

System Design Overview

The **DSI ES830 Series Optical Turnstiles with Barrier Arms** shall utilize the building access control system to grant or deny access to the facility. Even with the barrier arms, this product is nonrestrictive to handicapped persons and provides equal access in accordance with The Americans With Disabilities Act of 1990/ADA and Life Safety 101.

The pedestrian passageway is truly bi-directional at all times and the system will allow each passageway to be accessible in both directions at any given time. Selecting a passageway direction is not necessary. This system can be field selected as a **Card-in/Free-exit**, or **Card-in/Card-out** system configuration. The access control system outputs can be interfaced to a time and attendance system. The pedestrian passageway shall provide high-speed/high-security pedestrian control to the secured area of the facility.

The pedestrian passageway design will allow for one card read/one person entry through each passageway. Visual and audible annunciation is provided at each pedestrian passageway to provide indication of valid card read, invalid card, and alarm conditions. This indication shall be provided by the Vertical Graphic Arrays/VGA's and the Horizontal Graphic Arrays/HGA's.

The VGA's provide the following nomenclature: **Open/Closed/Wait** (wait flashes on alarm condition). The HGA's provide the following nomenclature: **Present Card/Proceed** (with arrow sequence) and a **Flashing Red Bar** (for alarm condition). All components shall be solid-state in design and virtually maintenance free.

There are typically multiple pedestrian passageways at each location to allow for traffic flow in both directions at all times. The number of passageways at each location will depend on traffic flow patterns and shall be determined by the security consultant or system integrator with assistance from Designed Security, Inc.

An optional zone annunciator or graphic annunciator in the control room can be provided to indicate the status of each pedestrian passageway. This would indicate access violations and alarm conditions.

All components and electronic subassemblies of the ES830 Series Optical Turnstiles including the MPU/Microprocessor Controller shall be mounted in the passageway bollards. This will greatly reduce the installation costs with regard to man hours, conduit, wire and cable requirements. All components including the MPU and Vertical Arrays/VGA's shall be solid-state design, virtually maintenance free, and manufactured in the USA.

The ES830 Series Optical Turnstiles shall be furnished by Designed Security, Inc.