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 - **Security/Monitoring**
 - **Access Control System Enhancement**

1.1 **System Description**

1.1.1 **Tailgate Detection System - ES5200**

Tailgate Detection Systems shall be provided to monitor and detect tailgating of pedestrians at certain card reader controlled doors as indicated on the plans. The tailgate detection system shall provide monitoring and control of pedestrian traffic for “**Card-in/Free-exit**”, or “**Card-in/Card out**” conditions as detailed. The tailgate detection system shall have the ability to detect that only one pedestrian enters a card reader controlled door for each valid card read. The “**One Read/One Entry**” rule shall be monitored by IR sensors located behind the IR acrylic window that establishes two (2) narrow walls of detection to determine the direction of travel. The microprocessor shall evaluate and combine the signals to detect and report violations. The system shall sense and process the direction. Entry access is initiated when a valid card is used. During entry access the ES5200 senses and reports violations according to its configuration, “**Card-in/Free-exit**”, or “**Card-in/Card-out**”. During an entry access any number of pedestrians may pass the sensors without causing an alarm condition, so long as each passage is preceded by a card read and an access granted signal from the access control system. In the event of a valid card read but no entry the unit shall auto re-arm. In the event of unauthorized entry or tailgating, the system shall alarm. This shall cause a local audible alarm within the unit to sound and activate an alarm contact for remote indication. The alarm condition shall be reset by local key switch, remote reset, or automatically. The tailgate detection system shall be connected to the primary system for battery back-up.

1.2. **Technical Specifications**

1.2.3. **Tailgate Detection System**

1.2.3.1 The Tailgate Detection System shall meet the following minimum specifications:

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|----------------------------|---|
| Power Requirements: | 12-24VDC @ 500mA. |
| Local Control: | Double bit key switch for reset, bypass/reset. |
| Control Inputs: | N/O-Momentary “Valid A card”
(max. 1 sec. pulse closure)
N/O-Momentary “Valid B card”
(max. 1 sec. pulse closure)
N/O-Maintained “Bypass”
N/C-Maintained “Door contact” |
| Status Outputs: | N/O and N/C Lock contact
N/O and N/C Alarm contact status
N/O and N/C Door contact status
N/O and N/C A passage complete contact status
N/O and N/C B passage complete contact status |
| Audible Alarm: | 85 dB @ 3 feet. |
| Mounting: | Direct mounting to doorframe or wall
Optional spacer mounting kit available |
| Dimensions: | 2.0” W x 54.7” H x 2.6” D |

(ES5200 Series Product Specifications continued on next page)

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Remote Annunciator: Flush mount one (1) gang – 2 ½” deep electrical box. Flush mount mullion mount annunciator to door frame opposite the tailgate detection unit. Tamper resistant fasteners shall be used to mount annunciator units.

1.2.3.2 The Tailgate Detection System is manufactured in the USA.

1.2.3.3 The Tailgate Detection System shall be a Designed Security, Inc. Model ES5200.

Additional Information:

Refer to product catalog, Tailgate & Mantraps section for cut sheet. Pricing & Options section for product configuration worksheet.

Available Models:

ES5200-R0 Basic Tailgate Detection System.

ES5200-R1 Base model with a 1-gang remote annunciator panel for use on the opposite side of the doorway.

ES5200-R2 Base model with a mullion mount remote annunciator panel to mount on the door frame opposite the tailgate unit.

ES5201-R0 Basic tailgate w/ spacer mounting kit

ES5201-R1 Basic tailgate w/ spacer mounting kit and 1-gang remote annunciator panel for use on the opposite side of the doorway.

ES5201-R2 Basic tailgate w/ spacer mounting kit and mullion mount remote annunciator panel to mount on the door frame opposite the tailgate unit.

ES411
ES4300
ES440
ES4600
ES5200
ES600
ES810
ES840
ES850