



**APPLICATION
FOR
REGISTERED EXTERIOR WALL CONSULTANT (REWC®)**

Dear REWC Applicant:

To become a Registered Exterior Wall Consultant (REWC), an applicant must meet specific requirements. These requirements include verifiable levels of work experience and education, high ethical standards, and a satisfactory score on both the General Consultant Knowledge (GCK) and REWC computer-based examinations. Those who currently hold a Registered Waterproofing Consultant (RWC®) and/or Registered Roof Consultant (RRC®) designation(s) are exempt from taking the GCK exam.

The General Consultant Knowledge exam tests knowledge common to all components of the building envelope (roofing, waterproofing, and exterior walls). This concept was designed to produce a more efficient testing process, eliminating common information being tested for each consultant designation.

Both the GCK and the REWC exams must be passed to earn the REWC designation, with the exceptions mentioned above. If only one of these two exams are passed (the general or the technical), the candidate will be required to retake only the exam he or she failed. The exam that has been passed will be valid until the candidate passes the other exam and the designation is earned. Candidates who do not pass an exam will have the option to retry every four months.

There is no separate application for the GCK exam; approval of the REWC application will qualify the applicant to take the general exam. A study guide for the REWC exam is provided at the end of this application. A study guide for the GCK exam is available online or upon request at the International Institute of Building Enclosure Consultants (IIBEC).

All applicants are encouraged to use the online interactive process to complete this application. However, applications are accepted in this traditional form. Once the application has been submitted to IIBEC (email or mail is acceptable for delivery), all required information must be provided within one year or the application will expire.

The application fee is \$375 for IIBEC members and \$475 for nonmembers. Please allow 90 days for application processing. Applications will be processed within 60 days for an additional expediting fee (\$50 for members and \$100 for nonmembers).

The fees for each computer-based exam are \$275 for IIBEC members and \$375 for nonmembers. Once registered, the candidate will be contacted by Measure Learning to schedule an exam at one of the 1,000 conveniently located testing centers. Consult <https://www.assessments.meazurelearning.com/test-site-cities/> for testing center locations.

As an organization focused on advancing the roofing, waterproofing, and exterior wall professions, we look forward to receiving your application and encourage your active involvement in IIBEC.

Sincerely,

Alec Jeffries
Senior Director of Membership & Registrations

International Institute of Building Enclosure Consultants
434 Fayetteville St., Suite 2400, Raleigh, NC 2760
(T) 919-859-0742 (F) 919-859-1328
www.iibec.org

REGISTERED EXTERIOR WALL CONSULTANT TABLE OF CONTENTS

Please review the enclosed packet to verify that you have the following items:

Instructions	I-III
--------------------	-------

Application

Section 1: Profile Information.....	1
Section 2: Business Information	1
Section 3: Education.....	2
Section 4: Professional History	2
Section 5: Personal Work Experience	3
Section 6: Continuing Educational Hours	3
Section 7: References	3
Section 8: Standards of Ethical Practice	4
Section 9: Affidavit Authorization & Release.....	4

Attachments

Attachment Sheet 1 (Professional History)	5
Supplemental Sheet A (Description of Project Categories)	6-7
Attachment Sheets 2 (Project Register)	8-9
Attachment Sheet 3 (Summary of Points / Credit for Registration).....	10
Attachment Sheet 4 (Continuing Educational Hour Summary)	11
Attachment Sheet 5 (Reference Summary)	12
Attachment Sheet 6 (Reference Form)	13
Attachment Sheet 7 (Standards of Ethical Practice).....	14-15
Attachment Sheet 8 (Affidavit Form).....	16
Payment Form	17
Checklist	18

INSTRUCTIONS FOR REGISTERED EXTERIOR WALL CONSULTANT APPLICATION

A competent exterior wall consultant assesses and evaluates moisture and air penetration resistance and thermal performance of above-grade exterior wall systems. A REWC is someone who works as (or in conjunction with) an engineer or architect to evaluate and design exterior wall systems.

General Requirements

A. A competent Registered Exterior Wall Consultant is an individual who has demonstrated proficiency in many of the following work activities:

- Bidding assistance
- Condition assessment
- Construction contract administration
- Construction observation
- Design of wall systems
- Forensic investigation of wall systems
- Litigation support
- Product and system evaluation
- Research in types of wall construction
- Testing of wall and window systems

B. Examples of job positions of the intended audiences for the Registered Exterior Wall Consultant include:

Academic Instructor
Architect
Architectural Technician
Building / Facilities Manager
Building Official / Inspector
Engineer
Engineering Technician
Exterior Wall Consultant
Laboratory Technician
Manufacturer's Product Representative
Material Scientist
R&D for a Manufacturer
Roof Consultant
Trade Contractor (e.g., Fabricator, Installer, General)
Waterproofing Consultant

C. The successful REWC candidate must accomplish the following:

1. Establish that he/she has met certain minimum requirements regarding education, personal work experience, character and ethics.
2. Pass a computer-based examination which is offered at conveniently located testing centers worldwide.

- D. The applicant shall satisfy IIBEC that he/she has attained and agrees to the following minimum requirements:
1. The applicant has at least 6 years of experience related to designing (i.e., new construction or repairs) AND investigating wall systems. In addition, the REWC candidate should possess a minimum of a high school diploma (or GED) and has attained a minimum of 100 points work experience.
 2. The applicant has secured a minimum of 150 hours of continuing education through attendance at a minimum of three (3) programs (in person or online) directly related to the roofing, waterproofing, and/or exterior walls industries, e.g. IIBEC, AIA, CSI, or other training and educational programs awarding educational units. To be acceptable, Continuing Educational Hours (CEHs) can be no older than 10 years. There is a maximum of 16 credit hours accepted per program. Credit will be given towards the 150 CEHs for advanced degrees and professional licensing as follows:
 - 30 hours of credit for an industry-related associate degree (in Canada, a 3-year community college diploma) and 80 hours of credit for a bachelor's degree in engineering, Construction Science / Management, Architecture, Architectural Engineering **OR**
 - 100 hours of credit for a graduate degree in same curriculum as above **OR**
 - 100 hours of credit for Registered Engineers or Architects
 - 10 hours of credit for RRC or RWC Registration
 - 5 hours of credit for RRO or REWO registration
 3. The applicant shall have a strong moral and ethical character demonstrated by his/her references, experience and professionalism. The "Standards of Ethical Practice" for IIBEC are included in this application. They outline the obligations of the exterior wall consultant to the public, the client or employer, and to the profession and the building industry. IIBEC will promote and conform to these "Standards."
 4. The applicant shall always be totally objective, unbiased and impartial in his/her actions relating to exterior wall consulting.
 5. The applicant shall never have a conflict of interest or permit him/her to be placed in a position that would allow for a potential conflict of interest. Conflict of interest shall be defined as any activity or employment in which the applicant has any significant financial or other interest, or acceptance of any contribution if it would reasonably appear that such activity, employment, interest or contribution could compromise the Registered Exterior Wall Consultant's professional judgment or prevent the Registered Exterior Wall Consultant from serving in the best interest of the client or employer.
 6. The title Registered Exterior Wall Consultant, once attained, must be renewed every year. Requirements include submitting evidence of continuing educational hours (CEHs) in accordance with the registration renewal procedures established by IIBEC.

E. The following assignment of points shall be implemented:

Personal Work Experience – One (1) point shall be awarded per project or task in the following categories of experience related to exterior walls:

Category	Service Rendered or Task Performed**	Maximum No. of Points
1	Exterior Wall Condition Surveys, Audits, or Investigations	30
2	Preparation or Design Review of Contract Documents (Drawings, Specs, Etc.)	30
3	Contract Administration/Project Management	30
4	Construction Observations/Quality Assurance Observations	30
5	Legal: Forensic Investigations, Deposition, Expert Testimony	30
6	Field Testing	30
7	Laboratory Testing: Physical/Quantitative Analysis	30
8	Research Directly Related to Exterior Walls	30
9	Publications Related to Exterior Walls (Articles, Books, Theses)	30
10	Lectures Presented Related to Exterior Walls	20
11	Exterior Walls Contracting Projects	10
12	Professional Association Active Participation (IIBEC, CSI, ASTM, etc.)	5

** The above items refer to services rendered, or tasks performed by **YOU**, not by someone under your direction. Your experience as an exterior wall consultant is being evaluated, not your management ability or the experience of your company or subordinates. See Supplement Sheet A for additional information regarding these items.

Exterior Wall Consultants shall have a relatively broad base of experience. Applicant must secure points from experience in a minimum of three (3) categories. You will note that each category has a maximum number of points permitted. This is to prevent an applicant from being certified with experience in only a limited area of expertise. Points may be earned from more than one category for a single project. For example, on a building on which an applicant: performed an exterior wall condition survey; gave deposition for litigation; and wrote an article which was published in a magazine – you could earn three (3) points: one for categories 1, 5, and 9.

Projects with multiple buildings or locations with identical construction and service rendered shall receive a maximum of five (5) points per category, regardless of the number of buildings involved. If separate reports, specifications, etc. are provided for each building on a “stand-alone” project basis, each building then qualifies for points.

The “PROJECT REGISTER” forms are to be completed for each project an applicant claims for experience points. Two blank sheets are provided. The applicant may attach additional copies as needed. Check multiple categories if applicable.

This is an application that is intended for completion by honorable professionals. Each application will be reviewed and evaluated. References/Project Contacts may be checked as well. False or misleading information will result in severe penalties, including revocation of registration.

For your own protection, make a copy of your completed application before sending it to IIBEC.

* * * *

APPLICANT PLEASE NOTE: The Engineer’s and Architect’s Professional Registration Boards of some states include the exterior wall consulting profession under the jurisdiction of the Professional Registration Statutes. You are responsible to meet those requirements. IIBEC currently has no state jurisdiction or governmental registration sanction. This registration does not qualify the registrant to perform services limited to engineers or architects under local jurisdictional requirements.

APPLICATION FOR REGISTERED EXTERIOR WALL CONSULTANT



International Institute of Building Enclosure Consultants
 434 Fayetteville St., Suite 2400
 Raleigh, NC 27601
 (800) 828-1902 or (919) 859-0742
 Fax (919) 859-1328

Date _____

Type or Print Legibly Using Black Ink Pen

SECTION 1: PROFILE INFORMATION

Full Name	Last	First	Middle	Nickname
Home Address	Number and Street	Apt.	Box	Road/Rural Route
	City	Country	State	Zip
Birth	Date	City	State	Citizenship

Have you ever applied for IIBEC Registered Exterior Wall Consultant registration before? () Yes () No
 If yes, please give date of application: ____/____/____

Are you a Registered Architect? () Yes () No
 Date of first registration: / / State: ____ #: _____ Other States: ____ _____

Are you a Registered Engineer? () Yes () No
 Date of first registration: / / State: ____ #: _____ Other States: ____ _____

Are you a Contractor or employed by one? () Yes () No
 Type: () General () Roofing () Waterproofing () Exterior Walls
 State and license number for each: _____ #: _____

Are you employed by or own a company that manufactures, distributes, or sells industry related products or materials? () Yes () No Identify: _____

What percent of your principal income do you derive As an Exterior Wall Consultant: _____%
 As a Roof Consultant? _____% As a Waterproofing Consultant? _____%

Do you have any conflict of interest (see page II, paragraph D-5 for definition), or do you work for, own, or have interest in any company having such conflicts? () Yes () No

SECTION 2: BUSINESS INFORMATION

Employer Business Type: () Consulting () Architectural () Engineering () Contractor () Manufacturer () Distributor

Name of business: _____

Business street address: _____ City: _____ State: _____ Zip: _____ Phone & Fax: _____

Organization: () Individual () Individual Proprietorship () Partnership () Corporation
 () Other [please specify]: _____

Name _____

Date _____

SECTION 3: EDUCATION

State in chronological order the name and location of each high or preparatory school, college, university or technical school attended (a high school diploma not required with 10 or more college coursework units). For college or university attendance, a CERTIFIED COPY OF YOUR TRANSCRIPT(S) should be forwarded directly from the institution to IIBEC. For incomplete college or university work, indicate the number of semesters completed. Attach additional sheets as required.

CIRCLE LAST YEAR COMPLETED: **Grade School:** 1 2 3 4 5 6 7 8 **High School:** 9 10 11 12 **College:** 1 2 3 4 5 6 7 8

School	Name and Address of Institution	Dates Attended Mo/Yr to Mo/Yr	Did you Graduate?	Semesters Completed	Major/Technical Course	Degree
High School						
Junior College						
College						
Other						
Other						

On **Attachment Sheet 4** Record **“Continuing Educational Hours Earned”**

SECTION 4: PROFESSIONAL HISTORY AND EMPLOYMENT

On *Attachment Sheet 1 "PROFESSIONAL HISTORY"*, provide information regarding your personal work history, background, and experience directly related to exterior walls. Do not include employment in non-related fields.

SECTION 5: PERSONAL WORK EXPERIENCE

On *Attachment Sheet 2 "PROJECT REGISTER"* list projects for which you claim personal work experience. A minimum of ten (10) projects from three (3) separate service categories must include a project contact and telephone number. You may be asked to provide additional project contact information during the application approval process. The items below refer to services rendered or tasks performed by you, not by someone under your direction. Your experience as an exterior wall consultant is being evaluated, not your management ability or the experience of your company or of your subordinates. See Supplement Sheet A for additional information regarding the categories listed below.

One (1) point shall be awarded per project or task in the following categories of experience related to exterior walls. You must earn points in a minimum of three (3) categories.

Category	Service Rendered or Task Performed	Maximum Number of Points
1	Exterior Walls Condition Surveys, Audits or Investigations	30
2	Preparations or Design Review of Contract Documents (Drawings, Specifications, etc.)	30
3	Contract Administration/Project Management	30
4	Construction Observations/Quality Assurance Observations	30
5	Legal: Forensic Investigations, Deposition, Expert Testimony	30
6	Field Testing	30
7	Laboratory Testing: Physical/Quantitative Analysis	30
8	Research Directly Related to Exterior Walls	30
9	Publications Related to Exterior Walls (Articles, Books, Thesis)	30
10	Lectures Presented Related to Exterior Walls (Emphasizing Education)	20
11	Exterior Walls Contracting Projects	10
12	Professional Association Active Participation (IIBEC, CSI, ASTM, etc.)	05

On *Attachment Sheet 3 "PERSONAL WORK EXPERIENCE POINTS"*, you are to summarize your personal work experience, education and professional registration. A minimum of 100 points is required for work experience.

SECTION 6: CONTINUING EDUCATIONAL HOURS EARNED

On *Attachment Sheet 4 "CONTINUING EDUCATIONAL HOURS EARNED"*, provide information regarding your receipt of continuing educational hours through your attendance at seminars, online programs etc. directly related to the industry. You are required to have attended a minimum of three (3) roofing, waterproofing and/or exterior walls related seminars (i.e. IIBEC, AIA, CSI, or other educational programs) and shall have documentation of such attendance. Documentation should be in the form of a certificate or letter from the sponsoring organization stating the name of the course, date course was held, and number of hours awarded. A minimum of 150 credit hours is required. Credit is given as previously noted on page II. To be acceptable, Continuing Educational Hours (CEHs) can be no older than 10 years. There is a maximum of 16 hours accepted per program.

SECTION 7: REFERENCES

On **Attachment Sheet 5 “REFERENCE SUMMARY”**, give names and addresses of five references. **Three** must know you professionally and be a Registered Architect, Professional Engineer, Registered Roof Consultant, Registered Waterproofing Consultant and/or Registered Exterior Wall Consultant. References may **not** be related to applicant. In addition, only one reference may be from a current employer or fellow employee. Each reference listed must have direct personal knowledge of your character, ethics and professional competence. If submitting an online application, a copy of **Attachment Sheet 6 “Reference Form”** will be sent directly from the computer-based program to the individual references you have selected. Forms should be completed and returned directly to the RCI from the references. If submitting in paper format make 5 copies of **Attachment Sheet 6 “REFERENCE FORM”** fill out the top portion for each reference listed, ask forms to be completed and returned directly to IIBEC from the references.

SECTION 8: STANDARDS OF ETHICAL PRACTICE

Attachment Sheet 7 “STANDARDS OF ETHICAL PRACTICE” for IIBEC outlines the obligations of the exterior wall consultant to the public, the client, the employer, the profession, and the building industry. The Registered Exterior Wall Consultant must promote and conform to these Standards.

SECTION 9: AFFIDAVIT CERTIFICATION, AUTORIZATION AND RELEASE

Please complete **Attachment Sheet 8** in the presence of a notary and submit to IIBEC with your application.

SECTION 4: PROFESSIONAL HISTORY

Name _____

Date _____

- New
- Update
- Continuation Sheet

List in order, beginning with the first employer, your work history directly related to exterior walls. Do not include employment in non-related fields or employment. Add additional sheets as necessary.

DATE		
From To*	1) Company Name 2) Address 3) City, State, Zip 4) Title/Position	Description of Experience (Briefly in space provided)
From To*	(1) (2) (3) (4)	
From To*	(1) (2) (3) (4)	
From To*	(1) (2) (3) (4)	
From To*	(1) (2) (3) (4)	

*Type "Present" in this column to indicate your current employer.

SECTION 5: PERSONAL WORK EXPERIENCE

Description of Service Categories

1. Exterior Wall Condition Surveys, Audits or Investigations

This category applies to the scope of work in which a consultant visually assesses the condition of an exterior wall. This would be performed in general accordance with the recommended procedures of IIBEC and/or other organizations in which the condition of the wall is observed, identified and documented. Reporting could be through a standard checklist format or through a narrative type report. The report may include, but is not required to include, photographs and/or video documentation. A drawing will generally be prepared to present the layout of the wall penetrations and findings.

2. Preparation or Design Review of Contract Documents (Drawing, Specifications, etc.)

This category may be a complete set of documents including the bidding documents, general conditions, technical specifications, wall elevations, sections and details, as they relate specifically to exterior wall consulting. On some projects, however, only the technical specification must be prepared by the consultant for implementation within another design professional's contract documents. The contract documents, in any event, would be complete. Design review of construction documents, specifically exterior wall systems, is acceptable.

3. Contract Administration/Project Management

This category applies to the administration of an exterior wall contracting project (repairs and/or new construction) and would include the following duties: review of exterior wall-related submittals, oversight of quality assurance personnel, administration of pre-bid, pre-construction and progress meetings, evaluation of applications for payment, change orders and Requests for Information (RFIs), communication with owner with respect to work progress, provision of supplemental sketches and other contract administration activities as defined in the *CSI Manual of Practice*.

4. Construction Observations/Quality Assurance Observations

This category includes observations performed by the applicant during construction for the assurance of quality of another's work. In most cases, the person who performs these services would be under the direction or control of a superior, preferably an experienced exterior wall consultant. In some cases, the exterior wall consultant may provide these services directly. Written documentation is required for this scope of work in the form of narrative reports or checklist reports. The applicant should be aware that points cannot be gained by a consultant for a technician who performs these services under the applicant's control. Points gained in this item must be the direct on-site experience of the applicant.

5. Legal: Forensic Investigations, Deposition, and Expert Testimony

This category includes forensic investigation that may include site observations, field tests, laboratory tests and analysis, video and photographic documentation, and other procedures implemented in a standard investigation of a project that may go to litigation. The project may or may not include depositions and may or may not include expert testimony. Only one point may be claimed for each legal case for this category; multiple points are not allowed where both deposition and court testimony are provided. Experience in this category is applicable even if the case does not go to trial.

6. Field Testing

This category refers to ASTM, AAMA and other associations that produce test standards to evaluate exterior building wall components. These test standards or procedures, that may or may not be modified, regard the evaluation of exterior building walls (i.e. glass curtain walls, masonry walls, windows, doors, etc.). Field testing can include the physical removal of wall components (stone, brick, glass / metal curtain walls, windows, etc.) to evaluate their condition and installation. Field testing can also include infrared surveys to determine the presence of insulation in a wall system.

7. Laboratory Testing: Physical/Quantitative Analysis

This category refers to testing for physical and/or quantitative analysis of wall materials in accordance with industry-recognized standards. This could include exploratory test cuts, material testing, forensic testing, and other procedures utilizing scientific methods, and procedures.

8. Research Directly Related to Exterior Walls

This category would generally relate to research performed on exterior wall projects in which new technology is developed or utilized. Research, referred to herein, does not refer to procedures customarily implemented or used by exterior wall consultants. This relates or refers to new innovative thinking. Written documentation must accompany this research to be valid and it must be substantiated by a second party.

9. Publications Related to Exterior Walls (Articles, Books, Theses)

This category includes articles, books, theses, etc. related to exterior walls that have been published--not those in revision or in draft form. The publishing may not be in an in-house or interagency type publication. These publications also shall not be solely directed to marketing, or the promotion of one's experience or ability. The intention of the publications earning credit in this item must have a fundamental basis that is educational or newsworthy.

10. Lectures Presented Relating to Exterior Walls (Emphasizing Education)

This category includes lectures receiving points under this item shall not be solely of a marketing nature. Credit shall not be awarded for lectures in which the primary purpose of the presentation was to promote one's company or abilities. Lectures that earn points must emphasize the educational nature of the presentation. That is not to say that a marketing lecture cannot present educational information, but the primary purpose must not be to only promote one's company or self. Repeated lectures on the same subject matter cannot be submitted for points.

11. Exterior Wall Contracting Projects

This category includes projects in which the applicant was directly in a position of management or supervision. Merely being on a project site, such as running a kettle or gluing seams, does not constitute the kind of experience for which this service was intended. Persons receiving points for this category must have been in a position of responsible authority and management control. The same criteria regarding multiple building locations, etc., pertinent to other categories apply here as well.

12. Professional Association Active Participation

This category includes active Two Year participation in professional associations such as IIBEC, NRCA, SWRI, CSI, ASTM, ASCE, AIA, etc. Active participation is mandatory; merely being a card-carrying member is not sufficient, (One point per association).

Name _____ Date _____

SECTION 5: PERSONAL WORK EXPERIENCE

CATEGORIES

(Check multiple categories per project, if applicable – see pages 6 and 7 for descriptions.)

	PROJECT REGISTER*	1	2	3	4	5	6	7	8	9	10	11	12
#	Project Name: _____ Project Location: _____ Project Contact: _____ Telephone: _____ Project Date _____												
#	Project Name: _____ Project Location: _____ Project Contact: _____ Telephone: _____ Project Date _____												
#	Project Name: _____ Project Location: _____ Project Contact: _____ Telephone: _____ Project Date _____												
#	Project Name: _____ Project Location: _____ Project Contact: _____ Telephone: _____ Project Date _____												
#	Project Name: _____ Project Location: _____ Project Contact: _____ Telephone: _____ Project Date _____												
	TOTAL for Each Column:												

A minimum of ten (10) projects from 3 separate service categories must include a project contact and telephone number. Include month(s) and years(s) of each project. Additional contact information may be requested. * Duplicate sheet as needed

Name _____ Date _____

SECTION 5: PERSONAL WORK EXPERIENCE

CATEGORIES

(Check multiple categories per project, if applicable – see pages 6 and 7 for descriptions)

	PROJECT REGISTER*	1	2	3	4	5	6	7	8	9	10	11	12
#	Project Name: _____ Project Location: _____ Project Contact: _____ Telephone: _____ Project Date _____												
#	Project Name: _____ Project Location: _____ Project Contact: _____ Telephone: _____ Project Date _____												
#	Project Name: _____ Project Location: _____ Project Contact: _____ Telephone: _____ Project Date _____												
#	Project Name: _____ Project Location: _____ Project Contact: _____ Telephone: _____ Project Date _____												
#	Project Name: _____ Project Location: _____ Project Contact: _____ Telephone: _____ Project Date _____												
	TOTAL for Each Column:												

A minimum of ten (10) projects from 3 separate service categories must include a project contact and telephone number. Include month(s) and years(s) of each project. Additional contact information may be requested. * Duplicate sheet as needed

Name _____ Date _____

SECTION 5: SUMMARY OF POINTS FOR REGISTRATION**PERSONAL WORK EXPERIENCE POINTS**

Category	Services Rendered or Task Performed	Max. # of points	Points/Project	Number of Projects	Total Points
1.	Exterior Wall Condition Surveys, Audits, or Investigations	30	1		
2.	Preparation or Design Review of Contract Documents (Drawings, Specifications, etc.)	30	1		
3.	Contract Administration/Project Management	30	1		
4.	Construction Observations/Quality Assurance Observations	30	1		
5.	Legal: Expert Testimony, Deposition, Forensic Investigations	30	1		
6.	Field Testing	30	1		
7.	Laboratory Testing: Physical/Quantitative Analysis	30	1		
8.	Research Directly Related to Exterior Walls	30	1		
9.	Publications Related to Exterior Walls (Articles, Books, Theses)	30	1		
10.	Lectures Presented Related to Exterior Walls (Emphasizing Education)	20	1		
11.	Exterior Wall Contracting Projects	10	1		
12.	Professional Association Active Participation (IIBEC, CSI, ASTM, etc.)	05	1		
Total Number of Points Claimed for Personal Work Experience (Minimum = 100)					

CREDITS TOWARDS 150 CONTINUING EDUCATIONAL HOURS (CEHs) REQUIREMENT

Education	Credits			TOTAL
Associates Degree	30			
Bachelors Degree	80			
Graduate Degree	100			
Total Number of Credits Claimed for Education (Max. 100)				

OR

Professional Registration	Credits			TOTAL
Register Architect*	100			
Registered Engineer*	100			
Registered Waterproofing Consultant	10			
Registered Roof Consultant	10			
Registered Roof Observer	5			
Registered Exterior Wall Observer	5			
Other*#	5			
Total Number of Credits Claimed for Registration (Max. 100)				
GRAND TOTAL of Credits Claimed towards CEHs Requirement (100 points maximum)				

1. Applicant must have points in a minimum of 3 categories.
2. A project register must be completed for each project. Some may include more than one service category.
3. A *minimum of 10 projects from 3 separate service categories* must include a contact & phone number.
4. Refer to Page III for point limitations placed on multiple building projects.
5. Maximum number of credits for education is 100 towards the 150 CEHs requirement.
6. Official transcript or diploma must accompany application to substantiate all education points.
7. Maximum number of credits for professional registration is 100 towards 150 CEHs requirement.
8. Maximum number of total credits towards 150 CEHs requirement is 100.
9. * Provide copy of current license or registration certificate, which indicates current expiration date.
10. *# Current license or registration must be recognized by a government agency or jurisdiction and require a minimum of a 2-year industry-related degree from an accredited institution, and successful completion of an examination.

SECTION 6: CONTINUING EDUCATIONAL HOURS EARNED

Name _____

Date _____

- New
- Update
- Continuation

Course Name	Presented By	Dates	Hours
TOTAL # CEHs			

Please include documentation of attendance, which should be in the form of a certificate or letter from the sponsoring organization stating the name of the course, date course was held and number of hours/units awarded. Acceptable programs must be technical in nature (not sales or product oriented) and industry related. Credits must be no older than 10 years. There is a maximum of 16 credit hours accepted per program. **A minimum of 150 credit hours is required (unless credit has been allocated as noted on page II). Please list all courses in chronological order.**

SECTION 7: REFERENCE SUMMARY

Name _____

Date _____

- () New
- () Update
- () Continuation

Name & Company	Address/City, State, Zip	Telephone and Position/Title
		Telephone
		Position/Title
		Telephone
		Position/Title
		Telephone
		Position/Title
		Telephone
		Position/Title
		Telephone
		Position/Title

Note: Please complete the top portion of the reference form (Attachment Sheet 6) for each person listed above. Send directly to each reference, who should then send the form directly back to IIBEC (email is preferred).



REFERENCE FORM

Date _____

Dear _____:

(Name of reference)

An application for Registered Exterior Wall Consultant has been filed with the International Institute of Building Enclosure Consultants (IIBEC) by

_____ Of _____, _____.
(Name of applicant) (Company) (City/state)

Please provide the information requested below, if known, and make any comments that may be of value to IIBEC in evaluating the applicant's qualifications.

Information secured from references is for the confidential use of the organization and the source and character of the information will not be divulged, except in special cases when required by law.

The applicant and IIBEC appreciate your cooperation in promptly furnishing the information requested.

GENERAL INFORMATION

1. Applicant's present position _____
2. Number of years known _____
3. Applicant's moral character, professional ethics and personal reputation is _____

4. How long has the applicant been engaged in active exterior wall consulting work? _____
5. In your opinion is the applicant competent as an exterior wall consultant? _____

Remarks:

Signed _____

Name (Print) _____

Title _____

Company _____

City/State _____

Date _____

Are you related to the applicant? _____

If yes, how related _____

Are you a legally Registered Engineer? _____

Are you a legally Registered Architect? _____

Are you a Registered Exterior Wall Consultant? _____

Are you a Registered Waterproofing Consultant? _____

Are you a Registered Roof Consultant? _____

If, for some reason, you do not desire to serve as a reference for the applicant, please return this form to us with a comment to that effect.

REFERENCE: Please return form (email is preferred) to:

International Institute of Building Enclosure Consultants (IIBEC)

434 Fayetteville St., Suite 2400

Raleigh, NC 27601

800/828-1902 or 919/859-0742 FAX 919/859-1328

Email: spatterson@iibec.org

International Institute of Building Enclosure Consultants
Adopted July 17, 2001
Revised March 28, 2006
Revised September 19, 2015

Introduction: International Institute of Building Enclosure Consultants (IIBEC) is dedicated to the highest standards of professionalism, integrity, and competence. The standards contained in this Code of Ethics (Code) are statements of ethical principles by which the professional conduct and obligations of all IIBEC members and registrants shall be guided.

Under the IIBEC Bylaws, all IIBEC members and registrants are required to comply with the Code of Ethics and to report any observed violations. Adherence to this Code must be above reproach and beyond the influence of competing interests. Even the appearance of a conflict of interest shall be avoided.

The standards contained in this Code of Ethics are statements of ethical principles having broad applicability to members and registrants of IIBEC.

Members and registrants of IIBEC shall recognize that their profession and their practice may be governed by various laws and regulations regarding professional registration and the conduct of trade. It is their responsibility, therefore, to be familiar with those laws and regulations and to conduct themselves accordingly.

General Obligations: Members and registrants shall maintain and further their knowledge of the science in which they practice and shall maintain the highest possible standard of professional judgment and conduct. Members and registrants shall conduct their practice honestly and impartially, serving with integrity their clients, employers, and/or the public. Learned and uncompromised professional judgment should take precedence over any other motive.

Obligation to the Public: Members and registrants shall uphold the letter and spirit of the ethical standards governing their professional affairs and shall consider the full impact of their actions on the community at large.

Fundamental Canons

Members and registrants of IIBEC, in the performance of their duties, shall:

1. Hold paramount the safety, health, and welfare of the public;
2. Uphold the letter and spirit of the ethical standards governing their professional affairs, considering the full impact of their actions on the community at large and conducting themselves in a fashion that brings credit to themselves, their employers, their peers, and their profession; and
3. Recognize the value and contributions of others engaged in all aspects of consultation, design, and construction.

Rules of Practice

1. Members and registrants shall hold paramount the safety, health, and welfare of the public in the performance of their duties.
 - a. If a member's or registrant's judgment is overruled under circumstances that, in the opinion and best professional judgment of the member or registrant, endanger life or property, the member or registrant shall:
 - i. Advise his or her employer and/or client about the decision,
 - ii. Refuse to consent to the decision, and
 - iii. Notify the appropriate building authority charged with the enforcement of the applicable laws or regulations.
 - b. Members or registrants who have knowledge of any alleged violations of this Code shall report them to the appropriate public authorities and IIBEC, and shall cooperate with appropriate public authorities and IIBEC in providing such information as may be applicable.
2. Members and registrants shall not permit the use of their names or firms nor associate in business ventures with any person or firm that they have reason to believe is engaged in fraudulent or dishonest business or professional practices.
3. Members and registrants shall uphold the letter and spirit of the ethical standards governing their professional affairs, consider the full impact of their actions on the community at large, and conduct themselves in a fashion that brings credit to themselves, their employers, and their profession by:
 - a. Engaging only in accurate, appropriate, and truthful promotion of their practice;
 - b. Being respectful of the rights of others in obtaining work or employment;
 - c. Making only accurate, truthful, and appropriate statements or claims about their qualifications, experiences, or performance;
 - d. Being objective and truthful in reports, statements, testimony, and on social media;
 - e. Preserving the confidentiality of their clients and employers and serving each in a professional and competent manner;

- f. Exercising unprejudiced and unbiased judgment and conduct when performing all services;
 - g. Undertaking assignments only when qualified by education and experience in the specific technical fields involved;
 - h. Declining any activity or employment, avoiding any financial or other interest, and refusing any contribution if it would reasonably appear that such activity, employment, interest, or contribution could compromise their judgment or conduct or prevent them from serving the best interests of their clients or employers, without making full disclosure to the client and obtaining the client's consent thereto; and
 - i. Neither offering nor making any payment or gift to any public official, private client, or industry representative with the intent of influencing that person's judgment or decision in connection with an existing or prospective project in which the member/registrant is interested.
4. Members and registrants shall recognize the value and contributions of others engaged in all aspects of consultation, design, and construction. This means they shall:
- a. Refrain from making false statements about the work of others and shall not maliciously injure or attempt to injure the prospects, practice, or employment position of others;
 - b. Encourage professional education and research, as well as the development and dissemination of information related to all aspects of consultation, design, and construction of roofing, waterproofing, and exterior wall systems; and
 - c. Take into account applicable laws and regulations and may rely on the advice of other competent and qualified persons as to the intent and meaning of such applicable laws and regulations.
5. Members and registrants shall not accept compensation—financial or otherwise—from more than one party for services on the same project, or for services pertaining to the same project, unless the circumstances are fully disclosed.
6. Members and registrants shall not intentionally or recklessly mislead existing or prospective clients about the results that can be achieved through the use of the members' or registrants' services or products, nor shall the members or registrants state that they can achieve results by means that violate applicable law or the Code.
7. Members and registrants having substantial information leading to a reasonable belief that another member or registrant has committed a violation of this Code that raises a serious question as to the honesty, trustworthiness, or fitness of the other member or registrant shall file a complaint with the IIBEC Ethics Committee.
8. Members and registrants shall maintain and further their knowledge of the science, principles, and ethics of their profession.
9. Members and registrants shall be scrupulously honest in their control and spending of monies, and promote effective use of resources through open, honest, and impartial service with fidelity to the public, employers, associates, and clients.
10. Members and registrants shall approve or issue only those documents reviewed or prepared under their direct control and supervision that are determined to be safe for public health and welfare, in conformity with accepted industry standards and applicable laws.
11. Certain practices are not in themselves unethical, unprofessional, or contrary to any policy of IIBEC, and RCI members and registrants are free to decide for themselves whether to engage in any of these practices, unless in violation of an applicable law. These may include the following:
- a. Contributing his/her services or anything of value to those endeavors that the member deems worthy;
 - b. Participating in the political process and contributing time and money to political campaigns;
 - c. Submitting competitive bids or price quotations, including in circumstances where price is the sole or principal consideration in the selection of a consultant;
 - d. Providing discounts; or Providing pro bono services.

Enforcement and Amendment

1. Enforcement of the Code of Ethics is administered through the IIBEC Ethics Committee, appointed by the IIBEC Board of Directors, and as set forth in the *IIBEC Ethics Administrative Procedures*.
2. The IIBEC Code of Ethics may be amended by the IIBEC Board of Directors upon a two-thirds vote of the Board

AFFIDAVIT REGISTRATION AUTHORIZATION AND RELEASE (to be notarized)

Name _____

Date _____

State (Province) of _____

County of _____

_____, being first duly sworn, deposes and says:

(Applicant's Name)

I, the Applicant named above, have read the contents hereof, and to the best of my knowledge and belief the statements contained in this application are true in substance and effect and are made in good faith. I hereby subscribe to and agree to conform to the Standards of Ethical Practice for the International Institute of Building Enclosure Consultants (IIBEC). I shall endeavor never to place myself in a conflict of interest or permit myself to be placed in a position that would allow for a potential conflict of interest. Conflict of interest shall be defined as any activity or employment having any significant financial or other interest, or acceptance of any contribution if it would reasonably appear that such activity, employment, interest or contribution could compromise my professional and objective judgment as an exterior wall consultant or prevent me from serving the best interest of my client.

I also hereby authorize any individual, company or institution with whom I have been associated to furnish IIBEC with any information concerning my qualifications for Registered Exterior Wall Consultant which they have on record or otherwise, and do hereby release the individual, company or organization and all individuals connected therewith from all liability for any damage whatsoever incurred by me as a result of their furnishing such information.

Subscribed and sworn to before me this _____ day of _____, 20____

(Signature of Applicant)

(SEAL)
My Commission expires _____

(Signature of Applicant)



Application for Registered Exterior Wall Consultant Payment Form

Enclosed is a check in the amount of: \$375.00 member fee \$475.00 non-member

Expediting Fee: \$50.00 member fee fee \$100.00 non-member

Charge my VISA MasterCard American Express Discover for:

\$375.00 member fee \$475.00 non-member fee

\$50.00 member expediting fee \$100.00 non-member expediting fee

Name on the card _____ Telephone _____

Account Number _____ Expiration Date _____

3- or 4-Digit Verification Value Code _____

Signature _____ Date _____

Telephone _____ Cell phone _____

Bill to Address: (If different from what is listed on page 1 of the application)

Address: _____

City: _____ State: _____ Zip code: _____

Please return the completed single-sided application along with payment in US dollars to: (email delivery is preferred). *Please allow 90 days for application processing. Applications will be processed within 60 days for the expediting fee listed above. Once the application is submitted, all outstanding information must be received within 1 year or the application will become null and void.

International Institute of Building Enclosure Consultants

434 Fayetteville St., Suite 2400

Raleigh, NC 27601

(T) 919-859-0742 (F) 919-859-1328

Email: spatterson@iibec.org

CHECKLIST TO ACCOMPANY REGISTERED EXTERIOR WALL CONSULTANT APPLICATION

Applicant's Name _____

Date _____

**** A check in the block at the right indicates that you have completed that requirement of the application. ****

1. Application fee enclosed (\$357500 members/\$475.00 nonmembers).....
2. Completed Sections 1 and 2 of the application.....
3. Section 3 of application:
 - a. High School Diploma enclosed.....
 - b. College transcript(s) have been requested.....
4. Section 4 of application:
 - a. All dates are listed.....
 - b. All employers' names and addresses are listed.....
 - c. Brief description of experience under each employer is listed.....
5. Section 5 of application - Attachment Sheet 2:
 - a. Each project for which I claim experience is included on Attachment Sheet 3.....
 - b. At least 10 contact names and phone numbers are listed from 3 separate categories.....
 - c. All names, locations and dates of projects are listed.....
 - d. All projects registered represent my experience (not someone under my direction).....
 - e. All projects claimed truly reflect worthy experience under the appropriate heading.....
6. Section 5 of application - Attachment Sheet 3:
 - a. All points claimed are summarized by category.....
 - b. Educational credits are substantiated by a transcript or copy of my diploma (enclosed).....
 - c. Point have been attained in a minimum of 3 categories.....
 - d. Credits claimed for professional registration is substantiated by a copy of my Registration Certificate or License (enclosed).....
7. Section 6 of application - Attachment Sheet 4:
 - a. All course names, sponsoring organization, dates and credit hours claimed are listed.....
 - b. I have attended a minimum of 3 industry related seminars (150 hours)
8. Section 7 of application:
 - a. Listed on Attachment Sheet 5 are five references, three of whom are a Registered Architect, Professional Engineer, Registered Roof Consultant, Registered Exterior Wall Consultant, and/or Registered Waterproofing Consultant.....
 - b. None of the references are a relative.....
 - c. No more than one of these references is a present employer or fellow employee from current firm ...
 - d. Made copies of Attachment Sheet 6 for EACH reference. Completed top part only for each.....
 - e. Reference forms sent directly to each reference.....
9. Section 8 of application: Attachment Sheet 7
 - a. I have read and agree to abide by the Standards of Ethical Practice for IIBEC (Attachment Sheet 7).....
10. Section 9 of application: Attachment Sheet 8
 - a. Affidavit has been executed and notarized

When completed and all spaces are checked, sign below, enclose this checklist, and send the completed application form to IIBEC. If mailing, **do not fold or double-side**. Allow 90 days for processing. **MAKE A COPY OF YOUR COMPLETED APPLICATION BEFORE SENDING TO IIBEC** for your own protection.

This is to certify that I have completed the application as required by the association, I have checked all details and entries, and herewith submit said application for registration. I understand that registration is contingent upon meeting the requirements of IIBEC and successful completion of the required examination.

Signature of Applicant



**STUDY GUIDE
REGISTERED EXTERIOR WALL CONSULTANT (REWC®)
EXAM**

**Prepared By
REWC Examination Development Task Force**

**International Institute of Building Enclosure Consultants
434 Fayetteville St. Suite 2400
Raleigh, NC 27601
800-828-1902 919-859-0742
FAX 919-859-1328**

REWC STUDY GUIDE

TABLE OF CONTENTS

INTRODUCTION.....	1-2
REFERENCES.....	3
TEST OBJECTIVES.....	4
SAMPLE QUESTIONS.....	5-11
EXHIBITS.....	12-17
SAMPLE QUESTIONS ANSWERS.....	18



STUDY GUIDE REWC® EXAMINATION

International Institute of Building Enclosure Consultants

INTRODUCTION

One early goal of IIBEC was to develop a nationally recognized registration program. The Registered Exterior Wall Consultant (REWC) Designation was developed and added to IIBEC's registration program in 2010. IIBEC is working toward national recognition of its registration program and hopes to achieve this goal in the future. The primary beneficiaries of this program are the public, the exterior wall industry, and those individuals who become registered.

Registration is a two-part program based on verifiable minimum levels of education, ethics, experience, and satisfactory performance on a comprehensive computer-based examination. This application for registration allows IIBEC to verify certain aspects of your education and exterior wall systems experience. The written examination confirms minimum levels of education, training, and experience by testing your knowledge in the assessment and evaluation of moisture and air penetration resistance and thermal performance of exterior wall systems.

This study guide outlines subjects that are addressed in the examination; however, the study guide is not intended to be an inclusive listing of every topic addressed on the examination. This document is strictly a guide.

Please understand that the examination is not tailored to any one particular area of exterior wall systems or to the design and construction practices unique to your geographic area. The examination deals with exterior wall consulting in general as indicated by the references listed in this study guide. It may include all phases of exterior wall consulting such as: evaluation, design, testing, and construction of all exterior wall systems.

In order to receive a passing score on the examination you must be thoroughly familiar with a broad spectrum of principles related to exterior wall systems.

The competent REWC candidate should possess knowledge and skills with the following:

- Building HVAC systems
- Building science (corrosion resistance, heat, air, water and vapor transmission, etc.)
- Climates science and meteorological data
- Code and industry standards
- Construction administration
- Construction project design
- Construction sequencing
- Construction techniques
- Energy efficiency
- Historical construction systems
- Identification of products and systems
- Interrelationship of the trades (trade coordination)

- Material science and durability
- Site condition evaluation
- System integration
- Safety requirements (e.g., hazardous material awareness, building access, construction safety)
- Structure of design documents and specification
- Testing protocols and standards
- Use of building science and hygrothermal analysis software
- Wall cladding interface with building structure
- Window systems

Education and training in these areas are extremely important. However, practical application under the guidance of a qualified mentor may be even more important because it reinforces the formal education and training and provides a sound foundation over a broad spectrum. It pulls everything together. The weakness most often identified with exam failure is a narrow focus in the industry.

The exam is offered online by Measure Learning, a computer-based testing company which has over 1,000 conveniently located testing centers. The exam consists of 75 multiple choice questions and is up to three hours in duration.

Consult <https://www.assessments.measurelearning.com/test-site-cities/> for a conveniently located testing site near you.

Each question in the examination carries equal weight and a passing score must be attained for the total exam.

The following are recommended for someone to prepare for the REWC examination:

- AIA/RAIC approved / accredited building envelope courses
- ASTM symposiums
- Building science courses
- CSI/CSC courses
- Drafting or design courses
- Engineering and/or architectural courses related to exterior walls
- Exterior wall system repair courses
- General courses on materials and mechanics of construction
- ICC/NBCC courses
- International Masonry Institute seminars
- Material sciences courses
- IIBEC Exterior Concrete Wall Systems course
- IIBEC Exterior Walls Technology & Science course
- IIBEC Masonry Wall Systems course
- IIBEC Stucco & Exterior Finish Cladding Systems course
- SWR Institute seminars

A sample of documents/references that were used to develop the REWC Exam is as follows:

References*

	Title	Author	Pub. Date
1	<i>AAMA 501.2-03, Quality Assurance and Diagnostic Water leakage Field Check of Installed Storefronts, Curtain Walls and Stopped Glazing Systems</i>	AAMA	2003
2	<i>AAMA 502-08, Voluntary Specification for Field Testing and Newly Installed Fenestration Products</i>	AAMA	2008
3	<i>GANA Glazing Manual</i>	Glass Association of North America/GANA	2009
4	<i>International Building Code</i>	International Code Council	2012
5	<i>Masonry's Designers Guide (Seventh Edition)</i>	The Masonry Society	2013
6	<i>Masonry Design and Detailing (Fifth Edition)</i>	Christine Beall/McGraw Hill	2004 McGraw Hill
7	<i>RCI Exterior Technology and Science</i>	RCI, Inc. (now IIBEC)	2014
8	<i>RCI Manual of Practice</i>	RCI Inc. (now IIBEC)	2010
9	<i>RCI Masonry Wall Systems Manual</i>	RCI Inc. (now IIBEC)	2015
10	<i>Sealants: The Professionals' Guide</i>	Sealant, Waterproofing & Restoration Institute	2013
11	<i>Using Coatings Inspection Instruments</i>	Corbett	2006 KTA Taylor, Inc.

* The references listed above are only some of the many that were used in the development of this exam. This is meant to serve as a guide to illustrate the types of references used; this is not a recommendation or suggestion to purchase all of the publications listed. The most useful tool in preparation for the exam is the following list of skills, knowledge and responsibilities identified by the task force as those associated with acceptable performance within the roof consulting profession. It is recommended that the applicant review this list as it relates to one's experience/skill set and then prepare accordingly with the courses and/or publications which may be helpful to the individual.

As part of the exam revision process, the committee of subject matter experts systematically compiled a list of objectives that relate to the responsibilities, knowledge, and skills associated with acceptable performance within the exterior wall consulting profession. This list provided the organizational framework for the exam and is attached below. The percentage of questions on the exam from each section is indicated.

Sections	Section/Objective Title	Percentage of questions from section on exam
Section 1	Design	26%
Objective 1.1	Demonstrate knowledge of exterior wall movement consideration	
Objective 1.2	Describe wall drainage systems	
Objective 1.3	Identify different exterior wall cladding systems	
Objective 1.4	Describe various fenestration assemblies	
Objective 1.5	Describe masonry design requirements	
Objective 1.6	Describe proper selection of sealants	
Objective 1.7	Describe the forces imposed on exterior wall systems.	
Section 2	Materials	14%
Objective 2.1	Describe wall system materials	
Section 3	Investigations	18%
Objective 3.1	Demonstrate knowledge of wall system failures	
Section 4	Codes and Standards	9%
Objective 4.1	Describe building code or industry standards related to wall systems	
Section 5	Testing	16%
Objective 5.1	Describe test methods for exterior wall systems	
Section 6	Installation and Repair	17%
Objective 6.1	Demonstrate knowledge of installation methods for exterior wall systems	
Objective 6.2	Demonstrate knowledge of strategies used for remediation of exterior wall systems	
	Total Percentage	100%

REWC Exam Sample Questions

Sample questions are provided from each section of the exam and are indicative of the types of questions you will encounter. Exhibits and answers have been provided at the end of the study guide. Partial credit is not given for one correct answer where two are required.

Design

You are reviewing the condition of two condominium towers that are side by side located in Los Angeles, CA. One tower is 25 stories high and the taller tower is 40 stories high. You notice a 6 to 8-inch wide joint between the towers.

1. In this scenario, what would cause the joint?
 - A. seismic and wind consideration in the design
 - B. thermal expansion and contraction consideration in the design
 - C. coastal moisture expansion and contraction consideration in the design
 - D. fire and noise separation consideration in the design
2. What is the minimum width of the drainage cavity between the back of the brick and the face of the cavity wall sheathing?
 - A. 1 inch [25 mm]
 - B. 2 inches [50 mm]
 - C. 1/2 inch [12.5 mm]
 - D. 2.5 inches [63 mm]
3. **Refer to Exhibit #1.**
Which type of exterior wall cladding system is being installed as shown in the exhibit?
 - A. EIFS
 - B. DEFS
 - C. hard board siding
 - D. stucco
4. In which way does a storefront assembly differ from a curtainwall assembly?
 - A. Storefronts are used for one or two story buildings.
 - B. Curtainwalls are usually designed to be self supporting directly on the foundation, and support the perimeter of the structural framing system.
 - C. Curtainwalls are always glass and aluminum.
 - D. Storefronts are highly engineered systems with interior drainage.

5. Brick masonry expansion joints must resist which two types of infiltration? (Choose two.)
- A. water infiltration
 - B. insect infiltration
 - C. air infiltration
 - D. vermin infiltration
6. According to SWRI, what is the minimum width of a sealant joint?
- A. .375 inches [9 mm]
 - B. .25 inches [6 mm]
 - C. .5 inches [13 mm]
 - D. .125 inches [3 mm]
7. Drying shrinkage of materials should be considered when using which two materials in exterior wall construction? (Choose two.)
- A. stucco
 - B. concrete masonry
 - C. clay masonry
 - D. porcelain tile
8. The temperature of a sealed container of moisture laden air is decreased. Which result does the temperature drop have on the air?
- A. The absolute humidity is decreased.
 - B. The absolute humidity is increased.
 - C. The relative humidity is decreased.
 - D. The relative humidity is increased.

Materials

9. A builder wants to prevent a galvanic reaction when anchoring an aluminum termination bar securing a self adhering membrane to a CMU wall.

In this scenario, which type of fasteners should be used?

- A. zinc
- B. copper
- C. galvanized steel
- D. stainless steel

10. The specifications require a dry film thickness of 30 mils [0.75 mm]. The coating manufacturer states that the solids content of the coating at the time of application is 60% by volume.

Which wet film thickness would be minimally acceptable in this scenario?

- A. 18 mils [0.45 mm]
- B. 32 mils [0.80 mm]
- C. 50 mils [1.27mm]
- D. 54 mils [1.35 mm]

11. Refer to Exhibit #2

The vertical ribbon coursing of clay brick veneer noted in this exhibit photo is commonly referred to as which type of coursing?

- A. sailor course
- B. stretcher course
- C. soldier course
- D. header course

Investigations

12. Refer to Exhibit #3

You are asked to investigate widespread water leaks through an EIFS wall system as shown in the exhibit. The building is a three-story care facility located in Boston, MA. Your initial investigation is limited to non-destructive testing, including thermography. You extend your investigation to include wall openings.

Which two additional issues should be investigated in this scenario? (Choose two.)

- A. system thermal resistance
- B. damage to the steel studs
- C. mold in the sheathing
- D. locations of air leakage

13. Refer to Exhibit #4.

You are asked to investigate unsightly cracks in a stucco wall assembly. The property just received a fresh coat of paint, and the cracks are telegraphing through.

Referring to the exhibit, which type of cracking is shown?

- A.** spider web
- B.** dynamic
- C.** delamination
- D.** static

14. Refer to Exhibit #5.

The exterior wall sheathing of an urgent care walk-in facility is constructed of oriented strand board (OSB). When installed, the OSB had a moisture content of 15% to 20%. The facility has experienced moisture migration issues for a long time. Forensic investigation has isolated the moisture intrusion issues and provided a repair scope. The OSB sheathing shown in the exhibit has been determined to be structurally sound, assuming that moisture infiltration has been stopped.

In this scenario, what is the maximum percentage of moisture content allowed?

- A.** 25%
- B.** 13%
- C.** 28%
- D.** 40%

15. You are performing a thermographic survey to determine areas and mechanisms of heat loss, through the wall assembly of an EIFS-clad health care facility in Calgary, Alberta.

What are two important steps in performing this survey? (Choose two.)

- A.** Conduct the thermographic work during periods of at least 9 degrees F [5 degrees C] temperature difference between the interior and the exterior.
- B.** Limit the pressure difference between the interior and the exterior to a maximum of 0.1 psf [5 Pa].
- C.** Restrict the thermographic work to daylight hours only.
- D.** Reverse the building pressurization and repeat the thermographic survey to differentiate air leakage locations from the thermal bridge areas.

Codes and Standards

16. What is included in AAMA testing?

- A.** testing of installed windows and doors for water and air penetration
- B.** testing of the insulation properties of masonry units
- C.** testing of the polyurethane foam in the insulated metal wall panel cladding
- D.** wind tunnel testing of wood wall assemblies

17. A two-story wood frame school building has plywood shear walls, exterior insulation, drainage cavity, and sheet metal wall panel cladding fastened to the wood studs.

According to the building code, in which two scenarios would a thermal barrier be required on the exterior of the plywood wall? (Choose two.)

- A. When stone wool is used for the insulation in the wall cavity behind the metal cladding.
- B. When plastic foam insulation is used in the wall cavity behind the metal cladding.
- C. When spray polyurethane foam is used on the outside of the plywood to insulate the wall.
- D. When stone wool insulation is used in the wall cavity behind the metal cladding, and 2 inches [50 mm] of spray polyurethane foam is used in the stud cavity.

Testing

18. According to AAMA 511, "Voluntary Guideline for Forensic Water penetration Testing of Fenestration Products", what does the sill dam test of a window system determine?

- A. The sill dam test finds leaks at the corners of the windows.
- B. The sill dam test determines if the window sill has leaks.
- C. The sill dam test verifies that sealant is in place.
- D. The sill dam test verifies that the weep holes are working.

19. Refer to Exhibit #6.

You are investigating moisture penetration into a masonry wall. You decide to perform the RILEM tube test to aide in determination of the absorption rate of this specific masonry wall system.

Using a basic wind speed of 90 mph [145 km/h], to which level should you fill the tube?

- A. 0 ml
- B. 1.0 ml
- C. 1.5 ml
- D. 2.0 ml

20. Which nondestructive test methods are used for evaluating the sources of leaks through an exterior wall?

- A. infrared testing and capacitance testing
- B. smoke powder testing and nuclear moisture testing
- C. tape lift test and infrared testing
- D. Delmhorst moisture probes and tape lift testing

21. A brick masonry wall was tested for water absorption using RILEM tubes by two separate Registered Exterior Wall Consultants (REWC). Their respective test results varied widely.

In this scenario, which two statements explain the difference? (Choose two.)

- A. One test may have had a partial blockage of the brim from the putty application.
- B. The water temperature was different between the two tests.
- C. Distilled water was used in one test and tap water was used in the other test.
- D. One test included a mortar joint, the other test did not.

Installation and Repair

22. A flanged aluminum window is set into the rough opening with a liquid applied pan and a head flashing. The metal stud and gypsum board sheathing are covered with a liquid applied air barrier which also acts as a weather resistant barrier. The air barrier turns into the rough opening, and also turns up the L metal installed as a back dam.

In this scenario, where should the air barrier sealant joint be located?

- A. between the back of the window and the back dam, and the back edge of the head and jambs
- B. underneath the bottom of the window and onto the rough opening
- C. on the sides and head of the window, leaving the bottom open for drainage
- D. on all four sides at the front face of the window frame

23. Refer to Exhibit #7.

A building owner called you to look at an existing EIFS wall constructed in 1986, consisting of EPS adhered to the gypsum board with cementitious base coat, and coated on the outside with base coat, lamina reinforcing, and top coat. The two-story tall wall is above the sidewalk and porte cochere for the hotel. You notice that the sealant joints are open, and there is an extended bow in the EIFS wall panel indicating detachment from the wall.

In this scenario, what should you tell your client?

- A. After obtaining a history of the construction, and the understanding that the hotel is responsible for maintenance of the sealant joint, you suggest that the sealant joints should be replaced. You document your observations and discussions.
- B. You recommend that the sidewalk and access be closed to allow for emergency securement of the EIFS. You document your observations and discussions.
- C. You recommend further investigation of the condition by coming back the next day with a lift, to sound the bowed EIFS panel. You document your observations and discussions.
- D. You call the city building department and notify them of your observations, then you call the owner. You document your observations and discussions.

24. You are restoring failed sealant joints in an existing exterior insulation and finish system (EIFS). In this scenario, which two methods would be used to restore the failed joint? (Choose two.)

- A.** reconstruction method
- B.** skim coat method
- C.** bridge-joint method
- D.** bond-breaker method

25. Refer to Exhibit #8.

A consultant is asked to perform a limited condition assessment on a twenty-two-story high rise condominium property. During the condition assessment, the consultant identified that 65% of the head and bed joints of the cast stone on the bottom three floors have deteriorated.

In this scenario, which action would solve this problem?

- A.** Caulk over the mortar joints with sealant.
- B.** Coat the cast stone with an elastomeric coating.
- C.** Repoint the head and bed joints.
- D.** Pin the head and bed joints.

Exhibit #1



Exhibit #2

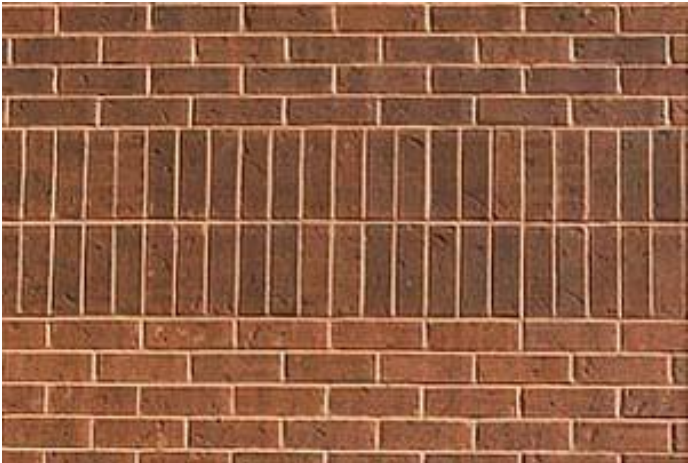


Exhibit #3

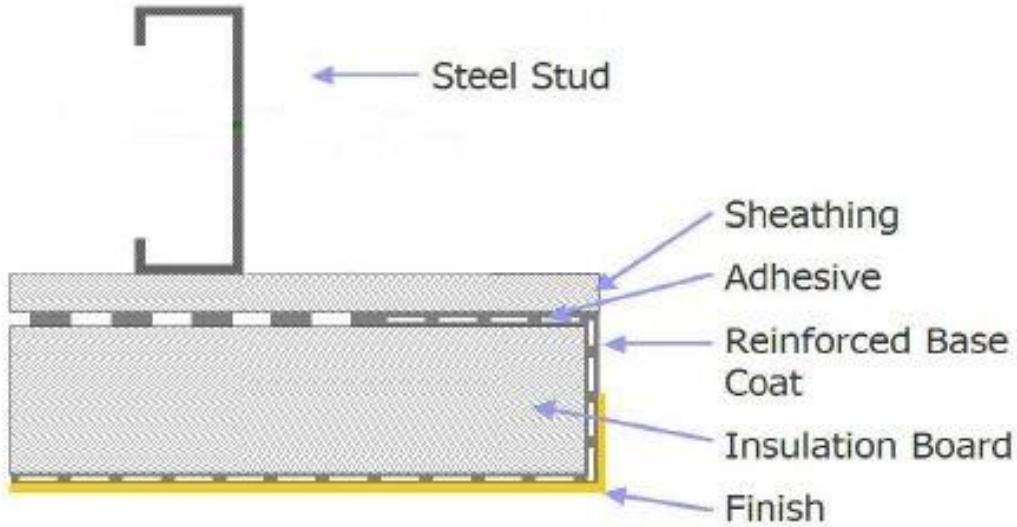


Exhibit #4



Exhibit #5



Exhibit #6

**Rilem Test Method No. 11.4
Vertical Application**

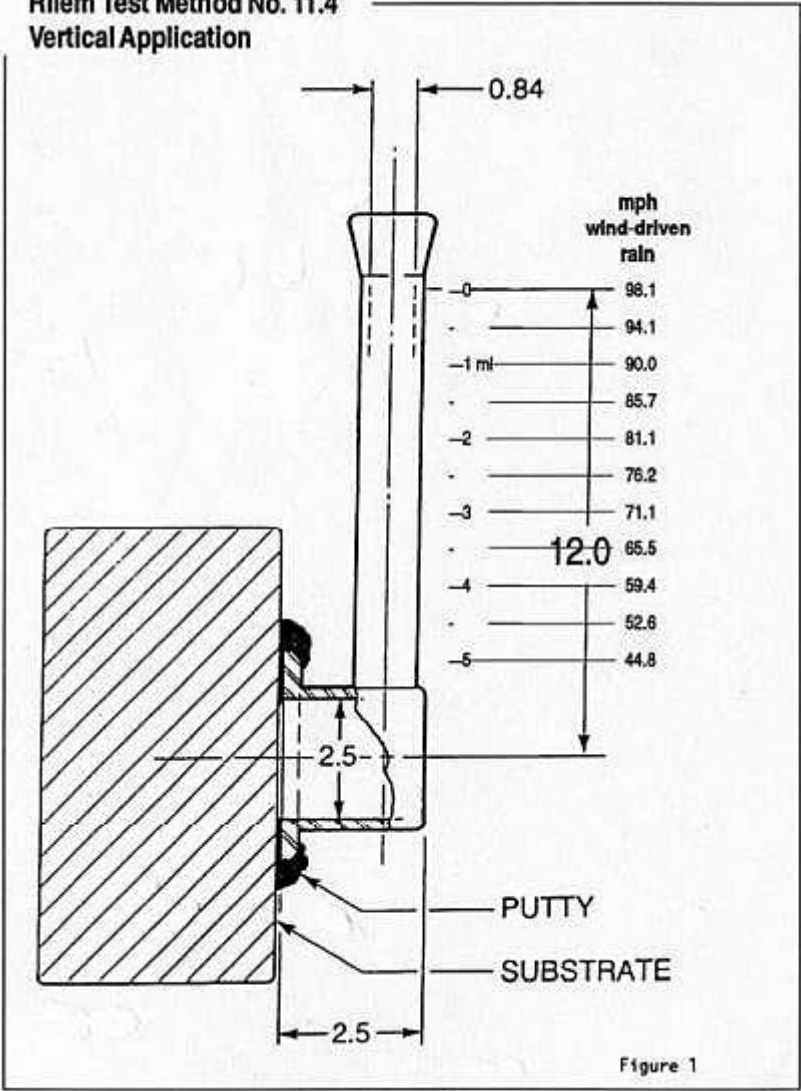


Exhibit #7

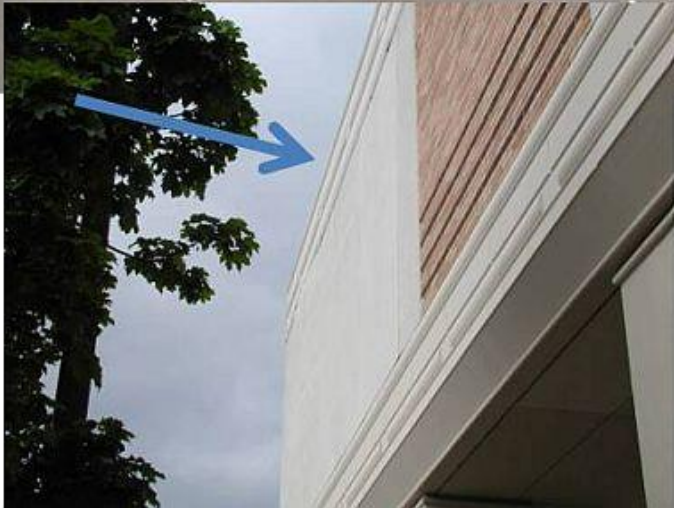


Exhibit #8



REWC Exam Sample Answers

Note your answers. Review the appropriate document(s) in those areas to better understand the rationale behind the indicated correct answer.

Take advantage of the programs provided by IIBEC which are specifically recommended for those pursuing the REWC designation: **Exterior Wall Quality Assurance, Exterior Walls Technology and Science.**

1. A
2. A
3. D
4. A
5. A and C
6. B
7. A and B
8. D
9. D
10. C
11. C
12. B and C
13. D
14. C
15. A and D
16. A
17. B and C
18. B
19. B
20. A
21. A and D
22. A
23. B
24. A and C
25. C