

David Whitaker, Esq.
Director
Irvin Corley, Jr.
Executive Policy Manager
Marcell R. Todd, Jr.
Senior City Planner
Janese Chapman
Deputy Director

John Alexander
LaKisha Barclift, Esq.
M. Rory Bolger, Ph.D., AICP
Elizabeth Cabot, Esq.
Tasha Cowen
Richard Drumb
George Etheridge
Deborah Goldstein

City of Detroit
CITY COUNCIL
LEGISLATIVE POLICY DIVISION
208 Coleman A. Young Municipal Center
Detroit, Michigan 48226
Phone: (313) 224-4946 Fax: (313) 224-4336

Christopher Gulock, AICP
Derrick Headd
Marcel Hurt, Esq.
Kimani Jeffrey
Anne Marie Langan
Jamie Murphy
Carolyn Nelson
Kim Newby
Anahne Powers, Ph.D.
Jennifer Reinhardt
Sabrina Shockley
Thomas Stephens, Esq.
David Teeter
Theresa Thomas
Kathryn Lynch Underwood
Ashley A. Wilson

TO: The Honorable City Council

FROM: David Whitaker, Director
Legislative Policy Division Staff

DATE: September 10, 2019

RE: EMERGENCY KEY BOX SYSTEMS (KNOX BOX)

LPD was asked by Council President Pro Tem Sheffield to determine the feasibility of creating an ordinance to require an emergency key box system for senior buildings and other multifamily gated communities for the purpose of providing a secure means of access to the police, fire, or other emergency service personnel in case of an emergency.

Perhaps, the most recognizable brand name for emergency key boxes in the country is the Knox Box, which is made by an Arizona-based company called Knox Company¹. The company has been around for more than 40 years. It is a steel lock box that can store building entrance keys, access cards, emergency contact numbers or floor layout documents that can be mounted on the outside entrance of a building. The boxes can withstand extreme weather conditions; and have an anti-theft re-locking mechanism with a drill resistant hard-plate lock protector. There are different models available depending on the needs of the owner. A vault can hold one, two, ten, or fifty keys/key cards. There are commercial and residential versions that come with add-ons such as dual locks, tamper alarms, encrypted electronic key systems, elevator key boxes, pad locks, electric door and gate switches.

The Knox Company's lock boxes are used by over 14,000 fire departments, law enforcement agencies, and governmental entities nationwide. Many cities have mandated that a Knox Box be mounted outside of certain buildings front doors to gain quick access into buildings during emergency situations. The lock box circumvents forced entry by emergency personnel, preventing potential property damage and reducing the time taken to provide emergency assistance.

¹ <https://www.knoxbox.com/>

Each city that has enacted an ordinance requiring an installation of these systems has established its own set of standards. Some of these requirements include mandating that a combination of any of the following types of buildings must have a lock box on-site:

1. Any building with an elevator
2. Any commercial building that is more than 1 story
3. A building that has hazardous materials
4. A residential building with 3 or more rental units
5. Commercial or industrial structures that have a fire alarm and/or sprinkler systems that are secured in a manner that restricts access during emergencies or are protected by automatic alarm/suppression systems
6. Multifamily residential structures that have restricted access through locked doors and have a common corridor for access to living units
7. Governmental structures and nursing care facilities with gated entrances
8. Gated communities are required to have a Knox Switch to disconnect the electric charge to an electric fence.

Some cities have also specified that a Knox Box at a residential building can only contain keys to the portions of the building that are not leased to residents, such as common areas, hallways, basements, utility rooms, automatic sprinkler control rooms, etcetera.

Many of the cities that has surfaced in LPD's investigation have similar ordinances that typically assigned their lock box implementation strategy to their local fire department. Some require building owners to purchase the boxes from the local fire departments or the companies that sell the *Knox Box*. The governmental agencies that have access to the lock boxes must register with the *Knox Company* through their website. Fire departments hold copies of the master keys within a city or fire zone. Other agencies that need emergency access to a building can also have copies of the master key.

After the department is registered, the *Knox Company* will assign a system identification number and a restricted lock code. Knox will also send authorization forms preprinted with the department name, system ID, and brochures explaining the Knox system.

The website offers "ordinance support" to help cities create an ordinance that fits the needs of its constituents². The implementing agency must assign a Knox program coordinator to represent either one department or multiple departments within a city. Many cities require approval from the local fire department for a building owner to purchase a Knox Box.

The Fire Code for the State of Georgia and many other states require some buildings to have key boxes in pre-approved locations. Milton, Georgia has created an ordinance³ that mandates lock boxes to be affixed to the front entrance or another location determined by the fire marshal for certain types of buildings. The Fire Marshal, in Milton, Georgia and other cities with similar ordinances, has the authority to determine the type of lock box system; implement rules and

² <https://www.knoxbox.com/resources/ordinance-support/>

³ Article IV: Key Lockbox System, Section 22-90 to 22-91 of Milton, GA's Municipal Code;
https://library.municode.com/ga/milton/codes/code_of_ordinances?nodeId=PTIICOOR_CH22FIPRPR_ARTIVKEL_OSY#TOPTITLE

regulations, including requiring any structure to have a lock box; and, handles all requests and inquiries regarding the boxes. Newly constructed buildings, that are subject to the ordinance, are required to have a functional lock box before an occupancy permit can be issued. All other pre-existing buildings have one year from the effective date of the ordinance to install a lock box system. The owner of the property must have an operational lock box that contains a key at all times. A violation of this code could result in a maximum fine of \$1,000 upon conviction.

To prevent theft or forced entry of a *Knox Box*, fire departments have to lock each *Knox Box* for the owner after installation and add or remove keys by appointment. Once the fire department locks the box, the building owner can no longer access the keys or the items inside the lock box without the fire department.

As mentioned before, the fire department has a master key that can open every lock box within the city. This can raise fears about thieves possibly gaining access to the keys inside the lock box, ultimately, allowing them access to any building in the city that uses a lock box to store emergency keys. Those fears became a reality in Seattle, WA⁴, when the city had to spend \$500,000 to re-key lock boxes after a burglar somehow gained possession of one of the master keys. Furthermore, Austin, TX⁵ will have to pay \$1.8 million⁶ to replace lock boxes after a thief used a master key to rob multiple medical facilities, including \$31,000 from a hospital cashier's office in 2018. The law enforcement agencies investigating these events could not figure out how the thieves in either case got their hands on a master key.

Criminals can also remove the lock box from its mount with powerful blunt force, take it and break it open, thereby getting access to one building, as opposed to the whole city. This occurred in Seattle, WA⁷. Thieves broke into several commercial buildings, stealing \$750,000 worth of computer servers with the businesses' trade and people's private information on it. Recess-mounted key lock boxes are supposed to protect against physical attacks better than other types of mounts, but the threat is still a possibility. Another worry is that a skilled hacker could theoretically make a copy of the master key⁸, although there aren't any current examples of criminal hackers accomplishing this for the specific purpose of breaking into a building. The old adage that if it could happen, sooner or later it will happen probably applies here.

The aforementioned situations reveal the monetary and property risks of requiring a key lock box outside of a large number of buildings that can be opened with just one master key. The security of a city's buildings that are using a lock box system is as strong as the precautions taken to

⁴ Rosoff, Henry. "Burglary Spree Will Cost Taxpayers \$500,000." Seattle News, Weather, Traffic, Video and Sports. Cox Media Group, 2 Oct. 2013. Web. <http://www.kirotv.com/news/news/half-million-dollar-key-city/nbDmT/>

⁵ <https://www.kxan.com/news/local/austin/security-at-austin-buildings-compromised-after-burglary-suspect-gets-master-key/>

⁶ <http://www.austintexas.gov/edims/pio/document.cfm?id=290956>

⁷ Phelps, Matt. "Seattle Men Charged in Bellevue, Redmond and Kirkland Burglaries, Could Also Face Charges in Sony Online Entertainment Server Theft. "Kirkland Reporter", 11 May 2011. Web.

<https://patch.com/washington/redmond/trial-awaits-for-men-charged-in-redmond-eastside-comm4177dc6aad>

⁸ Finkle, Jim. "Security Expert Warns Fire Department Lockboxes Can Be Hacked." Reuters. Thomson Reuters, 28 Feb. 2013. Web. <http://www.reuters.com/article/2013/03/01/us-security-lockbox-idUSBRE92004T20130301>

prevent lost or stolen keys. Phoenix, AZ⁹ encountered this problem. The city made 1,350 master key copies for emergency personnel over the years since implementing the program in 1999. About 850, or 63% of the total master key copies were missing in a 2014 audit. The Fire Department still had to re-secure the lock boxes at a cost of about \$50,000. Phoenix responded to the discovery by implementing new key controls, such as creating fewer key copies and keeping a record of whoever is in possession of a key at any time for any reason. An encrypted electronic master key system is available, which may reduce the opportunity for theft or misplacement of a key, conversely, it may also increase the risk of hackers electronically gaining access to the lock box.

In conclusion, it is feasible to enact an ordinance to mandate key lock boxes outside of certain types of buildings. However, any consideration of such policy should minimize the risk of theft or negligence that could lead to safety concerns or property loss for citizens.

If you have any more questions, please do not hesitate to call upon us.

⁹ <https://www.azcentral.com/story/news/local/phoenix/2014/04/14/phoenix-fire-missing-keys/7724577/>