

Patient Safety Standards, Materials and Systems Guidelines

Recommended by the
New York State Office of Mental Health

With respect to NYS-OMH operated facilities, these Guidelines apply solely to new construction and major renovation projects. Existing facilities should use these Guidelines as a reference document whenever they make improvements.



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Introduction

Purpose



This document offers guidance with respect to patient safety features in the inpatient psychiatric environments throughout New York State. It grows out of the standards of new construction for the New York State Office of Mental Health's (NYS-OMH) inpatient hospitals in order to provide guidance for:

- Existing and new NYS-OMH state-operated inpatient facilities
- Psychiatric units in NYS-OMH licensed Article 28 general hospitals
- NYS-OMH licensed Article 31 hospitals

This document is not intended to provide guidance for outpatient psychiatric facilities. Generally the risks associated with outpatient facilities may not warrant special environmental precautions.

The purpose of these guidelines is to provide a selection of materials, fixtures, and hardware that the NYS-OMH has reviewed and supports for use within inpatient psychiatric units to further the agency's goal of reducing the risk of harm to individuals in inpatient settings. Utilization of any of these products is not mandatory.

The NYS-OMH would be pleased to evaluate other products identified by hospitals.

Many of the items in this document represent the current state of the art. It is anticipated that additional or more effective products will continue to be developed. The NYS-OMH intends to periodically update these guidelines to keep current with these changes, but the hospitals also have an obligation to continue to review products that will assist in this goal. Please note that due to the nature of ongoing product developments in the market, manufacturers may make modifications to products at any time, without providing notification to NYS-OMH. Please be aware that such modifications may alter the products' ligature resistance evaluations and therefore require further testing to assess risks.

The products and systems included in this document have been tested for patient safety in conformance with OMH testing protocols, but the existing or newly-built environment introduces a unique complexity that must be considered prior to incorporating any of these products. Evaluation of programmatic appropriateness and architectural detailing shall not be omitted from the product selection process. In particular, retrofit conditions must be understood before a product is provided for the facility.

The items selected here represent styles and properties of products that help lower patient risk while on an inpatient psychiatric unit. **However, installation of these products will not eliminate all risks.**

Introduction

Approach



OMH supports a multi-directed approach to the reduction of patient harm on inpatient psychiatric units including the following:

- Completion of a patient risk assessment
- Completion of a physical plant risk assessment
- Ongoing staff training to ensure awareness of potential risks on units
- Installation of products that reduce risk in all patient areas
- Routine inspections of inpatient psychiatric units to ensure safety levels are maintained

Additional and more detailed information on some of the items found in these standards may be available from NYS-OMH.

By providing these guidelines the New York State Office of Mental Health neither endorses nor promotes any product or manufacturer. OMH does not guarantee the performance of any product. OMH recognizes that it is not possible to evaluate all products that are for sale. Under these circumstances it is at NYS-OMH's discretion which products are selected for review.

The absence of any product from the guidelines does not necessarily mean that the product is unsafe or unacceptable for use (refer to the paragraphs that follow). If a health care facility has installed products that were previously recommended in an earlier edition of the Patient Safety Standards (PSS) but are no longer listed in the PSS, it is the responsibility of the health care facility to reassess that product to determine whether its continued use is consistent with that hospital's safety risk assessment policies.

It is crucial that hospital managers complete risk assessments that go beyond the selection of the materials, furnishings, and fixtures found in these Patient Safety Standards. The Facilities Guidelines Institute (FGI), "Guidelines for Design and Construction of Healthcare Facilities" provides clear, detailed direction regarding a hospital's responsibility to be in compliance with patient safety requirements. The sections covering the Safety Risk Assessment (SRA) describe general risk assessment procedures. Refer to the 2018 edition of FGI, which has been adopted by The Joint Commission. Also refer to applicable state regulations which may have adopted alternative editions of the FGI.

Within this larger construct, the selection of products to be used in the built environment is but one component of risk management policies and procedures that every healthcare facility is responsible for developing and maintaining.

Introduction

Conventional Practice prior to NYS-OMH Patient Safety Standards

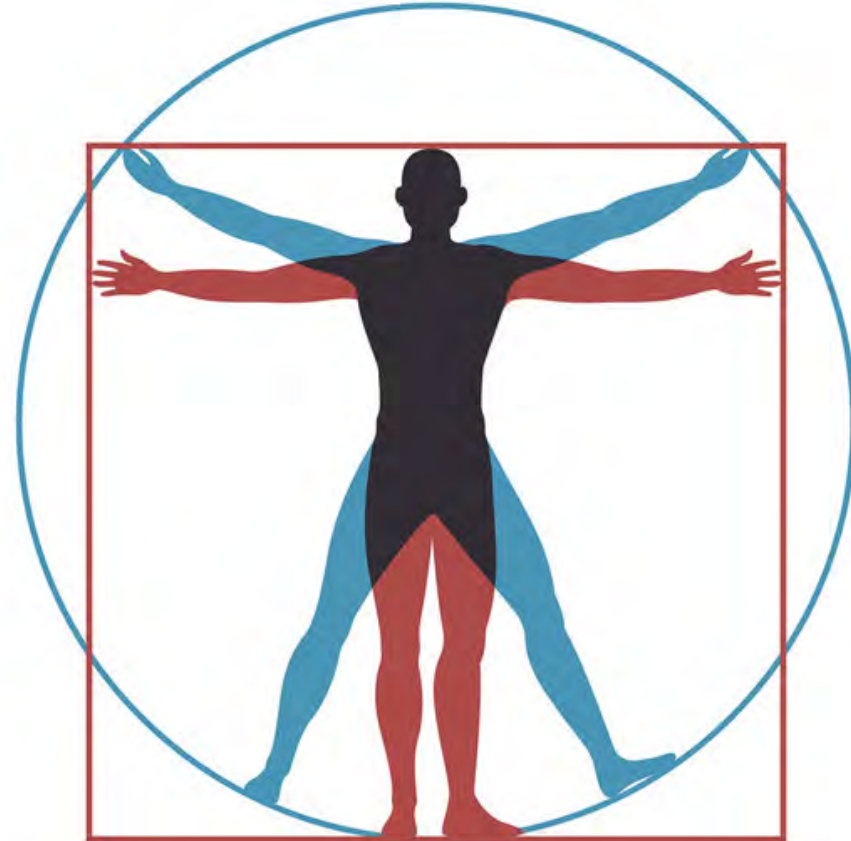


Focus Above the Waist

The reduction of self harm incidents is often a matter of life or death. Suicide attempts using a ligature (e.g. strangulation) are the most prevalent form of self harm. This was initially addressed in modern hospital design by strongly focusing on the elimination of ligature attachment points that were above the waist line.

Above the Waist Ligature Attachment Points:

- Fasteners
- Door Hinges
- Door Closers
- Windows & Vision Panels
- Access Doors
- Ceiling Systems
- Shower & Privacy Curtains
- Clothes & Towel Hooks
- Closet Bars
- Mirrors
- Toilet Partitions
- Window Treatments
- Bulletin Boards
- Picture Hanging Systems
- Cabinet Hardware
- Sprinklerheads
- Showerheads
- Medical Gas Enclosures
- HVAC Devices & Covers
- Thermostats
- Electrical Receptacles
- Light Fixtures
- Fire Alarm Components



Introduction

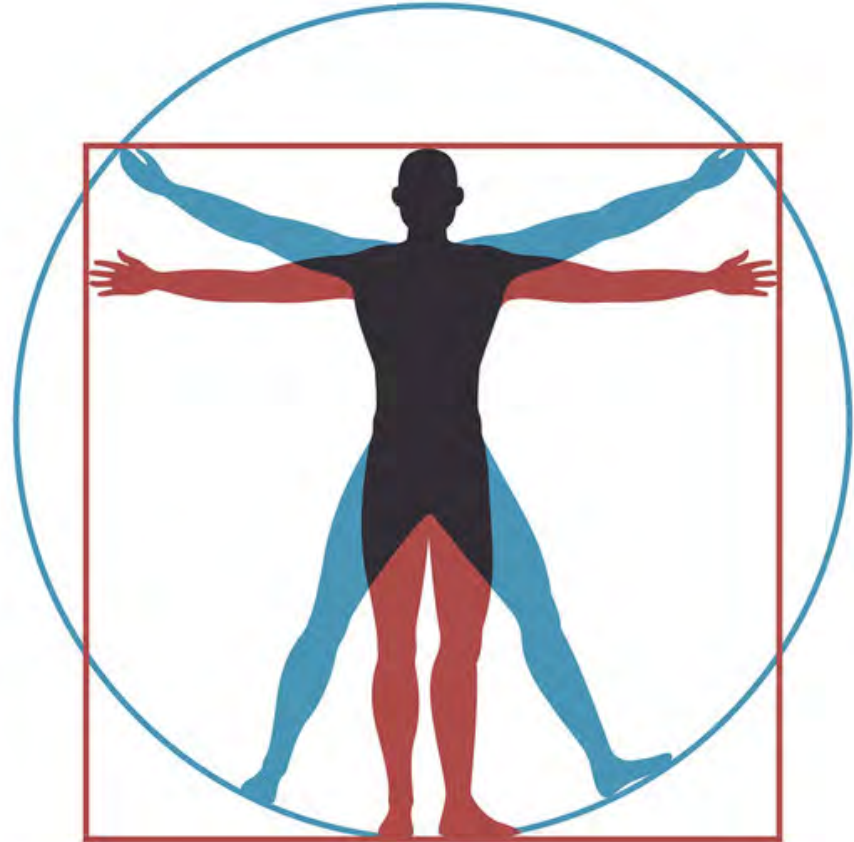
Current Best Practice

Focus Everywhere

Today, all psychiatric healthcare facilities, whether new or existing, are required to meet comprehensive accreditation standards to ensure that the risks to patient safety are minimized. Principles that support patient safety strategies avoid systems, assemblies and materials that can be weaponized, yield sharp edges, or provide ligature points in all locations accessible to patients.

Additional Ligature Attachment Points to Consider:

- Door Handles
- Door Bumpers
- Wall Base
- Trim Strips between Assemblies
- Toilet Accessories
- Grab Bars
- Fire Extinguisher & Hose Cabinets
- Furniture
- Lavatories
- Lavatory Faucets
- Valves
- Shower Controls & Activators
- Plumbing Traps & Piping



Introduction

Risk Management



Risk Management, Not Risk Elimination
FGI Guidelines for Design and Construction of Hospitals, 2018 Edition, Appendix

A2.5-1.5 Environment of Care

The majority of persons who attempt suicide suffer from a treatable mental disorder or a substance abuse disorder or both. Patients of inpatient psychiatric treatment facilities are considered at high risk for suicide; therefore, the environment should avoid physical hazards while maintaining a therapeutic environment. However, although a safe environment is critical, no environment can be entirely safe and free of risk. The built environment, no matter how well designed and constructed, cannot be relied upon as an absolute preventive measure. Staff awareness of the environment, the latent risks of that environment, and the behavior risks and needs of the patients served in that environment is absolutely essential. Different organizations and different patient populations will require greater or lesser tolerance for risk.

Introduction

Risk Assessment

High Risk approved products are safe for all locations. Though High Risk products may be safe for all areas, they may not be appropriate for all areas. In many cases the High Risk product will look too institutional for the area. Determining an individual room’s risk assignment will depend on a room-by-room Risk Assessment of all areas of the facility which has been conducted specifically for each facility using that hospital or system’s own risk assessment tool. The following are typical groupings of room by risk. Each hospital’s assessment may vary based upon patient profile, staffing, or unit geography.



Typical High Risk Areas

Areas with solitary and/or unsupervised patient use.



Typical Medium Risk Areas

Patient access is controlled, or use is supervised with no solitary and/or unsupervised use.



Typical Low Risk Areas

Staff only areas. No Patient Use.

Introduction

Nomenclature & Applicability

Notes like this on each page will identify additional considerations that are applicable, and also will identify alternative products that are acceptable as minimum standards for Article 31 hospitals, Article 28 hospitals, and state-operated hospitals.



Accepted by OMH

Items with this symbol constitute a best practice for all existing facilities and a minimum standard for new construction and renovation projects at NYS-OMH's state-operated inpatient hospitals. Unless alternatives are identified in the notes section of the page, such items are also minimum standards for Article 31 and Article 28 hospitals.



Under NYS-OMH Evaluation

Items with this symbol are currently being assessed by NYS-OMH for suitability in NYS inpatient psychiatric hospitals or units.



Retrofit

Items with this symbol are not suitable for use in new construction but are acceptable for renovation in NYS inpatient psychiatric hospitals or units.



Use with Caution

Items with this symbol might be suitable for certain inpatient environments; however, they should be used with caution. Some of these items have institutional characteristics that are not appropriate for an environment that is certified by the Joint Commission, which requires non-institutional fittings and fixtures. Others items have inherent risks that must be evaluated for their appropriateness for the intended application. Typically, the associated notes describe why the device is to be used with caution.



NYS-OMH Rejected

Items with this symbol are unsuitable for use in new construction or renovation in NYS inpatient psychiatric hospitals or units.



Paper Clip Resistant

Items with this symbol have withstood paper clip testing in addition to all other applicable testing methods.

Introduction

Product Evaluation Process




NYS-OMH evaluates products for inclusion into its Patient Safety Standards using a variety of criteria. These criteria fall into two categories; Primary Criteria and Secondary Criteria.

Primary Criteria

- Ligature Resistance: Looping
- Ligature Resistance: Wedging
- Cutting
- Jumping
- Tamper Resistance
- Weaponization
- Contraband Storage
- PICA/Ingestion

Secondary Criteria

- Ligature Resistance by combining a ligature with other readily available objects
- Ligature Resistance that is the result of the configuration in which a product is installed
- Codes & Regulations
- Therapeutic Environment & Appearance
- Constructibility
- Durability
- Maintenance

The presence of paper clips in even the most rigorously monitored inpatient environment is difficult to control. Because paper clips may be available to patients, tests for product inclusion in the OMH Patient Safety Standards include an attempt to utilize paper clips in concert with other objects to develop ligature on tested items. It should be assumed that almost anything in the patient environment can be compromised by a paper clip; for those items that withstand the ligature testing with use of paper clips, a product may be accepted by OMH and receive a special notation indicating that it has withstood such testing methods. The symbol  indicates a product withstanding paper clip testing in addition to all other applicable methods of testing and is appropriate for use in high risk areas.

As is written on page 4 of this document, a much more comprehensive assessment of risk in the patient environment is always necessary in order to meet the spirit of the Patient Safety Standard recommendations.

The availability of safe products for the inpatient environment is a growing and evolving market. New products are routinely introduced by manufacturers. Products that were once accepted by NYS-OMH in previous versions of the Patient Safety Standard may be rejected or phased out in future versions in light of new products or new knowledge about their risks. For more information about the NYS-OMH Product Evaluation Process, contact NYS-OMH.

Anti-Barricade Strategies

An unintended consequence of providing more patient privacy is the increased opportunity for a patient to use a bedroom or bathroom door as a barricade. Solutions range from direct penetration of the door by force to using advanced door systems that can be opened outward in an emergency situation. The direct solution is more economical at first, but will require replacement of the door. The advanced door technology does not harm the door, but significantly increases the initial construction cost. The ten options listed below span this continuum.

ANTI-BARRICADE STRATEGIES AT PATIENT ROOMS AND BATHROOMS							
ANTI-BARRICADE STRATEGIES	DESCRIPTION	DOOR TYPE	RELATIVE COST	REVERS- ABILITY	FIRE/ SMOKE RATABLE	ACOUSTIC & VISUAL PRIVACY	COMMENTS
1 Standard in-swinging door without additional anti-barricade features	Use of Jaws of Life, wrecking bar or other method to remove door.	All Types	Low	No	Yes/Yes	Yes/Yes	Risk of injury. Requires stock replacement doors and significant labor. This strategy is not acceptable for bathroom doors per FGI.
2 Out-swinging Doors	Door can be opened from outside room. However, it may compromise path of egress.	All Types	Low	Yes	Yes/Yes	Yes/Yes	Risk of injury. Requires wide corridors or deep niches at entries with risk of reduced visibility. Not recommended.
3 Double-Swinging (DS) Doors with propriety emergency stop or continuous swing-away stops with keyed/ooled release.	Conventional hospital stops that anyone can override stop to gain access.	All Types	Medium	Yes	No/Yes	Yes/Yes	Privacy mitigation is required with use of conventional hospital stops. Use of non-keyed stops is not recommended. Note NFPA tolerances for fire and smoke rating. Door edge strength is critical with the use of emergency stops. Consider multiple stops if not using a continuous stop.
4 Double-Swinging (DS) Doors with Removable Stop	Provide removable hollow metal/aluminum stops fixed to frame with tamper-resistant fasteners.	All Types	Low	Yes	Yes/Yes	Yes/Yes	Requires removal of stops to open door into corridor.
5 In-swinging Door with Removable Frame or Split Frame	Door and split frame can be detached from outside room.	All Types	Medium	Yes	Possible	Yes/Yes	Research needed to develop and test prototype.
6 Door within a Door (Wicket) with Concealed Hinges	Allows secondary access through inset wicket door.	Wood	High	Yes	No/Yes	Yes/Yes	Non-normative. Meets smoke requirements but may not meet fire ratings due to its design. Manufacturing and installation tolerances may result in a wedgeable gap between door leaf and wicket leaf.
7 Secondary Door in Sidelite Frame	Provide secondary access through door in sidelite frame.	All Types	High	Yes	Yes/Yes	Yes/Yes	Requires out-swinging door in adjacent sidelite opening in hollow metal frame.
8 Double Leaf Door with Inactive Leaf	Recessed throw bolts; top and bottom, activator on corridor face of door.	All Types	High	Yes	Yes/Yes	Yes/Yes	Provide keyed bolts at top and bottom of inactive leaf. Privacy mitigation required. Provide compressible material at strike edge. Pay attention to NFPA tolerances for fire and smoke rating. Reinforce bottom of active rescue leaf at recessed floor bolt.
9 Swinging, Non-latching Door	PVC door or upholstered foam door with continuous or magnetic hinge.	Varies	Low	Yes	No/No	No/Yes	En-Suite Bathrooms.
10 Ligature Resistant Sliding Door	Flush door leaf hung from concealed track hardware.	All Types	High	No	No/No	Yes/Yes	En-Suite Bathrooms.
11 Out-swinging or Double-Swinging Bathroom Door with Roller Latch	Recessed pull with roller latch strike.	All Types	Medium	Yes	No/No	Yes/Yes	En-Suite Bathrooms.
12 No-Door Leaf	Door frame prepped for no door leaf.	NA	Low	NA	No/No	No/No	En-Suite Bathrooms.

Anti-Barricade Strategies

ANTI-BARRICADE STRATEGIES	
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11	Out-swinging or Double- Swinging Bathroom Door with Roller Latch
12	No-Door Leaf



Kingsway Group

www.kingswaygroupusa.com

SWITCH Anti-Barricade Door System

Double action anti-barricade door system includes hollow metal frame with single rabbeted latching jamb, solid core wood door, lockset/handle, and KG280 switch hinge system. UL1784 rated for smoke leakage.

Optional accessory:

KG35 Double Action Transom Closer

Fully recessed closer available for use with the Kingsway SWITCH Anti-Barricade Door System. Closer is double-acting



SWITCH Anti-Barricade Door System



KG35 Double Action Transom Closer

Anti-Barricade Hardware | Code Notes

For corridor doors, verify Life Safety Code requirements to limit passage of smoke. Specify appropriate gap tolerances at top and jambs.

Anti-Barricade Hardware | Constructibility Notes

- Coordinate backset of lockset/handle when providing swing/emergency stops to avoid handle/stop operational conflict.
- Refer to manufacturer's data when using removable stops in fire rated assemblies.
- Coordination between door opening width, hinge width, and door panel width is required.

Cautions:

- **All hinges inherently carry risk due to multiple joints between moving parts, and extremely low acceptable tolerances. Consistent quality in manufacturing may be difficult to achieve and should be inspected in the field.**

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Accurate Lock & Hardware

www accuratelockandhardware.com

Keyed Emergency Stop ADL-CEK, ADL-OEK

Double lip strikes with keyed emergency stop. Designed to restrict and protect against unauthorized outswinging door by using a key to lock stop in projected position.



Anti-Barricade Hardware | Code Notes

For corridor doors, verify Life Safety Code requirements to limit passage of smoke. Specify appropriate gap tolerances at top and jams.

Anti-Barricade Hardware | Constructibility Notes

- Coordinate backset of lockset/handle when providing swing/emergency stops to avoid handle/stop operational conflict.
- Refer to manufacturer's data when using removable stops in fire rated assemblies.
- Coordination between door opening width, hinge width, and door panel width is required.

Cautions:

- **A non-locking emergency stop may allow patients to depress the stop and swing the door in the opposite direction. Overpronation of the door in this direction has, in some instances, resulted in patients breaking the door.**
- **Small emergency stops that concentrate the door closing pressure on a small surface area have been known to result in breakage of structural composite lumber doors when doors are slammed by patients.**
- **In-situ evaluation reveals that the use of a single locking point on the rescue stop does not adequately secure the stop when a door is being subjected to abuse (i.e. being repeatedly slammed). It is recommended that at least two locking points be provided: one at the top 1/3 point along the height of the door and one at the bottom 1/3 point along the height of the door to better distribute the force of the slamming along the door stile.**

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Intastop
www.intastop.com

SECURA Stop Multi-lock Removable Doorstop



Pemko
www.pemko.com

Emergency Release Stop (ERS)

Pemko Emergency Release Stop provides emergency outward opening operation of doors that normally open inwards. The door stop has a single point lock at the top. The stop is unlocked by a special tool and swings open with an integral grab handle. The stop hinge has a hospital tip.



Anti-Barricade Hardware | Code Notes

For corridor doors, verify Life Safety Code requirements to limit passage of smoke. Specify appropriate gap tolerances at top and jams.

Anti-Barricade Hardware | Constructibility Notes

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Cautions:

- **A non-locking emergency stop may allow patients to depress the stop and swing the door in the opposite direction. Overpronation of the door in this direction has, in some instances, resulted in patients breaking the door.**
- **Small emergency stops that concentrate the door closing pressure on a small surface area have been known to result in breakage of structural composite lumber doors when doors are slammed by patients.**
- **In-situ evaluation reveals that the use of a single locking point on the rescue stop does not adequately secure the stop when a door is being subjected to abuse (i.e. being repeatedly slammed). It is recommended that at least two locking points be provided: one at the top 1/3 point along the height of the door and one at the bottom 1/3 point along the height of the door to better distribute the force of the slamming along the door stile.**

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ABH Manufacturing Inc.

www.abhmfg.com

A507 Double Swing Hinge (Barrel Style)

Available with and without an alarm at the top of the hinge.



Markar Architectural Products

www.markar.com

Double Swing Hinge DSH1000 (Barrel-Style)



Anti-Barricade Hardware | Code Notes

For corridor doors, verify Life Safety Code requirements to limit passage of smoke. Specify appropriate gap tolerances at top and jambs.

Anti-Barricade Hardware | Constructibility Notes

- Coordinate backset of lockset/handle when providing swing/emergency stops to avoid handle/stop operational conflict.
- Refer to manufacturer's data when using removable stops in fire rated assemblies.
- Coordination between door opening width, hinge width, and door panel width is required.

Cautions:

- **A non-locking emergency stop may allow patients to depress the stop and swing the door in the opposite direction. Overpronation of the door in this direction has, in some instances, resulted in patients breaking the door.**
- **Small emergency stops that concentrate the door closing pressure on a small surface area have been known to result in breakage of structural composite lumber doors when doors are slammed by patients.**
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Kingsway Group

www.kingswaygroupusa.com

**Anti-Ligature Swing Stop
KG 205/206 Anti-Barricade Door Stop, Hardwood
KG 207/208 Anti-Barricade Door Stop, Aluminum**

Note: This product is available only as part of a complete door, frame, and hardware assembly and is Under Evaluation until full assembly can be reviewed.

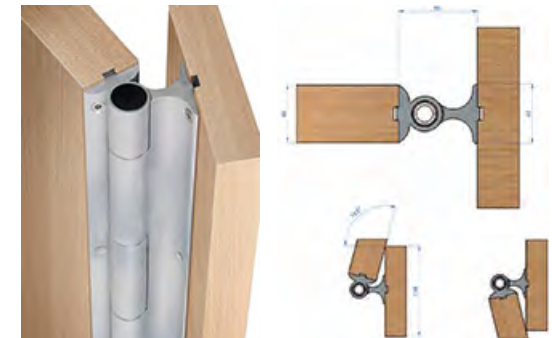


Kingsway Group

www.kingswaygroupusa.com

**Swing Hinge
KG202**

Note: This product is available only as part of a complete door, frame, and hardware assembly and is Under Evaluation until full assembly can be reviewed.



Anti-Barricade Hardware | Code Notes

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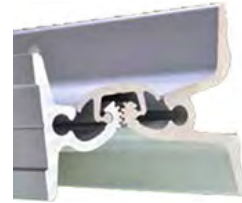
- **All hinges inherently carry risk due to multiple joints between moving parts, and extremely low acceptable tolerances. Consistent quality in manufacturing may be difficult to achieve and should be inspected in the field.**



Pemko

www.pemko.com

Double Swing Hinge DSHP01 (Geared-Style)



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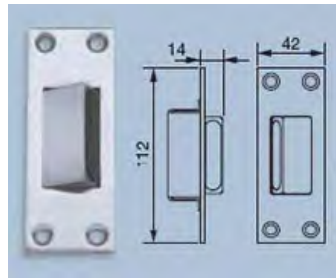
Royde & Tucker Ltd.

www.ratman.co.uk

Emergency Stop H131-105

The release device can be depressed to allow the door to open outward and allow access to the room.

Note: Allows for wedging ligature.



McKinney

www.mckinneyhinge.com

DS-6 Emergency Stop

The release device can be depressed to allow the door to open outward and allow access to the room.

Note: Allows for wedging ligature.

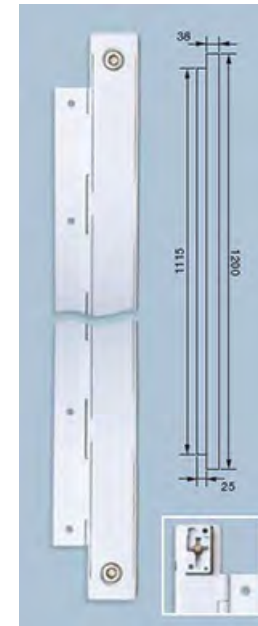


Laidlaw

www.laidlawdirect.com

Swing Away Stop

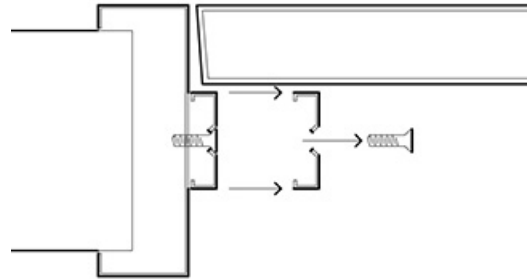
Note: Potential for looping with this hardware. Stop is not continuous and creates a ligature point.



ANTI-BARRICADE STRATEGIES	
1	Standard in-swinging door without additional anti-barricade features
2	Out-swinging Doors
3	Double-Swinging (DS) Doors with propriety emergency stop or continuous swing-away stops with keyed/tooled release.
4	Double-Swinging (DS) Doors with Removable Stop
5	In-swinging Door with Removable Frame or Split Frame
6	Door within a Door (Wicket) with Concealed Hinges
7	Secondary Door in Sidelite Frame
8	Double Leaf Door with Inactive Leaf
9	Swinging, Non-latching Door
10	Ligature Resistant Sliding Door
11	Out-swinging or Double- Swinging Bathroom Door with Roller Latch
12	No-Door Leaf



Alternate Removable Stop



Anti-Barricade Hardware | Code Notes

For corridor doors, verify Life Safety Code requirements to limit passage of smoke. Specify appropriate gap tolerances at top and jambs.

Anti-Barricade Hardware | Constructibility Notes

- Refer to manufacturer's data when using removable stops in fire rated assemblies.
- Coordination between door opening width, hinge width, and door panel width is required.



ANTI-BARRICADE STRATEGIES	
1	Standard in-swinging door without additional anti-barricade features
2	Out-swinging Doors
3	Double-Swinging (DS) Doors with propriety emergency stop or continuous swing-away stops with keyed/tooled release.
4	Double-Swinging (DS) Doors with Removable Stop
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11	Out-swinging or Double- Swinging Bathroom Door with Roller Latch
12	No-Door Leaf

Ceco Door

www.cecodoor.com

Behavioral Healthcare Patient Room Access Door

Hollow metal construction

Curries

www.curries.com

Behavioral Healthcare Patient Room Access Door

Hollow metal construction

Fleming Door Products

www.flemingdoor.com

Behavioral Healthcare Patient Room Access Door

Hollow metal construction



Anti-Barricade Hardware | General Notes

Primary door requires continuous hinges with hospital tips. Edge bevel may need to be increased. Edge strip shall be securely fastened.

Anti-Barricade Hardware | Code Notes

- Manufacturer must verify the fire rating of the door.
- For corridor doors, verify Life Safety Code requirements to limit passage of smoke. Specify appropriate gap tolerances at top and jambs.

Anti-Barricade Hardware | Constructibility Notes

- Coordination between door opening width, hinge width, and door panel width is required.
- Manufacturing and installation tolerances may result in a wedgeable gap between door leaf and wicket leaf.

Caution

All hinges inherently carry risk due to multiple joints between moving parts, and extremely low acceptable tolerances. Consistent quality in manufacturing may be difficult to achieve and should be inspected in the field.



Construction Specialties

www.c-sgroup.com

Wicket Door Acrovyn Barrier Resistant Door

Bonded SCL core 5-ply construction.

Note: OMH does not promote the use of plastic clad laminate doors.



Anti-Barricade Hardware | General Notes

Primary door requires continuous hinges with hospital tips. Edge bevel may need to be increased. Edge strip shall be securely fastened. Coordinate fastening/adhering laminate at edge of mortise.

Anti-Barricade Hardware | Code Notes

- Manufacturer must verify the fire rating of the door.
- For corridor doors, verify Life Safety Code requirements to limit passage of smoke. Specify appropriate gap tolerances at top and jambs.

Anti-Barricade Hardware | Constructibility Notes

- Coordination between door opening width, hinge width, and door panel width is required.
- Manufacturing and installation tolerances may result in a wedgeable gap between door leaf and wicket leaf.

Caution

All hinges inherently carry risk due to multiple joints between moving parts, and extremely low acceptable tolerances. Consistent quality in manufacturing may be difficult to achieve and should be inspected in the field.

ANTI-BARRICADE STRATEGIES	
1	Standard in-swinging door without additional anti-barricade features
2	Out-swinging Doors
3	Double-Swinging (DS) Doors with propriety emergency stop or continuous swing-away stops with keyed/tooled release.
4	Double-Swinging (DS) Doors with Removable Stop
5	In-swinging Door with Removable Frame or Split Frame
6	Door within a Door (Wicket) with Concealed Hinges
7	Secondary Door in Sidelite Frame
8	Double Leaf Door with Inactive Leaf
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11	Out-swinging or Double- Swinging Bathroom Door with Roller Latch
12	No-Door Leaf



Wood Wicket Door

Custom Wood Wicket Door

Multiple Manufacturers

Note:

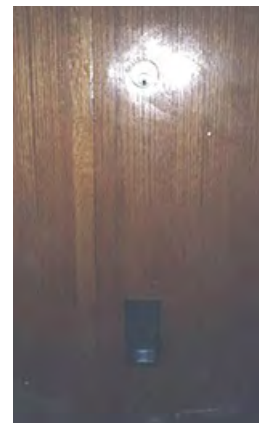
- **Manufacturing and Installation tolerances result in a wedgeable gap between door leaf and wicket leaf. The primary door leaf's integrity is inherently compromised with the introduction of a wicket door, making it susceptible to breakage.**

ANTI-BARRICADE STRATEGIES	
1	Standard in-swinging door without additional anti-barricade features
2	Out-swinging Doors
3	Double-Swinging (DS) Doors with propriety emergency stop or continuous swing-away stops with keyed/tooled release.
4	Double-Swinging (DS) Doors with Removable Stop
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7	Secondary Door in Sidelite Frame
8	Double Leaf Door with Inactive Leaf
9	Swinging, Non-latching Door
10	Ligature Resistant Sliding Door
11	Out-swinging or Double- Swinging Bathroom Door with Roller Latch
12	No-Door Leaf

Door, Hallway Side



Lock & Handle



Concealed Hinge



ANTI-BARRICADE STRATEGIES	
1	Standard in-swinging door without additional anti-barricade features
2	Out-swinging Doors
3	Double-Swinging (DS) Doors with propriety emergency stop or continuous swing-away stops with keyed/tooled release.
4	Double-Swinging (DS) Doors with Removable Stop
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12	No-Door Leaf



Secondary Door in Sidelite Frame

In-swinging Main Door and Out-swinging Sidelite Door with Center Mullion

Assembly

This assembly uses a hollow metal frame sidelite with an out-swinging panel for anti-barricade. The main door is fitted with ligature-resistant door hardware and has a full hollow metal stop. The sidelite panel can be made of wood or hollow metal and be outfitted with a keyed deadbolt on the corridor side.



ANTI-BARRICADE STRATEGIES	
1	Standard in-swinging door without additional anti-barricade features
2	Out-swinging Doors
3	Double-Swinging (DS) Doors with propriety emergency stop or continuous swing-away stops with keyed/tooled release.
4	Double-Swinging (DS) Doors with Removable Stop
5	In-swinging Door with Removable Frame or Split Frame
6	Door within a Door (Wicket) with Concealed Hinges
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8	Double Leaf Door with Inactive Leaf
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10	Ligature Resistant Sliding Door
11	Out-swinging or Double- Swinging Bathroom Door with Roller Latch
12	No-Door Leaf

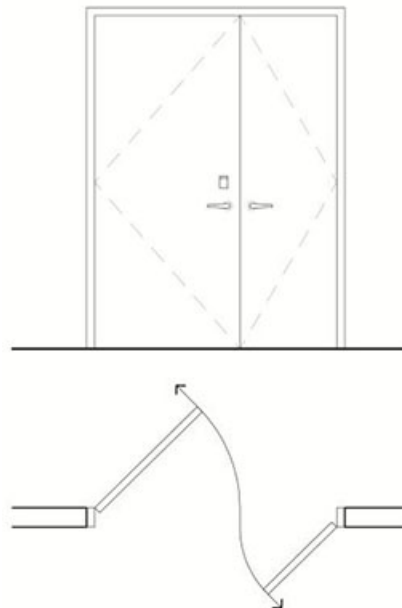


Double Leaf Door with Inactive Leaf

Inswinging Active Main Door and Outswinging Inactive Door

Provide keyed flush bolts activated from corridor side on top and bottom of the inactive leaf.

Caution: Door configuration may require special installation requirements when utilizing Door Top Sensor protection.



Anti-Barricade Hardware | Constructibility Notes

- Flush bolts shall be substantial enough to withstand significant impact. Bolts may shear off if embedment is inadequate.
- Installation tolerances are critical to provide patient privacy.
- Solid core wood doors may not offer the required durability with this anti-barricade door solution.

ANTI-BARRICADE STRATEGIES	
1	Standard in-swinging door without additional anti-barricade features
2	Out-swinging Doors
3	Double-Swinging (DS) Doors with propriety emergency stop or continuous swing-away stops with keyed/tooled release.
4	Double-Swinging (DS) Doors with Removable Stop
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Accurate Lock & Hardware

www.accuratelockandhardware.com

LR-SDS Anti-Ligature Sliding Door System

Concealed track system hangs a 1 3/4 inch door.
 Concealed floor guide keeps door flush against wall.
 Concealed vertical rod bolt locks into track.
 Ligature-resistant thumb turn LR-ADA-F and flush pull U7001UL.
 Top door edge not accessible.
 Dampened closure.



TRACK CLOSE UP



TRACK CUTAWAY



FLOOR GUIDE

Anti-Barricade Hardware | Constructibility Notes

- Coordination between door opening width, tack length, and door panel width is required.
- Space between wall and door pane is limited to 1/8". Wall base shall be coordinated with this dimensional limitation.

Anti-Barricade Strategies

Bathrooms



ANTI-BARRICADE STRATEGIES	
1	Standard in-swinging door without additional anti-barricade features
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Safehinge Primera, Inc.

www.safehingeprimera.com

ENP15-300 Ligature Resistant In Suite Bathroom Saloon Door with 11lbs Breakaway

Recommended for en-suite or gang bathrooms. Not recommended as bathroom doors shared between two bedrooms. Soft bathroom privacy door with ligature safe breakaway design, releases with less than 11lbs weight.

Includes frame-mount magnetic hinges and lightweight soft-foam door. Magnets are secured to the door frame and not accessible by patients.

Cautions:

- Cannot achieve positive latching (privacy caution)
- Foam panel can be damaged with a plastic knife.
- Mounting hardware on the panel is hard plastic and may be weaponized if panel is removed.



Anti-Barricade Strategies

Bathrooms

ANTI-BARRICADE STRATEGIES	
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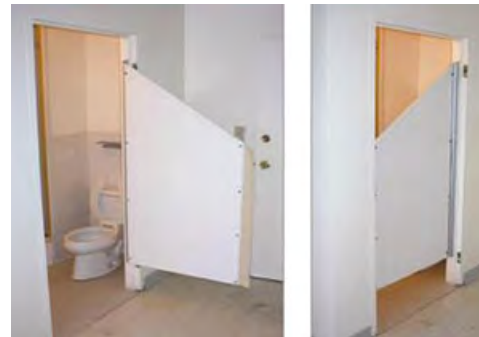
Norva Plastics, Inc.
www.norvaplastics.com

Toilet Partitions, Sentinel Event Reduction (SER) Door with Sloped Top

Use only at en-suite or gang bathrooms. Never use in bathrooms shared between two bedrooms. Flexible gasket provides friction stop between partition and frame/wall.

Cautions:

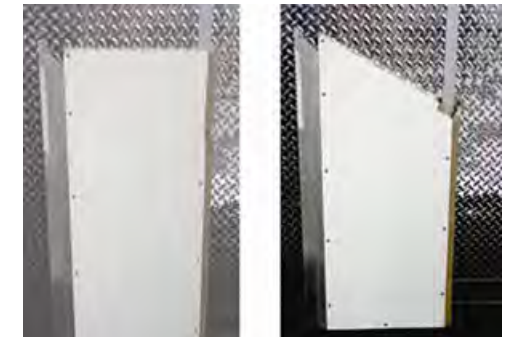
- Cannot achieve positive latching (privacy caution)
- Maintain 3” gaps between partition and frame to prevent wedging (at gasket location)



Norva Plastics, Inc.
www.norvaplastics.com

Toilet Partitions, Sentinel Event Reduction (SER) Door with Collapsible Top

Note: OMH has rejected this product as it contains features that may allow injury to patients including pinched fingers, and if the collapsible edge malfunctions, it provides a ligature point. Also, since the top portion of the door is hollow, the design allows for the possibility of contraband to be placed in the top of the door.



Anti-Barricade Strategies

Bathrooms

ANTI-BARRICADE STRATEGIES	
1	Standard in-swinging door without additional anti-barricade features
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3	Double-Swinging (DS) Doors with propriety emergency stop or continuous swing-away stops with keyed/tooled release.
4	Double-Swinging (DS) Doors with Removable Stop
5	In-swinging Door with Removable Frame or Split Frame
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7	Secondary Door in Sidelite Frame
8	Double Leaf Door with Inactive Leaf
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Ives
<http://us.allegion.com>

Ives RL32 Roller Latch with ASA Strike

Note: Roller latch is loopable.



Rockwood Manufacturing Company
www.rockwoodmfg.com

592 Roller Latch with 161 Strike

Note: Roller latch is loopable.



Seclusion Room Standards

General Notes

Protrusions and outside corners are not permitted in Seclusion Rooms. Use polycarbonate mirrors for visibility in the corners of room adjacent to the door. Installation of padding systems is recommended on vertical and horizontal surfaces including the door, door frame, window jambs and stool; however, the use of padding is not mandatory. Provide hardware with immediate positive latching (Slam Lock Function). Provide Cremone bolts, multi-bolt or multiple face-mounted magnetic locks on exterior of Seclusion Room (frame and angle at edge of door) with uninterpretable power supply.

Installation Notes

The shear lock alignment is critical for proper function. Shear locks have a tendency to become misaligned over time.

Code Notes

Provide a one hour fire rating at padded room to conform with IBC. In most cases, rating the perimeter of the Seclusion Suite is the most constructible solution. Refer to FGI Guidelines for other specific requirements.



Securitech

www.securitech.com

Multi-Point Deadbolt Mortise Lock

Select lock function from options below:
 USL-K3-IHB2: (slam)
 Latches upon closure.
 Key only projects/retracts bolts and latch.
 Exterior side of door has freely rotating lever/pull.
 Interior cylinder optional.
 UML-K3-IHB2:
 Does not latch upon closure.
 Key only projects/retracts bolts.
 Exterior side of door has freely rotating lever/pull.
 Interior cylinder optional.



Marathon Engineering Corporation

www.goldmedalsafetypadding.com

Gold Medal Safety Padding

1" thermoset polyurethane elastomer material bonded to 5/16" OSB backer board. Class A finish. Padding material is uniform and smooth with no cracks or open seams.



DuraVision Mirror Systems

www.correctionsmirror.com

Polycarbonate Mirror

Quarter dome polycarbonate mirror. Ligature-resistant connections and tamper-resistant fasteners. Provide tamper-resistant sealant at mirror frame perimeter.

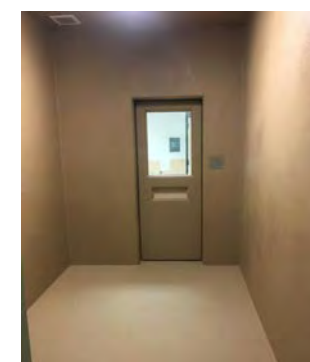


Prime Coat Coating Systems

www.primecoat.com

PC Safe Cell 4730 System

Unified system of high density, high impact rubberized core with bonded polymer topcoats. Padding material is uniform and smooth with no cracks or open seams.



Patient Safety Standards Materials & Systems



Division 01 | General Requirements



Division 01 | General Requirements

Tamper-resistant Fasteners

General Notes

Tamper-resistant fasteners are to be used for all fasteners exposed to view on every product and assembly accessible in the inpatient environment, and should be noted explicitly in the construction documents.

Performance Criteria

ISO 10664:2014 specifies the shape and basic dimensions for bolts and screws, including the gauging method. The curvature of the contour of the hexalobular internal driving feature is defined and additional information which can be used when drawing the contour given.

Alternates

Minimum standard for facilities other than NYS operated: 2-pin spanner head fasteners.

Additional Notes

McGard and Bryce are just two among many acceptable manufacturers of tamper-resistant fasteners relying on limited distribution tools or custom keyed fasteners. Generally custom tooled fasteners like McGard will cost more than stock fasteners.



Tamper- Resistant Fasteners

All fasteners accessible to patients shall be tamper-resistant of the hexalobular (6-lobed), pin reject, internal drive system, meeting ISO Standard 10664.

Notes:

- **Limit different types of fasteners used throughout a facility for ease of maintenance.**
- **Fasteners will loosen with use and will require periodic inspection.**



Division 07 | Thermal & Moisture Protection



Division 07 | Thermal & Moisture Protection

Security Sealants, Tamper-resistant

General Notes

Picking and Pica behaviors can impact sealant choices. Tamper-resistant sealants are generally flexible, abrasion resistant and highly tenacious. They are typically urethane or silicone-based sealant technology, in both one and two-component formulas. Tamper-resistant sealants are appropriate for use in most inpatient areas.

Acceptance of product in risk areas is determined primarily by the ligature resistance of the sealant. Tamper resistance is secondary to ligature resistance.

Performance Criteria

ASTM C290.

Installation Notes

All sealants must be installed per manufacturer's recommendations for ventilation, safety, and cure times.

Additional Notes

Some sealants may not be suitable for use where contact with food may occur. Some sealants may have VOC or other chemical content that generates odors and fumes during curing. All sealants must be reviewed for potential impact on occupants prior to use.



Pecora Corporation

www.pecora.com

Dynaflex SC

Security grade one part polyurethane

- Resistant to ligature in 1/16" joint and at 3/16" joint
- Medium tamper resistance
- Joints can easily be cut with utility knife
- Medium difficulty in application and tooling
- Available in 2 standard colors



Sika Corporation

www.usa.sika.com

Sikaflex 11FC

Tamper-resistant one part polyurethane

- Resistant to ligature in 1/16" joint, slightly resistant at 3/16" joint
- High tamper resistance
- Joints can easily be cut with utility knife
- Easily applied and tooled
- Available in 3 standard colors (white, black, gray)



Dow Corning

www.dowcorning.com

Dowsil 995

Architectural grade one part silicone

- Resistant to ligature in 1/16" joint, slightly resistant at 3/16" joint
- Medium tamper resistance
- Joints can easily be cut with utility knife
- Easily applied and tooled
- Available in 6 standard colors

Division 07 | Thermal & Moisture Protection

Security Sealants, Tamper-resistant

General Notes

Picking and Pica behaviors can impact sealant choices. Tamper-resistant sealants are generally flexible, abrasion resistant and highly tenacious. They are typically urethane or silicone-based sealant technology, in both one and two-component formulas. Tamper-resistant sealants are appropriate for use in most inpatient areas.

Acceptance of product in risk areas is determined primarily by the ligature resistance of the sealant. Tamper resistance is secondary to ligature resistance.

Performance Criteria

ASTM C290.

Installation Notes

All sealants must be installed per manufacturer's recommendations for ventilation, safety and cure times.

Additional Notes

Some sealants may not be suitable for use where contact with food may occur. Some sealants may have VOC or other chemical content that generates odors and fumes during curing. All sealants must be reviewed for potential impact on occupants prior to use.



Master Builders Solutions

www.master-builders-solutions.com/en-us

MasterSeal CR 195

Security grade one part polyurethane

- Resistant to ligature in 1/16" joint, not resistant at 3/16" joint
- High tamper resistance
- Joints can easily be cut with utility knife
- Difficult to tool
- Available in 3 standard colors



Master Builders Solutions

www.master-builders-solutions.com/en-us

MasterSeal NP-1

Architectural grade one part silicone

- Slightly Resistant to ligature in 1/16" joint, not resistant at 3/16" joint
- High tamper resistance
- Joints can easily be cut with utility knife
- Difficult to tool
- Available in 11 standard colors

Division 07 | Thermal & Moisture Protection

Security Sealants, Pick-Proof

General Notes

Picking and Pica behaviors can impact sealant choices. Tamper-resistant sealants are generally flexible, abrasion resistant and highly tenacious. They are typically urethane or silicone-based sealant technology, in both one and two-component formulas. Tamper-resistant sealants are appropriate for use in most inpatient areas.

Acceptance of product in risk areas is determined primarily by the ligature resistance of the sealant. Tamper resistance is secondary to ligature resistance.

Performance Criteria

ASTM C290.

Installation Notes

All sealants must be installed per manufacturer’s recommendations for ventilation, safety and cure times.

Additional Notes

Some sealants may not be suitable for use where contact with food may occur. Some sealants may have VOC or other chemical content that generates odors and fumes during curing. All sealants must be reviewed for potential impact on occupants prior to use.

Caution Notes

Pick-proof sealant joints cannot be cut. Removal results in damage to substrate.



Sika Corporation

www.usa.sika.com

Sikadur 31High-Mod Gel

Security grade two part epoxy

- Resistant to ligature in all joints when properly tooled
- Pick Proof
- Joints cannot be cut. Removal results in damage to substrate
- Medium difficulty in application and tooling
- Available in one color (gray)



Pecora Corporation

www.pecora.com

Dynapoxy EP-1200

Security grade two part epoxy

- Resistant to ligature in all joints when properly tooled.
- Pick Proof
- Joints cannot be cut. Removal results in damage to substrate.
- Medium difficulty in application and tooling
- Available in 50 standard colors

Division 07 | Thermal & Moisture Protection

Architectural Grade Sealants

General Notes

Picking and Pica behaviors can impact sealant choices. Tamper-resistant sealants are generally flexible, abrasion resistant and highly tenacious. They are typically urethane or silicone-based sealant technology, in both one and two-component formulas. Tamper-resistant sealants are appropriate for use in most inpatient areas.

Acceptance of product in risk areas is determined primarily by the ligature resistance of the sealant. Tamper resistance is secondary to ligature resistance.

Performance Criteria

ASTM C290.

Installation Notes

All sealants must be installed per manufacturer's recommendations for ventilation, safety and cure times.

Additional Notes

Some sealants may not be suitable for use where contact with food may occur. Some sealants may have VOC or other chemical content that generates odors and fumes during curing. All sealants must be reviewed for potential impact on occupants prior to use.



Dow Corning

www.dowcorning.com

Dowsil 795

Architectural grade one part silicone

- Resistant to ligature in 1/16" joint, slightly resistant at 3/16" joint
- Does not resist picking
- Joints can easily be cut with utility knife
- Easily applied and tooled
- Available in 14 standard colors



Dow Corning

www.dowcorning.com

Dowsil 786

Architectural grade one part silicone

- Resistant to ligature in 1/16" joint, slightly resistant at 3/16" joint
- Does not resist picking
- Joints can easily be cut with utility knife
- Easily applied and tooled
- Available in 6 standard colors

Division 08 | Openings



Division 08 | Openings

Door Hardware, General



General Notes

This document is meant to be used in consort with the NYS-OMH Inpatient Adult Standards, Inpatient Children & Youth Standards, Specification Guidelines Section 087100 and Appendix F, and the OMH Facility Program Manual. Numerous lockset functions are appropriate for the hospital setting and these are discussed specifically within the Specification Guidelines.

Doors and hardware present many ligature opportunities. The design team must review all potential ligature opportunities with the facility, determine which are most important to address and identify the most effective remediation methods.

Door opening assemblies present the following potential ligature opportunities that are very difficult to mitigate:

- Looping or wedging over the top of the door leaf
- Wedging between the door and the frame
- Wedging at the hinge

Additional Notes

Specify tamper-resistant, flush mounted set screws. A recessed set screw shaft provides a ligature opportunity for the stiff end of a shoelace.

The specifier must select the appropriate latch bolt for each lock set based on the facility's risk assessment and criteria:

- Standard latch bolt: Provides positive latching and locking. Presents a looping opportunity.
- 2-piece anti-friction latch bolt: Provides positive latching and locking with an increased level of security (resistant to lock-picking). Presents a looping opportunity.
- Beveled latch both: Provides positive latching and locking. Can be compromised with a card and other commonly accessible items (i.e. folder paper). Resists looping.

Installation Notes

Narrower tolerances, required to achieve ligature resistance, necessitate careful installation and more frequent periodic field adjustment than is necessary with traditional lever trim.

Post-installation commissioning of each lockset by the manufacturer is recommended.

Division 08 | Openings

Door Hardware, Continuous Hinges

General Notes

See Door Hardware Introductory Page.

Continuous hinges are recommended for all swinging doors within inpatient units.

Performance Criteria

Specify Hospital Tips (HT) to address ligature point at top of hinge.

Installation Notes

Prepare and reinforce door frame in strict compliance with hardware manufacturer's written instructions and installation templates.

Additional Notes

See NYS OMH Guidelines Specifications for Hollow Metal Frames and Doors and Solid Core Wood Doors.

Coordinate all door opening assemblies with electronic hardware.

Caution Notes

All hinges inherently carry risk due to multiple joints between moving parts, and extremely low acceptable tolerances. Consistent quality in manufacturing may be difficult to achieve and should be inspected in the field.

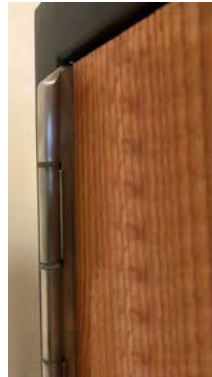


Architectural Builders Hardware Mfg. Inc.

www.abhmfg.com

AC500-HT

Stainless steel welded hospital tip and hinge leafs with flanges to encase each barrel.



Pemko

www.pemko.com

HS_HD1-SSHT-xALP

Half-surface heavy-duty aluminum geared continuous hinge



Select Hinges

www.select-hinges.com

SL-57 Hinge with Tipit L Hinge Top

Full surface geared continuous hinge with Tipit Hinge Top Protectors (wide)



Division 08 | Openings

Door Hardware, Continuous Hinges

General Notes

See Door Hardware Introductory Page.

Continuous hinges are recommended for all swinging doors within inpatient units.

Performance Criteria

Specify Hospital Tips (HT) to address ligature point at top of hinge.

Installation Notes

Prepare and reinforce door frame in strict compliance with hardware manufacturer's written instructions and installation templates.

Additional Notes

See NYS OMH Guidelines Specifications for Hollow Metal Frames and Doors and Solid Core Wood Doors.

Coordinate all door opening assemblies with electronic hardware.

Caution Notes

All hinges inherently carry risk due to multiple joints between moving parts, and extremely low acceptable tolerances. Consistent quality in manufacturing may be difficult to achieve and should be inspected in the field.



Markar Architectural Products

www.markar.com

FM300-HT

Edge mount stainless steel.



Stanley Security Solutions

www.stanleyhinges.com

LifeSpan 600 Series

641-HT-Standard Duty

Steel for 1/8" inset doors.

651-HT-Standard Duty

Stainless steel for 1/8" inset doors.

Hospital Tip



Division 08 | Openings

Door Hardware, Handles - Specialty Ligature Resistance

General Notes

See Door Hardware Introductory Page.

Beveled latchbolts can be compromised, permitting access to rooms, and therefore should never be used on locking doors without understanding that the locked door can be easily breached.

Specify a 2-piece anti-friction latchbolt for access to staff-only rooms and other areas identified as low or medium risk.

The specifier must select the appropriate latch bolt for each lock set based on the facility's risk assessment and criteria:

- Standard latch bolt: Provides positive latching and locking. Presents a looping opportunity.
- 2-piece anti-friction latch bolt: Provides positive latching and locking with an increased level of security (resistant to lock-picking). Presents a looping opportunity.
- Beveled latch both: Provides positive latching and locking. Can be compromised with a card and other commonly accessible items (i.e. folder paper). Resists looping.



Accurate Lock & Hardware

www accuratelockandhardware.com

Crescent Handle (CH) & 9100 Lockset (Mortise)

Specify with security grade lock mechanism and narrow escutcheon.

Schlage

www.schlage.com

HSLR Series Ligature-Resistant Lockset (Mortise)



Accurate Lock & Hardware

www accuratelockandhardware.com

Crescent Handle (CH-CYL) & Lockset (Cylindrical)

Schlage

www.schlage.com

HSLR Series Ligature-Resistant Lockset (Cylindrical)

Caution: A lockset function that requires a privacy button may introduce a ligature opportunity.



Division 08 | Openings

Door Hardware, Handles - Specialty Ligature Resistance

General Notes

See Door Hardware Introductory Page.

Beveled latchbolts can be compromised, permitting access to rooms, and therefore should never be used on locking doors without understanding that the locked door can be easily breached.

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Accurate Lock & Hardware

www accuratelockandhardware.com

9100ALP Push Plate Lockset (Mortise)



dormakaba USA

www.bestaccess.com

Best, Renew 90F Handle (Mortise)

Securitech

www.securitech.com

Solis Handle (Mortise)



Division 08 | Openings

Door Hardware, Handles - Specialty Ligature Resistance

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Corbin Russwin

www.corbinrusswin.com

BHSS Trim (Mortise)

Sargent

www.sargentlock.com

BHW Trim (Mortise)

Caution: Installation tolerances must be tight to ensure proper operation. Adjustments shall be made in the field.



Corbin Russwin

www.corbinrusswin.com

CLX3300 x BHSS Lockset (Cylindrical)

Sargent

www.sargentlock.com

10XG00 x BHW Lockset (Cylindrical)

Caution: A lockset function that requires a privacy button may introduce a ligature opportunity.



Division 08 | Openings

Door Hardware, Handles - Specialty Ligature Resistance

General Notes

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Marks USA

www.marksusa.com

5BH Series D-Lig Slide Lockset (Mortise)



Marks USA

www.marksusa.com

195BH Series D-Lig Slide Lockset (Cylindrical)



TownSteel Architectural Hardware Manufacturing

www.townsteel.com

MRX-A Lock with Ligature-Resistant Trim-Arch (Mortise)



TownSteel Architectural Hardware Manufacturing

www.townsteel.com

CRX-A Lock with Ligature-Resistant Trim-Arch (Cylindrical)



Division 08 | Openings

Door Hardware, Handles - Knobs & Paddles

General Notes

See Door Hardware Introductory Page.

Beveled latchbolts can be compromised, permitting access to rooms, and therefore should never be used on locking doors without understanding that the locked door can be easily breached.

Specify a 2-piece anti-friction latchbolt for access to staff-only rooms and other areas identified as low or medium risk.

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Accurate Lock & Hardware

www accuratelockandhardware.com

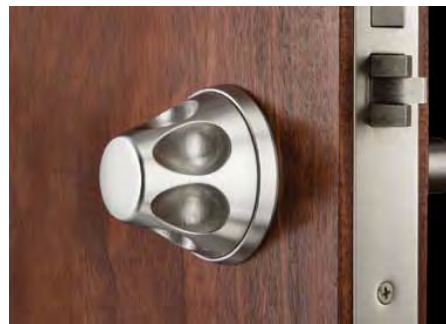
Deep Detent Safety Knob (CDDSK) (Cylindrical)



Corbin Russwin

www.corbinrusswin.com

Anti-Harm Knob HSS (Mortise)



Marks USA

<http://marksusa.com>

Institutional Life Safety 5SS50 Series Lockset (Mortise)



Schlage

<http://us.allegion.com>

SK1 Ligature-Resistant Knob (Cylindrical)



Division 08 | Openings

Door Hardware, Handles - Knobs & Paddles

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TownSteel Architectural Hardware Manufacturing

www.townsteel.com

CRX-K Ligature-Resistant Trim Knob (Cylindrical)



Division 08 | Openings

Door Hardware, Handles - Knobs & Paddles

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Sargent

www.sargentlock.com

Anti-Harm Knob BHD (Mortise)

Note: A ligature point can be established between the knob and escutcheon plate.



Corbin Russwin

www.corbinrusswin.com

HPSK Push/Pull Paddle

Sargent

www.sargentlock.com

ALP Push/Pull Paddle

Note: A wedge point can be created in the gap required for operational clearance of the paddle. This wedge point can occur when paddles are mounted in either the up, down or side positions.



Division 08 | Openings

Door Hardware, Handles - Levers



Caution: Lever style door trim is not appropriate for high risk areas. It is nearly impossible to completely avoid ligature opportunities with lever style door trim, even if designed to be ligature resistant. At best, lever style door trim is only appropriate for medium and low risk areas.

Division 08 | Openings

Door Hardware, Handles - Levers

General Notes

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Best Access Systems| Grainger Industrial Supply

www.bestaccess.com
www.grainger.com

Ligature-Resistant Lever Set SPSL Series| LISL/LISE (Mortise)

The ligature-resistant lever handle “free-wheels” in both directions on both sides of the door whether the door is locked or unlocked. **Proprietary finish resists looping by earbuds.**



Schlage

<http://us.allegion.com>

Anti-Ligature Lever SL1 Series & L9000 Locks (Mortise)

Whether locked or unlocked, this lever set “free-wheels” up and down on both the keyed and non-keyed sides of the door. This “free-wheeling” action is standard on double cylinder functions.

Cautions:

- Earbuds can be easily looped around lever handle and remain in place due to friction.
- String can be threaded in the gap between the lever body and escutcheon to establish ligature.



TownSteel Architectural Hardware Manufacturing

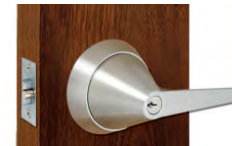
www.townsteel.com

Ligature-Resistant Lever Set TRXL Series (Cylindrical)

Whether locked or unlocked, this lever set “free-wheels” up and down on both the keyed and non-keyed sides of the door. This “free-wheeling” action is standard on double cylinder functions.

Cautions:

- Earbuds can be easily looped around lever handle and remain in place due to friction.
- String can be threaded in the gap between the lever body and escutcheon to establish ligature.
- Do not specify with push-button privacy function. Push-button is loopeable.



Division 08 | Openings

Door Hardware, Handles - Levers

General Notes

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Marks USA

<http://marksusa.com>

Institutional Life Safety 5SS19 Series Lockset (Mortise)

Cautions:

- Earbuds can be easily looped around lever handle and remain in place due to friction.
- String can be threaded in the gap between the lever body and escutcheon to establish ligature.



Marks USA

<http://marksusa.com>

Institutional Life Safety 195SS Lockset, Series (Cylindrical)

Cautions:

- Earbuds can be easily looped around lever handle and remain in place due to friction.
- String can be threaded in the gap between the lever body and escutcheon to establish ligature.
- Do not specify with push-button privacy function. Push-button is loopable.



Division 08 | Openings

Door Hardware, Handles - Levers

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Corbin Russwin

www.corbinruswin.com

BLSS Trim (Mortise)

Note: A variety of ligatures can be looped on lever resulting in downward ligatures.



Sargent

www.sargentlock.com

BHL Trim (Mortise)

Note: A variety of ligatures can be looped on lever resulting in downward ligatures.



TownSteel Architectural Hardware Manufacturing

www.townsteel.com

Ligature-Resistant Lever Set MRXL Series (Mortise)

Note: A variety of ligatures can be looped on lever resulting in downward ligatures.



Division 08 | Openings

Door Hardware, Privacy Thumbturns

General Notes

See Door Hardware Introductory Page.

Toilet Rooms and Bathrooms with privacy functions provide a potential for barricade and self harm because patients are unsupervised. Thumbturns used at these doors must be of a ligature-resistant design.

Specific features available under an "Institutional Privacy" lockset vary between manufacturers. The features needed at each facility should be specifically reviewed with each facility.

Not all door hardware manufacturers provide an institutional privacy function and not all institutional privacy functions are ligature-resistant.

Certain features are mandatory and certain features are subject to facility preference:

MANDATORY:

- ADA compliance
- Ligature resistance of thumbturns
- Outside key override of held thumbturn

OPTIONAL (feature availability may vary by manufacturer):

- Lock releases upon door closing
- Lock does not release upon door closing
- Outside locking of door by key
- No outside locking of door by key

Required anti-barricade strategies and lockset functionality (including Institutional Privacy features) should specifically reviewed with the facility.



Accurate Lock & Hardware

www accuratelockandhardware.com

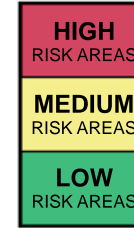
ALT-ADA Thumbturn



TownSteel Architectural Hardware Manufacturing

www.townsteel.com

RXL Thumbturn



Schlage

<http://us.allegion.com>

Anti-Ligature Thumbturn SL1

Caution: Due to manufacturing tolerances, some samples allow for looping behind thumbturn.



Sargent

www.sargentlock.com

Corbin Russwin

www.corbinrusswin.com

Behavioral Health Thumbturn for use with Sargent Ligature-Resistant Trims

Note: Because outside key does not override thumbturn, an alternative anti-barricade strategy may be warranted.



Division 08 | Openings

Door Hardware, Privacy Thumbturns

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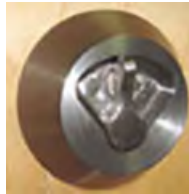


Stanley/Best Access Systems

www.bestaccess.com

Female Patient Privacy Thumbturn LTF

Note: A shoelace can be easily slid behind the thumbturn to present ligature opportunity.



Division 08 | Openings

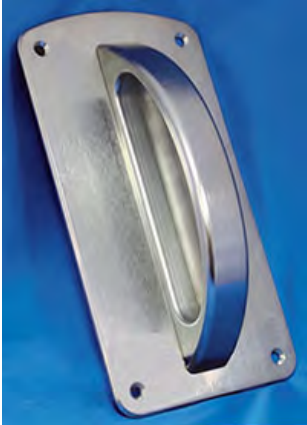
Door Hardware, Handles - Pulls

General Notes
See Door Hardware Introductory Page.



Accurate Lock & Hardware
www accuratelockandhardware.com

Crescent Pull (CP) Rigid Handle



Architectural Builders Hardware Mfg. Inc.
www.abhmfg.com

1930 Fixed Pull



Accurate Lock & Hardware
www accuratelockandhardware.com

Accurate Recessed ADA Pull (U7001AL)



Division 08 | Openings

Door Hardware, Handles - Pulls

General Notes
See Door Hardware Introductory Page.



Kingsway Group
www.kingswaygroupusa.com

KG30 Easy Grip Pull Handle on Back Plate



Kingsway Group
www.kingswaygroupusa.com

KG60 Classic Grip Handle on Back Plate



Kingsway Group
www.kingswaygroupusa.com

KG40 Ergogrip Pull Handle on Back Plate



Kingsway Group
www.kingswaygroupusa.com

KG61 Classic Grip Pull Handle



Division 08 | Openings

Door Hardware, Handles - Pulls

General Notes
See Door Hardware Introductory Page.



Kingsway Group
www.kingswaygroupusa.com

KG80 Recessed Pull Handle



Division 08 | Openings

Door Hardware, Handles - Pulls

General Notes

See Door Hardware Introductory Page.



Kingsway Group

www.kingswaygroupusa.com

KG70 Face Fixed Recessed Pull Handle

Note: Pull handle can be wedged with a knot to create a downward ligature opportunity.



Rockwood Manufacturing Company

www.rockwoodmfg.com

D89 - Heavy Duty Security Flush Pull

Note: Depth and profile of recess does not provide adequate functionality.



Division 08 | Openings

Door Hardware, Stops

General Notes
See Door Hardware Introductory Page.

Wall-mounted door stops should be selected based upon door knob/lever type and should be mechanically fastened. Stops should be installed with concealed solid wood blocking within the wall. Tamper-resistant sealant may be required around the perimeter depending on the wall surface

Caution Notes
Conventional commercial door stops with concealed fasteners and snap-on cover plates may be tampered with and weaponized.



ABH Manufacturing Inc.
www.abhmfg.com

1841 Dome Wall Stop



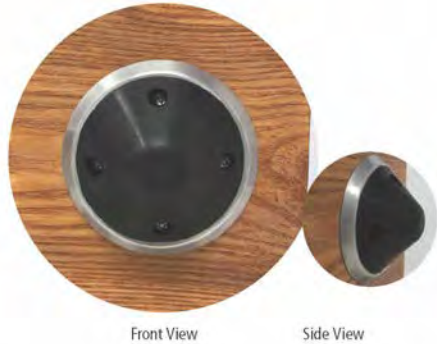
Accurate Lock & Hardware
www accuratelockandhardware.com

LR-WS Ligature Resistant Wall Stop



ABH Manufacturing Inc.
www.abhmfg.com

1842 Conical Wall Stop



Division 08 | Openings

Door Hardware, Stops

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Caution Notes

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Kingsway Group

www.kingswaygroupusa.com

KG182 Wall-mounted Door Stop

Solid stainless steel surround with rubber dome. Security screws pass through the rubber part to ensure it can't be removed.



Kingsway Group

www.kingswaygroupusa.com

KG183 Large Rubber Wall Mounted Door Stop

Solid domed rubber door stop.



Division 08 | Openings

Door Hardware, Closers

General Notes

See Door Hardware Introductory Page.

Mount closers on public side of doors to rooms with patient access, or on the secure side of doors that need to automatically lock or latch, such as Store Rooms, Soiled Utility Rooms, and doors with card access readers.

Consider use of concealed closers where risk assessment indicates that surface-mounted closers are not acceptable.

Performance Criteria

Specify gap tolerance at top to be 1/8" maximum.

Doors with concealed closers that are intended to receive door top sensors may require a face-mounted sensor to avoid conflict with the closer arm.

Caution Notes

All closers inherently carry risk. Do not use closers unless required by code, or at doors that shall control patient access in supervised spaces.



Sargent

www.sargentlock.com

268/269 Series Overhead Concealed Closer

Fully concealed closer body in door frame head. Fully concealed track in door. Track arm is only visible when door is open.



LCN

<http://us.allegion.com>

4510T SMOOTHIE Series Closer

Heavy duty track closer.

NOTE:

For low risk areas, most manufacturers' heavy duty track closers are appropriate.



Division 08 | Openings

Door Hardware, Door Top Sensors

General Notes

See Door Hardware Introductory Page.

Alarm annunciation may be visual and/or auditory, and can be provided locally at door and/or remotely at nurse station. Installing alarm resets at the alarmed doors will require staff response to the alarm location.

The tops of doors are traditionally of the most readily available ligature opportunities. Strategies to limit this opportunity include removing doors, cutting down the tops of doors or sloping the tops, and applying door top sensors. Door top sensors use either pressure sensors or light beams.

Installation Notes

The installation of door top sensors must be carefully coordinated with other door hardware items such as closers and continuous hinges. Furthermore, mounting a door top sensor on a door panel that is set in from the face of the hollow metal frame may result in false alarms when the door panel swings past 90 degrees and connects with the frame edge.

An electric transfer hinge may be required with the use of door top sensors.



Door Control Services, Inc.

www.doorcontrolservices.com

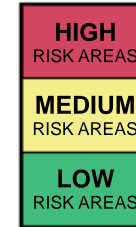
Top Door Alarm

The Top Door Alarm involves photoelectric sensors that are positioned on the door frame and on the door within ligature-resistant casings. This ensures maximum coverage by detecting the presence of any foreign objects interrupting the thru-beams between the transmitters and receivers.

Two configurations of the photoelectric sensor type of system are offered;
Configuration A: Two sets of Alarm Light Sensors for top door detection.
Configuration B: One set of Alarm Light Sensors for bottom door detection.

Cautions:

- **This product produces a visible light beam that may be disturbing to patients. It should be noted that beam is continuously visible to patients, especially when bedroom is dark.**
- **Use with caution in a double leaf door configuration with an inactive leaf, as installation requires very tight tolerances.**



The Door Switch

www.thedoorswitch.com

The Door Switch

Top of door, weight pressure activated sensor that extends above the door.



Division 08 | Openings

Door Hardware, Door Top Sensors

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An electric transfer hinge may be required with the use of door top sensors.



dormakaba USA

www.bestaccess.com

SEDA (Secure Emergency Door Alarms)

A pressure activated switch, mounted on the face of a door, provides notification when a foreign object passes over the door and a downward pressure is applied. Notification is sent to a console indicating where a response is required.

Grainger Industrial Supply

www.grainger.com

LISA (Ligature-Resistant Door Alarm)

A pressure activated switch, mounted on the face of a door, provides notification when a foreign object passes over the door and a downward pressure is applied. Notification is sent to a console indicating where a response is required.



Division 08 | Openings

Door Hardware, Door Top Sensor Alarm Visual Notifiers

General Notes
See Door Hardware Introductory Page.



Cooper Lighting Solutions Industries

www.cooperlighting.com

Series RSSB
Multi-color candela, ceiling mount installation only. Notifiers shall be ceiling mounted.



Gentex Corporation

www.gentex.com

Gentex GCSB24PCW Strobe
Multi-color candela, ceiling mount installation only. A mechanical attachment or set screw is required for the cover. Notifiers shall be ceiling mounted.



Division 08 | Openings

Door Hardware, Gasketing

General Notes

NYS-OMH discourages the use of perforated ligature-resistant gasketing because it can easily be torn off, creating an ongoing maintenance concern and reducing the life safety compliance of the physical buildings.

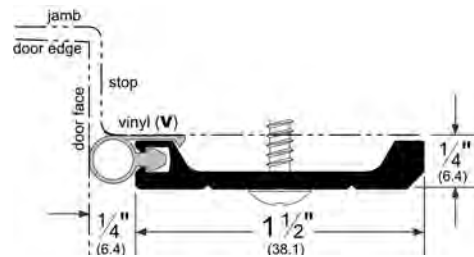


Pemko

www.pemko.com

290AV Perimeter Gasketing Aluminum with Vinyl Insert

Fasteners to be installed 1" from ends and at 6" on center, maximum.

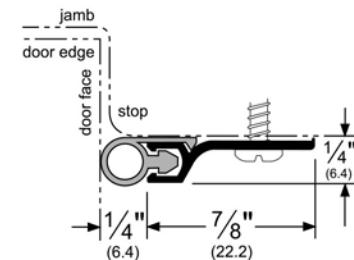


Pemko

www.pemko.com

303APK Perimeter Gasketing Aluminum with Thermal Plastic Elastomer Insert

Fasteners to be installed 1" from ends and at 6" on center, maximum.

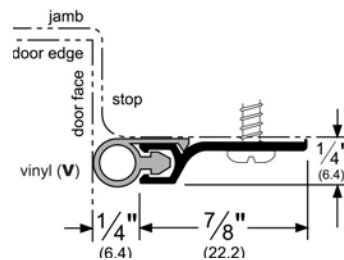


Pemko

www.pemko.com

303AV Perimeter Gasketing Aluminum with Vinyl Insert

Fasteners to be installed 1" from ends and at 6" on center, maximum.

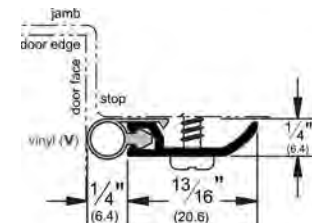


Pemko

www.pemko.com

316AV Perimeter Gasketing Aluminum with Vinyl Insert

Fasteners to be installed 1" from ends and at 6" on center, maximum.



Division 08 | Openings

Door Hardware, Gasketing

General Notes
 NYS-OMH discourages the use of perforated ligature-resistant gasketing because it can easily be torn off, creating an ongoing maintenance concern and reducing the life safety compliance of the physical buildings.

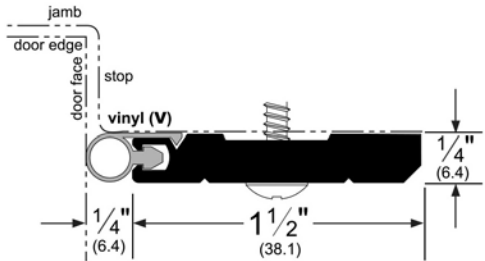


HIGH RISK AREAS
MEDIUM RISK AREAS
LOW RISK AREAS

Pemko
www.pemko.com

2891AV Perimeter Gasketing Aluminum with Vinyl Insert

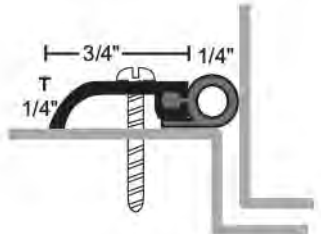
Fasteners to be installed 1" from ends and at 6" on center, maximum.



HIGH RISK AREAS
MEDIUM RISK AREAS
LOW RISK AREAS

National Guard Products
www.ngp.com

Neoprene Dense Bulb Seal 156V
 Fasteners to be installed at each of the manufacturer's pre-slotted holes and no more than 1" from ends.

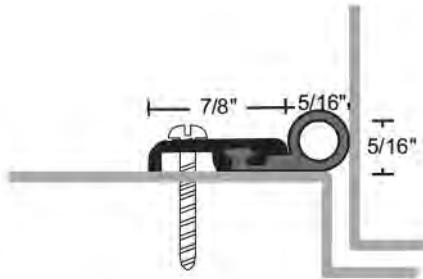


HIGH RISK AREAS
MEDIUM RISK AREAS
LOW RISK AREAS

National Guard Products
www.ngp.com

Neoprene Dense Bulb Seal 137N

Fasteners to be installed at each of the manufacturer's pre-slotted holes and no more than 1" from ends.



Division 08 | Openings

Glazing, General



General Notes

Following are risks and performance criteria to consider when specifying glazing in all areas that are accessible to patients, whether unsupervised or supervised. All windows and glazing in areas accessible to patients shall be evaluated as part of the Facility Risk Assessment. Windows and glazing in areas that are not routinely accessible to patients, but may occasionally become accessible to patients (e.g. a staff office that is left unlocked, or an office that is later converted to a Consult Room or Bedroom) should also be considered in the Facility Risk Assessment. Windows and glazing that are identified as a risk to patients for the behaviors listed below should be constructed in accordance with this standard and applicable NYS-OMH specification guidelines. The design and installation of the entire window and glazing system must be considered.

Polycarbonate glazing generally provides the best protection for patients against the various risks listed below. Laminated safety glazing, including the safety film covered laminate products identified in this standard, should be used with caution. Glazing products other than polycarbonate or safety film covered laminated safety glazing should never be used in patient areas. The NYS-OMH does not permit the use of wire glass in its facilities.

The NYS-OMH requires the use of the AAMA A501.8-14 Standard Test Method for Determination of Resistance to Human Impact of Window Systems Intended for Use in Psychiatric Applications (www.fgiaonline.org).

Note: Before specifying laminated glazing in a window unit, confirm that the selected window system has passed the aforementioned impact testing with the specified laminated glazing.

Eloperment

Exterior windows, interior windows, and glazing are a primary target for patients trying to elope. Windows and glazing in both supervised and unsupervised areas provide potential opportunities for patients to elope. It is critical to consider the design of the entire window, together with the installation in wall openings, when designing to prevent elopement. Interior windows must not be discounted as potential targets; patients may perceive such windows as potentially leading to elopement opportunities even where that is not the case.

Jumping

Patients may jump in order to hurt themselves, or may attempt to push others through window openings in order to harm them. Jumping is a concern for all spaces above grade level, that are accessible to patients, whether unsupervised or supervised.

Ingestion

Patients may eat things for a variety of reasons, including a wish to cause themselves personal harm. Polycarbonate or laminated glazing protected with a surface film should always be used in patient accessible areas. Even small fragments that can come from tempered or laminated glazing can cause severe internal injuries or death. When considering using laminated glazing, care must be taken to select glazing that meets the following criteria:

- The safety film covered laminated glazing should wholly resist penetration of the glazing panel.
- The safety film covered laminated glazing should wholly retain broken glass to prevent dislodging from the interlayer, and to prevent all off-sharding of fragments.

(continued on the next page)

Division 08 | Openings

Glazing, General



Laceration

Patients will cut themselves. Glass presents an obvious opportunity for such behavior. When considering using laminated glazing, care must be taken to select glazing that meets the following criteria:

- The safety film covered laminated glazing should wholly resist the penetration of the glazing panel.
- The safety film covered laminated glazing should wholly retain broken glass to prevent dislodging from the interlayer, and to prevent all off-sharding of fragments.
- The safety film covered laminated glazing should prevent access to the sharp edges of broken glass, even if they are retained on the interlayer.

Weaponization

Patients may use objects in their environment to harm others. Glass presents an obvious opportunity for such behavior. When considering using laminated glazing, care must be taken to select glazing that meets the following criteria:

- The safety film covered laminated glazing should wholly resist the penetration of the glazing panel.
- The safety film covered laminated glazing should wholly retain broken glass to prevent dislodging from the interlayer, and to prevent all off-sharding of fragments.
- The safety film covered laminated glazing should prevent access to the sharp edges of broken glass, even if they are retained on the interlayer.

Division 08 | Openings

Glazing, Exterior Windows, Polycarbonate Glazing

General Notes

Glazing products other than polycarbonate or laminated safety glazing should never be used in patient areas.

Polycarbonate glazing provides the best protection for the patient against the previously listed risks in all patient areas, where the applicable codes and regulatory authority permit the use of polycarbonate glazing.

For applications that require fire rated assemblies, see Fire Protective Rated and Fire Resistive Rated glazing product pages.



Sabic Innovative Plastics

www.sabic.com/en

FOR USE AS INNERMOST PANE OF EXTERIOR WINDOWS

Lexan SL-4855 Polycarbonate Glazing

1/2" thick with Marguard II-UV coating. Specify MR10 with 10 year warranty.



Plaskolite, LLC

www.plaskolite.com

FOR USE AS INNERMOST SURFACE OF EXTERIOR WINDOWS

Tuffak 15 Polycarbonate Glazing

1/2" thick with abrasion and UV resistant coating. Use with NYS-OMH 15 year warranty.

Division 08 | Openings

Glazing, Exterior Windows, Laminated Safety Glazing

General Notes

Glazing products other than polycarbonate or laminated safety glazing should never be used in patient areas.

Polycarbonate glazing provides the best protection for the patient against the previously listed risks in all patient areas, where the applicable codes and regulatory authority permit the use of polycarbonate glazing.

For applications that require fire rated assemblies, see Fire Protective Rated and Fire Resistive Rated glazing product pages.



Oldcastle Building Envelope

www.oldcastlebe.com

FOR USE AS INNERMOST SURFACE OF EXTERIOR WINDOWS

ArmorProtect Plus 161000 Laminated Security Glazing

3/8" thick. 3M film is scratchable and may be removed from the laminated glass panel and new film installed by trained maintenance staff. Curing time for the film installation is two weeks minimum. Maintenance staff should be advised to keep spare stock that is fully cured to eliminate down time. Install in frames with a 1" continuous edge bite if dry glazed or 1/2" continuous edge bite if silicone glazed.

- Outer Layer:
5/32" heat-strengthened glass
- Interlayer:
0.090" Dupont SentryGlas Plus
- Inner Layer:
5/32" heat-strengthened glass
- Film over Inner Layer:
3M Ultra S800 anti-spall film installed to edge of glass (see Film Pages for equivalents)

Caution: Wet-glazing compounds and cleaning agents have been known to compromise the integrity of the interlayer, and care should be taken with their use. Care should be taken to properly identify the inside face of the glazing and to handle it according to manufacturers' instructions.



Oldcastle Building Envelope

www.oldcastlebe.com

FOR USE AS OUTERMOST SURFACE OF EXTERIOR WINDOWS

Laminated Security Glazing

3/8" thick. Intended for use at grade, courtyards or porches with supervised patient access as an exterior lite in an insulated glazing unit where either 1/2" polycarbonate or 3/8" ArmorProtect Plus 161000 already provides primary patient safety from inside the building.

- Outer Layer:
3/16" heat-strengthened glass
- Interlayer:
0.060" PVB interlayer
- Inner Layer:
3/16" heat-strengthened glass

Caution: Do not use in any area where patients may be left unsupervised.

Division 08 | Openings

Glazing, Exterior Windows, Security Film

General Notes

Films are used on the interior face of exterior glazing, and only when the use of polycarbonate is impractical or where its use is prohibited by Code when a fire resistance rating is required.

Anti-spall films are intended to be applied to conventional glazing materials to prevent release of shards in the event of breakage or other failure. Films may help prevent off-sharding, laceration, weaponizing, and ingestion. Anti-spall films may provide a cost-effective safety improvement for pre-existing conventional glazing materials.

Each facility shall conduct their own Facility Risk Assessment to determine the appropriateness of film applications for use in their specific situations.

Performance Criteria

Extend film to edge of glazing beyond and under the face of the glazing bead/ stop.

Caution Notes

- Films shall not be used in NYS-OMH facilities to prevent elopement,
- Films shall not be used in NYS-OMH facilities to prevent jumping from upper stories,
- Films shall not be used in NYS-OMH facilities for security use at exterior glazing facing non-secure open spaces.



Ace Security Laminates

www.usace.com

200 Series - Standard Security

0.009" thick, 2-ply laminate, 99% UV blocking for use on exterior windows. Lifetime warranty.



Madico

www.safetyshield.com

Safetyshield 1500 Film

High strength glazing film applied to the exposed surface of glass reduces glass breakage and holds broken glass in place until glazing can be replaced.

Division 08 | Openings

Glazing, Interior Windows, Polycarbonate

General Notes

Glazing products other than polycarbonate or laminated safety glazing should never be used in patient areas.

Laminated safety glazing should be used with caution.

1/2" polycarbonate is recommended where elopement or jumping are the risks to be mitigated.

3/8" polycarbonate is recommended where ingesting, laceration, and weaponization are the risks to be mitigated.



Sabic Innovative Plastics

www.sabic.com/en

Lexan SL-4855 Polycarbonate Glazing

3/8" or 1/2" thick with Marguard II-UV coating. Specify MR10 with a 10 year warranty. Install in hollow metal frames with a 1" continuous edge bite, or deeper based on size/width of interior window opening.



Plaskolite, LLC

www.plaskolite.com

Tuffak 15 Polycarbonate Glazing

1/2" thick. Use with NYS-OMH 15 year warranty. Install in hollow metal frames with a 1" continuous edge bite, or deeper based on size/width of interior window opening.

Division 08 | Openings

Glazing, Interior Windows, Laminated Security Glazing

General Notes

Glazing products other than polycarbonate or laminated safety glazing should never be used in patient areas.

Laminated safety glazing should be used with caution.

1/2" polycarbonate is recommended where elopement or jumping are the risks to be mitigated.

3/8" polycarbonate is recommended where ingesting, laceration, and weaponization are the risks to be mitigated.



Oldcastle Building Envelope

www.oldcastlebe.com

ArmorProtect Plus 161000 Laminated Security Glazing

3/8" thick. 3M film is scratchable and may be removed from the laminated glass panel and new film installed by trained maintenance staff. Curing time for the film installation is two weeks minimum. Maintenance staff should be advised to keep spare stock that is fully cured to eliminate down time. Install in hollow metal frames with a 1" continuous edge bite if dry glazed or 1/2" continuous edge bite if silicone glazed.

Film over Outer Layer:

3M Ultra S800 anti-spall film installed to edge of glass, or equivalent.

Outer Layer:

5/32" heat-strengthened glass

Interlayer:

0.090" Dupont SentryGlas

Inner Layer:

5/32" heat-strengthened glass

Film over Inner Layer:

3M Ultra S800 anti-spall film installed to edge of glass, or equivalent.

Caution: Wet-glazing compounds and cleaning agents have been known to compromise the integrity of the interlayer, and care should be taken with their use. Care should be taken to properly identify the inside of the glass and to handle it according to manufacturers' instructions.

Division 08 | Openings

Glazing, Interior Windows, Safety Film

General Notes

Films are used on interior glazing between spaces on the same floor level, and only when the use of polycarbonate is impractical or where its use is prohibited by Code when a fire resistance rating is required.

Safety films are intended to be applied to conventional glazing materials to prevent release of shards in the event of breakage or other failure. Films may help prevent off-sharding, laceration, weaponizing, and ingestion. Safety films may provide a cost-effective safety improvement for pre-existing conventional glazing materials.

Each facility shall conduct their own Facility Risk Assessment to determine the appropriateness of film applications for use in their specific situations.

Performance Criteria

Extend film to edge of glazing beyond and under the face of the glazing bead/ stop

Caution Notes

- Safety Films shall not be used in NYS OMH facilities to prevent elopement of jumping
- Safety Films are not for use at interior glazing one or more stories above the adjacent floor space,
- Safety Films are not for use at any upper story exterior glazing,
- Safety Films are not for use at exterior glazing facing non-secure open spaces.



3M

www.3m.com

Ultra S800 Film

3M film is scratchable. When damaged, it may be removed from the glass panel and new film installed by trained maintenance staff. Curing time for the film installation is two weeks minimum. Exact curing time should be verified with the manufacturer. Maintenance staff should be advised to keep spare stock that is fully cured to eliminate down time.



DuPont

www.dupont.com

Spallshield CPET Film

Hard-coated PET film helps stop the showering of small glass particles (called "spall") that can occur when conventional glass fails.

Division 08 | Openings

Glazing, Interior Windows, Safety Film

General Notes

Films are used on interior glazing between spaces on the same floor level, and only when the use of polycarbonate is impractical or where its use is prohibited by Code when a fire resistance rating is required.



Madico

www.safetyshield.com

Safety Shield 800

Safety films are intended to be applied to conventional glazing materials to prevent release of shards in the event of breakage or other failure. Films may help prevent off-sharding, laceration, weaponizing, and ingestion. Safety films may provide a cost-effective safety improvement for pre-existing conventional glazing materials.

Each facility shall conduct their own Facility Risk Assessment to determine the appropriateness of film applications for use in their specific situations.

Performance Criteria

Extend film to edge of glazing beyond and under the face of the glazing bead/stop

Caution Notes

- Safety Films shall not be used in NYS OMH facilities to prevent elopement of jumping
- Safety Films are not for use at interior glazing one or more stories above the adjacent floor space,
- Safety Films are not for use at any upper story exterior glazing,
- Safety Films are not for use at exterior glazing facing non-secure open spaces.

Division 08 | Openings

Glazing, Interior Windows, Fire Protective Rated

General Notes
Do not use wire glazing.

Existing wire glazing should be removed and replaced with polycarbonate or laminated safety glazing wherever possible, or it should be protected with an applied safety film.

Code Notes:
Fire protective glazing is tested per NFPA 252, NFPA 257, UL 9, UL 10B, UL 10C.

Verify usage compliant with applicable Codes.

Code Notes
Fire protective glazing is tested per NFPA 252, NFPA 257, UL 9, UL 10B, UL 10C.

Verify usage compliant with applicable Codes.



Technical Glass Products

www.fireglass.com

FireLite NT2
3/16" thick fire protection and impact safety rated glazing. Listed for use in doors, sidelites, and transoms with fire rating requirements ranging from 20 minutes to 3 hours.



FIRELITE ASSEMBLIES				
RATING	ASSEMBLY	MAX. EXPOSED AREA	MAX. WIDTH OF EXPOSED GLAZING	MAX. HEIGHT OF EXPOSED GLAZING
20 to 60 min.	DOORS (non-temp rise)	3,204 sq.in./22.25 sq.ft.	36"	89"
	DOORS (temp rise)	100 sq.in./0.69 sq.ft.	12"	33"
	OTHER THAN DOORS	3,325 sq.in./23.09 sq.ft.	95"	95"
90 min.	DOORS (non-temp rise)	2,034 sq.in./14.13 sq.ft.	36"	56-1/2"
	DOORS (temp rise)	100 sq.in./0.69 sq.ft.	12"	33"
	OTHER THAN DOORS	2,627 sq.in./18.24 sq.ft.	56-1/2"	56-1/2"
3 hours	DOORS	100 sq.in./0.69 sq.ft.	12"	33"

Check with frame manufacturer for maximum tested glass sizes and required stop height.
NOTE: Individual lite sizes cannot exceed "Max. Exposed Area" listed above.

Division 08 | Openings

Glazing, Interior Windows, Fire Protective Rated

General Notes

Do not use wire glazing.

Existing wire glazing should be removed and replaced with polycarbonate or laminated safety glazing wherever possible, or it should be protected with an applied safety film.

Code Notes:

Fire protective glazing is tested per NFPA 252, NFPA 257, UL 9, UL 10B, UL 10C.

Verify usage compliant with applicable Codes.

Code Notes

Fire protective glazing is tested per NFPA 252, NFPA 257, UL 9, UL 10B, UL 10C.

Verify usage compliant with applicable Codes.



SaftiFirst

www.safti.com

SuperLite Fire Rated Glazing

1/4" monolithic safety and positive pressure fire rated glazing. For use in wood, hollow metal, aluminum or any equally fire rated framing systems.

Traditional fire rated glass with a tough, durable fire rated safety film applied to meet the highest impact safety standard, CPSC 16CFR 1201 Cat. II, which requires withstanding 400 ft. lbs. due to accidental impact.

Notes:

- **These products are rejected because of breakage and shard production.**
- **These products are not tested per ASTM F1233 and therefore are not considered Security Glazing.**
- **Impact safety ratings do not equal security ratings.**
- **While these products have many applications as Safety Impact Glazing, such as in schools and public buildings, they are not intended for special populations where security is also required.**

Division 08 | Openings

Glazing, Interior Windows, Fire Resistive Rated

General Notes

Do not use wire glazing.

Existing wire glazing should be removed and replaced with approved safety glazing wherever possible, or it should be protected with either an applied safety film or 1/8" polycarbonate over face of glazing.



Code Notes

Fire resistive glazing is tested per ASTM E-119, NFPA 251, UL 263

Verify usage compliant with applicable Codes.

Technical Glass Products

www.fireglass.com

Pilkington Pyrostop

3/4" Pyrostop fire rated, impact safety rated glass sandwiched between two layers of 1/8" polycarbonate.

Division 08 | Openings

Glazing, Interior Windows, Sprinkler Protected Polycarbonate

General Notes

This Performance Based System may be applicable and acceptable in certain situations. Verify Code requirements and verify System acceptability with AHJ prior to executing design:

where the authority having jurisdiction will accept NYS-OMH's Southwest Research Institute test (SwRI 01-4779) (not tested per ASTM F1233)



Polycarbonate Protected by Closely Spaced Sprinklers

For up to 120 minute opening protection:

- 3/8" polycarbonate
- Closely spaced (6' O.C. max) sprinklerheads on both sides of glazing.
- Rated HM frame with 5/8" stops



Division 08 | Openings

Glazing, Observation Mirrors

Installation Notes

Install glazing in a hollow metal frame with glazing stops that provide a 5/8" continuous edge bite.



Plaskolite, Inc.

www.plaskolite.com

See-Thru Mirror

One-way observation polycarbonate mirror, 0.236" thick. Product allows a percentage of incident light to pass through while reflecting the remainder. When illuminated, the side with the light source will be reflective and the opposite (darkened) side will be transparent.



Division 08 | Openings

Interior Windows

General Notes

See the NYS-OMH Specification Guideline for 085653 Security Windows for additional information.



Performance Criteria

Alternate minimum standard for facilities other than the newly constructed NYS-OMH operated: Provide detention screen, or windows with sash, frame, and glazing capable of withstanding 2,000 ft-lb impact loads from a 1 foot diameter impact object without breach, dislodging or breakage. The use of alternative window treatments identified elsewhere in this document are an option to integral blinds.



Some manufacturers limit polycarbonate sheet width to 4'-0". Confirm with manufacturer before specifying glazing that exceeds 4'-0" in either direction.

Caution Notes

Windows with casement sashes can be easily looped.

Additional Notes

Structural and architectural detailing of psychiatric windows is critical.

Unicel

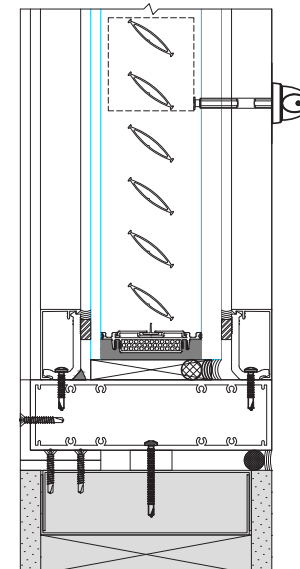
unicelarchitectural.com

Unicel BH Interior Window

New Interior Window Applications

Comply with 2,000 ft-lb impact test as specified by NYS-OMH and AAMA 501.8 -14 Standard Test Method for Determination of Resistance to Human Impact of Window Systems Intended for Use in Psychiatric Applications.

- Double-paned insulating unit, 2 3/4" overall thickness having 1/2" thick interior polycarbonate lite and 1/4" thick exterior polycarbonate lite.
- Provide integral operable blinds with ligature-resistant operator.
- Provide ligature-resistant locking mechanism.



Division 08 | Openings

Interior Windows

General Notes

See the NYS-OMH Specification Guideline for 085653 Security Windows for additional information.



Performance Criteria

Alternate minimum standard for facilities other than the newly constructed NYS-OMH operated: Provide detention screen, or windows with sash, frame, and glazing capable of withstanding 2,000 ft-lb impact loads from a 1 foot diameter impact object without breach, dislodging or breakage. The use of alternative window treatments identified elsewhere in this document are an option to integral blinds.



Some manufacturers limit polycarbonate sheet width to 4'-0". Confirm with manufacturer before specifying glazing that exceeds 4'-0" in either direction.



Caution Notes

Windows with casement sashes can be easily looped.

Additional Notes

Structural and architectural detailing of psychiatric windows is critical.

Unicel

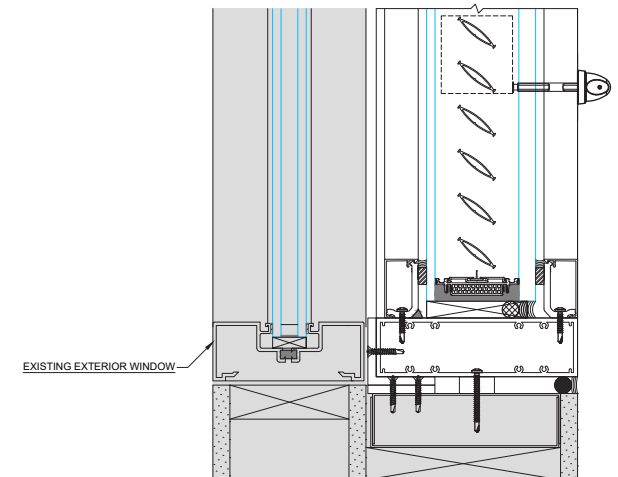
unicelarchitectural.com

Unicel BH Interior Window

Interior Impact Sash

Comply with 2,000 ft-lb impact test as specified by NYS-OMH and AAMA 501.8 -14 Standard Test Method for Determination of Resistance to Human Impact of Window Systems Intended for Use in Psychiatric Applications.

- Double-paned insulating unit, 2 3/4" overall thickness having 1/2" thick interior polycarbonate lite and 1/4" thick exterior polycarbonate lite.
- Provide integral operable blinds with ligature-resistant operator.
- Provide ligature-resistant locking mechanism.



Division 08 | Openings

Interior Windows

General Notes

See the NYS-OMH Specification Guideline for 085653 Security Windows for additional information.



Performance Criteria

Alternate minimum standard for facilities other than the newly constructed NYS-OMH operated: Provide detention screen, or windows with sash, frame, and glazing capable of withstanding 2,000 ft-lb impact loads from a 1 foot diameter impact object without breach, dislodging or breakage. The use of alternative window treatments identified elsewhere in this document are an option to integral blinds.



Some manufacturers limit polycarbonate sheet width to 4'-0". Confirm with manufacturer before specifying glazing that exceeds 4'-0" in either direction.



Caution Notes

Windows with casement sashes can be easily looped.



Additional Notes:

Structural and architectural detailing of psychiatric windows is critical.

Wausau Window & Wall Systems

www.wausauwindow.com

2187-DT SEAL TM Windows

Interior Impact Sash

2187-DT SEAL TM can be installed over existing in-place windows, or as part of aluminum storefront or curtain wall installation.

Comply with 2,000 ft-lb impact test as specified by NYS-OMH and AAMA 501.8 - 14 Standard Test Method for Determination of Resistance to Human Impact of Window Systems Intended for Use in Psychiatric Applications.

- Provide Wausau anti-ligature bar across top of in-projected casement trim in field as required. Run tight to finished jambs.
- Provide 1/2" polycarbonate with 1" continuous edge bite, or deeper based on size/width of window opening.
- Provide integral operable blinds with ligature-resistant operator.
- Provide ligature-resistant locking mechanism.



Division 08 | Openings

Exterior Windows

General Notes

See the NYS-OMH Specification Guideline for 085653 Security Windows for additional information.



Performance Criteria

Alternate minimum standard for facilities other than the newly constructed NYS-OMH operated: Provide detention screen, or windows with sash, frame, and glazing capable of withstanding 2,000 ft-lb impact loads from a 1 foot diameter impact object without breach, dislodging or breakage. The use of alternative window treatments identified elsewhere in this document are an option to integral blinds.



Some manufacturers limit polycarbonate sheet width to 4'-0". Confirm with manufacturer before specifying glazing that exceeds 4'-0" in either direction.

Caution Notes

Windows with casement sashes can be easily looped.

Additional Notes

Structural and architectural detailing of psychiatric windows is critical.

Britplas

www.britplas.com

Safevent Windows

New Exterior Window Applications

Horizontal Sliders. Sliding window assembly with perforated metal screen. Install with operable slider on the exterior. Comply with 2,000 ft-lb impact test as specified by NYS-OMH and AAMA 501.8 -14 Standard Test Method for Determination of Resistance to Human Impact of Window Systems Intended for Use in Psychiatric Applications.

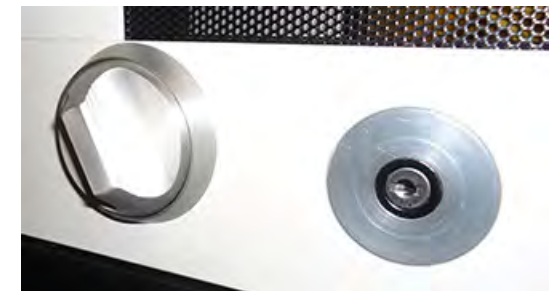
No security screens required.

- Provide 4" opening restriction for operable windows.
- Provide 1/2" polycarbonate with 1" continuous edge bite, or deeper based on size/width of window opening.
- Provide ligature-resistant manual or electric window operator.
- Provide integral operable blinds with ligature-resistant operator.
- Provide ligature-resistant locking mechanism.

View from Interior - Screen on left panel



Window Operator - Manual Knob|Lock



Division 08 | Openings

Exterior Windows

General Notes

See the NYS-OMH Specification Guideline for 085653 Security Windows for additional information.



Performance Criteria

Alternate minimum standard for facilities other than the newly constructed NYS-OMH operated: Provide detention screen, or windows with sash, frame, and glazing capable of withstanding 2,000 ft-lb impact loads from a 1 foot diameter impact object without breach, dislodging or breakage. The use of alternative window treatments identified elsewhere in this document are an option to integral blinds.



Some manufacturers limit polycarbonate sheet width to 4'-0". Confirm with manufacturer before specifying glazing that exceeds 4'-0" in either direction.

Caution Notes

Windows with casement sashes can be easily looped.

Additional Notes

Structural and architectural detailing of psychiatric windows is critical.

Duggan Systems

www.duggansystems.ie

BCW 200 Windows

New Exterior Window Applications

Comply with 2,000 ft-lb impact test as specified by NYS-OMH and AAMA 501.8 -14 Standard Test Method for Determination of Resistance to Human Impact of Window Systems Intended for Use in Psychiatric Applications.

- Provide 1/2" polycarbonate with 1" continuous edge bite, or deeper based on size/width of window opening.
- Provide integral operable blinds with ligature-resistant operator.
- Provide ligature-resistant locking mechanism.



Division 08 | Openings

Exterior Windows

General Notes

See the NYS-OMH Specification Guideline for 085653 Security Windows for additional information.



Performance Criteria

Alternate minimum standard for facilities other than the newly constructed NYS-OMH operated: Provide detention screen, or windows with sash, frame, and glazing capable of withstanding 2,000 ft-lb impact loads from a 1 foot diameter impact object without breach, dislodging or breakage. The use of alternative window treatments identified elsewhere in this document are an option to integral blinds.



Some manufacturers limit polycarbonate sheet width to 4'-0". Confirm with manufacturer before specifying glazing that exceeds 4'-0" in either direction.



Caution Notes

Windows with casement sashes can be easily looped.

Additional Notes

Structural and architectural detailing of psychiatric windows is critical.

Graham Architectural Products

www.grahamwindows.com

S6300 Series Human Impact Window

New Exterior Window Applications

Comply with 2,000 ft-lb impact test as specified by NYS-OMH and AAMA 501.8 -14 Standard Test Method for Determination of Resistance to Human Impact of Window Systems Intended for Use in Psychiatric Applications.

- Provide 1/2" polycarbonate with 1" continuous edge bite, or deeper based on size/width of window opening.
- Provide integral operable blinds with ligature-resistant operator.
- Provide ligature-resistant locking mechanism.



Division 08 | Openings

Exterior Windows

General Notes

See the NYS-OMH Specification Guideline for 085653 Security Windows for additional information.



Performance Criteria

Alternate minimum standard for facilities other than the newly constructed NYS-OMH operated: Provide detention screen, or windows with sash, frame, and glazing capable of withstanding 2,000 ft-lb impact loads from a 1 foot diameter impact object without breach, dislodging or breakage. The use of alternative window treatments identified elsewhere in this document are an option to integral blinds.



Some manufacturers limit polycarbonate sheet width to 4'-0". Confirm with manufacturer before specifying glazing that exceeds 4'-0" in either direction.



Caution Notes

Windows with casement sashes can be easily looped.

Additional Notes

Structural and architectural detailing of psychiatric windows is critical.

Oldcastle Building Envelope

www.oldcastlebe.com

Pinnacle Series 66P Windows

New Exterior Window Applications

Pinnacle Series Moduline Windows, 66P; 4" depth for use with 1" exterior insulated glazing. Comply with 2,000 ft-lb impact test as specified by NYS-OMH and AAMA 501.8 -14 Standard Test Method for Determination of Resistance to Human Impact of Window Systems Intended for Use in Psychiatric Applications.

- Provide 1/2" polycarbonate with 1" continuous edge bite, or deeper based on size/width of window opening.
- Provide integral operable blinds with ligature-resistant operator.
- Provide ligature-resistant locking mechanism.



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Exterior Windows

General Notes

See the NYS-OMH Specification Guideline for 085653 Security Windows for additional information.



Performance Criteria

Alternate minimum standard for facilities other than the newly constructed NYS-OMH operated: Provide detention screen, or windows with sash, frame, and glazing capable of withstanding 2,000 ft-lb impact loads from a 1 foot diameter impact object without breach, dislodging or breakage. The use of alternative window treatments identified elsewhere in this document are an option to integral blinds.



Some manufacturers limit polycarbonate sheet width to 4'-0". Confirm with manufacturer before specifying glazing that exceeds 4'-0" in either direction.

Caution Notes

Windows with casement sashes can be easily looped.

Additional Notes

Structural and architectural detailing of psychiatric windows is critical.

Unicel

unicelarchitectural.com

Unicel BH Exterior Window

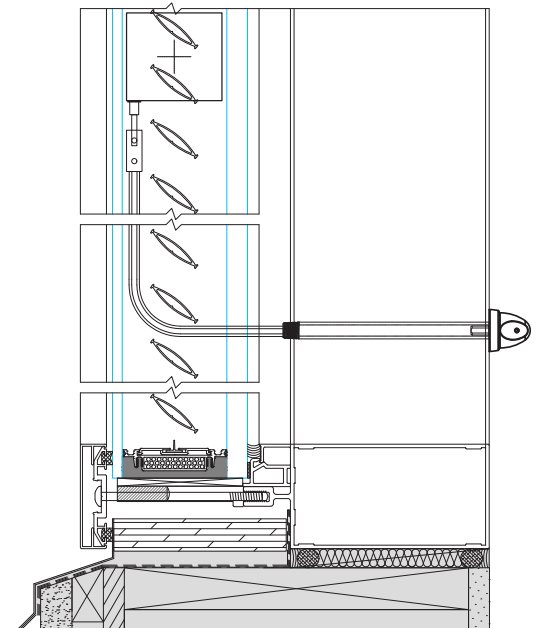
New Exterior Window Applications

Comply with 2,000 ft-lb impact test as specified by NYS-OMH and AAMA 501.8 -14 Standard Test Method for Determination of Resistance to Human Impact of Window Systems Intended for Use in Psychiatric Applications.

NOTE: Impact test sample of this window was completed with 1/4" polycarbonate for the exterior lite and with no exterior glazing. IGU can be substituted at exterior lite.

Unicel detail shows unit with 1/4" polycarbonate on the exterior.

- Double-paned insulating unit, 2 3/4" overall thickness having 1/2" thick interior polycarbonate lite and 1/4" thick exterior polycarbonate lite.
- Provide integral operable blinds with ligature-resistant operator.
- Provide ligature-resistant locking mechanism.



Division 08 | Openings

Exterior Windows

General Notes

See the NYS-OMH Specification Guideline for 085653 Security Windows for additional information.



Performance Criteria

Alternate minimum standard for facilities other than the newly constructed NYS-OMH operated: Provide detention screen, or windows with sash, frame, and glazing capable of withstanding 2,000 ft-lb impact loads from a 1 foot diameter impact object without breach, dislodging or breakage. The use of alternative window treatments identified elsewhere in this document are an option to integral blinds.



Some manufacturers limit polycarbonate sheet width to 4'-0". Confirm with manufacturer before specifying glazing that exceeds 4'-0" in either direction.



Caution Notes

Windows with casement sashes can be easily looped.

Additional Notes

Structural and architectural detailing of psychiatric windows is critical.

Wausau Window & Wall Systems

www.wausauwindow.com

4000i-DT Psychiatric Windows

New Exterior Window Applications

Comply with 2,000 ft-lb impact test as specified by NYS-OMH and AAMA 501.8 - 14 Standard Test Method for Determination of Resistance to Human Impact of Window Systems Intended for Use in Psychiatric Applications.

- Provide Wausau anti-ligature bar across top of in-projected casement trim in field as required. Run tight to finished jambs.
- Provide 1/2" polycarbonate with 1" continuous edge bite, or deeper based on size/width of window opening.
- Provide integral operable blinds with ligature-resistant operator.
- Provide ligature-resistant locking mechanism.



Caution: Do not use low profile, side mount angled or vertical mount angled operators for concealed operable blinds because they create ligature points.

Division 08 | Openings

Doors, Secure Wood Door



General Notes

The door can be prepped for anti-barricade. Refer to the anti-barricade strategy section listed at the beginning of this document for additional information.



Installation Notes

Reinforcement of stud wall construction is required to adequately support the door and resist dynamic impact upon closing.

Ambico
www.ambico.com

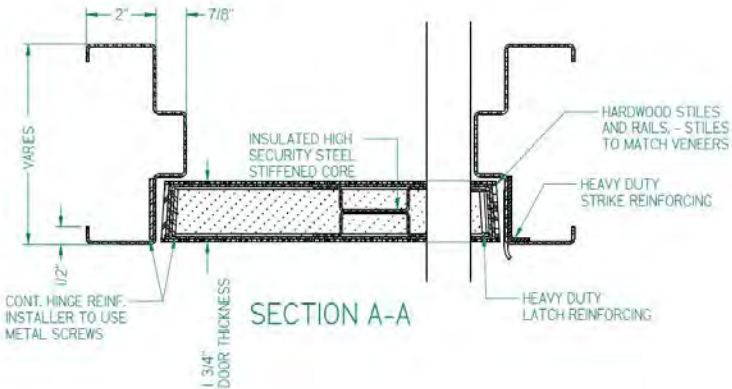
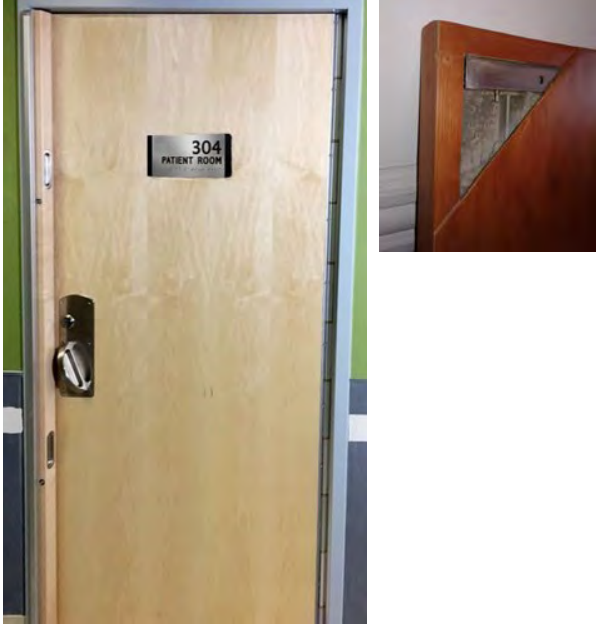
Ambico Security Wood Door

High Security non-rated, 14 gauge steel core with wood veneer door.

14 gauge stiffened galvanized steel core with 14 gauge galvanized steel sheets each side, with MDF and wood veneer face sheets applied. Highly vandal, tamper, and impact resistant.

Wood stiles and rails are 3/8" hardwood to match face veneer species.

Doors are insulated for sound attenuation.



Division 08 | Openings

Access Doors

Installation Notes

Access door frames shall be 16 gauge steel. Access door shall be 20 gauge steel, welded pan type. Door flange shall be 1" wide minimum, for embedment in drywall compound. Hinges shall be continuous. Base metal shall be steel with primer coat of rust inhibitive electrostatic powder baked gray enamel or stainless steel.

The access door may be filled with fire rated insulation. The door shall be automatic closing, self-latching and contain an interior latch release.

Locks shall be mortise slam latch with keyed cylinder. All locks shall be keyed alike.

Caution Notes

All access doors inherently carry ligature risk. Avoid the use of access doors in patient areas to the greatest extent possible, particularly in unsupervised areas such as patient bedrooms and bathrooms.



Cendrex
www.cendrex.com

PFI Series Fire Rated Access Doors

Caution: Corners of door panel are not fully mitered. Provide tamper-resistant sealant bead to close the corner.



J. L. Industries
www.jlindustries.com

FDWB Fire Rated Access Panel

