

OPTIMUM FIRE-RATED WINDOWS AND DOORS

SERIES "FR7650TSHi" SINGLE HUNG WINDOW (HVHZ) (IMPACT)

INSTALLATION NOTES:

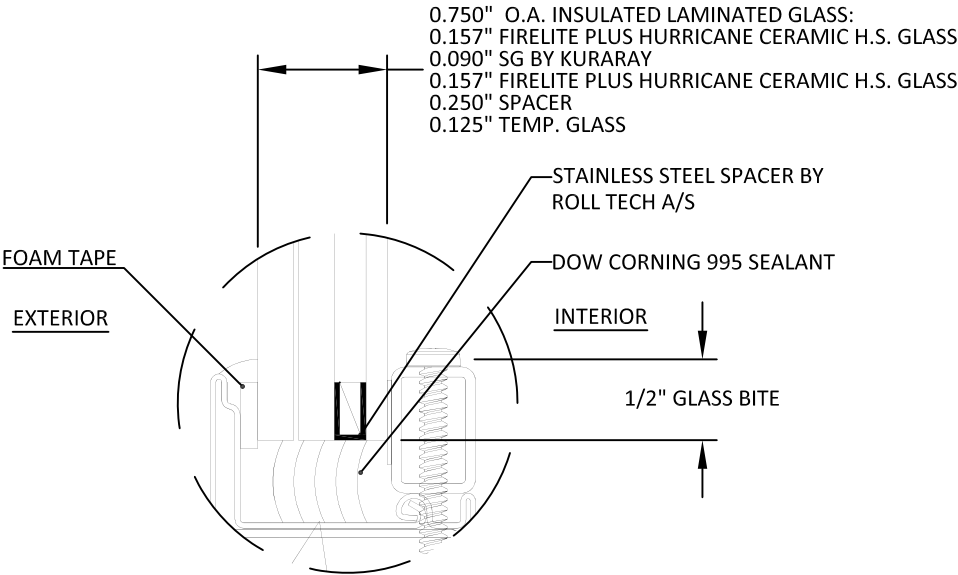
- ONE (1) INSTALLATION ANCHOR FOR EACH ANCHOR LOCATION SHOWN.
- THE NUMBER OF INSTALLATION ANCHORS DEPICTED ARE THE MINIMUM NUMBER OF ANCHORS TO BE USED FOR PRODUCT INSTALLATION.
- INSTALL INDIVIDUAL INSTALLATION ANCHORS WITHIN A TOLERANCE OF ±1/2 INCH OF THE DEPICTED LOCATION IN THE ANCHOR LAYOUT DETAIL (I.E., WITHOUT CONSIDERATION OF TOLERANCES). TOLERANCES ARE NOT CUMULATIVE FROM ONE INSTALLATION ANCHOR TO THE NEXT.
- SHIM AS REQUIRED AT EACH INSTALLATION ANCHOR WITH LOAD BEARING SHIM(S). MAXIMUM ALLOWABLE SHIM STACK TO BE 1/4 INCH. SHIM WHERE SPACE OF 1/16 INCH OR GREATER OCCURS. SHIM(S) SHALL BE CONSTRUCTED OF HIGH DENSITY PLASTIC OR BETTER.
- FOR ANCHORING INSTALLATION CLIP DIRECTLY INTO CONCRETE, USE 3/16 INCH DIAMETER ITW TAPCON OF SUFFICIENT LENGTH TO ACHIEVE 1 1/2 INCH MINIMUM EMBEDMENT WITH 1 1/8" EDGE DISTANCE.
- FOR ANCHORING INSTALLATION CLIP DIRECTLY INTO CMU/MASONARY, USE 3/16 INCH DIAMETER ITW TAPCON OF SUFFICIENT LENGTH TO ACHIEVE 1 INCH MINIMUM EMBEDMENT WITH 2" EDGE DISTANCE.
- FOR ANCHORING INSTALLATION CLIP DIRECTLY INTO WOOD FRAME, USE #10 WOOD SCREWS OF SUFFICIENT LENGTH TO ACHIEVE 1 1/4 INCH MINIMUM EMBEDMENT WITH 3/4" EDGE DISTANCE.
- FOR ANCHORING INSTALLATION CLIP INTO METAL STUD USE #10 SELF-TAPPING PH SCREWS OF SUFFICIENT LENGTH TO ACHIEVE A MINIMUM OF 3 THREADS PENETRATION BEYOND METAL WALL WITH 1/2" EDGE DISTANCE.
- MINIMUM EMBEDMENT AND EDGE DISTANCE EXCLUDE WALL FINISHES, INCLUDING BUT NOT LIMITED TO STUCCO, FOAM, BRICK VENEER, AND SIDING.
- INSTALLATION ANCHORS AND ASSOCIATED HARDWARE MUST BE MADE OF CORROSION RESISTANT MATERIAL OR HAVE A CORROSION RESISTANT COATING.
- FOR HOLLOW BLOCK AND GROUT FILLED BLOCK, DO NOT INSTALL INSTALLATION ANCHORS INTO MORTAR JOINTS. EDGE DISTANCE IS MEASURED FROM FREE EDGE OF BLOCK OR EDGE OF MORTAR JOINT INTO FACE SHELL OF BLOCK.
- INSTALLATION ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH ANCHOR MANUFACTURER'S INSTALLATION INSTRUCTIONS, AND ANCHORS SHALL NOT BE USED IN SUBSTRATES WITH STRENGTHS LESS THAN THE MINIMUM STRENGTH SPECIFIED BY THE ANCHOR MANUFACTURER.
- INSTALLATION ANCHOR CAPACITIES FOR PRODUCTS HEREIN ARE BASED ON SUBSTRATE MATERIALS WITH THE FOLLOWING PROPERTIES:
 - WOOD - MINIMUM SPECIFIC GRAVITY OF 0.55.
 - CONCRETE - MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI.
 - GROUT-FILLED CMU- UNIT STRENGTH CONFORMS TO ASTM C-90 WITH MINIMUM COMPRESSIVE STRENGTH OF 2000 PSI AND GROUT CONFORMS TO ASTM C 476, MINIMUM GROUT COMPRESSIVE STRENGTH OF 2000 PSI.
 - HOLLOW BLOCK CMU - UNIT STRENGTH CONFORMS TO ASTM C-90 WITH MINIMUM COMPRESSIVE STRENGTH OF 2000 PSI.
 - STEEL - MINIMUM YIELD STRENGTH OF 33 KSI. MINIMUM WALL THICKNESS OF 35.9 MIL (0.0478" or 18 GAUGE).

GENERAL NOTES:

- THE PRODUCT SHOWN HEREIN IS DESIGNED AND MANUFACTURED TO COMPLY WITH THE CURRENT FLORIDA BUILDING CODE (FBC), INCLUDING HVHZ AND HAS BEEN EVALUATED ACCORDING TO THE FOLLOWING:
 - TAS 201-94
 - TAS 202-94
 - TAS 203-94
- ADEQUACY OF THE EXISTING STRUCTURAL CONCRETE/MASONRY, STEEL, AND 2X FRAMING AS A MAIN WIND FORCE RESISTING SYSTEM CAPABLE OF WITHSTANDING AND TRANSFERRING APPLIED PRODUCT LOADS TO THE FOUNDATION IS THE RESPONSIBILITY OF THE ENGINEER OR ARCHITECT OF RECORD FOR THE PROJECT OF INSTALLATION.
- 1X AND 2X BUCKS (WHEN USED) SHALL BE DESIGNED AND ANCHORED TO PROPERLY TRANSFER ALL LOADS TO THE STRUCTURE. BUCK DESIGN AND INSTALLATION IS THE RESPONSIBILITY OF THE ENGINEER OR ARCHITECT OF RECORD FOR THE PROJECT OF INSTALLATION.
- THE INSTALLATION DETAILS DESCRIBED HEREIN ARE GENERIC AND MAY NOT REFLECT ACTUAL CONDITIONS FOR A SPECIFIC SITE. IF SITE CONDITIONS CAUSE INSTALLATION TO DEVIATE FROM THE REQUIREMENTS DETAILED HEREIN, A LICENSED ENGINEER OR ARCHITECT SHALL PREPARE SITE SPECIFIC DOCUMENTS FOR USE WITH THIS DOCUMENT IN NON-HVHZ AREAS. IN HVHZ AREAS, ONE TIME PRODUCT APPROVAL TO BE OBTAINED FROM MIAMI-DADE RER.
- APPROVED IMPACT PROTECTIVE SYSTEM **IS NOT REQUIRED** ON THIS PRODUCT IN AREAS REQUIRING IMPACT RESISTANCE INCLUDING HVHZ AREAS.
- WINDOW FRAME MATERIAL: STEEL 36 KSI
- DISSIMILAR METALS INCLUDING FASTENERS THAT MAY COME INTO CONTACT WITH ALUMINUM UNIT FRAMING SHALL BE PROTECTED IN ACCORDANCE WITH THE FBC.
- GLASS MEETS THE REQUIREMENTS OF ASTM E 1300 GLASS CHARTS. SEE SHEET 1 FOR GLAZING DETAIL.

TABLE OF CONTENTS	
SHEET	SHEET DESCRIPTION
1	GENERAL NOTES, INSTALLATION NOTES, AND GLAZING DETAIL
2	ELEVATIONS AND ANCHOR LOCATIONS
3	HORIZONTAL AND VERTICAL SECTIONS

DESIGN PRESSURE RATING			MISSILE IMPACT RATING
LOAD DIRECTION	WHERE WATER PENETRATION REQUIREMENT IS NEEDED ⁽¹⁾	WHERE WATER PENETRATION REQUIREMENT IS NOT NEEDED	
POSITIVE	40 PSF	75 PSF	LARGE AND SMALL MISSILE IMPACT ⁽²⁾
NEGATIVE	75 PSF	75 PSF	
NOTE	(1) WATER TEST PRESSURE = 6 PSF, WHICH EQUATES TO A POSITIVE DESIGN PRESSURE OF +40 PSF		
	(2) EQUIVALENT TO WIND ZONE 4, MISSILE LEVEL A AND D.		



GLAZING DETAIL 1



OPTIMUM FIRE-RATED
WINDOWS AND DOORS
28 CANAL STREET
ELLENVILLE, NY 12428
PH: (845) 647-1900 FX: (845) 647-1494

TITLE: SERIES "FR7650TSHi"
SINGLE HUNG WINDOW
(HVHZ)(IMPACT)
GENERAL NOTES, INSTALLATION
NOTES, AND GLAZING DETAIL

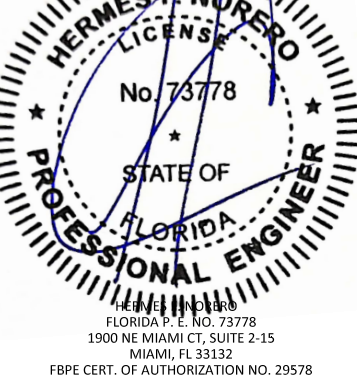
PREPARED BY:
BUILDING DROPS, INC.
1900 NE MIAMI CT, SUITE 2-15
MIAMI, FL 33132
PH: (954) 399-8478
FAX: (954) 744-4738
WEB: www.buildingdrops.com



REMARKS	BY	DATE

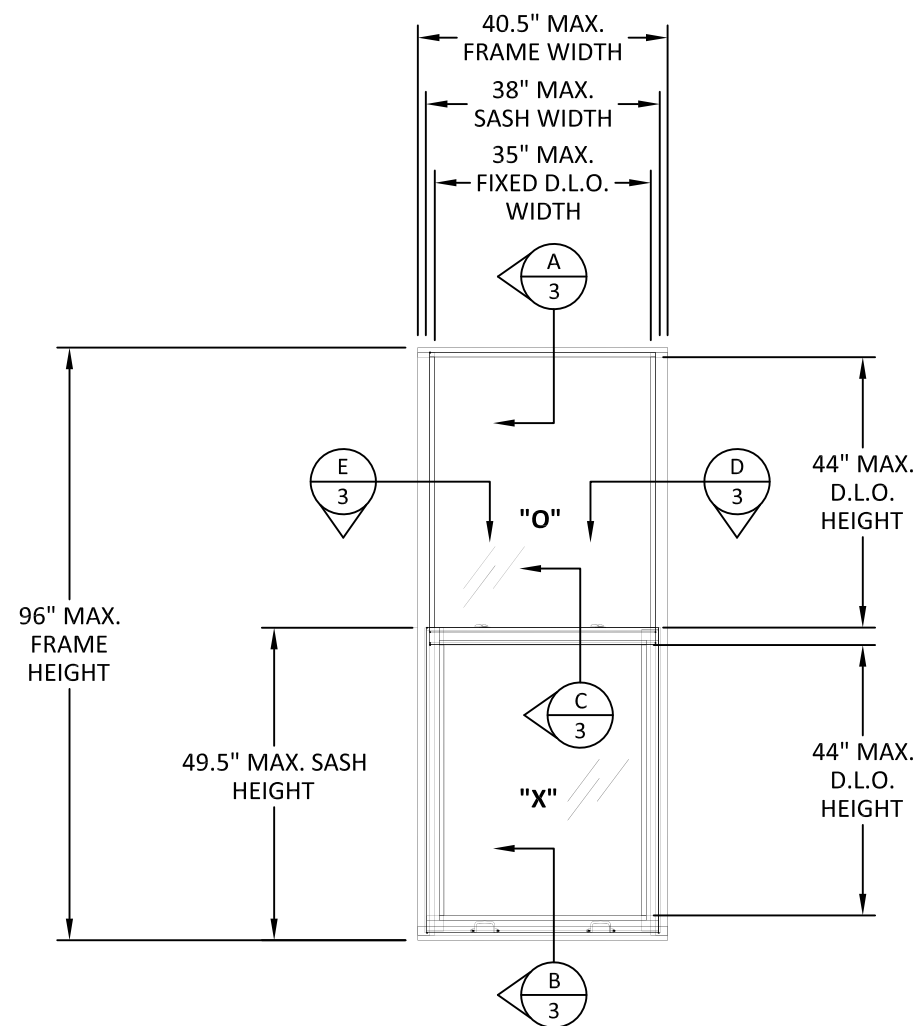
THE INSTALLATION DETAILS DESCRIBED HEREIN ARE GENERIC AND MAY NOT REFLECT ACTUAL CONDITIONS FOR A SPECIFIC SITE. IF SITE CONDITIONS CAUSE INSTALLATION TO DEVIATE FROM THE REQUIREMENTS DETAILED HEREIN, A LICENSED ENGINEER OR ARCHITECT SHALL PREPARE SITE SPECIFIC DOCUMENTS FOR USE WITH THIS DOCUMENT.

Digitally signed by Hermes F. Norero, P.E.
Reason: I am approving this document
Date: 2025.01.20 17:07:31 -0500



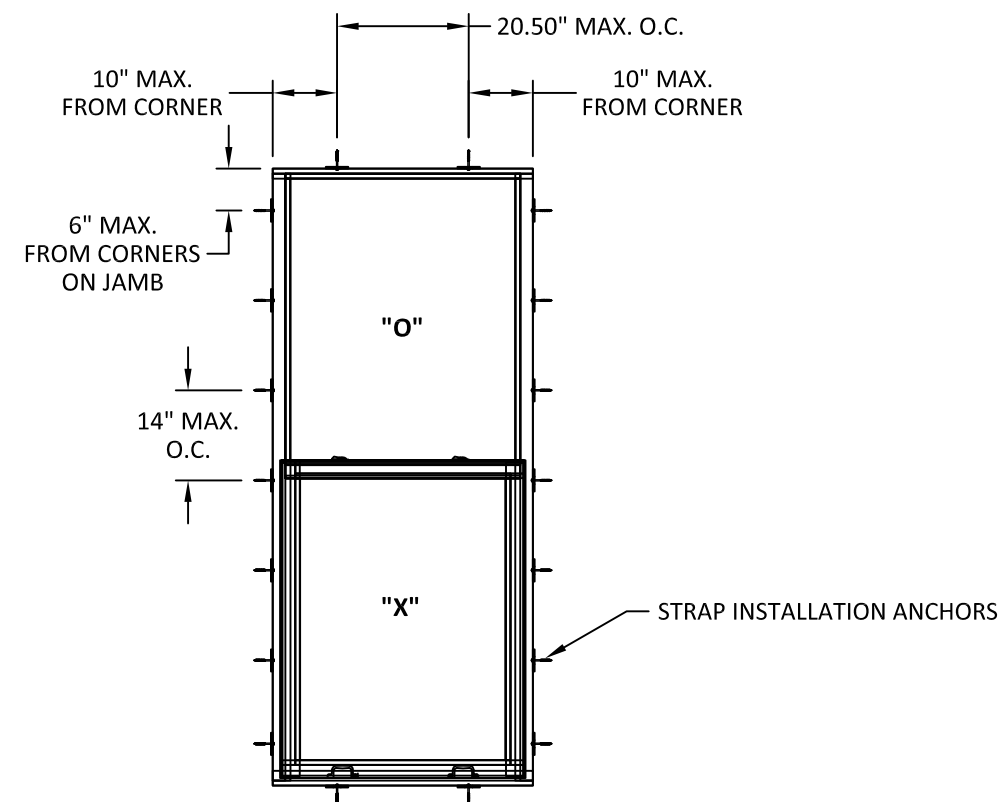
FL47385

DATE: 01/05/21	
DWG. BY: AC	CHK. BY: SM
SCALE: NTS	
DWG. #: OPW008	
SHEET: OF 3	



ELEVATION

SERIES "FR7650TSHi" STEEL SINGLE HUNG WINDOW



ANCHOR LAYOUT

STRAP INSTALLATION



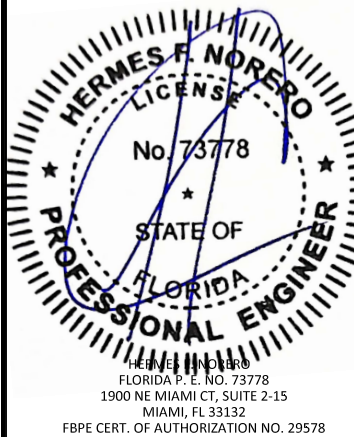
OPTIMUM FIRE-RATED
WINDOWS AND DOORS
28 CANAL STREET
ELLENVILLE, NY 12428
PH: (845) 647-1900 FX: (845) 647-1494

TITLE: SERIES "FR7650TSHj"
SINGLE HUNG WINDOW
(HVHZ)(IMPACT)
ELEVATIONS AND ANCHOR
LOCATIONS

BUILDING DROPS, INC.
1900 NE MIAMI CT, SUITE 2-15
MIAMI, FL 33132
PH: (954)399-8478
FAX: (954)744-4738
WEB: www.buildingdrops.com

REMARKS	BY	DATE

THE INSTALLATION DETAILS DESCRIBED HEREIN ARE GENERAL AND MAY NOT REFLECT ACTUAL CONDITIONS FOR A SPECIFIC SITE. IF SITE CONDITIONS CAUSE INSTALLATION TO DEVIATE FROM THE REQUIREMENTS DETAILED HEREIN, A LICENSED ENGINEER OR ARCHITECT SHALL PREPARE SITE SPECIFIC DOCUMENTS FOR USE WITH THIS DOCUMENT.



FL47385

DATE: 01/05/21

DWG. BY: AC	CHK. BY: SM
-----------------------	-----------------------

SCALE: **NTS**

DWG. #: OPW008

SHEET: OF 3

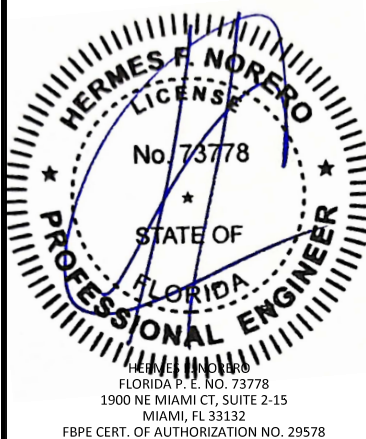
2

***NOTE: MAXIMUM OPERABLE D.L.O.: 31.75" X 44".**



REMARKS	BY	DATE

THE INSTALLATION DETAILS DESCRIBED HEREIN ARE GENERIC AND MAY NOT REFLECT ACTUAL CONDITIONS FOR A SPECIFIC SITE. IF SITE CONDITIONS CAUSE INSTALLATION TO DEVIATE FROM THE REQUIREMENTS DETAILED HEREIN, A LICENSED ENGINEER OR ARCHITECT SHALL PREPARE SITE SPECIFIC DOCUMENTS FOR USE WITH THIS DOCUMENT.



FL47385

DATE: 01/05/21

DWG. BY:
AC

CHK. BY:
SM

SCALE: **NTS**

DWG. #: OPW008

SHEET: OF 3

(3)