

#### **MIAMI-DADE COUNTY** PRODUCT CONTROL SECTION

11805 SW 26 Street, Room 208 Miami, Florida 33175-2474 T (786) 315-2590 F (786) 315-2599

www.miamidade.gov/economy

#### DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER) BOARD AND CODE ADMINISTRATION DIVISION **NOTICE OF ACCEPTANCE (NOA)**

**Sto Corporation** 3800 Camp Creek Parkway Bldg. 1400 Suite 120 Atlanta, GA 30331

**SCOPE:** This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER-Product Control Section to be used in Miami-Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami-Dade County) and/ or the AHJ (in areas other than Miami-Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein and has been designed to comply with the Florida Building Code, including the High Velocity Hurricane Zone.

DESCRIPTION: StoTherm ci LM/SM 1177-18ga. EIFS System over GP 5/8" DensGlass and USG 5/8" Securock - L.M.I & S.M.I.

**APPROVAL DOCUMENT:** Drawing titled "StoTherm ci LM/SM 1177-18ga. for Large and Small Missile Impact Resistance", sheets 1 through 6 of 6, dated 04/28/2020 and last revised on July 20, 2021, prepared by Sto Corporation, signed and sealed by Kurt W. Heinrichs, P.E., bearing the Miami-Dade County Product Control Revision stamp with the Notice of Acceptance number and expiration date by the Miami-Dade County Product Control Section.

#### MISSILE IMPACT RATING: Large and Small Missile Impact Resistant.

LABELING: Each unit shall bear a permanent label with the manufacturer's name or logo, city, state, model/series, and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein. Components of this product come in different size buckets or drums. Each container needs to be labeled. Unit is further defined as each individual board of insulation and roll of reinforcing mesh.

**RENEWAL** of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

**TERMINATION** of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/ or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

**ADVERTISEMENT:** The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

**INSPECTION:** A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA revises # 20-0408.02 consists of this page 1 and evidence pages E-1, E-2 and E-3, as well as approval document mentioned above.

The submitted documentation was reviewed by Ishaq I. Chanda, P.E.



Ishaq I. Chands

NOA No. 21-0722.07 **Expiration Date: June 11, 2025** Approval Date: September 30, 2021 Page 1

#### NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

#### 1. EVIDENCE SUBMITTED UNDER PREVIOUS NOA's

#### A. DRAWINGS

1. Drawing titled "StoTherm ci LM/SM 1177-18ga. for Large and Small Missile Impact Resistance", sheets 1 through 6 of 6, dated 04/28/2020, prepared by Sto Corporation, signed and sealed by William R. Heiden III, P.E.

#### B. TESTS

- 1. Test reports on 1) Air Infiltration Test, per FBC, TAS 202-94
  - 2) Uniform Static Air Pressure Test, Loading per FBC TAS 202-94
  - 3) Water Resistance Test, per FBC, TAS 202-94
  - 4) Large Missile Impact Test per FBC, TAS 201-94
  - 5) Cyclic Wind Pressure Loading per FBC, TAS 203-94
  - 6) Tensile Test per ASTM E8-16a

along with marked-up drawings and installation diagram of StoTherm ci Large Missile Hurricane Impact Resistant System installed over 5/8" GP DensGlass Glass-Mat Sheathing, prepared by Progressive Engineering Inc, Test Report No. **2019-6336(A)**, dated 01/14/2020, signed and sealed by William R. Heiden III, P.E.

- 2. Test reports on 1) Air Infiltration Test, per FBC, TAS 202-94
  - 2) Uniform Static Air Pressure Test, Loading per FBC TAS 202-94
  - 3) Water Resistance Test, per FBC, TAS 202-94
  - 4) Large Missile Impact Test per FBC, TAS 201-94
  - 5) Cyclic Wind Pressure Loading per FBC, TAS 203-94
  - 6) Tensile Test per ASTM E8-16a

along with marked-up drawings and installation diagram of StoTherm ci Large Missile Hurricane Impact Resistant System installed over 5/8" USG Securock Glass-Mat Sheathing, prepared by Progressive Engineering Inc, Test Report No. **2019-6336(B)**, dated 01/14/2020, signed and sealed by William R. Heiden III, P.E.

- 3. Test reports on 1) Air Infiltration Test, per FBC, TAS 202-94
  - 2) Uniform Static Air Pressure Test, Loading per FBC TAS 202-94
  - 3) Water Resistance Test, per FBC, TAS 202-94
  - 4) Small Missile Impact Test per FBC, TAS 201-94
  - 5) Cyclic Wind Pressure Loading per FBC, TAS 203-94
  - 6) Tensile Test per ASTM E8-16a

along with marked-up drawings and installation diagram of StoTherm ci Small Missile Hurricane Impact Resistant System installed over 5/8" GP DensGlass Glass-Mat Sheathing, prepared by Progressive Engineering Inc, Test Report No. **2019-6336(C)**, dated 01/14/2020, signed and sealed by William R. Heiden III, P.E.

Ishaq I. Chands

Ishaq I. Chanda, P.E.
Product Control Unit Supervisor
NOA No. 21-0722.07
Expiration Date: June 11, 2025
Approval Date: September 30, 2021

#### NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

#### **B.** TESTS (Continued)

- 4. Test reports on 1) Air Infiltration Test, per FBC, TAS 202-94
  - 2) Uniform Static Air Pressure Test, Loading per FBC TAS 202-94
  - 3) Water Resistance Test, per FBC, TAS 202-94
  - 4) Small Missile Impact Test per FBC, TAS 201-94
  - 5) Cyclic Wind Pressure Loading per FBC, TAS 203-94
  - 6) Tensile Test per ASTM E8-16a

along with marked-up drawings and installation diagram of StoTherm ci Small Missile Hurricane Impact Resistant System installed over 5/8" USG Securock Glass-Mat Sheathing, prepared by Progressive Engineering Inc, Test Report No. **2019-6336(D)**, dated 01/14/2020, signed and sealed by William R. Heiden III, P.E.

#### C. CALCULATIONS

1. None.

#### D. OUALITY ASSURANCE

1. Miami-Dade Department of Regulatory and Economic Resources (RER)

#### E. MATERIAL CERTIFICATIONS

1. Notice of Acceptance No. **18-0504.08**, issued to Carpenter Company, for their Carpenter EPS Block Type Insulation, approved on 05/24/2018, and expiring on 04/11/2022.

#### F. STATEMENTS

- 1. Statement of code conformance to the 6<sup>th</sup> Edition (2017) FBC issued by William R. Heiden III, P.E., dated 03/18/2020, signed and sealed by William R. Heiden III, P.E.
- 2. Statement letter of no financial interest issued by William R. Heiden III, P.E., dated 03/18/2020, signed and sealed by William R. Heiden III, P.E.

Ishaq I. Chands

#### NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

#### 2. NEW EVIDENCE SUBMITTED

#### A. DRAWINGS

1. Drawing titled "StoTherm ci LM/SM 1177-18ga. for Large and Small Missile Impact Resistance", sheets 1 through 6 of 6, dated 04/28/2020 and last revised on July 20, 2021, prepared by Sto Corporation, signed and sealed by Kurt W. Heinrichs, P.E.

Note: This revision consists of FBC 2020 update with no change.

#### B. TESTS

1. None.

#### C. CALCULATIONS

1. None.

#### D. QUALITY ASSURANCE

1. Miami-Dade Department of Regulatory and Economic Resources (RER)

#### E. MATERIAL CERTIFICATIONS

1. None.

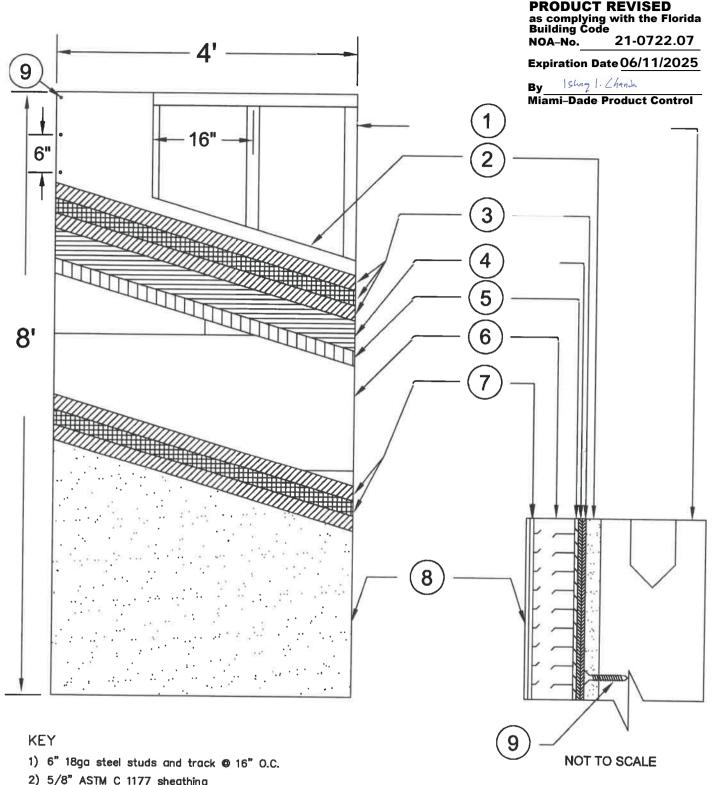
#### F. STATEMENTS

- 1. Successor Engineer statement letter dated 09/08/21, adopting Another Engineer's work as his own per Fla statue 61G15-27.001, signed and sealed by Kurt W. Heinrichs, P.E.
- 2. Statement letter of code conformance to **FBC 7<sup>th</sup> Edition (2020)**, issued and prepared by NOVA Engineering and Environmental, dated 06/22/2021, signed and sealed by Kurt W. Heinrichs, P.E.
- 3. Statement letter dated June 16, 2021, issued by Sto requesting Product FBC 2020 update without change, signed by Kevin Schroeder, Senior Tech Rep.

#### G. OTHER

1. This NOA revises NOA # 20-0408.02, expiring 06/11/2025.

Ishaq I. Chands



## Description

- 1.1 Substrates and Sto products approved with the system
- 1.1.1. ASTM C 1177 compliant sheathing over steel 6" 18ga studs @ 16" O.C. w/ 6" 18ga steel track. ASTM C 1177 compliant sheathing fastened to the steel study with # 8 1-1/4" self drill screws @ 6" O.C. in field and perimeter.
- 1.1.2. All substrates approved under this Notice of Acceptance shall be designed by a Florida Professional Engineer or Registered Architect according to the current Florida Building Code and supplements. Provisions for diaphragm action are necessary for gypsum wall substrate and the deflection shall be limited to L/240 on all cases.
- 1.2 Components of the System/Application
- 1.2.1. Sto Armor Mat Mesh. Apply Sto Primer/Adhesive mixed with Portland Cement 1:1 by volume by trowel to ASTM C 1177 compliant sheathing to a thickness of 1/8" and embed Sto Armor Mat XX (20oz/yd²) working from center to edge and allow to dry.
- 1.2.2. Sto Gold Coat A ready mixed flexible waterproof material applied to the dry Sto base coat via roller to approximately 10 wet mils.
- 1.2.3. Insulation Board-Minimum 2" thick EPS in compliance with ASTM C 578 type 1, 11b cu ft density by Carpenter under Notice of Acceptance #11-1222.01 or other EPS supplier with valid Miami-Dade County NOA. The Sto Primer/Adhesive mixed with Portland Cement 1:1 by volume is applied to the back of the insulation board using a 1/2" x 1/2" U shaped notched trowel. Uniform ribbons of adhesive are formed on the insulation board parallel to the short dimension of the board. Ribbons are oriented vertically when insulation is installed to provide drainage. The boards shall be placed, applying pressure in a running bond pattern with the long dimension horizontal and from a level base starting line. Butt all joints tightly to avoid thermal breaks. Adhesive should not get between joints.
- 1.2.4 Sto Mesh is embedded in the wet Sto base coat by troweling from the center of the mesh to the edges of the mesh and the excess Sto base coat is removed to provide a total minimum 1/16" thickness of the reinforced base coat. This process is repeated until the entire exposed area of the insulation board is covered with base coat and mesh which is then allowed to dry for a minimum of 12
- 1.2.5 Sto Finish A ready mixed, acrylic based, textured wall coating. Sto finish is mixed with a high speed electric mixer and applied by trowel to a nominal thickness of 1/16" once the base coat is dry. Apply on a continuous application working from the wet toward the unfinished area.

## General Notes

- 1) This system has been designed in accordance with the current Florida Building Code and the latest supplement(s).
- 2) This system has been tested in accordance with the Florida Building Code Test Protocols TAS-201, TAS-202, and TAS-203 Large Missile Impact Structural and Cyclic Testing.
- 3) This system shall be installed by a licensed plastering contractor following the recommendations of Sto Corp, this notice of acceptance and the applicable sections of the Florida Building Code.
- 4) The engineer and/or architect of record for each project using this system shall size all stud framing to ensure conformance with stud deflection and stress limitations as required by governing codes and this document.
- 5) Insulation boards shall be placed in a running bond pattern.
- 6) All studs used with this system shall be completely sheathed at the interior flange or bridged at maximum every 5 ft. of stud length or as specified by stud manufacturer.
- 7) All steel studs shall be structural with min 1-5/8" min. flange width and have minimum yield strength of 50,000 PSI.
- 8) Details on page No. 3, 4, 5 and 6 are typical and show intent to prevent water infiltration into and behind the system. Alternate detailing and specific conditions not covered by the typical details are the responsibility of the licensed design professional in consultation with Sto Corp.

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Sheathing (5/8" thickness)	PEI Report No.	Maximum Design Pressure (psf)
Georgia—Pacific DensGlass®	PEI# 2019-6336(A)	+/- 150
USG Securock <sup>®</sup> Brand UltraLight Glass—Mat Sheathing	PEI# 2019-6336(B)	+/- 140

3800 Camp Creek Parkway Building 1400, Suite 120 Atlanta, GA 30331 StoTherm ci LM 1177-18ga

for Large Missile Impact Resistance Page No. 1 of 6 Date: 7/15/2021 Not to Scale

9) #8 1-1/4" Self Drill Screws @ 6" O.C. in field and perimeter

with Portland Cement 1:1 by volume

with Sto Mesh (4.5oz/yd2) embedded

4) StoGuard with Sto Gold Coat

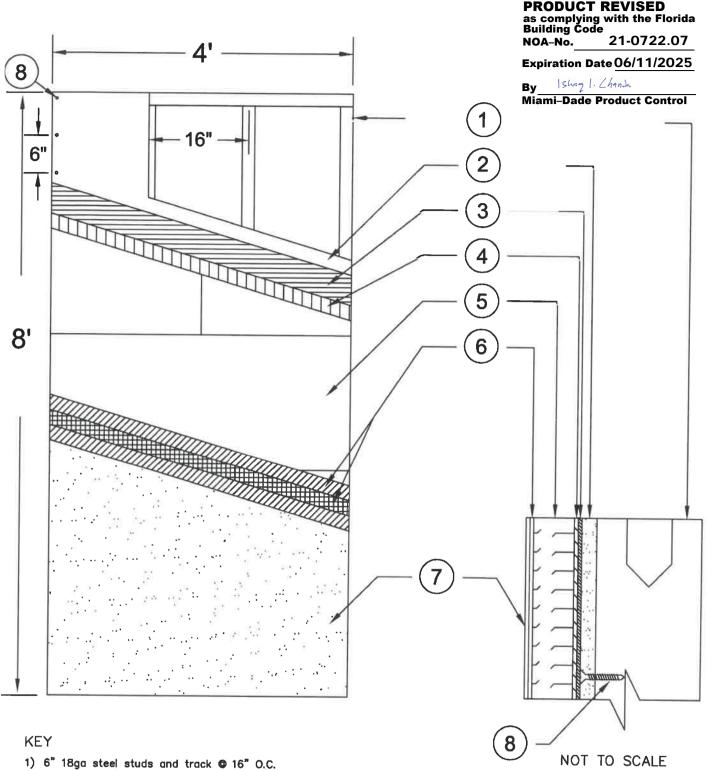
6) EPS Board @ minimum 2" thick

8) Sto Finish

3) Sto Armor Mat XX Mesh (20oz/yd²) and Sto Primer/Adhesive mixed

5) Sto Primer/Adhesive mixed with portland cement 1:1 by volume

7) Sto Primer/Adhesive, mixed with portland cement 1:1 by volume,



2) 5/8" ASTM C 1177 sheathing

3) StoGuard with Sto Gold Coat

5) EPS Board @ minimum 2" thick

with Sto Mesh (4.5oz/yd2) embedded

4) Sto Primer/Adhesive mixed with portland cement 1:1 by volume

6) Sto Primer/Adhesive, mixed with portland cement 1:1 by volume,

8) #8 1-1/4" Self Drill Screws © 6" O.C. in field and perimeter

## Description

- 1.1 Substrates and Sto products approved with the system
- 1.1.1. ASTM C 1177 compliant sheathing over steel 6" 18ga studs @ 16" O.C. w/ 6" 18ga steel track. ASTM C 1177 compliant sheathing fastened to the steel studs with # 8 1-1/4" self drill screws @ 6" O.C. in field and perimeter.
- 1.1.2. All substrates approved under this Notice of Acceptance shall be designed by a Florida Professional Engineer or Registered Architect according to the current Florida Building Code and supplements. Provisions for diaphragm action are necessary for gypsum wall substrate and the deflection shall be limited to L/240 on all cases.
- 1.2 Components of the System/Application
- 1.2.1. Sto Gold Coat A ready mixed flexible waterproof material applied to the dry Sto base coat via roller to approximately 10
- 1.2.2. Insulation Board-Minimum 2" thick EPS in compliance with ASTM C 578 type 1, 1lb cu ft density by Carpenter under Notice of Acceptance #11-1222.01 or other EPS supplier with valid Miami-Dade County NOA. The Sto Primer/Adhesive, mixed with portland cement 1:1 by volume, is applied to the back of the insulation board using a 1/2" x 1/2" U shaped notched trowel. Uniform ribbons of adhesive are formed on the insulation board parallel to the short dimension of the board. Ribbons are oriented vertically when insulation is installed to provide drainage. The boards shall be placed, applying pressure in a running bond pattern with the long dimension horizontal and from a level base starting line. Butt all joints tightly to avoid thermal breaks. Adhesive should not get between joints.
- 1.2.3 Sto Mesh is embedded in the wet Sto base coat by troweling from the center of the mesh to the edges of the mesh and the excess Sto base coat is removed to provide a total minimum 1/16" thickness of the reinforced base coat. This process is repeated until the entire exposed area of the insulation board is covered with base coat and mesh which is then allowed to dry for a minimum of 12 hours.
- 1.2.4 Sto Finish A ready mixed, acrylic based, textured wall coating. Sto finish is mixed with a high speed electric mixer and applied by trowel to a nominal thickness of 1/16" once the base coat is dry. Apply on a continuous application working from the wet toward the unfinished area.

## General Notes

- 1) This system has been designed in accordance with the current Florida Building Code and the latest supplement(s).
- 2) This system has been tested in accordance with the Florida Building Code Test Protocols TAS-201, TAS-202, and TAS-203 Large Missile Impact Structural and Cyclic Testing.
- 3) This system shall be installed by a licensed plastering contractor following the recommendations of Sto Corp, this notice of acceptance and the applicable sections of the Florida Building Code.
- 4) The engineer and/or architect of record for each project using this system shall size all stud framing to ensure conformance with stud deflection and stress limitations as required by governing codes and this document.
- 5) Insulation boards shall be placed in a running bond pattern.
- 6) All studs used with this system shall be completely sheathed at the interior flange or bridged at maximum every 5 ft. of stud length or as specified by stud manufacturer.

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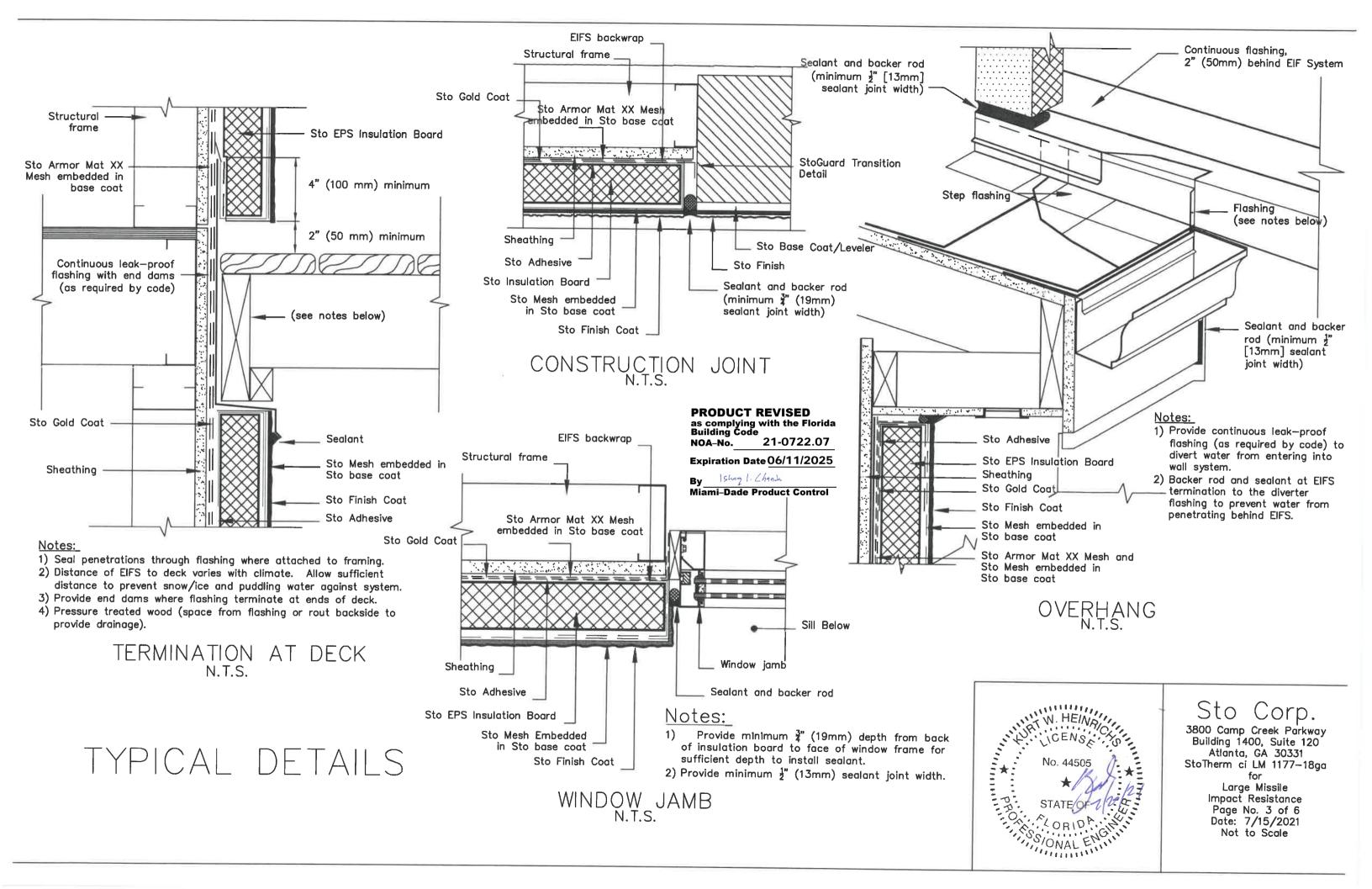
- 7) All steel studs shall be structural with min 1-5/8" min. flange width and have minimum yield strength of 50,000 PSI.
- 8) Details on page No. 3, 4, 5, and 6 are typical and show intent to prevent water infiltration into and behind the system. Alternate detailing and specific conditions not covered by the typical details are the responsibility of the licensed design professional in consultation with Sto Corp.

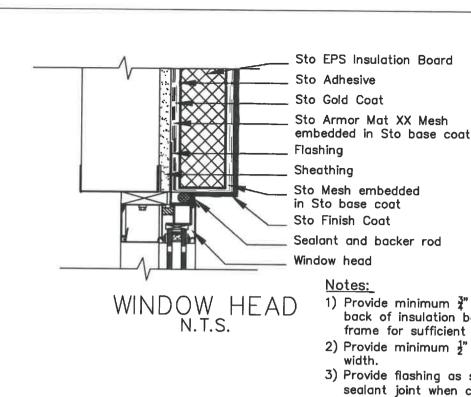
Sheathing (5/8" thickness)	PEI Report No.	Maximum Design Pressure (psf)
Georgia—Pacific DensGlass®	PEI# 2019-6336(C)	+/- 150
USG Securock <sup>®</sup> Brand UltraLight Glass—Mat Sheathing	PEI# 2019-6336(D)	+/- 120

# Sto Corp.

3800 Camp Creek Parkway Building 1400, Suite 120 Atlanta, GA 30331 StoTherm ci SM 1177-18ga for

Small Missile Impact Resistance Page No. 2 of 6 Date: 7/15/2021 Not to Scale





PRODUCT REVISED as complying with the Florida Building Code 21-0722.07 NOA-No.

Expiration Date 06/11/2025

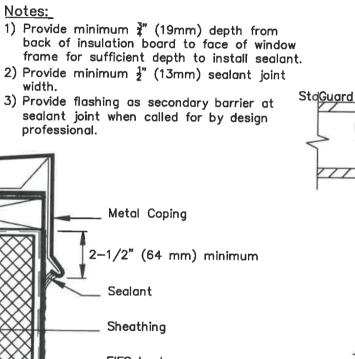
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Miami-Dade Product Control

Sheathing EIFS backwrap Sto Armor Mat XX Mesh Structural frame embedded in Sto base coat Sto Gold Coat Sto Adhesive Sto EPS Insulation Board Sto Mesh embedded in Sto base coat Sto Finish Coat StaGuard Transition Detail

Notes: 1) Protect exposed EIF System at sill from weather damage during construction until permanently protected with sill flashing and sealant.

2) Pan up flashing @ jamb.



Metal Coping 2-1/2" (64 mm) minimum Rigid insulation Roofing membrane Sealant Structural frame Sheathing EIFS backwrap Sto Armor Mat XX Mesh embedded in Sto base coat Sto Gold Coat Sto Adhesive Sto EPS Insulation Board Sto Mesh embedded in Sto base coat 0 Sto Finish Coat

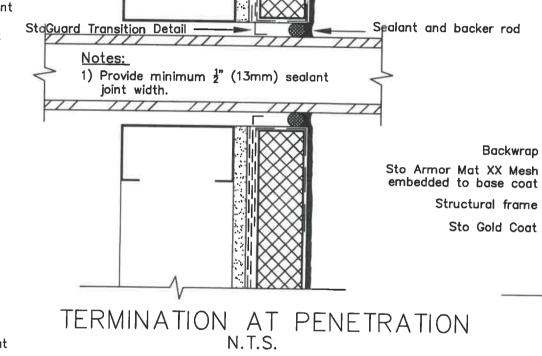
width.

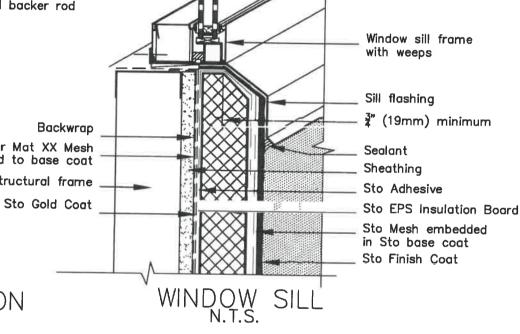
professional.

Notes: PARAPET N.T.S.

1) Protect exposed EIF System at parapet from weather damage during construction until permanently protected with coping.

2) Extend dimension of coping overlap for multi-story construction/coastal regions to prevent wind driven rain from entering behind system.



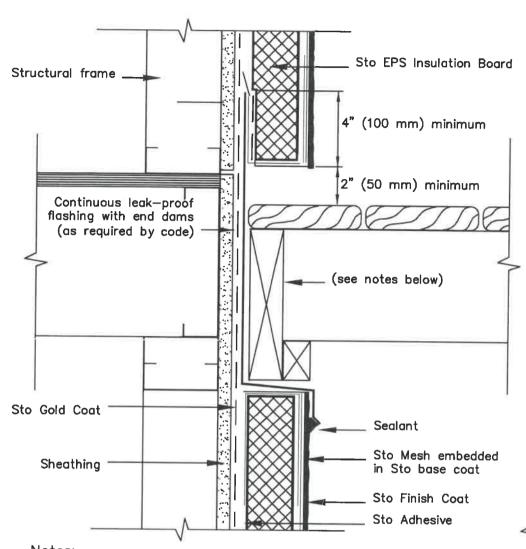


Sto Corp.

3800 Camp Creek Parkway Building 1400, Suite 120 Atlanta, GA 30331 StoTherm ci LM 1177-18ga

Large Missile Impact Resistance Page No. 4 of 6 Date: 7/15/2021 Not to Scale

TYPICAL DETAILS

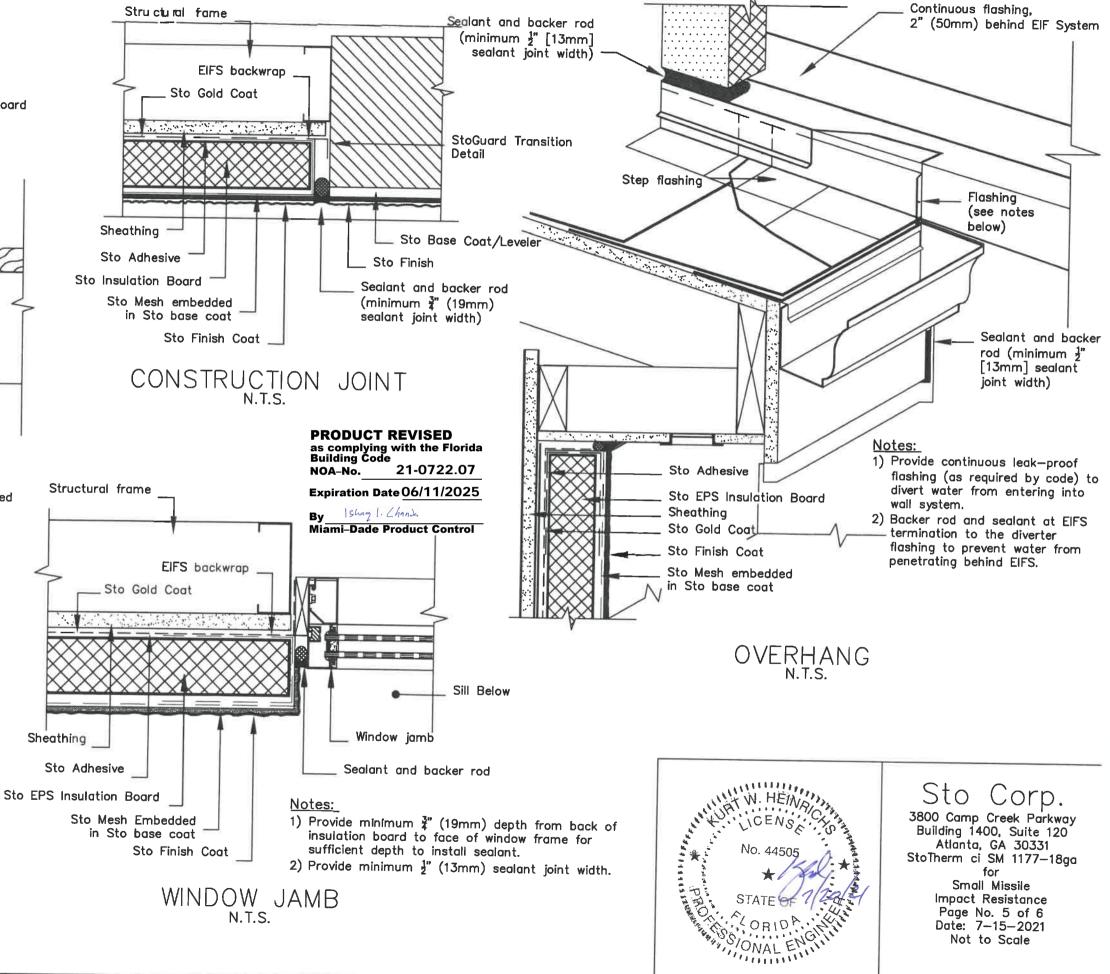


#### Notes:

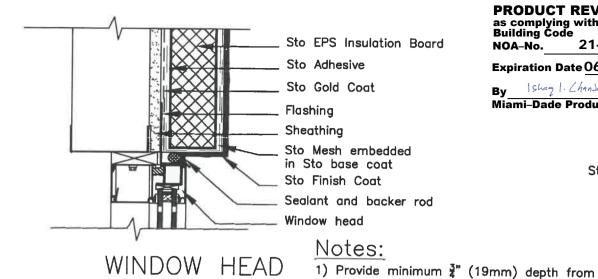
- 1) Seal penetrations through flashing where attached to framing.
- 2) Distance of EIFS to deck varies with climate. Allow sufficient distance to prevent snow/ice and puddling water against system.
- 3) Provide end dams where flashing terminate at ends of deck.
- 4) Pressure treated wood (space from flashing or rout backside to provide drainage).

TERMINATION AT DECK N.T.S.

TYPICAL DETAILS



Not to Scale



N.T.S.

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PRODUCT REVISED as complying with the Florida Building Code 21-0722.07 NOA-No.

Expiration Date 06/11/2025

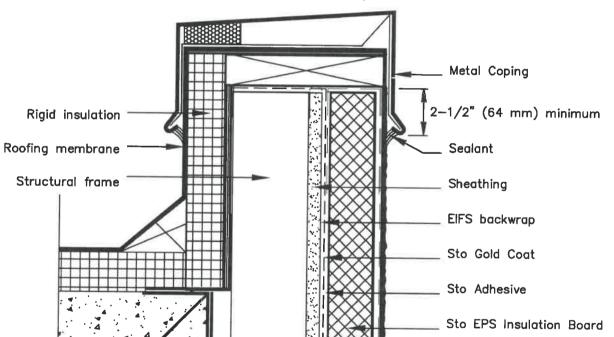
By Ishag 1. Chank Miami-Dade Product Control

Sheathing EIFS backwrap

Sto Gold Coat Structural frame Sto Adhesive Sto EPS Insulation Board Sto Mesh embedded in Sto base coat Sto Finish Coat back of insulation board to face of window frame for sufficient depth to install sealant.

2) Provide minimum ½" (13mm) sealant joint

3) Provide flashing as secondary barrier at sealant joint when called for by design professional.



StaGuard Transition Detail

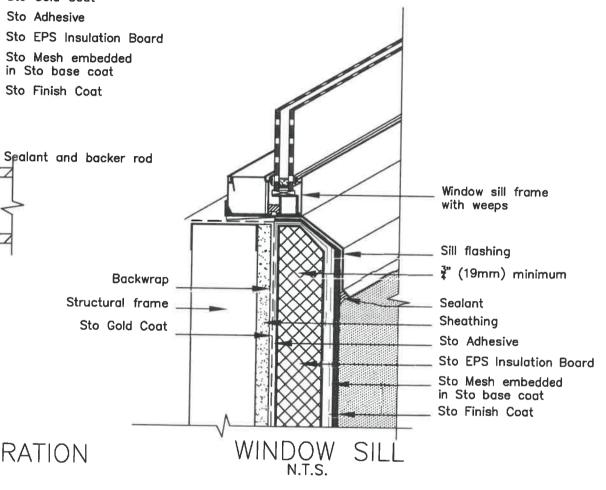
Notes: 1) Provide minimum  $\frac{1}{2}$ " (13mm) sealant joint width.

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TERMINATION AT PENETRATION

Notes:

- 1) Protect exposed EIF System at sill from weather damage during construction until permanently protected with sill flashing and sealant.
- 2) Pan up flashing @ iamb.



# TYPICAL DETAILS



## Sto Corp.

3800 Camp Creek Parkway Building 1400, Suite 120 Atlanta, GA 30331 StoTherm ci SM 1177-18ga for Small Missile Impact Resistance Page No. 6 of 6

Date: 7-15-2021 Not to Scale

Notes:

PARAPET

N.T.S.

1) Protect exposed EIF System at parapet from weather damage during construction until permanently protected with coping.

2) Extend dimension of coping overlap for multi-story construction/coastal regions to prevent wind driven rain from entering behind system.

Sto Mesh embedded in Sto base coat

Sto Finish Coat