

Improving Safety - Waste Bin Collection

Edmonton

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We acknowledge the original inhabitants of this great land and express our appreciation for their hospitality, for the manner in which they care for the land and for the opportunity we have to create a unified community that is centered around the oneness of humanity.

Outline

Implementation of Process to Check Waste Bins for Occupants:

- ◆ Edmonton Collection Model - apartments and condos/recycling depots
- ◆ What prompted the change in process?
- ◆ Standard Operating Procedure Revision
- ◆ Challenges and What We've Learned

Edmonton Waste Collection Model - Apartments and Condos/Recycling Depots

- Edmonton is responsible to collect all residential material from single-family, apartments and condos, as well as recycling depots.
 - ◆ All apartments and condos receive waste collection. By the end of 2027, all sites will also receive recycle and organics collection. The vast majority of this material is collected in front load bins.
 - ◆ Recycling Depots provide residents with alternative locations to drop off recyclables. All material is collected in side load bins.

Why Change the Collection Process?

- ◆ Increase in number of unhoused individuals throughout Edmonton
- ◆ Waste collection staff reporting increased number of individuals inside of waste bins. 143 reported incidents since December 2022.
- ◆ 2017, 2020, 2022 near misses. Bin occupants dumped into collection vehicle.



Internal and External Solutions

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Evolution of the Standard Operating Procedure

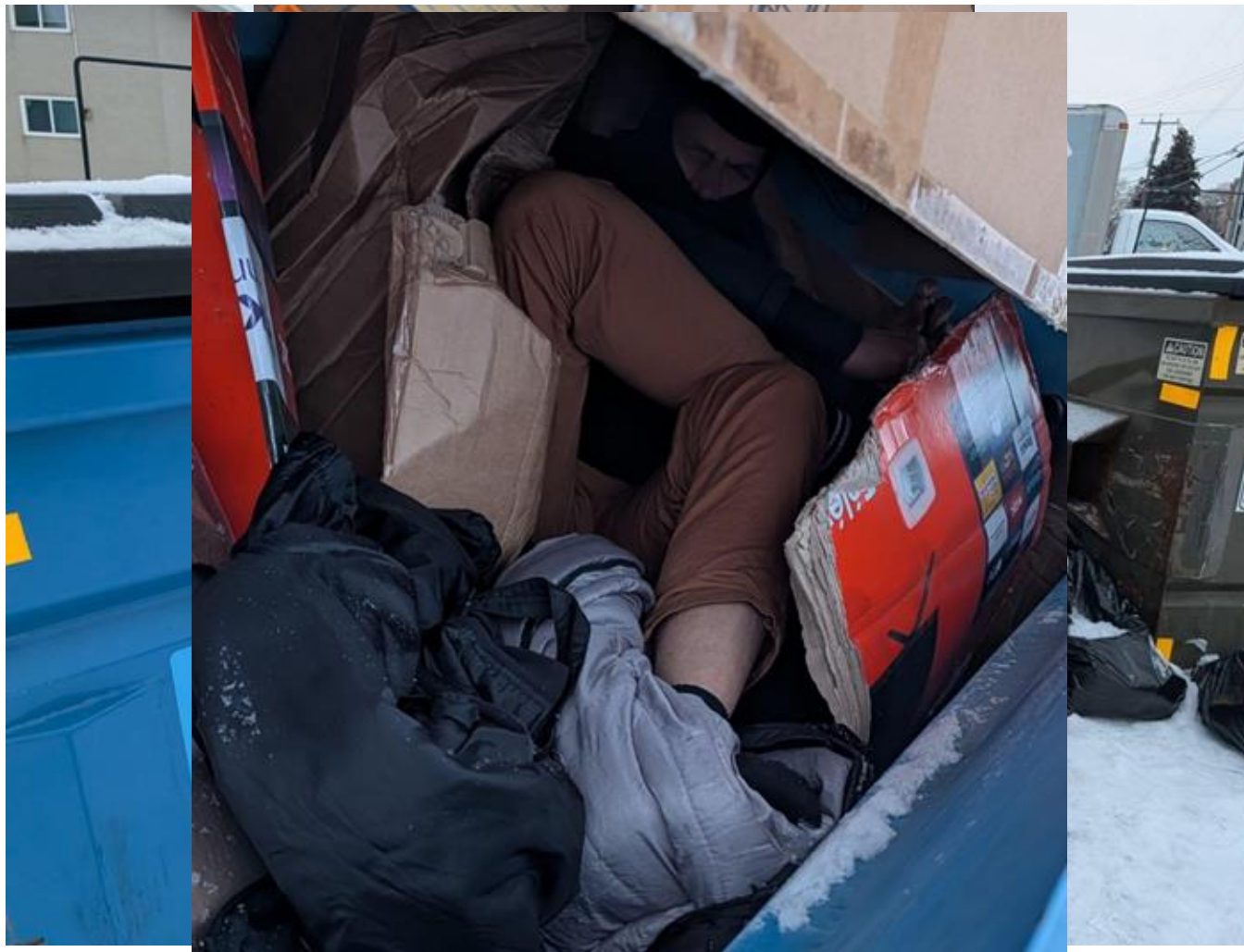
- A visual inspection of bins was standard practice.
- Visual inspections of the bins did not always identify occupants, as people would be buried under the bin contents.
- In 2022, following near misses at both an apartment/condo and recycling depot where bin occupants were dumped into a collection vehicle, the procedure was modified. The requirement to strike the bins with a deadblow hammer was added.
- In 2024, we mandated that our Contractors follow our SOP

How can we Better Deal With This Problem?

**Make the
Bins Less
Habitable...**











Unintended wins from our Three-Stream Rollout



U of A Student Project 2023

- In 2023 University of Alberta Industrial Design students were challenged with designing a collection bin that would prevent occupancy.
- Three design groups presented solutions ranging from:
 - ◆ Reduced space at the point of entry to prevent occupancy.
 - ◆ Installation of battery powered lights with the intent to make the space undesirable.
 - ◆ Lids designed to prevent entry.
- Other historical projects and ideas include locking lids (impractical user experience) and thermal cameras (technology does not exist to detect through steel).

U of A Prototype 1



U of A Prototype 2



U of A Prototype 3





Other Challenges and What We've Learned

Design modifications seem like good ideas, right?

- Present difficulty for residents using the bins.
 - ◆ Previous pilot projects that tested locking lids with slotted entries found that many users were frustrated with the small opening and therefore just left the material on the ground beside the bins.
 - ◆ In some cases, tools were used to pry open steel lid bins.
 - ◆ Designs need to be mindful of not being dangerous to those who are seeking shelter.



Continuous Improvement

Edmonton has given considerable time and resources to mitigate this risk, but it has not been eliminated. We will continue to explore opportunities that further our goal of minimizing the risks associated with the work we do every day.

I appreciate everyone here for taking the time to listen today, and hopefully others can take some of these learnings to implement at their work sites.

Thank you

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