



SIDEWALK REPAIR GUIDE

Attached are examples of sidewalk deficiencies as defined by Chapter 136 of the Altoona Code of Ordinances. Included with each example is a repair suggestion. Some examples may have more than one method of repair, while others may have only one. If you have received a letter to repair your sidewalk, you will notice that the deficiency has an alphabetical identifier assigned to it. Match that identifier to the correct one below for guidance.

NOTE: IF YOU ARE REPLACING A PANEL A PERMIT IS REQUIRED AND INSPECTIONS ARE NECESSARY.

Listed below are the definitions regarding the suggested repairs throughout this document:

Mud jacking: Contractors may be able to core drill a hole in the lower sidewalk panel and inject a concrete/mud slurry mix, a process known as “mud jacking”. When this happens, the slurry will raise the panel to a point where the two panels are level. The core-drilled hole will be filled in with the slurry mix. This repair suggestion may not always be the most appropriate way to correct this issue, as a mud jacked panel may settle back down over time.

Raising the panel: Similar to mud jacking, this method would require digging adjacent to the edges of the panel to a point where space underneath the panel is accessible. A pry bar or some other tool could then be used to carefully lift the lower panel and fill in the cavity underneath with dirt, sand, rock, or concrete mix. Lower the raised panel back into place to verify that the elevation of the panel has risen to a point equal to the adjacent panel. If it is not even with the adjacent panel, keep repeating the process until both panels are equal in height. This suggestion may not be the best solution, as the raised panel may settle back down over time.

Replacing the panel: Break up the concrete panel and remove it from its current location. After this is done, frame up the sides of the panel adjacent to the grass. This will help form the edges of the panel. The actual remaining sidewalk panels would form the other two edges. The depth of the sidewalk panel is required to be 4 inches (**NOTE:** a 2x4 is only 3 ½” so if you are framing up your sidewalk with a 2x4 it must be held up a minimum of ½”), unless the sidewalk panel is in the driveway area, which would require the panel thickness to be 6 inches. **If you or a hired contractor is replacing the panel, a permit must be obtained on our online portal at www.citizenserve.com/altoona.** There are several additional requirements that must be met, such as using a type of approved concrete, following instructions regarding any water valves in the concrete, etc. Please refer to the Approach and Sidewalk handout located on our online portal.

Fill in the gap: Hardware stores sell flexible, foam cord gap fillers, commonly called “backer rods”. They are usually gray or black and come in a variety of diameters. Use an appropriately-sized backer rod to fill the crack. Push the backer rod down far enough so that there is at least a ¼” depth measured from the top of the backer rod to the top of the sidewalk. Then apply a weather-resistant caulking material over the backer rod. This will help seal the gap and prevent surface water from entering into the crack. Caulking comes in a variety of colors, and self-leveling caulk is also available.

(A.) VERTICAL SEPARATIONS EQUAL TO ½” OR MORE



Repair Suggestions for Deficiency (A.):

Sunken Panel:

- Mud jacking
- Raising the panel
- Replacing the panel – PERMIT REQUIRED IF THIS OPTION IS CHOSEN

Heaved (Raised) Panel:

- Replacing the panel – PERMIT REQUIRED

*Please see the cover page for additional information and definitions of the suggested repairs.

(B.) HORIZONTAL SEPARATIONS EQUAL TO 1" OR MORE



The appropriate repair for this scenario is typically filling in the gap between the two panels. Many times this is caused by deterioration of the expansion joint over time.

Repair Suggestions for Deficiency (B.):

- Fill in the gap
- Replacing the panel – PERMIT REQUIRED IF THIS OPTION IS CHOSEN

*Please see the cover page for additional information and definitions of the suggested repairs.

(C.) HOLES OR DEPRESSIONS EQUAL TO ¾” OR MORE AND AT LEAST 4” IN DIAMETER



The appropriate repair for this scenario is replacing the panel. Patching or filling in the depression(s) IS NOT an acceptable repair.

Repair Suggestions for Deficiency (C.):

- Replacing the panel – PERMIT REQUIRED

*Please see the cover page for additional information and definitions of the suggested repairs.

(D.) SPALLING OVER 50% OF A SINGLE SQUARE OF THE SIDEWALK WITH ONE OR MORE DEPRESSIONS EQUAL TO ½” OR MORE

(E.) SPALLING OVER LESS THAN 50% OF A SINGLE SQUARE OF THE SIDEWALK WITH ONE OR MORE DEPRESSIONS EQUAL ¾” OR MORE



The appropriate repair for this scenario is replacing the panel. Spalling is a condition in which the top portion of the concrete starts to pop off in pieces. There are two common reasons for this. First is the placement of salt and/or de-icing chemicals on the concrete during the winter months. The salts and chemicals actually eat away at the concrete surface, leaving it pitted. The second is that the concrete was finished in a manner that doesn't provide an effective seal. Adding salt and chemicals atop this already weakened seal results in a rapidly deteriorating sidewalk surface.

Repair Suggestions for Deficiencies (D. & E.):

- Replacing the panel – PERMIT REQUIRED

*Please see the cover page for additional information and definitions of the suggested repairs.

(F.) A SINGLE SQUARE OF SIDEWALK CRACKED INTO 6 OR MORE PIECES



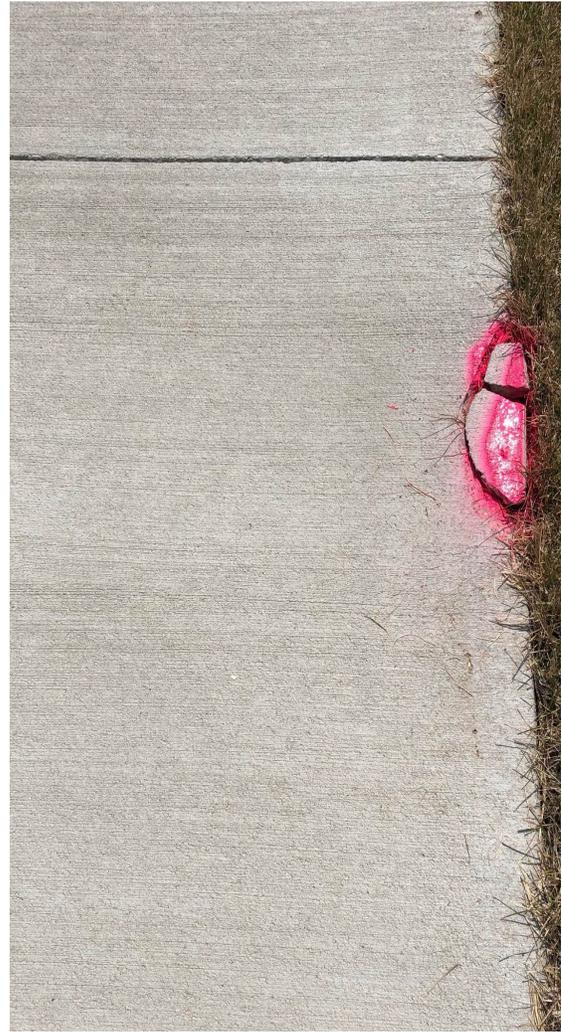
The appropriate repair for this scenario is replacing the panel. Many times this scenario is caused by a vehicle driving over the sidewalk.

Repair Suggestions for Deficiency (F.):

- Replacing the panel – PERMIT REQUIRED

*Please see the cover page for additional information and definitions of the suggested repairs.

(G.) A SIDEWALK WITH ANY PART THEREOF MISSING TO THE FULL DEPTH



The appropriate repair for this scenario is replacing the panel. If ANY part of the sidewalk is missing in its entirety, Deficiency G applies.

Repair Suggestions for Deficiency (G.):

- Replacing the panel – PERMIT REQUIRED

*Please see the cover page for additional information and definitions of the suggested repairs.

(H.) A CHANGE FROM THE DESIGN OR CONSTRUCTION GRADE EQUAL TO OR GREATER THAN ¾" PER FOOT



The appropriate repair for this scenario is on a case by case basis, as this condition may be caused by a couple different reasons. If the panel(s) have sunken as in photo (2) you may be able to mud jack or raise the panel(s). If the panel(s) have heaved (raised) as depicted in photos (1&3) then the only repair is to replace the panel(s).

Repair Suggestions for Deficiency (H.):

Sunken Panel:

- Mud jacking
- Raising the panel
- Replacing the panel – PERMIT REQUIRED IF THIS OPTION IS CHOSEN

Heaved (Raised) Panel:

- Replacing the panel – PERMIT REQUIRED

GRINDING:

The City of Altoona will allow grinding on a case-by-case basis, which SHALL be pre-approved by the Building Official prior to any work being performed.



UNACCEPTABLE REPAIRS:

*The City of Altoona does **NOT** recognize patching as an acceptable sidewalk repair.*

Below are photographs with examples of this specific “fix”.

PATCHING:



**Please see the cover page for additional information and definitions of the suggested repairs.*

WATER SHUT OFF VALVES (STOP BOX):



The above picture depicts a water shutoff service cap, commonly known as a “stop box” raised above the surrounding concrete surface. This situation may occur when the ground freezes in the wintertime and thaws in the spring. If you have a stop box located in the sidewalk that abuts your property, please check to see if you have this scenario. Most of the time a raised stop box can be set flush with the surrounding concrete by using a rubber mallet and gently tapping it back down. If you don’t feel comfortable making the proper adjustment to the stop box, please contact the Water Department at 515-967-2454.



The above picture depicts a water shutoff service cap, “stop box” that is lower than the surrounding concrete surface. This situation may occur when the ground freezes in the wintertime and thaws in the spring. If you have a stop box located in the sidewalk that abuts your property, please check to see if you have this scenario. If your stop box is too low special tools may be needed to raise it. If you don’t feel comfortable making the proper adjustment to the stop box, please contact the Water Department at 515-967-2454.

TEMPORARY PLUGS:



The picture to the left depicts a temporary plug. If you have a temporary plug instead of a service cap please contact the Water Department at 515-967-2454 to get a permanent service cap installed.