

Beth Israel Deaconess Medical Center Loading Dock Design Guidelines

These guidelines are required as part of the basis of design for all Loading Docks designed for Beth Israel Deaconess Medical Center. The guidelines shall not directly replace consultant specifications but are intended to convey a set of standards for all related projects at the Facility. Where applicable codes conflict with these guidelines the codes shall supersede these requirements and consultant shall notify the BIDMC Facilities Engineering Department of such conflicts and guidelines shall be updated accordingly. Any deviation from these requirements shall be brought to the attention of the BIDMC Facilities Engineering Department during review with an explanation why it is required or how it may improve the system or systems affected.

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BIDMC Loading Dock Guidelines
Rev 1.0 – June 2022

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1. **OPENINGS (DIVISION 8)**

1.1 Security Cameras

1.1.1 Cameras must be present and facing the following openings; man-doors, shipping/receiving doors, exterior dock areas, compactors.

1.2 Exterior Roll-Up Doors

1.2.1 To be used to close-off areas where compactor rams are being removed or are in use.

1.2.2 Pipe bollards should be installed to protect sensors from damage.

1.2.3 Used to keep adjacent areas insulated from inclement weather.

1.2.4 End walls to be reinforced with ¾" marine grade plywood with white FRP.

1.2.5 Door compactor controls to be mounted on double 2x4 wood studs on each side of the door opening.

1.2.6 Roll-Up doors to be mounted on installed 2x12 headers over each door opening.

1.2.7 Recommended specifications:

1.2.7.1 **Model:** CHI Overhead Doors 6000 Series Insulated Door

1.2.7.2 **Manufacturer:** C.H.I. Rolling Steel Doors

1.2.7.3 **Provider:** Superior Door Services – Woburn

1.2.7.4 **Size:** Minimum 4'w x 7'4"h

1.2.8 High-Speed recommended specifications:

1.2.8.1 **Model:** Rytec Turbo-Seal Door

1.2.8.2 **Manufacturer:** Rytec Doors

1.2.8.3 **Provider:** Superior Door Services – Woburn

1.2.8.4 **Size:** Minimum 4'w x 7'4"h

1.2.8.5 **Power Source:** Pneumatic

1.2.8.6 **Speed:** 100 in/sec

1.2.8.7 **Amenities:** Dual electric photo eyes, windows (optional), operated via wall-insulated controller

2. **FINISHES (DIVISION 9)**

2.1 Hard Rubber Bumpers

2.1.1 Used to provide increased wall protection.

2.1.2 Straight ends & corners with stainless steel corner guards are not preferred by the manufacturer, but are available if necessary.

2.1.3 Installation recommended near trash chutes.

2.1.4 Recommended specifications:

2.1.4.1 $\frac{3}{4}$ " plywood behind studs for increased backing and strength.

2.1.4.2 Use 5' x 8' or 5' x 10' wall sheets for protection from taller carts (compared to the standard 4' x 8').

2.1.5 Mitered Bumper Corners (Optional)

2.1.5.1 Does not provide additional protection, but adds a safer more finished aesthetic.

3. **EQUIPMENT (DIVISION 11)**

3.1 Compactor Units

3.1.1 Compactors must be installed on a reinforced concrete pad and not on bituminous asphalt pavement.

3.1.1.1 Concrete pads should be a minimum of 3ft longer than the compactor unit it is designed to host. The pad must be designed

so that the wheels of the compactor never land on the pavement during pick-up and drop-off.

- 3.1.1.2 If the concrete pad slopes toward the building, a continuous trench drain must be present along the building foundation wall. If present, regular maintenance of the trench drain is required to clear out future blockages.

- 3.1.2 It is recommended that all compactors be mounted to the exterior of the building.

- 3.1.2.1 Interior ramps present security hazards as, when removed, doors to the exterior cannot be closed.

- 3.1.3 Trash chute doors should provide a minimum of 4' in clearance.

- 3.1.3.1 Steel frames should be supplied at each door opening, inside the walls, for the trash chute to be welded to.

- 3.1.4 Recommended Specifications:

- 3.1.4.1 **Model:** RJ-250SC Self-Contained Compactor

- 3.1.4.2 **Provider/Service:** JRM Hauling

- 3.1.4.3 **Capacity:** 34 cubic yards

3.2 Electric Panel Barriers

- 3.2.1 It is recommended that barriers be installed around electric panels to prevent damage from carts.

- 3.2.2 Barriers must provide enough clearance for maintenance to access the electric panels.

3.3 Hazmat Warning Systems

- 3.3.1 MAC address, name of equipment and location must be recorded in order to establish an IP address for installed devices.

3.3.2 Recommended specifications:

3.3.2.1 **Model:** 375P-336 Waste Monitor

3.3.2.2 **Manufacturer:** Ludlum Measurements, Inc.

3.3.2.3 **Electronics:** 10.3" H x 9.7" W x 3.3" L

3.3.2.4 **Detectors:** 41" H x 6.8" W x 2.1" L

4. **CONVEYING SYSTEMS (DIVISION 14)**

4.1 Materials Lifts

4.1.1 Ramps must be a minimum of 60" and top landings must provide enough clearance to maneuver a cart/pallet jack.

5. **HEATING, VENTILATION AND AIR CONDITIONING (DIVISION 23)**

5.1 Heated Dock Air Curtains

5.1.1 Air curtains are required to prevent conditioned air from escaping and inclement weather from entering.

5.1.2 Heated air curtains are highly recommended as standard air curtains do not provide sufficient protection.

5.1.3 Steam heated air curtains are highly recommended as they require less maintenance and energy usage.

5.2 Ceiling-Mounted Space Heaters

5.2.1 Further mitigates conditioned air from escaping and inclement weather from entering, especially during large deliveries where roll-up doors are left open for extended periods of time.

5.2.2 Steam heaters are highly recommended (electric have been used in the past).

5.2.3 Manual shut-off may be installed at the request of the user.

6. **ELECTRONIC SAFETY & SECURITY (DIVISION 28)**

6.1 Dock Phone

6.1.1 To be used for delivery drivers to call into the building. The phone should be accompanied by a camera to monitor exterior activity. No windows are allowed due to security precautions.

6.1.1.1 During the day, the phone calls into the loading dock office.

6.1.1.2 During off hours, the phones calls the security department.

6.2 Card Readers

6.2.1 HID iCLASS SE readers are used per facility standards.

6.2.2 Intended to limit access to the interior to authorized personnel only.