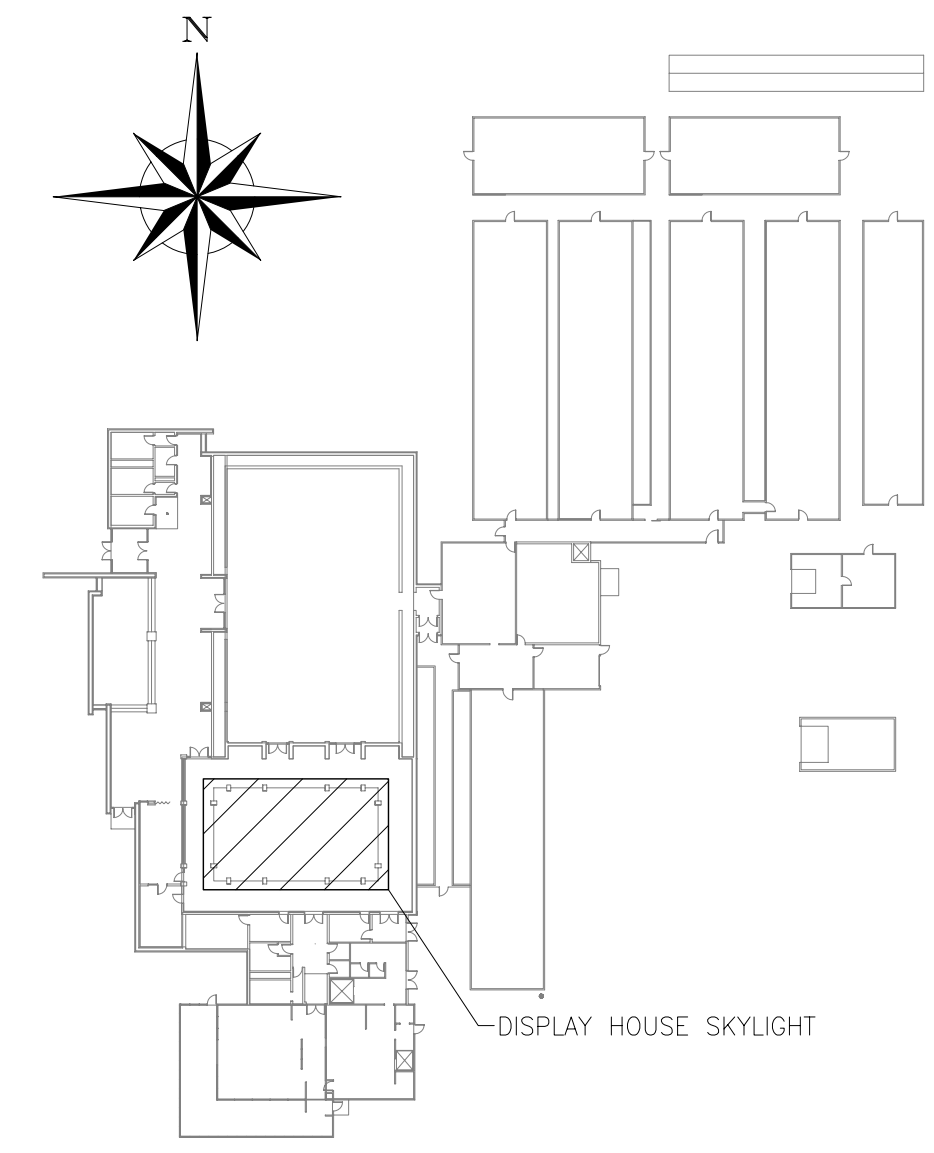
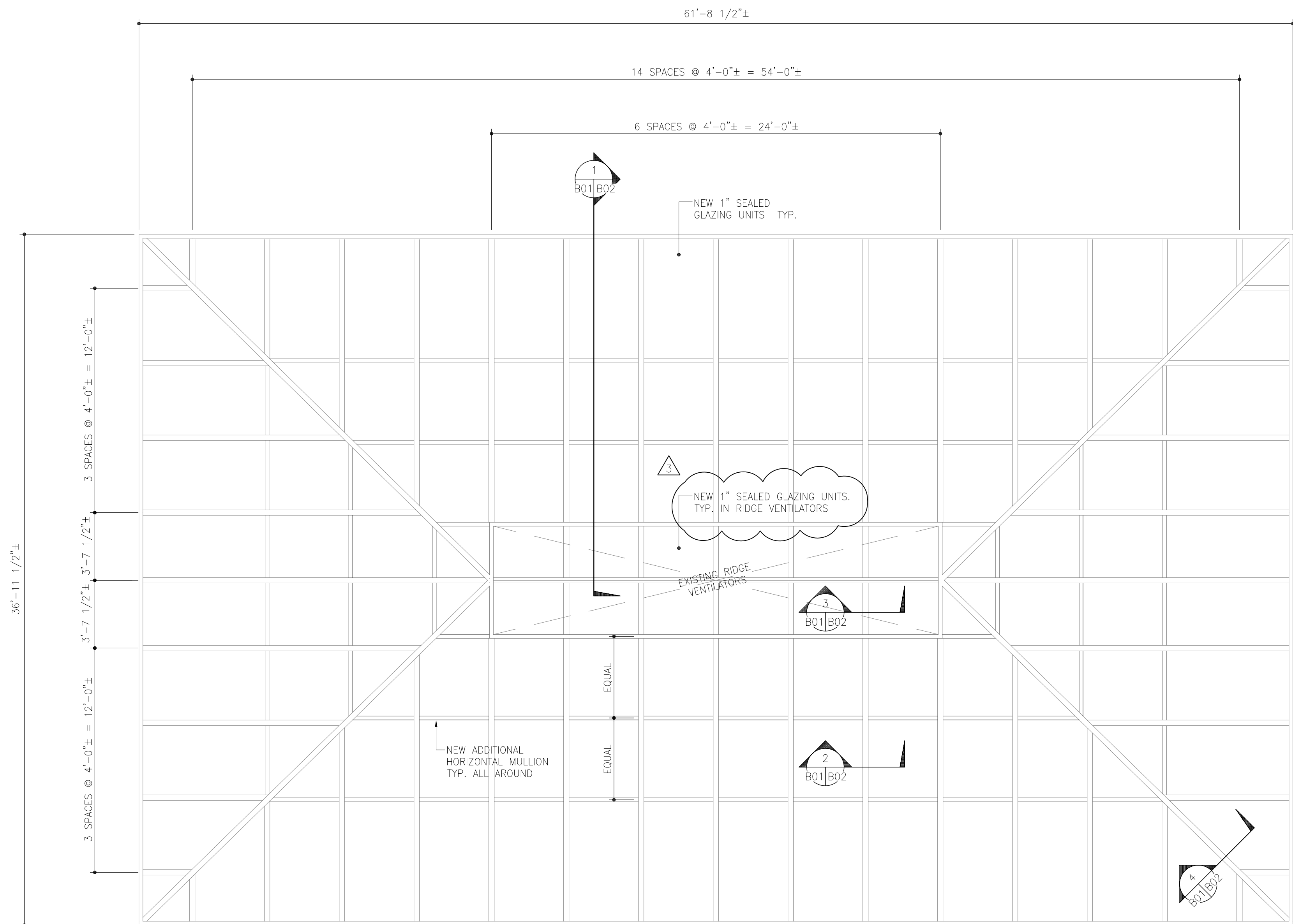


W:\Engineering Projects\A185 - City of Winnipeg\A185 - Assiniboine Park Conservatory Facility\Glazing Replacement 2006\Drawings\ADDENDUM #2\B01 - DISPLAY HOUSE GLAZING PLAN AND DETAILS - APRIL 19 2006.dwg



**B CONSERVATORY KEY PLAN**  
B01/B01 NTS

**A EXISTING DISPLAY HOUSE SKYLIGHT ROOF PLAN**  
1/4"=1'-0"

**PART 1 - GENERAL**

- 1.1 REFERENCES**
- .1 AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI).
    - .1 ANSI/ASTM E330-02, TEST METHOD FOR STRUCTURAL PERFORMANCE OF EXTERIOR WINDOWS, DOORS, SKYLIGHTS AND CURTAIN WALLS BY UNIFORM STATIC AIR PRESSURE DIFFERENCE.
  - .2 CANADIAN GENERAL STANDARDS BOARD (CGSB).
    - .1 CAN/CGSB-12.1-M90, TEMPERED OR LAMINATED SAFETY GLASS.
    - .2 CAN/CGSB-12.8-97, INSULATING GLASS UNITS.
    - .3 CAN/CGSB-12.10-M76, GLASS, LIGHT AND HEAT REFLECTING.
  - .3 CANADIAN STANDARDS ASSOCIATION (CSA INTERNATIONAL).
    - .1 CSA A440.2-98, ENERGY PERFORMANCE EVALUATION OF WINDOWS AND SLIDING GLASS DOORS.
    - .2 CSA CERTIFICATION PROGRAM FOR WINDOWS AND DOORS 2000.
  - .4 FLAT GLASS MANUFACTURERS ASSOCIATION (FGMA).
    - .1 FGMA GLAZING MANUAL - 1997.
  - .5 LAMINATORS SAFETY GLASS ASSOCIATION (LSGA).
    - .1 LSGA LAMINATED GLASS DESIGN GUIDE 2000.
- 1.2 SCOPE OF WORK**
- .1 SCOPE OF WORK TO INCLUDE:
    - .1 REMOVE AND DISPOSE OF EXISTING INSULATED GLASS UNITS.
    - .2 SUPPLY AND INSTALL NEW INSULATED GLASS UNITS.
    - .3 SUPPLY AND INSTALL NEW HORIZONTAL MULLION.
    - .4 REINFORCE OF VERTICAL GLAZING BAR AS REQUIRED.
    - .5 INSTALL NEW GASKETS AND FASTENERS THROUGHOUT.
    - .6 REMOVE AND REPLACE EXISTING SCREENS AND PLEXIGLAS IN RIDGE VENTILATORS.
    - .7 REMOVE CURTAIN, PROFESSIONALLY CLEAN AND REINSTALL WITH NEW HOOKS.
    - .8 ALL OTHER INCIDENTAL WORK REQUIRED TO COMPLETE THE ABOVE SCOPE OF WORK.
- 1.3 SYSTEM DESCRIPTION**
- .1 PERFORMANCE REQUIREMENTS:
    - .1 PROVIDE CONTINUITY OF BUILDING ENCLOSURE VAPOUR AND AIR BARRIER USING GLASS AND GLAZING MATERIALS.
    - .2 DESIGN GLASS AND GLAZING SYSTEM TO WITHSTAND WIND LOADS, DEAD LOADS AND POSITIVE AND NEGATIVE LIVE LOADS IN ACCORDANCE TO THE CURRENT EDITION OF THE NATIONAL BUILDING CODE OF CANADA AND ALL OTHER APPLICABLE CODES AND STANDARDS.

**1.4 SUBMITTALS**

- .1 SUBMIT TO CONTRACT ADMINISTRATOR:
  - .1 PRODUCT DATA: SUBMIT MANUFACTURER'S PRINTED PRODUCT LITERATURE, SPECIFICATIONS AND DATA SHEET FOR THE TYPE OF GLAZING BAR SYSTEM AND GLASS THAT IS PROPOSED FOR INSTALLATION.
  - .2 SHOP DRAWINGS: SUBMIT SHOP DRAWINGS INDICATING SIZE AND DESCRIPTION OF COMPONENTS, MATERIALS, ATTACHMENT DEVICES, DESCRIPTION OF FRAME AND FINISH, AND CONSTRUCTION DETAILS SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE PROVINCE OF MANITOBA.
  - .3 CERTIFICATES: DOCUMENTATION CERTIFYING THAT THE GLAZING SYSTEM AND GLASS MEETS ALL REQUIREMENTS OF THE NATIONAL BUILDING CODE AND ALL OTHER APPLICABLE CODES AND STANDARDS.
- .3 MANUFACTURER'S INSTRUCTIONS:
  - .1 SUBMIT MANUFACTURER'S INSTALLATION INSTRUCTIONS AND DETAILS.
- .4 CLOSEOUT SUBMITTALS:
  - .1 PROVIDE MAINTENANCE DATA INCLUDING CLEANING INSTRUCTIONS FOR INCORPORATION INTO MANUAL.

**1.5 QUALITY ASSURANCE**

- .1 TEST REPORTS AND CERTIFICATES: CERTIFIED TEST REPORTS AND/OR CERTIFICATES SHOWING COMPLIANCE WITH SPECIFIED PERFORMANCE CHARACTERISTICS, PHYSICAL PROPERTIES AND ALL APPLICABLE CODES AND STANDARDS.
  - .1 PROVIDE TESTING AND ANALYSIS OF GLASS.
  - .2 PROVIDE SHOP INSPECTION AND TESTING FOR GLASS.
- .2 PRE-INSTALLATION MEETINGS: CONDUCT PRE-INSTALLATION MEETING TO VERIFY PROJECT REQUIREMENTS, MANUFACTURER'S INSTALLATION INSTRUCTIONS AND MANUFACTURER'S WARRANTY REQUIREMENTS.

**1.6 SITE CONDITIONS**

- .1 SITE MEASUREMENTS:
  - .1 THE DIMENSIONS ON THE DRAWING ARE INTENDED FOR INFORMATION ONLY AND SHALL NOT BE USED TO ORDER MATERIALS. CONTRACTOR TO VISIT SITE TO VERIFY ALL DIMENSIONS AND ACTUAL SITE CONDITIONS BEFORE ORDERING MATERIALS.

- .2 ENVIRONMENTAL REQUIREMENTS:
  - .1 INSTALL GLAZING WHEN AMBIENT TEMPERATURE IS 10 DEGREES C MINIMUM. MAINTAIN VENTILATED ENVIRONMENT FOR 24 HOURS AFTER APPLICATION.
  - .2 MAINTAIN MINIMUM AMBIENT TEMPERATURE BEFORE, DURING AND 24 HOURS AFTER INSTALLATION OF GLAZING COMPOUNDS.
  - .3 PROVIDE PROTECTION TO ALL PLANTS AND PUBLIC DURING GLAZING REPLACEMENT. PROTECT PLANTS FROM DUST, DEBRIS, DAMAGE, FREEZING AND ANY OTHER DETRIMENTAL FACTORS.
  - .4 CONSULT THE CONTRACT ADMINISTRATOR FOR ANY FURTHER ENVIRONMENTAL REQUIREMENTS.

**1.7 WASTE MANAGEMENT AND DISPOSAL**

- .1 REMOVE FROM SITE AND DISPOSE OF ALL WASTE MATERIALS TO THE APPROPRIATE DISPOSAL FACILITY.
- .2 DISPOSE OF REMOVED INSULATED GLASS IN ACCORDANCE WITH LOCAL REGULATIONS. CONTRACTOR TO PAY ALL COSTS RELATED TO DISPOSAL, INCLUDING ALL LANDFILL TIPPING FEES.

**1.8 SCHEDULE**

- .1 GLAZING REPLACEMENT TO TAKE PLACE IN JULY OR AUGUST OF THE YEAR 2006.
- .2 PROVIDE SIX (6) WEEKS NOTICE OF SCHEDULE TO CONTRACT ADMINISTRATOR.
- .3 REFER TO THE CITY OF WINNIPEG BID OPPORTUNITY DOCUMENTS FOR INFORMATION REGARDING THE DISPLAY HOUSE CLOSURE PERIOD.
- .4 COORDINATE CLOSURE PERIOD WITH CONTRACT ADMINISTRATOR AND CONTRACTORS.

**1.9 WORKPLACE HEALTH AND SAFETY**

- .1 CONTRACTOR TO PERFORM ALL WORK IN ACCORDANCE WITH LOCAL WORKPLACE HEALTH AND SAFETY REGULATIONS.

**1.9 WARRANTY**

- .1 CONTRACTOR TO WARRANTY THE INSTALLATION FOR ONE (1) YEAR FROM THE DATE OF TOTAL PERFORMANCE.
- .2 CONTRACTOR TO PROVIDE A FIVE (5) YEAR MANUFACTURER'S WARRANTY ON THE SEALED GLASS UNITS FROM SEAL FAILURE, INTERPANE DUSTING OR MISTING AND REPLACEMENT OF SAME.
- .3 CONTRACTOR TO PROVIDE A FIVE (5) YEAR MANUFACTURER'S WARRANTY TO COVER DELAMINATION OF LAMINATED GLASS AND REPLACEMENT OF SAME.

**PART 2 - PRODUCTS**

- 2.1 MATERIALS: SEALED INSULATING GLASS**
- .1 INSULATED GLASS UNITS, GLAZING FRAMING AND ACCESSORIES TO CONFORM TO ALL APPLICABLE CODES AND STANDARDS.
  - .2 INSULATED GLASS UNITS TO CAN/CGSB 12.8 AND ALL APPLICABLE CODES AND STANDARDS: DOUBLE UNIT, OVERALL THICKNESS OF 1".
    - .1 GLASS TO CAN/CGSB-12.1 AND ALL APPLICABLE CODES AND STANDARDS.
    - .2 OUTER: TEMPERED, MINIMUM 1/4" THICK.
    - .3 INNER: LAMINATED, MINIMUM 1/4" THICK.
    - .4 PERIMETER SEAL: SILICONE.
    - .5 R-VALUE: MINIMUM OF 2.0.

**2.2 FRAMING**

- .1 EXISTING FRAMES, MULLIONS, MUNTINS, BAR AND CAP TO REMAIN.
- .2 ALL NEW FRAMING, MULLIONS, MUNTINS, BAR AND CAP TO MATCH EXISTING.

**2.3 ACCESSORIES**

- .1 FASTENERS: MANUFACTURER-RECOMMENDED TYPE.
- .2 GASKETS: DRY SEAL GASKETS - MANUFACTURER-RECOMMENDED TYPE.
- .3 SCREENS: TO MATCH EXISTING.
- .4 FLASHING: PRE-FINISHED METAL FLASHING TO MATCH EXISTING.
- .5 SETTING BLOCKS: SILICONE, SHORE A DUROMETER HARDNESS TO ASTM D2240.

**PART 3 - EXECUTION**

**3.1 MANUFACTURER'S INSTRUCTIONS**

- .1 COMPLIANCE: COMPLY WITH MANUFACTURER'S WRITTEN DATA, INCLUDING PRODUCT TECHNICAL BULLETINS, PRODUCT CATALOGUE, INSTALLATION INSTRUCTIONS, PRODUCT CARTON INSTALLATION INSTRUCTIONS, DATA SHEETS AND ALL APPLICABLE CODES AND STANDARDS.

**3.2 EXAMINATION**

- .1 VERIFY THAT OPENINGS FOR GLAZING ARE CORRECTLY SIZED AND WITHIN TOLERANCE.
- .2 VERIFY THAT SURFACES OF GLAZING CHANNELS OR RECESSES ARE CLEAN, FREE OF OBSTRUCTIONS, AND READY TO RECEIVE GLAZING.

**3.3 PREPARATION**

- .1 CLEAN CONTACT SURFACES WITH SOLVENT AND WIPE DRY.
- .2 SEAL POROUS GLAZING CHANNELS OR RECESSES WITH SUBSTRATE COMPATIBLE PRIMER OR SEALER.
- .3 PRIME SURFACES SCHEDULED TO RECEIVE SEALANT.

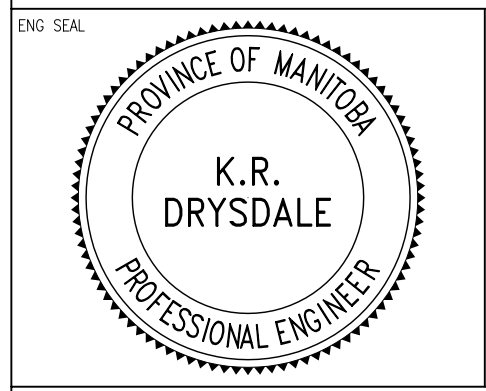
**3.4 INSTALLATION**

- .1 INSTALL NEW GLASS AND GLAZING FRAMING IN ACCORDANCE WITH ALL APPLICABLE CODES AND STANDARDS.

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|-----|---|-----|-----|-------------|
| 6   |   |     |     |             |
| 5   |   |     |     |             |
| 4   |   |     |     |             |
| 3   | REVISED RIDGE VENT GLASS TO 1" SEALED UNITS | PG  | PG  | APR 19 2006 |
| 2   | REVISED INFORMATION IN NOTES                | ML  | PG  | APR 10 2006 |
| 1   | ISSUED FOR TENDER                           | ML  | PG  | MAR 24 2006 |
| 0   | ISSUED FOR 100% CLIENT REVIEW               | ML  | PG  | MAR 23 2006 |
| REV | DESCRIPTION                                 | OWN | APP | REV DATE    |



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**CITY OF WINNIPEG**  
**ASSINIBOINE PARK CONSERVATORY**

**DISPLAY HOUSE GLAZING REPLACEMENT**  
**SKYLIGHT ROOF PLAN AND SECTIONS**

|             |            |             |              |
|-------------|------------|-------------|--------------|
| DRAWN BY    | CHECKED BY | DATE        | SHEET NO.    |
| ML          | PG         | APR 19 2006 | <b>B01</b>   |
| DESIGNED BY | CHECKED BY | SCALE       | REVISION NO. |
| PG          | KD         | AS NOTED    | 3            |