DSI®

DESIGNED SECURITY, INC.

A Detex Company

ES8500

Mid-Sized Optical Turnstile   Model ES8500

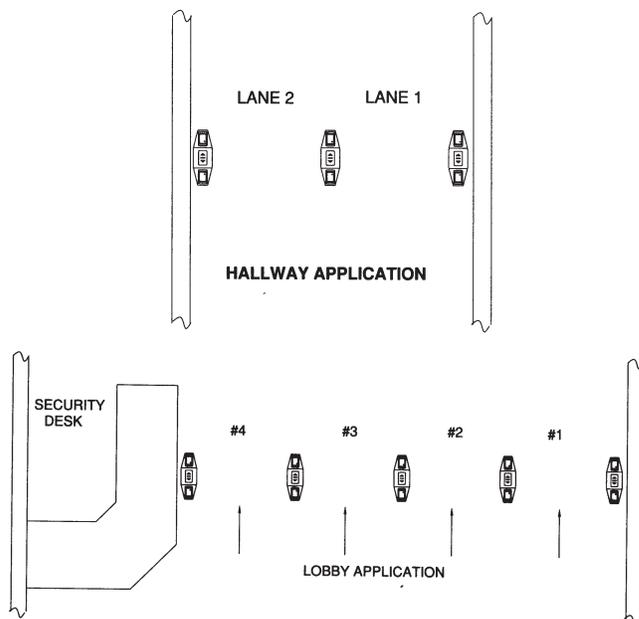**MID-SIZED OPTICAL TURNSTILE**

The Designed Security, Inc. **ES8500 Series Optical Turnstile** monitors pedestrian traffic flow through an access control point and assures that only one individual can pass for each valid card presented, thus eliminating "Tailgating". This system utilizes sensing pedestals to form passageways at the entrance to a controlled area. An individual must be granted ACCESS by the facility's access control system in order to pass between the pedestals without activating an ALARM. The system is compatible with any type of card reader technology and can be field configured for **CARD-IN/ CARD-OUT**, or **CARD-IN/FREE-EXIT** operation. The system inputs allow the unit to be bypassed remotely and the outputs can be used to indicate an intrusion alarm, to indicate an invalid card or to count individuals as they enter and exit. The Mid-Sized Optical Turnstile System is designed for small to mid-sized lobby/entry applications where styling is important.

When a user presents a valid card an audible chime sounds and a green arrow illuminates to indicate that access has been granted. When the individual walks through the passageway the system is reset for the next user. If an individual walks through the passageway without being granted access, an alarm output contact will be activated which can be used to initiate appropriate security response.

Designed Security, Inc. Mid-Sized Optical Turnstiles meet the standards of the Americans with Disabilities Act of 1990.

ES8500 MID-SIZED OPTICAL TURNSTILE - TYPICAL APPLICATIONS
Criteria for designing an optical turnstile walkway

1. Determine the number of walkways required based on the desired pedestrian throughput and space availability. Typical pedestrian throughput is 60 people per minute, 3600 per hour, per lane.
2. Walkway bollards should be spaced 24" - 36" apart. Wider spacing results in pedestrians attempting to pass through the lane two abreast, resulting in a high incidence of alarms.
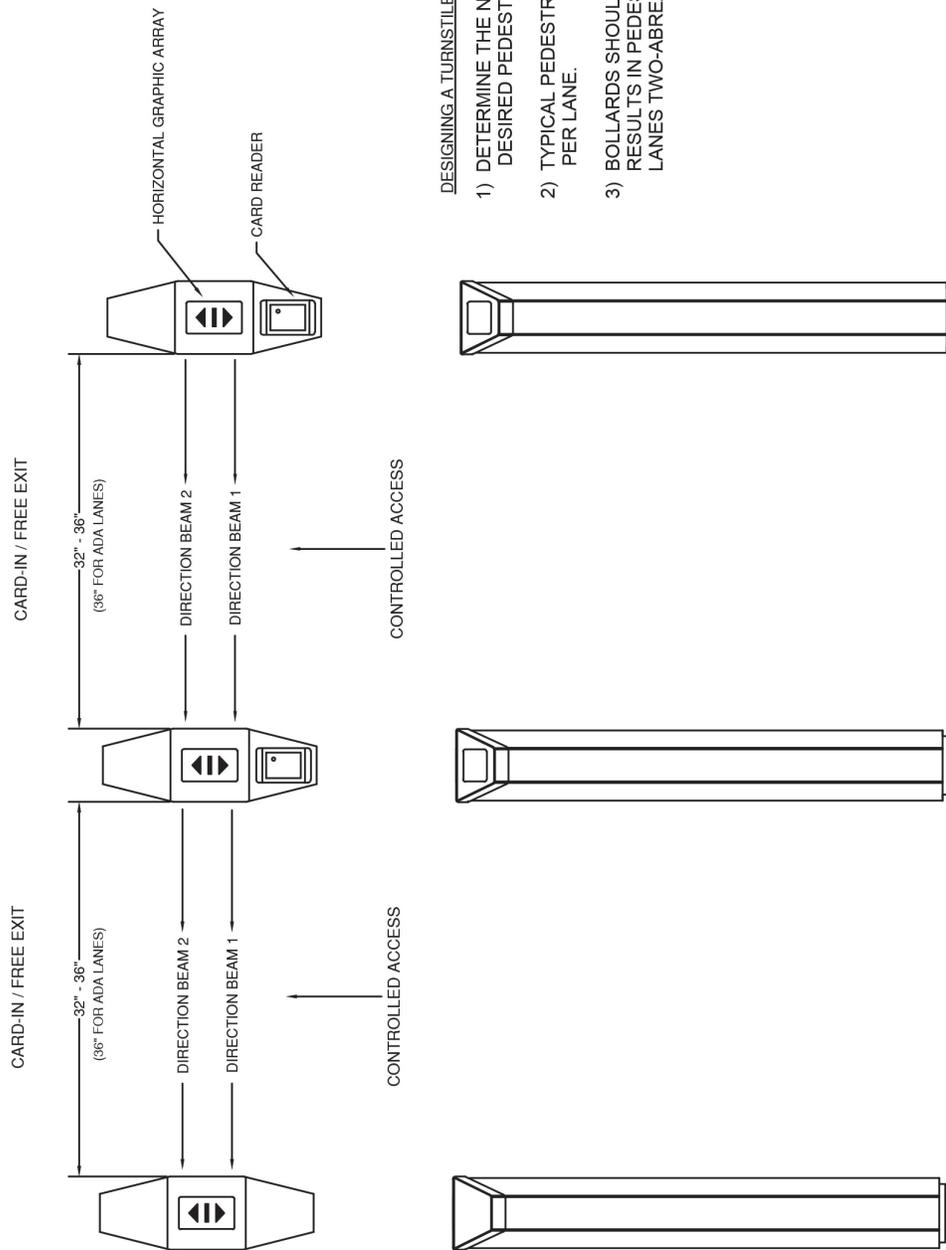
Electrical Specifications

Power: 12 VDC @ 700 mA/walkway
Control Input: N/O-Momentary "Valid A card" (max. 1 sec. pulse closure)
                     N/O-Momentary "Valid B card" (max. 1 sec. pulse closure)
                     N/O-Momentary/Maintained "Remote bypass"
Control Output: Form "C" Alarm contact status
                     Form "C" "A" passage complete contact status
                     Form "C" "B" passage complete contact status
                     All relays rated at 1 Amp @ 30VDC

Audible Alarm: 80 dB @ 3 ft.

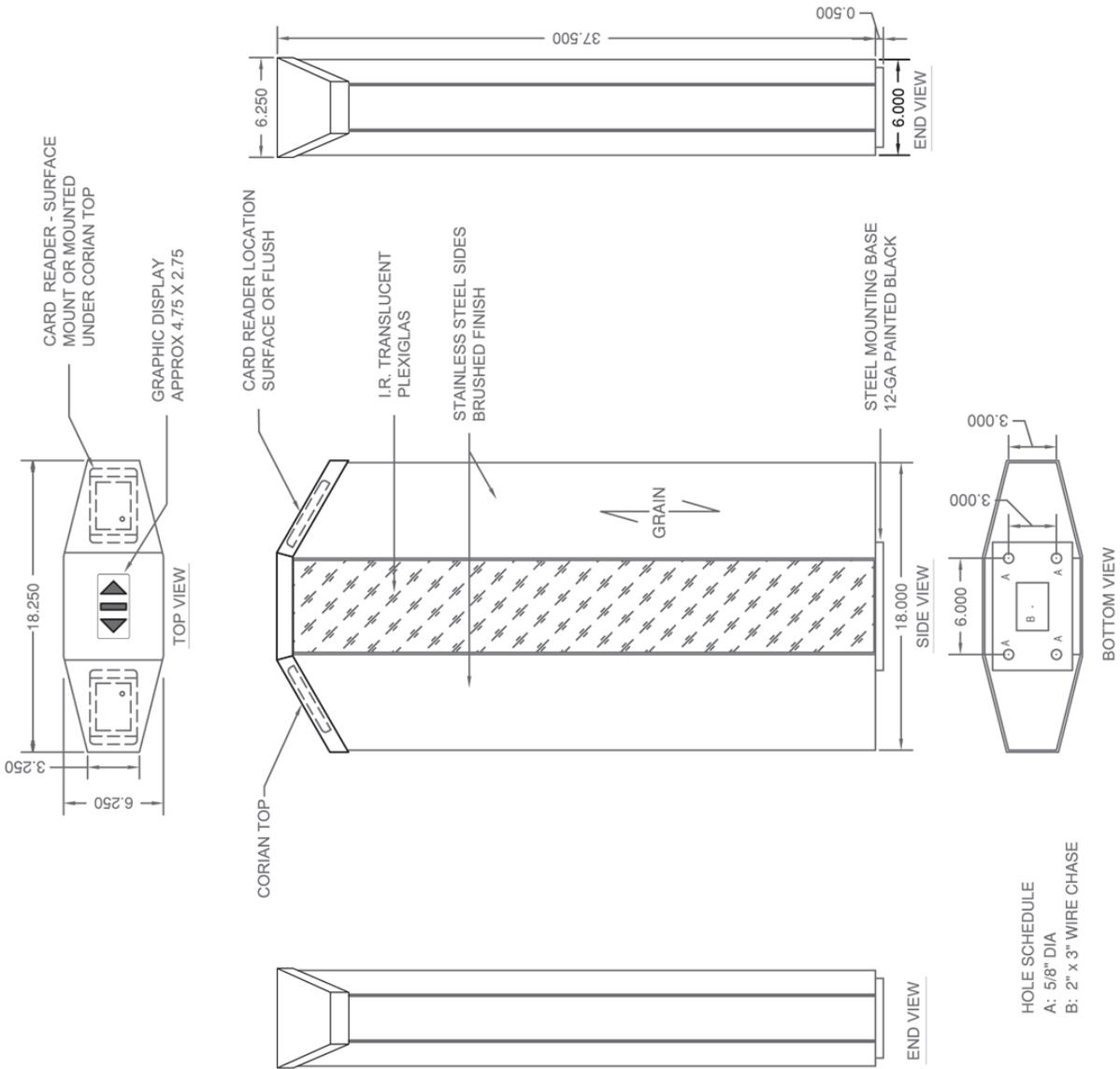## Mechanical Specifications for the Bollard

Size: 18" L x 38" H x 6" W
Mounting: 12 gauge steel base with 4 - 9/16" mounting holes and 2" conduit hole
Finish: Top Surface: Avonite Black Lava *
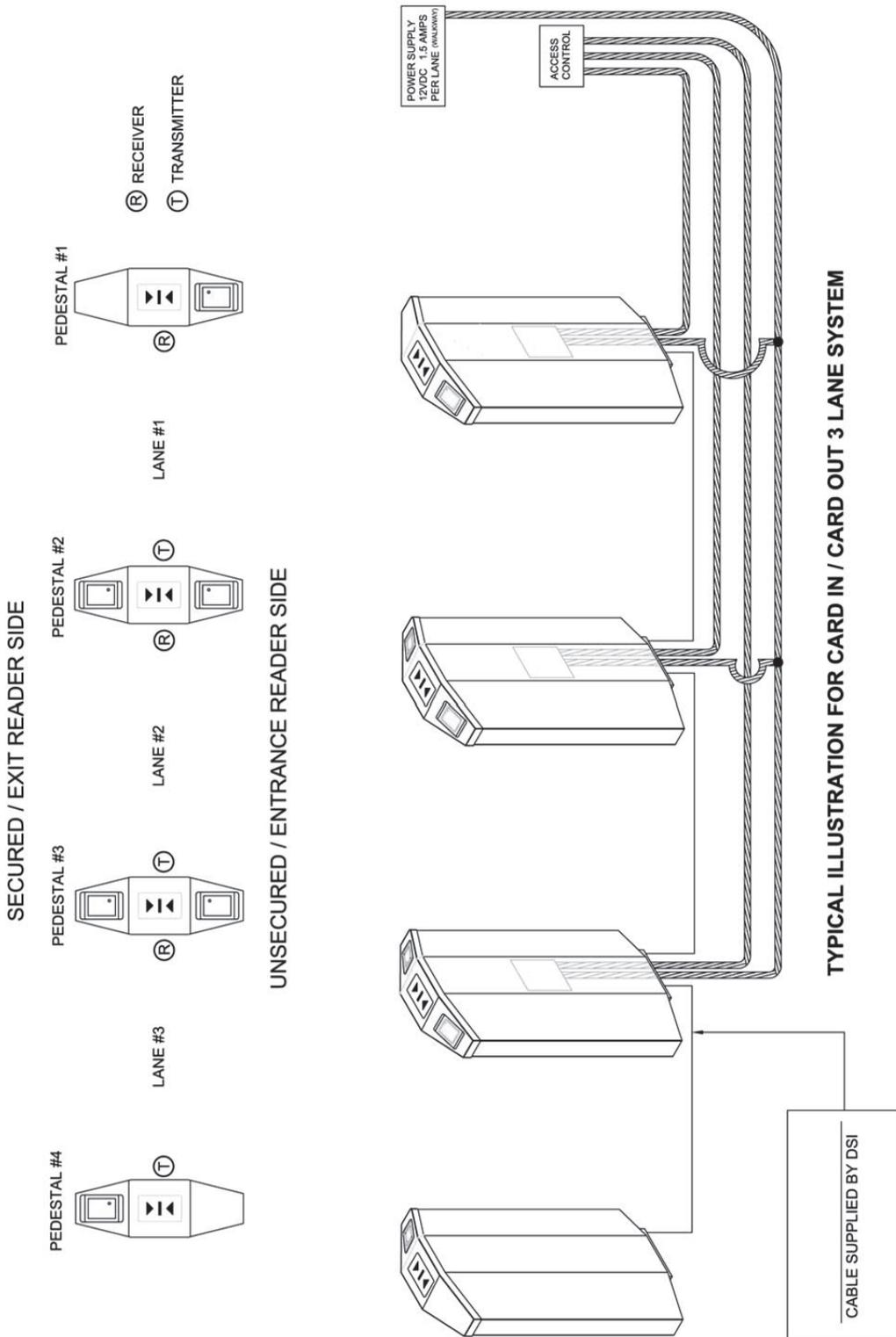   Side Panel: Satin Brushed Stainless Steel*
                          Custom colors and finishes may be specified at additional cost.

HORIZONTAL GRAPHIC ARRAY

CARD READER

CARD-IN / FREE EXIT

32" - 36"
(36" FOR ADA LANES)

DIRECTION BEAM 2

DIRECTION BEAM 1

CONTROLLED ACCESS

CARD-IN / FREE EXIT

32" - 36"
(36" FOR ADA LANES)

DIRECTION BEAM 2

DIRECTION BEAM 1

CONTROLLED ACCESS

DESIGNING A TURNSTILE SYSTEM

1) DETERMINE THE NUMBER OF WALKWAYS REQUIRED BASED ON THE DESIRED PEDESTRIAN THROUGHPUT AND SPACE AVAILIBILTY.

2) TYPICAL PEDESTRIAN THROUGHPUT IS 60 PEOPLE / MIN, 3600 / HR, PER LANE.

3) BOLLARDS SHOULD BE SPACED 32"-36" APART. WIDER SPACING RESULTS IN PEDESTRIANS ATTEMPTING TO PASS THROUGH THE LANES TWO-ABREAST, RESULTING IN A HIGH INCIDENCE OF ALARMS.

37.500

6.250

0.500

6.000

END VIEW

CARD READER - SURFACE
MOUNT OR MOUNTED
UNDER CORIAN TOP

GRAPHIC DISPLAY
APPROX 4.75 X 2.75

CARD READER LOCATION
SURFACE OR FLUSH

I.R. TRANSLUCENT
PLEXIGLAS

STAINLESS STEEL SIDES
BRUSHED FINISH

STEEL MOUNTING BASE
12-GA PAINTED BLACK

GRAIN

18.250

3.250

6.250

TOP VIEW

CORIAN TOP

18.000

SIDE VIEW

3.000

3.000

6.000

A   A

B

A   A

BOTTOM VIEW

END VIEW

HOLE SCHEDULE
A: 5/8" DIA
B: 2" x 3" WIRE CHASE

PEDESTAL #1

PEDESTAL #2

PEDESTAL #3

PEDESTAL #4

LANE #1

LANE #2

LANE #3

SECURED / EXIT READER SIDE

UNSECURED / ENTRANCE READER SIDE

R RECEIVER

T TRANSMITTER

POWER SUPPLY
12VDC 1.5 AMPS
PER LANE (WALKWAY)

ACCESS
CONTROL

CABLE SUPPLIED BY DSI

TYPICAL ILLUSTRATION FOR CARD IN / CARD OUT 3 LANE SYSTEM

ES8500 Accessories

Floor plates

Floor Plates are used where floors cannot be core drilled such as in landmark buildings. The Floor Plates provide a mounting surface for the turnstiles and provide a wire way to run all cables. The ES8500 floor plates meet the standard of the Americans with Disabilities Act of 1990.

Card reader decals

Provides an icon to help communicate to users where the card reader is located.

Power Supply

The PS/DC12 is a plug-in Class II regulated power supply with an LED power indicator. It has built in cable strain relief. The housing is a bright white colored plastic and comes with a mounting tab and screw