



Celina Fire Department

1413 S. Preston Road, Celina, TX 75009 972-382-2653

Automatic Access Gates

PERMIT FEE \$150 per gate. The plans may be forwarded to a third party plan reviewer. If so, the contractor will be notified of the plan reviewer and the cost for plan review.

Emergency vehicle access onto properties that are equipped with automatic security gates or vehicle access/egress gates installed across required fire lanes shall follow these guidelines. Each gate requires a separate permit.

GENERAL NOTES

- A **separate** fire permit is required for each automatic gate. (An approved site plan **is not** a permit.)
- Gate motor shall be the type that the drive gear disengages on power failure.
- The City approved Knox® key switch (KS2) shall be used for 24-hour Fire Department access. The emergency key switch, when activated, shall by-pass any occupant control and/or loop systems. When activated, the gate will remain in the open position until de-activated by the Fire Department.
- Only when deactivated will the gate resume normal operation.
- The key switch shall open both the entrance and exit gates when gates are in close proximity to each other.
- The Knox® key switch shall be mounted 5 ½ feet above grade. (*Location Shown on Plan*)
- The key switch shall be located below a sign labeled "FD ACCESS". (*See Figure 2 - Fire Department Sign Specifications*)
- The minimum clear opening width shall not be less than the width of the required fire lane or access drive. The gate and/or its components shall not encroach on the minimum fire lane width (24-feet or 26-feet) and the minimum unobstructed height of 14 feet shall be maintained.
- Gate operator(s) shall open at a rate of one foot per second. Parking barrier arms will open or clear in approximately two seconds.
- The primary drive gate type that may be installed across fire lanes shall be the sliding type.
- In the event of power failure the gate shall open freely. It shall be capable of being opened manually by one person of average stature.
- Gate systems shall comply with UL 325 and ASTM F 2200

Primary or Main Gate

- Primary gate is defined as the drive or access point(s) designed as a primary point of ingress/egress for emergency vehicles.
- Gate signage shall comply with *Fire Department Sign Specifications*
- The following access systems shall be installed on all Primary Gates:
 - Opticom receiver switches
 - KS2 Knox® Switches
 - Electrical Disconnect
 - Red Emergency Activation strobe



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Automatic Secondary Gates (including Main Gates to Storage Facilities)

- A Secondary Gate is the drive or access point designed as a secondary or back-up means of ingress/egress for emergency vehicles.
- The following access systems shall be installed on all Secondary Gates:
 - KS2 Knox® Switches
 - Electrical Disconnect
 - Red Emergency Activation Strobe Light
 - "Exit Only Sign" (see illustrations below, must meet Fire Department Sign Specifications)

Pedestrian Gate

- Pedestrian gates shall open fully with a minimum clear span of 48 inches and be provided with a latch or other means of securing them in the open position. Automated pedestrian gates shall open freely upon loss of power. When required by the Fire Marshal, one or multiple pedestrian gates shall be released by a Knox Lock or by a key switch mounted in an approved box.

SYSTEM ACCESS COMPONENTS

Opticom Receiver

- Shall be mounted 8 to 10 feet from grade.
- Shall be located behind the access gate (property side).
- Shall be mounted on a 4"x 4" metal post, not on guidepost, and shall be cemented 18" below grade.
- Detectors shall activate 150-feet from gate.
- Each gate shall have two individual detectors or an approved Tomar dual strobe switch.
- Detectors shall point toward the **APPROACH** and **EXIT** path of the emergency vehicle.
- Detectors' sight path shall be free of visual obstructions such as signs, covered parking canopies, and vegetation.
- Individual detectors shall be mounted together with the power module in a dual detector mounting box, or with an approved Tomar dual strobe switch. *Three head detector shall be used for 90 degree turning layouts.*

Knox® Series 3500 Key Switch

- Knox® key switches shall be provided as a manual backup.
- The entrance Knox® switch shall be located above the property's keypad, 5 ½ feet from grade.
- The exit Knox® switch shall be located on the 4"x 4" preemption post, **recessed** 5 ½ feet from grade with the detectors.



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- Upon activation of the key switch, the affected gate shall automatically open to a locked open and disabled condition. The system will require manual reset to close the gates after emergency activation.
- A sign identifying "FD ACCESS" shall be mounted above the KS2 Switch. *See Fire Department Sign Specification Guide.*

Red Emergency Activation Strobe

- All automated gates must also be equipped with one flasher unit and one external lamp assembly with a red globe and guard to be mounted separate from the enclosure.
- The light shall be visible from both sides of the gate; be mounted at the top of the fence within two (2) feet of the gate opening and flash upon the gate being activated by the Opticom system or key switch.
- The strobe shall continue to flash as long as the gate is being held open by the emergency access system.

Numbered Keypad

- Public safety access shall be installed at a readily accessible location at each automated drive gate for public safety personnel who may require entry in other emergencies.
- The numbers making up the code shall be determined by the Fire Marshal and shall be consistent on all gate systems installed throughout the City. The numbers shall not be changed unless ordered by a written, notarized directive from the Fire Marshal.

Electrical Disconnect

- The gate shall be opened by means of an electrical power disconnect switch in a weather proof box:
 - The box shall be red
 - The box shall be mounted on the entry side of the gate within five (5) feet of the gate
 - The box shall be at least five (5) inches high and five (5) inches wide
 - The box shall be clearly labeled "Fire Dept." in white letters one inch tall with one-quarter inch stroke
 - A Knox® padlock shall secure the box
 - The box must be clearly visible and accessible



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Electrical Equipment Protection

- All electrical equipment shall be protected from physical damage and weather by approved weather tight boxes or housings per NFPA 70.

Performance Test

- Gates and gate systems shall be tested by the Fire Marshal's Office upon completion of the installation.
- All Fire Department Signage must be in place prior to acceptance testing.
- Gates shall not be placed into operation until after acceptance test is approved.
- **Re-inspection fee** – If system is red tagged, there may be a re-inspection fee of **\$250 per re-inspection**.

EACH PLAN SUBMISSION SHALL INCLUDE:

- Celina Fire Department Permit Application.
- Site plan indicating the locations of all vehicle access gates.
- Type of gate to be used and a list or diagram of components shall be indicated at each location.
- Scope of Work.
- Manufacturer's Specification sheets.

NOTE: All signs must meet specifications as outlined in the Fire Department Sign Specifications

Figure 1: Property side of gate

Figure 2: Entrance diagram

Figure 3: Exit Only sign diagram with FD Access

Figure 4: Secondary Exit sign diagram with directional arrow to Main Gate

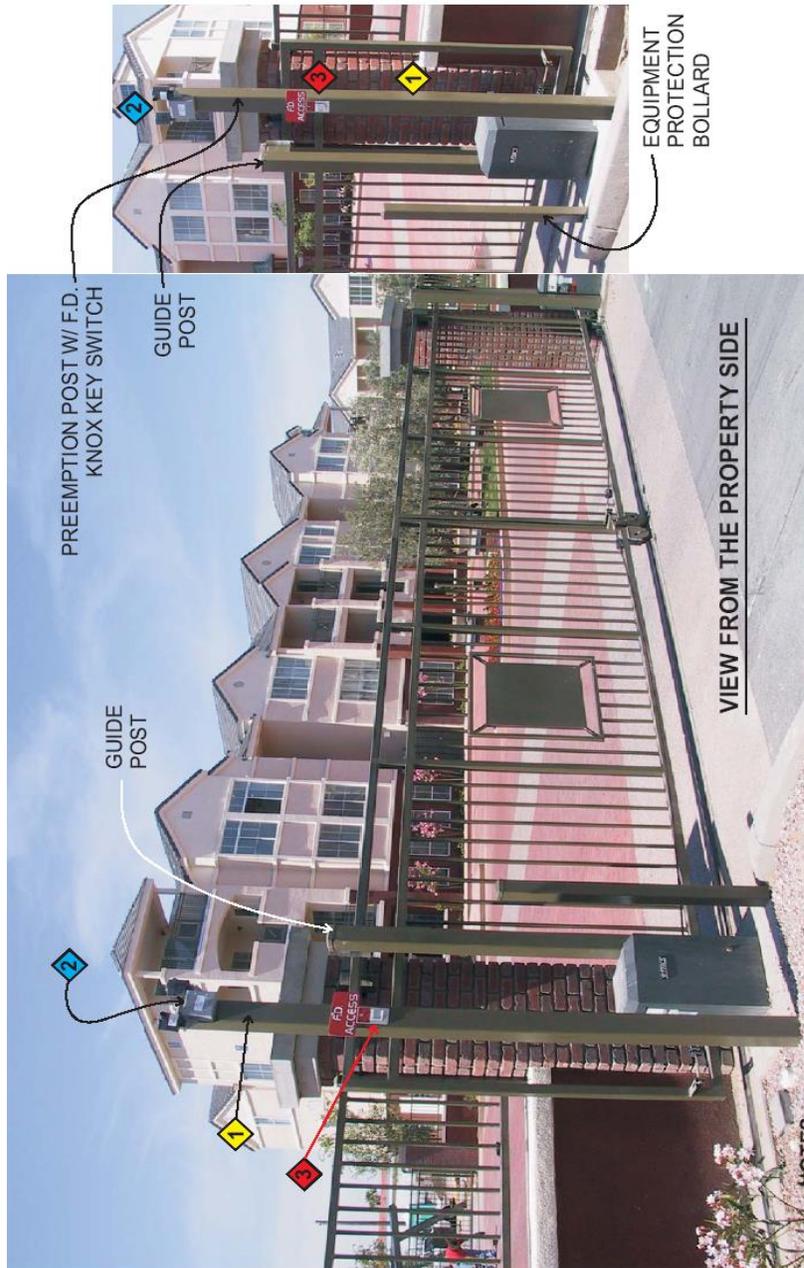


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Figure 1 - Property Side of Gate



NOTES:

- 1** DETECTORS SHALL BE MOUNTED ON 4" X 4" POST 8FT TO 10 FT FROM GRADE
- 2** FIRE DEPT. APPROVED DUAL STROBE SWITCH DETECTOR MODEL 2795-2
- 3** F.D. APPROVED KNOX KEY SWITCH MODEL #3502 FLUSH MOUNTED IN 4" X 4" POST

FRANK FIRE-RATE.COM

REQUIRES PERMIT

FIRE DEPARTMENT
MULTI FAMILY
PREEMPTED AUTOMATIC GATE
J. HERTZ Detail 7.0 AUG 2003

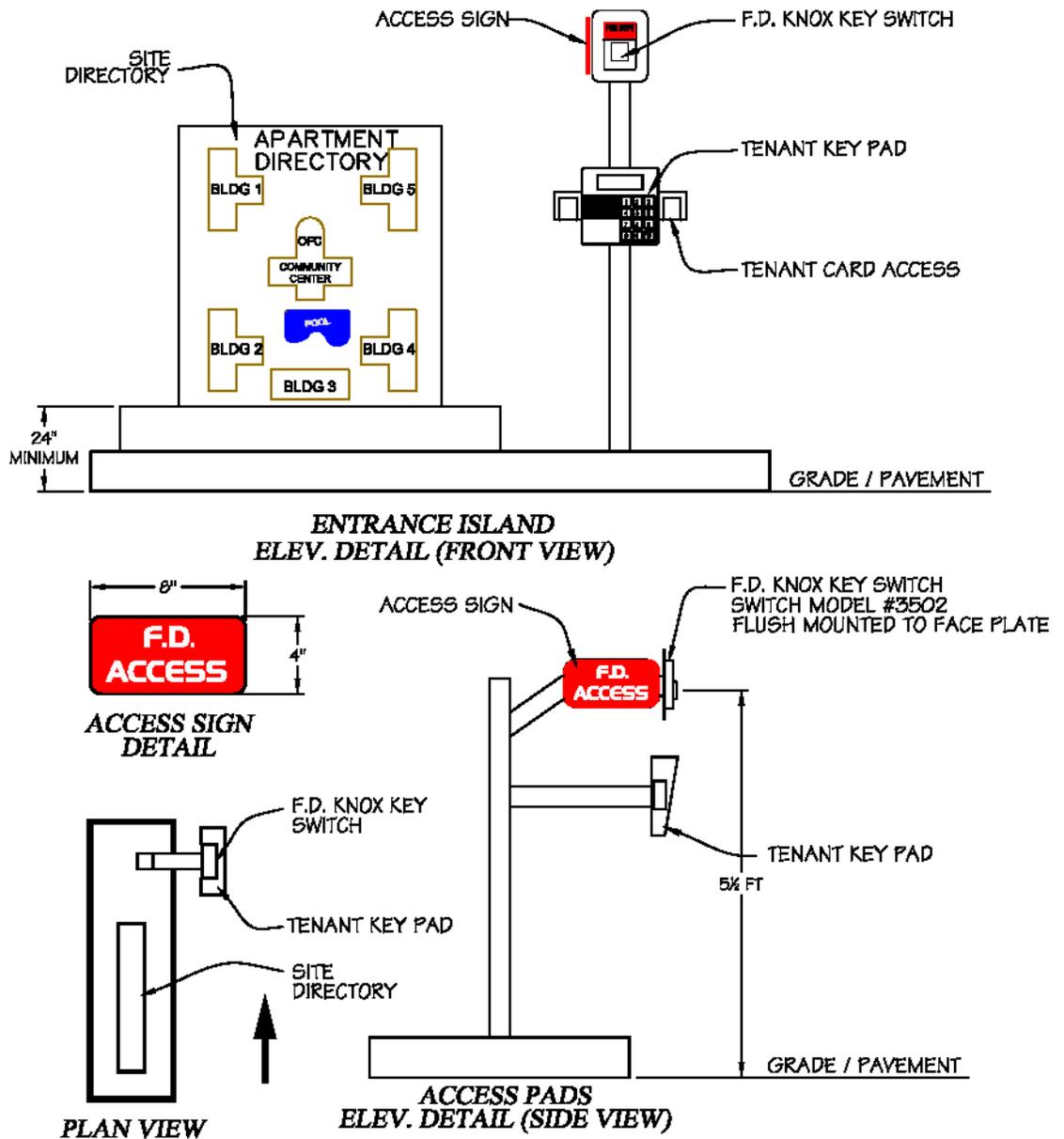


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Figure 2 - Entrance Diagram



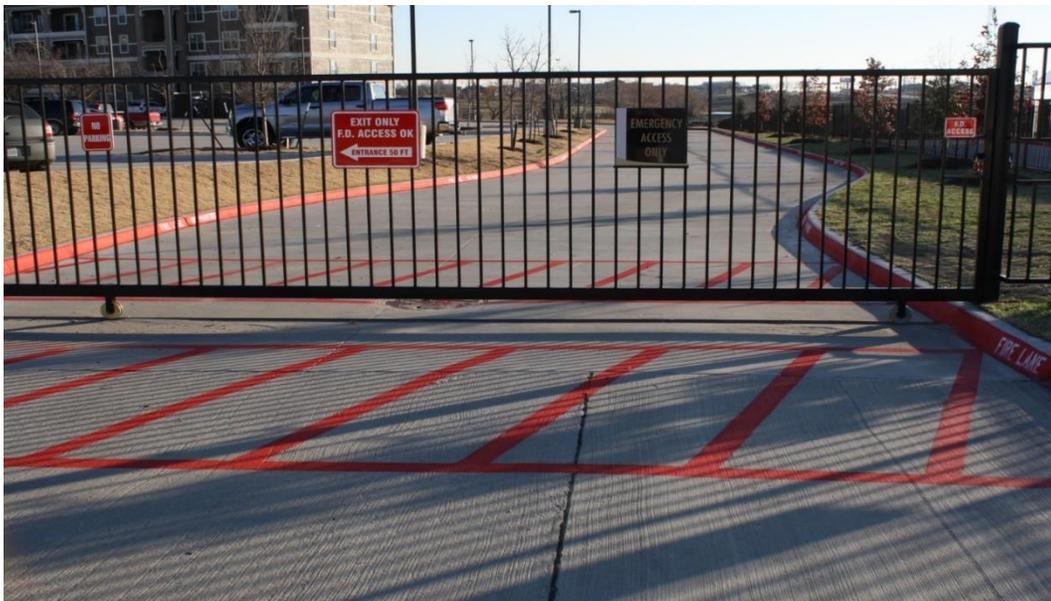
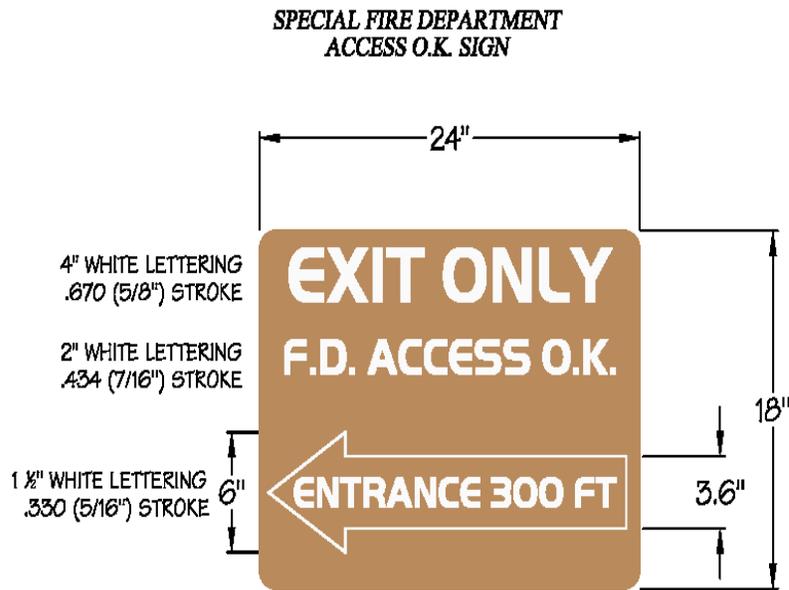


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Figure 3 - Exit Only Sign Diagram with FD Access





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Figure 4 – Secondary Exit Sign Diagram with Directional Arrow to Main Gate

