

# Security Checkpoint Guidelines for Queuing & Wayfinding





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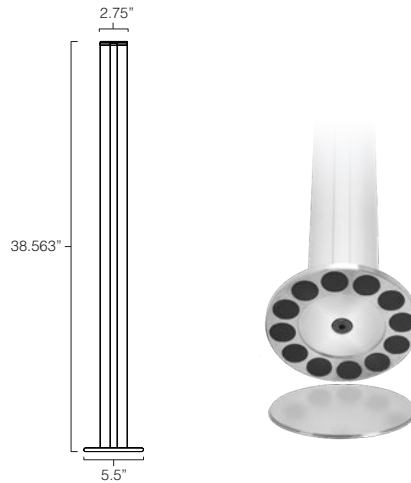
## 1.1 Purpose and Scope

The information in this guide should be used when designing new security checkpoints or reconfiguring existing checkpoints. Proper SSCP design provides a smoother, safer experience for the passenger while increasing the efficiency of the screening process. The recommendations in this guide, both for the use of security equipment as well as suggested queue design best practices, are the result of decades of field testing by Lavi Industries, transportation terminals, carriers, and security agencies.

Every airport and airport terminal is unique in physical design and functional requirements. A single SSCP solution will not work for every airport. These recommendations and guidelines are to be used as a framework to customize an SSCP solution that works for each specific space, while meeting TSA checkpoint requirements, as well as local safety requirements and codes.

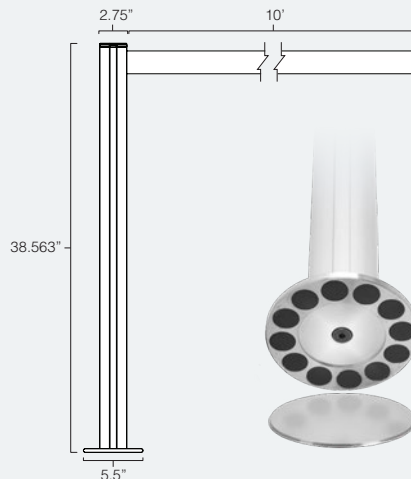
### 2.1 Magnetic-Base Stanchions

#### 2.1.1 Partition Post



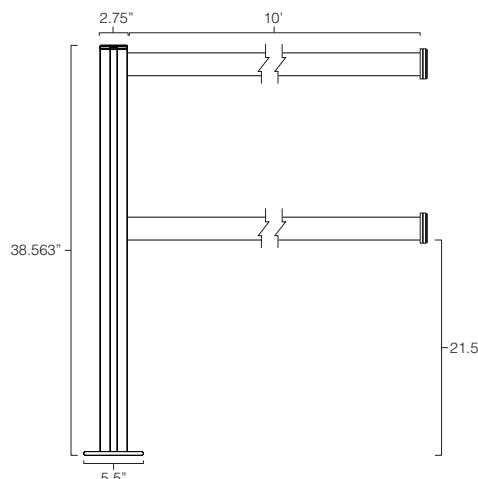
- Grooved stanchion accepts partition & signage panels.
- Magnetic base keeps stanchion in place for consistent queue layout.
- 5.5" diameter base increases usable floor space.
- No belt for use with panels.

#### 2.1.2 Retractable Belt Stanchion with Emergency Breakaway Belt



- Grooved stanchion accepts partition & signage panels.
- Magnetic base keeps stanchion in place for consistent queue layout.
- 5.5" diameter base increases usable floor space.
- Emergency breakaway belt snaps away from post when met with 12 lbs. of force.

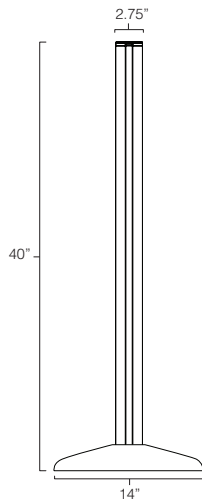
#### 2.1.3 ADA-Compliant Stanchion with Emergency Breakaway Belts



- Grooved stanchion accepts partition & signage panels.
- Bottom belt is "cane detectable," complying with ADA guidelines.
- 5.5" diameter magnetic base increases usable floor space while keeping post in place for consistent queue layout.
- Emergency breakaway belts snap away from post when met with 12 lbs. of force.

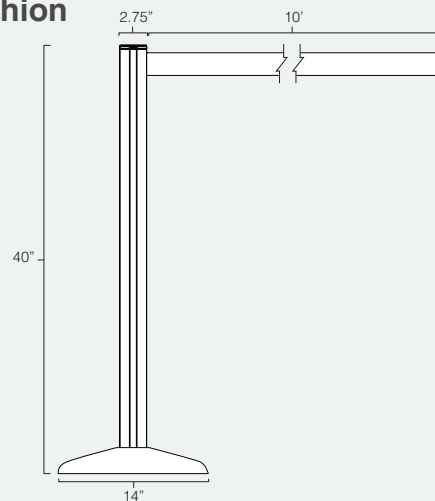
### 2.1 Portable Stanchions

#### 2.2.1 Partition Post



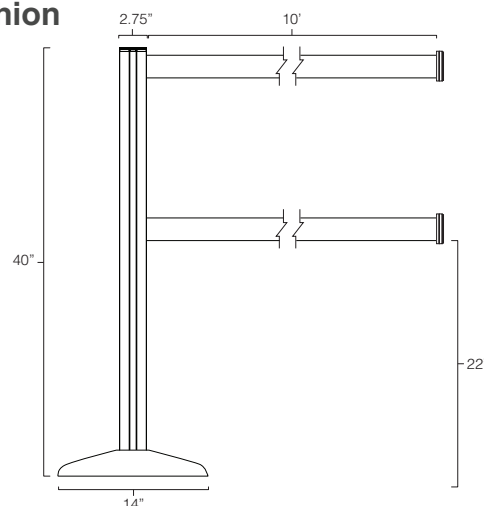
- Grooved stanchion accepts partition & signage panels.
- Portable post can be easily moved to where needed.
- Use with partition and sign panels.

#### 2.2.2 Retractable Belt Stanchion



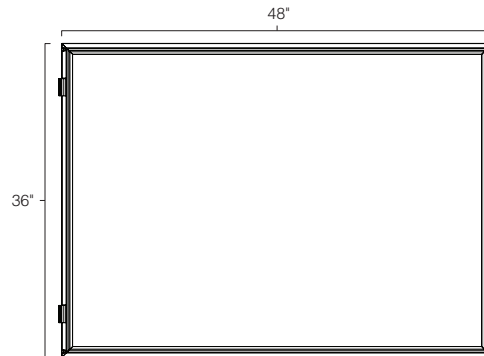
- Grooved stanchion accepts partition & signage panels.
- Portable post can be easily moved to where needed.
- Use with partition and sign panels.

#### 2.2.3 ADA-Compliant Stanchion

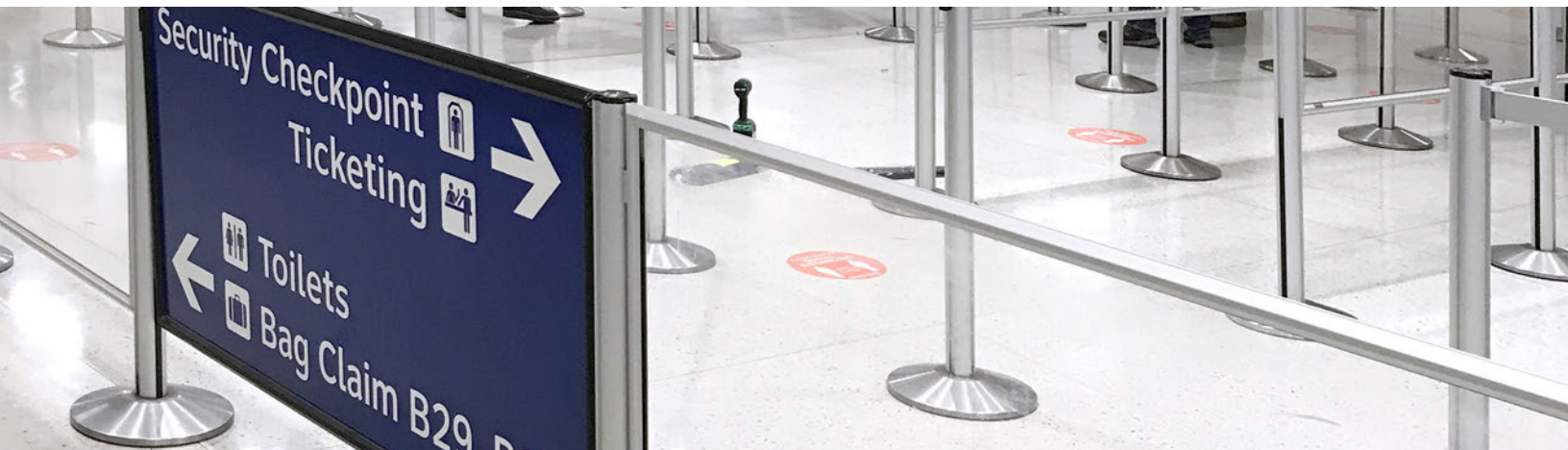


- Grooved stanchion accepts partition & signage panels.
- Portable post can be easily moved to where needed.
- Use with partition and sign panels.
- Bottom belt is “cane detectable,” complying with ADA guidelines.

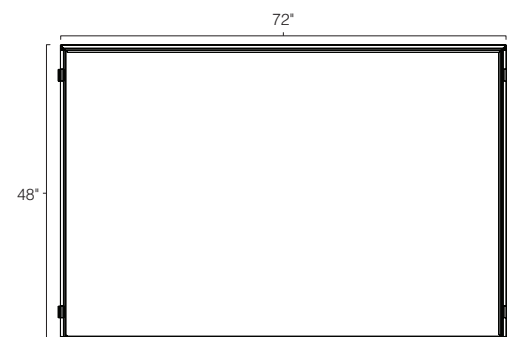
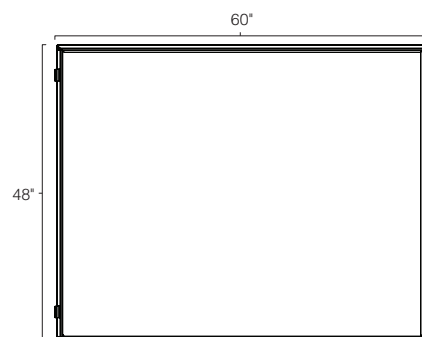
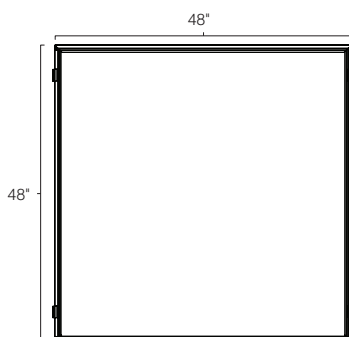
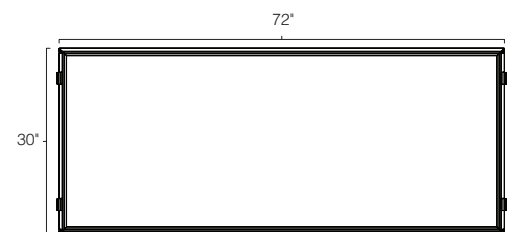
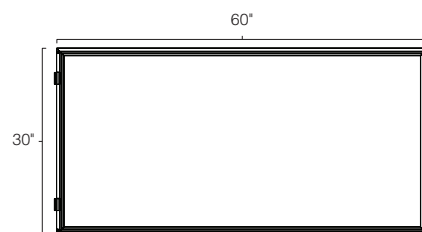
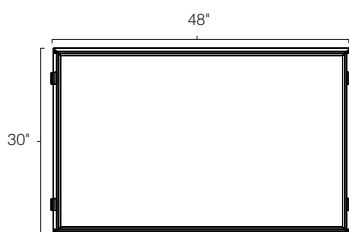
### 2.3 Post & Panel Barriers



- Hinged connections allow panels to be angled in any direction.
- Use with either clear or black 1/4" acrylic panels.
- Barrier/partition walls can be used for branding, wayfinding, or messaging.

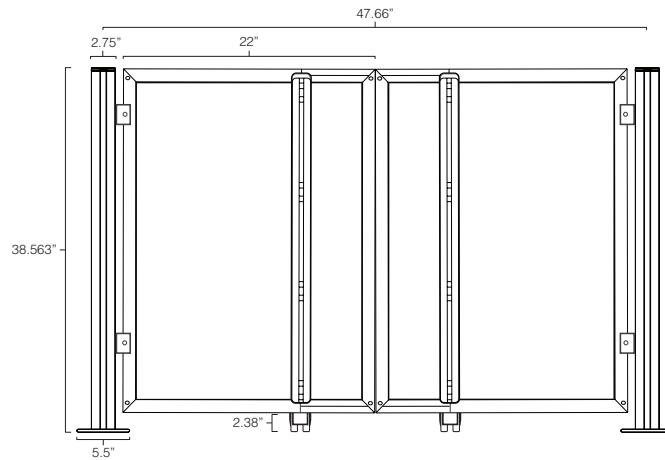


#### Other recommended sizes:



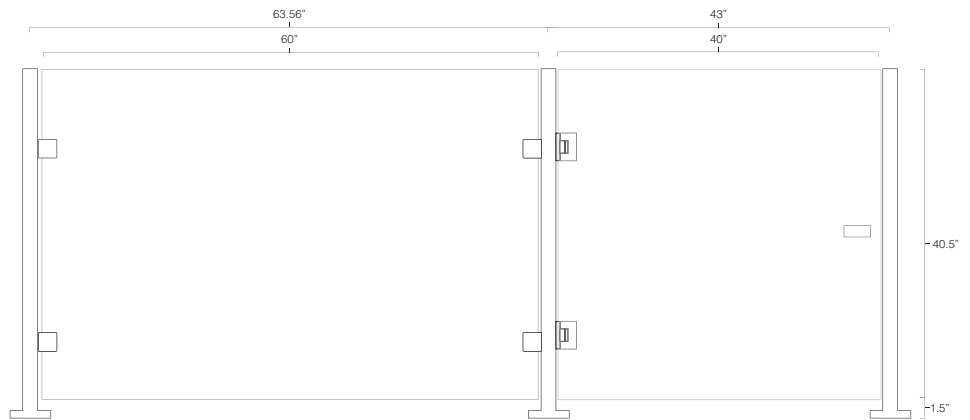


### 2.4 Emergency Egress Gates



- Integrate into partition walls and barriers for emergency egress points.
- Magnetic base stanchions provide extra stability.
- Magnetic closure snaps gates into closed position.
- Gates swing 180 degrees.
- Wheels roll on hard surfaces and carpet.

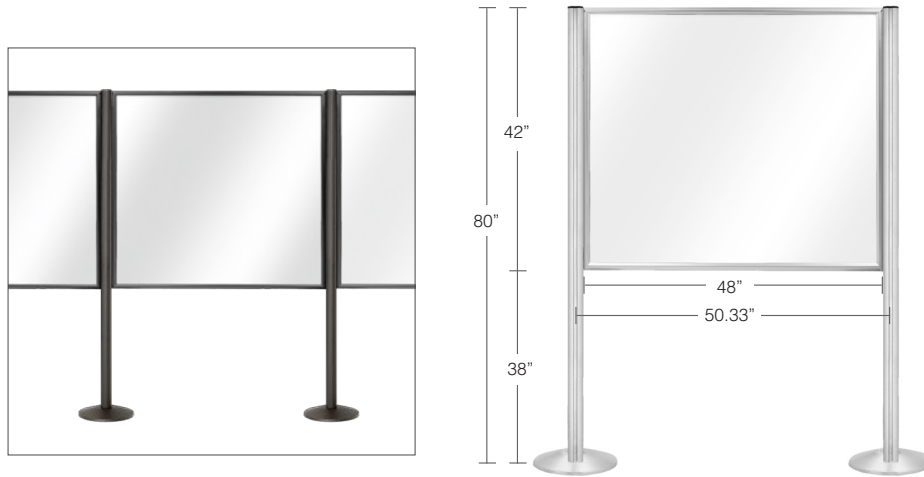
### 2.5 Glass Partition Walls & Gates



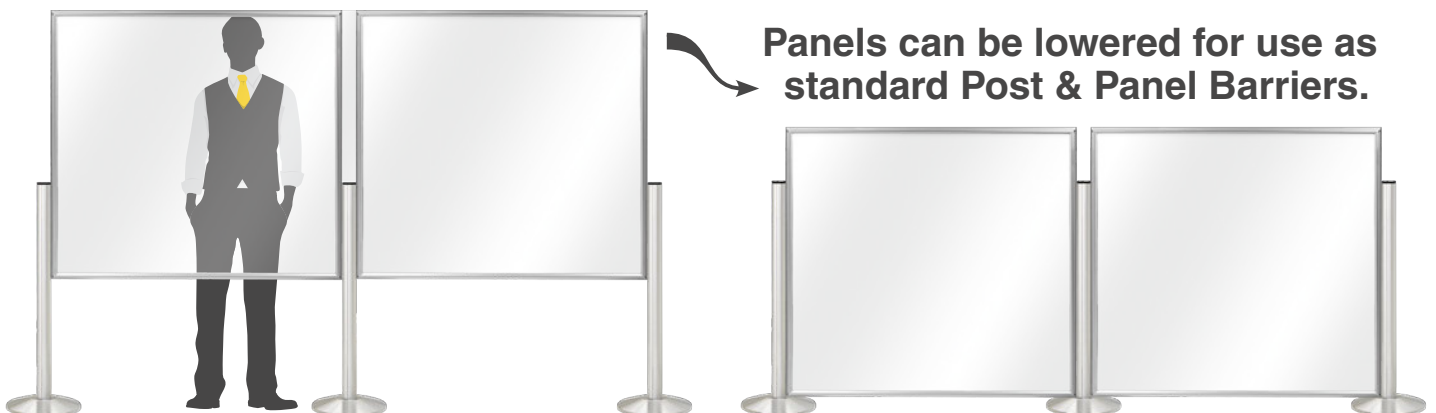
- Creates secure areas and passageways.
- Provides access control with locking gates
- Permanent or removable installation.
- Magnetic-base option doesn't require floor drilling.
- Corrosion-resistant, 316-grade stainless steel for indoor and outdoor application



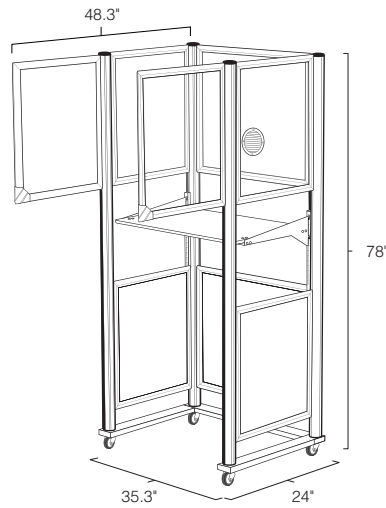
### 2.6 Passenger Queue & Divesting Shielding Barriers



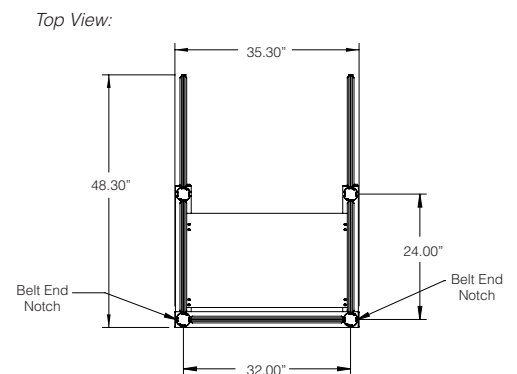
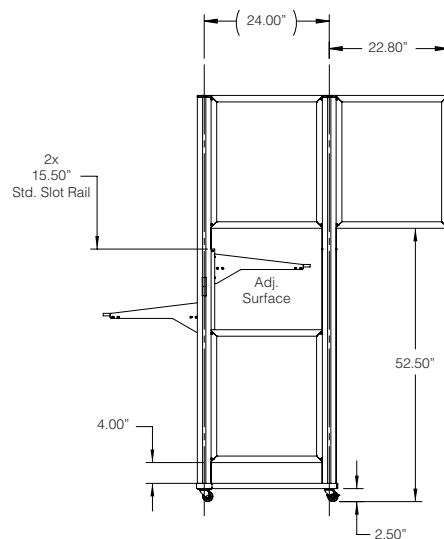
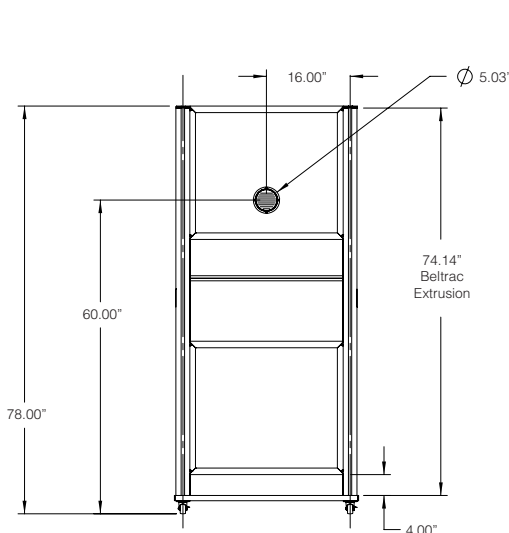
- Provides an effective physical shield from airborne particles.
- Use in Divesting or throughout the passenger queuing area.
- Use with or without speak-thru's.
- Available in a Pass-thru height for Divesting area.



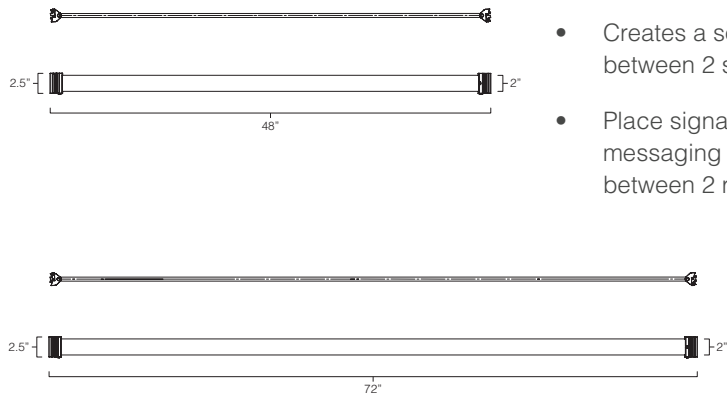
### 2.7 TDC Shielding Kiosk



- Communicate clearly with built-in, front speak-thru.
- Adjustable table surface for equipment or writing space.
- Post grooves allow kiosk to connect to Retractable Belt Stanchions.
- Locking wheels provide mobility.

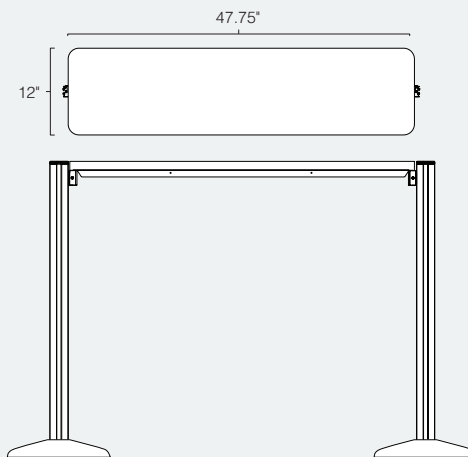


### 2.8 Rigid Rail Barriers



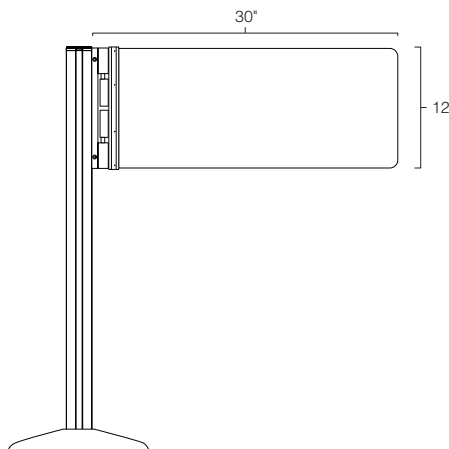
- Creates a solid barrier between 2 stanchions.
- Place signage and messaging graphics between 2 rails.

### 2.9 In-Queue Table



- Provides a writing or task surface within a queue.
- Use as a Bag Tag Table or to complete required paperwork.

### 2.10 Swing Gate

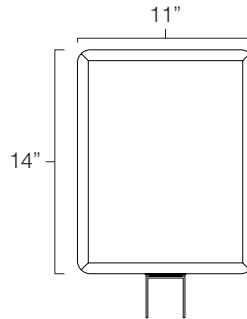


- Keeps waiting passengers from encroaching into the service space.
- Provides a clear wait point.



### 2.11 Post-Connected Signage

#### 2.11.1 Stanchion Sign Frames



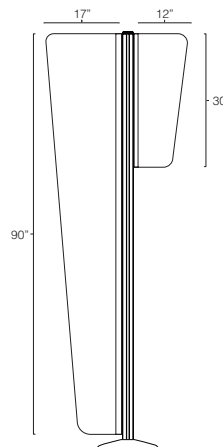
- Holds 11" x 14" graphics and directional messaging.
- Paper graphics are sandwiched between two acrylic sheets for protection.
- Frame swivels 360°, snapping in 8 fixed positions.

#### 2.11.2 Post & Panel Signage



- Add branding, messaging and wayfinding into queues and queue perimeters.

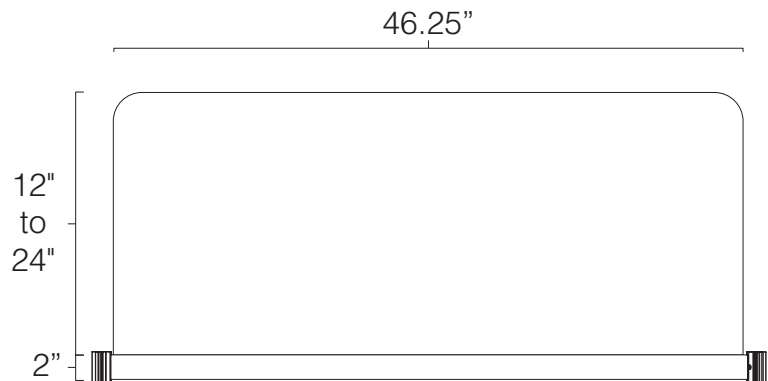
#### 2.11.3 Banners



- Mark queue entrances with a highly-visible message.
- Use as stand-alone sign to for wayfinding.

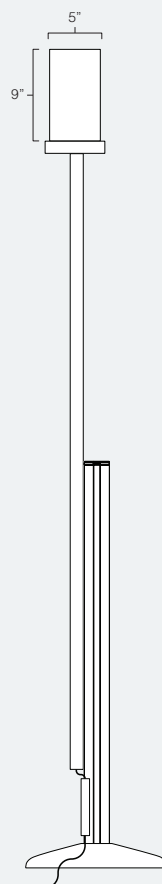
### 2.11 Post-Connected Signage

#### 2.11.4 Overhead Signage



- Highly visible messaging above queue entrance.

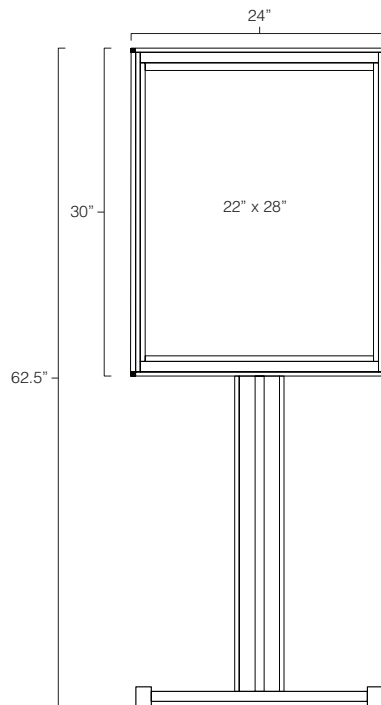
#### 2.11.5 TDC Lighted Podium Signs



- Creates a clear indicator for Pre-Check lanes and stations.
- Adjustable height.

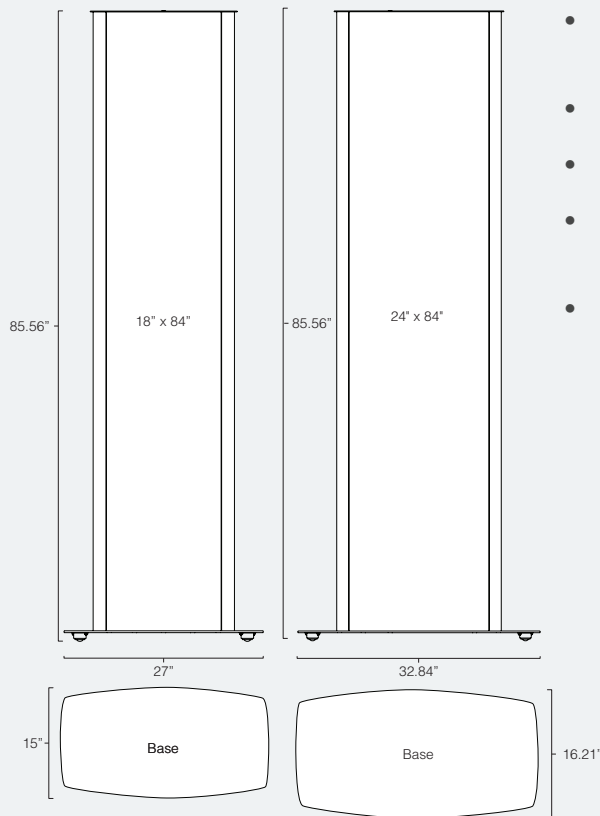
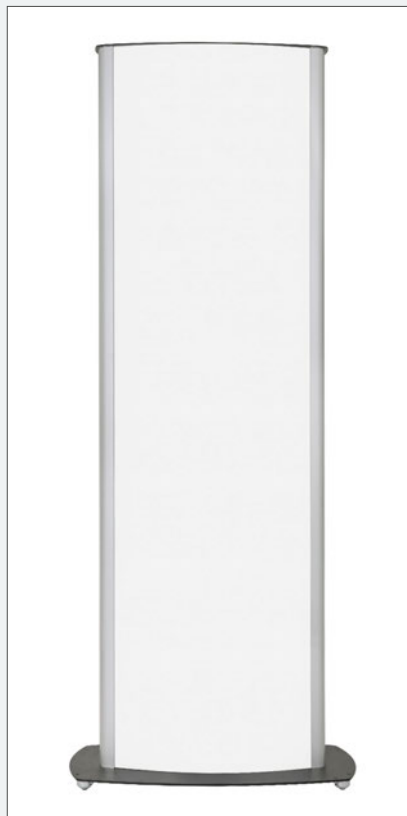
### 2.12 Freestanding / Portable Signage

#### 2.12.1 Poster Sign Stand



- Double-sided viewing.
- Includes one double-sided poster cartridge.

#### 2.12.2 Tower Sign Stands

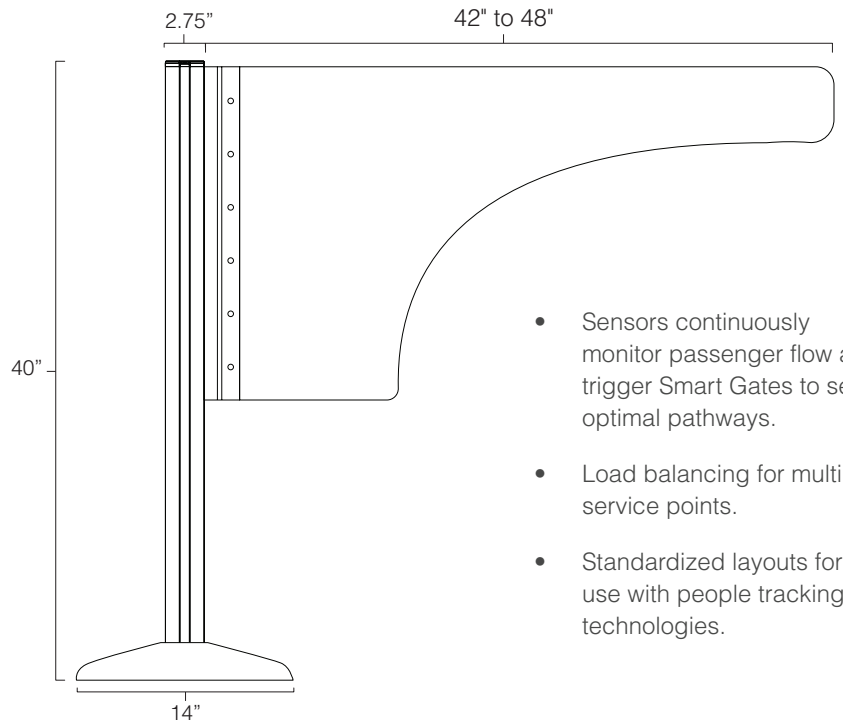


- Double-sided for 360° visibility.
- Backlit option for graphics.
- Changeable graphics.
- Low-profile wheels for mobility.
- Accepts stanchion belts to integrate into queues.



### 2.13 Queuing Technology

#### 2.13.1 Smart Gates



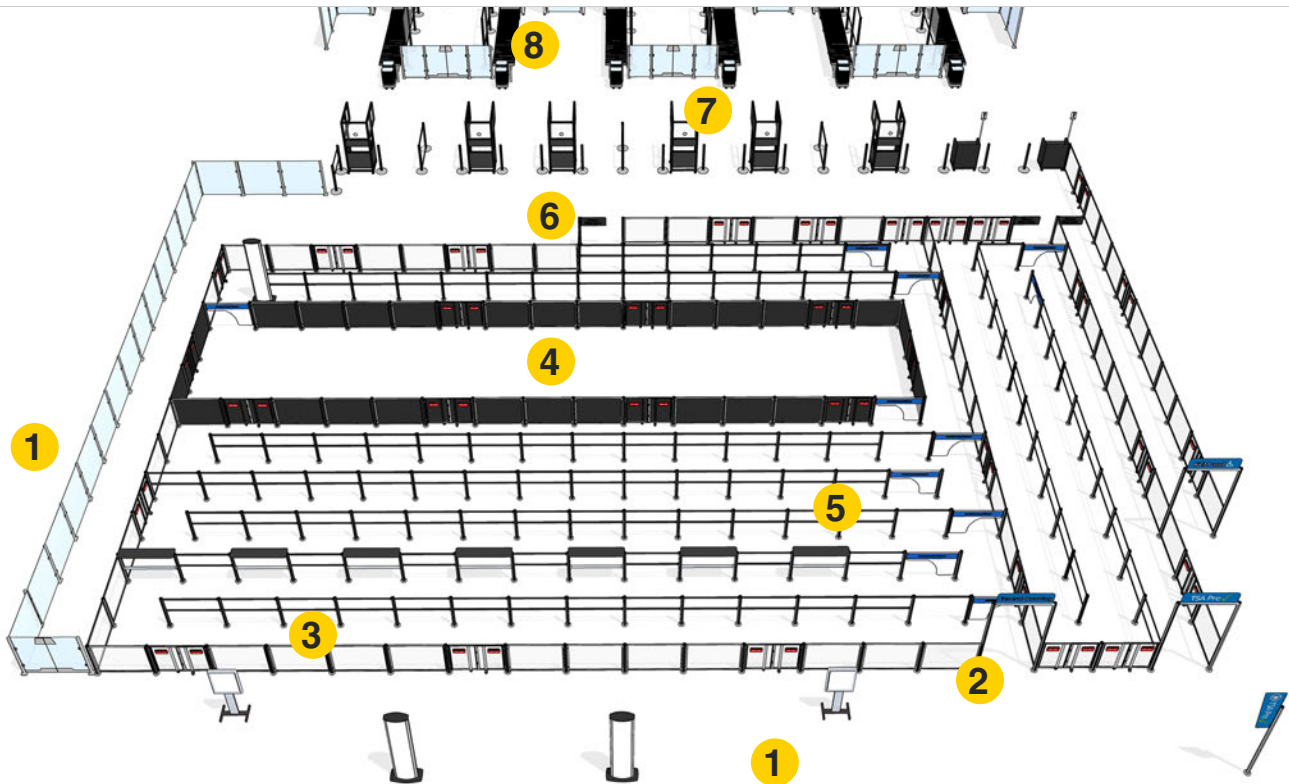
- Sensors continuously monitor passenger flow and trigger Smart Gates to select optimal pathways.
- Load balancing for multiple service points.
- Standardized layouts for use with people tracking technologies.

#### 2.13.2 Call Forward Electronic Queuing



- Audio and visual messaging instantly alerts the next customer in line via Digital Signage
- Alerts are triggered through wireless remote or auto sensor.
- Optional auto-controlled station lights efficiently guide passengers to an open service position.

## 3.1 SSCP Overview



### Security Equipment within functional areas of the Screening Checkpoint:

#### 1 Checkpoint Approach

- Glass Partition Walls & Gates
- Tower Signage
- Poster Sign Stands

#### 2 Passenger Queue Entrance

- Tall Stanchion Posts
- Overhead Signage
- Rigid Rail Barriers
- Swing Gates
- Banners
- Panel Barrier Signage
- Floor Graphics

#### 3 Passenger Queue Perimeter

- Magnetic Base Partition Posts
- Post & Panel Barriers
- Emergency Egress Gates
- Glass Curtain Walls & Gates
- Panel Barrier Signage

#### 4 Canine Enhanced Screening (CES)

- Magnetic Base Partition Posts
- Post & Panel Barriers
- Emergency Egress Gates
- Panel Barrier Signage
- Post-Top Stanchion Signs
- Swing Gates
- Smart Gates
- Floor Graphics

#### 5 Passenger Queue

- Magnetic Base Partition Posts
- Magnetic Base Stanchions w/Emergency Breakaway Belts
- Magnetic Base ADA Stanchions
- Post & Panel Barriers
- Panel Barrier Signage
- Post-Top Stanchion Signs
- In-Queue Table
- Smart Gates
- Tower Signage
- Floor Graphics

#### 6 TDC Wait Point

- Magnetic Base Partition Posts
- Magnetic Base Stanchions w/Emergency Breakaway Belts
- Magnetic Base ADA Stanchions
- Post & Panel Barriers
- Electronic Queuing System
- Panel Barrier Signage
- Post-Top Stanchion Signs
- Swing Gates
- Floor Graphics

#### 7 TDC

- TDC Shielding Kiosk
- TDC Barrier Shielding
- Tall Stanchion Posts
- Portable Stanchions
- Portable Double-belted ADA Stanchions
- Swing Gates
- TDC Pre-Check Station Light
- Post-Top Stanchion Signs
- Floor Graphics

#### 8 Divesting

- Tall Stanchion Posts
- Divesting Barrier Shielding Panels

### 4.1 Design Considerations

#### **A well-designed queue: Safety and accessibility through design and product functionality.**

A well-designed queuing system is integral for the safety and accessibility of travelers as they move through the security screening checkpoint. It's important to consider the following queue design elements in order to facilitate the safety, security, and welfare of passengers, crew, and security personnel.

- **Create a logical linear flow**
- **Use signage to clearly mark entrances and wait points**
- **Plan for queue overflow during peak demand**
- **Create queue shortcuts or bypasses for low-traffic periods**
- **Consider access points for accessibility**
- **Develop emergency egress paths that allow passengers to move out of the queue from any direction**



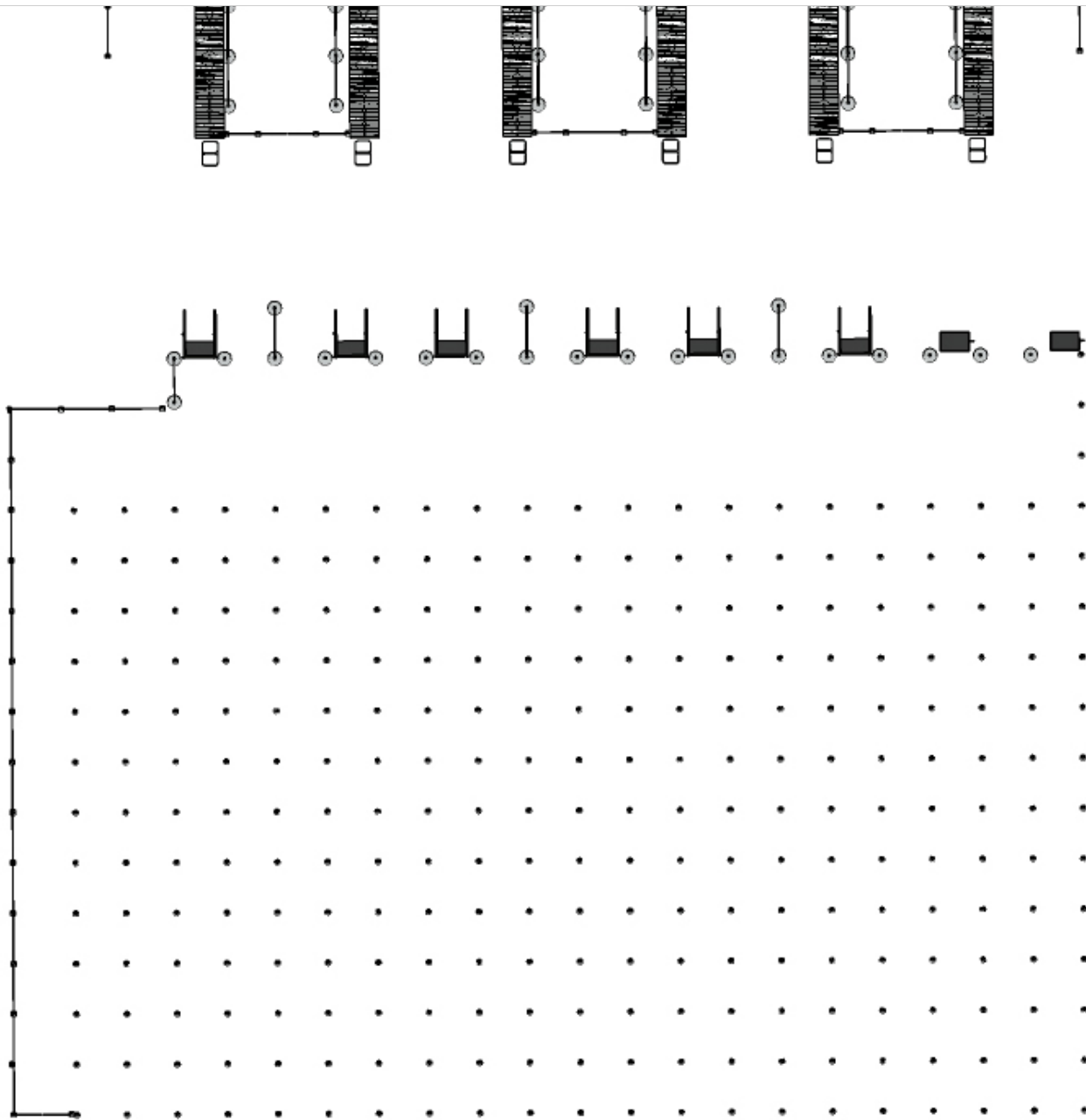
### 4.2 Space Planning

When designing a queue, there are certain basic considerations you'll want to take into account. One is the space or area where the queue will be located. It's important to look at the architectural space to see how it will affect the design.

- **Is the physical queuing area small, large, or irregularly shaped?**
- **Do structural elements such as columns and escalators impede movement or access?**
- **How many passenger queues are required, now and for future expansion?**
- **Are there natural emergency egress points and safe pathways?**



## 5.1 Best Practices



Start with a grid. Using an equal grid layout provides flexibility for real-time changes to queue configurations and provides easy adaptability for future expansion of lanes. 5.5-inch diameter magnetic base stanchions help maximize useable floor space and mitigate blockages and obstructions for luggage, carts, and other rolling objects.

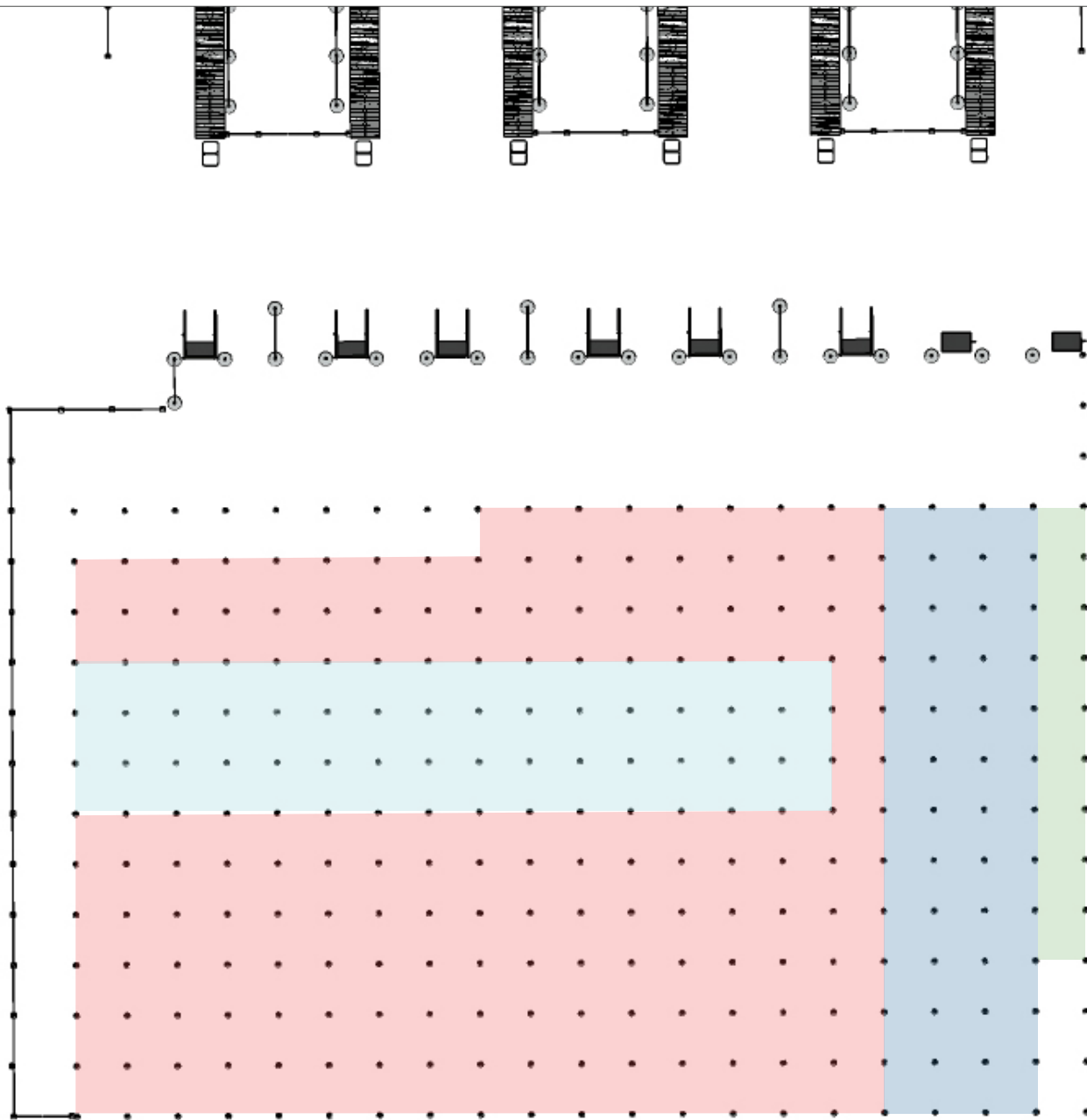
- **Use 52.4375-inch (center-to-center) grid layout**

This provides a modular grid that can accommodate barrier panels, rigid rails, egress gates, smart gates, and belt barriers between any two (2) stanchions anywhere in the grid, offering maximum flexibility and adaptability for queue configurations.

- **Use 5.5-inch diameter Magnetic Base Partition Posts & Stanchions**

Magnetic base stanchions reduce queue lane footprint, increasing useable floorspace by 16%. They also keep queues from moving or “creeping” from heavy daily traffic or nightly floor cleanings.

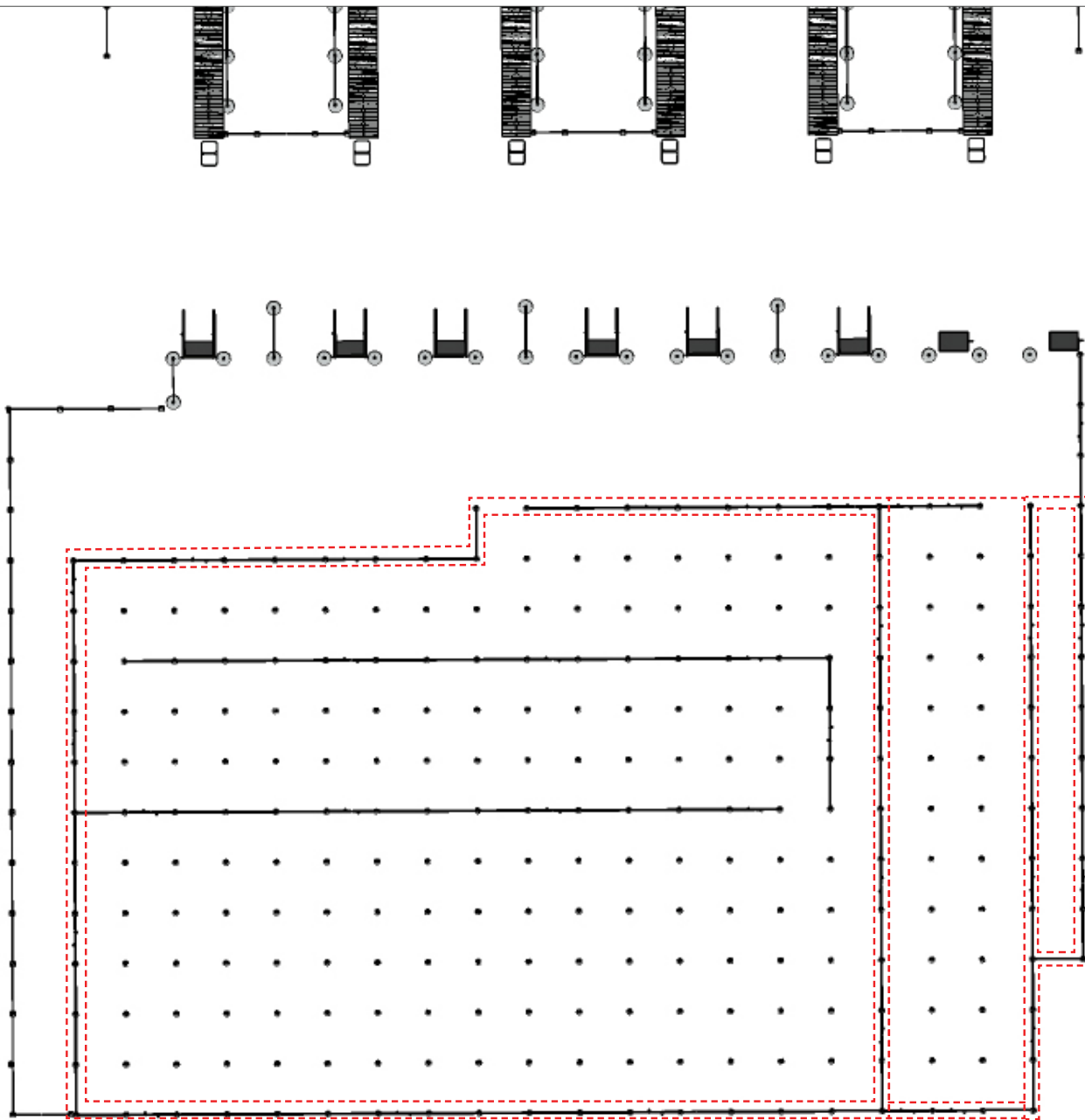
## 5.1 Best Practices



Divide grid into queuing areas based on passenger/crew type. Space allocation should be determined by peak usage history.

- General Boarding
- Canine Enhanced Screening (CES)
- TSA Pre-Check
- KCM & Accessibility

## 5.1 Best Practices



### Queue Perimeter

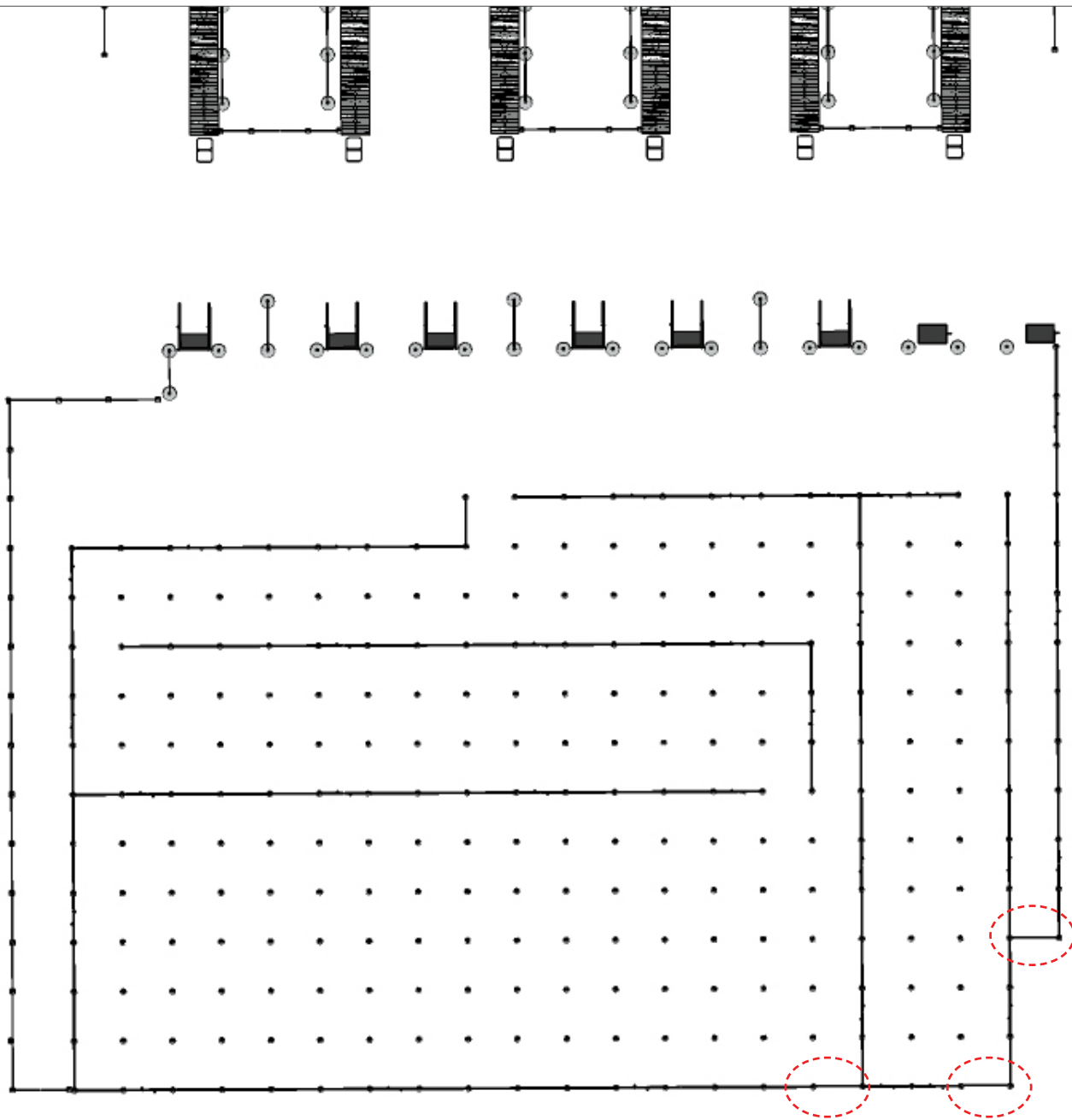
Define perimeter of queues using Panel Barriers and Magnetic Base Partition Posts. Plan for multiple egress points in all directions through perimeter of each queue.

#### Transportation Security Equipment (TSE):

- Magnetic Base Partition Posts
- Post & Panel Barriers
- Emergency Egress Gates
- Glass Curtain Walls & Gates
- Panel Barrier Signage



### 5.1 Best Practices

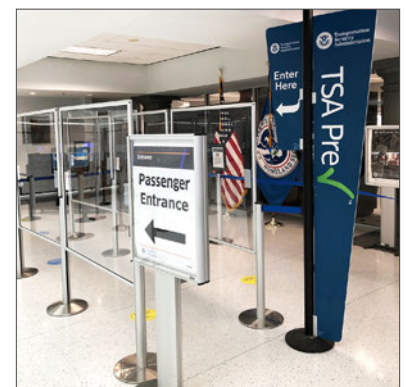


#### Queue Entrances

Queue entrances need to be well-marked to avoid passenger confusion on where to go.

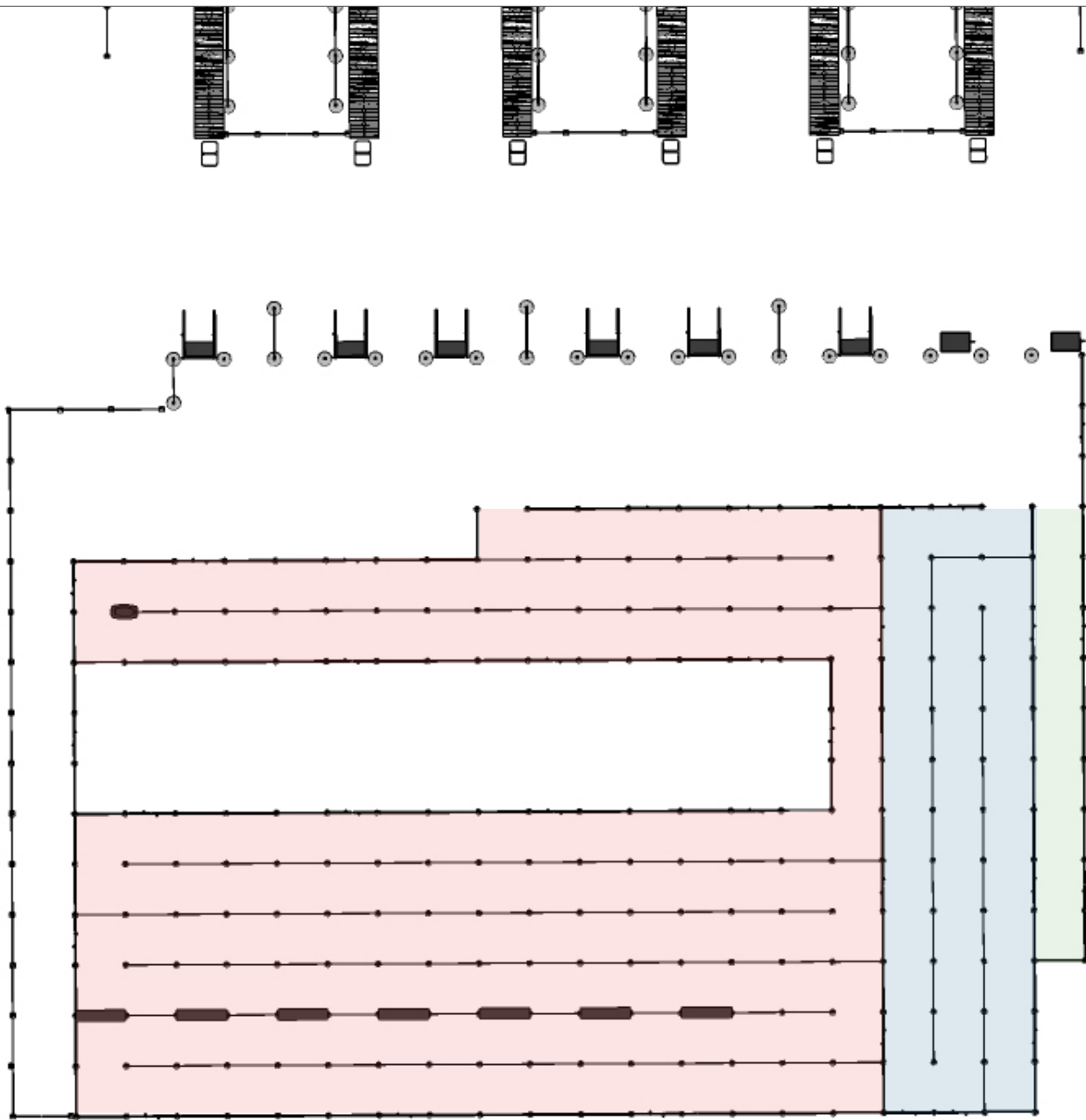
#### Transportation Security Equipment (TSE):

- Tall Stanchion Posts
- Overhead Signage
- Rigid Rail Barriers
- Swing Gates
- Banners
- Panel Barrier Signage
- Floor Graphics





## 5.1 Best Practices



### Queue Configurations

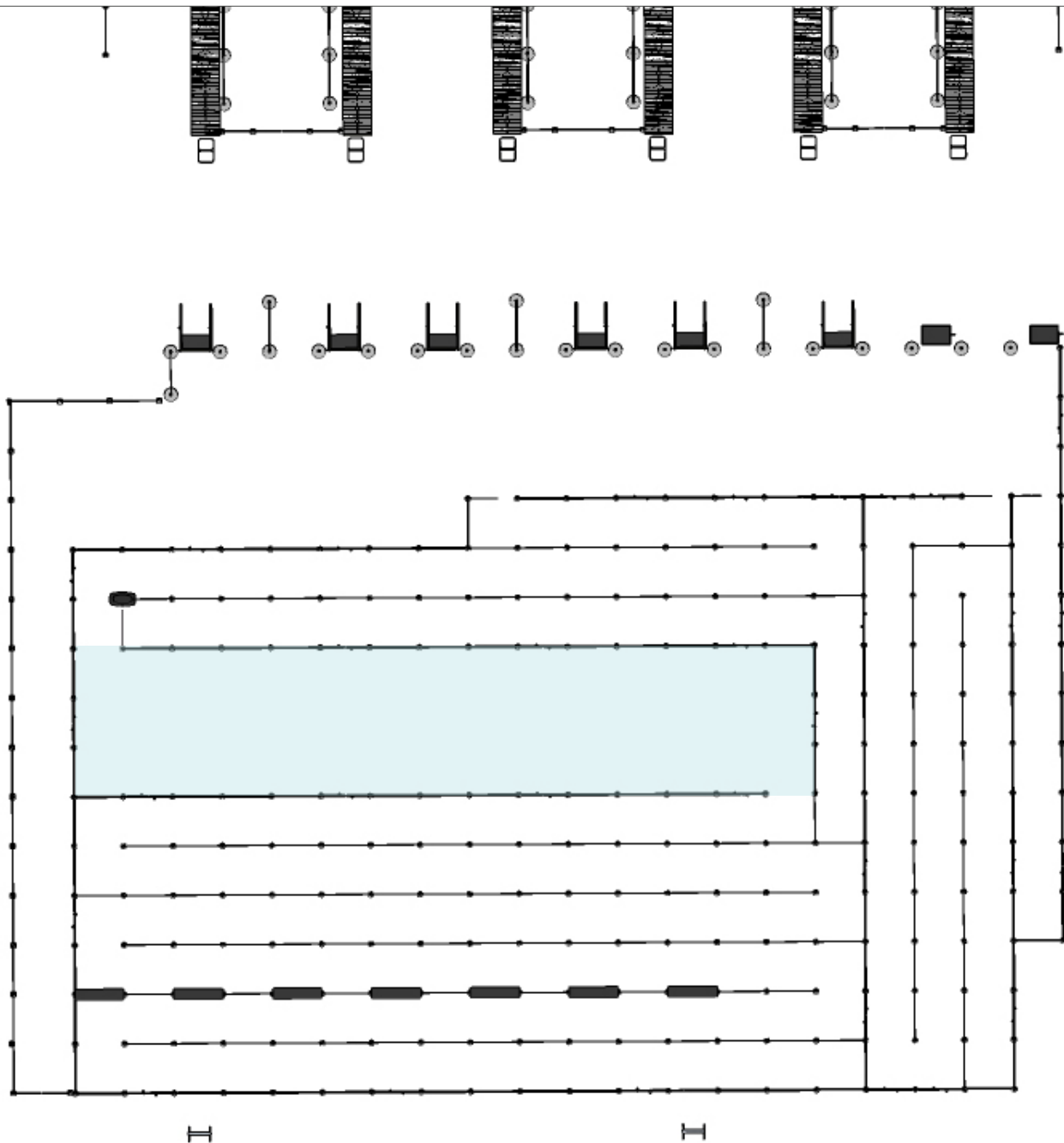
Queue flow should accommodate high, medium, and low-traffic flow, providing passengers the quickest routes to TDC and Screening areas.

#### Transportation Security Equipment (TSE):

- Magnetic Base Partition Posts
- Magnetic Base Stanchions w/Emergency Breakaway Belts
- Magnetic Base ADA Stanchions
- Post & Panel Barriers
- In-Queue Table
- Smart Gates
- Tower Signage
- Panel Barrier Signage
- Post-Top Stanchion Signs
- Floor Graphics



## 5.1 Best Practices

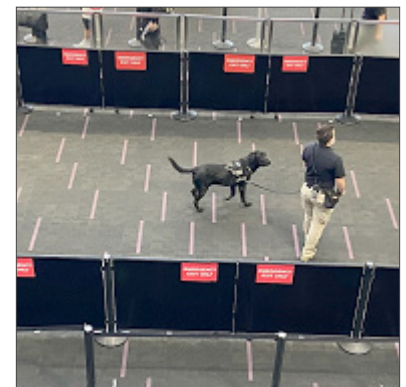


### Canine Enhanced Screening (CES)

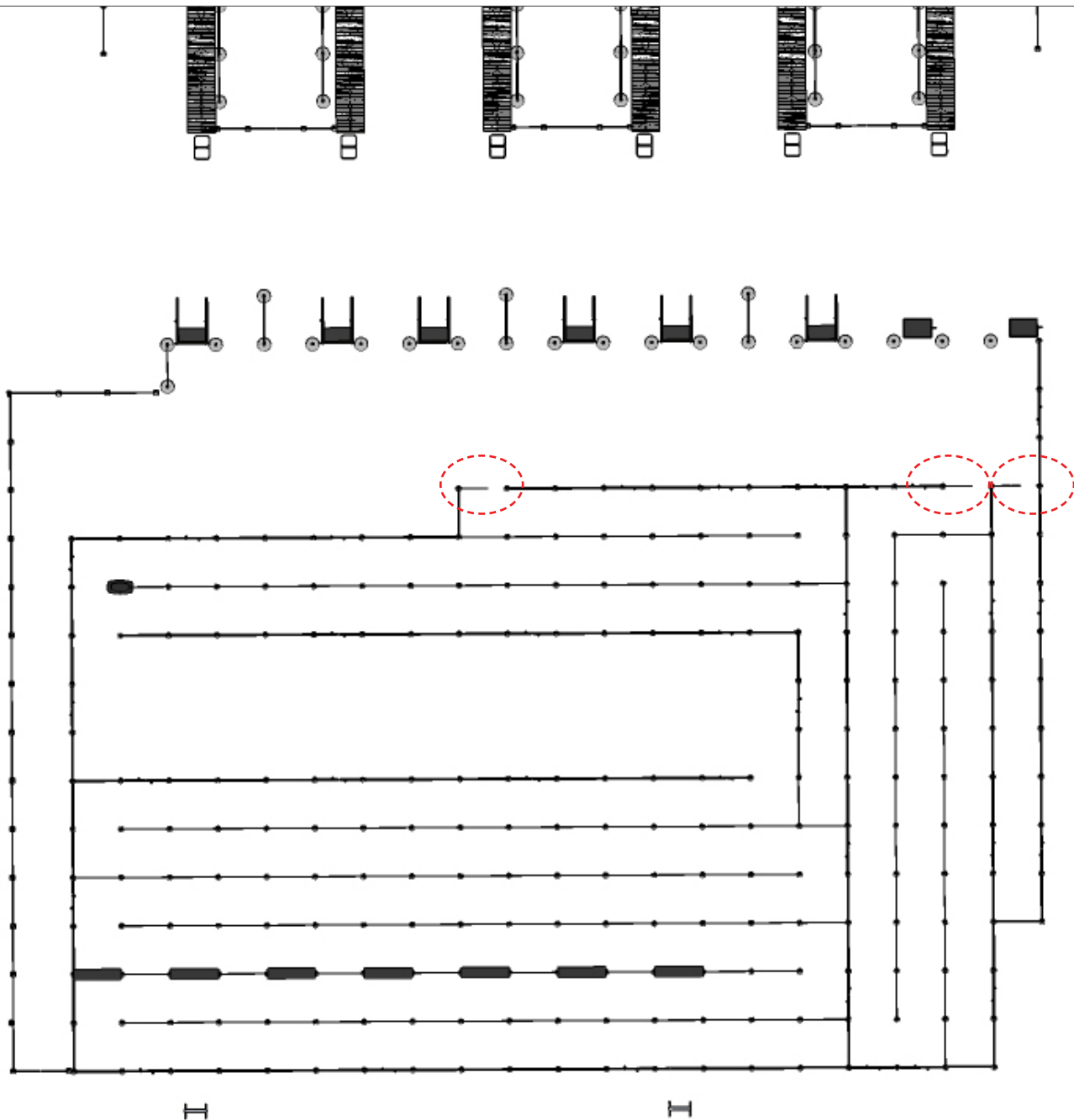
Opaque post & panel barriers should be used, sitting 2-inches to 4-inches from floor, to mitigate visual and olfactory stimuli. Emergency egress should be provided on all sides of CES area.

#### Transportation Security Equipment (TSE):

- Magnetic Base Partition Posts
- Post & Panel Barriers
- Emergency Egress Gates
- Panel Barrier Signage
- Post-Top Stanchion Signs
- Swing Gates
- Smart Gates
- Floor Graphics



## 5.1 Best Practices

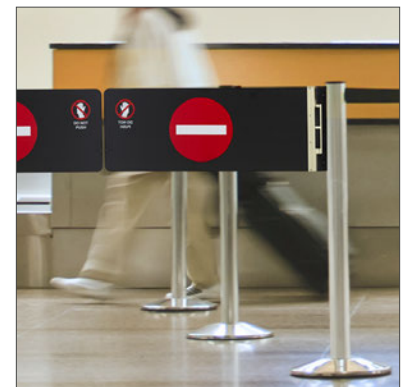


### TDC Wait Point

Swing gates provide a natural waiting point for passengers, helping to maintain order and providing privacy for passengers at TDC. Areas with many TDC stations may choose to utilize an Electronic Queuing System to more efficiently call passengers to an available position.

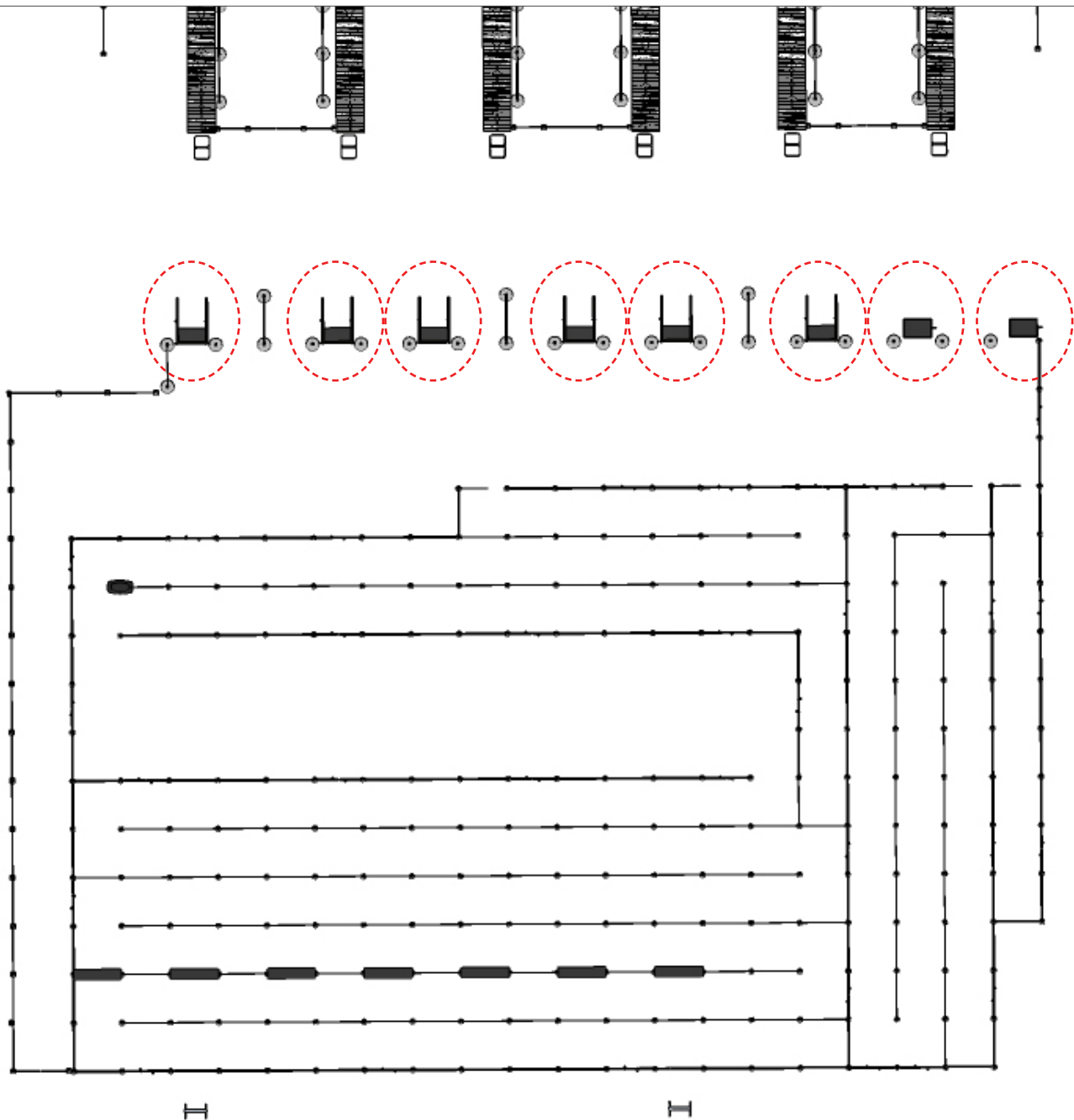
#### Transportation Security Equipment (TSE):

- Magnetic Base Partition Posts
- Magnetic Base Stanchions w/Emergency Breakaway Belts
- Magnetic Base ADA Stanchions
- Post & Panel Barriers
- Electronic Queuing System
- Panel Barrier Signage
- Post-Top Stanchion Signs
- Swing Gates
- Floor Graphics





## 5.1 Best Practices

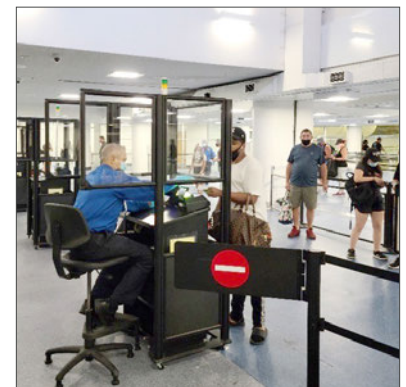


### TDC and CAT

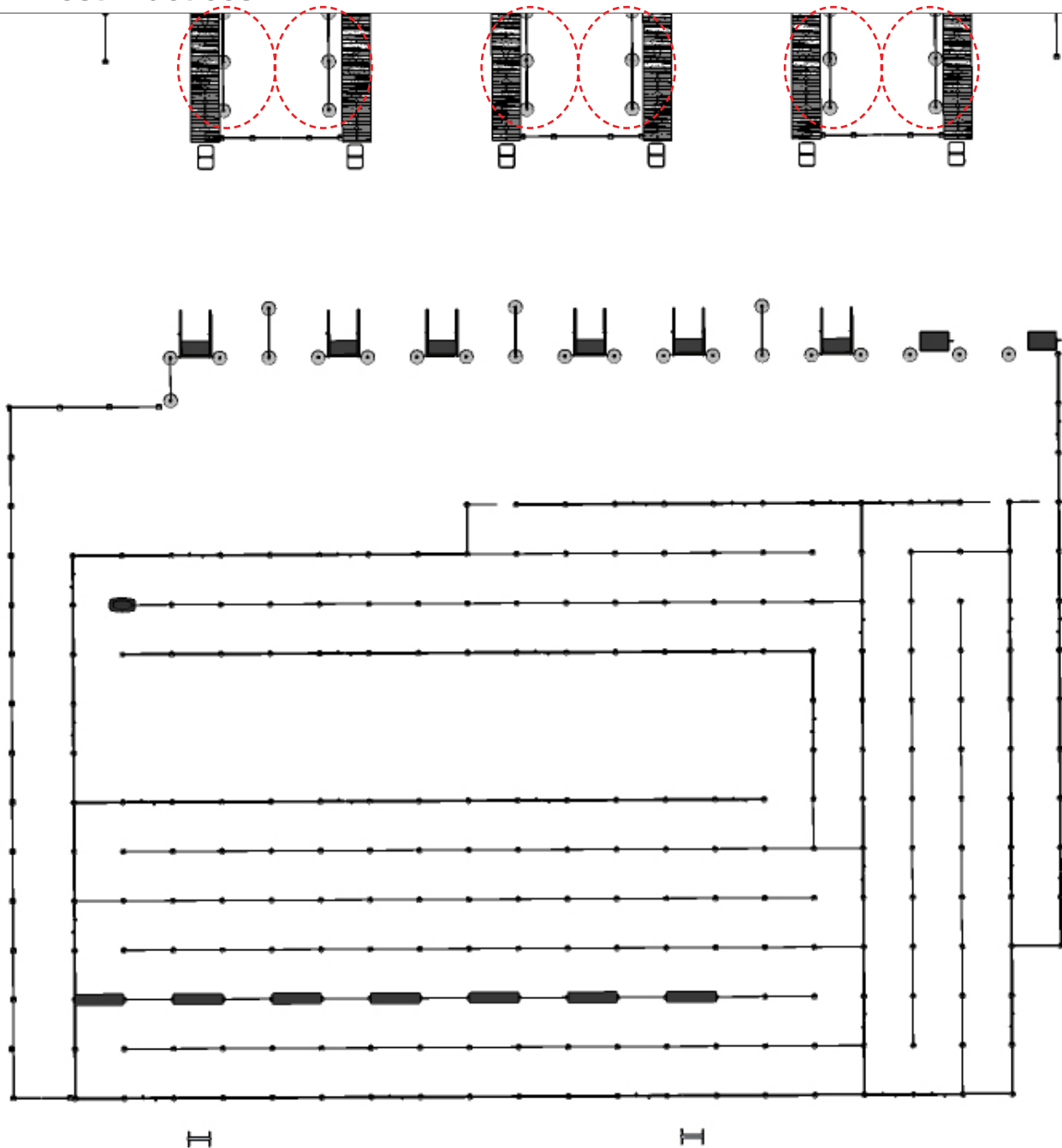
Use TDC Shielding Kiosk for TDC stations. TDC Pre-Check Station Lights mount directly to TDC Podiums or to portable base. Use Retractable Belt Stanchions to cordone off closed lanes.

#### Transportation Security Equipment (TSE):

- TDC Shielding Kiosk
- TDC Barrier Shielding
- Tall Stanchion Posts
- Portable Stanchions w/Emergency Breakaway Belts
- Portable Double-belted ADA Stanchions
- Swing Gates
- TDC Pre-Check Station Light
- Post-Top Stanchion Signs
- Floor Graphics



### 5.1 Best Practices



#### Divesting

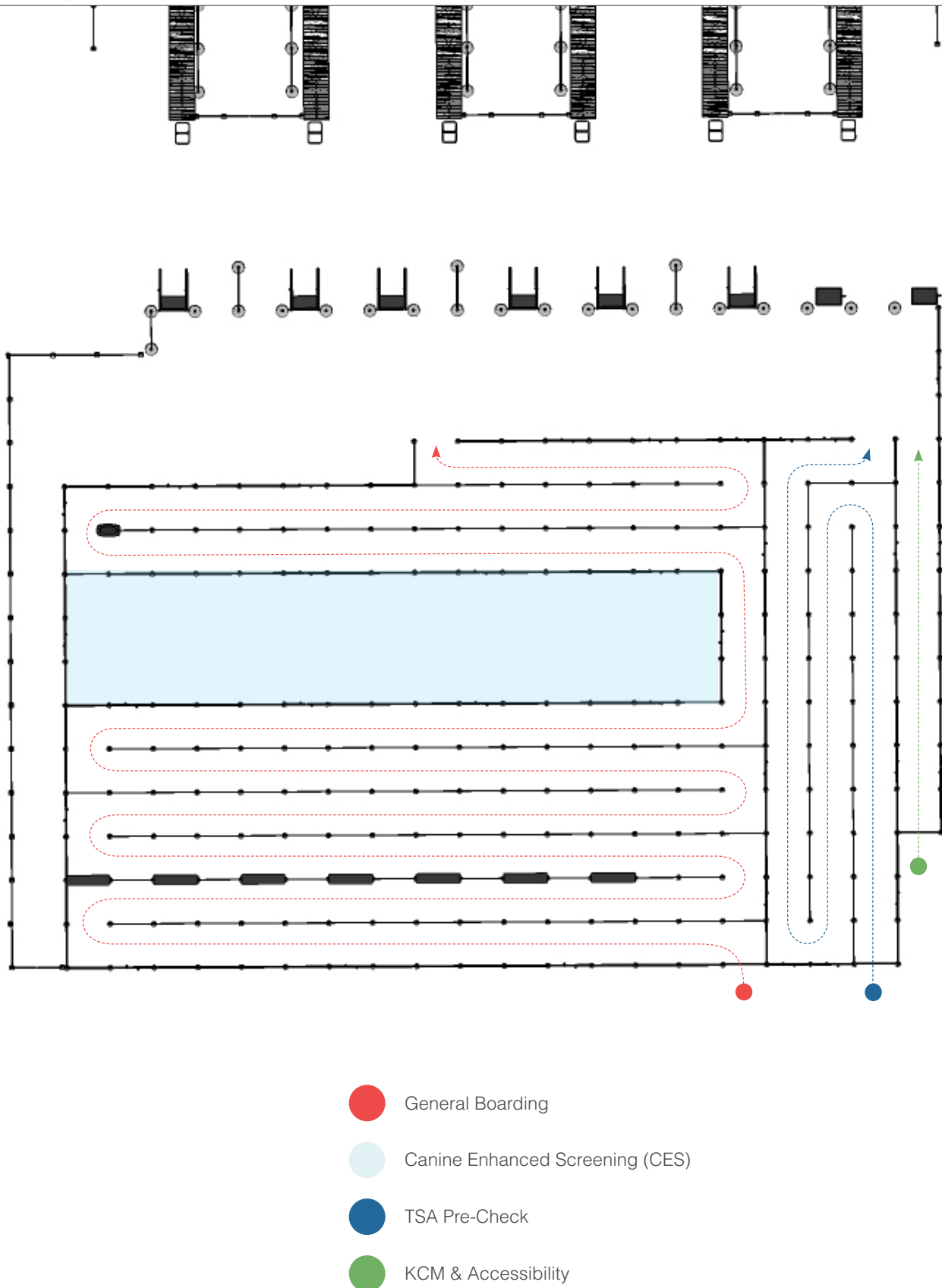
Divesting Barrier Shielding is placed along back side of divesting tables to protect and shield security personnel.

#### Transportation Security Equipment (TSE):

- Tall Stanchion Posts
- Divesting Barrier Shielding Panels

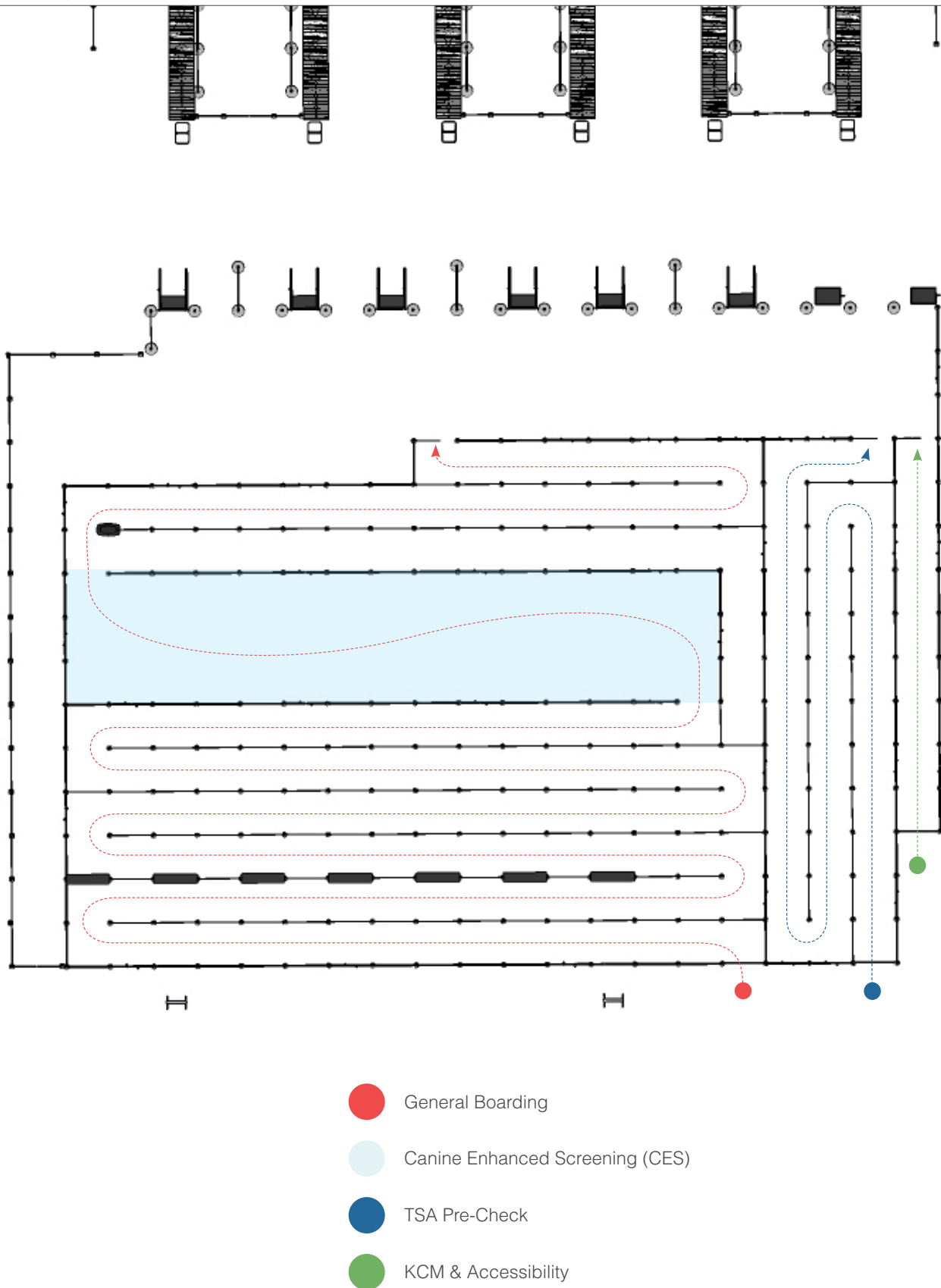


## 5.2 High-traffic Layout, CES Bypass

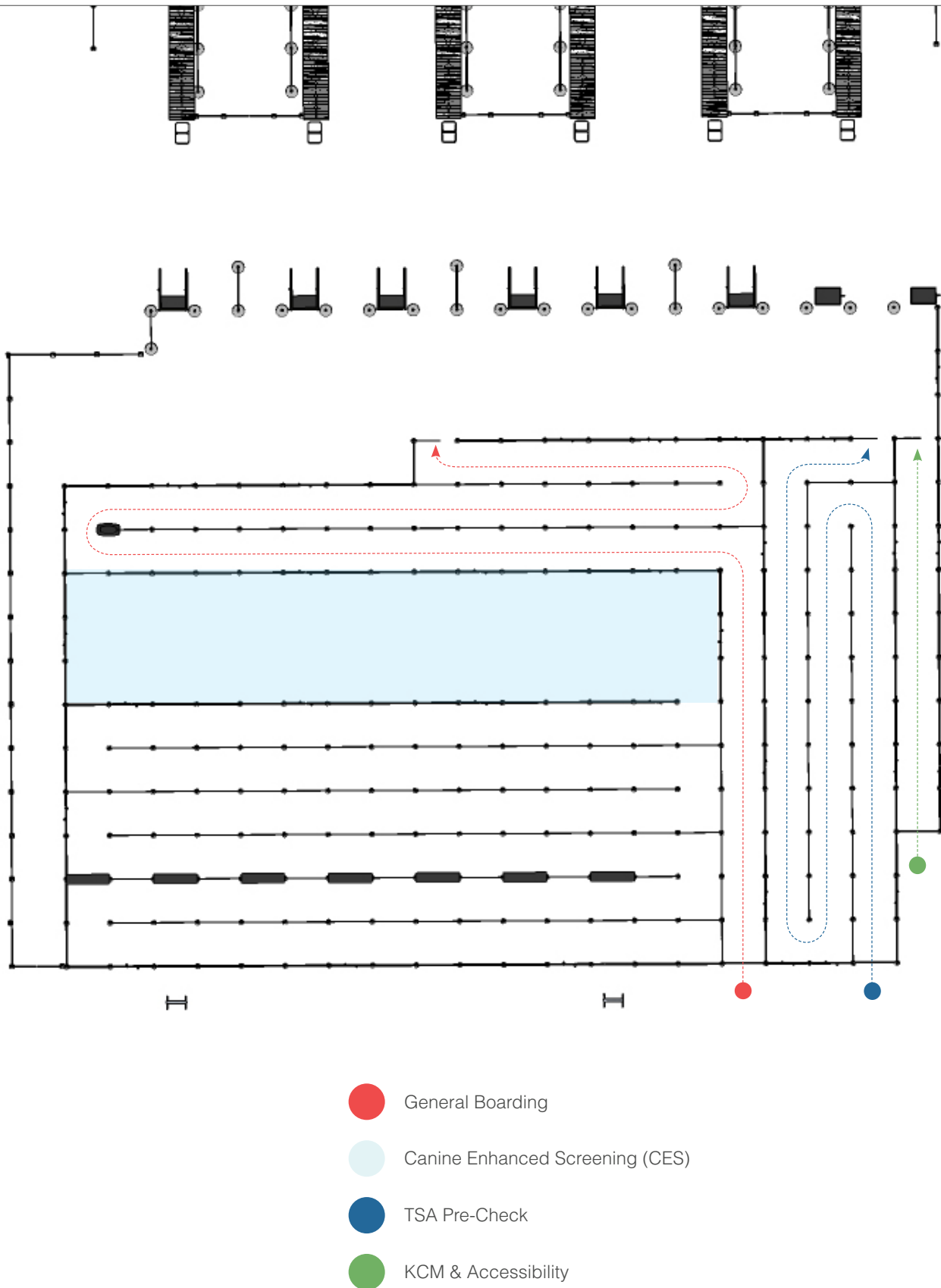




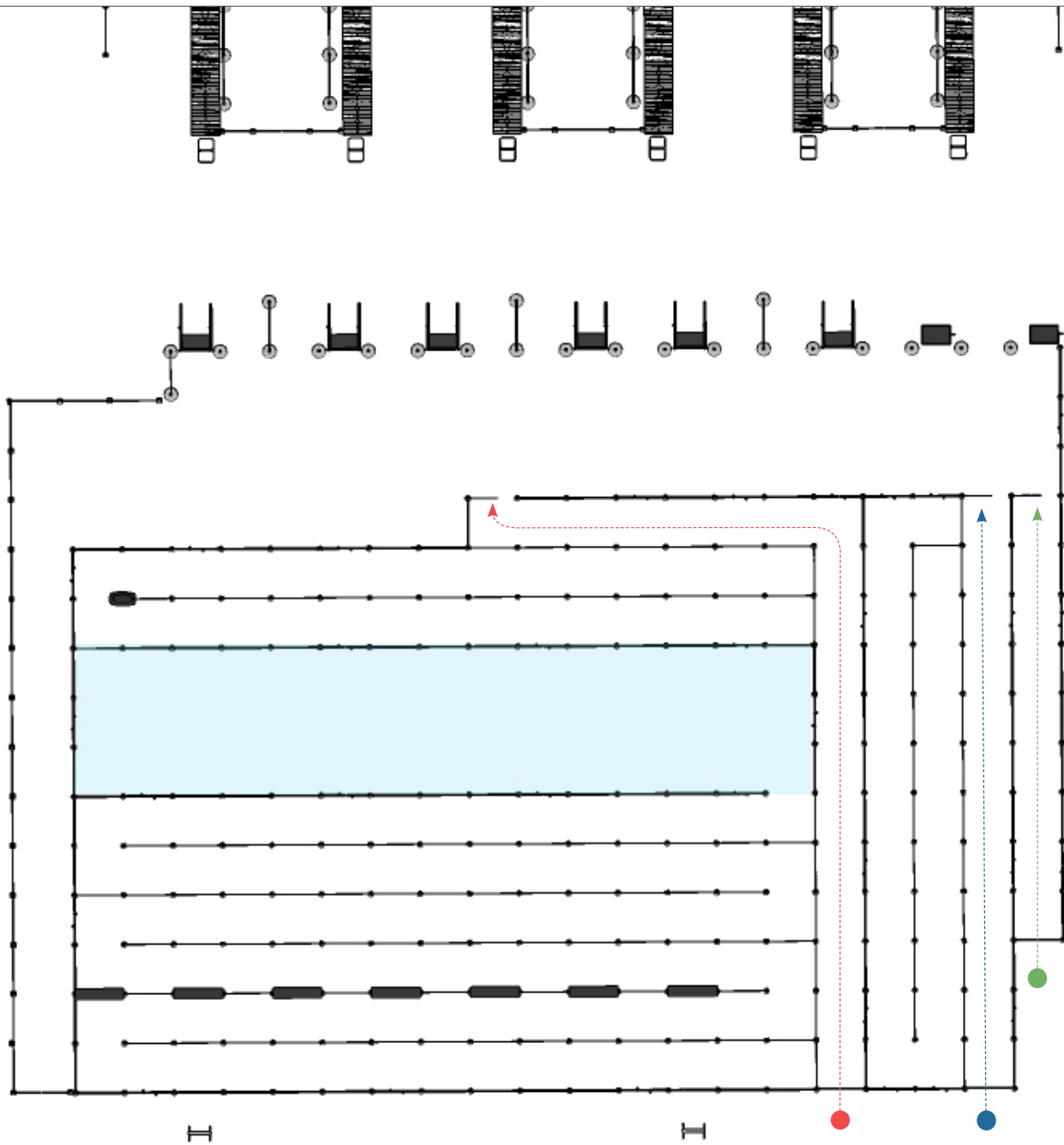
## 5.2 High-traffic Layout with CES



## 5.2 Medium-traffic Layout, CES Bypass



## 5.2 Low-traffic Layout, CES Bypass



- General Boarding
- Canine Enhanced Screening (CES)
- TSA Pre-Check
- KCM & Accessibility