NSAI Agrément Approval Scheme
Installers of Cavity Wall Insulation (CWI)

Part 1 Introduction

1.1 The NSAI Agrément Board

The NSAI Agrément Board publishes Technical Approvals for innovative construction and civil Engineering products under the Irish Building Regulations and in accordance with the rules of the international union of Agrément bodies of twenty-five European countries. This form of certification shows that such products, if correctly used, can provide compliance with building regulation requirements. Technical Approvals are undertaken for product manufacturers and are of proven benefit in expanding European and world markets through the multi-lateral Agrément confirmation process.

1.2 Agrément Certificate

Agrément Certificates provide an independent opinion of the fitness for purpose of a product or system. All relevant performance factors are assessed, including safety, installation, durability and other essential requirements.

The manufacture of Agrément Certificated products is subject to quality surveillance by the Agrément during the validity of the Certificate.

1.3 Approved Installers

In addition to Agrément Certificates, the Agrément also approves installers (firms) of certain systems where the quality of installation has a large part to play in the performance of the system, during its service life. These installers are subject to assessment before approval and regular surveillance while approved. Assessment and surveillance of Approved Installers are undertaken by the AGRÉMENT's own inspectors, trained and experienced in the technology, who ensure that the systems are being installed according to the Agrément Certificate.

1.4 Enquiry to the users & specifiers etc.

Any person may enquire of the status of an Agrément Certificate or Approved Installer by consulting:

The Agrément Index of Agrément Certificates
The Agrément Directory of Approved Installers

Due to the requirements of confidentiality, the Agrément will not comment on work in progress to at third party, unless the AGRÉMENT is authorised to do so by the proposed installer.

1.5 Further general information

Agrément Certificates are available from the Agrément or from the certificate holder.

The Agrément Index of Agrément certificates and directory of approved installers are available from the Agrément and the NSAI website: www.nsai.ie

1.6 Cavity wall insulation.

The Irish Agrément Board scheme for the assessment and surveillance of Installers of cavity wall insulation, is based on a three party arrangement.

The three parties are

The NSAI Agrément
The Agrément Certificate holder
The Approved Installer.

The responsibilities of the parties are set out in this scheme.

Before the proposed installer can be considered for assessment by the AGRÉMENT, an application form that has been countersigned by the Agrément certificate holder must be submitted to the Agrément. The certificate holder must satisfy himself, that the proposed installer is capable of installing the cavity wall insulation system competently and according to the Agrément Certificate. Application forms for those who wish to become registered installers are available by contacting the Agrément , or the relevant Certificate holder. A copy of the Agrément application form is also included in Appendix D.

1.7 Information on the CWI scheme.

For enquiries regarding Payment of Fees or Technical and Administrative issues, contact the Agrément Administration Section.

Part 2 Agrément Certificate Holder

2.1 Certificate Holder Responsibility
The Agrément Certificate Holder has the responsibility for:

- Assessing an installer before his application to the AGRÉMENT for approval.
- Training and approving the Installers operatives.
- Overseeing and inspecting the installer while he remains an Approved Installer. The minimum number of inspections shall be 4 per year.
- Advising the Agrément of additions and deletions to the list of Operatives.
- Maintaining his certificate and installation manuals etc.
- Applying durable plates to installation machinery to identify the Agrément certificate for which the machinery can be utilised.

The certificate holder must countersign the contract between the installer and the Agrément.
The certificate holder may withdraw his agreement to a contract between the Agrément and an Installer at any time by notice in writing to the Agrément . In such circumstances the contract between the Agrément and the Installer becomes void.

Where the Certificate Holder has more than one Certificate, the Certificate holder is responsible for verifying that the Installer has been trained and is equipped to operate according to each of those certificates for which the Installer applies for Approval.

The Agrément will keep the certificate holders advised of matters concerning their Approved Installers.

Application for approval of an Installer will be forwarded to the AGRÉMENT by the certificate holder, who must countersign the contract as already stated.

Part 3 Approved installer

3.1 Scope

This scheme encompasses the installation by Approved Installers of insulation systems, which are the subject of Agrément Certificates in buildings not exceeding 12 meters in height.

Separate contracts will be required for each Certificate under which the Installer wishes to operate.

The Agrément will receive fees directly from the Installer. Non-payment of fees by the Installer will result in the withdrawal of Agrément Approval and in deletion of the Installer from the list of Approved Installers.

The Agrément will advise the Installer of discrepancies variations and complaints. The relevant Certificate holder will also be copied on these findings.

3.2 Statutory requirements

The Installer shall comply with the statutory requirements applicable to the building to be Insulated, for example the Building Regulations.

3.3 System

The system comprises the insulation, machinery and method of installation (as well as any conditions defined in the Certificate) installed by an operative and as defined in the Agrément Certificate for which the Installer is Approved or as agreed between the certificate holder and the Agrément.

3.4 Definitions

Existing Buildings
A building shall be deemed to be existing when it is greater than 3 years old.

Buildings under construction
A building shall be deemed to be under construction until connection of the electrical supply.

Installer
The company or organisation who has contracted to carry out the installation.

Surveyor
A person who has satisfactorily completed the training programme operated by the Installer, who is capable of surveying buildings according to the Agrément Certificate and this scheme.

Operative
A person who has satisfactorily completed the Certificate holder's training programme and carries an identity card issued by the Certificate Holder

Certificate Holder
The organisation to which an Agrément certificate has been awarded.

Office
The administrative centre from which statutory notices of intention to install Insulation is issued.

Installation Manual
The Installation Manual prepared by the certificate holder and approved by the Agrément.

Team
A team shall comprise at least one operative.

3.5 Survey of Buildings before installation

The object of the survey is to ascertain whether the building is suitable for the proposed system and to identify problems that may adversely affect the proper functioning of the building and to ensure that the building meets the requirements of the Agrément certificate with respect to the following:

(a) Height of Wall: The cavity shall not exceed 12m in height measured from the lowest ground level.

(b) Existing Buildings: All buildings that show, or have shown evidence of water penetration, to the internal leaf (that has not been corrected) shall be classified as unsuitable for the system of insulation.

(c) Condition of Cavity Walls. The cavity walls to be filled shall be structurally sound. The outer leaf shall be reasonably free from:
Cracking
Defective mortar
Damaged rendering
Spalled bricks
Discharge of water from building features.
Gutters, downpipes, overflows etc, shall be in good order.
The inner leaf shall be free of dampness, other than that due to condensation.
There shall be a cavity at least 50mm in width measured between the masonry faces for that whole of the wall to be filled.

(d) Protection of Cavities: Where the fill will come up to underside of a feature, eg sill, floor slab or roof, it is essential that this feature should not permit water to penetrate the cavity at that level, since otherwise the top surface of the insulation could act as a bridge for water to cross the cavity.

(e) Recent Construction: Where less than one year has elapsed since first occupancy, not only should the building meet the recommendations of (a) and (b) above, but also it should have been designed and built following the recommendations of the appropriate Irish Standards Codes of Practice or Irish Standard.
Note: This is intended to apply to buildings that have not be in use for long enough, for defects in design and construction to become apparent.

(f) Building Under Construction: The Installer shall, where practical, before commencement of construction, assess the drawings and advise the designer in relation to the suitability as described by the Agrément Certificate and this Scheme and
after construction has commenced, and the cavity walls are substantially complete, visit the site to assess the building(s) with the drawings according to the above. Any visible defects that could result in water penetration or rising damp shall be identified on the survey report. If defects are found, the installer shall notify the client in writing, that the appropriate remedial action must be undertaken before installation of the insulation. The building shall be deemed unsuitable until the defects are rectified.

(g) Survey Report: A written survey report including the following information shall be compiled for each building**.**

- The name of the surveyor

- The name and address of the client and the location of the building
- A signed declaration that the building has been surveyed according to the requirements of Agrément Certificate No…….and this scheme
- Areas of building(s) to remain un-insulated, shall be shown with the reasons
- Essential ventilation openings that require to be sleeved or safeguarded before insulation shall be identified
- The position of all flues whether or not they are in service, and measures that must be taken to safeguard their proper functioning
- Where insulation will take place through the internal leaf
- Specify any remedial action that will be required before the installation of the insulation. The responsibility for rectification shall be identified
- Before installation of the system the client shall be advised in writing of the information contained in these points above
- A copy of the Agrément certificate under which the installer is operating shall be made available on request to the client
- The survey report form shall be approved by the Agrément . (Refer to Appendix A)
- Where the building is deemed to be unsuitable for insulation, the installer shall provide written notice to the client. The notice shall identify the reasons for unsuitability.
- Electrical cables in cavities to be sleeved.

3.6 Work Instructions
The Installer shall ensure that the following is documented and made available to the Operative.

- The survey report
- An exposure assessment (where the insulation is subject to exposure restrictions).
- Special instructions to the Operative relating to time, access and services needed by the Operative and access equipment to ensure quality of the product including Health and Safety provisions.
- The position of flues and how they are to be dealt with.

3.7 The system of Insulation
The system of Insulation to be installed shall be the subject of a valid Agrément Certificate for which the Installer has been approved by AGRÉMENT and the Certificate Holder.

3.8 Material Storage and Preparation
Materials shall be stored to prevent deterioration in accordance with the Certificate Holders instructions. An Operative shall supervise collection of material from store and discharge into the delivery system.

3.9 Quality tests before installation.
An Operative shall supervise or carry out the test required by the Agrément Certificate and Certificate Holders installation manual. Before the installation of insulation in each building the Operatives shall verify the operation of the machinery, by undertaking a density test. The method

of test shall by approved by the AGRÉMENT. The results of the quality tests shall be recorded on the work instructions/ survey report along with the time that the test was conducted.

3.10 Installation
Before installation, an Operative shall check the building to confirm that the building is according to the surveyor's report and is suitable for installation of insulation. If the Operative has reason to doubt that the building is suitable then he shall seek advice from the Installer before proceeding with the installation. This information shall be entered on the work instructions.

The installation shall be carried out according to the surveyor's report, Agrément certificate and installation manual for which has been contracted.

Where the Agrément certificate requires the insertion of a cavity barrier it shall be retained in the cavity at the completion of the installation.

The cavity barrier shall be of a type approved by the Agrément.
The Operative shall record the amount of material used during the installation of the system.

At completion of the installation and at the end of the working day, if the installation will not be complete in the working day, the Operative shall investigate and confirm the proper functioning of all ventilation openings and flues.

The Installer shall undertake regular installation checks at a frequency not less than twice per month per team to verify that the installations have been carried out according to the surveyor's report, Agrément Certificate, installation manual and this scheme. A record shall be kept of the checks carried out and a copy sent to Certificate Holder.

3.11 Office and Records
Each approved installer must operate out of a dedicated office and traceable records must me maintained and retained

3.12 Quality Audit
The Installer shall conduct documented assessments according to the quality audit procedure of the installers Quality Assurance Manual at a frequency not exceeding once per month.

3.13 Staff
The Installer shall arrange for potential Operatives to be trained and examined by the Certificate Holder. An Operative shall be present and in charge of each Installation of insulation.

3.14 Independent Testing
The Agrément reserves the right to select and remove from store or site samples of material for testing. The Agrément shall not be charged for such samples.

3.15 Manuals
The Installer shall maintain current documentation on the following in respect of this scheme. Changes shall not be applied to this documentation before the Agrément has been notified of such changes.

3.16 Quality Assurance Manual:
- Organisation of the Installer with respect to the management of process quality
- Quality control procedures
- Quality audit procedures to cover:
  - Surveys for each Surveyor
  - Installation procedures for each Operative
  - Maintenance of installation equipment
- Remedial actions
- Verification of material usage

3.17 Technical Manual

- The installation manual of the system for which the Installer is approved.
- Material control.
- Material preparation and testing.
- Installation procedures.
- Finishing work.
- Equipment specification.
- Equipment assembly instructions.
- Equipment maintenance schedules.
- Remedial procedures.

3.18 Survey Manual

- Quotation and contract documentation.
- Existing building assessment.
- New building assessment.
- Building under construction assessment.
- Design stage assessment.

3.19 Training Manual

- A record of the training of Operatives.
- A record of the training of Surveyors.

3.20 Registers

The Installer shall maintain a register of all installations carried our under the Approval issued by the Agrément . The register shall contain at least the following information:

- The work/job number, address; client and Agrément certificate number under which the installation is carried out.
- The Installer shall maintain a register of all complaints received concerning work carried out under the Approval issued by the Irish Agrément Board. The register shall identify the address, the work/job number, brief description of complaint, action and resolution dates.

3.21 Access to records by the Agrément .

The installer shall make available to the Agrément, upon request, the records of all work carried out under the approval issued by the Agrément as well as dates and locations of work in progress.

3.22 Inspections by the NSAI Agrément

Before approval, the Installer shall satisfy a site installation check and office visit check by the Agrément . After approval the Agrément will normally inspect the Installer according to the following:

- 1 visit per year to each office and
- 1 visit per installation team per year

Extra Visits. The Agrément reserves the right to carry out extra visits. Where the visit is required, due to malpractice by the Installer the Agrément will charge the installer.

3.23 Office Address
The Installer shall advise the Agrément of the addresses and telephone numbers of all offices.

3.23 Additional Installer Teams or Operatives
The installer must notify the Agrément when their operation is expanded by the addition of an additional team(s) or Operative.

Part 4: 2010 Price Guide and Terms

4.1 New or Existing Installers (Annual Charge)

- Assessment/Surveillance of one installer team against one Agrément Certificate - €1,500

- Assessment/Surveillance of an installer against additional Agrément Certificates will incur additional charge of…
  - €750 per additional Certificate when Assessments are performed on the same day.
  - €1,500 per additional Certificate when Assessments are performed on different days.

- Installers operating more that one team will incur charges as follows of …
  - €1,500 for the first team and €750 for each additional team when the Assessment of each team is performed on the same day.
  - €1,500 for each team, when the Assessments are performed on different days

- Installers who apply to change from the installation of one Certificate Holders insulation system to another are eligible for Agrément charges as follows:
  - For applications made within six months of previous audit, a charge of €750 will apply. No re-audit will be required. Note; this only applies when the same product type is to be installed. i.e. Installer of EPS bead changing to a new Agrément certified EPS bead. If the product type is to change, a full audit charge of €1,500 will apply. i.e. installer changing from the installation of EPS bead to a glass wool fibre material.
  - For applications made after six months since previous audit a charge of €1,500 will apply. A full re-audit of installer will be required.
  -

Note 1: In each case the installers Registration Number will be revised to reflect the new insulation system being installed.
Note 2: All Annual and other charges are subject to VAT @ 21% (where applicable).
Note 3: An additional charge will apply if an installer has to be revisited in the same 'Surveillance Year' due to a 'Non-conformance' finding.

4.2 Terms – Existing Registered Installers

A letter and proforma invoice will be sent to each existing Registered Installer, and new applicant in advance of their annual surveillance. Payment of the above fees must be made in advance of the audit being performed. Installers must advise the Agrément of the number of teams being operated in advance of the audit being performed to ensure the correct charges are applied. The Agrément operates a 'Surveillance Year' from 1st January to 31st December each year.

The invoice will be based on available knowledge of the Agrément at the time of sending, regarding insulation systems being installed and number of teams being operated. A further invoice will be sent if required, for any shortfall that may be applicable.

4.3 Terms - New Installers

New Installers not assessed until after October (due to late applications) will not be include on the Agrément list of Registered Installers until the new registration year (January of the following year) unless specifically requester by the Installer. In such a case the Installer will be eligible for a Surveillance Audit in the new registration year with full the Surveillance charge to apply.

Appendix A
Typical Survey Sheet
(Containing the minimum information required)

Firm's name, address and logo

Assessment report form, before installation of cavity wall insulation
Installer's job reference:

Customer details:
House type:
Site address: (include plot number where applicable)

To be installed according to Agrément Certificate No:
Special Instructions to Assessor and/or Technician:

Details of building to be insulated
Detached/semi-pair/terrace/other – specify:
Expected cavity wall area to be filled ……...sq m
Design width of cavity: (new building) ……..…mm
Internal/external filling
Areas of external cavity wall to remain un-insulated:

Construction
External walls brick/block:
Number of flues/fireplaces on outside walls: ……..
Mortar joints filled to external face, with weathered, bucket handle or birdsmouth jointing: Y / N
Measured width of cavity: ……..mm
Height of building: ……m
Measured area of CWI: ……sq m
Roof complete: Y / N
Cavity sealed at windows: Y / N
Air bricks sealed: Y / N
Weepholes to lintels: Y / N
DPC free of significant mortar build-up: Y / N
Cavity free of significant mortar extrusions: Y / N
Cavity ties free of significant mortar build-up: Y / N
Exposure of building satisfactory: Y / N

There is no significant cracking in walls: Y / N

There is no remedial work required before installation: Y / N

Remedial works to be undertaken by: Client / Installer

Note: *The installation cannot be undertaken unless all answers are 'Y' (yes) or the remedial works have been completed. The Technician shall document any remedial works he / she undertakes before, or during installation.*

Installer's job reference:

Assessor's declaration:

I confirm that I have inspected the building according to Agrément Certificate No ……./……. and the requirements of the Agrément. As far can be practically determined from the visible construction, the building is suitable for installation.

Name:

Signature:

Date:

Technician's job record:

Result of QC test(s):

Bead flow rate		
Adhesive flow rate		
Jet size		
Fibre density test		

Special remarks:
(continue overleaf / Drawing of building to be shown overleaf. Indication of doors/windows and all areas which have not been filled.)

Any other relevant details:

Name:

Signature:

Date:

Appendix B

Density tests for CWI systems

Density tests for fibre CWI systems

The requirement of the AGRÉMENT surveillance scheme shall be deemed to be satisfied, if the Technician undertakes a test as follows:

Option 1 General

Injection of fibre insulation, by the proposed installation equipment, into a box measuring 500mm by 500mm by 70mm internally. The box must be provided with nine ventilation holes of 25mm diameter located as three equally spaced holes to each of three narrow sides. The ventilation holes must be fitted with suitable gauze.

Injection of the insulation shall take place through the 500mm by 500mm face at a point centred 150mm below the top of the box.

Option 2 Specific

Rockwool Ltd Approved Installers only:

Injection of Rockwool, by the proposed installation machinery, into a box measuring 500mm by 500mm by 60mm internally. The box must be provided with 14 ventilation holes of 26mm diameter. The ventilation holes shall be located as five holes on each of the two narrow vertical sides and four holes on the top narrow side. The ventilation holes shall be fitted internally with suitable gauze.

Injection of Rockwool shall take place through the 500mm by 500mm face via a 26mm diameter hole at a point centred 110mm below the top of the box.

General

The box shall be constructed of substantial materials, capable of resisting forces encountered during injection, without significant deformation. Suitable construction may be 20mm thick blockboard.

After achieving the normal shutdown indicator, for the equipment in use, the contents of the box shall be weighed on suitable scales. The weight of material of calculated density shall be compared against the documented specification for the equipment and system in use.

The time taken to fill the box must be compared against documented values.
All results must be documented.

Results falling outside documented ranges shall be reported and the appropriate remedial action taken, along with re-test values.

Note: *Where adjustment of the machinery is possible, the delivery lines shall be purged, before a re-test is undertaken.*

Density and adhesive flow rate tests for bead CWI systems

Dry bead is pumped through the gun into a fine mesh bag that had been weighed before commencement of the test. The bag is of a mesh material to allow the air to pass through and prevent the bag from clogging. The time lapse is for one minute or 30 seconds in accordance with the Certificate Holder's practice. The bag is then weighed again and the net weight of the bead recorded.

Each Certificate Holder will provide a Table or Chart indicating the appropriate adhesive flow rate necessary to coat the bead at the density being delivered by the equipment.

To check the adhesive flow rate under average temperatures the valve controlling the adhesive flow should be opened and discharged in a fine spray into a graduated container or beaker for 30 seconds. Allow the adhesive to settle and read off the amount in m/l. The amount per 30 seconds is then recorded.

The flow rate of the adhesive can now be checked against the same chart or table, which will give the required flow rate for the density of bead delivered by the gun.

If the flow rate varies from that indicated in the Table or Chart a larger or smaller jet could be fitted as appropriate until the correct flow rate is achieved.

The test is repeated until the adhesive flow rate comes within the desired range indicated in the Table or Chart.

Note: *The Bead Flow and Adhesive Flow test should be carried out on each job at the commencement of installation and the results of each test for Bead Flow and Adhesive Flow should be recorded on the Survey Form.*

Appendix C
Technician's safety check sheet

Installing firm's name, address and contact details
(or letterhead)

Technician's safety check sheet – Flues, chimneys and combustion air ventilators

This check sheet specifies the minimum checks, and actions that must be carried out during installation of CWI to buildings containing fuel-burning appliances.

It must be read in association with "Technician's guide to best practice – Flues, chimneys and combustion air ventilators" published by the Cavity Insulation Guarantee Agency.

Assessment, identify and record

• Fuel type(s)	Gas – Oil – Coal – Wood
• Appliance types(s)	Boiler – Gas Fire – Open Fire – Balance Flue
• Flue / chimney location(s)	Internal wall – External wall, front, side, rear
• Location of combustion air ventilator(s)	Front elevation – Side elevation – Rear elevation

			Comments
Pre-Installation			
• Appliance identified, flue / chimney routes, internal & external	Y	N	
• *Appliance run	Y	N	
• *View and note flame colour	Y	N	
• *Combustion gases checked externally	Y	N	
• *Appliance checked (smoke test / spillage test)	Y	N	
• *Smoke / spillage test satisfactory	Y	N	
• Combustion air supply adequate	Y	N	
Installation **– Visually Check**			
• Flue, chimney routes to avoid drilling into them	Y	N	
• Flue, chimney routes to avoid ingress of material	Y	N	
• Combustion air ventilator(s) unobstructed	Y	N	
Post Installation			
• *Appliance(s) run at maximum for a minimum of five minutes	Y	N	
• *Visual check that flame compares with pre-installation	Y	N	
• *Smoke test / spillage test satisfactory	Y	N	
• *If results were unclear, re-test after a further 10 minutes	Y	N	
• *Re-test satisfactory	Y	N	

***Only on appliances fitted to flues & chimney on external walls**

If there is any doubt or any question answered 'N' then -

1. Switch OFF appliance and
2. ADVISE occupant / owner to call out a competent body or person such as fuel supplier or maintenance contractor.

Installation address:
……
……
……

Name of Technician: …… Signature: …… Date: ...../...../20…..

Important:

- It is the firm's responsibility to ensure that the Technician is trained to be able to discharge these responsibilities.
- **Failure to carry out these safety checks could lead to the death of an occupant and prosecution of the Technician.**

Appendix D

NSAI Agrément application form for Installers of CWI/Blown Loft Insulation.
Please complete all sections of the application form in BLOCK capitals.
A valid C2 or Tax Clearance Certificate must accompany this application.

1. Insert here the number and details of the Agrément certificate under which the applicant will operate	Certificate No.: …… Certificate Title: ……
2. Insert here the firm's full name and address with the authorised signature(s) of the applicant and the date (One application per office)	
Tel no: …… Fax no: …… Email: …… Date: …… VAT No: ……	Postcode: …… Contact: …… Signatures: …… ……
3a. Enter the number of teams to be operated	Number of teams to be operated: …… Date of Training:
3b. Enter the names of the Operatives trained and approved to install the system covered by the above certificate.	

TO BE COMPLETED BY THE CERTIFICATE HOLDER

The Certificate holder should indicate their support for this application by countersigning here

Company Stamp:

Signature of authorised person: ……

Name of person: ……

Date: ……

The completed application form should be forwarded to NSAI Agrément	Where the application is submitted for a change of title and/or address the relevant facts should be made clear on the form. Where the form is submitted to add an additional system or to convert to an alternative system, the title of the firm must be consistent with the current Approval

Appendix E

NSAI Agrément

USE OF AGRÉMENT SYMBOL

Colour & Size of Symbol

It is preferable to print the symbol in the following colour: Pantone 356

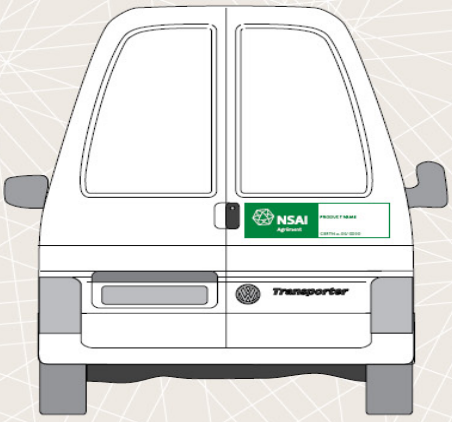
Alternatively, when use of colour is not possible, black and white should be used as shown.
For clarity a minimum height of 15mm must be adhered to.

Artwork

The logo is available from NSAI Agrément in electronic format.

STICKER

SWING TICKET



VAN STICKER

PACKAGING OF
CERTIFIED PRODUCTS

PIPES, EXTRUSIONS ETC.