RAPID ACCESS

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Route To:

- ☐ Chiefs
- ☐ Fire Prevention
- ☐ Station Captains
- ☐ EMS
- ☐ Haz-Mat Team
- ☐ Other

Protecting a National Treasure

The Department of the Interior has been given the challenge of protecting our National Parks for future generations. Originally, national parks provided their own fire and police protection. But as many communities have grown up around parks, the park service has found that, in many cases, it can provide better coverage when working with the neighboring fire and police departments.

One example of this evolving philosophy is Valley Forge National Historical Park. Originally, the park took care of all fire and police calls. Over time, the park has incorporated the neighboring fire and police departments to enhance its coverage. Today, two neighboring fire departments, King of Prussia Fire Company, part of Upper Merion Township Fire and Rescue Services and Valley Forge Fire Company respond to all fire calls. Police protection is a combination of the neighboring police departments working with the park's police department.

Incorporating outside help did require the park to make a few modifications. Originally, Valley Forge National Park had only one address for the entire park. "We worked with the park to re-address the park so that we would be better able to respond to emergency calls in the park," shared Deputy Fire Marshal George Fielden of Upper Merion Township Fire and Rescue Services.

Since many of the buildings located within the park are national landmarks, any entry into the buildings must be carefully thought out and planned. "We just can't be breaking down the door to enter a historical building," stated Fielden. Since Upper Merion Township requires any new building or remodel to have a box, it was a natural progression that the department would want the park to comply as well.

Deputy Chief Robert Tudzinski, King of Prussia Fire Company, Captain Jason Cole, Valley Forge Fire Company and Paula Risell, Supervisory US Park Ranger, Valley Forge National Park in front of the National Memorial Arch in Valley Forge National Park.

Valley Forge National Park is unique in that there are two fire companies that respond – Valley Forge Fire Company and King of Prussia Fire Company one of four agencies that are part of Upper Merion Township Fire and Rescue Services. "Due to the assets located at the site, it's automatic that two companies respond to all alarms. So, we installed dual key boxes. One is keyed to Upper Merion Township's system

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Editorial

This winter edition is packed with information to get you started on the right foot in 2007. As a reminder, Knox encourages all users of KeySecure 3 to update their firmware and software on a quarterly basis. These updates are available at no charge on our website – www.knoxbox.com.
The Knox newsletter is the fire departments voice as well as ours. If you would like to share how your department has solved issues by instituting the Knox program, or if you have some valuable pointers for departments just implementing the system, lets spread the word in the newsletter. Please contact me at 800.552.5669 ext 505 or cjones@knoxbox.com.

Cynthia Jones

Requesting More Master Keys

In line with Knox key security policies, fire department requests for more master keys must be written on department letterhead, signed by an authorized signer and mailed to the Knox Company.

Please mail the original letter when making key requests. We cannot accept faxes or copies when you are requesting keys. In addition, keys are shipped to your department's physical address via FedEx and require a signature acknowledging receipt. Please provide your street address rather than a post office box.

Thank you for helping us maintain Knox® Master Key security.

KeySecure 3 Software Updates

Keeping your KeySecure® 3 system updated will help to maintain worry free operation. The Knox Company recommends you check the Knox website for updates quarterly. If you have not updated the KeySecure Software or Firmware in the past 3 months, Knox strongly encourages you to update your programs at this time.

If you have any questions regarding this process, please call 1-866-566-9269 for technical assistance.

RAPID ACCESS

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Up to Code in University Heights

Over 20 years ago University Heights, Ohio first implemented the Knox Rapid Entry System. "We've been requiring a key box by ordinance since 1997. The key box the city requires is the Knox-Box. All new buildings are predicated on knowing they have to get a Knox-Box prior to obtaining an occupancy permit," Captain Steve Ineman stated.

University Heights based their local ordinance on the Ohio State Fire Code. "In September of 2005, the city adopted the 2003 International Fire Code in an "Ohioized" format. Section 506.1 of the new Ohio Fire Code requires a key box to be installed in an approved location to gain necessary access as required by the code official," Captain Ineman explained.

University Square Mall, a property located within the community, initially had some concerns regarding the security of the master key. This concern led University Heights to install KeySecure® Master Key Retention Units in each apparatus. "We wanted to tighten up the security for our master key so we installed KeySecure Master Key Retention Units in each apparatus. To release the key, the firefighter must enter a PIN code. After the key is released, a blue strobe light flashes inside the cab until the key is replaced. It reminds the guys to return the key and not put it in their pocket and accidentally take it home and lose it," Captain Ineman said. "This (KeySecure) really simplified it for us. We've never lost a key."

Recently, University Heights began implementing the Knox FDC plugs. "We require both the boxes as well as the Knox plugs," Captain Ineman stated. The requirement for plugs is backed up by the Ohio Fire Code, Section 907.3.7.1. Again, the Ohio Fire code has a provision allowing jurisdictions to require locking plugs. "The only pre-condition is that the fire department have a key wrench available on their apparatus, which of course we do," shared Captain Ineman.

University Heights firefighters drilling with Metro Life Flight. From left to right, with the radio, Lt. Brian Phan, firefighters, Mat Matlak, Mike Ceraolo, Tom Hren, Douglas Robinson, Paul Nees, Captain Posipanka, and Captain Steve Ineman.

"We started the FDC program because there were a few problems with people tampering with the fire connections. It was mostly kids throwing pop cans and wads of paper into the connections. One of the most important things when we respond to a fire is to make sure we have a working FDC so that we can pump water into the building for the standpipes or sprinkler systems. We don't want to take any chances that they won't work. So, the plugs have worked out nicely," explained Captain Ineman. With the locking plugs, kids can no longer put cans or paper into the connections.

University Heights worked with Knox to make sure the Knox plugs were the correct thread pattern for their jurisdiction. "Knox asked us to send in a connection, both the male and female ends, so they could engineer the plugs to make sure the thread pattern Knox makes (for University Heights' jurisdiction) matches our threads so that all the plugs would fit," Ineman stated.

Installing the FDC plugs had an added benefit. University Heights discovered some of the FDCs in their jurisdiction were the wrong thread pattern. "We found some Knox plugs wouldn't fit in the FDCs we had here. In particular, we had one apartment complex where our hoses didn't fit on to the connections. The Knox plug kind of fit but it was very loose. We found out that the connection was the National Standard and not the Cleveland standard thread," Captain Ineman explained.

While University Heights has standardized on the Cleveland standard thread pattern in their jurisdiction, there are literally hundreds of different thread patterns available in the US. As far back as 1905, the National Bureau of Statistics recorded more than 600 different sizes and patterns of connections in the US. Today, it's not unheard of for a connection with the wrong thread pattern to be installed inadvertently in a jurisdiction. It has happened in jurisdictions all across the US.

With the Knox plug, University Heights is able to check the thread pattern when a plug is installed. All Knox plugs have the thread size engraved on the backside of the plug. If a plug does not fit, first check the thread size engraved on the backside. If the thread size is the department's standardized thread pattern, then the actual FDC connection is wrong.

"It's nice to know that there are no impediments in the standpipes because we have the locking plugs in place. That's a great thing for us. As long as we have a keywrench on the apparatus, we can require the locking plugs per the fire code," Ineman said.

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Retrofitting: Keeping Pace in a Changing World

The landscape of American cities is changing. Urban sprawl is still alive and well. According to *Newsweek*, drive times and distance commutes are up over 50% since 1990. In many of the great cities of the country, companies are moving to the suburbs to accommodate a workforce that is moving away from town, resulting in tall status buildings that are not meeting occupancy expectations. Some planners refer to these once vibrant downtown areas as "economic ghost towns", where there is little or no foot traffic, nightlife, shopping, or other activities associated with the traditional urban center.

The push to the suburbs and country is resulting in a paving over of our agricultural and wilderness areas each year in an area greater than the state of Rhode Island.

The move to the suburbs has left thousands of buildings across America, that with a little remodeling and retrofitting, would make a great start up or relocation facility. A manufacturing facility that might be looking at a two-three year new construction project timeline can retrofit and move into an existing building in less than six months. Estimates from the construction industry suggest that the costs to retrofit and completely remodel an older building can cost up to 70% less than acquiring land, developing the site, and building a new structure.

There are also significant efforts to increase the structural integrity and overall fire safety of existing buildings and associated infrastructure by governments in every state. The City of Chicago recently supported an initiative to retrofit fire sprinklers to all of the public housing facilities in the city along with the Cook County Administration Building, making them both safer and extending their useful life expectancy. In Seattle, King County officials are implementing a plan that will spend millions to make seismic retrofits to county buildings, while the Washington State Department of Transportation announced in December 2006 that crews had completed work to retrofit bridge columns in Seattle to better withstand earthquakes.

The City of Chicago recently supported an initiative to retrofit fire sprinklers to all of the public housing facilities in the city along with the Cook County Administration Building, making them both safer and extending their useful life expectancy.

The trend towards retrofitting existing structures is proving to be very positive. The impact on economic development is generally positive. Programs like FEMA's Project Impact have had a positive affect in assisting communities retrofit structures to make them more resistant to natural disasters. Federal programs that award Community Development Block Grants or create Enterprise Zones are bringing small high tech businesses back to the inner city.

What is a Retrofit Program?

In terms of fire and life safety a retrofit program is an attempt by a community to raise the level of safety and survivability of occupants and residents by requiring that older existing structures make modifications and additions that bring the structure to the same level of protection it would be in if it were a new construction project. Retrofitting existing buildings may come in many forms. What was once a small vacant office building on the edge of the central business district is now a sprinklered upscale condominium with a gated subterranean parking garage. This is important to fire officials because changes in occupancies will result in various additional fire prevention systems, including alarms, additional exiting requirements and enhanced inspection protocols.

Historical Perspective of Retrofitting

In the long history of fire prevention and protection in America, there have been many occasions where fire and life safety officials have taken major steps to enhance the level of survivability of occupants in a fire scenario by requiring that business owners make substantial changes to existing structures and occupancies. Unfortunately, most of these changes have come as a result of catastrophic high-fatality fires that prompted a public outcry. Some fire officials will say that they do not have the authority to require these changes to older, existing structures. History does not support this position. In many cases these officials are just one major incident away from being forced to make major changes. The *Nursing Home Fire Safety Act of 2006* is one such piece of legislation. The bill, introduced in Congress in June 2006, in response to studies by NFPA and others, aims to offer grants and other aid to retrofit automatic fire sprinklers into all nursing facilities within five years. Another example is the *Hotel and Motel Fire Safety Act of 1990*. This Act was intended to save lives and protect property by promoting fire and life safety in hotels, motels and other places of public accommodation. This act also has additional broader reaching requirements. It mandates that federal employees on travel must both stay in, or attend federally funded meetings in, facilities that are fully compliant with the Act. It is applicable to all places of public accommodation, and requires that properties are equipped with both smoke detectors and automatic fire

sprinklers in guest rooms. These examples illustrate the value of proactive retrofitting and remind everyone associated with fire prevention and life safety that we must recognize changing trends and work to make occupancies safer and more survivable. Just passing legislation geared toward retrofitting fire prevention components is not enough. It takes a concerted effort at every level from the elected officials, the design team, to the individual inspector that ensures compliance to make retroactive changes meaningful. Professional Engineer and former FDNY chief, Samuel Cahan, in an article in Occupational Health and Safety Magazine, summed it up this way "Legislation alone can't address all fire protection problems. Even good, built-in fire protection can be nullified by human apathy."

SOLUTIONS

The model fire and building codes have had a long tradition of requiring life and fire safety retrofits on all type structures. While the model code organizations attempt to be non-intrusive, they have historically required that buildings be retrofit with updated systems if there are substantial changes to the structure or occupancy classification. Provisions in the model codes can also effectively be enforced to bring "existing" structures up to the same level of protection and not let them opt out simply because they have been there for years. Things to consider:

- ***Are you reviewing construction plans for major renovations?***

In some cities, the Building Official will not see the need to run plans by the fire department because most of the infrastructure that the fire department is concerned about, i.e. hydrants; fire lanes are already in place. Additionally, in some cases, state owned buildings like health care facilities, half-way houses or state universities fall under the jurisdiction of the State Fire Marshal and are exempt from local governmental control. These type renovation projects may include fire sprinklers or alarm systems.

- ***Do you require that all buildings meet the same standard?***

In some cities, older established occupancies are allowed to opt out of programs designed to enhance fire safety because they were built in compliance with the existing codes of that time and the government does not want to appear overbearing and unreasonable. Given the challenges fire departments face coupled with new technologies that can save lives and protect first responders it might be better to implement a long term program to achieve uniformity. Statistically, the older buildings are more likely to have a fire because of older wiring and heating systems.

- ***Do your responding Engine companies have input as to unique needs?***

Virtually everything related to fire prevention has the interests of the responding crews at its core. If prevention programs do not have the support of first responders and do not fully meet their requirements, they must be adjusted. The crews need to be part of both the program and the process. Look for ways to utilize them. They are the ones that benefit most from the programs, and they are also the only ones that really know the unique needs of their individual districts.

The movement toward retrofitting existing buildings is on the rise. If the booming economy of the past few years slows down as some economists predict, the concept of remodeling and retrofitting older existing structures will look even more economically attractive. The trend of retrofitting existing structures is not a bad thing. In most cases, the changes are making the buildings safer while reducing potential fire loss. The impact on economic development is generally positive. Simple legislation alone will not necessarily save lives. It takes a commitment at every level to make the changes meaningful and lasting. As fire officials, you have to stay current on what is happening in your particular community. As your community changes, so will your needs. Take a look at your jurisdiction and evaluate your current and potential needs and develop long-term meaningful strategies to meet emerging needs.

Protecting a National Treasure

Continued from page 1

while the second is keyed to the Valley Forge Fire Company. Initially, we discussed installing two separate boxes but the dual key box was the best solution for this situation. With the boxes, we are able to respond immediately. We do not have to wait for someone from the park to arrive," Fielden explained.

Paula Risell, Supervisory U.S. Park Ranger, accessing a 4400.

There are three main clusters of buildings along with 18 private residences located within Valley Forge National Historical Park. The three main clusters include the Welcome Center complex consisting of 5 buildings and the George Washington complex that consists of 6 buildings. These two clusters are regularly visited by tourists. The third cluster is the maintenance complex of 10 buildings. Additionally, there are 18 private residences located within the park for park personnel.

"Due to the historical nature of the buildings, we could not mount the boxes directly on the structures. So, they put posts in and mounted the box to the post," Fielden further elaborated. Since the boxes were installed at a historical site, archeological and historical experts had to approve the installation. Additionally, they also had to be present when the boxes were installed in the event any items of a historical nature were unearthed. Since the buildings within the park are clustered into three main groups, the park decided to locate a box near each complex entrance. All the keys and any other important information regarding that particular complex, is enclosed in the box.

As with many national parks, many of the roads have limited access. "There are some gate access points that are secured at night. Each gate actually has 3 locks on it - two Knox locks and the park's lock. One Knox padlock is keyed to Valley Forge Fire Company. The second Knox padlock is keyed to Upper Merion Fire's system. The third padlock is the park's own lock.

To enhance the security of their Knox System, Upper Merion has installed KeySecure Master Key Retention Units in their apparatus. "As new fire and EMS units are purchased, we install the KeySecure units. Due to the hills in the area, we had to go with the unit that allowed keypad entry rather than dispatch," Fielden shared. To release the key, an authorized user is able to enter his PIN code and have the key released. While dispatch is not authorizing each key release, they are able to review who is releasing the key by downloading the audit trail.

In addition to Valley Forge National Park, Upper Merion Fire serves a diverse community with a mixture of manufacturing facilities, retail establishments, residential areas, several major highways and the world's largest mall by retail space, King of Prussia Mall. Upper Merion has three fire companies and one EMS unit.

Up to Code

Continued from page 3

"The new fire code says this requirement can be retro-active. We are going back to businesses that we may not have approached earlier. With the support of the fire code we're saying we want this now. We haven't had any problems with businesses complying with the fire department requests. I can't think of any business owner who said no to the Knox System," Ineman shared.

In the years since the University Heights Fire Department first implemented the Knox Rapid Entry System, the department has found many benefits to having the system in their community. "It's safety. We're able to get into a building in the middle of the night when no one is there. We don't have to break down a door or plate glass window. It just makes it much easier to investigate a fire," commented Captain Ineman.

"University Heights is located near University Circle, the medical and cultural hub of Cleveland. The world renowned Cleveland Clinic, University Hospital, Cleveland Museum of Art, Severance Hall - home of the Cleveland Orchestra, Case Western Reserve University, and of course, last but not least, John Carroll University; where Don Shula starred. University Heights is a diverse city with residents representing thirty-five cultures and nineteen second languages. It's a true mosaic of cultures," shared Captain Ineman.

Steve Ineman installing an FDC plug.

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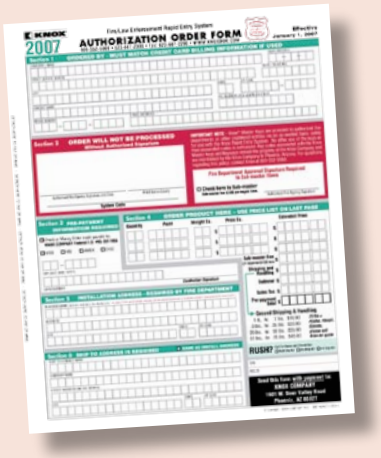
KNOX NEWS

2007 Tradeshow Schedule

VA Fire Chiefs	Virginia Beach	VA	February 22-25
Washington State Fire Training	Wenatchee	WA	February 27
Firehouse World	San Diego	CA	February 27-March 1
GA Fire Chiefs	St Simons Island	GA	March 8-11
Maine Fire Chiefs	Augusta	ME	March 12-13
California Fire Prevention Institute (CFPI)	Buellton	CA	March 12-16
Southwest Fire Rescue	Austin	TX	March 17-22

2007 Authorization Order Forms



A small supply of the 2007 Authorization Order Forms was mailed to each registered fire department in December 2006. We appreciate your diligence in making sure that only the newly formatted 2007 order forms are being used and that all previous years forms have been discarded.

If you have not received your supply or you need additional quantities, please call Knox at 800.552.5669.

The Key to a Secure System

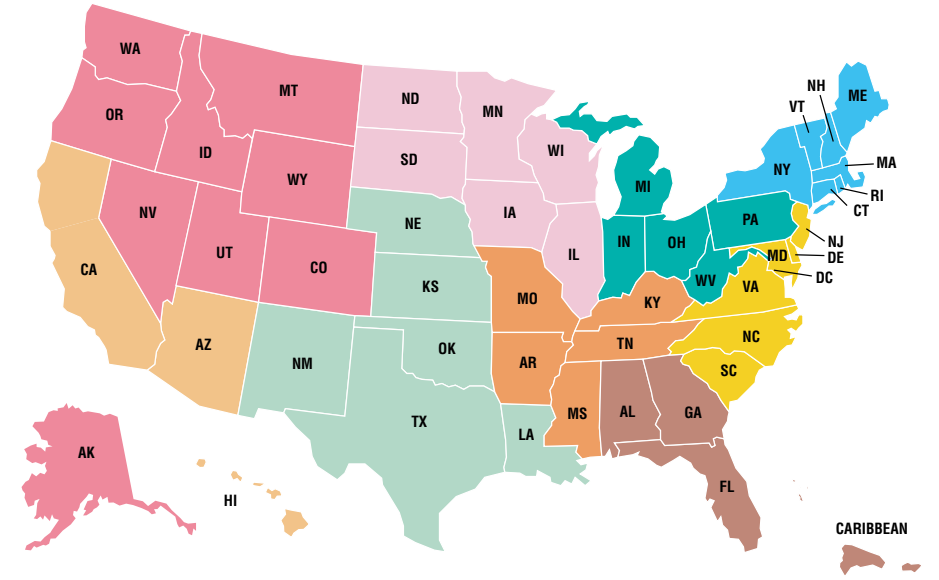
Knox System security is always important. Protecting the Knox® Master Key and documents listing installation addresses helps ensure that the Knox System is solely for the benefit of your department.

The four security steps listed below are the ways your department contributes to the security of the Knox program in your community. Thank you for following these simple yet important rules.

1. **Keep all Knox keys in a secure place.**
2. **Do not release the Knox provided keys to any non fire department or law enforcement personnel.**
3. **Do not provide Knox installation database access to any non fire department or law enforcement personnel unless required by law.**
4. **Notify Knox immediately of loss, theft or attempted duplication of any key.**

What's NEW at KNOX

To better serve our customers, Knox is pleased to announce the expansion and realignment of our territory coverage. Virginia Cardwell recently joined the Knox Company and will serve the new Southern Territory that includes the states of Kentucky, Missouri, Arkansas, Tennessee, and Mississippi. Virginia is based out of Memphis, Tennessee. The Southwest Territory has been realigned to include the states of New Mexico, Nebraska, Kansas, Texas, Oklahoma, and Louisiana and will continue to be served by Rebecca Heller. A new territory map is shown below.



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Central Territory
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Northeast Territory
JON KEMP

Western Territory
MARLENE BRIONES

North Central Territory
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Atlantic Territory
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