



Glebe Elementary School, Arlington, VA

> Specify  
Quality

## Entrance & Storefront Systems



Entrances | Storefronts | Curtain Wall | Windows | Sliding Doors



# YKK AP America — The Company



*Vertically integrated manufacturing guarantees that our extrusions exceed industry standards.*

*Our unique anodizing process provides the greatest color consistency in the industry.*



Founded more than a quarter-century ago, the Architectural Products division of YKK is today a world leader in the manufacture of aluminum building products. YKK AP is committed to producing architectural products of the highest quality and at the lowest possible cost. To this end, YKK AP has built one of the newest and most technologically advanced manufacturing facilities in the United States in Dublin, Georgia. There, all manufacturing is vertically integrated to ensure control of quality, delivery and cost.

Our Anodized Plus® surface treatment features an anodized finish that meets all of the requirements of AAMA 612, the latest standard for anodized finishes. Only AAMA 612 finishes provide the beauty of a standard anodized finish and the ability to resist damage from mortar, alkali and other chemicals likely to come into contact with the framing system over the life of the building. Anodized Plus is available in clear, dark bronze, medium bronze, black, champagne and white finishes. In addition YKK AP offers a variety of painted finishes that are applied at our environmentally friendly Dublin facility which meet or exceed the requirements of AAMA 2603, 2604 and 2605.

For additional information about the full line of quality products and services offered by YKK AP, call 1-800-955-9551 or visit our web site at [www.ykkap.com](http://www.ykkap.com).

# YKK AP America



*Chesapeake Conference Center, Chesapeake, Virginia*  
 Architect: Cooper, Cary & Associates  
 Glazing Contractor: Raymac, Inc.  
 Systems Used: YES 45 FI, YCW 750 OG & 35D

## Entrance Doors

### 20D Narrow Stile Door:

Standard commercial entrance designed for light to medium traffic

### 35D Medium Stile Door:

Designed for medium traffic areas, ideally suited for institutional installations

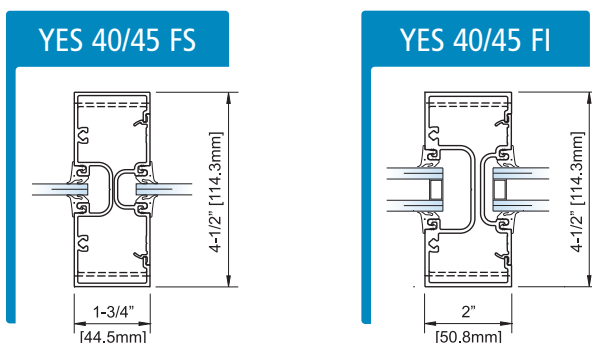
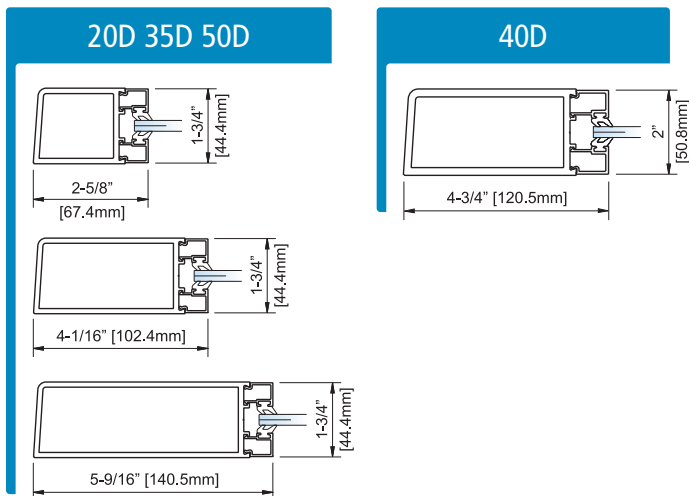
### 50D Wide Stile Door:

Designed for medium to high traffic areas, well suited for monumental applications

### 40D Heavy Duty Door:

Engineered to handle high abuse traffic areas such as sports arenas, airports, hospitals and schools

- Accepts 1/4" to 1" glazing
- Can be configured to meet ADA guidelines as well as state and local building codes
- VersaJamb®, our unique reinforced tubular door frame, allows for sidelite glazing without shear blocks or exposed fasteners
- Standard hardware includes Smart Series push/pulls and Dor-O-Matic® touch bar exit devices
- Optional mid rails, high bottom rails, muntins, and custom hardware allow for custom entrances
- Mechanically joined and welded door corners come with a limited lifetime warranty



## YES 40 FS/FI & YES 45 FS/FI

### Non-thermal, center set storefront framing system for insulating glazing

- YES 40 FS (1-3/4" x 4") & YES 45 FS (1-3/4" x 4-1/2") framing members accept 1/4" to 3/8" glazing
- YES 40 FI (2" x 4") & YES 45 FI (2" x 4-1/2") framing members accept 1" insulating glazing as well as other infills
- Flush glazed from the exterior
- Screw spline or shear block assembly
- Glazing gaskets with stretch resistant cord
- YES 45 FS/FI is compatible with YKK AP patented hinged and flexible mullions
- Integral entrance door frames

## YES 45 TU

### Thermally broken, center set storefront framing system designed for insulating glazing

- 2" x 4-1/2" framing members accept 1" insulating glazing as well as other infills of varying thicknesses
- Continuous thermal barrier employing YKK AP ThermoBond Plus™ poured & debridged process that improves adhesion to reduce dry shrinkage
- Standard exterior glazing with options for interior glazing
- Screw spline or shear block assembly
- Integral entrance door frames

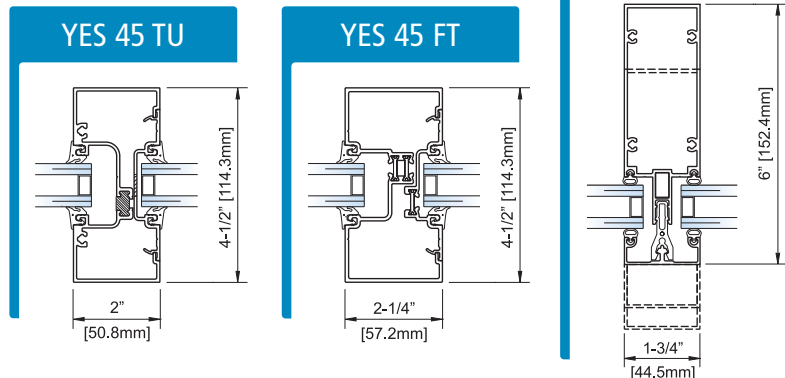


*South Park High School, South Park, Pennsylvania  
Architect: Foreman Architects  
Glazing Contractor: Specified Systems, Inc.  
Systems Used: YCW 750 OG, YES 45 TU, YOW 250 T & 50D*

## YES 45 FT

### Thermally broken, center set storefront framing system designed for insulating glazing

- 2-1/4" x 4-1/2" framing members accept 1" insulating glazing as well as other infills of varying thicknesses
- YKK AP MegaTherm® thermal break provides a continuous thermal barrier that conserves energy and reduces condensation
- Separate interior/exterior finish options
- Flush glazed from the exterior
- Screw spline or shear block assembly
- Integral entrance door frames



*Manufacturing Related Disciplines Center Phase II  
Georgia Institute of Technology, Atlanta, Georgia  
Architect: Nix, Mann, Perkins & Will  
Glazing Contractor: Snellville Glass  
Systems Used: YES 600, YCW 750 OG, YOW 250 T & 50D*

## YES 600

### Thermally broken, front loaded storefront framing system for insulating glazing

- Narrow 1-3/4" sightline by 4-1/2" or 6" system depth for glazing of 1" insulating units or panels from the exterior
- Thermally broken using a unique nylon clip that locks the exterior and interior members together
- Separate interior/exterior finish options
- Screw spline or shear block assembly
- Various snap-on face covers are available depending on design requirements
- Integral entrance door frames





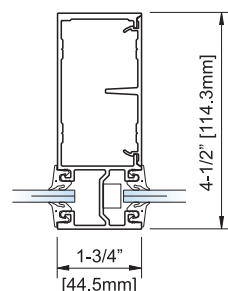
*BMW Automotive, Columbus, Ohio*  
Architect: URS  
Glazing Contractor: Anderson Aluminum  
Systems Used: YCW 750, & YWW 45 TU

## YSG 40/50/50 T

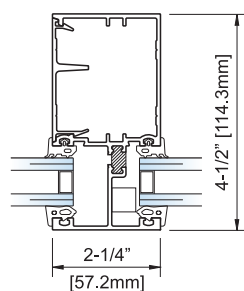
**Two-sided structural silicone glazed, ribbon window framing system designed to eliminate the obtrusive sight lines of exterior vertical covers**

- YSG 40 (2" x 4-3/16") accepts 1/4" monolithic glazing
- YSG 50 & 50 T (2" x 4-15/16") accepts 1" insulating glazing or 1/4" glazing with adapters
- YSG 50 T is thermally broken by YKK AP MegaTherm® which provides a continuous thermal barrier that conserves energy, reduces condensation, and allows separate interior/exterior finish options
- Available for exterior or interior glazing
- Sill design provides positive weepage of moisture to the exterior

### YWW 45 FS



### YWW 45 TU



*Glenridge Highlands II, Atlanta, Georgia*  
Architect: TVS Architects  
Glazing Contractor: Glass Systems, Inc.  
Systems Used: YWE 60 T & YCW 750 OG

## YWW 45 FS/FI/TU

**Economical, front loaded window wall system that offers many design options and high performance**

- YWW 45 FS (1-3/4" x 4-1/2") accepts 1/4" monolithic glazing
- YWW 45 FI/TU (2-1/4" x 4-1/2") accepts 1" insulating glazing
- YWW 45 TU is thermally broken employing YKK AP patented ThermaBond Plus™ poured & debridged process that improves adhesion to reduce dry shrinkage
- Available for inside or outside glazing
- Continuous head & sill or vertical through frame construction
- Sill members are anchored without penetrating the sill flashing
- Optional head and sill anchors allow for ease of installation into punched openings
- Optional two-sided structural silicone glazing at intermediate verticals



## YWE 40 T/60 T

**Thermally improved, front loaded window wall system designed and engineered to meet the challenges of today's buildings**

- YWE 40 T (2" x 4") accepts 1" insulating glazing and is designed for low rise applications
- YWE 60 T (2"-1/4" x 6") accepts 1" insulating glazing or 1/4" glazing with adapters and is capable of spanning floor to floor
- Exterior face members are isolated from the interior to improve thermal performance and allows separate interior/exterior finishes
- Screw spline or shear block assembly
- Interior glazing reduces field labor
- Optional head and sill anchors allow for ease of installation into punched openings
- Optional two-sided structural silicone glazing at intermediate verticals

# YKK AP ProTek® Impact Resistant & Blast Mitigation Systems

## IMPACT RESISTANT SYSTEMS

All YKK AP ProTek® systems are engineered to create a protective envelope around your building – securing it from fierce cyclical pressures and projectiles associated with hurricane force winds.

## BLAST MITIGATION SYSTEMS

YKK AP has applied all the knowledge and experience that we gained in leading the development of hurricane impact resistant systems to providing protection for building occupants from man-made disasters. The majority of the YKK AP ProTek® systems meet the requirements of the Unified Facilities Criteria (UFC) and the requirements of the GSA. Several Systems have been fully tested in accordance with ASTM F-1642 to provide proven performance at higher loads without reinforcements

Contact YKK AP for glazing requirements.



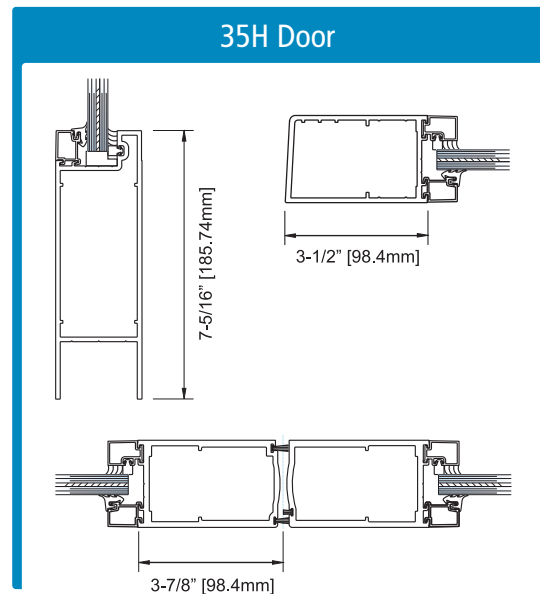
### **Destruction**

*Hurricane Rita's destructive power rolls furiously across the Gulf of Mexico, headed for the helpless Louisiana and Texas coastal areas during the record breaking 2005 hurricane season.*

## 35H Doors

### Non-shuttered, hurricane impact resistant door for both Large and Small Missile requirements

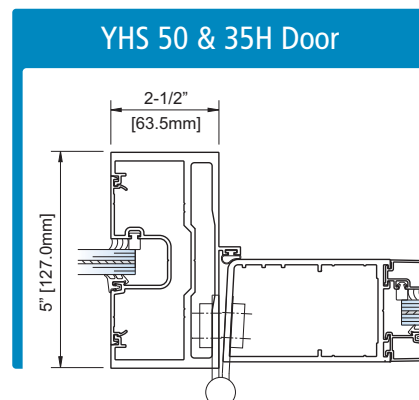
- ASTM E-1886/E-1996 / TAS 201, 202, and 203 +70/-90 PSF (Large and Small Missile Impact)
- Miami-Dade NOA and Florida state-wide product approval
- Singles: Up to 4'-0" x 8'-0", and pairs up to 8'-0" x 8'-0"
- Framing systems for YHS 50, YHS 50 FI, YHS 50 TU and curtain wall
- 9/16" glazing
- Large Missile dry glazing option
- ASTM F-1642 blast mitigation testing wet and dry glazing options



## YHS 50

### Non-shuttered, center set, flush glazed storefront framing system for monolithic glazing

- ASTM E-1886/E-1996 / TAS 201, 202, and 203 +70/-90 PSF (Large and Small Missile Impact)
- Miami-Dade NOA and Florida state-wide product approval
- 2-1/2" x 5" storefront system for 1-5/16" glazing
- Large Missile dry glazing option
- Integral entrance door frames

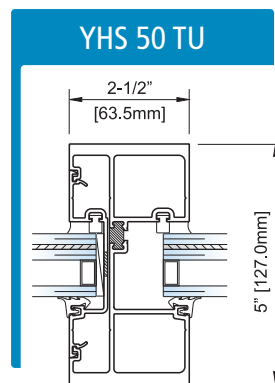
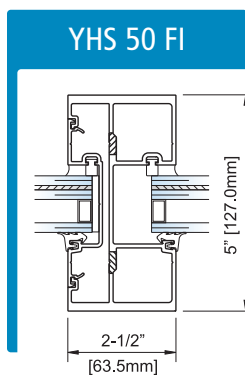


# YKK AP ProTek® Impact Resistant & Blast Mitigation Systems



## Detonation

YHS 50 TU was tested at 6psi/4psi-ms resulting in a GSA level 3-B (Medium Level) of protection.



*The Benjamin Upper School, North Palm Beach, Florida*  
Architect: Schwab, Twitty & Hanser Architectural Group  
Glazing Contractor: Sasser's Glass Works, Inc.  
Systems Used: YHS 50 & 35H



## YHS 50 FI

**Non-shuttered, center set, flush glazed storefront framing system for monolithic & insulating glazing**

- ASTM E-1886/E-1996 / TAS 201, 202, and 203 +65/-65 PSF (Large and Small Missile Impact)
- Miami-Dade NOA and Florida State-wide Product Approval
- 2-1/2" x 5" storefront system for 1-5/16" glazing
- Large Missile Dry Glazing option
- Integral entrance door frames
















## YHS 50 TU

**Thermally broken, non-shuttered impact resistant storefront framing system for insulating glazing**





- ASTM E-1886/E-1996 / TAS 201, 202, and 203 +65/-65 PSF (Large and Small Missile Impact)
- Miami-Dade NOA and Florida State-wide Product Approval
- 2-1/2" x 5" storefront system for 1-5/16" glazing
- YKK AP ThermoBond Plus® for improved thermal performance
- Large Missile dry glazing option
- Integral entrance door frames
- ASTM F-1642 blast mitigation testing wet and dry glazing options

# Product Selection Guide

## YKK AP Standard Storefront Systems

System	Frame Depth(s)	Frame Width	Thermal Break	Air Infiltration	Water Infiltration	U Value	CRF
 YES 40 FS/FI	4"	1-3/4"(FS)	—	0.02 (FS)	10	—	—
 YES 45 FS/FI	4-1/2"	2" (FI)	—	0.01 (FI)	10	—	—
 YES 45 TU	4-1/2"	2"	ThermaBond Plus	0.03	10	0.46	63
 YES 45 FT	4-1/2"	2-1/4"	MegaTherm	0.01	10	0.46	60
 YES 600	4-1/2", 6"	1-3/4"	Thermal Clip	0.01	12	0.42	61
 YWE 40 T	4"	2"	Isolator Clip/Gasket	0.01	10	0.66	55
 YWE 60 T	6"	2-1/4"	Isolator Clip/Gasket	0.01	12	0.48	68
 YCN 40	4-3/8"	2"	—	0.02	10	—	—
 YCN 40 T	4-3/8"	2-1/4"	MegaTherm	0.02	10	0.46	62
 YSG 40/50	4-3/16", 4-15/16"	2"	—	0.05	10	—	—
 YSG 50 T	4-15/16"	2"	MegaTherm	0.05	10	0.35	71
 YWW 40 T	4"	2-1/4"	MegaTherm	0.03	12	—	—
 YWW 45 T	4-1/2"	2-1/4"	MegaTherm	0.03	12	0.38	71
 YWW 45 FS	4-1/2"	1-3/4"	—	0.03	12	—	—
 YWW 45 FI/TU	4-1/2"	2-1/4"	ThermaBond Plus	0.01	12	0.38	70

## YKK AP ProTek® Impact Resistant & Blast Mitigation Storefront Systems

System	Frame Depth(s)	Frame Width	Thermal Break	Air Infiltration	Water Infiltration	U Value	CRF
 YHS 50	5"	2-1/2"	—	0.04	10	—	—
 YHS 50 FI	5"	2-1/2"	—	0.02	10	—	—
 YHS 50 TU	5"	2-1/2"	ThermaBond Plus	0.02	10	0.40	60
 35H Door	3-7/8"	2-3/8"	—	0.065	10	—	—

Air Infiltration is measured in CFM/FT<sup>2</sup>, based on ASTM E 283 @ 6.24 PSF. Water Infiltration is measured in PSF, based on ASTM E 331. U Value is measured in BTU/HR/FT<sup>2</sup>/°F, based on NFRC 100 and CRF is Condensation Resistance Factor, based on ASTM C 236 and AAMA 1503. Test performance listed above are based on results from laboratory testing. Field tests are to be conducted in accordance with AAMA 502.



For other YKK AP products see Sweets Catalog 08 44 13/YKK Glazed Aluminum Curtain Wall Systems and 08 51 00/YKK Aluminum Windows. For architectural specifications, details and warranty information, call 1-800-955-9551 or visit our website at [www.ykkap.com](http://www.ykkap.com).



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