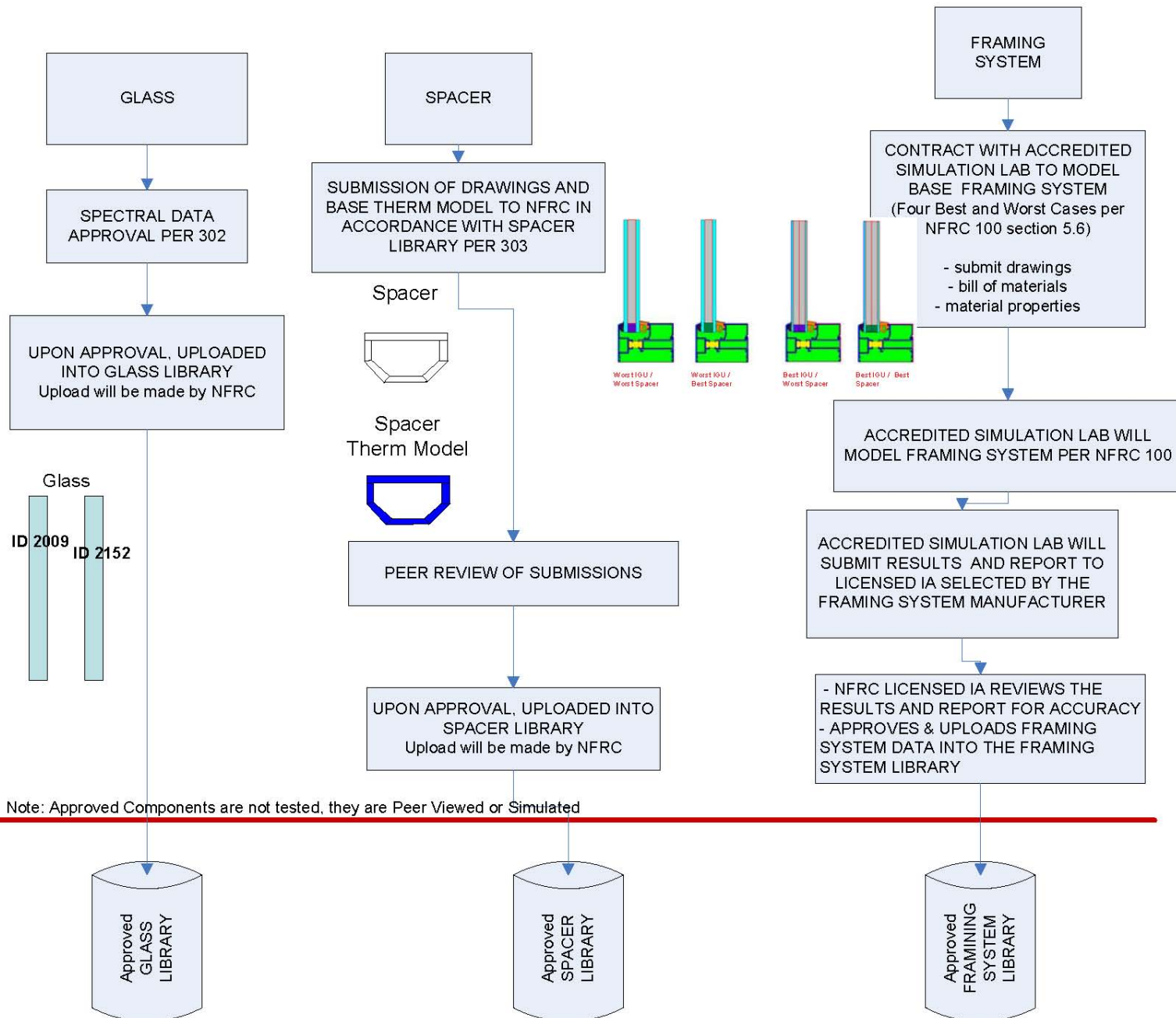


**Draft #1 04.26.05**

**Component-Based Fenestration Product Certification Program**

Applicable for projects and for commercial buildings

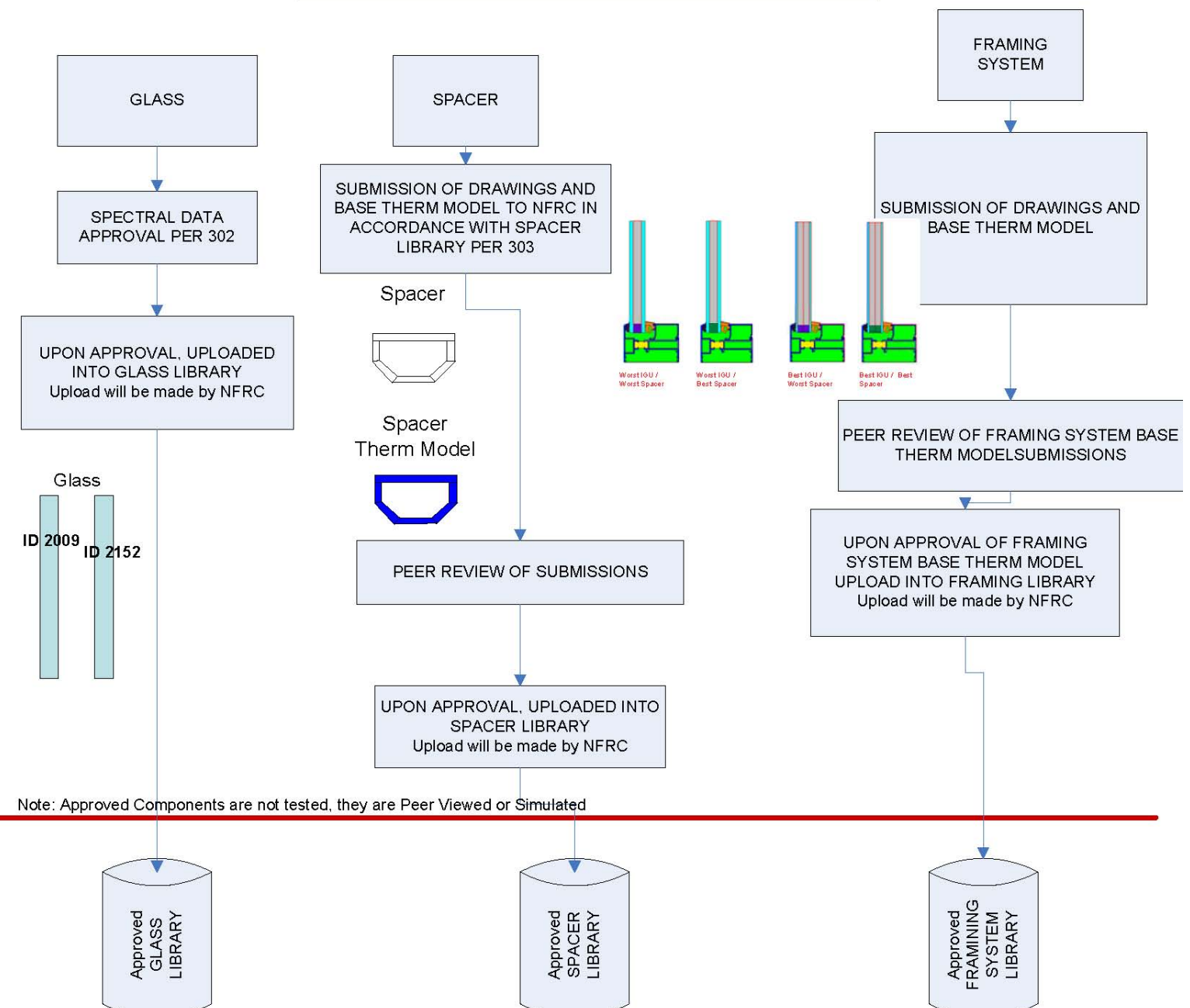
**COMPONENT APPROVAL PROCESS**



**Draft # 2 07.21.05**

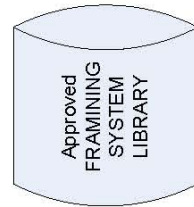
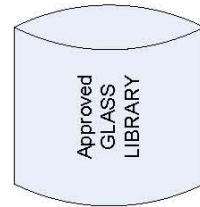
**Component-Based Fenestration Product Certification Program**

**COMPONENT APPROVAL PROCESS**



# Draft #1 04.26.05

## WHOLE PRODUCT SYSTEM CALCULATION



RESPONSIBLE PARTY SELECTS ACCREDITED CALCULATION AGENCY AND PROVIDES THE FOLLOWING:

Detailed construction of glazing system; i.e.,  
 - number of panes - glass type - glass thickness  
 - low-e type - low-e placement - gap between panes - gas-fill

Identification of IG unit Manufacturer – Note IG Unit shall be certified by nationally recognized certification agency for quality assurance (e.g. IGMA, IGCC, NAMI, etc.).

Detailed construction of spacer system; i.e.,  
 - spacer model description - primary sealant details  
 - secondary sealant details

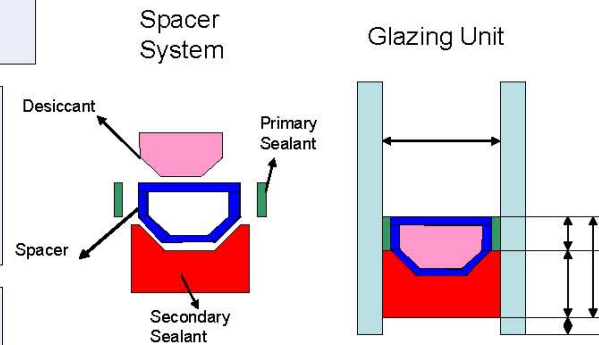
Detailed construction of framing system

Identification of Framing Manufacturer

Identification of Building Permit issuing Agency and Contact Person

### Project qualification-Physical testing:

A project can have several product types installed. However, for project qualification a physical testing is required for U-factor on one product type in accordance with NFRC 100-Section 5.6 Non-Residential Products. The product shall be specified by a recognized authority for the project, e.g., (but not limited to) architects, code representative and etc. The system will be randomly selected as a project qualifier and a prototype of this system meeting NFRC standard size requirements will be submitted.



ACCREDITED CALCULATION AGENCY CALCULATES THE ENERGY PERFORMANCE RATING VALUES IN ACCORDANCE WITH NFRC 100 USING NFRC APPROVED WEB-BASED SOFTWARE TOOLS  
 Note: Information regarding IG Unit Manufacturer and Framing System Supplier will be part of the report

WHOLE PRODUCT SYSTEM CALCULATION IS THEN STORED IN THE WEB-BASED SOFTWARE PROGRAM FOR AUTHORIZED ACCESS TO RESPONSIBLE PARTY WHO IS NOTIFIED OF THE CALCULATION COMPLETION VIA E-MAIL

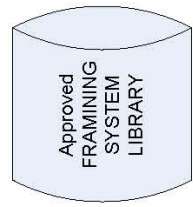
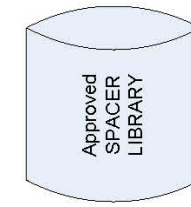
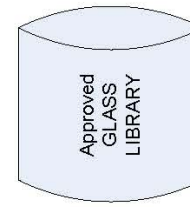
RESPONSIBLE PARTY ACCESSES THEIR SECURED (PASSWORD-PROTECTED) CALCULATION IN THE WEB-BASED SOFTWARE PROGRAM TO OBTAIN DRAFT REPORT OF THE CALCULATION FOR BIDDING PURPOSES OR FOR GENERATING A LABEL CERTIFICATE

DRAFT REPORT  
 (sets forth whole product system and calculated values with notation that this is not a label certificate)

ACQUISITION OF NFRC LABEL CERTIFICATE

# Draft # 2 07.21.05

## WHOLE PRODUCT SYSTEM CALCULATION



DESIGN TOOL  
 Web based design tool allowing registered design professionals and system or component manufacturers to develop design performance calculated values for whole product system without an NFRC label certificate.

CERTIFICATION TOOL  
 REGISTERED DESIGN PROFESSIONAL SELECTS ACCREDITED CALCULATION AGENCY (CA) AND PROVIDES THE FOLLOWING:

Detailed construction of glazing infill; i.e.,  
 - number of lites - glass type - glass thickness  
 - glass coating type - coating placement - spacer gap width  
 - gas-fill

Identification of insulating glass fabricator

Identification of insulating glass spacer

Identification of framing system manufacturer/fabricator

Details of framing system construction

ACCREDITED CALCULATION AGENCY CALCULATES THE ENERGY PERFORMANCE RATING VALUES IN ACCORDANCE WITH NFRC 100 USING NFRC APPROVED WEB-BASED SOFTWARE TOOLS  
 Note: Information regarding IG Unit Manufacturer and Framing System Supplier will be part of the report

WHOLE PRODUCT SYSTEM CALCULATION IS THEN STORED IN THE WEB-BASED SOFTWARE PROGRAM FOR AUTHORIZED ACCESS TO REGISTERED DESIGN PROFESSIONAL WHO IS NOTIFIED OF THE CALCULATION COMPLETION VIA E-MAIL

REGISTERED DESIGN PROFESSIONAL ACCESSES THEIR SECURED (PASSWORD-PROTECTED) CALCULATION IN THE WEB-BASED SOFTWARE PROGRAM TO OBTAIN DRAFT REPORT OF THE CALCULATION FOR BIDDING PURPOSES OR FOR GENERATING A LABEL CERTIFICATE

ACQUISITION OF NFRC LABEL CERTIFICATE

**ACQUISITION OF NFRC LABEL CERTIFICATE**

**WEB-BASED PROCEDURE**

1. Access web-based password-protected whole product calculation.
2. Sign NFRC License Agreement online
3. Select NFRC Licensed IA
4. Agree to submit to IA whole product system paper-trail documents
5. Generate and print out Label Certificate
6. Label Certificate is automatically transmitted to Responsible Party, IA, **Building Permit Issuing Agency Identified Contact Person** and the NFRC office.
7. Whole product system information is then transmitted to the Certified Products Directory

**HARD-COPY PROCEDURE**

1. Select a NFRC Licensed IA
2. Obtain and sign NFRC license agreement in hard-copy
3. Submit signed license agreement to NFRC
4. Agree to provide the IA with whole product system paper-trail documents
5. Authorize IA to generate and issue Label Certificate
6. Label Certificate is sent to Responsible Party, IA, **Building Permit Issuing Agency Identified Contact Person** and the NFRC office.
7. Whole product system information is then transmitted to the Certified Products Directory by the IA

**QUALITY ASSURANCE PROGRAM**

**WHOLE PRODUCT PAPER-TRAIL AUDIT**  
 \*Responsible Party submits all NFRC identified System paper-trails information to an IA selected within 10 days of printing of the Label certificate.

\*Selected IA conducts paper review/audit of Responsible Party's whole product system to ensure that system is accurately reflected on label certificate and complies with PCP requirements within 15 days of the receipt of the paper trail and notifies the responsible party about any missing information.

\* If the IA determines any deficiency as regards to System installed, then it would notify the responsible party and the codes (permit granting agency) about the deficiency.

\* Responsible party shall take corrective action OR acquire new label certificate reflecting the actual system installed.

\*If no corrective actions are taken within 15 days of notification then the Label certificate issued by NFRC shall be null and void. This action will be communicated to appropriate authorities (**Building Permit Issuing Agency Identified Contact Person** and the NFRC office.)

**Non-validation**

The non-validation test will not result in immediate decertification of a product line authorized for certification. If an individual product does not validate, the following procedure shall be followed:

- A. The IA shall notify in writing the responsible party, accredited calculation agency, and the testing laboratory of the non-validation. These parties shall attempt to establish reasons for the non-validation.
- B. These parties shall have ten (10) calendar days to identify the reason(s) for the non-validation.
- C. If errors in workmanship or product materials are identified, one re-test is allowed at the expense of the responsible party. NFRC has the right to ask the responsible party to perform more tests for compliance if required.
- D. If the error is identified as a material issue directly related to a component manufacturer, retesting is allowed at the expense of the component supplier. If the component supplier does not comply with additional testing, then the responsible party shall be required to carry out the testing.
- E. If no resolution is reached within the 10-calendar day period, the IA shall notify NFRC staff within 1 business day for assistance. The IA, responsible party, accredited calculation agency, accredited simulation laboratory and/or testing laboratory shall provide the requested product details and supporting documents to NFRC.
- F. If all documentation and product specifications are deemed correct, the non-validation may be a program problem, in which case it may not be the responsibility of the responsible party. NFRC will study the problem and provide, based on committee decision, the values for certification in writing.
- G. If the product does not comply with the Certified Products specifications, established, NFRC nonconformance rules shall apply.

**ACQUISITION OF NFRC LABEL CERTIFICATE**

**WEB-BASED PROCEDURE**

1. Access web-based password-protected whole product calculation.
2. Sign NFRC License Agreement online
3. Select NFRC Licensed CA
4. Agree to submit to CA whole product system paper-trail documents
5. Generate and print out Label Certificate
6. Label Certificate is automatically transmitted to the Registered Design Professional, CA, and the NFRC office.
7. Whole product system information is then transmitted to the Certified Products Directory

**HARD-COPY PROCEDURE**

1. Select a NFRC Licensed CA
2. Obtain and sign NFRC license agreement in hard-copy
3. Submit signed license agreement to NFRC
4. Agree to provide the CA with whole product system paper-trail documents
5. Authorize CA to generate and issue Label Certificate

**QUALITY ASSURANCE PROGRAM**

Registered Design Professional submittal of commercial construction whole product system paper-trail documents to CA.