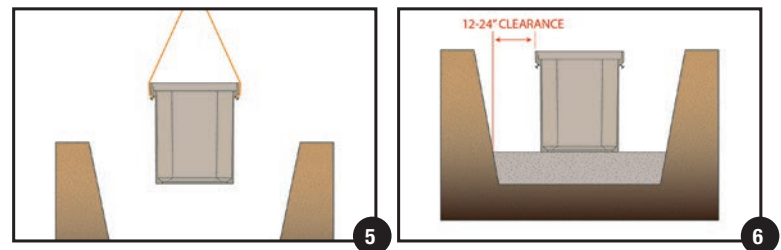
Removing enclosure from delivery vehicle and pallet.

- Remove shipping band from enclosure.
- Use proper hook to remove lid from the enclosure base (fig 2).
- Using proper lifting techniques, secure and remove box from truck. Lifting bolts are provided for boxes 2424 and larger (fig 3).
- The angle of the lifting lines should not exceed 65°.
- Optional : Install temporary brace supports in the interior of the enclosure to provide additional lateral rigidity and if 95% compaction is required (fig 4).



Enclosure placement into prepared hole.

- Reinstall the lid to the base of the enclosure prior to uniformly backfilling on all four sides. Nut, bolt threads, and cover seat should always be free of dirt and debris before tightening down the bolt.
- Bed the base of the hole with crushed stone. Then lift and place the enclosure into the bedded hole.
- Place crushed stone around the sides (fig 7 & 8).
- Position the enclosure to the proper grade level and check.
- Remove lid with proper lifting-eye tool.
- Make the necessary elevation adjustments and recheck the elevation.
- After the enclosure is set to the proper elevation, remove the temporary brace supports if used and reinstall the cover.
- Compact backfill per engineering specifications.
- Proper tamping tools such as a mechanical tamping device or hand operated device should be used. (fig 9)
- A hand shovel or backhoe should never be used for tamping as damage will occur.



Vibrator plate may also be used.

SPECIFICATION COMPARISON

| Performance Category | ANSI/ SCTE 77-2010 | Telcordia GR-902 | ASTM; C 857 |
|--|--|--|--|
| “Proximity” Lateral Load Resistance | <p>“Pedestrian Traffic” NONE</p> <p>Tier 5 & 8 1,800 lbf (DL)/ 2,700 lbf (MFL)</p> | <p>“Greenway” 12” 330 lbf (R), 430 lbf (O) 18” 420 lbf (R), 540 lbf (O)</p> <p>“Pedestrian & Light Incidental” 12” 1,515 lbf (R), 2,015 lbf (O) 18” 1,890 lbf (R), 2,520 lbf (O) 24” 2,175 lbf (R), 2,900 lbf (O) 36” 2,600 lbf (R), 3,475 lbf (O)</p> | <p>“Pedestrian Traffic” 12” 375 lbf 18” 375 – 450 lbf 24” 425 – 525 lbf 36” 775 – 875 lbf</p> <p>Based on: A-8, 8,000 lbf Wheel Load 12” 1,375 lbf 18” 1,375 – 1,450 lbf 24” 1,425 – 1,525 lbf 36” 1,775 – 1,875 lbf</p> |
| “Approach” Vertical, Sidewall | <p>“Pedestrian Traffic” 3,000 lbf (MFL)</p> <p>Tier 5 5,000 lbf (DL)/ 7,500 lbf (MFL)</p> <p>Tier 8 8,000 lbf (DL)/ 12,000 lbf (MFL)</p> | <p>“Greenway” (R) 850 lbf / 1,700 lbf (O) 1,100 lbf / 2,200 lbf</p> <p>“Pedestrian & Light Incidental” (R) 3,900 lbf/ 7,800 lbf (O) 5,200 lbf/ 10,400 lbf</p> | <p>“Pedestrian Traffic” 300 lbf/ ft²</p> <p>A-8 8,000 lbf (DL)/ 17,360 lbf (MFL)</p> |
| “Parking” Vertical, Center of Cover | <p>“Pedestrian Traffic” 3,000 lbf (MFL)</p> <p>Tier 5 5,000 lbf (DL)/ 7,500 lbf (MFL)</p> <p>Tier 8 8,000 lbf (DL)/ 12,000 lbf (MFL)</p> | <p>“Greenway” (R) 850 lbf / 1,700 lbf (O) 1,100 lbf / 2,200 lbf</p> <p>“Pedestrian & Light Incidental” (R) 3,900 lbf/ 7,800 lbf (O) 5,200 lbf/ 10,400 lbf</p> | <p>“Pedestrian Traffic” 300 lbf/ ft²</p> <p>A-8 8,000 lbf (DL)/ 17,360 lbf (MFL)</p> |

NOTES

ANSI/ SCTE 77-2010

1. There are no Lateral Loading requirements defined for “Pedestrian Traffic” classification.
2. Maximum deflection at DL shall be $\leq \frac{1}{4}$ ”/ ft of box length.
3. Safety Factor for MFL is DL x 1.5

Telcordia GR-902

1. There are two performance options listed for each Category; a “Requirement” (R) and an “Objective” (O) or desirable target.
2. The “Greenway” category is defined as “areas of minimal pedestrian and no vehicular traffic”. The “Pedestrian/ Light Incidental” category is defined as “an area off the main road with frequent pedestrian traffic and occasional car or truck pulling up over the handhole...”

ASTM; C 857

1. Lateral Loading requirements are developed from soil loads (based on Box size) and anticipated Live Loading. The “Pedestrian Traffic” lateral load projections are based on 30 lbf/ ft². Lateral Load projections for the A-8 category are based on the 8,000 lb wheel load (Design Load).
2. DL x Safety x Impactor = min. Failure Load

