

# **CHAPTER 7**

## **AUTOMATIC GATES**

### **CONTENTS:**

- **Steps To Obtain Permits**
- **Installation Requirements**
- **Electrical Requirements**
- **Gate Construction**
- **Key Switch Placement And Installation**
- **Preemption**
- **Automatic Gate Signage**

### **PURPOSE:**

**Emergency responders need uniform and dependable access through gates to deliver prompt service to the community.**



## **STEPS TO OBTAIN AUTOMATIC VEHICLE ACCESS GATE PERMIT**

- ❑ Bring **two** sets of plans to City Hall (200 W. Washington), 2<sup>nd</sup> floor.
- ❑ Obtain “approved” Zoning stamp for plans at **Counter 6**
- ❑ Take the **two** sets of approved plans to the **Fire Plan Review Office** 10<sup>th</sup> floor.
- ❑ Complete the plan review application.
- ❑ Identify the number of gates to be installed.

- Provide name and address of property / owner.
- Provide name and address of the installing contractor.
- New contractors will need to provide the following 3 items:

State Contractors License(s) / State Privilege Number / City Privilege Number

- The owner may be listed as the contractor, on manual gates **ONLY**.
- ❑ After plan review is completed plans and permit(s) can be picked up at the Fire Prevention Office. At this time a minimum inspection fee will be collected.
- ❑ A **separate** Fire permit and electrical permit is required for each automatic gate. (An approved site plan **is not** a permit.)
- ❑ If applying for an automatic gate permit bring **two** sets of plans, after receiving Fire approval, to 2<sup>nd</sup> floor **Counter 5** for electrical and building safety review and permit. (See “Automatic Gate Electrical Requirements” for further information)
- ❑ Electrical green tag must be obtained for **GATE OPERATORS** prior to final gate inspection.
- ❑ Stamped, approved plans and permit must be on site for final inspection.

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## AUTOMATIC VEHICLE ACCESS GATE SPECIFIC PLAN REQUIREMENTS

- Site plans, showing street address, location of gate(s), orientation to streets, property line and point of compass. (North Arrow)



- Drawing to be to scale and include a graphic representation of the scale.
- Drawing should be legible and dedicated to the specific system being installed. (Vehicle Access Gates)
- Minimum of 20-foot wide, clear access opening on **ENTRANCE** and **EXIT** or a combined 24-foot wide 2 directional clear access opening.
- Forty-five (45) foot centerline radius on curves. (Fire Department may require additional width opening when a 45-foot fire apparatus turning radius cannot be met.)
- When road is over 300 feet, a twenty-five foot (50') vehicle passing point must be provided.
- A Fire Department approved Knox key switch is located 5½ feet above grade on **ENTRANCE** and **EXIT** side of gate.
- The entrance Knox switch shall be located above the residence's keypad, 5 ½ feet from grade
- The City of Phoenix approved Knox key switch shall be used for 24 hour Fire Department access. 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.
- Fire Department approved Knox key switch will open both the entrance and exit side of gate when activated.
- Fire Department approved Knox switch must bypass all free access loop systems.
- The key switch shall be located below the sign labeled "FD ACCESS". The sign shall be 8" X 4" with a thickness of .080 aluminum and with rounded corners. The sign face shall have a white 3M-diamond grade reflective sheeting (DG<sup>3</sup> 4090 series or equivalent) applied as a background to the aluminum plates. Lettering and graphics shall be one of the following:

- A. 3M Scotchlite acrylic, transparent, electronic cuttable film (red 1172 series) inverse cut to allow white reflective background to show through.
  - B. Screen-printed using 3M 880I or 880-00 series traffic sign red translucent ink.
  - ❑ Battery backup is installed on **ENTRANCE** and **EXIT** Gates.
  - ❑ Residential/Multifamily: Gate will open on battery backup during loss of power and remain open until the power is restored.
  - ❑ Commercial/Industrial: Properties remain closed until the emergency gate switch is activated, then open on battery backup.
  - ❑ Activated access gate shall open at a rate of one foot per second. Parking barrier arms will open or clear in approximately two seconds.
  - ❑ All multifamily housing developments, including single-family homes (5 or more), shall have preemption devices on each gate.
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## **REQUIREMENTS FOR PREEMPTION DEVICES**

**Preemption device shall be installed on ALL apartments, condominiums, town homes, garden homes, mobile home parks, and developments of five or more single-family homes constructed after January 1, 2001.**

- ❑ Detectors shall be mounted 8 to 10 feet from grade.
- ❑ Detectors shall be located behind the access gate (property side).
- ❑ Detectors shall be mounted on a 4"x 4" metal post, not on guidepost.
- ❑ Post shall be cemented 18" below grade.
- ❑ Detectors shall activate 150 ft from gate.
- ❑ Each gate shall have two individual detectors or an approved Tomar dual strobe switch, model 2795-2.
- ❑ 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 strobeswitch, model 2795-2.
- Knox key switches shall still be provided as a manual backup.
- The entrance Knox switch shall be located above the residence'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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## **AUTOMATIC VEHICLE ACCESS GATE ELECTRICAL REQUIREMENTS**

- Obtain electrical permit from the City of Phoenix, Development Services Department, 200 W. Washington Street, 2<sup>nd</sup> floor, Counter 5.
- The Electrical Site Plan must show:
  1. An individual branch-circuit (minimum 20 ampere) and raceway (minimum ¾ inch) serving each automatic gate.
  2. The service equipment location and/or panel board location.
  3. The panel board schedule and new and/or revised load calculations.
  4. The location of the automatic gate operator(s), control equipment and actuation devices.
- A **separate** electrical permit shall be obtained for each automatic vehicle gate **unless** the vehicle gate(s) are shown on the scope of work for another permit. **If the gates are included in another permit, make sure the gates are scheduled for a final electrical inspection before that permit is closed out.**
- Have conduit depth inspected for the gate operators, preemption detectors, resident keypad and Knox key switches. Obtain a **"Rough Electrical Green Tag"** that reads **"Underground Electric for Gates."** Marking on the plans **will not** be accepted by the Fire Department. Without this, when the electrical final is done, the conduits will need to be re-exposed.
- Have **final** electrical inspection for gates. Green tag must read **"Final Electrical for Gates."** **Marking this on the plans will not be accepted by the Fire Department.** This green tag must be obtained **before** the gate company can call for a Fire Department inspection.

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**Gate installations and modifications shall be subject to final field inspection  
Electrical green tag for gate must be obtained prior to field inspection**

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**PHOENIX FIRE DEPARTMENT**  
**Fire Prevention**  
**Emergency Access Section**

Single-Family Residence Gate  
Installations

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- ❑ Prior to work being started, plans shall be submitted to the Fire Department for approval and permit. (See “Vehicle Access Gate Plan Submittal Guide” for further information)
  - ❑ Electrical permit and electrical inspection shall be obtained prior to installation of gate. (See “Automatic Gate Electrical Requirements” for further information)
  - ❑ Gate must meet 20-ft clear access minimum.
  - ❑ Knox key switch shall be provided on **ENTRANCE** side of gate if residence is less than 150 ft from gate. Key switch may be located on fence or gate column.
  - ❑ Knox key switch shall be installed on the **ENTRANCE** and **EXIT** side of gates if:
    1. Residence has more than one gate with joining driveways.
    2. Gate entrance exceeds 150 ft from furthest point inside the residence.
  - ❑ Battery backup shall be provided on gate operators.
  - ❑ Remote activated gate openers shall be used if gate is less than 25 ft from the street.
  - ❑ No spikes allowed on openings of gate.

**Alternatives:**

- ❑ Preemption device may be installed to provide faster response into residence.
- ❑ Battery backup will not be required on a DC system controller.

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**Gate installations and modifications shall be subject to final field inspection**  
**Electrical green tag for gate must be obtained prior to field inspection**

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**VIEW FROM THE PROPERTY SIDE**



**EQUIPMENT PROTECTION BOLLARD**

**NOTES:**

- 1** DETECTORS SHALL BE MOUNTED ON 4" X 4" POST 8FT TO 10 FT FROM GRADE
- 2** PHOENIX 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

**REQUIRES PERMIT**

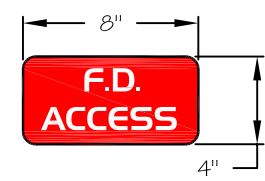
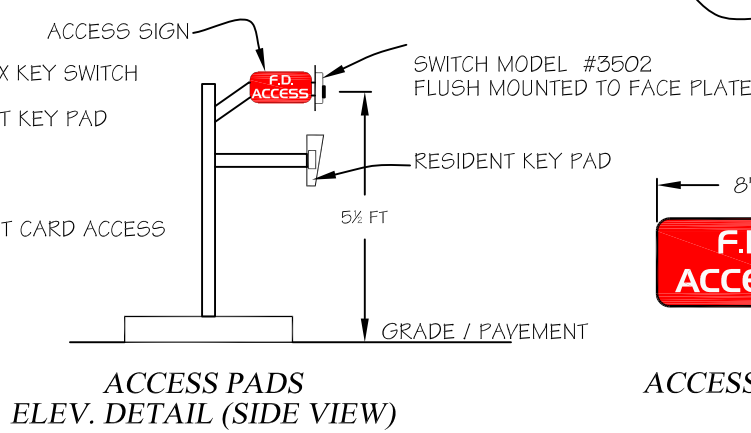
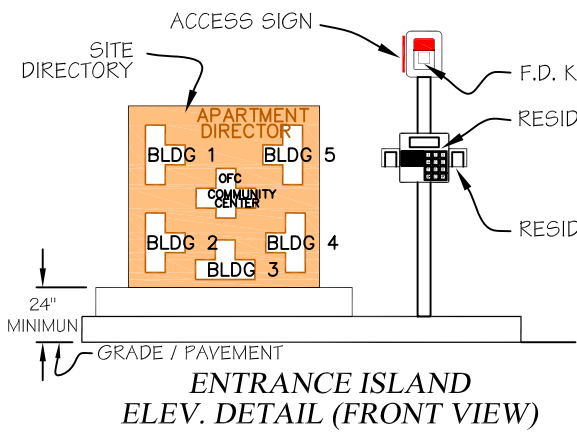
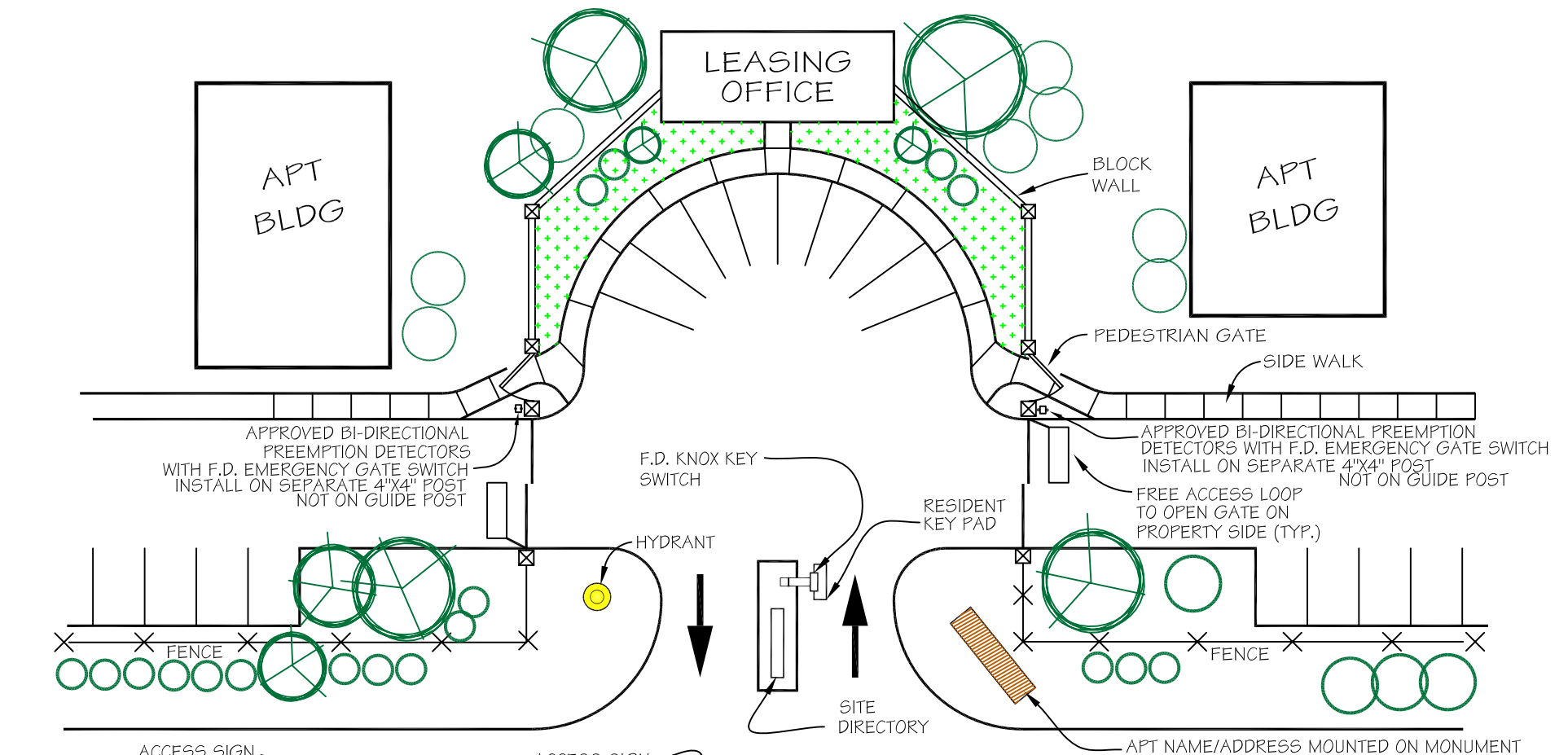
**Click on thumbtack for  
Corel DRAW File**



**PHOENIX  
FIRE DEPARTMENT**

**MULTI FAMILY  
PREEMPTED AUTOMATIC GATE**

**L. HERTZ Detail 7.0 AUG. 2003**



Click on thumbtack for Auto CAD File

**PHOENIX FIRE DEPARTMENT**

TYPICAL ENTRANCE TO MULTIPLE RESIDENTIAL COMMUNITY WITH AUTOMATIC GATES

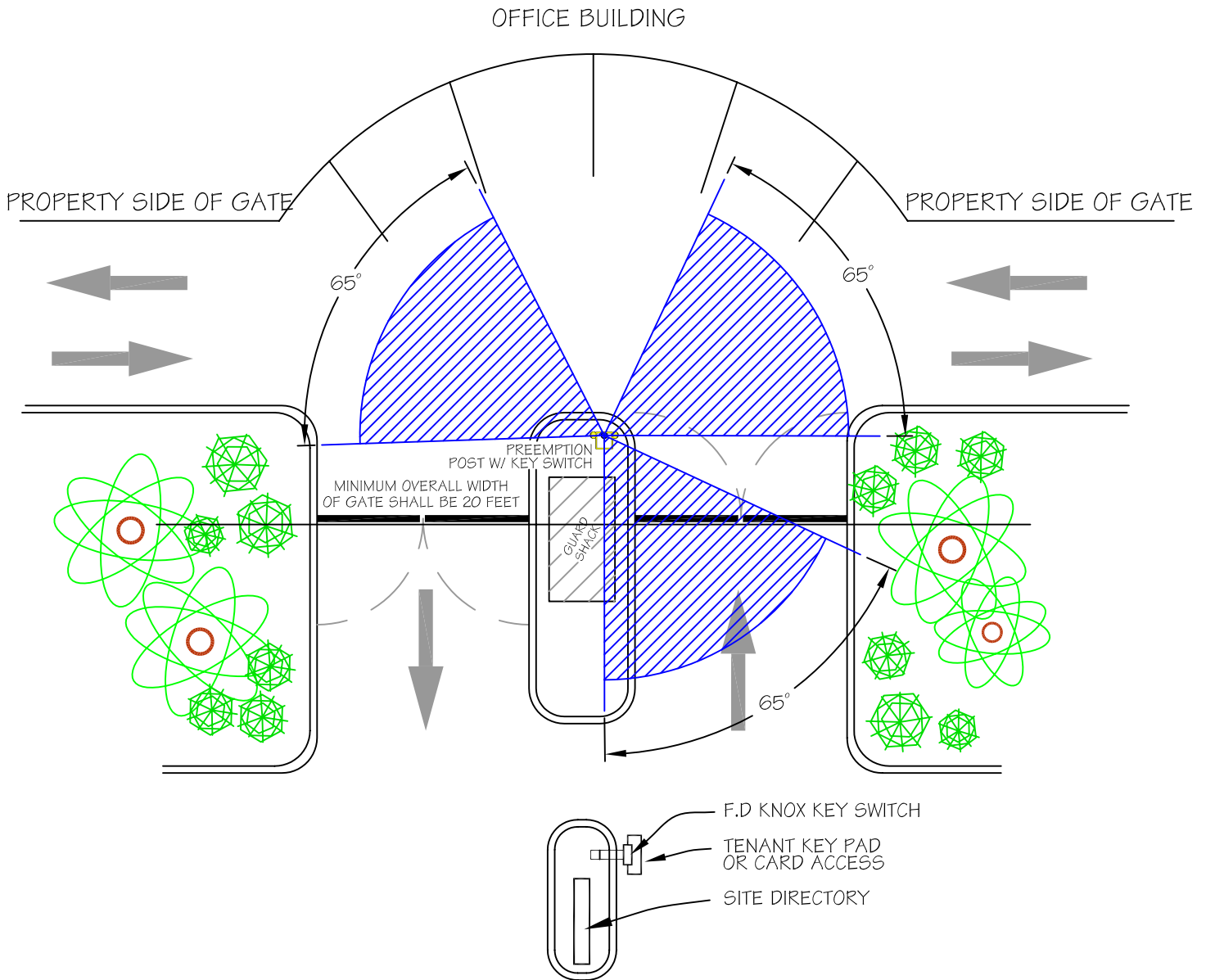
L. HERTZ DETAIL 7.1 AUG. 2003

**REQUIRES PERMIT**

FILE NAME: Acces\_pl.dwg  
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 FOR QUESTIONS OR ASSISTANCE  
 602-256-3382 OR 602-262-6771



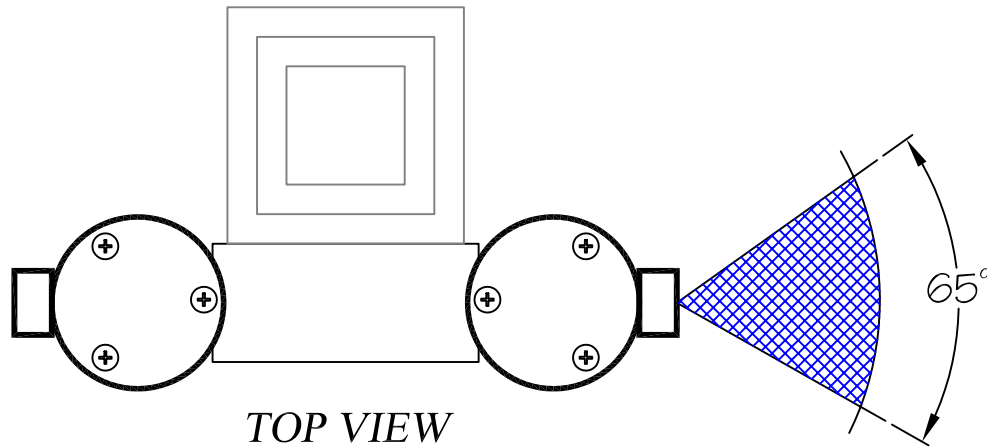
# TOMAR MODEL 2795-3



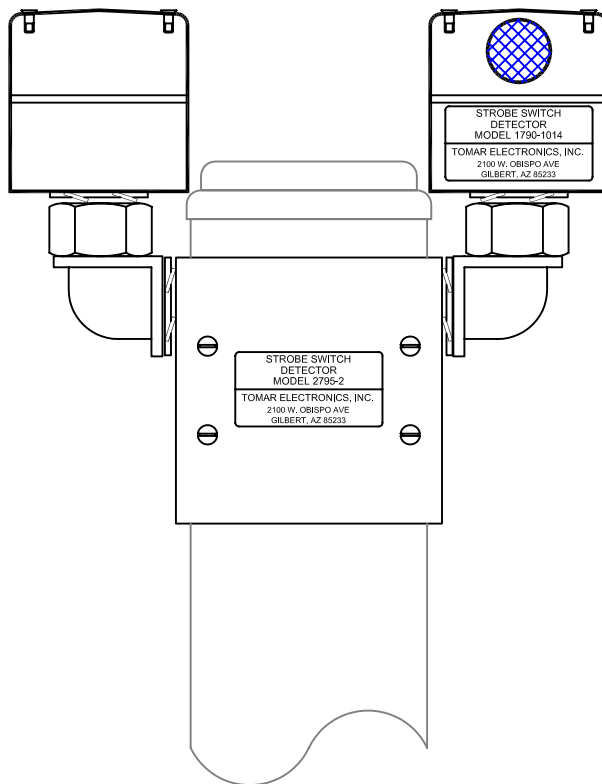
## NOTES:

1. DETECTORS SHALL BE MOUNTED 8 TO 10 FEET FROM GRADE ON A 4" X 4" METAL POST. NO MIRRORS SHALL SUBSTITUTE THE REQUIREMENTS OF TWO DETECTORS PER GATE.
2. DETECTORS SHALL POINT TOWARD THE APPROACH PATH AND EXIT PATH OF THE EMERGENCY VEHICLES. DETECTORS MUST ACTIVATE 150 FEET FROM GATE.
3. THE POWER MODULE SHALL BE MOUNTED IN AN ELECTRICAL JUNCTION BOX, UNDER THE DETECTORS ON THE SAME 4" X 4" METAL POST.
4. THE 4" X 4" SQUARE POST WITH DETECTOR AND POWER MODULE SHALL BE INSTALLED ON THE PROPERTY SIDE OF THE GATE. ( NOT ON GUIDE POST )
5. APPROVED EMERGENCY KEY SWITCH SHALL BE INSTALLED ON THE ENTRANCE AND EXIT SIDE OF EACH ACCESS GATE. ENTRANCE SWITCH SHALL BE LOCATED ABOVE THE RESIDENCE KEY PAD 5½ FT FROM GRADE. EXIT SWITCH SHALL BE LOCATED ON THE 4" X 4" POST WITH THE DUAL DETECTORS AND POWER MODULE UNIT.

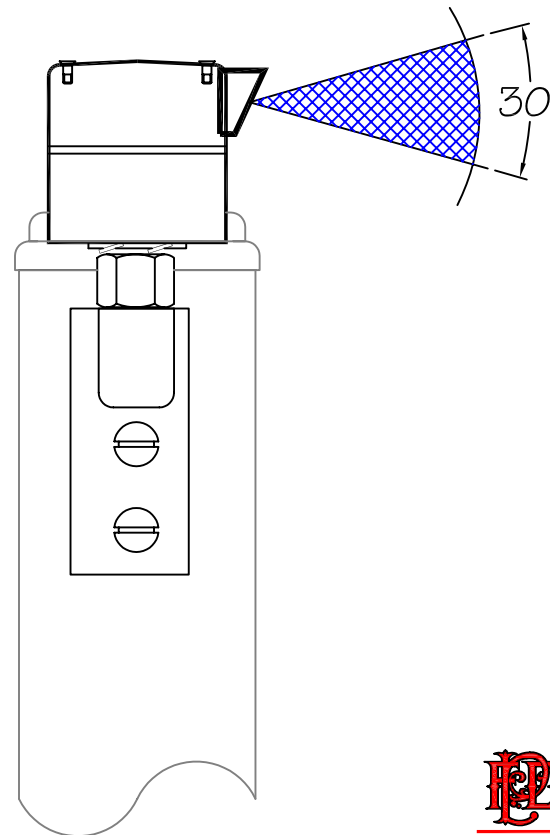




TOP VIEW



FRONT VIEW



SIDE VIEW

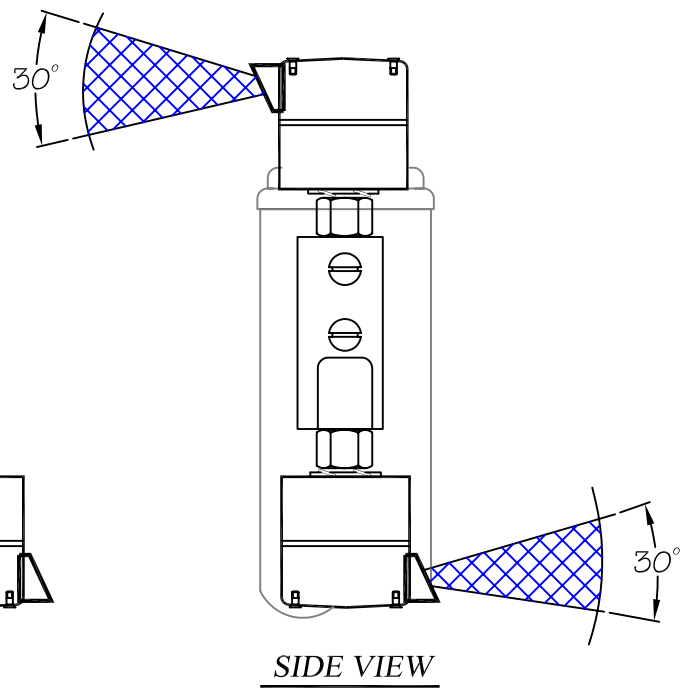
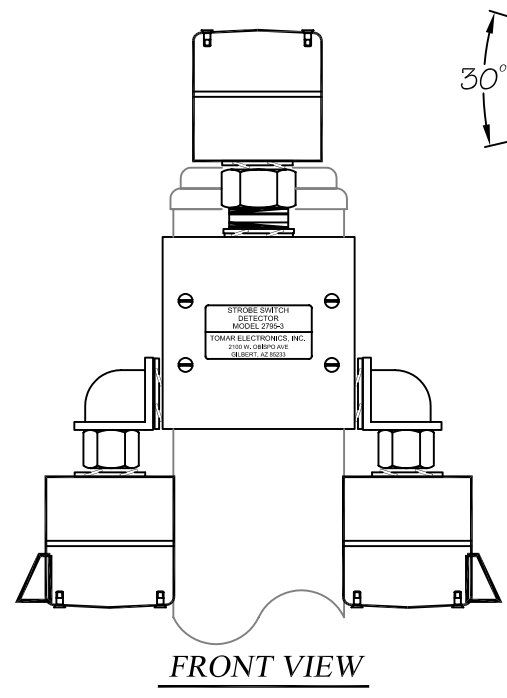
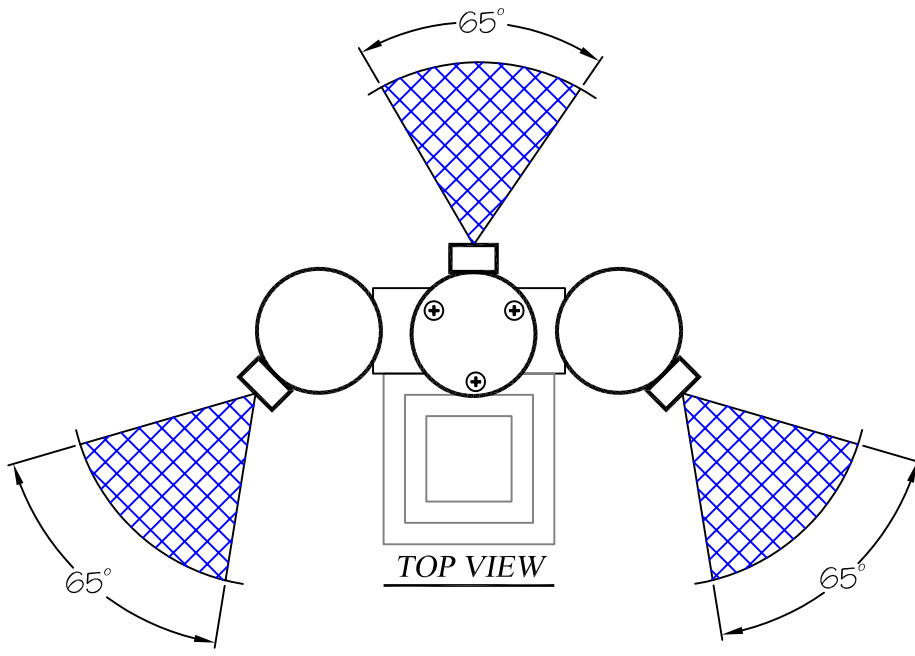
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CALL FIRE PREVENTION-ACCESS OFFICER  
FOR QUESTIONS OR ASSISTANCE  
602-256-3382 OR 602-262-6771



PHOENIX  
FIRE DEPARTMENT

TOMAR PREEMPTION  
DETECTOR - MODEL 2795-2

L. HERTZ      DETAIL 7.3      DEC. 2003



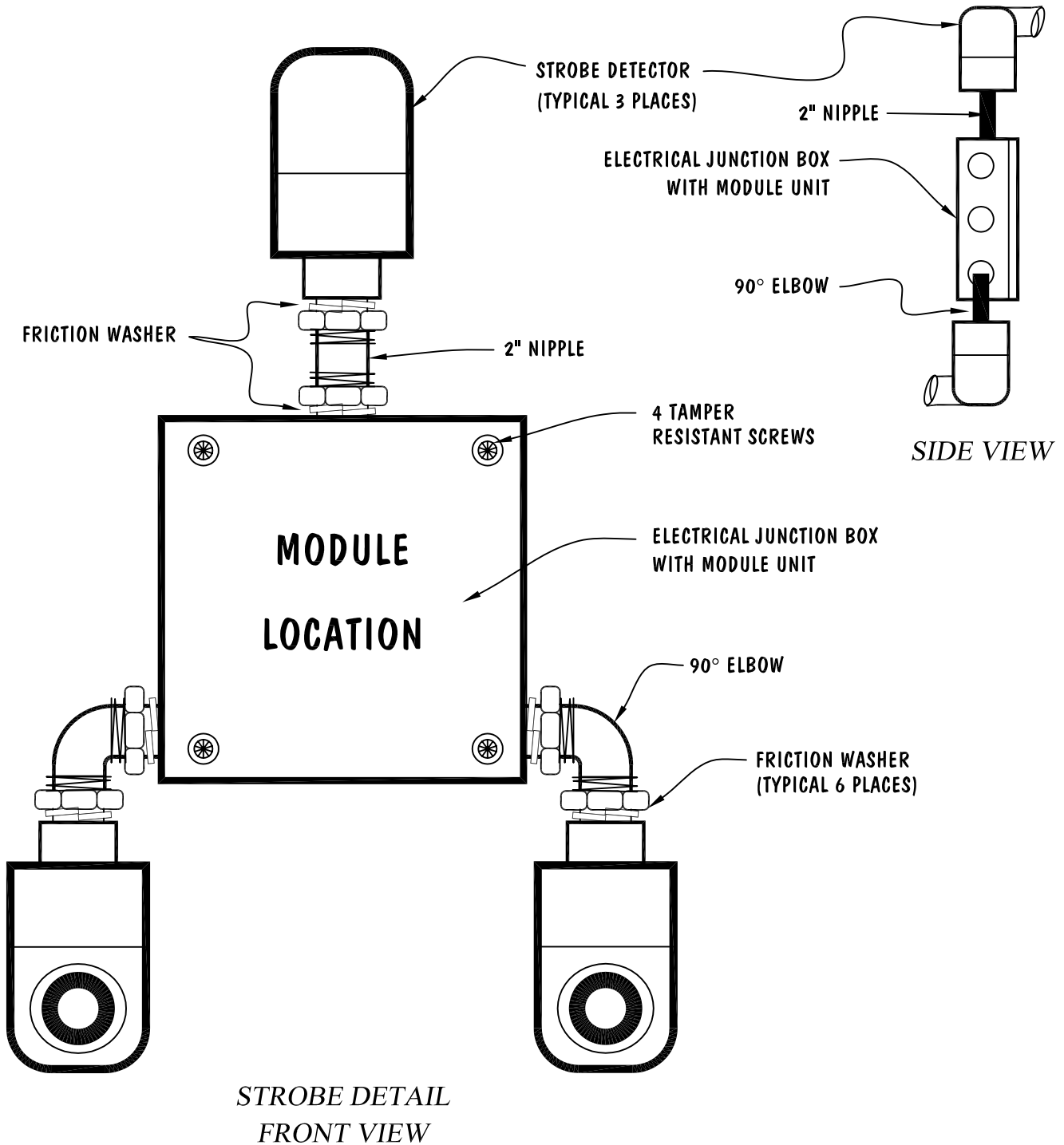
NOTE:

3 HEADS ARE REQUIRED WITH 90° TURNING LAYOUTS

**Click on thumbtack for Auto CAD File**

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CALL FIRE PREVENTION-ACCESS OFFICER  
FOR QUESTIONS OR ASSISTANCE  
602-256-3382 OR 602-262-6771

**PHOENIX**  
**FIRE DEPARTMENT**  
**3 TOMAR PREEMPTION**  
**DETECTOR - MODEL 2795-3**  
L. HERTZ      DETAIL 7.4      NOV 2002



**NOTE:**

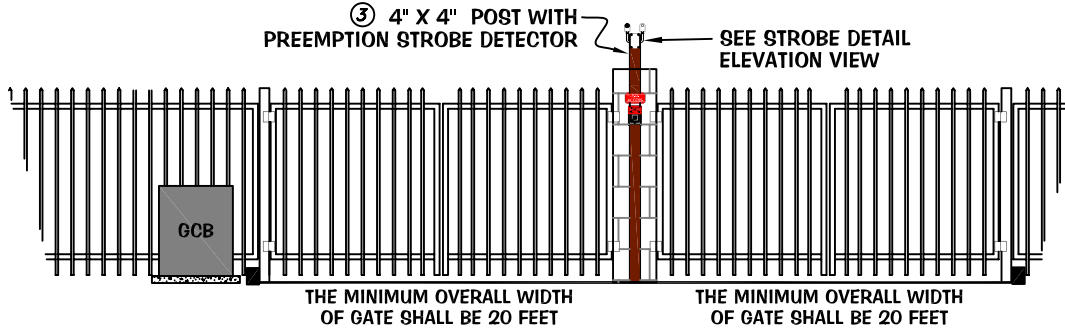
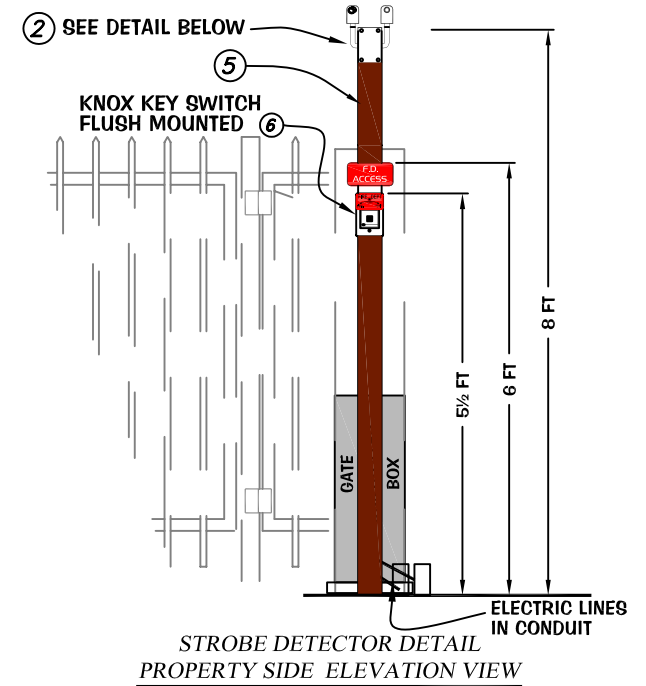
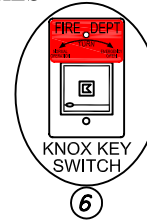
**3 HEADS ARE REQUIRED WITH 90° TURNING LAYOUTS.**



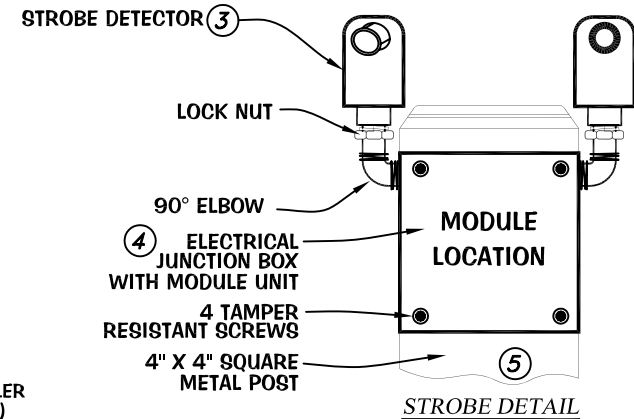
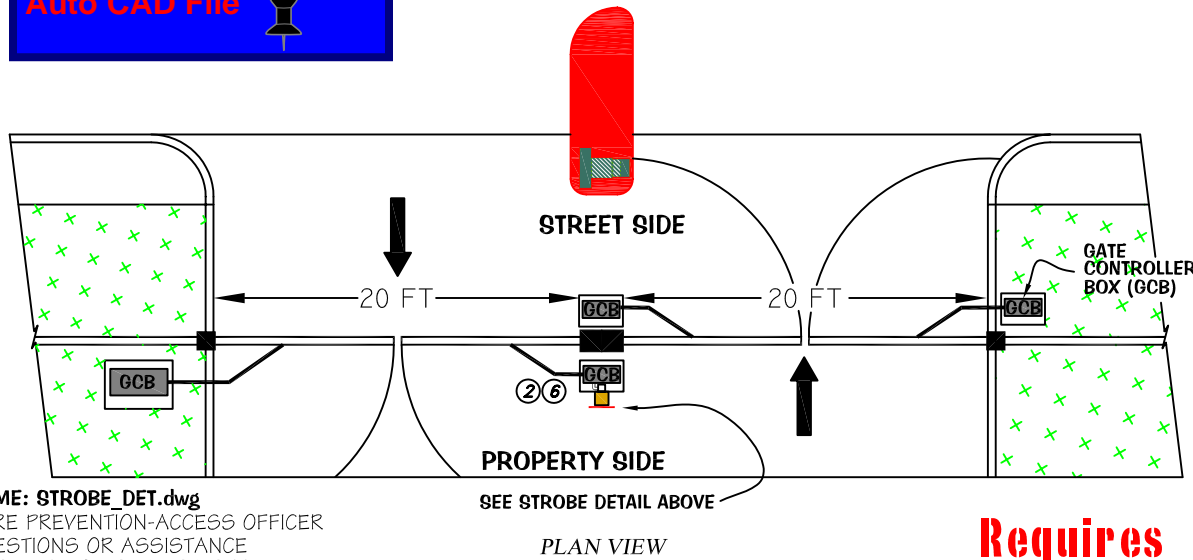
APPROVED AUTOMATIC VEHICLE ACCESS GATE  
PREEMPTION DETECTORS WITH KNOX KEY SWITCHES

**NOTES:**

- ① EACH AUTOMATIC GATE SHALL HAVE 2 DETECTORS OR A BI DIRECTIONAL DETECTOR.
- ② DETECTORS SHALL BE MOUNTED 8 TO 10 FEET FROM GRADE ON A 4" X 4" METAL POST. DETECTORS SHALL BE ON SEPARATE POST, NOT ON GUIDE POST.
- ③ DETECTORS SHALL POINT TOWARD THE APPROACH PATH AND EXIT PATH OF THE EMERGENCY VEHICLES. DETECTORS MUST ACTIVATE WITHIN 150 FEET FROM GATE.
- ④ THE POWER MODULE SHALL BE MOUNTED IN AN ELECTRICAL JUNCTION BOX, UNDER THE DETECTORS ON THE SAME 4" X 4" METAL POST.
- ⑤ THE 4" X 4" SQUARE POST WITH DETECTOR AND POWER MODULE SHALL BE INSTALLED ON THE PROPERTY SIDE OF THE GATE.
- ⑥ APPROVED EMERGENCY KEY SWITCH SHALL BE INSTALLED ON THE ENTRANCE AND EXIT SIDE OF EACH ACCESS GATE. ENTRANCE SWITCH SHALL BE LOCATED ABOVE THE RESIDENCE KEY PAD 5½ FT FROM GRADE. EXIT SWITCH SHALL BE RECESSED INTO THE 4" X 4" POST WITH THE DUAL DETECTORS AND POWER MODULE UNIT.



Click on thumbtack for Auto CAD File



FILE NAME: STROBE\_DET.dwg  
CALL FIRE PREVENTION-ACCESS OFFICER  
FOR QUESTIONS OR ASSISTANCE  
602-256-3382 OR 602-262-6771

**Requires Permit**

**PHOENIX**  
FIRE DEPARTMENT

APPROVED AUTOMATIC  
VEHICLE ACCESS GATE

L. HERTZ DETAIL 7.5 MAY 2003

**FOOT PLATE DESIGN IS ONLY FOR PRE-EXISTING PROPERTIES THAT UPDATE WITH PREEMPTION.**

PHOENIX APPROVED TOMAR PREEMPTION DUAL HEAD DETECTOR MODEL #2795-2



RUN ELECTRICAL IN APPROVED CONDUIT, CLAMP DOWN TO SECURE.



F.D. ACCESS SIGN

KNOX KEY SWITCH  
5 1/2 FT ABOVE GRADE  
KNOX KEY SWITCH  
RECESSED INTO  
4" X 4" PREEMPTION POST

8" X 8" X 3/8"  
FOOT PLATE

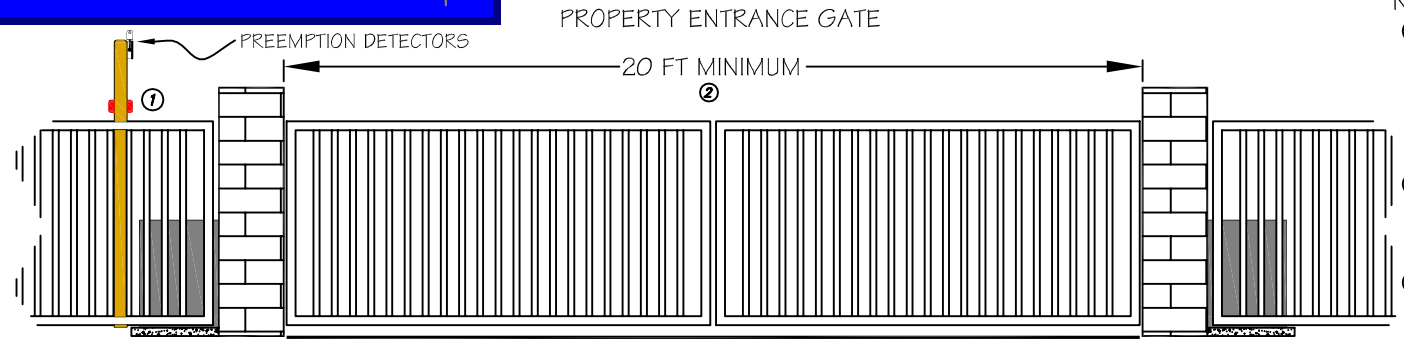
Click on thumbtack for Corel DRAW File

**NOTES:**

1. EACH AUTOMATIC GATE SHALL HAVE 2 DETECTORS.
2. DETECTORS SHALL BE MOUNTED 8 TO 10 FEET FROM GRADE ON A 4" X 4" METAL POST. NO MIRRORS SHALL SUBSTITUTE THE REQUIREMENTS OF 2 DETECTORS PER GATE.
3. DETECTORS SHALL POINT TOWARD THE APPROACH PATH AND EXIT PATH OF EMERGENCY VEHICLES. DETECTORS MUST ACTIVATE WITHIN 150 FEET FROM GATE.
4. THE POWER MODULE SHALL BE MOUNTED IN AN ELECTRICAL JUNCTION BOX, UNDER THE DETECTORS ON THE SAME 4"X4" METAL POST.
5. THE 4" X 4" SQUARE POST WITH DETECTOR AND POWER MODULE SHALL BE INSTALLED ON THE PROPERTY SIDE OF THE GATE, NOT ON GUIDEPOST.
6. APPROVED EMERGENCY KNOX KEY SWITCH SHALL BE INSTALLED ON THE ENTRANCE AND EXIT SIDE OF EACH ACCESS GATE. SWITCH SHALL BE LOCATED 5 1/2 FT ABOVE GRADE RECESSED IN THE 4" X 4" POST WITH DUAL DETECTORS AND POWER MODULE UNIT.
8. REQUIRES PRE-APPROVAL BY PFD-EMERGENCY ACCESS OFFICER.
7. ORDER FORMS FOR F.D. KNOX KEY SWITCH ARE AVAILABLE THROUGH EITHER THE ACCESS OR GATE INSPECTORS IN FIRE PREVENTION. CALL 602-256-3382 FOR ORDER FORMS.



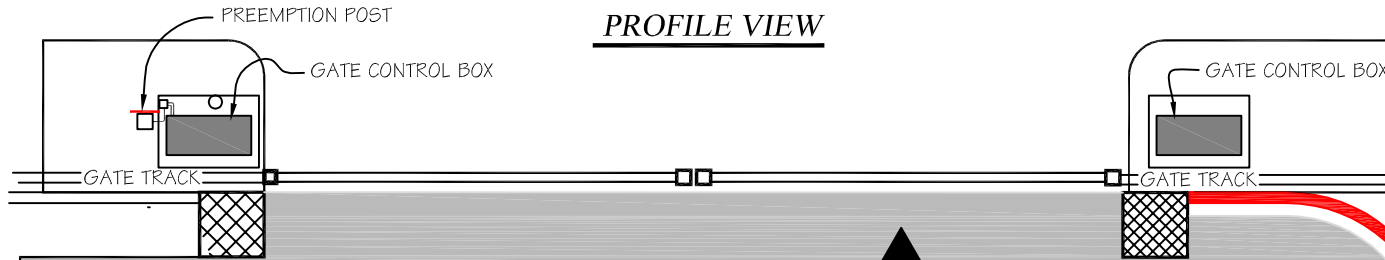
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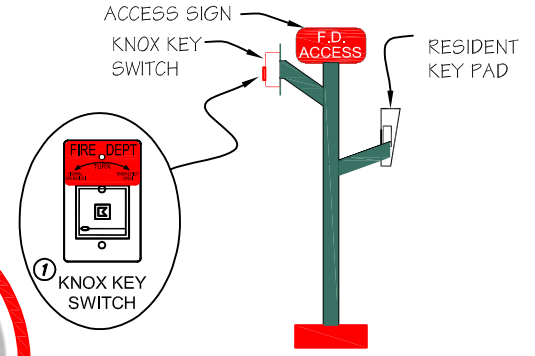
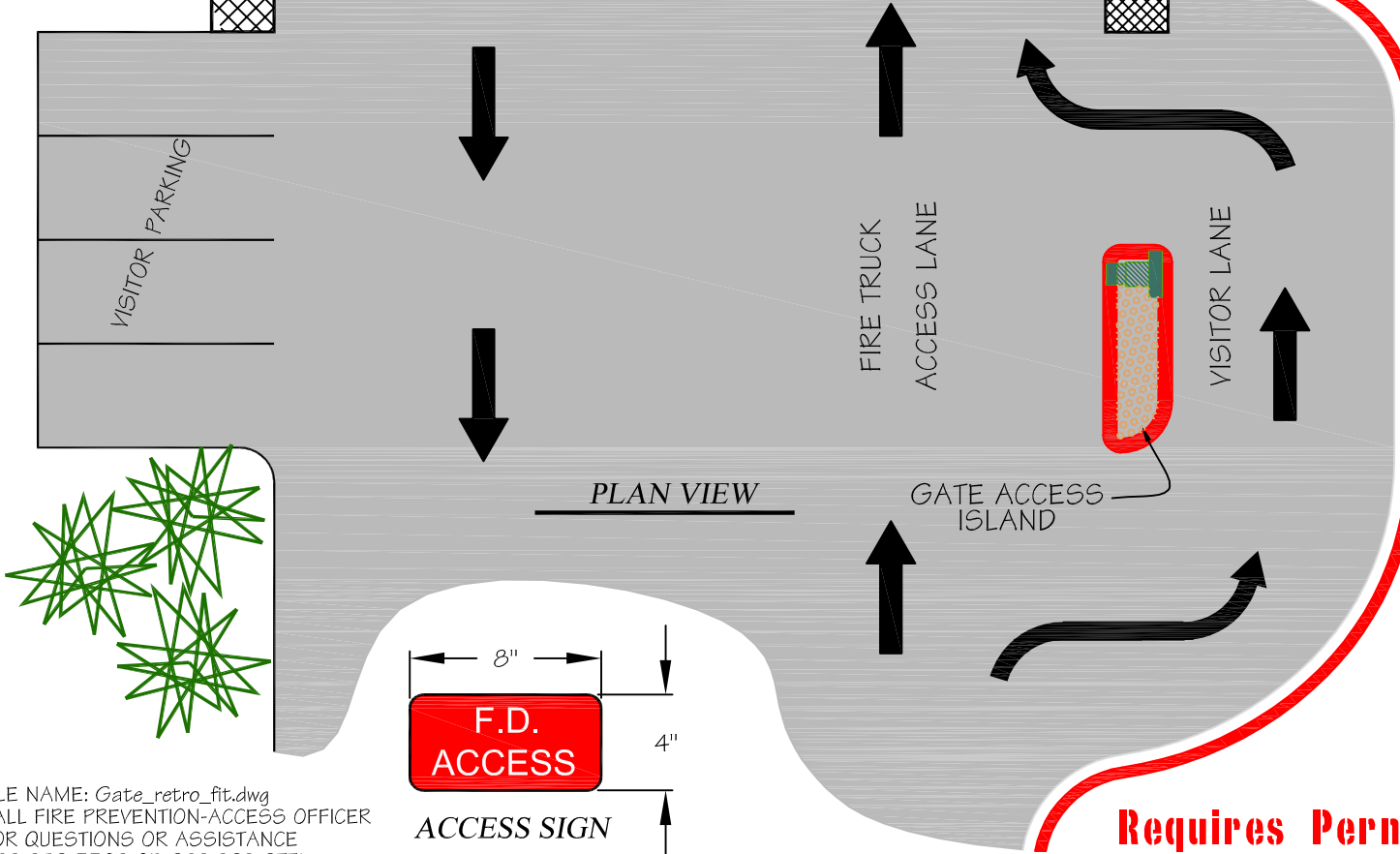
**NOTES**

- ① PROVIDE AN APPROVED KNOX KEY SWITCH MODEL #3502 ON GUEST KEY PAD PEDESTAL AT THE ENTRANCE AND KNOX KEY SWITCH ON PREEMPTION POST ON PROPERTY SIDE BOTH INSTALLED 5 1/2 FT ABOVE GRADE.
- ② THE MINIMUM OVERALL WIDTH OF THE GATE OPENING SHALL BE 20 FT. NOTICE LARGER OPENINGS IS PREFERRED, IF POSSIBLE.
- ③ ORDER FORMS FOR KNOX KEY SWITCH ARE AVAILABLE THROUGH EITHER THE ACCESS OR GATE INSPECTORS IN FIRE PREVENTION. CALL 602-256-3382 FOR ORDER FORMS.

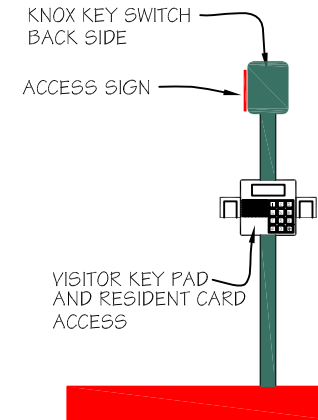
**PROFILE VIEW**



**PLAN VIEW**



**ACCESS PADS  
ELEV. DETAIL**



**ENTRANCE ISLAND  
ELEV. DETAIL (FROM VISITOR LANE)**



**PHOENIX  
FIRE DEPARTMENT**

**RETRO FITTING EXISTING PROPERTY  
W/AUTO GATE & GUEST PULLOUT LANE  
PLUS PREEMPTION DETECTORS**

FILE NAME: Gate\_retro\_fit.dwg  
CALL FIRE PREVENTION-ACCESS OFFICER  
FOR QUESTIONS OR ASSISTANCE  
602-256-3382 OR 602-262-6771

**Requires Permit**

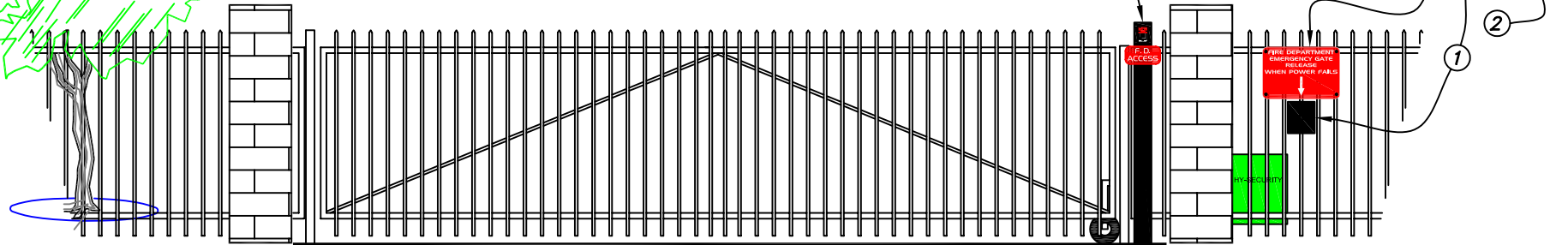
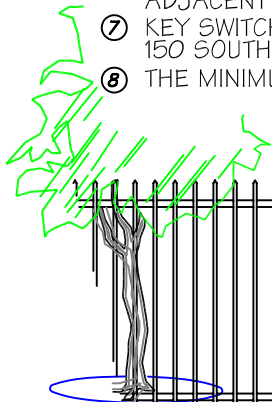
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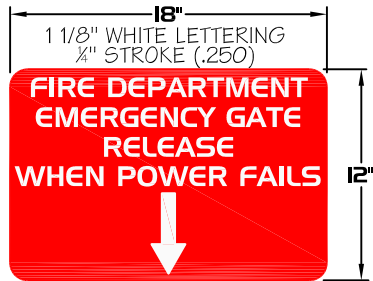
## AUTOMATIC GATE WITHOUT BATTERY BACKUP

**NOTES:**

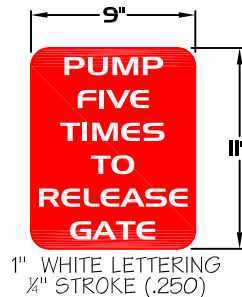
- ① GATE RELEASE PUMP TO BE ACCESSIBLE FROM BOTH SIDES OF GATE, 3 FEET FROM GATE.
- ② LOCK CABINET DOORS WITH KNOX PADLOCK, ONE FOR EACH DOOR.
- ③ LOCATE EMERGENCY GATE RELEASE SIGN ABOVE PUMP BOX, ON BOTH SIDES OF GATE.
- ④ LOCATE PUMP SIGN ON INSIDE OF PUMP BOX DOORS.
- ⑤ ALL RESIDENTIAL PROPERTIES REQUIRE A BATTERY BACK-UP/ NO MANUAL RELEASE.
- ⑥ FOR COMMERCIAL PROPERTIES - KEY SWITCH SHALL BE RECESSED IN 4"X4" SQUARE POST ADJACENT TO GATE (ON BOTH SIDES).
- ⑦ KEY SWITCHES AND FIRE DEPT. KNOX PAD LOCKS CAN BE PURCHASED AT PFD - FIRE PREVENTION 150 SOUTH 12th ST., HRS. 8AM - 4:30PM - MUST HAVE ORIGINAL ORDER FORM & F.D. PERMIT.
- ⑧ THE MINIMUM OVERALL WIDTH OF THE GATE OPENING SHALL BE 20 FEET.



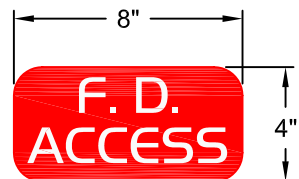
**PROFILE VIEW**



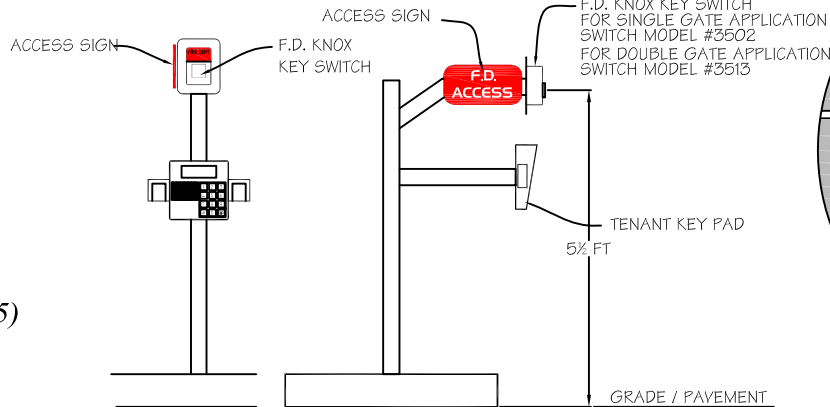
③ **DETAIL**  
GATE RELEASE  
(SEE DETAIL 7.15)



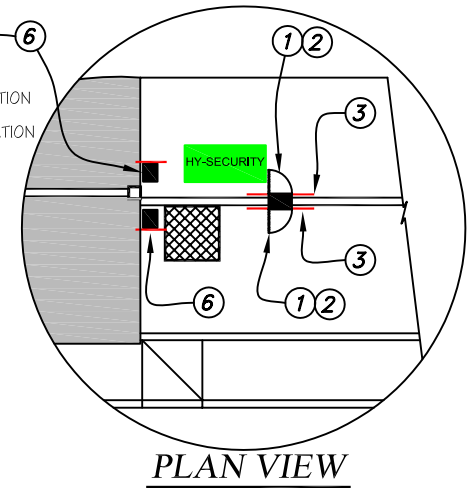
④ **DETAIL**  
PUMP SIGN  
(SEE DETAIL 7.15)



**ACCESS SIGN DETAIL**  
(REFER TO APPROVED PFD ACCESS DETAIL)



⑤ **DETAIL**  
PEDESTAL KEY SWITCH



**PLAN VIEW**

FILE NAME: HY\_Security.dwg  
CALL FIRE PREVENTION-ACCESS OFFICER  
FOR QUESTIONS OR ASSISTANCE  
602-256-3382 OR 602-262-6771

**APPEAL REQUIRED**

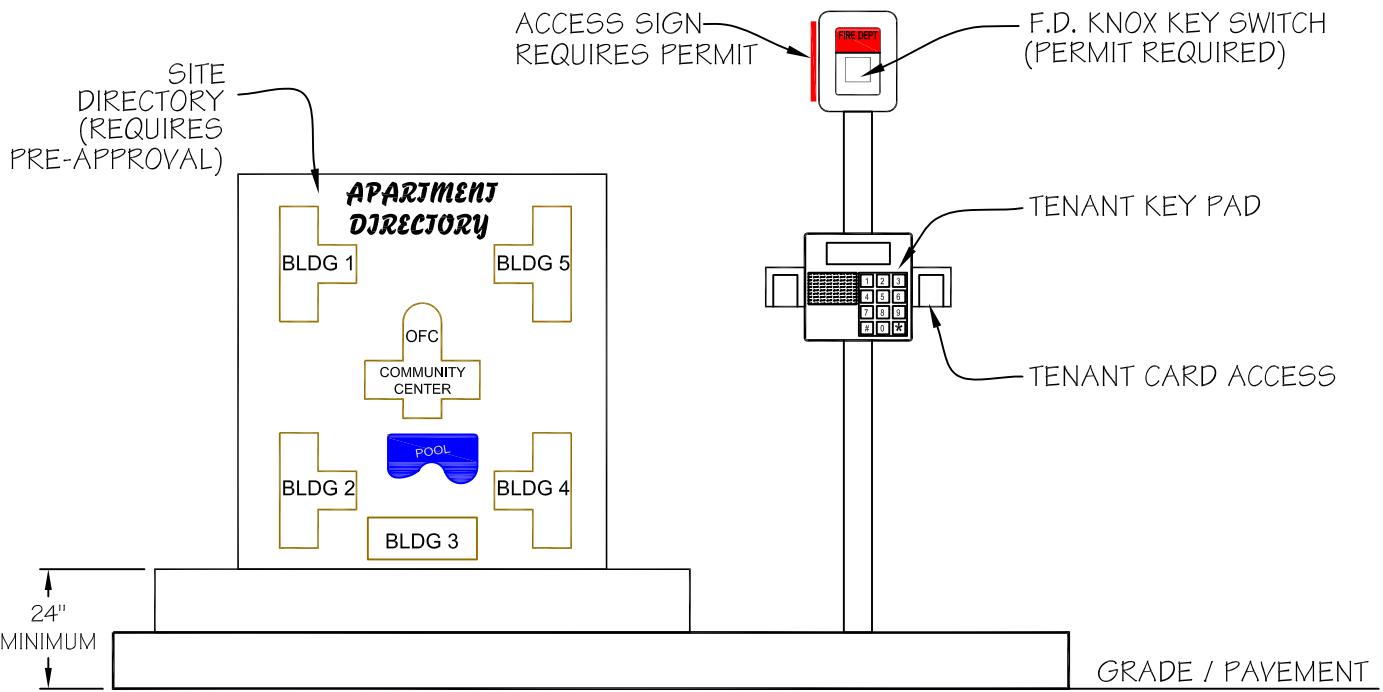


**PHOENIX  
FIRE DEPARTMENT**

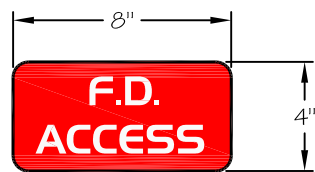
**HY-SECURITY OPERATOR  
MANUAL PUMP RELEASE**

L. HERTZ      DETAIL 7.7 AUGUST 2006

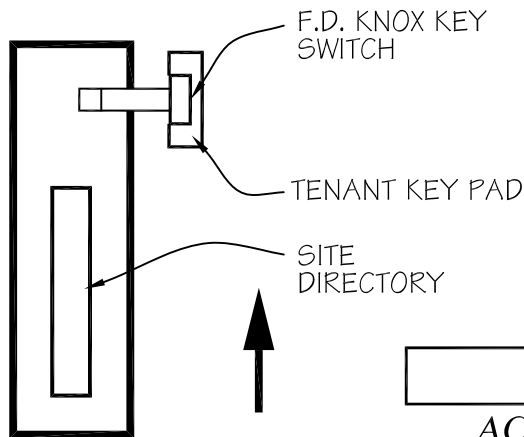




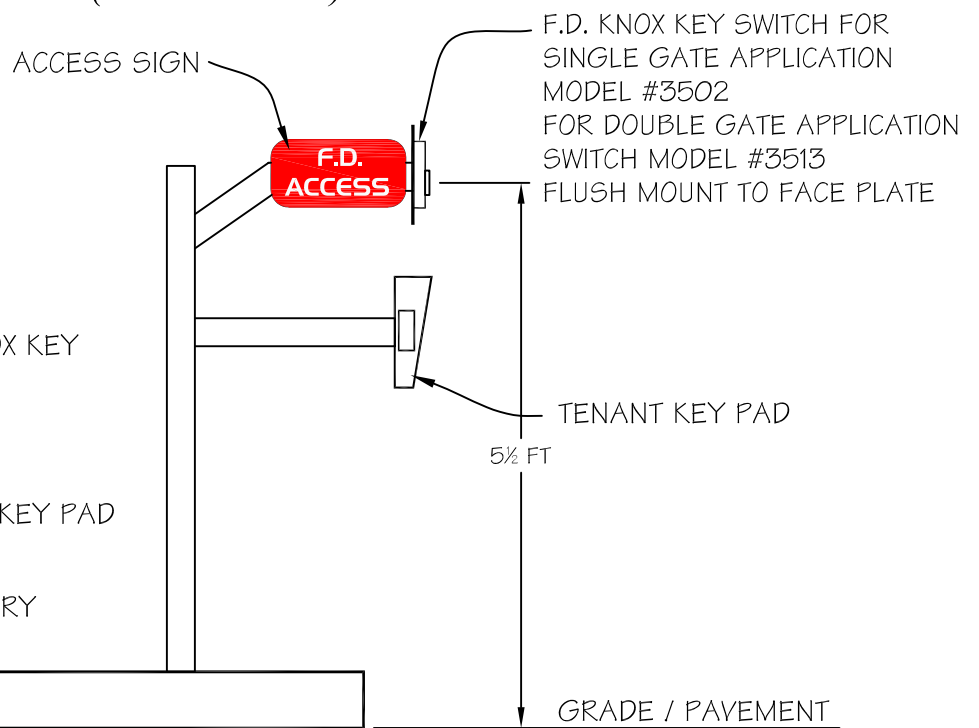
**ENTRANCE ISLAND  
ELEV. DETAIL (FRONT VIEW)**



**ACCESS SIGN  
DETAIL**



**PLAN VIEW**



**ACCESS PADS  
ELEV. DETAIL (SIDE VIEW)**

**NOTES:**

1. MUST HAVE AN ORIGINAL ORDER FORM AND FIRE DEPT. GATE PERMIT TO PURCHASE KEY SWITCH.
2. ORDER FORMS FOR KNOX KEY SWITCHES ARE AVAILABLE THROUGH EITHER THE ACCESS OR GATE INSPECTORS IN FIRE PREVENTION. CALL 602-256-3382 FOR ORDER FORMS

**Click on thumbtack for Auto CAD File**



FILE NAME: KEYPAD\_ISLAND.dwg  
CALL FIRE PREVENTION-ACCESS OFFICER  
FOR QUESTIONS OR ASSISTANCE  
602-256-3382 OR 602-262-6771

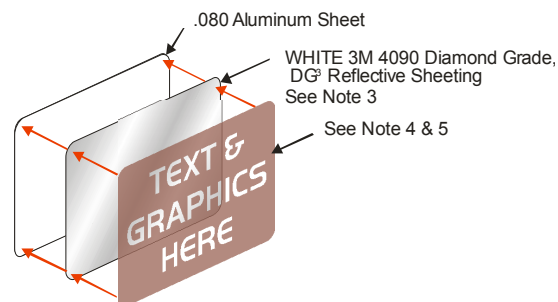
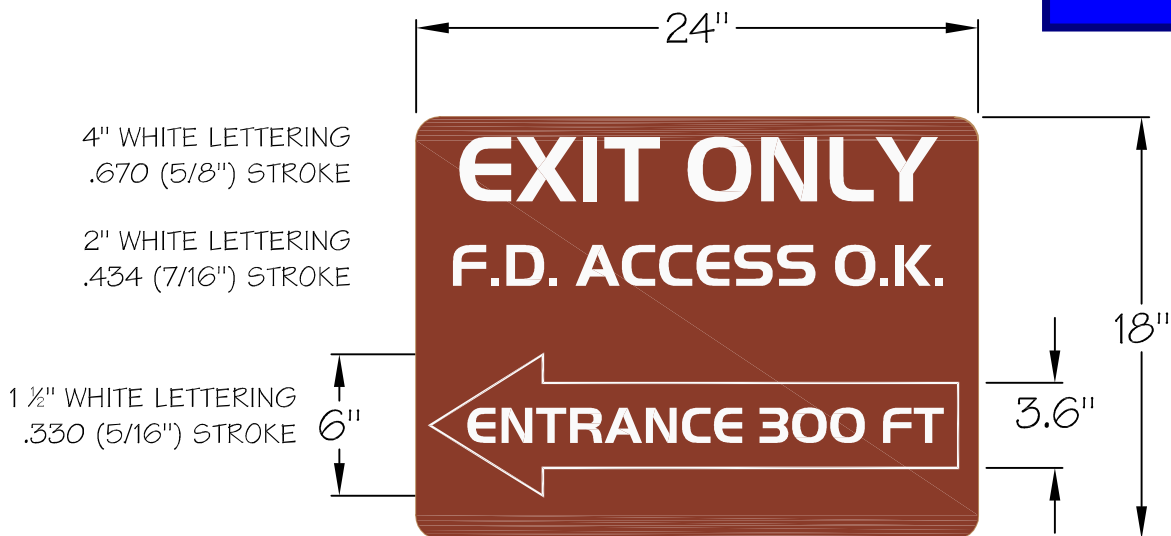
**Permit Required**



**PHOENIX  
FIRE DEPARTMENT**

**ENTRANCE ISLAND DETAILS  
TO RESIDENTIAL COMMUNITY  
WITH AUTOMATIC GATES**

**SPECIAL FIRE DEPARTMENT  
ACCESS O.K. SIGN**



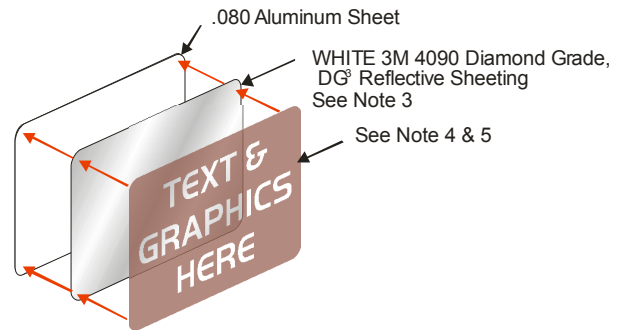
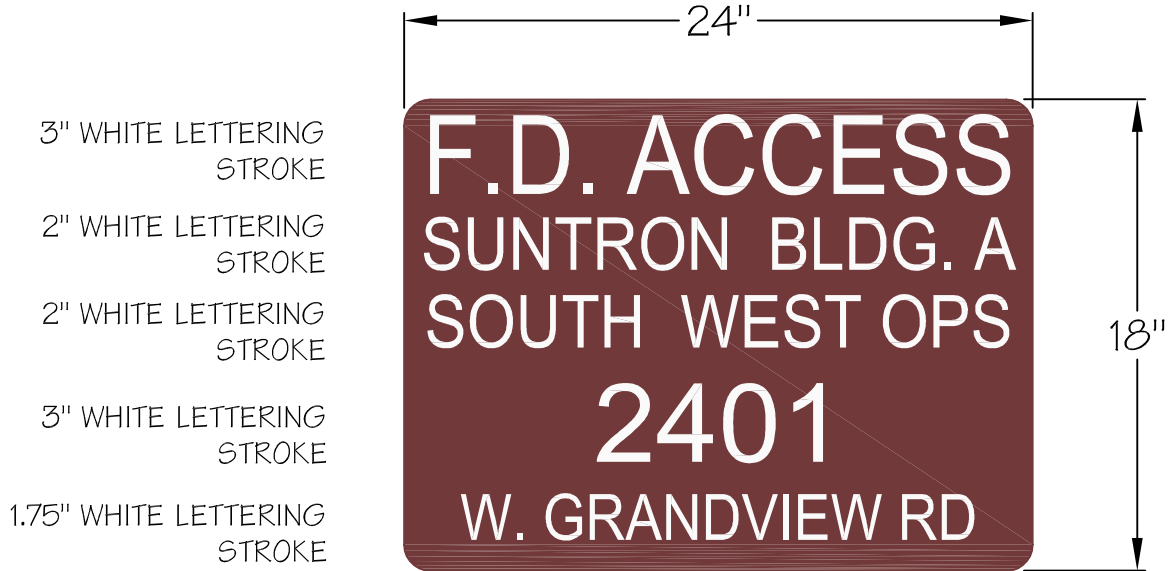
**NOTES:**

1. THE SIGN FACE SHALL BE 24" X 18" AND FABRICATED FROM .080 ALUMINUM SHEET WITH 1 1/2" RADIUS CORNERS.
2. FONT STYLE USED IS HANDEL GOTHIC BT CAPITAL FONTS
3. THE SIGN FACE SHALL HAVE A WHITE 3M DIAMOND GRADE REFLECTIVE SHEETING (DG<sup>3</sup> 4090 SERIES OR EQUIVALENT) APPLIED AS A BACKGROUND TO THE ALUMINUM PLATES.
4. LETTERING / GRAPHICS SHALL BE DONE ONE OF THE FOLLOWING WAYS:
  - A. 3M SCOTCHLITE ACRYLIC, TRANSPARENT, ELECTRONIC CUTTABLE FILM, (BROWN 1179 SERIES) INVERSE CUT TO ALLOW WHITE REFLECTIVE BACKGROUND TO SHOW THROUGH.
  - B. SCREEN PRINTED USING 3M 880I OR 880-00 SERIES TRAFFIC SIGN BROWN TRANSLUCENT INK.
 BOTH PROCESSES ( A OR B ) WILL ACCOMPLISH A DARK FIELD WITH WHITE COPY.
5. ALL SIGN IMAGING SHALL BE IN COMPLIANCE WITH THE REFLECTIVE SHEETING MANUFACTURES MATCH COMPONENT SYSTEM.
6. THE SIGN SHALL IDENTIFY THE CORRECT LANE FOR FIRE DEPT. EMERGENCY APPARATUS TO ACCESS AT RESTRICTED GATE LOCATIONS.
7. REQUIRES PRE-APPROVAL BY FIRE PREVENTION EMERGENCY ACCESS OFFICER.

**Special Application**

FILE NAME: FD\_ACCESS\_OK.dwg  
CALL FIRE PREVENTION-ACCESS OFFICER  
FOR QUESTIONS OR ASSISTANCE  
602-256-3382 OR 602-262-6771

**SPECIAL FIRE DEPARTMENT  
ACCESS O.K. SIGN**



**NOTES:**

1. THE SIGN FACE SHALL BE 24" X 18" AND FABRICATED FROM .080 ALUMINUM SHEET WITH 1½" RADIUS CORNERS.
2. FONTS USED FOR ADDRESSING MUST BE LEGIBLE AND EASY TO READ.
3. THE SIGN FACE SHALL HAVE A WHITE 3M DIAMOND GRADE REFLECTIVE SHEETING (DG<sup>3</sup> 4090 SERIES OR EQUIVALENT) APPLIED AS A BACKGROUND TO THE ALUMINUM PLATES.
4. LETTERING / GRAPHICS SHALL BE 3M SCOTCHLITE ACRYLIC, TRANSPARENT, ELECTRONIC CUTTABLE FILM, (BROWN 1179 SERIES) INVERSE CUT TO ALLOW WHITE REFLECTIVE BACKGROUND TO SHOW THROUGH.
5. ALL SIGN IMAGING SHALL BE IN COMPLIANCE WITH THE REFLECTIVE SHEETING MANUFACTURES MATCH COMPONENT SYSTEM.
6. THE SIGN SHALL IDENTIFY THE NAME OF THE APARTMENT OR BUSINESS COMPLEX AND THE LOCATION OF THE MAIN ACCESS ENTRANCE.
7. REQUIRES PRE-APPROVAL BY FIRE PREVENTION EMERGENCY ACCESS OFFICER.

**Click on thumbtack for  
Auto CAD File**



**Special Application for  
Suntron Bldg. A**



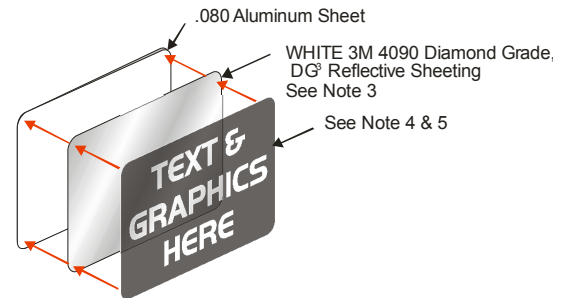
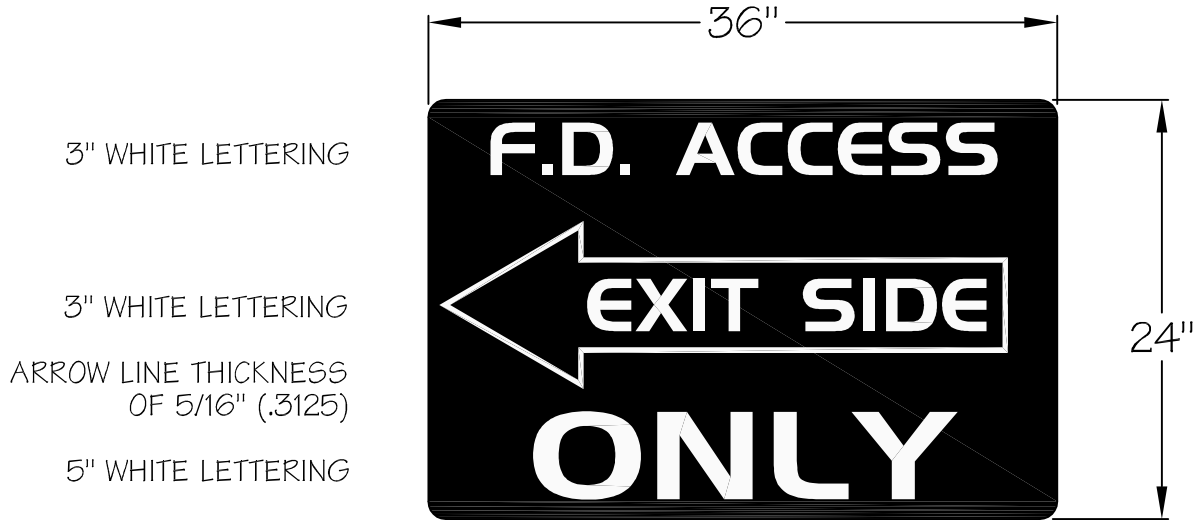
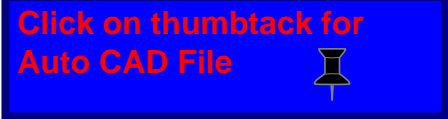
**PHOENIX  
FIRE DEPARTMENT**

**FIRE DEPARTMENT  
ACCESS GATE SIGN**

FILE NAME: FA\_SUNTRON.dwg  
CALL R. TRITCH FOR  
QUESTIONS OR ASSISTANCE  
IN FIRE PREVENTION (602) 262-6771

L. HERTZ DETAIL 7.9A MAY 2006

*SPECIAL FIRE DEPARTMENT  
ACCESS O.K. SIGN*

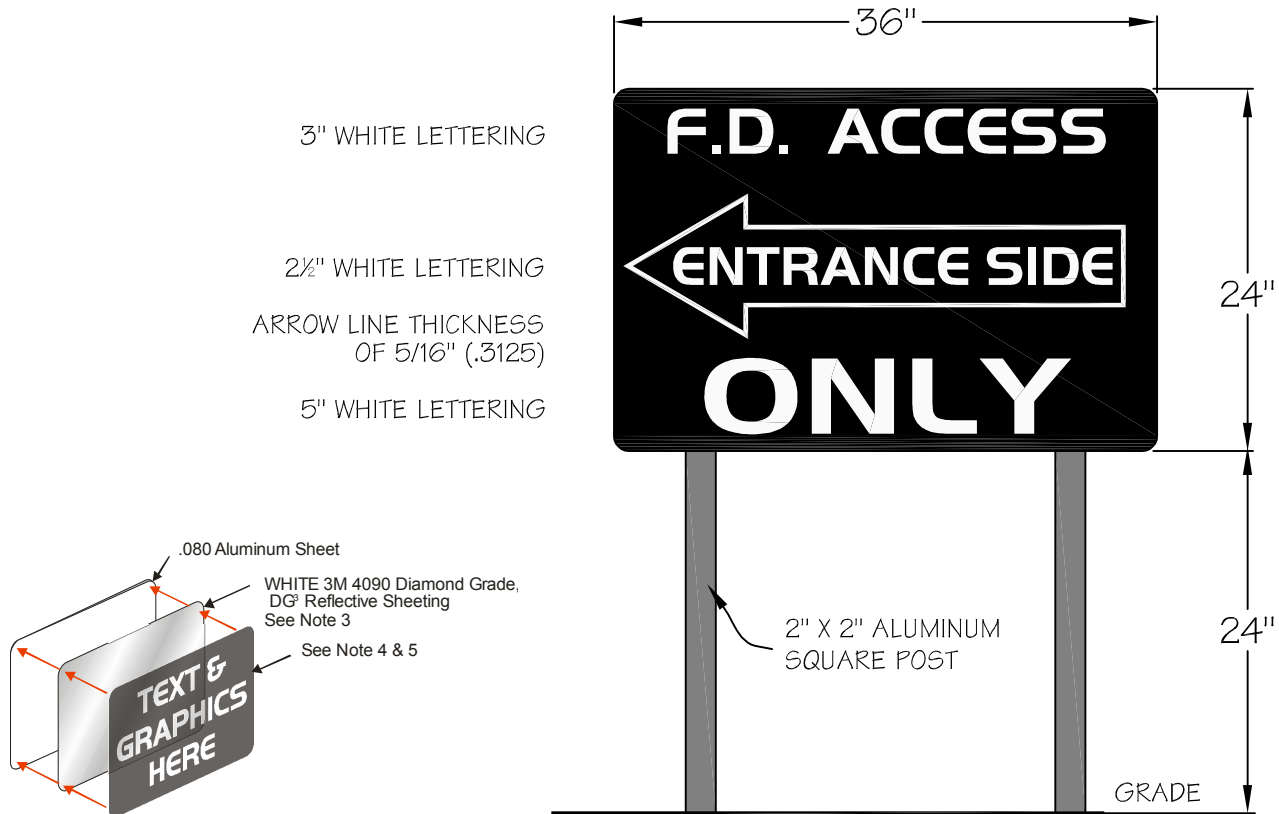


NOTES:

1. THE SIGN FACE SHALL BE 36" X 24" AND FABRICATED FROM .080 ALUMINUM SHEET WITH 1½" RADIUS CORNERS.
2. FONT STYLE USED IS HANDEL GOTHIC BT CAPITAL FONTS
3. THE SIGN FACE SHALL HAVE A WHITE 3M DIAMOND GRADE REFLECTIVE SHEETING (DG<sup>3</sup> 4090 SERIES OR EQUIVALENT) APPLIED AS A BACKGROUND TO THE ALUMINUM PLATES.
4. LETTERING / GRAPHICS SHALL BE DONE ONE OF THE FOLLOWING WAYS:
  - A. 3M SCOTCHLITE ACRYLIC, TRANSPARENT, ELECTRONIC CUTTABLE FILM, (BLACK 1178 SERIES) INVERSE CUT TO ALLOW WHITE REFLECTIVE BACKGROUND TO SHOW THROUGH.
  - B. SCREEN PRINTED USING 3M 880I OR 880-00 SERIES TRAFFIC SIGN BLACK TRANSLUCENT INK.BOTH PROCESSES ( A OR B ) WILL ACCOMPLISH A DARK FIELD WITH WHITE COPY.
5. ALL SIGN IMAGING SHALL BE IN COMPLIANCE WITH THE REFLECTIVE SHEETING MANUFACTURES MATCH COMPONENT SYSTEM.
6. THE SIGN SHALL IDENTIFY THE CORRECT LANE FOR FIRE DEPT. EMERGENCY APPARATUS TO ACCESS AT RESTRICTED GATE LOCATIONS.
7. REQUIRES PRE-APPROVAL BY FIRE PREVENTION EMERGENCY ACCESS OFFICER.



**SPECIAL FIRE DEPARTMENT  
ACCESS O.K. SIGN**



**NOTES:**

1. THE SIGN FACE SHALL BE 36" X 24" AND FABRICATED FROM .080 ALUMINUM SHEET WITH 1 1/2" RADIUS CORNERS.
2. FONT STYLE USED IS HANDEL GOTHIC BT CAPITAL FONTS
3. THE SIGN FACE SHALL HAVE A WHITE 3M DIAMOND GRADE REFLECTIVE SHEETING (DG<sup>3</sup> 4090 SERIES OR EQUIVALENT) APPLIED AS A BACKGROUND TO THE ALUMINUM PLATES.
4. LETTERING / GRAPHICS SHALL BE DONE ONE OF THE FOLLOWING WAYS:
  - A. 3M SCOTCHLITE ACRYLIC, TRANSPARENT, ELECTRONIC CUTTABLE FILM, (BLACK 1178 SERIES) INVERSE CUT TO ALLOW WHITE REFLECTIVE BACKGROUND TO SHOW THROUGH.
  - B. SCREEN PRINTED USING 3M 880I OR 880-00 SERIES TRAFFIC SIGN BLACK TRANSLUCENT INK.
 BOTH PROCESSES ( A OR B ) WILL ACCOMPLISH A DARK FIELD WITH WHITE COPY.
5. ALL SIGN IMAGING SHALL BE IN COMPLIANCE WITH THE REFLECTIVE SHEETING MANUFACTURERS MATCH COMPONENT SYSTEM.
6. THE SIGN SHALL IDENTIFY THE CORRECT LANE FOR FIRE DEPT. EMERGENCY APPARATUS TO ACCESS AT RESTRICTED GATE LOCATIONS.
7. REQUIRES PRE-APPROVAL BY FIRE PREVENTION EMERGENCY ACCESS OFFICER.



**Click on thumbtack for Auto CAD File**

**Special Application**

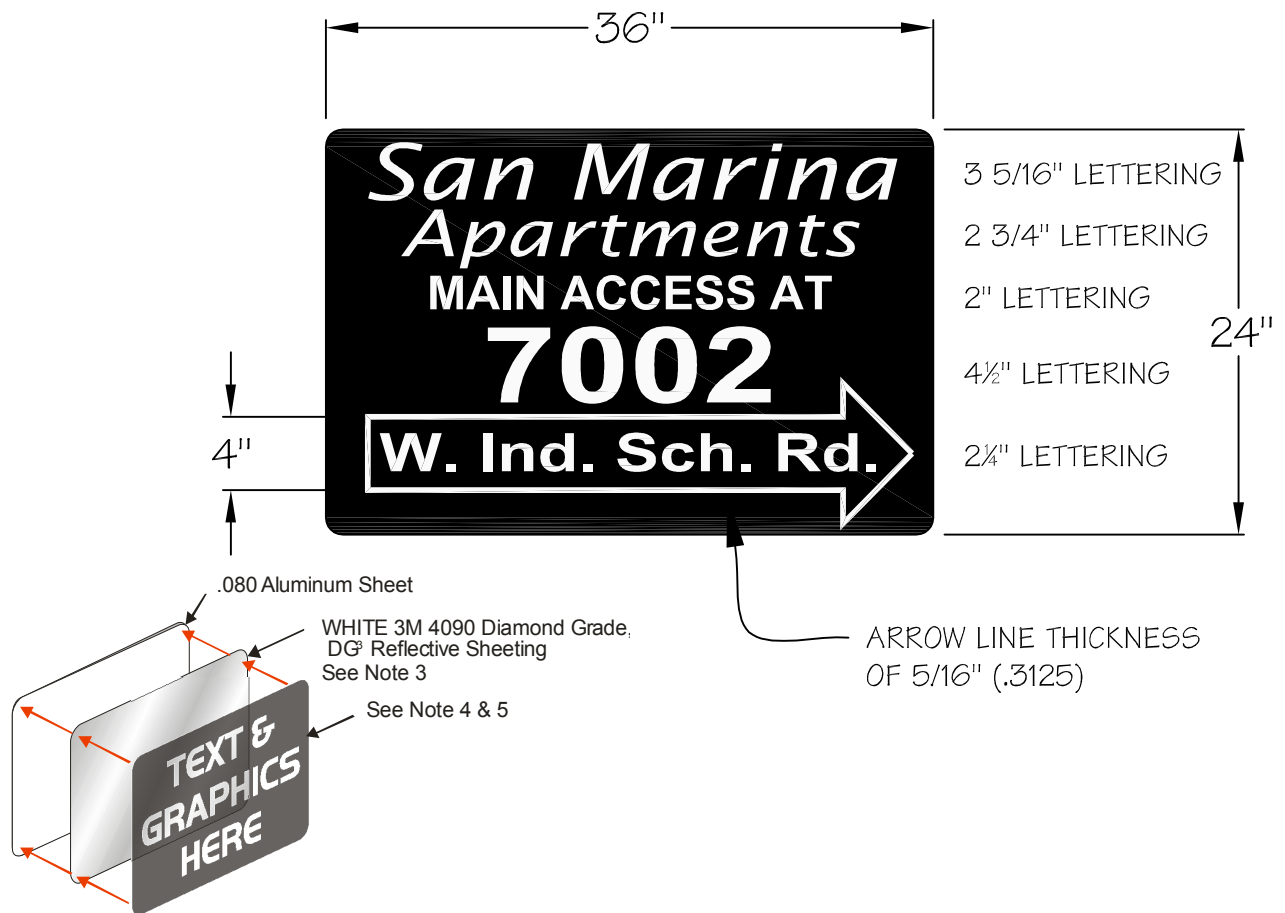


**PHOENIX  
FIRE DEPARTMENT**

**FIRE DEPARTMENT DIRECTIONAL  
SIGN FOR VEHICLE ACCESS**

FILE NAME: Vehicle\_Access\_Enter.dwg  
CALL FIRE PREVENTION-ACCESS OFFICER  
FOR QUESTIONS OR ASSISTANCE  
602-256-3382 OR 602-262-6771

L. HERTZ      DETAIL 7.10 A      MAY 2006



NOTES:

1. THE SIGN FACE SHALL BE 36" X 24" AND FABRICATED FROM .080 ALUMINUM SHEET WITH 1/2" RADIUS CORNERS.
2. FONT STYLE USED IS HANDEL GOTHIC BT CAPITAL FONTS
3. THE SIGN FACE SHALL HAVE A WHITE 3M DIAMOND GRADE REFLECTIVE SHEETING (DG<sup>3</sup> 4090 SERIES OR EQUIVALENT) APPLIED AS A BACKGROUND TO THE ALUMINUM PLATES.
4. LETTERING / GRAPHICS SHALL BE DONE ONE OF THE FOLLOWING WAYS:
  - A. 3M SCOTCHLITE ACRYLIC, TRANSPARENT, ELECTRONIC CUTTABLE FILM, (BLACK 1178 SERIES) INVERSE CUT TO ALLOW WHITE REFLECTIVE BACKGROUND TO SHOW THROUGH.
  - B. SCREEN PRINTED USING 3M 880I OR 880-00 SERIES TRAFFIC SIGN BLACK TRANSLUCENT INK.
 BOTH PROCESSES ( A OR B ) WILL ACCOMPLISH A DARK FIELD WITH WHITE COPY.
5. ALL SIGN IMAGING SHALL BE IN COMPLIANCE WITH THE REFLECTIVE SHEETING MANUFACTURES MATCH COMPONENT SYSTEM.
6. THE SIGN SHALL IDENTIFY THE NAME OF THE APARTMENT OR BUSINESS COMPLEX AND THE LOCATION OF THE MAIN ACCESS ENTRANCE.
7. REQUIRES PRE-APPROVAL BY FIRE PREVENTION EMERGENCY ACCESS OFFICER.

Click on thumbtack for Auto CAD File



FILE NAME: DIRECTIONAL\_SIGN.dwg  
 CALL FIRE PREVENTION-ACCESS OFFICER  
 FOR QUESTIONS OR ASSISTANCE  
 602-256-3382 OR 602-262-6771

**Special Application for  
 San Marina Apts.**



**PHOENIX  
 FIRE DEPARTMENT**

**MANUAL GATE APPLICATION  
 F.D. ACCESS DIRECTIONAL SIGN**

L. HERTZ DETAIL 7.11 MAY 2006

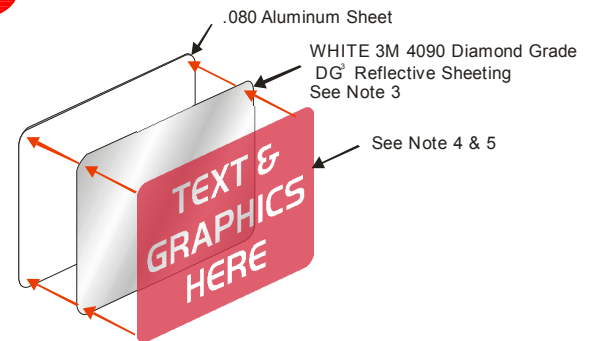
# SPECIAL FIRE DEPARTMENT ACCESS SIGN



3.75" (3 3/4") LETTERING  
.515" STROKE

3.75" (3 3/4") LETTERING  
.790" STROKE

1.75" (1 3/4") LETTERING  
.375" STROKE



**NOTES:**

1. THE SIGN FACE SHALL BE 24" X 18" AND FABRICATED FROM .080 ALUMINUM SHEET WITH 1/2" RADIUS CORNERS.
2. FONT STYLE USED IS HANDEL GOTHIC BT CAPITAL FONTS.
3. THE SIGN FACE SHALL HAVE A WHITE 3M DIAMOND GRADE REFLECTIVE SHEETING (DG<sup>3</sup> 4090 SERIES OR EQUIVALENT) APPLIED AS A BACKGROUND TO THE ALUMINUM PLATES.
4. LETTERING SHALL BE DONE ONE OF THE FOLLOWING WAYS:
  - A. 3M SCOTCHLITE ACRYLIC, TRANSPARENT, ELECTRONIC CUTTABLE FILM (RED 1172 SERIES) INVERSE CUT TO ALLOW WHITE REFLECTIVE BACKGROUND TO SHOW THROUGH.
  - B. SCREEN PRINTED USING 3M 880I OR 880-00 SERIES TRAFFIC SIGN RED TRANSLUCENT INK.

BOTH PROCESSES ( A OR B ) WILL ACCOMPLISH A RED FIELD WITH WHITE COPY.
5. ALL SIGN IMAGING SHALL BE IN COMPLIANCE WITH THE REFLECTIVE SHEETING MANUFACTURES MATCH COMPONENT SYSTEM.
6. REQUIRES PRE-APPROVAL BY FIRE PREVENTION EMERGENCY ACCESS OFFICER.

Click on thumbtack for  
Auto CAD File

FILE NAME: ACCESS\_SIGN\_ONLY.dwg  
CALL FIRE PREVENTION-ACCESS OFFICER  
FOR QUESTIONS OR ASSISTANCE  
602-256-3382 OR 602-262-6771

## SPECIAL APPLICATION

**PHOENIX  
FIRE DEPARTMENT**  


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 SPECIAL APPLICATION  
 ACCESS GATE SIGN  


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 L. HERTZ    DETAIL 7.12    MAY 2006

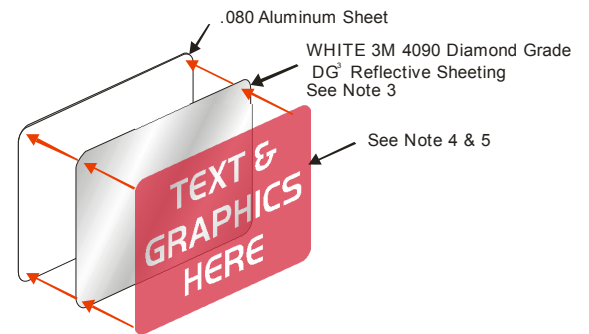
# FOR PORTE COCHERE APPLICATIONS



4.375" (4 3/8") LETTERING  
1" STROKE

4.5" (4 1/2") LETTERING  
1" STROKE

3.75" (3 3/4") LETTERING  
7/8" STROKE



## NOTES:

1. THE SIGN FACE SHALL BE 48" X 24" AND FABRICATED FROM .080 ALUMINUM SHEET WITH 1/2" RADIUS CORNERS.
2. FONT STYLE USED IS HANDEL GOTHIC BT CAPITAL, ADDITIONAL KERNING BETWEEN LETTERS AS SHOWN.
3. THE SIGN FACE SHALL HAVE A WHITE 3M DIAMOND GRADE REFLECTIVE SHEETING (DG<sup>3</sup> 4090 SERIES OR EQUIVALENT) APPLIED AS A BACKGROUND TO THE ALUMINUM PLATES.
4. LETTERING SHALL BE DONE ONE OF THE FOLLOWING WAYS:
  - A. 3M SCOTCHLITE ACRYLIC, TRANSPARENT, ELECTRONIC CUTTABLE FILM (RED 1172 SERIES) INVERSE CUT TO ALLOW WHITE REFLECTIVE BACKGROUND TO SHOW THROUGH.
  - B. SCREEN PRINTED USING 3M 880I OR 880-00 SERIES TRAFFIC SIGN RED TRANSLUCENT INK.
 BOTH PROCESSES ( A OR B ) WILL ACCOMPLISH A RED FIELD WITH WHITE COPY.
5. ALL SIGN IMAGING SHALL BE IN COMPLIANCE WITH THE REFLECTIVE SHEETING MANUFACTURERS MATCH COMPONENT SYSTEM.
6. REQUIRES PRE-APPROVAL BY FIRE PREVENTION EMERGENCY ACCESS OFFICER.

Click on thumbtack for  
Auto CAD File



FILE NAME: CC\_sign.dwg  
CALL FIRE PREVENTION-ACCESS OFFICER  
FOR QUESTIONS OR ASSISTANCE  
602-256-3382 OR 602-262-6771

**Special Application**  
**Appeal Variance Required**

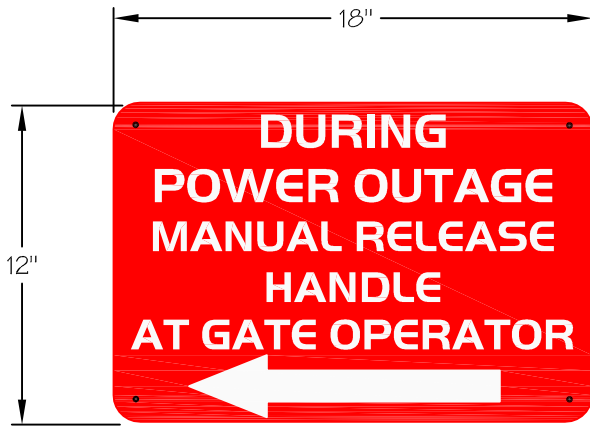


PHOENIX  
FIRE DEPARTMENT

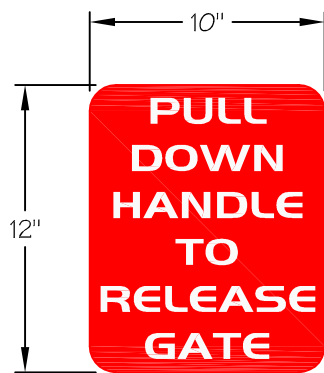
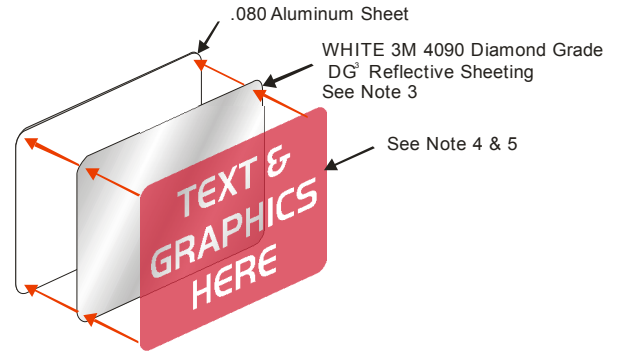
PORTE COCHERE APPLICATION  
ACCESS SIGN

L. HERTZ DETAIL 7.13 MAY 2006





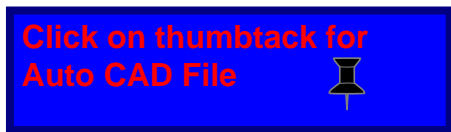
- 1.25" (1 1/4") LETTERING, 1/4" STROKE
- 1.25" (1 1/4") LETTERING, 1/4" STROKE
- 1.125" (1 1/8") LETTERING, 1/4" STROKE
- 1.125" (1 1/8") LETTERING, 1/4" STROKE
- 1.125" (1 1/8") LETTERING, 1/4" STROKE



- 1.125" (1 1/8") WHITE LETTERING
- 1/4" STROKE (.250)

NOTES:

1. THE SIGN FACE SHALL BE FABRICATED FROM .080 ALUMINUM SHEET WITH 1/2" RADIUS CORNERS.
2. FONT STYLE USED IS HANDEL GOTHIC BT CAPITAL FONTS.
3. THE SIGN FACE SHALL HAVE A WHITE 3M DIAMOND GRADE REFLECTIVE SHEETING (DG<sup>3</sup> 4090 SERIES OR EQUIVALENT) APPLIED AS A BACKGROUND TO THE ALUMINUM PLATES.
4. LETTERING SHALL BE DONE ONE OF THE FOLLOWING WAYS:
  - A. 3M SCOTCHLITE ACRYLIC, TRANSPARENT, ELECTRONIC CUTTABLE FILM (RED 1172 SERIES) INVERSE CUT TO ALLOW WHITE REFLECTIVE BACKGROUND TO SHOW THROUGH.
  - B. SCREEN PRINTED USING 3M 880I OR 880-00 SERIES TRAFFIC SIGN RED TRANSLUCENT INK.
 BOTH PROCESSES ( A OR B ) WILL ACCOMPLISH A RED FIELD WITH WHITE COPY.
5. ALL SIGN IMAGING SHALL BE IN COMPLIANCE WITH THE REFLECTIVE SHEETING MANUFACTURES MATCH COMPONENT SYSTEM.
6. THE SIGN SHALL IDENTIFY THE LOCATION OF THE HANDLE TO RELEASE HYDRAULIC PRESSURE FOR OPENING GATE (SEE DETAIL 7.7)
7. REQUIRES PRE-APPROVAL BY FIRE PREVENTION EMERGENCY ACCESS OFFICER.



**SPECIAL APPLICATION  
FOR MANUAL PUMP RELEASE  
APPEAL REQUIRED**

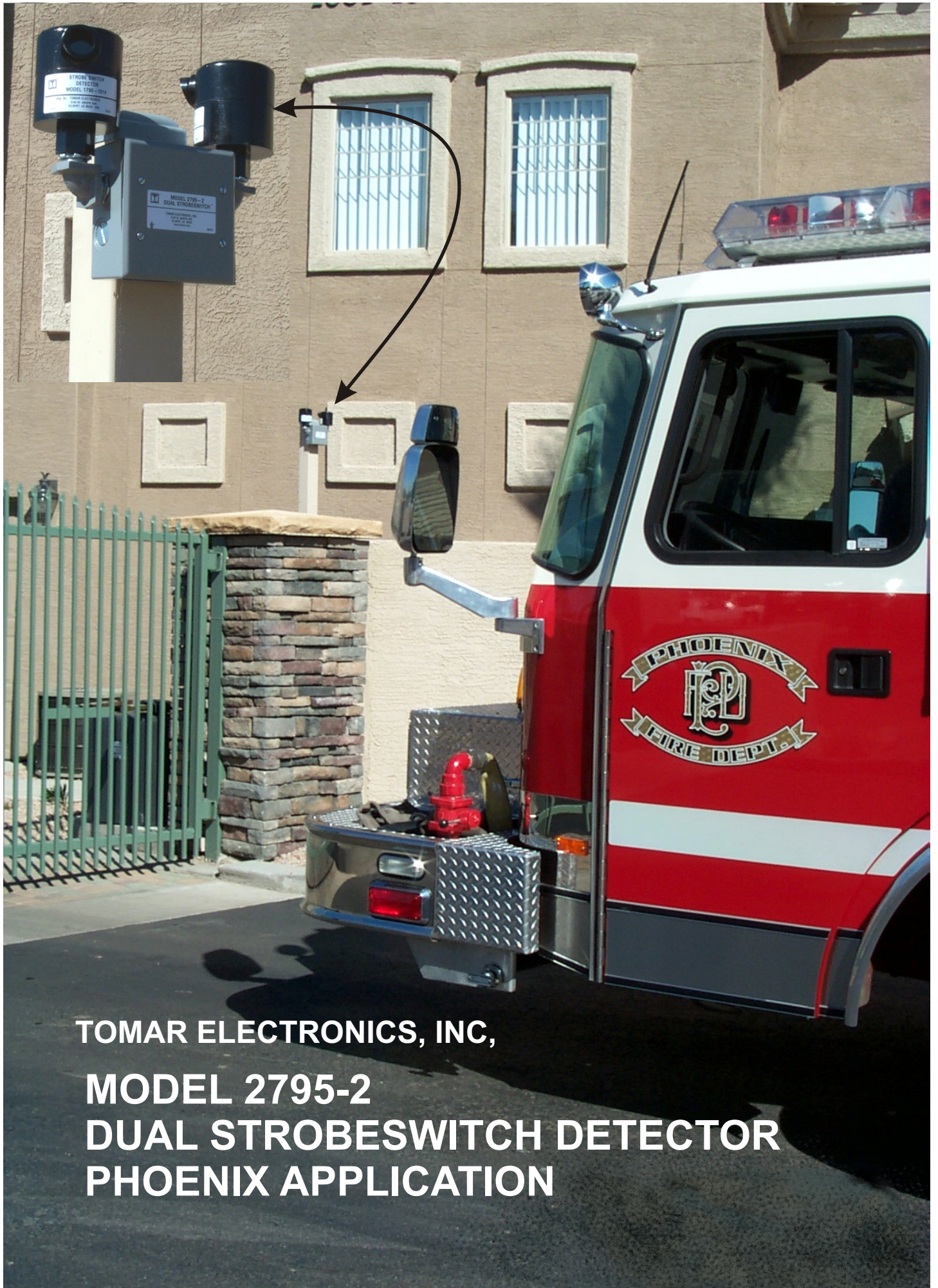


**PHOENIX  
FIRE DEPARTMENT**

**SPECIAL APPLICATION  
ACCESS SIGN**

FILE NAME: Manual Release2.dwg  
CALL FIRE PREVENTION-ACCESS OFFICER  
FOR QUESTIONS OR ASSISTANCE  
602-256-3382 OR 602-262-6771

L. HERTZ    DETAIL 7.14    MAY 2006



**TOMAR ELECTRONICS, INC,  
MODEL 2795-2  
DUAL STROBESWITCH DETECTOR  
PHOENIX APPLICATION**

## PRELIMINARY INFORMATION

### Phoenix-Approved Strobeswitch Gate Access System

**STROBESWITCH™** is a compact low cost detector which recognizes a coded strobe light signal from special emitters mounted on fire vehicles and ambulances. The system provides an output activation of the emergency access switch. In the Phoenix-approved configuration, two detectors are used—one to sense entering emergency vehicles and another to facilitate quick exit. Both detectors are mounted on a rugged weatherproof power module that contains all additional processing circuitry. The assembly provides a dry relay closure signal to the gate operator, and requires only 24 VAC input power to operate.

#### **HOW IT WORKS:**

The emergency vehicle uses a special strobe light to transmit a continuously flashing optical signal. The TOMAR Model 2795-2 STROBESWITCH™ receives this signal, and if the signal format is correct, activates a relay. The relay contacts may be used to control security gates, fire department garage doors, and other devices. Signaling is optical by line of sight, and the 2795-2 can operate indoors or outdoors, in bright sunlight, or in any weather. The unit is not susceptible to radio frequency interference, and uses digital frequency discrimination to reject unwanted signals, such as flashlights, emergency vehicle lighting systems, flashing signs, etc.

#### **AVAILABLE FROM:**

Any **Authorized** Gate Company Licensed by the Arizona Registrar of Contractors as L-5 or C-5 License.

Refer to Yellow pages under Gates & Operating Devices

Emergency Access Officer  
Richard Tritch  
602-256-3382 (Cell)



Phoenix Fire Department  
150 South 12th Street, Phoenix, AZ 85034

Emergency Access Gate Inspector  
602-618-0856 (Cell)