Knox System Installation Standard

**PURPOSE:**
The information contained in this standard has been developed to assist property owners, architects, engineers, and contractors on the installation of Knox Rapid Entry Systems. These rapid entry systems are utilized to minimize potential damage caused by forcible entry and allow the building/facility to be re-secured quickly and easily once emergency operations are complete.

**DEFINITIONS:**
- **Knox Box or Vault:** Box and Vault are used for securely storing building keys, or entry cards.
- **Knox Document Cabinet:** Cabinets are used for storing pertinent hazardous material safety data sheets, floor plans, emergency plans, building keys, or entry cards.
- **Knox Key:** A key, secured on all fire apparatus electronically, which enables fire crews to access any Knox System within the City of Santa Clara.
- **Knox Key Switch:** An electrical switch activated by a Knox Key which opens a gate or other electric entry barrier.
- **Knox Padlock:** A heavy duty padlock, which is designed for securing perimeter gates, industrial equipment yards, and similar areas.
- **Key Tag:** A metallic tag attached to each key to identify the function of the key and room.

**WHERE REQUIRED:**
1. Building(s) equipped with a fire suppression and/or fire alarm system;
2. Commercial businesses that use, store, manufacture or process hazardous materials;
3. Buildings with elevators;
4. High-rise buildings;
5. Sites and facilities secured by manual or automatic gates, or barriers;

**Note:** Larger buildings and facilities may require multiple Knox Systems.

**MODELS REQUIRED:**
1. Single tenant buildings shall utilize the Knox Box, Model 3200 series with a hinged door.
2. Non-high-rise multiple tenant buildings shall utilize the larger Knox Vault, Model 4400 series with a hinged door and single lock.
3. In high-rise buildings, and buildings which utilize large quantities of hazardous materials a Knox Document Cabinet, Model 1301 with a hinged door and single lock shall be installed. For high-rise applications the cabinet shall be installed within the Fire Command Center and a Model 3200 series installed at the buildings entry, and entry to the fire command center.

4. Automatic gates and barriers shall utilize the Knox Key Switch, Model 3502 with Sub-mastered access for our Police Department.

5. Manual gates and barriers shall utilize the Knox Padlock, Model 3770 (*construction projects only*).

**APPLICATION PROCEDURE:**


2. At time of submittal the completed application shall include all of the following:
   
   1. Complete the applicable sections of the “original” copy of application
   
   2. Complete the "Hold Harmless Agreement" ensuring that the responsible party for the facility signs the agreement (tenant or building owner).

3. Develop an 8-½ by 11-inch Site Plan shall be submitted containing the following information:
   
   a. Site plan of building denoting the street address side;
   
   b. Address
   
   c. Street and Cross street
   
   d. Proposed location of Knox Box on property
   
   e. Locations and type of gates, fences, or barriers where not key switches will be installed.

4. Once the review is complete the applicant will be contact by email, or phone.

**Notes:**

1. Incomplete application will not be accepted.

2. Do not send your payment to the Fire Department.

**INSTALLATION PROCEDURE:**

All Knox Systems shall be installed per the manufacturer’s installation instructions and the Fire Prevention and Hazardous Materials Division requirements noted below:

1. **Knox Boxes, Cabinets & Vaults**
   
   A. Shall be located adjacent to the main entrance to the building/facility or when approved adjacent to the fire control room.

   B. Mounting height shall be 60” – 72” above the adjacent walking surface, unless otherwise approved by the fire marshal.
C. Area shall be free of shrubbery or other vegetation that may interfere with the fire fighters’ ability to access the unit.

D. Knox System window decals are required on the primary entry door(s) to alert fire fighters that a Knox System is provided (one is included when the Knox System is shipped).

E. The following keys are required, and shall be properly labeled with “metallic key tags” for the door, room, suite number or use clearly visible (additional keys maybe required):
   a. Main entry
   b. Fire control room
   c. Fire alarm control panel & manual pull stations (if not the same key)
   d. Locks on sprinkler risers & backflow prevention devices
   e. Mechanical/electrical rooms
   f. Janitors closets
   g. Elevator master override
   h. Elevator machine room
   i. Card access keys or fobs

F. More than one set of keys is often required, especially in larger buildings. These extra sets are needed for additional fire companies responding to the property. The following guidelines for number of key sets shall be followed:
   a. 1-2 story building: 1 set of keys
   b. 3-5 stories or more than 62,000 sq. ft.: 2 sets of keys
   c. 5 or more stories: 3 sets of keys
   d. High-Rise: 10 sets of keys

2. Knox Key Switches
   A. An electrical permit from the Community Development Department, Building Division shall be obtained for the installation.

   B. Knox Key Switches shall be mounted directly adjacent to the key pad or card reader and shall face the vehicle access roadway.

   C. Mounting height shall be 48” – 54” above the driving surface.

Knox Padlocks
Knox Padlock installations typically utilize a combination of two padlocks, one standard lock used by the owner and one Knox lock, hooked together as shown in the picture to the right. This allows access to both the owner (by unlocking the standard lock) and the fire department (by unlocking the Knox Padlock).

FINAL INSPECTION:
In order to secure Box, Vault, or Cabinet the customer must contact the Fire Prevention and Hazardous Materials Division to request a “lock-up” inspection. After the installation of a Key Switch or Padlock the
customer must contact the Fire Prevention and Hazardous Materials Division to request a “functional test” inspection to ensure device is installed and works properly. To schedule an inspection of a Knox System call (408) 615-4970.

**KEY MAINTENANCE**

When new locks are added to a building/facility or existing locks are re-keyed, the tenant and/or building owner shall provide new or replacement keys in compliance with the requirements noted above. Contact the Fire Prevention and Hazardous Materials Division at to arrange for the installation of new keys. To schedule an inspection of a Knox System call (408) 615-4970.