

WILLIS WARRANTY PROGRAM

Project Details

Project No. 1788.00
 Year of Completion Ongoing

Project Team

Client Willis Canada Inc.

RDH Services

- Development of design protocol
- Pre-construction review of drawings and specifications
- Interaction with Willis and design team to find resolution to identified risks
- Consequence modeling for unresolved risks
- Field reviews
- Maintenance and renewal plan review
- Post construction review
- Claims assistance
- Risk assessment

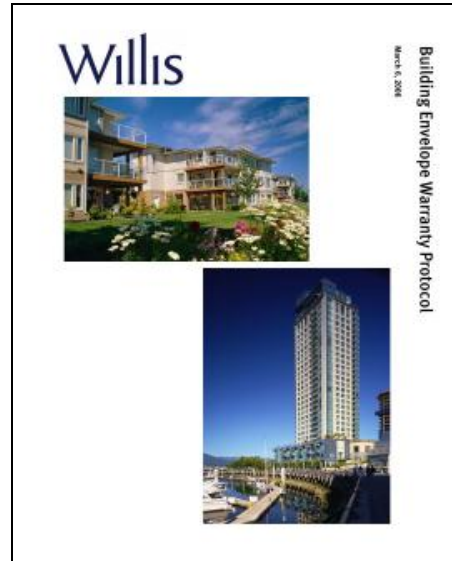
RDH Staff

Principal Dave Ricketts
 Key Staff Kevin Ganzert
 Phil Johnson
 John Morgan

Project Description

Insurers have incurred significant water ingress losses as a result of premature building envelope failure for buildings constructed in the 1985 to 1995 time frame. The challenge that faced Willis and their insurers in the development of their warranty program was the implementation of an underwriting methodology to accurately assess and monitor projects to ensure low risk. In 1998, Willis and their insurers contracted RDH to help them develop this risk assessment methodology. The confidence that Willis and their insurers have in the risk assessment process has allowed them to offer 10-year water penetration warranty coverage, the first program in the industry to do so.

Project Profile



3.1 New Construction
 Building Envelope Quality Assurance Process

PROJECT PHASES	RESPONSIBILITY		Risk Review Category	Risk Review Category
	RDH	Client		
Pre-Project Planning & Schematic Design				
Client/Program Team Warranty Program				
Provide design Team with Risk Assessment Protocol				
Design Development				
Understand Design/Development intent				
Design Concept Review				
Construction Documents				
Prepare Construction Documents				
Inspection Review				
Response to RFI/Clarification				
Follow-up on construction				
Construction				
Field Review: Mock-ups and Field Testing				
High-Moisture Risk Items				
Participate in Site Visits and Submittals				
Monitor Building Envelope Maintenance and Renewals Plan				
Post Construction				
Monitor Building Envelope Maintenance and Renewals Plan				
Post Construction Review				

Client Project in Willis Warranty Program
 The project must be enrolled in the program in order to receive a building permit. In addition, the risk review process can not begin until this has occurred.

Provide Design Team with Risk Assessment Protocol
 Client's understanding the risk review process and the design expectations is fundamental in the design team being able to integrate water-tight requirements into the overall design program.

Undertake Design Development Work
 The design development work proceeds based on the architect's design concept, codes, standards, and other industry guidelines in addition to the Willis design guidelines.

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Table A.2: Water Penetration Control Strategies for Different Exposure Categories

EXPOSURE CATEGORY	ADDITIONAL CONSIDERATIONS	MINIMUM WATER PENETRATION CONTROL STRATEGY	SAMPLE WALL ASSEMBLIES
HIGH	> 4 Stories, and Terrain Category D	Exterior Insulated Rainscreen	[Diagram of wall assembly showing insulation and rainscreen]
	4 Stories and Terrain Categories A, B, or C	Exterior Insulated Rainscreen, or Rainscreen	
	4 Stories or less, and Terrain Category D	Rainscreen	
MODERATE	4 Stories or less	Rainscreen	[Diagram of wall assembly showing rainscreen]
LOW	Concealed Barrier	Concealed Barrier	[Diagram of wall assembly showing concealed barrier]
NO EXPOSURE	Overhang Ratio = 0.5	Face Seal	[Diagram of wall assembly showing face seal]

Note: Some judgment is necessary in evaluating exposure conditions and selecting appropriate wall assemblies. For example, it may be possible to utilize a rainscreen insulated wall for lower non-susceptible taller buildings. However, some additional thought must be given to detailing and the appropriateness of the water-resistive barrier, air barrier materials and thermal performance. Similarly, most frame curtain wallings may require a more robust exterior insulated rainscreen wall in severe exposure conditions such as occur on the windward side of Vancouver Island and Pacific shore north of Vancouver Island.

Once the basic water penetration control strategies have been determined, assemblies can be selected, other performance criteria can be considered, details can be developed, and decisions with respect to component and material selection can be made.

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