



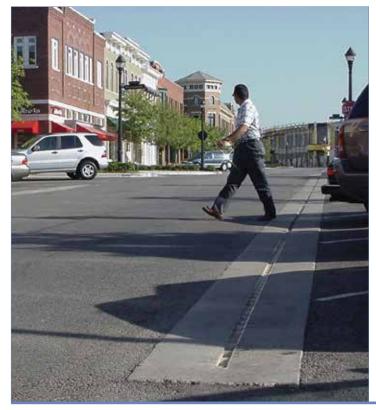




Contech Slotted Drain[™] for Commercial Applications



Contech Slotted Drain[™]



Proven Performance & Durability

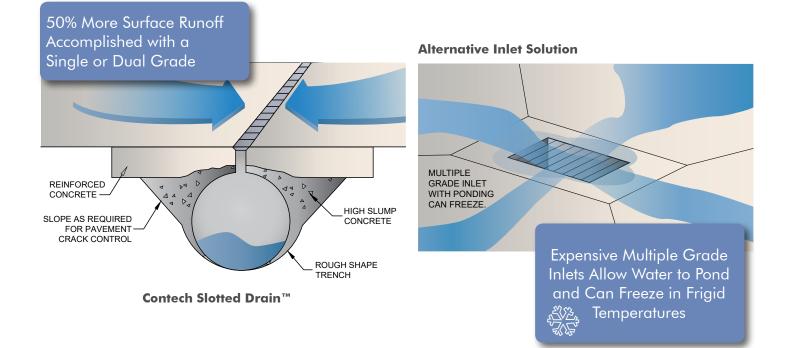
- 100-Years of Proven Pipe Performance
- Provides practical, aesthetically pleasing inlet, clog resistant
- Withstands harsh, inclement weather and surface runoff
- Removes 50% more sheet water than traditional systems

Better On-Site Safety

- Eliminates hazardous dips and ponding commonly found in graded applications
- Avoids trapping wildlife typically seen in curb inlets
- Heel guard add-ons provide heel-friendly guard for pedestrian applications

Engineering Service & Consultation

- Available in variable height applications
- Complete construction drawings
- Heavy loading analysis
- Hydraulic analysis assistance



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Kwik Trip Convenience Store Expansion

Winona, Minnesota

With over 525 convenience stores located in Wisconsin, lowa and Minnesota, Kwik Trip is a growing chain. This was no exception for the Winona, Minnesota store located along Broadway Street. With increased traffic in and out of the store, the store needed to expand the fuel pumping station area and store access. Part of this expansion including a driveway apron and additional parking area. To account for the rainwater surface runoff that was anticipated as a result of this newly paved area, a subsurface drainage system was required. The project engineer, Sunde Engineering, Inc. selected a variable height Contech Slotted Drain[™] system to handle this.

Slotted Drain provides a simple and effective solution for handling surface runoff after a rain event. Unlike typical parking lots that require grades to be sloped in four directions for each storm collection grate, a parking lot with Contech Slotted Drain requires only one transverse and one longitudinal slope for the entire drainage area. That translates to a lower-cost installation for the contractor and owner; and less stake-out for the engineer. Because of Slotted Drain's efficiency in removing surface water, fewer collectors and fewer laterals under the roadway are needed.





Fast Track Your Project

Contractors experience shows that slotted drain is much easier to install than conventional catch basin systems and will decrease the overall time of your project.



Slotted Drain efficiently drains surface runoff while creating an aesthetically pleasing inlet.

Slotted Drain Specification

1.0 General

- 1.1 This specification covers Slotted Drain used for removal of water as shown on the plans.
- 1.2 The corrugated steel pipe used in the Slotted Drain shall meet the requirements of AASHTO M36/ASTM A 760. The CSP shall be made of ALUMINIZED STEEL Type 2 (AASHTO M274). The diameter and gauge shall be as shown on the plans.

Connections 2.

- 2.1 The CSP shall have a minimum of two rerolled annular ends.
- 2.2 The Slotted Drain bands shall be modified HUGGER Bands to secure the pipe and prevent infiltration of backfill.
- 2.3 When the Slotted Drain is banded together, the adjacent grates shall have a maximum 3-inch gap.

3. Grates

- 3.1 The grates shall be manufactured from ASTM A 1011, Grade 36 or ASTM A 36 steel. The spacers and side plates shall be ³/₁₆ -inch material ±0.008 inches. The plate extenders are minimum 7 gauge and made from ASTM A 761 or the above
- 3.2 The spacer plates shall be on 6-inch centers and welded on both sides to each bearing plate (sides) with four 1 1/4-inchlong $3/_{16}$ -inch fillet welds on each side of the bearing plate.

Contech Engineered Solutions provides site solutions for the civil engineering industry. Contech's portfolio includes bridges, drainage, retaining walls, sanitary sewer, erosion control and stormwater treatment

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- 3.3 The engineer may call for tensile strength test on the grate if the grate is not in compliance with 3.1 and 3.2. If tensile strength tests are called for, minimum results for an in-place spacer plate pulled perpendicular to the bearing plate shall
- T = 12,000 pounds for 2 1/2 -inch grate
- T = 15,000 pounds for 6-inch grate
- 3.4 The grates shall be trapezoidal with a $1^{3}/_{4}$ -inch opening in the top and 30° slanted spacer plates unless shown otherwise on the plans. The grate shall be $2 \frac{1}{2}$ inches high or 6 inches high as shown on the plans.

4. Galvanizing

4.1 The grate shall be galvanized in accordance with ASTM A 123 except with a 2-ounce galvanized coating.

5. Grate Attached to CSP

- 5.1 The grate shall be fillet welded a minimum 1-inch long to the CSP on each side of the grate at every other corrugation.
- **Tolerances—Finished Slotted Drain Grates—** 6. **20-foot Lengths**
- 6.1 Vertical bow is $\pm \frac{3}{8}$ inch.
- 6.2 Horizontal bow is $\pm \frac{5}{8}$ inch.
- 6.3 Twist is $\pm 1/2$ inch.



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