



Intertek Testing Services ETL SEMKO

April 14, 2003

NUDURA Corporation
Unit #1, 80 Ellis Drive
Barrie, Ontario L4M 6E7

Attention: Keven Rector

Dear Sir

This letter is to confirm that Intertek has reviewed the use of NUDURA™ Integrated Building Technology Insulated Concrete Forms for use as a substrate for Sto NEXt NC Exterior Insulation System (EIFS).

Based on the information submitted, which included a review of details provided by NUDURA and approved by Sto Corporation, and fire tests conducted by Sto Corporation, it is Intertek's opinion that when the Sto NEXt NC EIFS is installed over NUDURA's Insulated Concrete Forms, the system will comply with Section 3.2.3.7(7) & (8) of the National Building Code 1995, and will remain in place for 15 minutes when tested in accordance with the requirements of ULC S101.

The following restrictions are placed on this design:

- Maximum insulation thickness of 2-5/8"
- Maximum insulation density of 1.25 lbs/sqft
- The lamina is to be back wrapped a minimum of 63mm (2-1/2") to the concrete substrate at all joints, termination, penetrations; all other aspects of the installation shall comply with Sto's published design guidelines. See attached drawings for typical details.
- Both the NUDURA and Sto Systems must be WHI certified

Yours truly,

INTERTEK TESTING SERVICES NA LTD.

Warnock Hersey

Michael van Geyn, A.Sc.T.
Manager – Fire Testing & Technical Programs

MVG/bjm

Attachments

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Intertek Testing Services NA Ltd.

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Warnock Hersey



Warnock Hersey



EIFS CATEGORY 2

STO INDUSTRIES - Rutland, VT USA

STO NExT NC

1. **Substrate Tested:** Gypsum sheathing.
2. **Substrate Protection:** Sto GoldFill®, flexible joint compound No. 266, with Sto Guar Mesh or Sto Detail Mesh; and Sto Gold Coat® No. 265 weather resistive barrier installed per code requirements & manufacturer's recommendations.
3. **Insulation Board:** 3/4" to 5.5" thick 1.0 pcf expanded polystyrene board manufactured under a quality assurance program and conforming to CAN/ULC-S701, Type 1. Flame Spread rating 25 or less in accordance with UL-723. Fastened with adhesive using vertical ribbons of adhesive from a notched trowel with half-circle shaped notches 2.5" oc.
4. **Adhesive:** Sto BTS NC.
5. **Reinforcing Mesh:** Sto Mesh minimum 0.53 oz/ft² (162 gm/m²), with edges overlapped 4", embedded in base coat adhesive.
6. **Basecoat:** Sto BTS NC Base coat, 1/16" (1.6mm) minimum thickness.
7. **Finish:** Sto Lit, Sto Silco Lit, or Sto Textured Finishes.

STO SIGNATURE SYSTEM NC STO SIGNATURE SYSTEM PER - NC

1. **Substrate Tested:** Gypsum sheathing.
2. **Substrate Protection:** Sto Flexyl or Sto Watertight Coat.
3. **i) Insulation Board:** 3/4" to 5.5" thick 1.0 pcf expanded polystyrene board manufactured under a quality assurance program and conforming to CAN/ULC-S701, Type I. Flame spread rating 25 or less in accordance with UL-723. Fastened with adhesive using vertical ribbons of adhesive from a notched trowel with half-circle shaped notches 2.5" oc.
- ii) Starter Track:** STO PVC starter track with drain holes, fastened in accordance with Sto installation instructions.
4. **Adhesive:** Sto BTS NC.
5. **Reinforcing Mesh:** Sto Mesh minimum 0.53 oz/ft² (162 gm/m²), with edges overlapped 4", embedded in base coat adhesive.
6. **Basecoat:** Sto BTS NC Base coat, 1/16" (1.6mm) minimum thickness.
7. **Finish:** Sto Lit, Sto Silco Lit, or Sto Textured Finishes.

▼ Evaluated to the following...

The listed systems contain combustible insulation protected by a material (base coat) that is non-combustible, as determined by testing in accordance with CAN4-S114. These systems have been tested in conformance with CAN/ULC-S101 to determine that the non-combustible "base coat" material will remain in place for not less than 15 minutes as prescribed by Clause 3.2.3.7.7(b) of the National Building Code of Canada 1995.



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10 April, 2003

- Sent by e-mail -

Mr. Lawrence Gibson
Intertek Testing Services
211 Schoolhouse Street
Coquitlam, BC
CANADA
V3K 4X9

Re: NUDURA Listing

Dear Mr. Gibson

We have been in contact with Mr. Keven Rector, NUDURA Corporation, regarding the use of data from the ITS evaluation of Sto EIFS NExT-NC with the NUDURA Insulated Concrete Form (ICF) listing. We have reviewed the typical details provided by Mr. Rector (copy attached) showing the Sto BTS-NC base coat and mesh lapping over a minimum of 63 mm (2.5") of concrete at the window opening, all other details are to be similar or equivalent to Sto's published details. Subject to your evaluation and acceptance of these details, Sto Corp. agrees to the use of the data from our evaluation with the NUDURA Corporation listing of the attached ICF product.

If you have any questions please feel free to contact me.

Regards

A handwritten signature in green ink that reads "John Edgar". The signature is stylized and fluid, with a long horizontal stroke extending to the left.

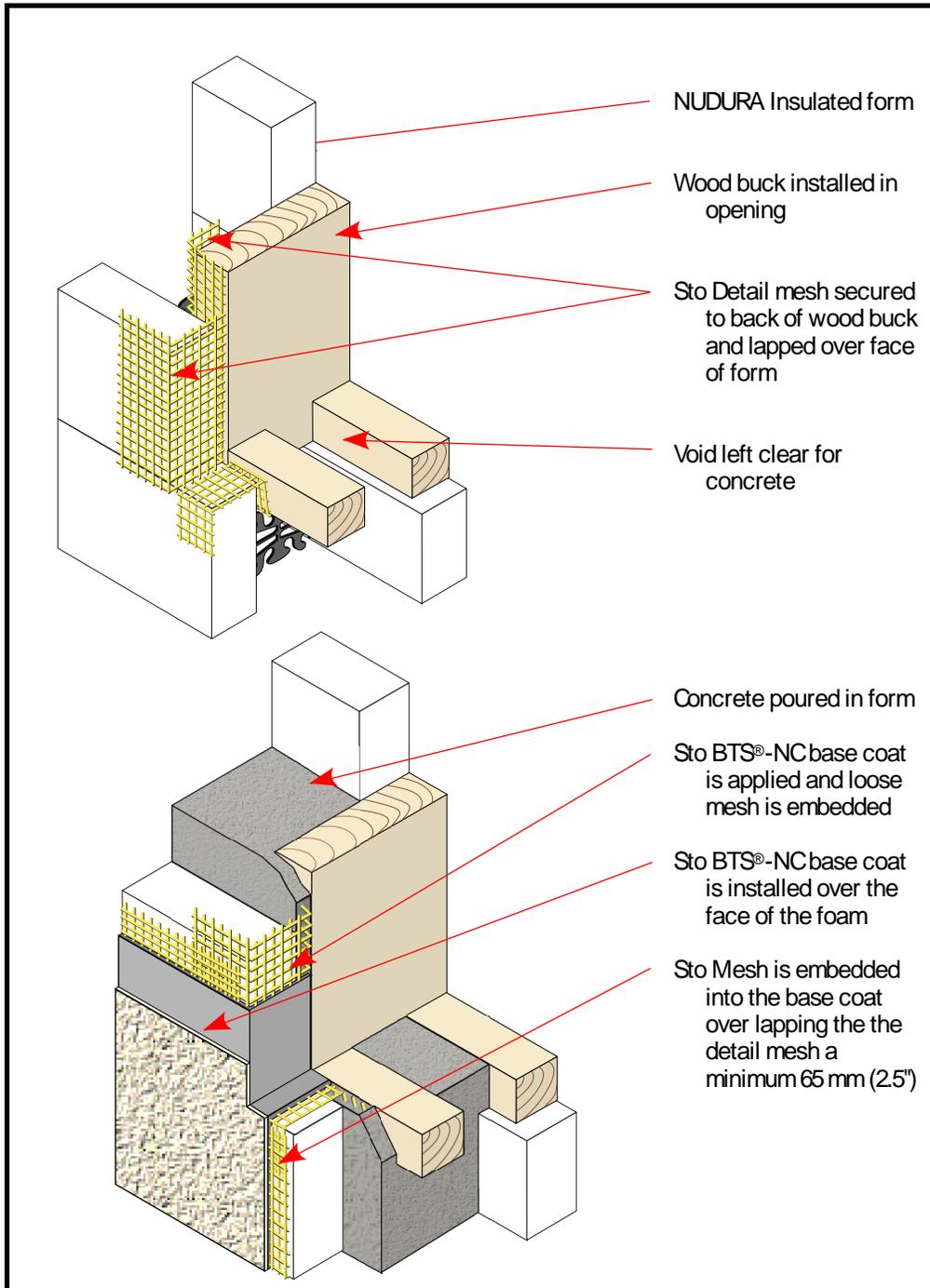
John Edgar
Senior Technical Services Manager



NUDURA Insulated Concrete Forms with Sto Premier NExT-NC Coating Window Sill Preparation

Detail No.: 1.28

Date: June 2003



Notes:

- 1] Detail illustrates the preparation of the window opening for the NUDURA insulated concrete form.
- 2] Sto Detail Mesh is fastened to the back of the wood buck and wrapped around the face of the form.
- 3] The concrete is poured into the form embedding the detail mesh in the concrete.
- 4] Sto BTS-NC base coat is trowelled over the foam around the opening and the loose mesh is immediately imbedded into the wet base coat. No foam should remain exposed around the opening.
- 5] Install the balance of the coatings as per standard specifications.

Sto details are illustrations of construction. They are guidelines, intended for use by the design/construction professional, to assist in developing project specific details. They should be modified where necessary to accommodate individual project conditions. Refer to appropriate Sto specification for design requirements. Refer to local building code for any special requirements.

www.stocorp.com

NUDURA
STANDARD 6" FORM UNIT

EIFS LAMINA, INSTALL
PER MFG. SPECS.

1 1/2"
(38mm) MIN.
COVER

EIFS RETURN
AND CAULKING
ALUMINUM FRAMED
WINDOW

NOTE: EIFS MESH PRESTAPLED TO
WOOD BUCK; LAPPED THROUGH
CONCRETE & AROUND FOAM AT
OPENING; FULLY EMBEDDED INTO NON
COMBUSTIBLE EIFS BASE COAT & EIFS
WET-LAPPED INTO EXTERIOR BASE
COAT MESH

WINDOW MOUNTING
SCREW

ALUMINUM FRAMED
WINDOW

FOAM BACKER ROD
AND CAULKING
OPTIONAL ALUMINUM DRIP
SILL BY WINDOW MANUF.

EIFS LAMINA, INSTALL
PER MFG. SPECS.

1/2" (13mm) GYPSUM BRD.

VERTICAL REINFORCEMENT
AS PER CODE

LINTEL REINFORCEMENT
AS PER CODE

VAPOUR BARRIER

1 1/2" (38mm) WOOD BUCK
FASTENED TO CONCRETE
WITH EMBEDDED GALVANIZED
SPIRAL NAILS, BOLTS, OR
SCREWS IN STAGGERED
PATTERN (TYPICAL)

WINDOW MOUNTING
SCREW

2x3 (38mmx64mm)
WOOD BUCK FASTENED
TO CONCRETE WITH
EMBEDDED GALVANIZED
SPIRAL NAILS, BOLTS, OR
SCREWS IN STAGGERED
PATTERN (TYPICAL)

SILL EXTENSION

VAPOUR BARRIER

OPENING REINFORCEMENT
AS PER CODE

VERTICAL REINFORCEMENT
AS PER CODE

1/2" (13mm) GYPSUM BRD.



NUDURA

INTEGRATED BUILDING TECHNOLOGY

Building Value.

STANDARD 6" FORM UNIT
WINDOW HEAD/SILL DETAIL
EIFS LAMINA FINISH
ALUMINUM FRAMED WINDOW

REV. NO.

0

REV. DATE:

DATE:

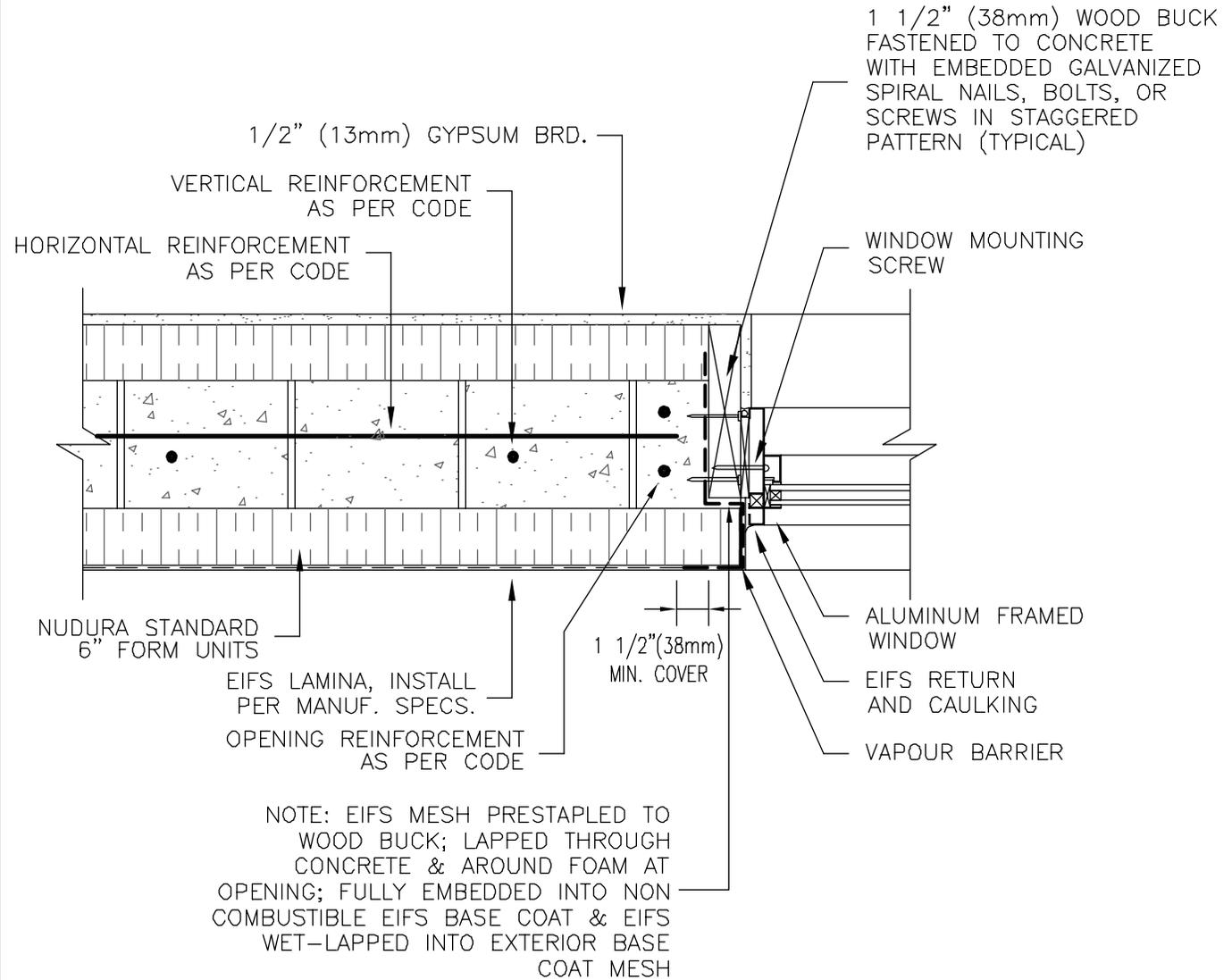
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DWG NO.

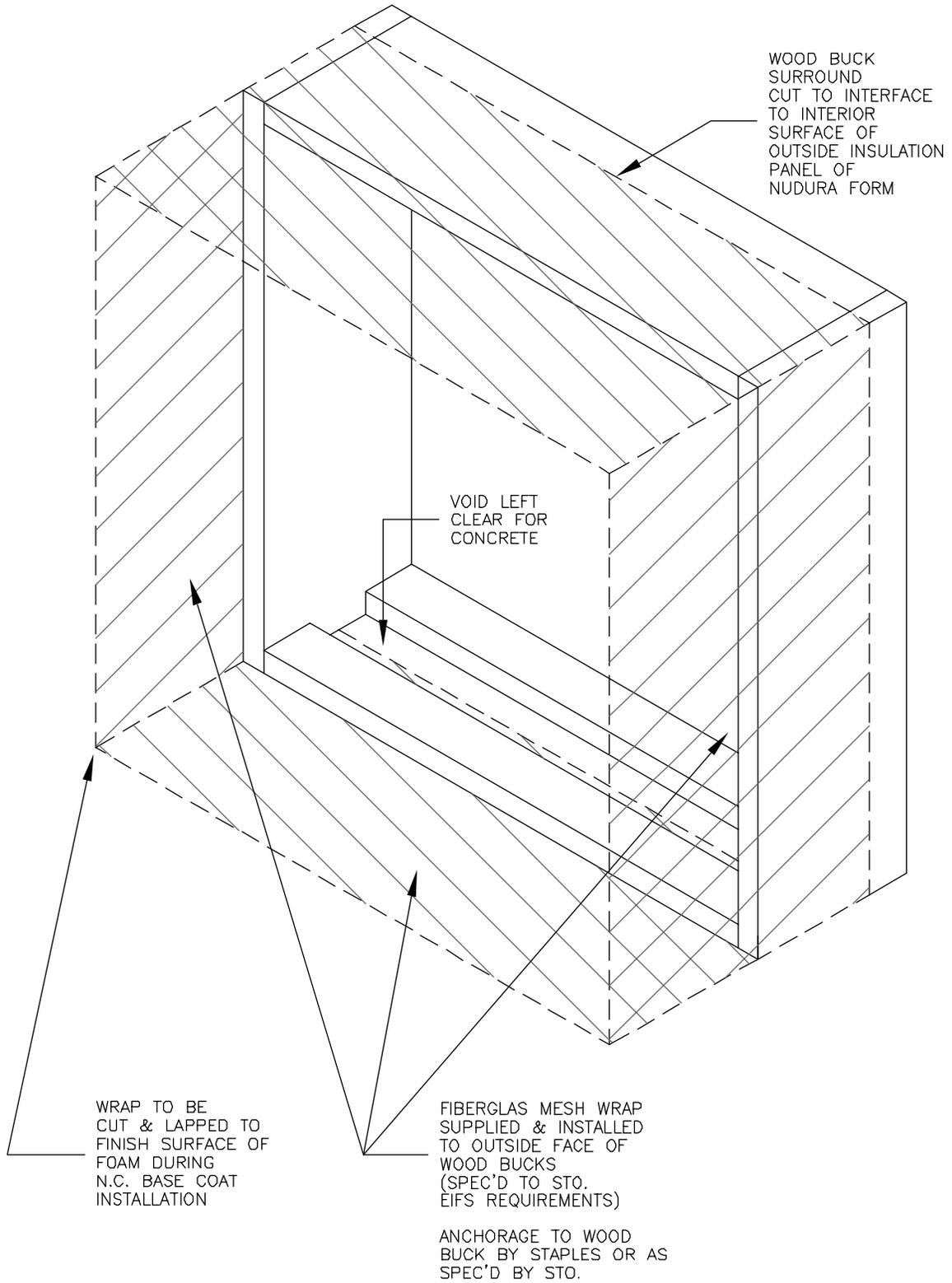
D-1

SCALE:

1 1/2"=1'-0"



STANDARD 6" FORM UNIT WINDOW JAMB DETAIL EIFS LAMINA FINISH ALUMINUM FRAMED WINDOW	
REV. NO. 0	DWG NO. D-2
REV. DATE:	
DATE: APR 2004	SCALE: 1 1/2"=1'-0"



NUDURA

INTEGRATED BUILDING TECHNOLOGY

Building Value.

WOOD BUCK FIBERGLAS WRAP ALTERNATIVE

REV. NO.

0

REV. DATE:

DWG NO.

D-3

DATE:

DEC 2004

SCALE:

N.T.S.