



PROCUREMENT SERVICES SECTION
Surrey City Hall, 13450 – 104 Avenue, Surrey, B.C., V3T 1V8
Tel: 604-590-7274
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ADDENDUM #1

INVITATION FOR TENDER (ITT) No. : 1220-020-2023-002

**TITLE: CONSTRUCTION OF A COMMUNITY HALL
BUILDING INCLUDING PARKING AND
LANDSCAPE**

ADDENDUM ISSUE DATE: June 6, 2023

**CLOSING TIME: on or before the following date and time
TIME: 11:00 a.m., local time
DATE: Wednesday, June 28th, 2023
(the “Closing Time”)**

INFORMATION FOR TENDERERS

Tenderers are advised that this Addendum No. 1 to *Contract* No. 1220-020-2023-002 is hereby issued by the *Owner*. This addendum shall form part of the *Contract Documents* and is to be read, interpreted and coordinated with all other parts. The following revisions supersede the information contained in the original *Contract Documents* and preceding addendums (if any). The cost of all *Work* herein shall be included in the Unit Prices tendered in the Schedule of Quantities and Prices.

Clarification

1. SITE ACCESS

The City will provide site access to any *Tenderers* and their subtrades interested in viewing the site on the date and time specified below. Attendance of this site visit is optional and is not mandatory. *Tenderers* who do not attend are not precluded from submitting a *Tender*.

Date: June 12, 2023

Time: 10:00 a.m.

Location: 12152 75 Avenue, Surrey, BC, V3W 2S5 (Corner of 121a St.)

Tenderers and their subtrades should ensure that appropriate PPE is worn on site as per WorkSafe BC regulations.

QUESTIONS AND ANSWERS:

Q.1. We are a manufacturer/supplier of rigid insulation, and can help save money for the exterior insulation required for this project. In place of the 50mm mineral wool, we are proposing 50mm of the Solar Dry Insulation. It will not change around any of the detailing and has been used in the same application on multiple BC Housing and Passive House projects.

The Solar Dry is breathable, and there are no fire issues limiting the use of the product. I have attached a brochure on the product [Reference Attachment 1] as well as a comparison to mineral wool [Reference Attachment 2]. We have extensive testing and engineering should anyone want to see.

A.1. The proposed material is an acceptable alternate to the specified mineral wool exterior insulation only. All *Tenderers* are reminded to ensure that carrying the proposed alternate material is solely the responsibility of the bidding *Tenderer*. All coordination and installation costs for the alternate are to be carried by the *Tenderer*.

Q.2. I was not able to attend the site meeting held yesterday [May 24, 2023], is there an issue with...submitting a bid for this project without attending.

A.2. Reference Part B – Instruction to Tenderers, Section 2.0 Information Meeting, subsection .1. Attendance is at the discretion of the *Tenderers*.

Q.3. We would like to request access to the site on Friday, June 9th at 10:00am for a site walk with our subtrades. Is this possible to arrange?

A.3. Refer to above Clarification, Section 1 Site Access.

Q.4. If any addendums are issued, will they be found on the BC bid web site or elsewhere?

A.4. Reference Part B – Instruction to Tenderers, Section 5.0 Addenda.

Q.5. Please see attached request for alternate waterproofing. [Reference Attachment 3]

A.5. The proposed alternative to foundation damp proofing is an acceptable product. The *Tenderer* is herein reminded that the existing foundation in place has a damp proofing currently applied and the specification of this existing damp proofing system is currently unknown. The *Tenderer* and their responsible subtrades and suppliers will be entirely responsible for ensuring that any damp proofing / foundation waterproofing is compatible with the existing and acceptable as a complete functioning system to the project.

Q.6. There was some discussion at the site meeting of May 24th regarding tree protection placement taking place under supervision of an arborist/BC Plant Health Care at the City's cost – could you please clarify and confirm that the City will be responsible for all consultant costs regarding this item.

- A.6.** Tree protection barriers to be provided by the *Tenderers* as per the *Tender Documents*. Arborist fees will covered by the *Owner*.
- Q.7.** There was some discussion at the site meeting of May 24th regarding Off Site - Site Services – could you please clarify. GC's are generally not permitted to perform work on City Property. A City crew will typically bring the site services to the property line and the GC will take the service from the property line on to the site etc. Could you please clarify.
- A.7.** Will be answered in a subsequent Addendum.
- Q.8.** There was some discussion at the site meeting of May 24th regarding site services that have been already performed requiring completion and testing – could you please clarify.
- A.8.** Review civil engineering contract documents for all work pertaining to site servicing. Work, division of labour and costs and responsibility is provided therein.
- Q.9.** The Schedule of Quantities & Prices is quite detailed – given the industry standard of most subtrade bids being submitted in the hour before closing. Would it be possible to have the closing at 11am for the Tender Price – and then allow the GC's to submit the breakdown within one hour. This would allow the GC's to concentrate on the Tender Price for the 11am closing and then do the breakdown calculations, without the calamity or confusion of making sure totals add up etc. NOTE The Submitted breakdown total would still have to equal the already submitted Tender Total...
- A.9.** Appendix 1, Schedule of Quantities and Prices – Summary Sheet and Table 1 – Schedule of Quantities and Prices breakdown must be received on or before the specified Closing Time. The *Tenderer* should provide relevant breakdowns in the Schedule of Quantities and Prices to all subtrades to ensure their pricing is submitted in the breakdown format requested.
- Q.10.** With reference to Section 5 and 6 on Dwg S301 – extending foundation wall. As this work in not quantifiable without a detail survey and field measurements, could a Cash Allowance be issued for this Item please. We would suggest \$5,000.00.
- A.10.** Will be answered in a subsequent Addendum.
- Q.11.**
- (a) With reference to Section 5 on Dwg L-01 – “Boulders either from site or imported to match existing”. As the volume of required materials is not quantifiable without a detailed survey and field measurement, could a Cash Allowance be assigned for purchase only of boulders and shot rock please.
- (b) Note: Does City of Surrey have an inventory of boulders/rocks etc from other projects that may be suitable?
- A.11.** Will be answered in a subsequent Addendum.

– END OF ADDENDUM –

SOLAR DRY

Patent Pending

ATTACHMENT 1

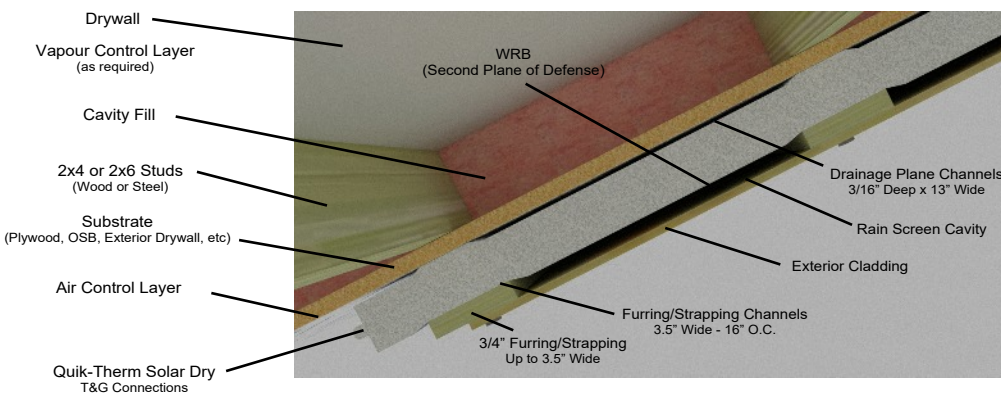
Drainage, Drying and Thermal Performance



QUIK-THERM™

Inspired by Building Science

Solar Dry (SDI) is a vented and perforated outboard continuous rigid insulation technology. It has been designed, tested and engineered for framed hybrid (batt and continuous rigid insulation combined) and empty cavity walls. SDI is permeable. It manages vapour diffusion and channels bulk water to the outside. As a result, SDI reduces the risk of mold and building material degradation. For framed wall assemblies; SDI's thermal performance, drying and drainage (hygrothermal) capabilities have been tested, evaluated and validated by recognized Building Science organizations.



Solar Dry consists of engineered perforated metallic polymer facers - laminated over closed-cell, lightweight and resilient Type 2 expanded polystyrene. 3/16" deep drainage cavities occupy approximately 75% of its inboard panel surface. On the outboard side, furring materials (wood or steel) are mechanically fastened through SDI panels directly to framing members. Typical framing locations are identified by shallow depressions - but not mandatory.



90% of all building envelope problems are related to water. Designing for moisture management is important to protect the building and keep its occupants safe from adverse health effects. Moisture control is adequate provided wet materials have the opportunity to drain and dry - preferably to the outside. "Note that in an assembly using conventional foam exterior insulation panels, there will be a double vapour barrier, which limits the drying capacity of the assembly. The cavity provided by Quik-Therm Solar-Dry provides a technical advantage. The vertical cavities, open at the base, provide a drying path to the outside." *Quik-Therm Solar Dry System in Above Grade Exterior Wall Applications. Mark Lawton, P.Eng, Morrison Hershfield*

Drainage Testing

RDH Building Science Laboratories

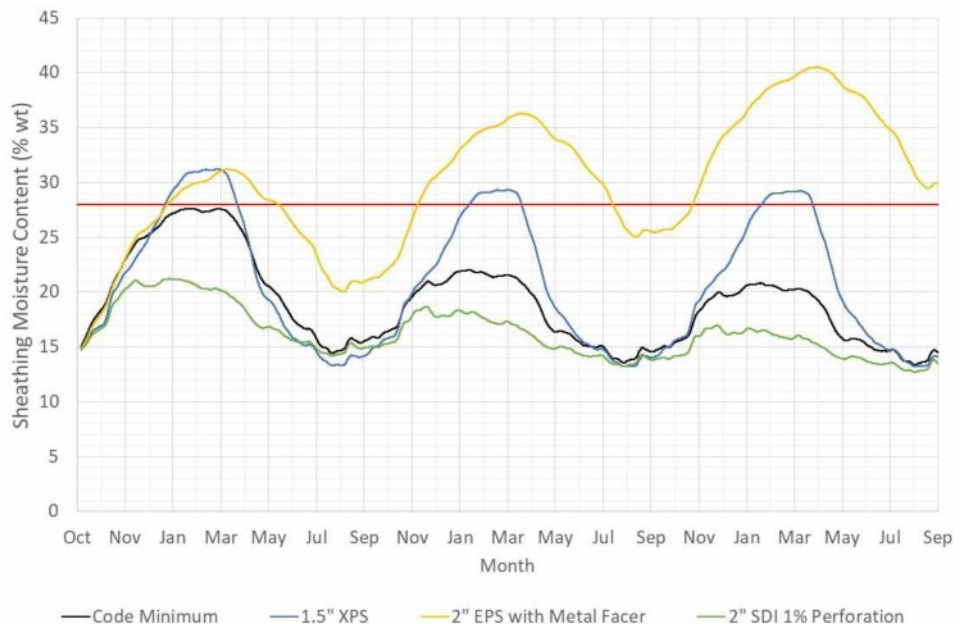
"The excellent drainage performance and improvement in drying within the vented cavity under small (~2Pa) wind pressures of the wall assembly constructed with SDI reduces moisture durability risks of the enclosure that could result from water getting trapped and held between the components of the wall assembly. The drainage testing results showed very similar and repeatable drainage and storage between all three tests on the test wall. The wall stored between 102 and 117 grams (or millilitres) of water following 15 minutes of drainage after water was applied. This means that the wall drained nearly all of the water that was applied to the assembly." *Evaluation of Solar Dry Drainage and Drying Testing. Jonathan Smegal | MASc. Report No. 12682.000*

Hygrothermal Analysis

Morrison Hershfield

"We recognize our approach for evaluating the assembly's tolerance to rain penetration wetting is much more conservative than what is expected out in the field. This approach assumes water is held against the sheathing and that air leakage is not present. However, the majority of bulk water present within the drainage gap of the SDI insulation system is expected to drain out of the wall assembly as demonstrated by RDH Building Science Laboratories 201815. In addition, some degree of air leakage is expected for all wall assemblies which will increase drying rates in the assembly from rain penetration and initial construction moisture." *Hygrothermal Analysis of Quik-Therm Solar Dry Insulation. Ivan Lee, P.Eng & Patrick Roppel P.Eng Report No. 1800859.00*

Wall Profile: 2x6 wood Studs with R-20 Batt



7-day plywood sheathing moisture content at mid-height for east facing split insulated wall assembly subject to 0.15% (max 0.02 L/h/m²) driving rain penetration without air leakage in Vancouver

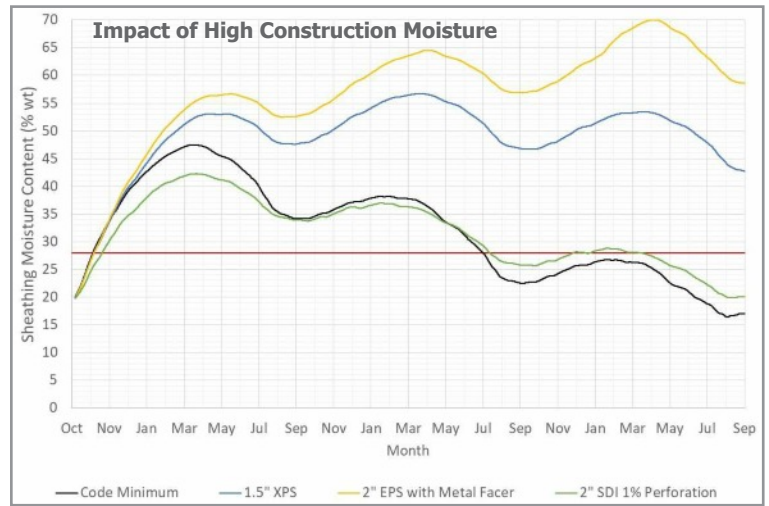


Hygrothermal Analysis

(Continued)

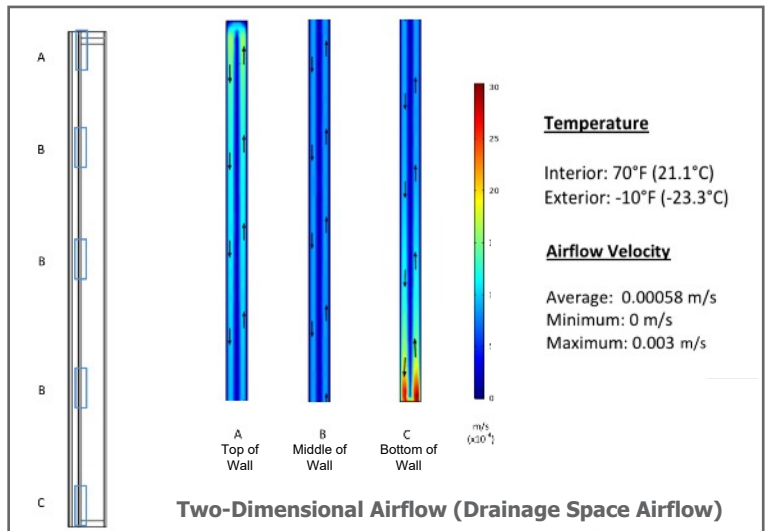
Morrison Hershfield

"Perforations in the polymer facer of the Quik-Therm SDI insulation improves the hygrothermal performance of split insulated wood frame wall assemblies, especially with regard to the ability to dry out moisture from rain leaks and high construction moisture." *Hygrothermal Analysis of Quik-Therm Solar Dry Insulation. Report No. 1800859.00*



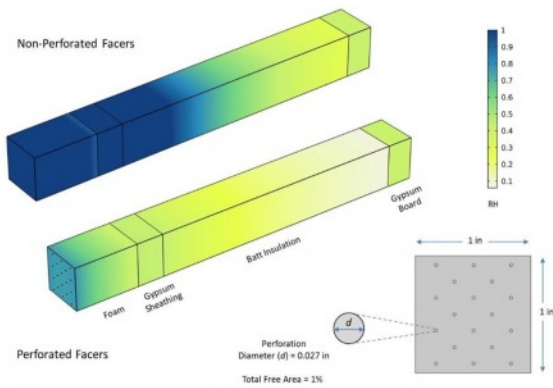
Built Environments Inc.

"Air flow velocities and resulting air changes within the drainage space were a function of temperature gradients across the wall. At large temperature differences (e.g. -10°F exterior; 70°F interior), average airflow velocities were only 0.00058 m/s. This corresponds to 0.34 air changes per hour when assuming 100% air exchange with the adjacent exterior air layer. The predicted reduction in thermal efficiency was less than 1%." *Thermal Performance Report. Steven Doggett PhD, LEED Report No. 012019-1*

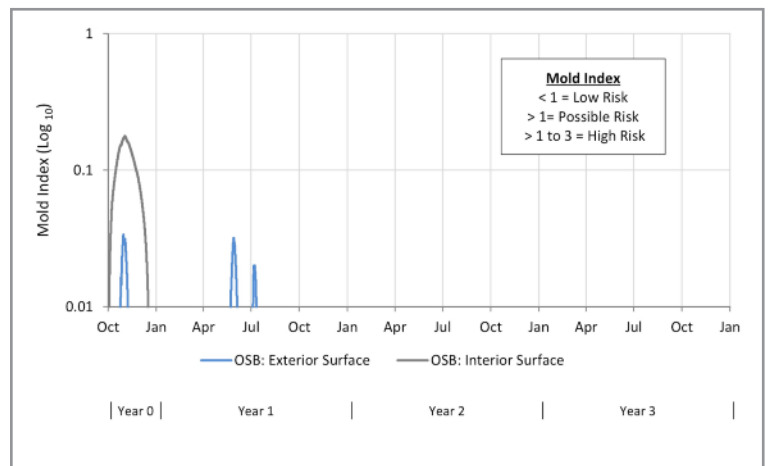


Built Environments Inc.

"In all instances, moisture levels were maintained below critical thresholds associated with mold growth and material degradation. Natural convection within the open drainage channels did not significantly affect moisture or thermal performance. While the open channels enhanced vapor release, diffusion occurred primarily through the perforated insulation system." *Moisture Performance Report. Report No. 012019-2*



Perforation Design by Built Environments Inc.



Solar Dry Exempt From Ratio Table 9.25.5.2

Where a material has a water vapour permeance not less than 30 ng/(Pa·s·m²) and a thermal resistance not less than 0.7 (m²·K)/W and the heating degree-days of the building location are less than 6000, the assembly need not comply with Sentence (1). 1" Solar Dry is compliant for buildings located in climate Zone 7A or warmer.

Morrison Hershfield

"Quik-Therm Insulation Solutions Inc. has undertaken a program of full scale thermal performance testing⁽¹⁾ to ASTM C1363-05 Standard Test Method for Thermal Performance of Building Materials and Envelope Assemblies by Means of a Hot Box Apparatus. Testing was performed by Architectural Testing Inc. This testing included direct comparison of assemblies with Solar-Dry and a Quik-Therm Connect product that is similar but without the "flutes". The tests confirmed that the introduction of the 3/16" flutes and 2"x3/4" wood furring had no appreciable effect on the thermal performance of the wall assembly, provided that the flutes are sealed at the top of each wall panel to eliminate any convection air current." *Quik-Therm Solar Dry Systems. Mark Lawton P.Eng.*

(1) as per National Building 2015 / 9.36.2.2.(4)(b)

Built Environments Inc.

"Computational methods utilized in this analysis have been benchmarked against independent hot box studies performed in accordance with ASTM C 1363. Methods employed in this analysis achieve thresholds that are generally less than ±2.5% of tested transmittance values, which are well below the ±8% threshold criterion." *Thermal Performance Report. Report No. 012019-1.*

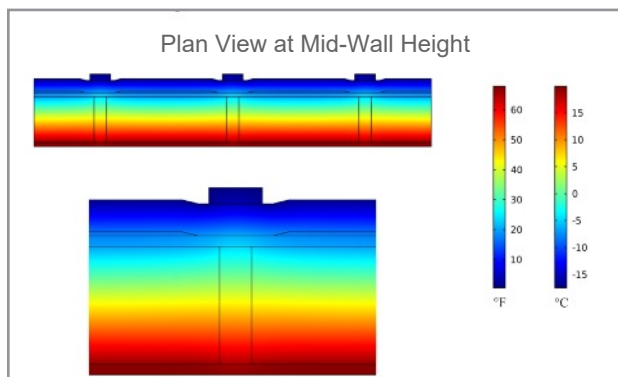
Thermal Performance Results

1.5" Solar Dry Insulation and R-20 Batt

Thermal Transmittance, U-factor 0.038 Btu/h·ft²·F
 Overall Thermal Resistance (Air-to-Air) 26.0 (h·ft²·F)/Btu

4" Solar Dry Insulation and R-20 Batt

Thermal Transmittance, U-factor 0.028 Btu/h·ft²·F
 Overall Thermal Resistance (Air-to-Air) 36.1 (h·ft²·F)/Btu



ASTM C1363 Test Results

Description of Test Samples Starting from Exterior	Overall Thermal Resistance (hr·ft ² ·F/Btu), R-value (R _u)
1" Quik-Therm, 7/16" OSB, 2x4 wood studs, empty cavity, 1/2" drywall	8.29
1" Quik-Therm, 7/16" OSB, 2x4 wood studs, R-11 fiberglass batts, 1/2" drywall	18.03
2" Quik-Therm (with flutes), 7/16" OSB, 2x4 wood studs, empty cavity, 1/2" drywall	13.2
Cement board siding, 2" Quik-Therm, 7/16" OSB, 2x4 wood studs, R-13 fiberglass batts, 6 mil. Poly vapour barrier, 3/8" drywall	23.1
2" Quik-Therm, 7/16" OSB, 2x6 wood studs, R-20 fiberglass batts, 1/2" drywall	28.3
5/8" OSB (in lieu of cladding), 3/8" rain screen, 3" Quik-Therm, 2x4 wood studs, R-12 fiberglass batts, 1/2" drywall	27.96

Morrison Hershfield

"The use of effective R-values when evaluating the thermal resistance of an assembly is preferable to using the nominal R-value of the insulation alone. The benefits of this approach have been demonstrated in results obtained through laboratory tests such as ASTM C1363 and by data published in ASHRAE 90.1." *Use of Effective R-values for Evaluation of Insulated Assemblies. Mark Lawton P.Eng.*

Quik-Therm Effective Thermal Resistance

SDI Thickness	2x4 Wood Frame with R-12 Batt	2x6 Wood Frame with R-20 Batt	Wood Frame Empty Cavity	2x6 Steel Frame with R-20 Batt
1"	18	23	8	NA
1.5"	21	26	11	17
2"	23	28	13	19
3"	28	32	17	23
4"	32	36	21	27
5"	36	40	25	31
6"	40	44	29	35

Nominal R-Value Testing ASTM C-518 = R-4.2 | Steel Framing ASHRAE Table A3.13

RDH Building Science Laboratories

Physical Test Wall was 4' wide by 8' tall. It was constructed with steel studs and OSB sheathing. 6 mil polyethylene was installed on both sides to isolate the OSB from water in the drainage cavity and the changing RH conditions in the laboratory. On the exterior of the polyethylene covered OSB, a sheet applied housewrap was installed. Solar Dry Insulation was installed as per Quik-Therm installation instructions. The vertical edges of the sample were sealed. This forced the wall to drain all the way vertically through the assembly, which simulates a long length of wall.

Morrison Hershfield

Hygrothermal Performance of the wall assemblies were evaluated using 2D finite element heat-air-moisture program DELPHIN5. The wall assemblies were evaluated using climatic data that are representative of a wet year as determined by the MEWS6 study as well as a cold year based on heating degree days. Exterior insulation levels are based on achieving effective R-values of R-22 (RSI 3.87) for Vancouver (Zone 5) and R-28 (RSI 4.93) for Edmonton (Zone 7) for 2x6 wood-framed walls with R-19 (RSI 3.35) batt insulation in the stud cavity.

Morrison Hershfield has validated the model and approach used for this project to published field studies.

Built Environments Inc.

Transient Moisture assessment employed WUFI® Pro 6.2 hygrothermal modeling software. Simulations were performed in accordance with design parameters outlined by ASHRAE 160-2009, Criteria for Moisture-Control Design Analysis in Buildings and Addendum E. Interior design conditions were determined by WUFI's integrated EN 15026 / WTA 6-2 interior climate method. Exterior weather data utilized WUFI's Cold Year meteorological data for Vancouver, British Columbia, Winnipeg, Manitoba and Toronto, Ontario.

Performance Criteria and Risk Evaluation Simulation outcomes were compared to the VTT Mold Index evaluation criteria as outlined in ASHRAE 160 (2009), Addendum E. The Mold Index was determined using the WUFI-integrated Mold Index VTT plug-in.

Steady-State Moisture Transport assessment applied Computational Fluid Dynamics to simulate coupled heat and moisture transport through two and three-dimensional wall assemblies. Simulations were performed using COMSOL Multi physics 5.4, which employs partial differential equations and Finite Element Analysis (FEM) to predict simultaneous flows of fluids, gasses, heat, and moisture.

Fire Code Compliance

National Building Code: Foam plastic insulation is permitted to be used in the exterior wall of mid-rise (up to six stories) wood buildings when a tested wall assembly passes the 15 minute CAN/ULC-S101 test per the prescribed criteria as required by Article 3.2.3.8., and an interior thermal barrier such as gypsum board is provided as required by Article 3.1.4.2.

6" thick Quik-Therm and fibre cement board siding met the requirements of Article 3.2.3.8. Sentence 2 when exposed to the time temperature curve of CAN/ULC-S101 for 15 minutes duration. *Test Report N: T1035-4 QAI Laboratories.*



CCMC 13457-L



Quik-Therm Insulation Solutions Inc.

quiktherm.com

(204) 736-3012

(888) 735-3012

 Made in Canada

Installation & Technical Data can be found at quiktherm.com



PASSIVEHOUSE
CANADA Member



Tested By Canadian Accredited Laboratories
Supported By Building Science Engineering

ATTACHMENT 2

Compare Quik-Therm Solar Dry to Exterior Mineral Wool

	Solar Dry (SDI)	Mineral Wool (MW)
Moisture Management Breathability	 <ul style="list-style-type: none"> Breathable: Perforated and vented Perforations manage vapor diffusion Drains bulk water Second line of defence behind cladding No loss of R-Value <p>LEARN MORE: quiktherm.com</p>	 <ul style="list-style-type: none"> Breathable: Absorbs moisture. May dry over time Drains much slower than Solar Dry. May Increase sheathing moisture Mold potential Significant R-Value loss with minimal moisture <p>LEARN MORE: Tech Solutions 520.0-Dow LEARN MORE: Convective Heat Loss through Mineral Wool in a Rainscreen Facade</p>
Fire Code Compliance	<ul style="list-style-type: none"> Compliant up to 6 stories - wood frame construction Fire rated cladding required over 3 stories Meets CAN/ULC S101 	<ul style="list-style-type: none"> Non-combustible Fire compliant with most walls Engineering concerns regarding some fasteners
Effective R-Value Performance	<ul style="list-style-type: none"> Tested to ASTM C1363, real world conditions: +21°C inside/-18°C outside with 22 kph wind Up to 20% better R-value performance R-value not affected by moisture or wind 	<ul style="list-style-type: none"> Product R-value tested only Reduced R-value: Thermal bridging, moisture and wind Cannot tape (seal) connection points
Cost Effectiveness	<ul style="list-style-type: none"> 30-40 percent lower cost; material and labor Installs in ½ the time and 7 times lighter than MW 6" maximum thickness 	<ul style="list-style-type: none"> Expensive and complicated wall design 2x4 sheets. Up to 8 sheets required to cover same area as 1 sheet of SDI 3" maximum thickness, often requires 2 layers
Installation	<ul style="list-style-type: none"> Rugged, durable, semi-flexible and lightweight 4x8 sheets cover 32 ft² Simple wall design, T&G connections, easy taping No itch or lung irritation, no protective gear 	<ul style="list-style-type: none"> Brittle vitreous fibers. Non-continuous. Itchy 2x4 sheets, requires 4 to 8 times more sheets Complex: Fasteners, clips, z-bars, gap problems Dust mask, overalls, gloves, and goggles required
Environmental Impact	<ul style="list-style-type: none"> 98% air, polystyrene beads expanded with steam Low embodied energy requirements EPS received A+ rating on environmental matrices 	<ul style="list-style-type: none"> Environmental concerns in manufacturing process High embodied energy requirements <p>LEARN MORE: Jefferson County residents in uproar over new insulation plant</p>
Wind Washing	<ul style="list-style-type: none"> Tested to 22 kph wind, ASTM C1363 Continuous insulation sealed with tape & adhesive R-value not affected by wind 	<ul style="list-style-type: none"> Wind washing may significantly reduce R-value performance Gaps and edges cannot be sealed Moisture and wind combined further reduce R-value
Compressive Strength	<ul style="list-style-type: none"> High compressive strength 19.7 psi Cement board cladding compliant. No wavy cladding Simple cost effective fastening system 	<ul style="list-style-type: none"> Low compressive strength (8 - 11 psi) May not be cement board compliant. May cause wavy cladding Complex expensive fastening system
Health & Safety	<ul style="list-style-type: none"> Manufactured with food grade materials Doesn't irritate skin and lungs 	<ul style="list-style-type: none"> Vitreous fibers. May contain formaldehyde Lung and skin irritation. Health concerns <p>LEARN MORE: Synthetic Vitreous Fibres - Health and Safety</p>

The Bottom Line

Quik-Therm Solar Dry outperforms Mineral Wool. Lower overall cost. Faster and easier to install. The manufacturing process has minimal environmental impact and there are no significant health risks.

ATTACHMENT 3

SUPERPRO COATINGS

Professional Grade / Outstanding Results

SUPERPRO COATING Insulated Concrete Form (ICF) Compatibility

All ***SUPERPRO Coatings*** are formulated with a water based carrier and contain no solvents.

SUPERPRO Waterproof and dampproof coatings can safely be applied on or under Expanded Polystyrene Foam (EPS) and Extruded Polystyrene (XPS) and will not affect it. These products are environmentally friendly and do not contain any solvents or leech contaminants into the environment or water streams after application.

The adhesion for waterproof coatings is 1lb per sq inch. Tests have shown that ***SUPERPRO*** waterproof and dampproof coatings exceed 7lbs per sq inch over EPS Foam.

These products are used in a wide variety of applications, for example:

- Insulated Concrete forms
- EPS insulation used against foundation walls
- Subterranean EPS bridge fill or landfill blocks
- EPS used in roofing applications
- EPS Dock Float Blocks (environmentally sensitive areas - water)
- Insulated boat hulls or fish environments
- XPS installed over Superpro Coatings

Applications of these products applied on anything outside the above listed items is beyond the scope of this certification.

Ted Hubert
Technical Services
SUPERPRO Coatings Ltd.
1-800-571-1877

SUPERPRO WATERPROOFING

PRODUCT DATA SHEET

60 mil

SUPERPRO Waterproofing is a modified elastomeric asphalt emulsion specifically formulated as a spray applied protective foundation coating. **SUPERPRO** Waterproofing is a dual component system that is applied using a specially designed spray applicator. The technology advances in **SUPERPRO** Waterproofing is a quick set membrane that is solvent-free and has excellent strength, elasticity and adhesion.

SUPERPRO Waterproofing is an environmentally friendly waterproofing product which can be applied indoors and outdoors.

***Free of Flammable Solvents**

***Non-Toxic**

***Odourless and Water Based**

PHYSICAL PROPERTIES

PROPERTY	TYPICAL RESULTS
Specific Gravity (Liquid) kg/m ³	Approx. 1.0
Odour	None
VOC	Contains no solvents
Color	Brown to black
% solids (wt)	57-62
Viscosity, SSF @ 25°C, seconds	15-20
pH	7-9

TEST RESULTS FOR PHYSICAL PROPERTIES

PROPERTY	UNIT	REQUIREMENT	RESULT
Dry film thickness	mm	± 10% of manufacturer's specified value	1.5
Hardness	-	Report value	80
Water vapour permeance	Ng/Pa.s.m ²	Report value (perms)	4.46-01
Sag flow	mm	No sagging	0 ⁽¹⁾
Pinholing	-	≤ 1 pinhole	No pinholing
Tensile strength	MPa	Report value	0.7
Elastic recovery	%	Report value	91

TEST RESULTS FOR PHYSICAL PROPERTIES

PROPERTY	UNIT	REQUIREMENT	RESULT
Water tightness after exposure: <ul style="list-style-type: none"> • heat aging • chemical aging • UV exposure 	-	No leakage	No leakage
Crack bridging resistance after exposure: <ul style="list-style-type: none"> • water immersion • heat aging • UV exposure 	-	No visible cracking, blistering, peeling or other visible defects	No defects
Peel adhesion ⁽¹⁾ – initial	N/m	≥ 175	1198
Peel adhesion ⁽¹⁾ after: <ul style="list-style-type: none"> • water immersion • heat aging • UV exposure 	N/m	≥ 90% of original	1316 (103.4%)

Tensile strength after: • heat aging • chemical aging • UV exposure	MPa	≥ 90% of original	0.7 (100%)
Elastic recovery after: • heat aging • chemical aging • UV exposure	%	≥ 90% of original	73 (100%)
Low temperature flexibility	-	No cracking	No cracking

Additional Performance Data

Time after Spray of Membrane (days)	Peel Adhesion to Concrete (N/M) (lb/in.)
4	1 476 (8.43lb/in.)
7	2 415 (13.79 lb/in.)
28	2 569 (14.1 lb/in.)

The product may be used for waterproofing unit masonry or monolithic concrete foundation walls, subject to the following conditions and limitations:

- Unit masonry or poured-in-place concrete walls must meet the surface preparation requirements of Article 9.13.3.4, Preparation of Surface, of Division B of the NBC 2010.
- The poured-in-place concrete must be cured prior to the application of the product.
- The wall and footing surface must be dried prior to the application of the products.
- The product must be applied in accordance with the manufacturers directions by qualified and approved installers.
- Prior to backfilling and when backfill material consists of angular stones or sharp objects, the membrane must be covered with a protection board meeting the manufacturers' recommendations. The use of mechanically attached board systems may affect the waterproofing performance of the product. Users must consult with the manufacture for recommendations regarding the use of protection boards and their installation.
- The foundation wall must be backfilled in accordance with the requirements of Subsection 9.12.3., Backfill, of Division B of the NBC 2010
- Evaluation Report available (CCMC 13452-R) (ICC ESR3106)

Manufactured by:

SUPERSEAL Construction Products Ltd.

PO Box 61646 Brookwood RPO

Langley BC, V3A 8C8

1-800-571-1877