

Fire Marshal's
Office**Electronic Locking Arrangement Checklist (2020)**

Job Name: _____
 Address: _____ Bldg: _____ Suite: _____
 City: _____ Zip: _____
 Responsible Party: _____ Phone: _____
 Company: _____ Building Permit #: _____
 Occupancy Type _____ Number of Floors: _____
 Fire Alarm System Present Y ☐ N ☐ Sprinkler System Present Y ☐ N ☐

✓ = Pass, X = Fail, NA = Not applicable/Existing **Status****PAPERWORK REQUIREMENTS**

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| 1) Provide a floor plan showing all lock locations and identify what lock arrangement is proposed | |
| 2) Provide the equipment technical data sheets showing equipment is UL 294 listed and a scope of work letter. Electronic locks require a scope of operations letter when installed in a rated wall to identify positive latching will remain in all conditions. | |
| 3) Buildings equipped with a fire alarm and/or sprinkler system require a Knox brand key switch to provide access to the restricted or secured areas [IFC 506.1] | |
| 4) After completion, provide a code compliance letter on the installer's letterhead with the following:
a) Job name, address, bldg #, suite #
b) Installation meets the requirements of the Life Safety Code- NFPA 101 (2018 edition)
c) Installation meets all requirements of the manufacturer's specifications
d) All equipment is UL 294 listed
e) Activation of the fire alarm and/or fire sprinkler deactivates the lock | |

DELAYED EGRESS – NFPA 101 (2018) Section 7.2.1.6.1.1

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| 5) The door leaves shall unlock in the direction of egress upon actuation of one of the following: activation of sprinkler, not more than one heat detector where a heat detection system is provided or not more than two smoke detectors of the fire alarm system where a smoke detection system is provided. | |
| 6) The door leaves shall unlock in the direction of egress upon loss of power | |
| 7) An irreversible process shall release the lock in the direction of egress within 15 seconds upon application of a force to the latch or other fastening device under all the following conditions:
a) The force shall not be required to exceed 15 foot-pounds
b) The force shall not be required to be continuously applied for more than 3 seconds
c) The initiation of the release process shall activate an audible signal near the door opening
d) Once the lock has been released by the application of force to the releasing device, relocking shall be by manual means only. Push to exit buttons are not allowed to reactivate the system. | |
| 8) Install a sign, letters a minimum of 1 in. high and a minimum 1/8 in. in stroke width on a contrasting background, on the door to the releasing device in the direction of egress that reads: PUSH/PULL UNTIL ALARM SOUNDS DOOR CAN BE OPENED IN 15 SECONDS | |
| 9) The egress side of doors shall be provided with emergency lighting | |

SENSOR-RELEASE ELECTRONIC LOCKING– NFPA 101 Section 7.2.1.6.2

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| 10) A sensor on the egress side, unlocks the door upon detection of an occupant | |
| 11) Door automatically unlocks in the direction of egress upon loss of power to the sensor or to the part of the access control system that locks the door leaves | |
| 12) Door locks shall unlock in the direction of egress from a manual release device as follows:
a) The manual release device shall be located on the egress side, 40 in. to 48 in. vertically above the floor, and within 60 in. of the secured door openings
b) The manual release device shall be readily accessible and clearly identified by a sign that reads: PUSH TO EXIT. Pull stations are not allowed in lieu of a push to exit device
c) When operated, the manual release device shall result in direct interruption of power to the lock, independent of the locking system, and remain unlocked for a minimum of 30 seconds | |
| 13) Activation of the building fire detection system or sprinkler system, shall automatically unlock the doors in the direction of egress, and the door leaves shall remain unlocked until the system is manually reset. | |
| 14) The egress side of access-controlled egress doors are provided with emergency lighting | |

Locks not classified as Delayed Egress or Sensor-Release

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| 15) Door hardware in a rated wall is required to be positive latching. Details are required to verify compliance in all conditions for electronic locks within a rated wall regardless of the type of lock. | |
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¹ The above is not an all-inclusive list, all applicable codes for fire alarm systems must be met

Inspector: _____

Date: _____

DOC: Special Locking Arrangement - 2/10/2020

7.2.1.6.1 Delayed-Egress Locking Systems.

7.2.1.6.1.1 Approved, listed, delayed-egress locking systems shall be permitted to be installed on door assemblies serving low and ordinary hazard contents in buildings protected throughout by an approved, supervised automatic fire detection system in accordance with Section 9.6 or an approved, supervised automatic sprinkler system in accordance with Section 9.7, and where permitted in Chapters 11 through 43, provided that all of the following criteria are met:

- (1) The door leaves shall unlock in the direction of egress upon actuation of one of the following:
 - (a) Approved, supervised automatic sprinkler system in accordance with Section 9.7
 - (b) Not more than one heat detector of an approved, supervised automatic fire detection system in accordance with Section 9.6
 - (c) Not more than two smoke detectors of an approved, supervised automatic fire detection system in accordance with Section 9.6
- (2) The door leaves shall unlock in the direction of egress upon loss of power controlling the lock or locking mechanism.
- (3)*An irreversible process shall release the lock in the direction of egress within 15 seconds, or 30 seconds where approved by the authority having jurisdiction, upon application of a force to the release device required in 7.2.1.5.10 under all of the following conditions:
 - (a) The force shall not be required to exceed 15 lbf (67 N).
 - (b) The force shall not be required to be continuously applied for more than 3 seconds.
 - (c) The initiation of the release process shall activate an audible signal in the vicinity of the door opening.
 - (d) Once the lock has been released by the application of force to the releasing device, relocking shall be by manual means only.
- (4)*A readily visible, durable sign in letters not less than 1 in. (25 mm) high and not less than 1/8 in. (3.2 mm) in stroke width on a contrasting background that reads as follows shall be located on the door leaf adjacent to the release device in the direction of egress:

PUSH UNTIL ALARM SOUNDS
DOOR CAN BE OPENED IN 15 SECONDS
- (5) The egress side of doors equipped with delayed-egress locks shall be provided with emergency lighting in accordance with Section 7.9.

7.2.1.6.1.2 The provisions of 7.2.1.6.2 for access-controlled egress door assemblies shall not apply to door assemblies with delayed-egress locking systems.

7.2.1.6.2* **Access-Controlled Egress Door Assemblies.** Where permitted in Chapters 11 through 43, door assemblies in the means of egress shall be permitted to be equipped with electrical lock hardware that prevents egress, provided that all of the following criteria are met:

- (1) A sensor shall be provided on the egress side, arranged to unlock the door leaf in the direction of egress upon detection of an approaching occupant.
- (2) Door leaves shall automatically unlock in the direction of egress upon loss of power to the sensor or to the part of the access control system that locks the door leaves.
- (3) Door locks shall be arranged to unlock in the direction of egress from a manual release device complying with all of the following criteria:
 - (a) The manual release device shall be located on the egress side, 40 in. to 48 in. (1015 mm to 1220 mm) vertically above the floor, and within 60 in. (1525 mm) of the secured door openings.
 - (b) The manual release device shall be readily accessible and clearly identified by a sign that reads as follows:

PUSH TO EXIT.
 - (c) When operated, the manual release device shall result in direct interruption of power to the lock - independent of the locking system electronics - and the lock shall remain unlocked for not less than 30 seconds.
- (4) Activation of the building fire-protective signaling system, if provided, shall automatically unlock the door leaves in the direction of egress, and the door leaves shall remain unlocked until the fire-protective signaling system has been manually reset.
- (5) The activation of manual fire alarm boxes that activate the building fire-protective signaling system specified in 7.2.1.6.2(4) shall not be required to unlock the door leaves.
- (6) Activation of the building automatic sprinkler or fire detection system, if provided, shall automatically unlock the door leaves in the direction of egress, and the door leaves shall remain unlocked until the fire-protective signaling

system has been manually reset.

(7) The egress side of access-controlled egress doors, other than existing access-controlled egress doors, shall be provided with emergency lighting in accordance with Section 7.9.

7.2.1.5.6 **Electrically Controlled Egress Door Assemblies.** Door assemblies in the means of egress shall be permitted to be electrically locked if equipped with approved, listed hardware, provided that all of the following conditions are met:

- (1) The hardware for occupant release of the lock is affixed to the door leaf.
- (2) The hardware has an obvious method of operation that is readily operated in the direction of egress.
- (3) The hardware is capable of being operated with one hand in the direction of egress.
- (4) Operation of the hardware interrupts the power supply directly to the electric lock and unlocks the door assembly in the direction of egress.
- (5)*Loss of power to the listed releasing hardware automatically unlocks the door assembly in the direction of egress.
- (6) Hardware for new installations is listed in accordance with ANSI/UL 294, *Standard for Access Control System Units*.

7.2.1.5.8* Every door assembly in a stair enclosure serving more than four stories, unless permitted by 7.2.1.5.8.2, shall meet one of the following conditions:

- (1) Re-entry from the stair enclosure to the interior of the building shall be provided.
- (2) An automatic release that is actuated with the initiation of the building fire alarm system shall be provided to unlock all stair enclosure door assemblies to allow re-entry.
- (3) Selected re-entry shall be provided in accordance with 7.2.1.5.8.1.

7.2.1.5.8.1 Door assemblies on stair enclosures shall be permitted to be equipped with hardware that prevents re-entry into the interior of the building, provided that all of the following criteria are met:

- (1) There shall be not less than two levels where it is possible to leave the stair enclosure to access another exit.
- (2) There shall be not more than four stories intervening between stories where it is possible to leave the stair enclosure to access another exit.
- (3) Re-entry shall be possible on the top story or next-to-top story served by the stair enclosure, and such story shall allow access to another exit.
- (4) Door assemblies allowing re-entry shall be identified as such on the stair side of the door leaf.
- (5) Door assemblies not allowing re-entry shall be provided with a sign on the stair side indicating the location of the nearest door opening, in each direction of travel, that allows re-entry or exit.

Occupancy Requirements:

Assembly	12.2.2.2.5 - Delayed Egress Ok
	12.2.2.2.6 - Access control Ok - with Conditions
Business	38.2.2.2.5 - Delayed egress Ok
	38.2.2.2.6 - Access control Ok
Education	14.2.2.2.3.1 - Delayed Egress Ok
	14.2.2.2.3.2 - Access control Ok
Hotel	28.2.2.2.2.2 - Delayed Egress Ok - not more than one
	28.2.2.2.2.3 - Access control Ok
Mercantile	36.2.2.2.5 - Delayed egress Ok
	36.2.2.2.6 - Access control Ok - FA or Spk required
Apartment	30.2.2.2.2.2 - Delayed Egress Ok - not more than one
	30.2.2.2.2.3 - Access control Ok