NORRIS

COLUMBIA COUNTY BUILDING DEPARTMENT

RESIDENTIAL MINIMUM PLAN REQUIREMENTS AND CHECKLIST FOR FLORIDA BUILDING CODE 2001 ONE (1) AND TWO (2) FAMILY DWELLINGS

ALL REQUIREMENTS ARE SUBJECT TO CHANGE
EFFECTIVE MARCH 1, 2002

ALL BUILDING PLANS MUST INDICATE THE FOLLOWING ITEMS AND INDICATE COMPLIANCE WITH CHAPTER 1606 OF THE FLORIDA BUILDING CODE 2001 BY PROVIDING CALCULATIONS AND DETAILS THAT HAVE THE SEAL AND SIGNATURE OF A CERTIFIED ARCHITECT OR ENGINEER REGISTERED IN THE STATE OF FLORIDA, OR ALTERNATE METHODOLOGIES, APPROVED BY THE STATE OF FLORIDA BUILDING COMMISSION FOR ONE-AND-TWO FAMILY DWELLINGS. FOR DESIGN PURPOSES THE FOLLOWING BASIC WIND SPEED AS PER FIGURE 1606 SHALL BE USED.

WIND SPEED LINE SHALL BE DEFINED AS FOLLOWS: THE CENTERLINE OF INTERSTATE 75.

1. ALL BUILDINGS CONSTRUCTED EAST OF SAID LINE SHALL BE -------- 100 MPH
2. ALL BUILDINGS CONSTRUCTED WEST OF SAID LINE SHALL BE --------110 MPH
3. NO AREA IN COLUMBIA COUNTY IS IN A WIND BORNE DEBRIS REGION

APPLICANT – PLEASE CHECK ALL APPLICABLE BOXES BEFORE SUBMITTAL

GENERAL REQUIREMENTS: Two (2) complete sets of plans containing the following:

Applicant	Plans Examiner	
☑	☐	All drawings must be clear, concise and drawn to scale ("Optional " details that are not used shall be marked void or crossed off). Square footage of different areas shall be shown on plans.
☑	☐	Designers name and signature on document (FBC 104.2.1). If licensed architect or engineer, official seal shall be affixed.
☑	☐	**Site Plan Including:** a) Dimensions of lot b) Dimensions of building set backs c) Location of all other buildings on lot, well and septic tank if applicable, and all utility easements. d) Provide a full legal description of property.
☑	☑	**Wind-load Engineering Summary, calculations and any details required** a) Plans or specifications must state compliance with FBC Section 1606 b) The following information must be shown as per section 1606.1.7 FBC a. Basic wind speed (MPH) b. Wind importance factor (I) and building category c. Wind exposure – if more than one wind exposure is used, the wind exposure and applicable wind direction shall be indicated d. The applicable internal pressure coefficient e. Components and Cladding. The design wind pressure in terms of psf (kN/m²), to be used for the design of exterior component and cladding materials not specifically designed by the registered design professional
☑	☑	**Elevations Including:**
☑	☐	a) All sides
☑	☑	b) Roof pitch
☑	☐	c) Overhang dimensions and detail with attic ventilation
☑	☑	d) Location, size and height above roof of chimneys
☑	☑	e) Location and size of skylights
☑	☑	f) Building height
☑	☑	e) Number of stories

Floor Plan including:

a) Rooms labeled and dimensioned
b) Shear walls
c) Windows and doors (including garage doors) showing size, mfg., approval listing and attachment specs. (FBC 1707) and safety glazing where needed (egress windows in bedrooms to be shown)
d) Fireplaces (gas appliance) (vented or non-vented) or wood burning with hearth
e) Stairs with dimensions (width, tread and riser) and details of guardrails and handrails
f) Must show and identify accessibility requirements (accessible bathroom)

Foundation Plan including:

a) Location of all load-bearing wall with required footings indicated as standard Or monolithic and dimensions and reinforcing
b) All posts and/or column footing including size and reinforcing
c) Any special support required by soil analysis such as piling
d) Location of any vertical steel

Roof System:

a) Truss package including:
    1. Truss layout and truss details signed and sealed by Fl. Pro. Eng.
    2. Roof assembly (FBC 104.2.1 Roofing system, materials, manufacturer, fastening requirements and product evaluation with wind resistance rating)

b) Conventional Framing Layout including:
    1. Rafter size, species and spacing
    2. Attachment to wall and uplift
    3. Ridge beam sized and valley framing and support details
    4. Roof assembly (FBC 104.2.1 Roofing systems, materials, manufacturer, fastening requirements and product evaluation with wind resistance rating)

Wall Sections including:

a) Masonry wall
    1. All materials making up wall
    2. Block size and mortar type with size and spacing of reinforcement
    3. Lintel, tie-beam sizes and reinforcement
    4. Gable ends with rake beams showing reinforcement or gable truss and wall bracing details
    5. All required connectors with uplift rating and required number and size of fasteners for continuous tie from roof to foundation
    6. Roof assembly shown here or on roof system detail (FBC 104.2.1 Roofing system, materials, manufacturer, fastening requirements and product evaluation with resistance rating)
    7. Fire resistant construction (if required)
    8. Fireproofing requirements
    9. Shoe type of termite treatment (termicide or alternative method)
    10. Slab on grade
        a. Vapor retardant (6mil. Polyethylene with joints lapped 6 inches and sealed)
        b. Must show control joints, synthetic fiber reinforcement or Welded fire fabric reinforcement and supports
    11. Indicate where pressure treated wood will be placed
    12. Provide insulation R value for the following:
        a. Attic space
        b. Exterior wall cavity
        c. Crawl space (if applicable)

b) Wood frame wall

1. All materials making up wall
2. Size and species of studs
3. Sheathing size, type and nailing schedule
4. Headers sized
5. Gable end showing balloon framing detail or gable truss and wall hinge bracing detail
6. All required fasteners for continuous tie from roof to foundation (truss anchors, straps, anchor bolts and washers)
7. Roof assembly shown here or on roof system detail (FBC104.2.1 Roofing system, materials, manufacturer, fastening requirements and product evaluation with wind resistance rating)
8. Fire resistant construction (if applicable)
9. Fireproofing requirements
10. Show type of termite treatment (termicide or alternative method)
11. Slab on grade
    a. Vapor retardant (6Mil. Polyethylene with joints lapped 6 inches and sealed
    b. Must show control joints, synthetic fiber reinforcement or welded wire fabric reinforcement and supports
12. Indicate where pressure treated wood will be placed
13. Provide insulation R value for the following:
    a. Attic space
    b. Exterior wall cavity
    c. Crawl space (if applicable)

c) Metal frame wall and roof (designed, signed and sealed by Florida Prof. Engineer or Architect)

Floor Framing System:

a) Floor truss package including layout and details, signed and sealed by Florida Registered Professional Engineer
b) Floor joist size and spacing
c) Girder size and spacing
d) Attachment of joist to girder
e) Wind load requirements where applicable

Plumbing Fixture layout

Electrical layout including:

a) Switches, outlets/receptacles, lighting and all required GFCI outlets identified
b) Ceiling fans
c) Smoke detectors
d) Service panel and sub-panel size and location(s)
e) Meter location with type of service entrance (overhead or underground)
f) Appliances and HVAC equipment
g) Arc Fault Circuits (AFCI) in bedrooms

HVAC Information

a) Manual J sizing equipment or equivalent computation
b) Exhaust fans in bathroom

Energy Calculations (dimensions shall match plans)

Gas System Type (LP or Natural) Location and BTU demand of equipment

Disclosure Statement for Owner Builders

***Notice Of Commencement Required Before Any Inspections Will Be Done**

Private Potable Water

a) Size of pump motor
b) Size of pressure tank
c) Cycle stop valve if used

THE FOLLOWING ITEMS MUST BE SUBMITTED WITH BUILDING PLANS

1. **Building Permit Application:** A current Building Permit Application form is to be completed and submitted for all residential projects.

2. **Parcel Number:** The parcel number (Tax ID number) from the Property Appraiser (386) 758-1084 is required. A copy of property deed is also requested.

3. **Environmental Health Permit or Sewer Tap Approval:** A copy of the Environmental Health permit, existing septic approval or sewer tap approval is required before a building permit can be issued.
   (386) 758-1058 **(Toilet facilities shall be provided for construction workers)**

4. **City Approval:** If the project is to be located within the city limits of the Town of Fort White, prior approval is required. The Town of Fort White approval letter is required to be submitted by the owner or contractor to this office when applying for a Building Permit. (386) 497-2321

5. **Flood Information:** All projects within the Floodway of the Suwannee or Santa Fe Rivers shall require permitting through the Suwannee River Water Management District, before submitting application to this office. Any project located within a flood zone where the base flood elevation (100 year flood) has been established shall meet the requirements of Section 8.8 of the Columbia County Land Development Regulations. Any project located within a flood zone where the base flood elevation has not been established (Zone A) shall meet the requirements of Section 8.7 of the Columbia County Land Development Regulations. **CERTIFIED FINISHED FLOOR ELEVATIONS WILL BE REQUIRED ON ANY PROJECT WHERE THE BASE FLOOD ELEVATION (100 YEAR FLOOD) HAS BEEN ESTABLISHED.**
   A development permit will also be required. Development permit cost is **$50.00**

6. **Driveway Connection:** If the property does not have an existing access to a public road, then an application for a culvert permit (**$25.00**) must be made. If the applicant feels that a culvert is not needed, they may apply for a culvert waiver (**$50.00**). All culvert waivers are sent to the Columbia County Public Works Department for approval or denial.

7. **911 Address:** If the project is located in an area where the 911 address has been issued, then the proper paperwork from the 911 Addressing Department must be submitted. (386) 752-8787

ALL REQUIRED INFORMATION IS TO BE SUBMITTED FOR REVIEW. YOU WILL BE NOTIFIED WHEN YOUR APPLICATION AND PLANS ARE APPROVED AND READY TO PERMIT. PLEASE DO NOT EXPECT OR REQUEST THAT PERMIT APPLICATIONS BE REVIEWED OR APPROVED WHILE YOU ARE HERE – TIME WILL NOT ALLOW THIS –PLEASE DO NOT ASK

NOTICE:

ADDRESSES BY APPOINTMENT ONLY!

TO OBTAIN A 9-1-1 ADDRESS THE REQUESTER MUST CONTACT THE COLUMBIA COUNTY 9-1-1 ADDRESSING DEPARTMENT AT (386) 752-8787 FOR AN APPOINTMENT TIME AND DATE:

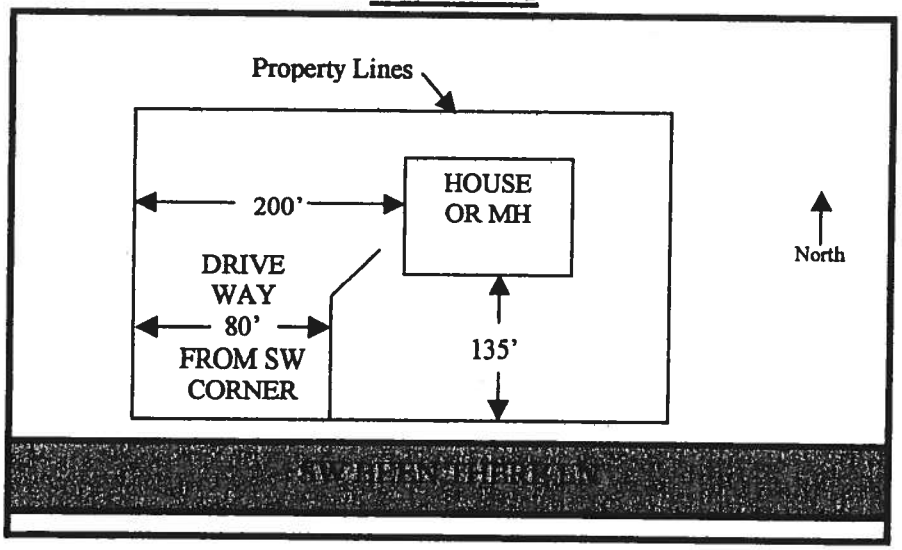
YOU CAN NOT OBTAIN A NEW ADDRESS OVER THE TELEPHONE. MUST MAKE AN APPOINTMENT!

THE ADDRESSING DEPARTMENT IS LOCATED AT 263 NW LAKE CITY AVENUE (OFF OF WEST U.S. HIGHWAY 90 WEST OF INTERSTATE 75 AT THE COLUMBIA COUNTY EMERGENCY OPERATIONS CENTER).

THE REQUESTER WILL NEED THE FOLLOWING:

1. THE PARCEL OR TAX ID NUMBER (SAMPLE: "25-4S-17-12345-123" OR "R12345-123) FOR THE PROPERTY.
2. A PLAT, PLAN, SITE PLAN, OR DRAWING SHOWING THE PROPERTY LINES OF THE PARCEL.
   a. LOCATION OF PLANNED RESIDENT OR BUSINESS STRUCTURE ON THE PROPERTY WITH DISTANCES FROM TWO OF THE PROPERTY LINES TO THE STRUCTURE (SEE SAMPLE BELOW).
   b. LOCATION OF THE ACCESS POINT (DRIVEWAY, ETC.) ON THE ROADWAY FROM WHICH LOCATION IS TO BE ADDRESSED WITH A DISTANCE FROM A PARALLEL PROPERTY LINE AND OR PROPERTY CORNER (SEE SAMPLE BELOW).
   c. TRAVEL OF THE DRIVEWAY FROM THE ACCESS POINT TO THE STRUCTURE (SEE SAMPLE BELOW).

SAMPLE:



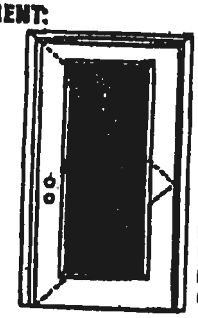
NOTE: 5 TO 7 WORKING DAYS MAY BE REQUIRED IF ADDRESSING DEPARTMENT NEEDS TO CONDUCT AN ON SITE SURVEY.

X
Glazed Inswing Unit

COP-WL-EN4141-02

WOOD-EDGE STEEL DOORS

APPROVED ARRANGEMENT:



Note:
Units of other sizes are covered by this report as long as the panel used does not exceed 3'0" x 6'8".

[illegible]

Test Data Review Certificate #[illegible] and COP/Test Report Validation Matrix #[illegible]-001 provides additional information - available from the [illegible] website ([illegible]), the Masonite website ([illegible]) or the Masonite technical center.

Single Door
Maximum unit size = 3'0" x 6'8"

Design Pressure
+50.5/-50.5
Limited water unless special threshold design is used.

Large Missile Impact Resistance
Hurricane protective system (shutters) is REQUIRED.

Actual design pressure and impact resistant requirements for a specific building design and geographic location is determined by ASCE 7-national, state or local building codes specify the edition required.

MINIMUM ASSEMBLY DETAIL:

Compliance requires that minimum assembly details have been followed – see MAD-WL-MA0001-02 and MAD-WL-MA0041-02.

MINIMUM INSTALLATION DETAIL:

Compliance requires that minimum installation details have been followed – see MID-WL-MA0001-02.

APPROVED DOOR STYLES:

1/4 GLASS:

[illegible] Series | 133, 135 Series | [illegible] Series | [illegible] Series | [illegible] Series

1/2 GLASS:

[illegible] Series* | [illegible] Series* | [illegible] Series* | [illegible] Series* | 12 R/L, [illegible] R/L, [illegible] R/L Series* | [illegible] Series* | [illegible] Series | [illegible] Series

*This glass kit may also be used in the following door styles: [illegible]

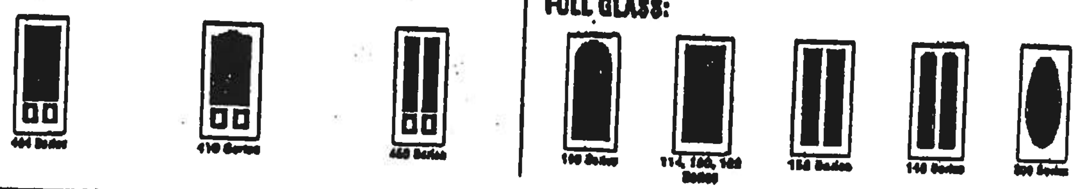
X
Glazed Inswing Unit

COP-WL-FN4141-02

WOOD-EDGE STEEL DOORS

APPROVED DOOR STYLES:

3/4 GLASS: **FULL GLASS:**



CERTIFIED TEST REPORTS:

NCTL 210-1897-7, 8, 9

Certifying Engineer and License Number: Barry D. Portnoy, P.E. / 16258.

Unit Tested in Accordance with Miami-Dade BCCO PA202.

Door panels constructed from 23-gauge 0.017" thick steel skins. Both stiles constructed from wood. Top and rails constructed of 0.032" steel. Bottom end rails constructed of 0.032" steel. Interior cavity of slab filled with rigid polyurethane foam core. Slab glazed with insulated glass mounted in a rigid plastic lip lite surround.

Frame constructed of wood with an extruded aluminum threshold.

PRODUCT COMPLIANCE LABELING:

TESTED IN
ACCORDANCE WITH
MIAMI-DADE BCCO PA202

COMPANY NAME
CITY, STATE

To the best of my knowledge and ability the above side-hinged exterior door unit conforms to the requirements of the 2001 Florida Building Code, Chapter 17 (Structural Tests and Inspections).

Kurt L Balthazor

State of Florida, Professional Engineer
Kurt Balthazor, P.E. – License Number 56533

Test Data Review Certificate [illegible] and COP/Test Report Validation Matrix [illegible] provide additional information - available from the [illegible] website ([illegible]), the Masonite website ([illegible]) or the Masonite technical center.

Entergy
Entry Systems

June 17, 2002

Our continuing program of product improvement makes specifications, design and product detail subject to change without notice.

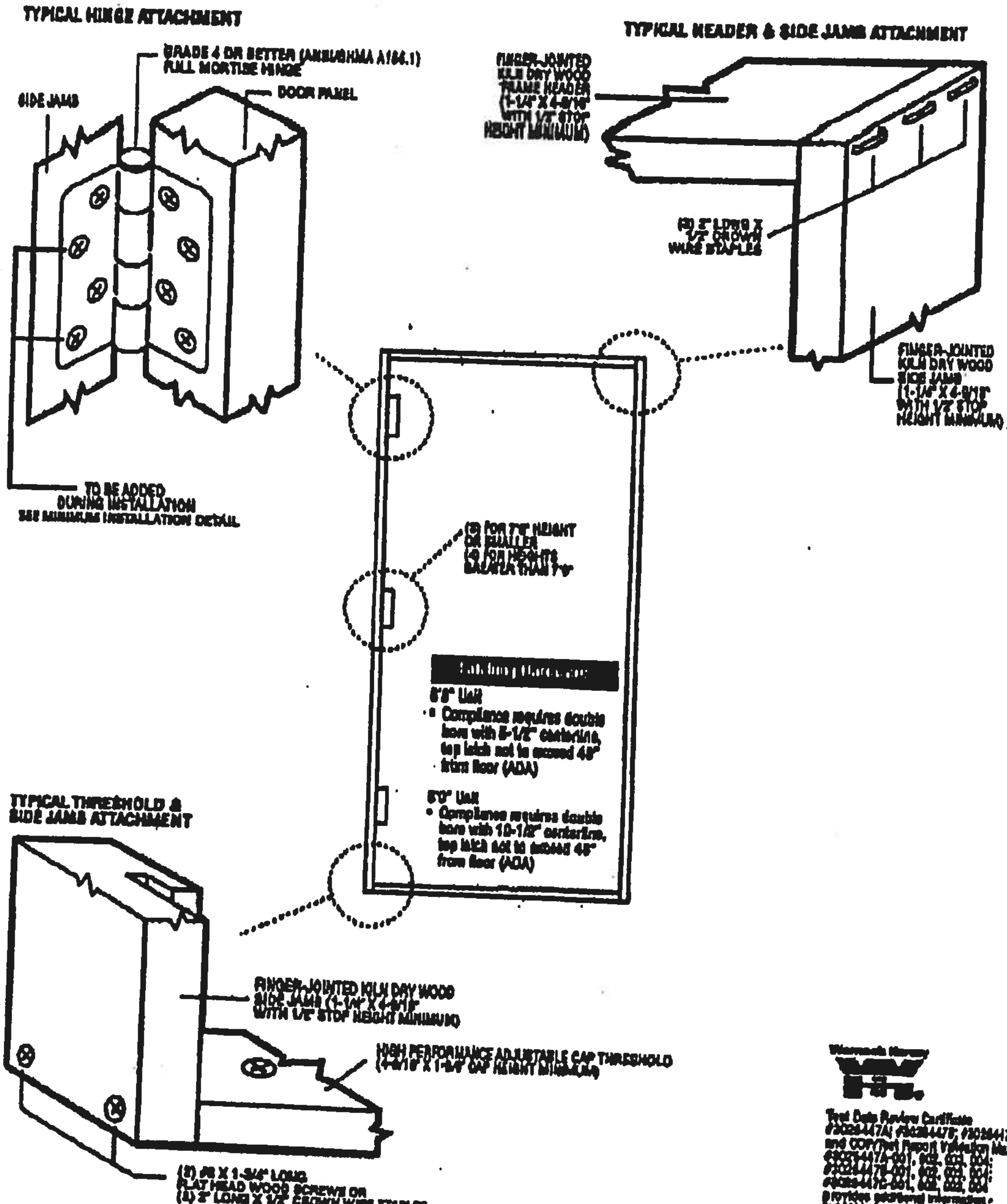
FREMDOOR Premium Quality Doors

Exclusively from Masonite
Masonite International Corporation

X
Unit

MAD-WI-MA0001-02

INSWING UNIT WITH SINGLE DOOR



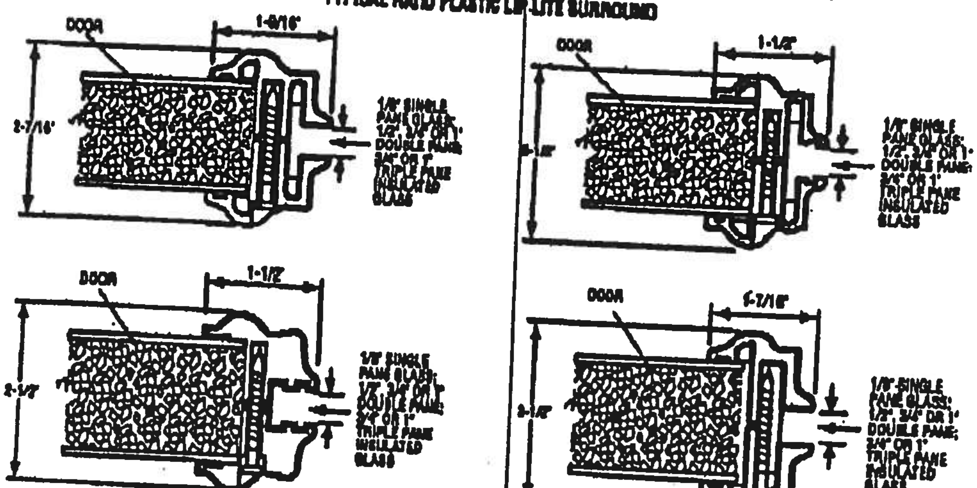
Test Data Review Certificate #3026447A, #3026447B, #3026447C and COP/Test Report Validation Matrix [illegible] provides additional information - available from the ITS/WH website (www.[illegible].com), the Masonite website (www.masonite.com) or the Masonite technical center.

Masonite

MAD-WL-MA0041-02

GLASS INSERT IN DOOR OR SIDELITE PANEL

SECTION A-A
TYPICAL RIGID PLASTIC LIP-LITE SURROUND



*Glass inserts to be sub-listed by Intertek Testing Services/ETL Semko or approved validation service.

Test Data Review Certificate #3025447A; #3025447B; #3025447C and COP/Test Report Validation Matrix #3025447A-001, 002, 003; #3025447B-001, 002, 003; #3025447C-001, 002, 003 provide additional information - available from the ITS/WH web site [illegible] the Masonite website (www.masonite.com) or the Masonite technical center.

June 17, 2002
Our continuing program of product improvement makes specifications, design and product detail subject to change without notice.

1

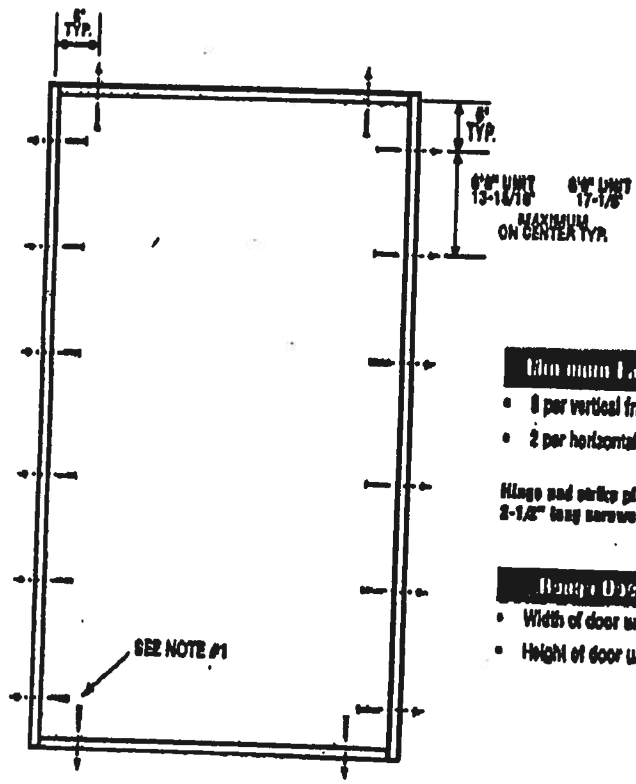
PREMDOOR [illegible]

Masonite®
Masonite International Corporation

X
Unit

MID-WL-MA0001-02

SINGLE DOOR



Minimum Fastener Count

- 8 per vertical framing member
- 2 per horizontal framing member

Hinge and strike plates require two 2-1/2" long screws per location.

Rough Opening (RO)

- Width of door unit plus 1/2"
- Height of door unit plus 1/4"

Warnock Hersey — Test Data Review Certificate #30284470A, #30284470B, #30284470C and COP/Test Report Validation Matrix #30284470A-001, 002, 003, 004; #30284470B-001, 002, 003, 004; #30284470C-001, 002, 003, 004 provides additional information - available from the ITS/WH website (www.etlsemko.com), the Masonite website (www.masonite.com) or the Masonite technical center.

Latching Hardware:

- Compliance requires that GRADE 3 or better (ANSI/BHMA A156.2) cylindrical and deadlock hardware be installed.
- UNITS COVERED BY COP DOCUMENT 5245*, 5235*, 5241*, 5245, 5251* or 5255
  Compliance requires that 8" GRADE 1 (ANSI/BHMA A156.16) surface bolts be installed on latch side of active door panel – (1) at top and (1) at bottom.

*Based on required Design Pressure – see COP sheet for details.

Notes:

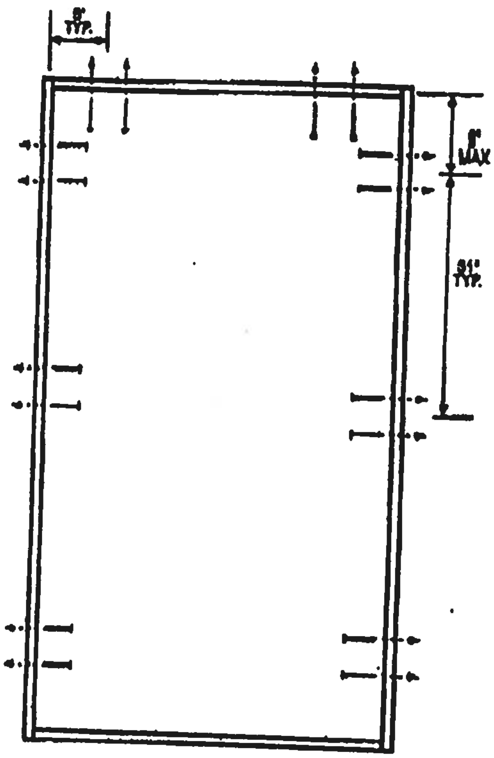
1. Anchor calculations have been carried out with the lowest (least) fastener rating from the different fasteners being considered for use. Jamb and head fasteners analyzed for this unit include #8 and #10 wood screws or 3/16" Tapcons. Threshold fasteners analyzed for this unit include #8 and #10 wood screws, 3/16" Tapcons, or Liquid Nails Builders Choice 490 (or equal structural adhesive).
2. The wood screw single shear design values come from Table 11.3A of ANSI/AF & PA NDS for southern pine lumber with a side member thickness of 1-1/4" and achievement of minimum embedment. The 3/16" Tapcon single shear design values come from the ITW and ELCO Dade County approvals respectively, each with minimum 1-1/4" embedment.
3. Wood bucks by others, must be anchored properly to transfer loads to the structure.

Masonite

X
Unit

MID-WL-MA0001-02

SINGLE DOOR



Minimum Fastener Count

- 6 per vertical framing member for 7'0" height and smaller
- 8 per vertical framing member for heights greater than 7'0"
- 4 per horizontal framing member

Hinge and strike plates require two 2-1/2" long screws per location.

Rough Opening (RO)

- Width of door unit plus 1/2"
- Height of door unit plus 1/4"

Test Data Review Certificate [illegible] and COP/Test Report Validation Matrix [illegible] additional information - available from the [illegible] website [illegible] or the Masonite technical center.

Latching Hardware:

- Compliance requires that GRADE 3 or better (ANSI/BHMA A156.2) cylindrical and deadlock hardware be installed.
- UNITS COVERED BY COP DOCUMENT 0240*, 8285*, 3241*, 3245, 3251* or 3256
  Compliance requires that 8" GRADE 1 (ANSI/BHMA A156.16) surface bolts be installed on latch side of active door panel – (1) at top and (1) at bottom.

*Based on required Design Pressure – see COP sheet for details.

Notes:

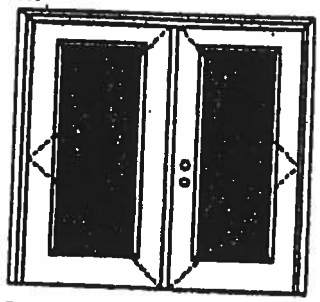
1. Anchor calculations have been carried out with the fastener rating from the different fasteners being considered for use. Jamb and head fasteners analyzed for this unit include 10d common nails. Threshold fasteners analyzed for this unit include Liquid Nails Builders Choice 490 (or equal structural adhesive).
2. The common nail single shear design values come from ANSI/AF & PA NDS for southern pine lumber with a side member thickness of 1-1/4" and achievement of minimum embedment of 1-1/4".
3. Wood bucks by others, must be anchored properly to transfer loads to the structure.

XX
Glazed Outswing Unit

COP-WL-FN4162-02

WOOD-EDGE STEEL DOORS

APPROVED ARRANGEMENT:



Double Door
Maximum unit size – 6'0" x 6'8"

Design Pressure
+50.5/-50.5
Limited water unless special threshold design is used.

Large Missile Impact Resistance
Hurricane protective system (shutters) is REQUIRED.
Actual design pressure and impact resistant requirements for a specific building design and geographic location is determined by ASCE 7-national, state or local building codes specify the edition required.

Note:
Units of other sizes are covered by this report as long as the panels used do not exceed 3'0" x 6'8".

Warnock Hersey

This [illegible] Certificate [illegible]4470 and COP/Test Report Validation Matrix [illegible]4470-001 provides additional information - available from the ITS/WH website (www.[illegible].com), the Masonite website (www.masonite.com) or the Masonite technical center.

MINIMUM ASSEMBLY DETAIL:

Compliance requires that minimum assembly details have been followed – see MAD-WL-MA0012-02 and MAD-WL-MA0041-02.

MINIMUM INSTALLATION DETAIL:

Compliance requires that minimum installation details have been followed – see MID-WL-MA0002-02.

APPROVED DOOR STYLES:
1/4 GLASS:

100 Series · 133, 136 Series · 138 Series · 680 Series · 622 Series

1/2 GLASS:

104 Series* · 106, 160 Series* · 120 Series* · 200 Series* · 12 R/L, 23 R/L, 24 R/L Series* · 107 Series* · 108 Series · 304 Series

*This glass kit may also be used in the following door styles: 6-panel, 6-panel with scroll, Eyebrow 6-panel, Eyebrow 6-panel with scroll.

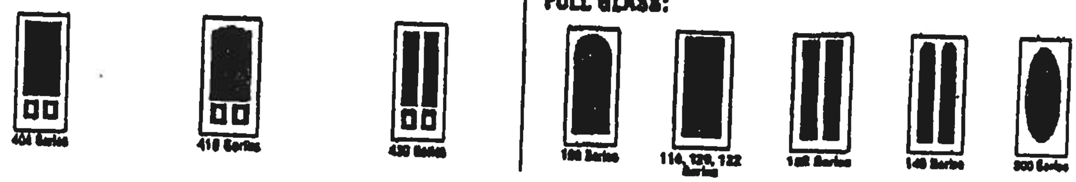
XX
Glazed Outswing Unit

COP-WI-FN4162-02

WOOD-EDGE STEEL DOORS

APPROVED DOOR STYLES:

3/4 GLASS: **FULL GLASS:**



CERTIFIED TEST REPORTS:

NCTL 210-1897-7, 8, 9

Certifying Engineer and License Number: Barry D. Portney, P.E. / 16258.

Unit Tested in Accordance with Miami-Dade BCCO PA202.

Door panels constructed from 26-gauge 0.017" thick steel skins. Both stiles constructed from wood. Top end rails constructed of 0.032" steel. Bottom end rails constructed of 0.032" steel. Interior cavity of slab filled with rigid polyurethane foam core. Slab glazed with insulated glass mounted in a rigid plastic lip lite surround.

Frame constructed of wood with an extruded aluminum bumper threshold.

PRODUCT COMPLIANCE LABELING:

TESTED IN
ACCORDANCE WITH
MIAMI-DADE BCCO PA202

COMPANY NAME
CITY, STATE

To the best of my knowledge and ability the above side-hinged exterior door unit conforms to the requirements of the 2001 Florida Building Code, Chapter 17 (Structural Tests and Inspections).

Kurt L Balthazor

State of Florida, Professional Engineer
Kurt Balthazor, P.E. – License Number 56533

Test Data Review Certificate #[illegible] and COP/Test Report Validation Matrix #[illegible] provide additional information - available from the ITS/WH website (www.[illegible].com), the Masonite website (www.masonite.com) or the Masonite technical center.

Entergy
Entry Systems
June 17, 2002
[illegible]

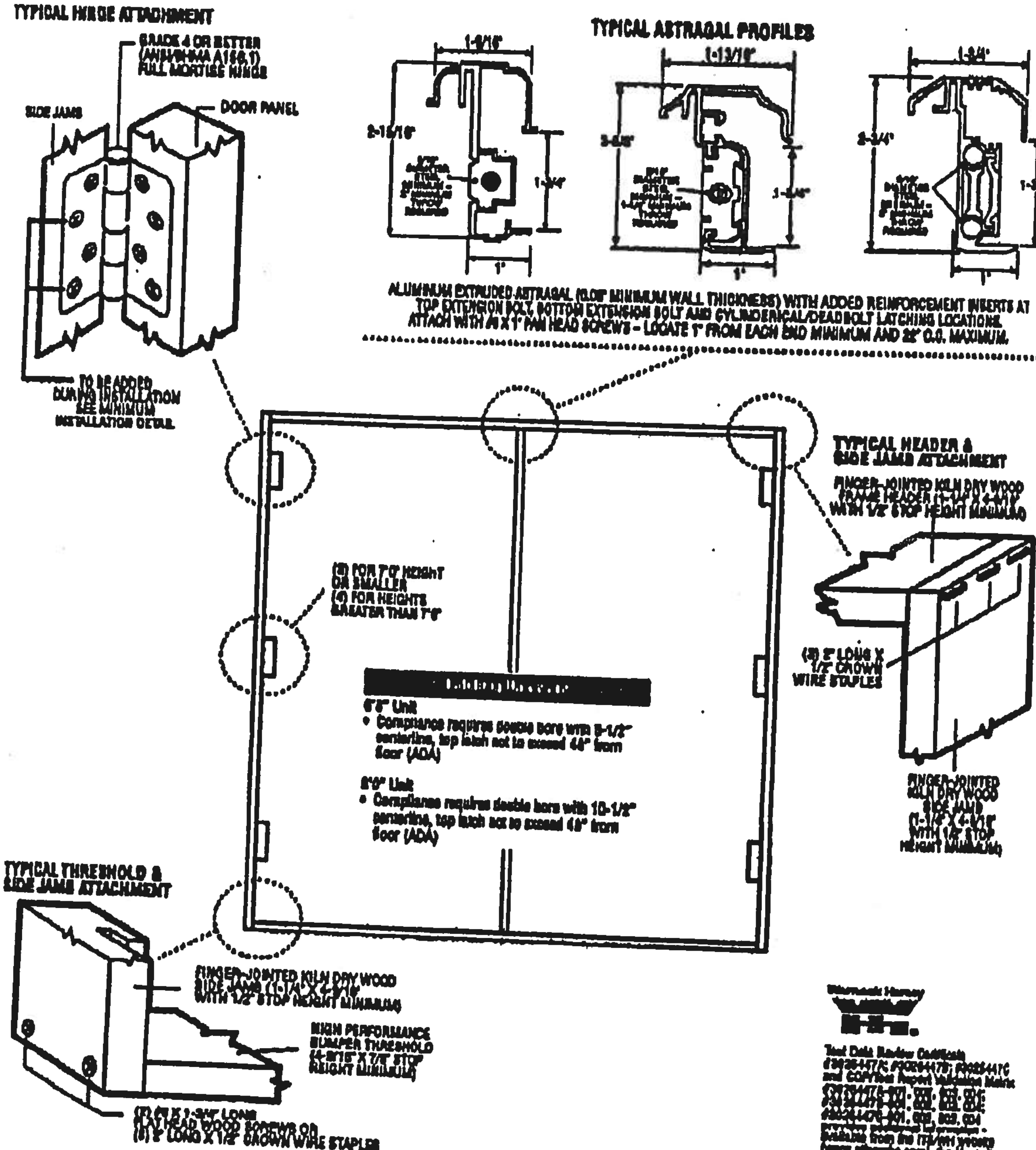
PREMDOR Collection
Premium Quality Doors

Exclusively from Masonite
Masonite International Corporation

XX
Unit

MAD WL-MA0012-02

OUTSWING UNITS WITH DOUBLE DOOR

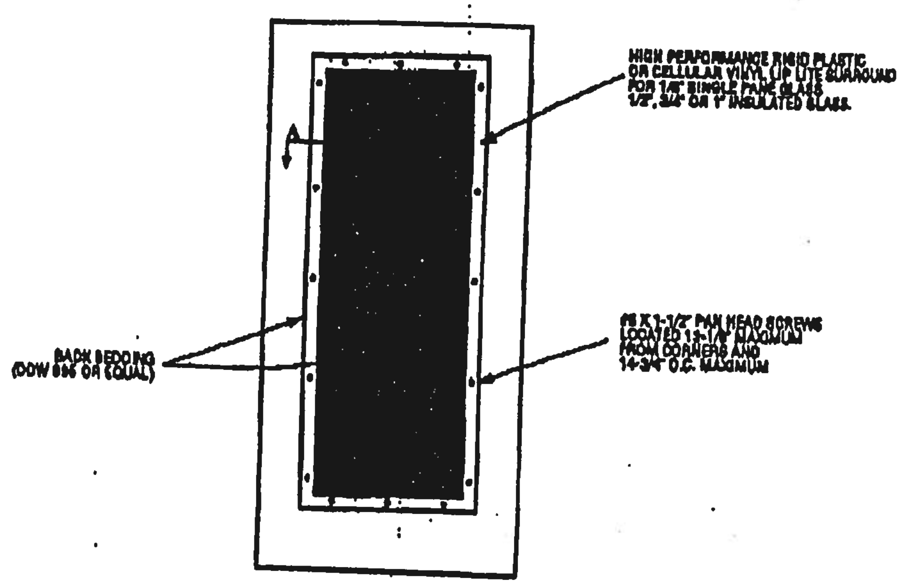


Test Data Review Certificate

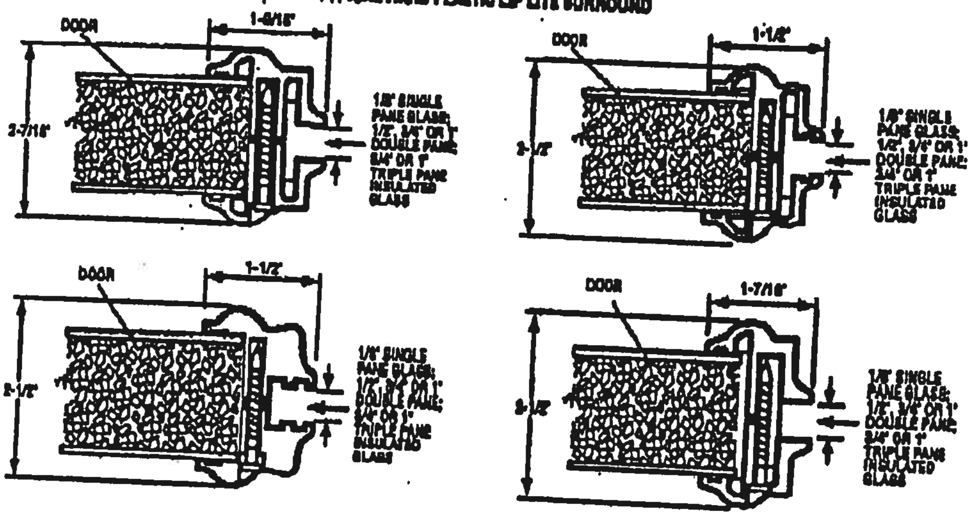
Masonite

MAD-WI-MA0041-02

GLASS INSERT IN DOOR OR SIDELITE PANEL



SECTION A-A
TYPICAL RIGID PLASTIC LIP LITE SURROUND



*Glass inserts to be sub-listed by Intertek Testing Services/ETL Semko or approved validation service.

Test Data Review Certificate ... and COP/Test Report Validation ... additional information - available from the ITS/WH website ... the Masonite website (www.masonite.com) or the Masonite technical center.

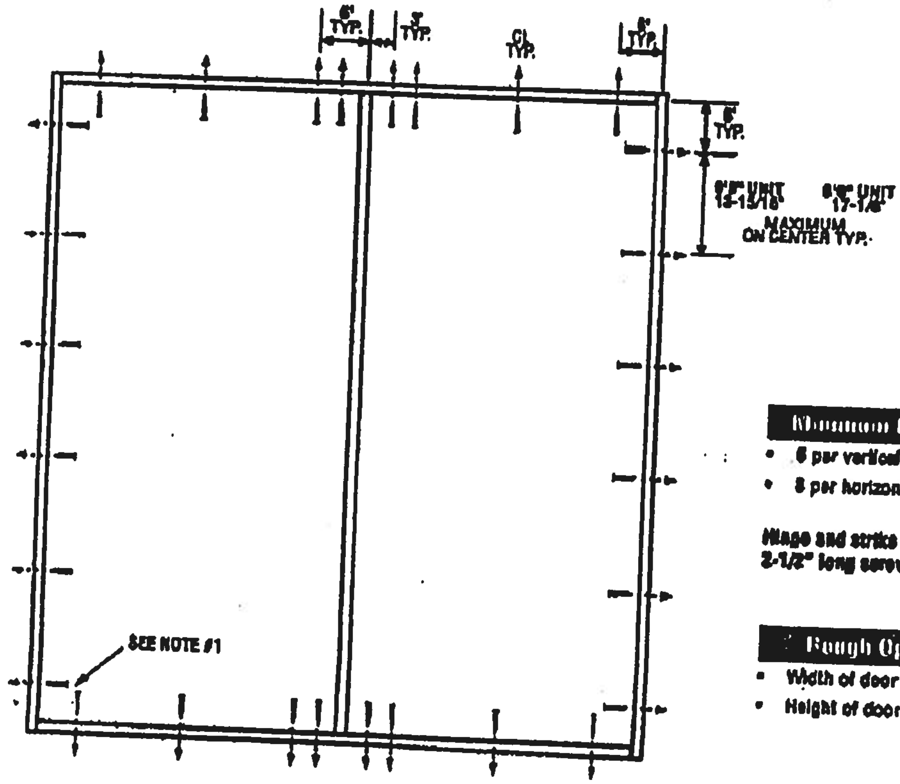
June 17, 2002

PREMDOR — Exclusively from Masonite — Masonite International Corporation

XX
Unit

MID-WL-MA0002-02

DOUBLE DOOR



Minimum Fastener Count

- 5 per vertical framing member
- 5 per horizontal framing member

Hinge and strike plates require two 2-1/2" long screws per location.

Rough Opening (RO)

- Width of door unit plus 1/2"
- Height of door unit plus 1/4".

Test Data Review Certificate #30254474; #30254478; #30254470 and COP/Test Report Validation Matrix #30254474-001, 002, 003, 004; #30254478-001, 002, 003, 004; #30254470-001, 002, 003, 004 provides additional information - available from the ITS/WH website (www.etlsemko.com), the Masonite website (www.masonite.com) or the Masonite technical center.

Latching Hardware:

- Compliance requires that GRADE 3 or better (ANSI/BHMA A156.2) cylindrical and deadlock hardware be installed.
- UNITS COVERED BY COP DOCUMENT 8247*, 8257*, 8242*, 8247, 8252* or 8267
  Compliance requires that 6" GRADE 1 (ANSI/BHMA A156.16) surface bolts be installed on latch side of active door panel – (1) at top and (1) at bottom.

*Based on required Design Pressure – see COP sheet for details.

Notes:

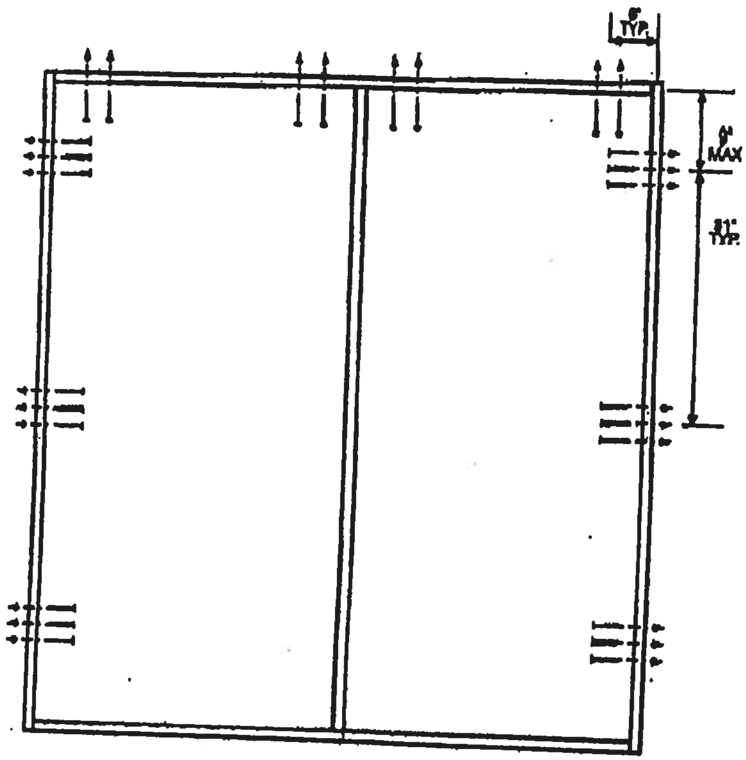
1. Anchor calculations have been carried out with the lowest (least) fastener rating from the different fasteners being considered for use. Jamb and head fasteners analyzed for this unit include #8 and #10 wood screws or 3/16" Tapcons. Threshold fasteners analyzed for this unit include #8 and #10 wood screws, 3/16" Tapcons, or Liquid Nails Builders Choice 490 (or equal structural adhesive).
2. The wood screw single shear design values come from Table 11.3A of ANSI/AF & PA NDS for southern pine lumber with a side member thickness of 1-1/4" and achievement of minimum embedment. The 3/16" Tapcon single shear design values come from the ITW and ELCO Dade Country approvals respectively, each with minimum 1-1/4" embedment.
3. Wood bucks by others, must be anchored properly to transfer loads to the structure.

Masonite

XX
Unit

MID-WL-MA0002-02

DOUBLE DOOR



Minimum Fastener Count

- 6 per vertical framing member for 7'0" heights and smaller
- 8 per vertical framing member for heights greater than 7'0"
- 8 per horizontal framing member

Hinge and strike plates require two 2-1/2" long screws per location.

Rough Opening (RO)

- Width of door unit plus 1/2"
- Height of door unit plus 1/4"

Latching Hardware:

- Compliance requires that GRADE 3 or better (ANSI/BHMA A156.2) cylindrical and deadlock hardware be installed.
- UNITS COVERED BY COP DOCUMENT 3247*, 3257*, 3242*, 3247, 3252* or 3257
  Compliance requires that 8" GRADE 1 (ANSI/BHMA A156.16) surface bolts be installed on latch side of active door panel – (1) at top and (1) at bottom.

*Based on required Design Pressure – see COP sheet for details.

Notes:

1. Anchor calculations have been carried out with the fastener rating from the different fasteners being considered for use. Jamb and head fasteners analyzed for this unit include #8 wood screws and 10d common nails. Threshold fasteners analyzed for this unit include Liquid Nails Builders Choice 490 (or equal structural adhesive).
2. The wood screw and common nail single shear design values come from ANSI/AF & PA NDS for southern pine lumber with a side member thickness of 1-1/4" and achievement of minimum embedment of 1-1/4".
3. Wood bucks by others, must be anchored properly to transfer loads to the structure.

Masonite

MI Home Products, Inc.
650 West Market St.
P.O. Box 370
Gratz, PA 17030-0370

(717) 365-3300
(717) 362-7025 Fax

740/744 Single Hung (Fin & Flange)
165 Single Hung (Fin & Flange)
BB165/740/744 Fixed (Fin & Flange)

- Test Reports
  - 165 Single Hung
    - #CTLA-787W (Fin)
    - #CTLA-787W-1 (Flange)
  - 740/744 Single Hung
    - #01-40351.03 (Fin)
    - #01-40351.04 (Flange)
  - 165/740/744 Fixed
    - #NCTL-310-0005-2.1 (Fin)
    - # NCTL-310-0005-5.1 (Flange)
    - #01-40486.03 (2-Panel Fixed)
- Installation Instructions
- Sample 110/120/140 MPH Labels

AAMA/NWWDA 101/I.S.2-97
TEST REPORT SUMMARY

Rendered to:

MI HOME PRODUCTS, INC.

SERIES/MODEL: 740/744
TYPE: Aluminum Single Hung Window with Nail Fin

Title of Test	Results
Rating	H R45 52 x 72
Overall Design Pressure	45 psf
Operating Force	24 lb max.
Air Infiltration	0.10 cfm/ft^2
Water Resistance	6.75 psf
Structural Test Pressure	+67.5 psf -70.8 psf
Deglazing	Passed
Forced Entry Resistance	Grade 10

Reference should be made to Report No. 01-40351.03 for complete test specimen description and data.

For ARCHITECTURAL TESTING, INC.

Mark A. Hess, Technician

MAH:baw

Allen N. Reeves
15 FEBRUARY 2002

ALLEN N. REEVES CERTIFICATE 11931 STATE OF FLORIDA PROFESSIONAL ENGINEER

THIS FENESTRATION PRODUCT COMPLIES* WITH THE

NEW FLORIDA BUILDING CODE

FOR RESIDENTIAL BUILDINGS WITH A MEAN ROOF HEIGHT OF 30 FT. OR LESS, *EXPOSURE "B"* (WHICH IS INLAND OF A LINE THAT IS 1500 FT. FROM THE COAST), AND *WALL ZONE "5"* (INSTALLED NEAR THE CORNER OF THE BUILDING).

PER *ASTM E1300*, THE CORRECT GLASS THICKNESS, BASED ON THE *NEGATIVE* DESIGN PRESSURE (DP) LISTED BELOW, HAS BEEN INSTALLED IN THIS UNIT. THE GLASS THICKNESS IS BASED ON ITS' WIDTH, HEIGHT, AND ASPECT RATIO.

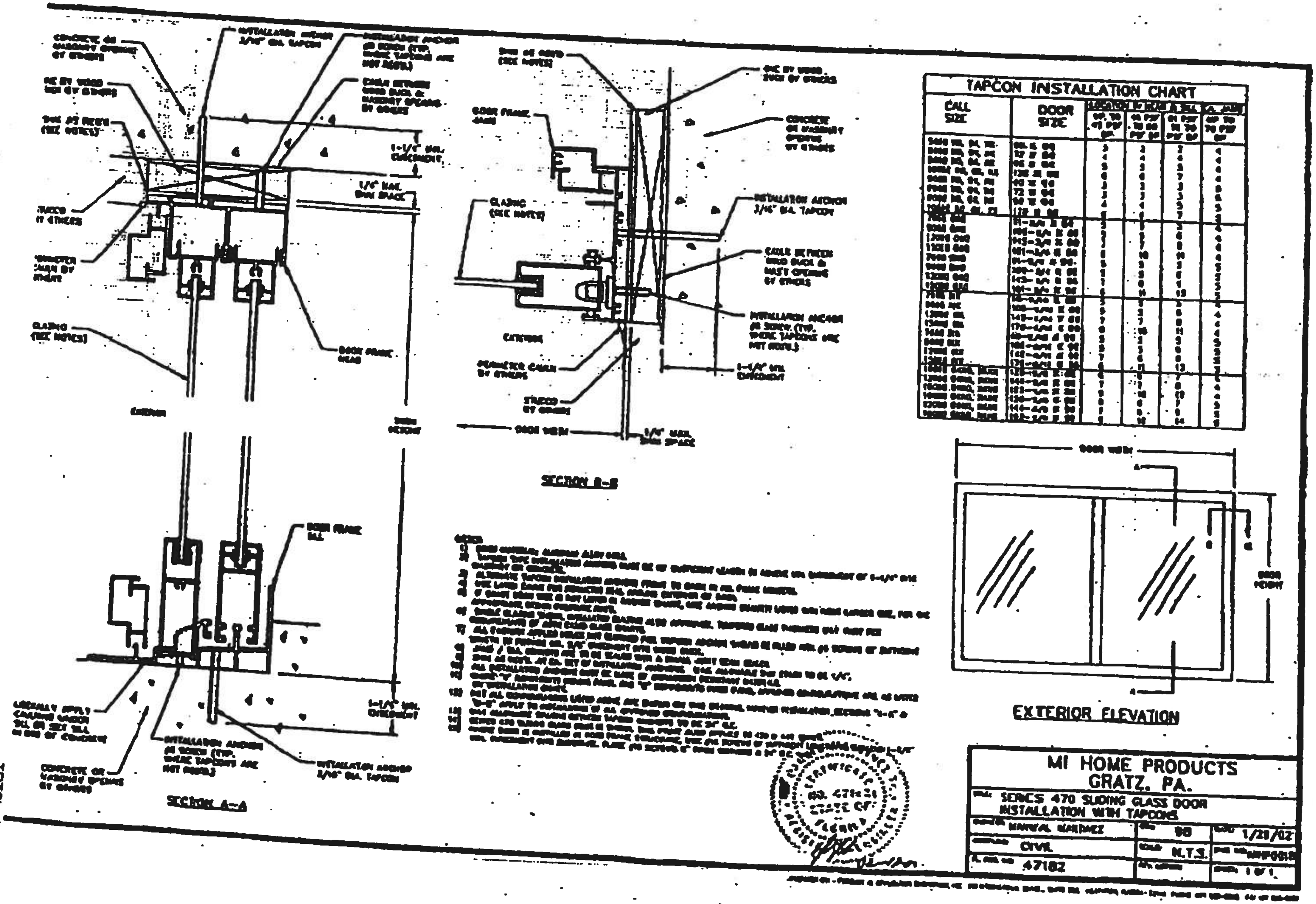
Series 470HP SLIDING GLASS DOOR – all 6'- 8" High Panels

- 2'- 6" WIDE DP + 40.0 / - 55.4
- 3'- 0" WIDE DP + 40.0 / - 48.5
- 4'- 0" WIDE DP + 40.0 / - 40.3

THIS PRODUCT MEETS THE REQUIREMENTS FOR STRUCTURAL LOADS, WATER AND AIR INFILTRATION PER ATTACHED *AAMA* PERFORMANCE LABEL. BE ADVISED THAT IF LOADS ARE PLACED UP TO OR EXCEEDING THE TESTED LEVELS, THIS PRODUCT MAY BE ALTERED IN SUCH A WAY THAT FUTURE PERFORMANCE WILL BE REDUCED.

* COMPLIANCE MUST INCLUDE INSTALLATION ACCORDING TO MANUFACTURER'S INSTRUCTIONS AND FLORIDA CODE REQUIREMENTS.

MIP-686



TAPCON INSTALLATION CHART
CALL SIZE
DOOR SIZE
SECTION B-B
SECTION A-A
EXTERIOR ELEVATION
MI HOME PRODUCTS
GRATZ, PA.
SERIES 470 SLIDING GLASS DOOR
INSTALLATION WITH TAPCONS
CIVIL
47182
N.T.S.
1/28/02
1 OF 1

DOCUMENT CONTROL ADDENDUM #01-40351.00

Current Issue Date: 02/15/02

Report No.: 01-40351.01

Requested by: William Emley, MI Home Products, Inc.
Purpose: AAMA/NWWDA 101/I.S.2-97 testing of Series/Model 744 aluminum single hung window with flange.
Issued Date: 12/28/01
Comments: Florida P.E. seal required on report.
Certification copy to John Smith at Associated Laboratories, Inc.

Report No.: 01-40351.02

Requested by: William Emley, MI Home Products, Inc.
Purpose: Change of glass type.
Issued Date: 12/28/01
Comments: Florida P.E. seal required on report.
Certification copy to John Smith at Associated Laboratories.

Report No.: 01-40351.03

Requested by: William Emley, MI Home Products, Inc.
Purpose: AAMA/NWWDA 101/I.S.2-97 testing of Series/Model 740/744 aluminum single hung window with nail fin.
Issued Date: 02/15/02
Comments: Florida P.E. seal required on report.
Certification copy to John Smith at Associated Laboratories, Inc.

Allen N. Reeves
15 FEBRUARY 2002

Test Results: (Continued)

Paragraph	Title of Test - Test Method	Results	Allowed
2.1.8	Forced Entry Resistance per ASTM F 588-97		
	Type: A Grade: 10		
	Lock Manipulation Test	No entry	No entry
	Test A1 thru A5	No entry	No entry
	Test A7	No entry	No entry
	Lock Manipulation Test	No entry	No entry
Optional Performance			
4.4.1	Uniform Load Deflection per ASTM E 330 (Measurements reported were taken on the meting rail) (Loads were held for 52 seconds)		
	@ 45.0 psf (positive)	0.91"*	0.29" max.
	@ 45.0 psf (negative)	0.97"*	0.29" max.

** Exceeds L/175 for deflection, but meets all other test requirements.*

4.4.2	Uniform Load Structural per ASTM E 330 (Measurements reported were taken on the meeting rail) (Loads held for 10 seconds)		
	@ 67.5 psf (positive)	0.14"	0.20" max.
	@ 67.5 psf (negative)	0.19"	0.20" max.
4.4.2	@ 70.8 psf (negative)	0.20"	0.20" max.

Detailed drawings, representative samples of the test specimen, and a copy of this report will be retained by ATI for a period of four years. The above results were secured by using the designated test methods and they indicate compliance with the performance requirements of the above referenced specification. This report does not constitute certification of this product, which may only be granted by the certification program administrator.

For ARCHITECTURAL TESTING, INC:

Mark A. Hess
Technician

MAH:baw
01-40351.03

Allen N. Reeves, P.E.
Director - Engineering Services
15 FEBRUARY 2002

ALLEN N. REEVES
CERTIFICATE
NO. 19354
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

Test Specimen Description: (Continued)

Drainage: Sloped sill

Reinforcement: No reinforcement was utilized.

Installation: The test specimen was installed into the #2 2 x 8 Spruce-Pine-Fir wood buck with 1" galvanized roofing nails through the nail fin every 8" on center. Polyurethane was used as a sealant under the nail fin and around the exterior perimeter.

Test Results:

The results are tabulated as follows:

Paragraph	Title of Test - Test Method	Results	Allowed
2.2.1.6.1	Operating Force	24 lbs	30 lbs max.
2.1.2	Air Infiltration (ASTM E 283) @ 1.57 psf (25 mph)	0.10 cfm/ft^2	0.30 cfm/ft^2 max.

Note #1: The tested specimen meets the performance levels specified in AAMA/NWWDA 101/I.S. 2-97 for air infiltration.

2.1.3	Water Resistance (ASTM E 547-96) (with and without screen) WTP = 6.75 psf	No leakage	No leakage
2.1.4.1	Uniform Load Deflection per ASTM E 330 (Measurements reported were taken on the meeting rail) (Loads were held for 52 seconds)		
	@ 15.0 psf (positive)	0.86"*	0.29" max.
	@ 15.0 psf (negative)	0.81"*	0.29" max.

*Note: * Exceeds L/175 for deflection, but meets all other test requirements.*

2.1.4.2	Uniform Load Structural per ASTM E 330 (Measurements reported were taken on the meeting rail) (Loads were held for 10 seconds)		
	@ 22.5 psf (positive)	0.01"	0.20" max.
	@ 22.5 psf (negative)	<0.01"	0.20" max.
2.2.1.6.2	Deglazing Test per ASTM E 987 In operating direction at 70 lbs		
	Top rail	0.06"/12%	0.50"/100%
	Bottom rail	0.06"/12%	0.50"/100%
	In remaining direction at 50 lbs		
	Left stile	0.03"/6%	0.50"/100%
	Right stile	0.03"/6%	0.50"/100%

Allen N. Reeves
15 FEBRUARY 2002

ALLEN N. REEVES CERTIFICATE NO. 19354 STATE OF FLORIDA PROFESSIONAL ENGINEER

Test Specimen Description: (Continued)

Weatherstripping:

Description	Quantity	Location
0.330" high by 0.187" backed polypile with center fin	1 Row	Fixed meeting rail interlock
0.170" high by 0.187" backed polypile with center fin	1 Row	Fixed lite, stiles and top rail
3/8" diameter hollow bulb gasket	1 Row	Bottom rail
0.310" high by 0.187" backed polypile with center fin	1 Row	Active sash stiles
0.150" high by 0.187" wide polypile	1 Row	Active sash stiles

Frame Construction: All frame members were constructed of extruded aluminum with coped, butted and sealed corners fastened with two screws each. Fixed meeting rail was secured utilizing one screw in each end directly through exterior face into jamb. Silicone was utilized around exterior meeting rail/jamb joinery.

Sash Construction: All sash members were constructed of extruded aluminum with coped and butted corners fastened with one screw each.

Screen Construction: The screen frame was constructed from roll-formed aluminum members with plastic keyed corners. The screening consisted of a fiberglass mesh and was secured with a flexible vinyl spline.

Hardware:

Description	Quantity	Location
Plastic tilt latch	2	One each end of the interior Meeting rail
Metal sweep lock	2	13" from meeting rail ends
Balance assembly	2	One per jamb
Screen tension spring	2	One per end of screen stile
Tilt pin	2	One each end of bottom rail

Allen N. Reeves
15 FEBRUARY 2002

ALLEN N. REEVES
CERTIFICATE NO. 19356
STATE OF FLORIDA
PROFESSIONAL ENGINEER

Architectural Testing

AAMA/NWWDA 101/I.S.2-97 TEST REPORT

Rendered to:

MI HOME PRODUCTS, INC.
P.O. Box 370
Gratz, Pennsylvania 17030-0370

Report No: 01-40351.03
Test Dates: 10/22/01
And: 10/23/01
Report Date: 02/15/02
Expiration Date: 10/23/05

Project Summary: Architectural Testing, Inc. (ATI) was contracted by MI Home Products, Inc. to witness performance testing on a Series/Model 740/744, aluminum single hung window at MI Home Products, Inc.'s test facility in Elizabethville, Pennsylvania. The sample tested successfully met the performance requirements for a H-R45 52 x 72 rating.

Test Specification: The test specimen was evaluated in accordance with AAMA/NWWDA 101/I.S.2-97, *Voluntary Specifications for Aluminum, Vinyl (PVC) and Wood Windows and Glass Doors.*

Test Specimen Description:

Series/Model: 740/744

Type: Aluminum Single Hung Window With Nail Fin

Overall Size: 4' 4-1/8" wide by 5' 11-5/8" high

Active Sash Size: 4' 2-3/4" wide by 2' 11-5/8" high

Fixed Daylight Opening Size: 4' 1-1/8" wide by 2' 9" high

Screen Size: 4' 1-7/8" wide by 2' 11-5/16" high

Finish: All aluminum was polished.

Glazing Details: The active sash and fixed lite were glazed with one sheet of 1/8" thick clear tempered glass. Each sash was channel glazed using a flexible vinyl gasket.

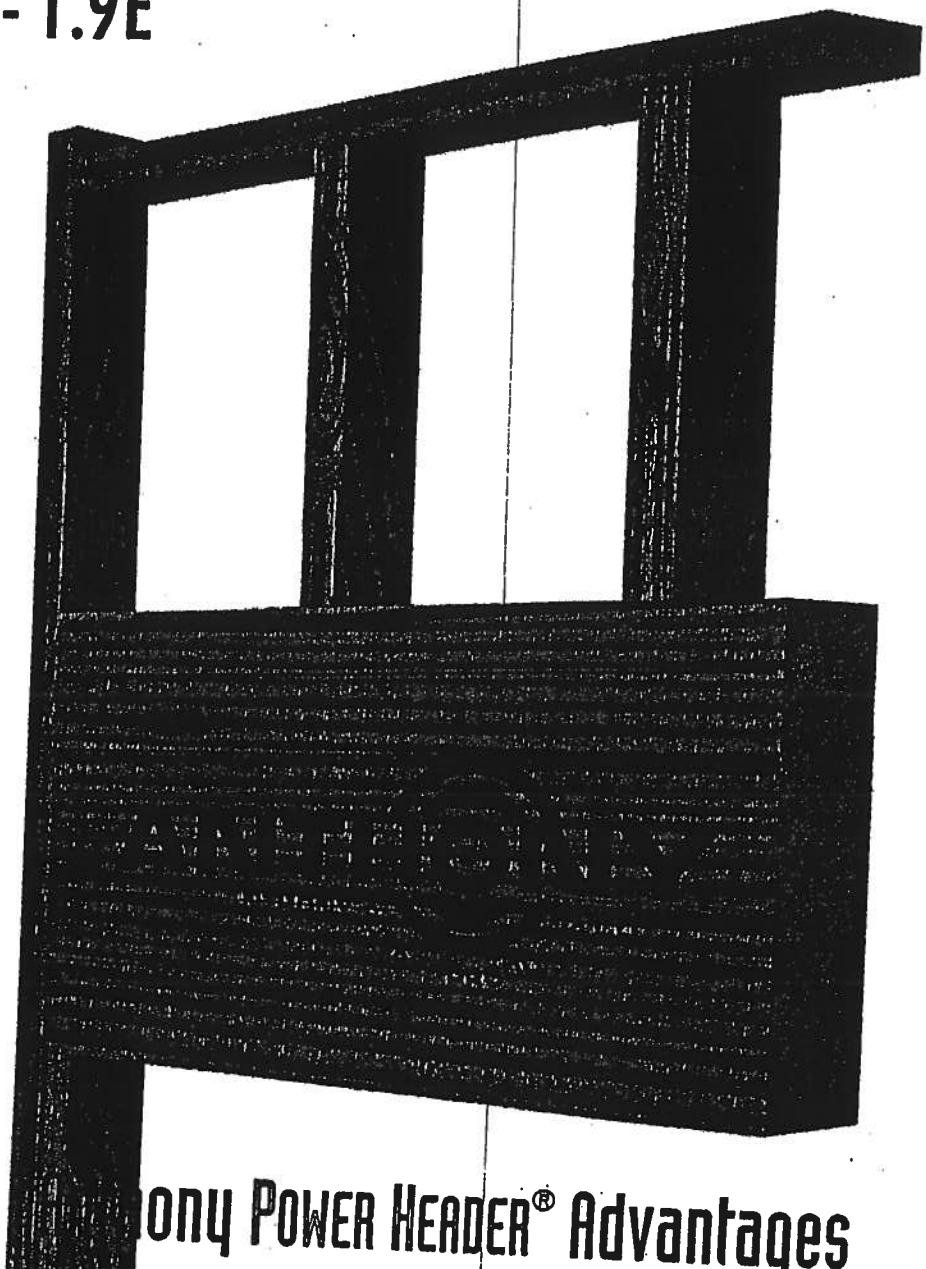
ALLEN M. REEVES
CERTIFICATE
NO. 19354
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

Allen M. Reeves

130 Derry Court
York, PA 17402-9405
phone: 717.764.7700
fax: 717.764.4129
www.testati.com

Anthony Power Header®

2600F_b - 1.9E



Anthony Power Header® Advantages

- Less Expensive than LVL or PSL
- Lighter than Steel, LVL or PSL
- Pre-Cut Lengths
- Renewable Resource
- Cambered or Non-cambered
- 3-1/2" Width to Match Framing
- One Piece - No Nail Laminating
- Lifetime Warranty

Garage Header Sizing Tables

ANTHONY®
ANTHONY FOREST PRODUCTS CO.

Anthony POWER HEADER®

26F_b - 1.9E

3-1/2" WIDTH GARAGE HEADER APPLICATION - SINGLE STORY

HEADER SUPPORTING: 1/2 ROOF SPAN

9'-3"	16'-3"	18'-3"	9'-3"	16'-3"	18'-3"	9'-3"	16'-3"	18'-3"	9'-3"	16'-3"	18'-3"	9'-3"	16'-3"	18'-3"	9'-3"	16'-3"	18'-3"
8-3/8	11-1/4	12-5/8	8-3/8	12-5/8	14	8-3/8	12-5/8	14	8-3/8	12-5/8	14	8-3/8	14	15-3/8	8-3/8	14	16-3/4
8-3/8	12-5/8	14	8-3/8	12-5/8	14	8-3/8	12-5/8	14	8-3/8	12-5/8	15-3/8	8-3/8	14	15-3/8	8-3/8	15-3/8	
8-3/8	12-5/8	14	8-3/8	12-5/8	14	8-3/8	12-5/8	15-3/8	8-3/8	14	15-3/8	8-3/8	14	16-3/4	9-3/4	15-3/8	
8-3/8	12-5/8	14	8-3/8	12-5/8	15-3/8	8-3/8	14	15-3/8	8-3/8	14	15-3/8	8-3/8	15-3/8		9-3/4		
8-3/8	12-5/8	14	8-3/8	14	15-3/8	8-3/8	14	15-3/8	8-3/8	15-3/8	16-3/4	9-3/4	15-3/8		9-3/4		
8-3/8	14	15-3/8	8-3/8	14	15-3/8	8-3/8	14	16-3/4	8-3/8	15-3/8		9-3/4			9-3/4		
8-3/8	14	15-3/8	8-3/8	14	16-3/4	8-3/8	15-3/8		9-3/4	15-3/8		9-3/4			9-3/4		
8-3/8	14	15-3/8	8-3/8	15-3/8		8-3/8	15-3/8		9-3/4			9-3/4			11-1/4		
8-3/8	14	16-3/4	8-3/8	15-3/8		9-3/4	15-3/8		9-3/4			9-3/4			11-1/4		

9'-3"	16'-3"	18'-3"	9'-3"	16'-3"	18'-3"	9'-3"	16'-3"	18'-3"	9'-3"	16'-3"	18'-3"	9'-3"	16'-3"	18'-3"
8-3/8	11-1/4	12-5/8	8-3/8	11-1/4	12-5/8	8-3/8	11-1/4	12-5/8	8-3/8	11-1/4	12-5/8	8-3/8	12-5/8	14
8-3/8	11-1/4	12-5/8	8-3/8	11-1/4	12-5/8	8-3/8	11-1/4	12-5/8	8-3/8	12-5/8	14	8-3/8	12-5/8	14
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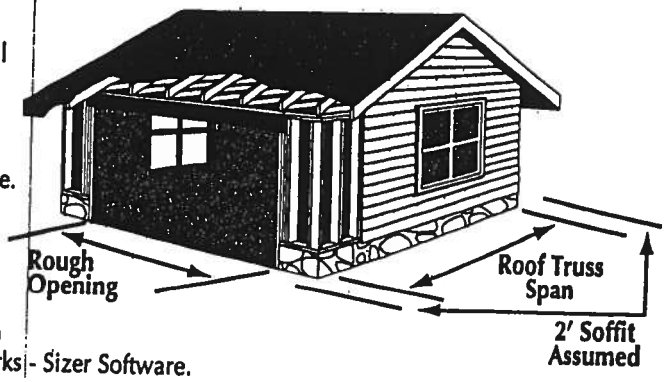
8-3/8	12-5/8	14	8-3/8	12-5/8	14	8-3/8	14	15-3/8	8-3/8	14	15-3/8	8-3/8	15-3/8	

NOTES:

1. Table assumes a simple span header supporting a uniform load transferred from 1/2 the roof span plus a 2' soffit.
2. Roof live and dead loads shown are applied vertically to the horizontal projection. No reductions in roof live loads or snow loads were considered. The header weight is accounted for in the table.
3. Deflection is limited to L/240 for live load and L/180 for total load.
4. Headers are assumed to have continuous lateral support along top edge.
5. Bearing length based on full width bearing is indicated as follows:
   Non-shaded sizes require two trimmers (3" bearing).
   Shaded sizes require three trimmers (4.5" bearing).
   Shaded & outlined sizes require four trimmers (6" bearing).
6. ** Applications where load carrying capacity of 16-3/4" depth has been exceeded. See AFP 30F_b POWER BEAM® literature or AFP's WoodWorks - Sizer Software.



Anthony POWER HEADER®

26F_b - 1.9E

3-1/2" WIDTH GARAGE HEADER PLF CAPACITY

844	896		1216		1573						
161	207	254	330	390	510	552	669	752	824		
114	145	180	231	277	359	391	510	534	653	707	789

844	975		1322								
161	207	254	330	390	510	552	724	752	897		
114	145	180	231	277	359	391	510	534	699	693	

562	778	888	1056	1363	1367		1582						
107	153	169	245	260	380	368	540	501	715	664	864	840	
76	107	120	171	185	267	261	380	356	521	471	684	609	813

NOTES:

1. Values shown are the maximum uniform loads in pounds per lineal foot (PLF) that can be applied to the header. Header weight has been subtracted from the allowable total load.
2. Tables are based on simple span uniform load conditions using a design span equal to the center-to-center of bearing. Non-shaded areas are based on 3" of bearing at each support, shaded areas on 4.5" of bearing, and shaded & outlined areas on 6" of bearing at supports.
3. Headers are assumed to be loaded on the top edge with continuous lateral support along compression edge.
4. When no live load is listed, total load controls.
5. Deflection limits are listed within the PLF table heading.

GARAGE HEADER SIZING USING PLF TABLES:

To size a garage header supporting roof only, determine the total load & live load in pounds per lineal foot (PLF). Check the appropriate PLF table for a header supporting roof loads only (125% Non-Snow vs. 115% Snow) and select a member with a total load and live load capacity which meets or exceeds the design load for the rough opening size. For a garage header supporting roof, wall, and floor framing, determine the total load and live load in pounds per lineal foot (PLF). Select a header size from the roof, wall, and floor table (100% load duration) which has a total load and live load capacity equal to or greater than the design load for the appropriate rough opening.

Anthony Power Header®

$26F_b$ - 1.9E

ENGINEERED WOOD SECTION PROPERTIES AND LOAD CAPACITIES

ALLOWABLE DESIGN STRESSES (PSI):

FLEXURAL STRESS (F_b) =	2600
COMPRESSION PERP. TO GRAIN ($F_{c\perp}$) =	740
HORIZONTAL SHEAR (F_v) =	225
MODULUS OF ELASTICITY (MOE) =	1.9×10^6

	7.7	9.0	10.4	11.7	12.9	14.2	15.5
	326	514	789	1115	1521	2014	2604
	8865	12015	15996	20145	24772	29877	35460
	3908	4550	5250	5892	6533	7175	7817

NOTES:

1. Beam weights are based on 38 pcf.
2. Moment capacities are based on a span of 21 feet and must be modified for other spans.
3. Flexural Stress, F_b, shall be modified by the Volume Factor, C_v as outlined in AITC 117 - Design 1993 and the NDS for Wood Construction 1997.
4. Allowable design properties and load capacities are based on a load duration of 100 percent and dry use conditions.
5. The AITC NER 466 was used in calculating the above allowable design stresses for Power Header®.

GARAGE HEADER COMPARISONS

810 / 540	3-1/2" x 8-3/8"	3-1/2" x 9-5/8"	3-1/2" x 9"	3-1/2" x 9-1/4"	3-1/2" x 11-1/4"**
990 / 720	3-1/2" x 9-3/4"	3-1/2" x 9-5/8"	3-1/2" x 10-1/2"	3-1/2" x 9-1/4"	3-1/2" x 11-1/4"**
640 / 400	3-1/2" x 12-5/8"	3-1/2" x 13-3/4"	3-1/2" x 13-1/2"	3-1/2" x 14"	3-1/2" x 14"*
765 / 510	3-1/2" x 14"	3-1/2" x 15-1/8"	3-1/2" x 15"	3-1/2" x 14"	3-1/2" x 16"*
750 / 480	3-1/2" x 15-3/8"	3-1/2" x 16-1/2"	3-1/2" x 16-1/2"	3-1/2" x 16"	3-1/2" x 18"*
900 / 600	3-1/2" x 16-3/4"	3-1/2" x 17-7/8"	3-1/2" x 18"	3-1/2" x 16"	-----

For more information on Power Header®, or other laminated structural products from Anthony Forest Products Company please call 1-800-221-2326 or FAX at 870-862-6502.

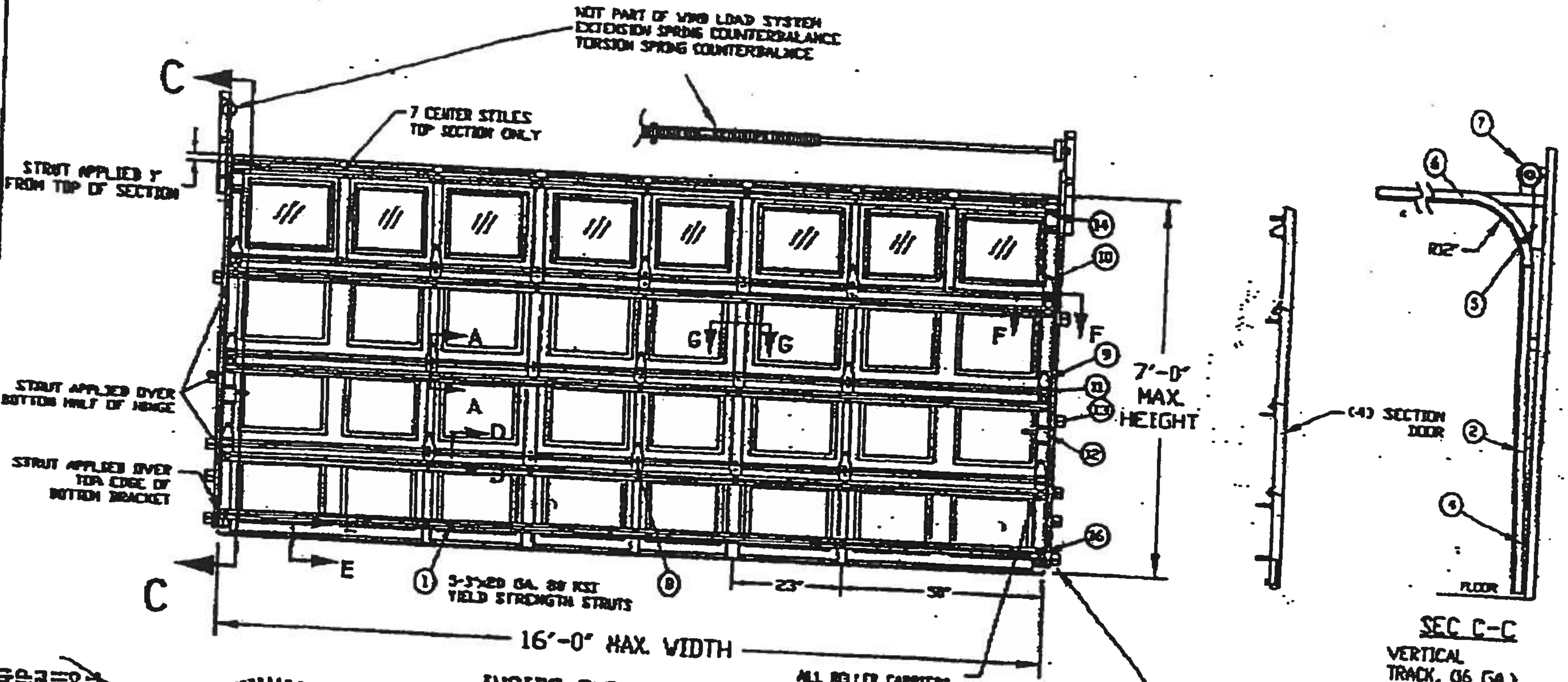
Power Header® is a trademark of
Anthony Forest Products Company
Post Office Box 1877 • El Dorado, Arkansas 71731
Internet address: http:// www.anthonyforest.com
e-mail: info@anthonyforest.com

Distributed by:

NOTES

1. TESTED TO POSITIVE AND NEGATIVE 20 PSF DESIGN AND POSITIVE AND NEGATIVE 30 PSF TEST PRESSURES PER ASTM E-330
2. MAXIMUM SECTION HEIGHT= 21"
3. SECTION HEIGHTS OF 21.00" AND 19.50" ARE AVAILABLE AND MAY BE USED IN ANY COMBINATION TO ACHIEVE VARIOUS DOOR HEIGHTS.
4. WINDOWS MAY BE INSTALLED IN THE TOP SECTION (AS TESTED WITH 3/8" ... GLASS OR EQUIVALENT) OR IN THE SECTION IMMEDIATELY BELOW THE TOP SECTION.
5. MINIMUM LENGTH OF ROLLER STEM IS 5½" (7" AS TESTED)
6. THE STRUT PLACEMENT ON DOOR MUST BE CONSISTENT WITH THE DOOR SHOWN.
7. STRUTS SECURED AT ALL LOCATIONS WITH TEK SCREWS.
8. QUANTITY OF SIDE LOCKS CAN BE 0,1, OR 2 AS TESTED
9. △ DROP IN TYPE OF INSULATION IS OPTIONAL.

REV.	DATE	BY	DESCRIPTION
A–A	01-10-00	DW	SEC. E.C.N. 831



INSIDE ELEVATION

NORTH CAROLINA PROFESSIONAL ENGINEER ... SEAL PE No. 024280

The seal on this drawing only certifies that the product(s) illustrated and described herein represent the configuration(s), dimensions and installation(s) of the door as tested.

LISTED SBCCI PST & ESI REPORT No. 2202

TEST REPORTS ON FILE: VIDED 10/19/00 (00293)

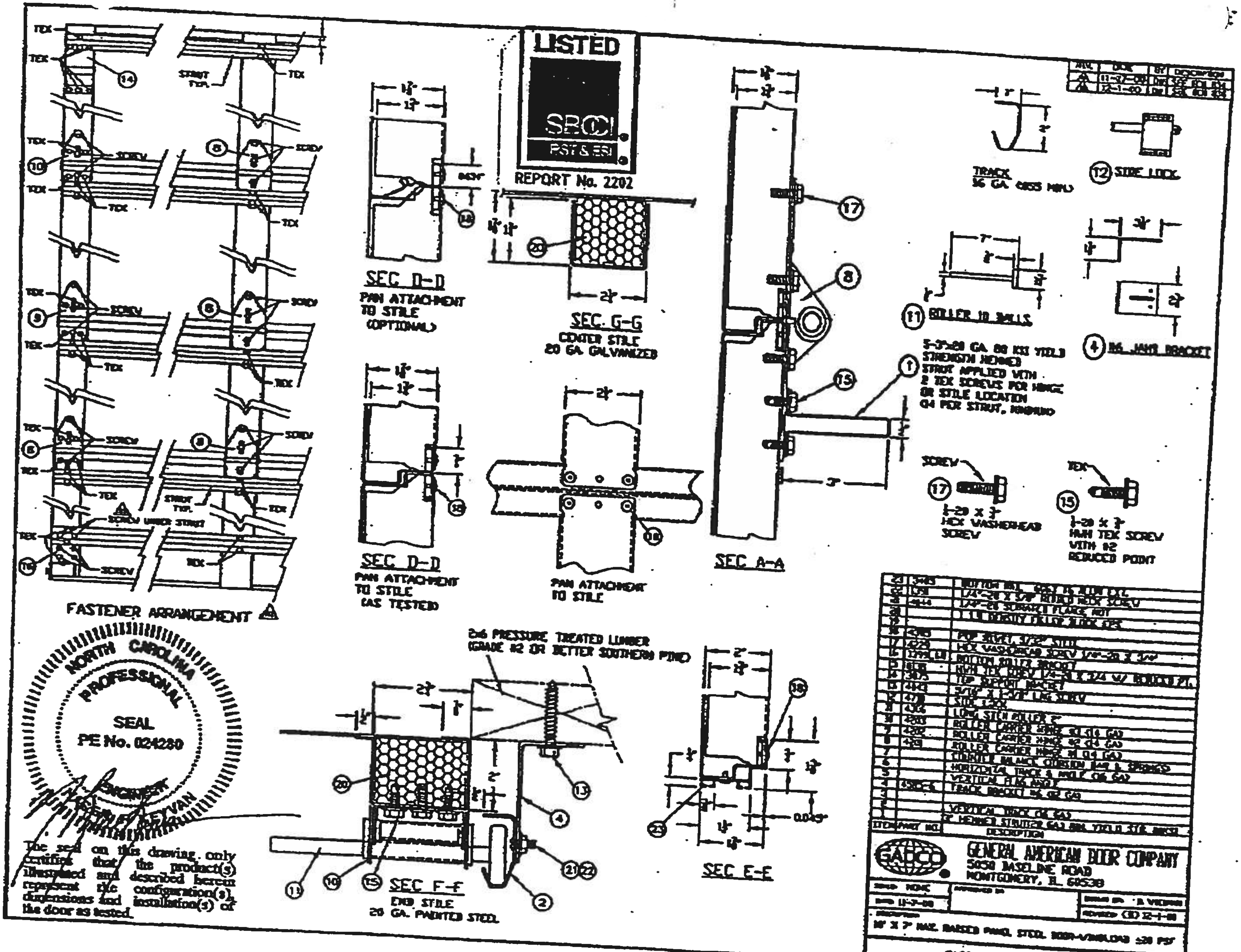
DESIGN LOAD +20.0 PSF & -20.0 PSF
TEST LOAD +30.0 PSF & -30.0 PSF

GADCO DOORS
SERIES 7480, EXTERIOR STEEL =.017 MIN (AS TESTED)
SERIES 7825, EXTERIOR STEEL =.019" MIN △
SERIES 7524, EXTERIOR STEEL =.024" MIN △
(TESTED WITH WINDOWS)

MAXIMUM DOOR WIDTH	MAXIMUM DOOR HEIGHT	TYPICAL CTR. STILE SPACING	STRUTS 80 KSI SIZE	STRUTS 80 KSI QTY.	VERTICAL TRACK
16'	7'	23"	3"	5	2 IN.

GADCO GENERAL AMERICAN DOOR COMPANY
5050 BASELINE ROAD
MONTGOMERY, IL 60538

SCALE: NOS | APPROVED BY | DRAWN BY: D. WICKMAN
DATE: 10-20-00 | REVISED: (A) 11-10-00
DESCRIPTION: 16' X 7' MAX. RAISED PANEL STEEL DOOR -W/D/LOAD ±20 PSF
PART NUMBER: | PAGE 1 OF 2 | DRAWING NUMBER: V13220-1



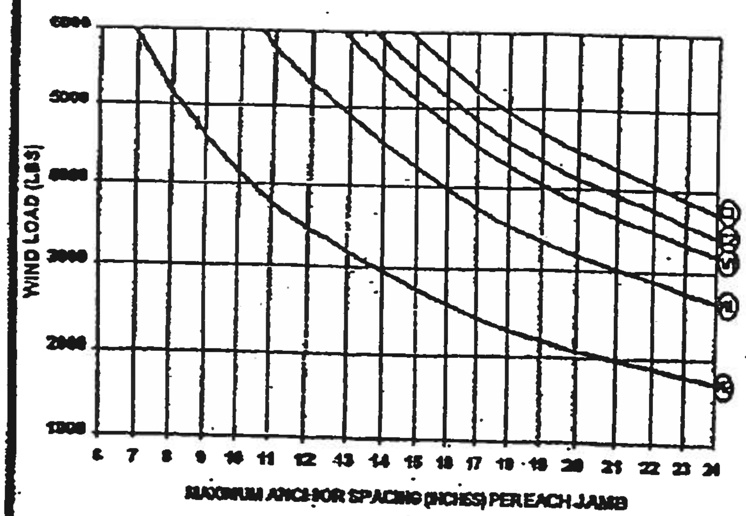
ITEM	PART NO.	DESCRIPTION
23	5403	BOTTOM BKT. [illegible]
22	1291	1/4"-20 X 5/8" [illegible] NECK SCREW
21	4444	1/4"-20 SERRATED FLANGE NUT
20		[illegible] DENSITY FILLER BLOCK EPS
19		
18	4363	POP RIVET, 3/32" STEEL
17	4229	HEX WASHERHEAD SCREW 1/4"-20 X 3/4"
16	1292(LH)	BOTTOM ROLLER BRACKET
15	1838	HWH TEK SCREW 1/4-20 X 3/4 W/ REDUCED PT.
14	3075	TOP SUPPORT BRACKET
13	4443	5/16" X 1-5/8" LAG SCREW
12	4718	SIDE LOCK
11	4365	LONG STEM ROLLER 2"
10	4303	ROLLER CARRIER HINGE #3 (14 GA)
9	4302	ROLLER CARRIER HINGE #2 (14 GA)
8	4301	ROLLER CARRIER HINGE #1 (14 GA)
7		COUNTER BALANCE (TORSION BAR & SPRINGS)
6		HORIZONTAL TRACK & ANGLE (16 GA)
5		VERTICAL FLAG ANGLE
4	4302-5	TRACK BRACKET 16 GA
3		
2		VERTICAL TRACK (16 GA)
1		2" HEMMED STRUTS (20 GA) 80K YIELD STR. [illegible]

GADCO
GENERAL AMERICAN DOOR COMPANY
5050 BASELINE ROAD
MONTGOMERY, IL 60538

SCALE: NONE	APPROVED BY:
DATE: 11-7-00	DRAWN BY: [illegible]
	REVISED: (B) 12-1-00
DESCRIPTION: 18' X 7' MAX. RAISED PANEL STEEL DOOR-W/INDLOAD ±30 PSF	
PAGE 2 OF 2	DRAWING NUMBER: W13220-2

REV.	DATE	BY	DESCRIPTION
A	11-27-00	[illegible]	[illegible]
B	12-1-00	[illegible]	[illegible]

WIND LOAD vs ANCHOR SPACING



(E1) CONCRETE BACKUP HILTI KWIK BOLT II EXPANSION ANCHOR 3/8" DIA. 1-5/8" EMBEDMENT

(E2) CONCRETE BACKUP RAWL LOK/BOLT SLEEVE ANCHOR 3/8" DIA. 1-5/8" EMBEDMENT

(M1) MASONRY (CMU) BACKUP RAWL LOK/BOLT SLEEVE ANCHOR 3/8" DIA. 1-5/8" EMBEDMENT

(M2) MASONRY (CMU) BACKUP ITW BUILDEX TAPCON MASONRY ANCHOR 1/4" DIA. 1-3/4" EMBEDMENT

(W1) WOOD STUD BACKUP LAG SCREWS 5/16" DIA. 1-1/2" EMBEDMENT

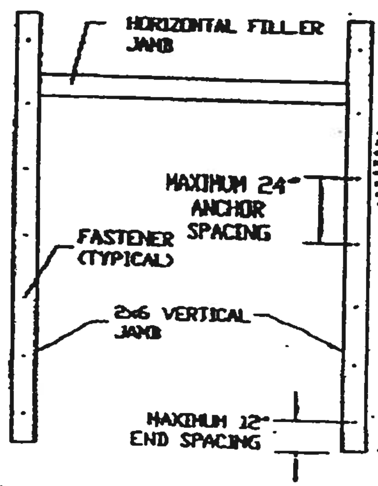
DESIGN LOAD (LBS)/FT² X GARAGE DOOR AREA (WIDTH-FT X HEIGHT-FT) = WIND LOAD (LBS)

EXAMPLE

30 LBS/FT² X 16 FT WIDE X 8 FT HIGH = 3840 LBS

(E1) USE 22" SPACING (M1) USE 16" SPACING
(E2) USE 21" SPACING (M2) USE 10" SPACING
(W1) USE 19" SPACING

SEE NOTE 11 FOR ADDITIONAL REQUIRED 2X6 WOOD JAMB ANCHORS



NORTH CAROLINA PROFESSIONAL SEAL PE No. 024280 ENGINEER NASER R KEYVAN

3/21/2002

NASER R KEYVAN NC 53774 STATE OF FLORIDA PROFESSIONAL ENGINEER

2x6 JAMB TO SUPPORTING STRUCTURE ATTACHMENT

2x6 PRESSURE TREATED (GRADE #2 OR BETTER SOUTHERN PINE) WOOD JAMB SHALL BE ANCHORED TO BUILDING WOOD FRAME, GROUTED AND REINFORCED CONCRETE MASONRY UNIT (CMU) WALLS OR COLUMNS, OR REINFORCED CONCRETE COLUMNS.

NOTES:

1) ALL DOOR OPENING SURROUNDING STRUCTURE TO BE DESIGNED BY REGISTERED ENGINEER OR ARCHITECT WITH DUE CONSIDERATION GIVEN TO INSTALLATIONS USING CENTER "HURRICANE" POSTS.

2) ALL DOOR OPENING STRUCTURE AND FASTENERS TO COMPLY WITH ALL APPLICABLE CODES INCLUDING SBCCI "STANDARD FOR HURRICANE RESISTANT RESIDENTIAL CONSTRUCTION SSTD 10," CURRENT EDITION.

3) ALL FASTENERS TO BE INSTALLED IN STRICT ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS, INSTRUCTIONS AND RECOMMENDATIONS.

4) WOOD FRAME BUILDINGS: STUDS AT EACH SIDE OF DOOR OPENING SHALL BE PROPERLY DESIGNED, CONNECTED, ANCHORED AND SHALL CONSIST OF A MINIMUM OF THREE (3) LAMINATIONS OF 2X6 PRESSURE TREATED SOUTHERN PINE (#2 GRADE OR BETTER) WALL STUDS CONTINUOUS FROM FOOTING TO DOUBLE TOP PLATE.

5) REINFORCED CMU OR CONCRETE: 2X6 WOOD JAMB SHALL BE ANCHORED TO SOLIDLY GROUTED AND REINFORCED CONCRETE MASONRY UNIT (CMU) WALLS OR COLUMNS, OR REINFORCED CONCRETE COLUMNS. ANCHOR SPACING AND EMBEDMENT IS BASED ON CONCRETE MASONRY UNITS COMPLYING WITH ASTM C90 WITH A MINIMUM NET AREA COMPRESSIVE STRENGTH OF 2150 PSI. GROUT WITH A MINIMUM COMPRESSIVE STRENGTH OF 2000 PSI, REINFORCED CONCRETE COLUMNS WITH A MINIMUM COMPRESSIVE STRENGTH OF 2500 PSI.

6) EMBEDMENTS LISTED ARE THE MINIMUM ALLOWABLE EMBEDMENTS.

7) ANCHORS FOR CONCRETE AND CONCRETE MASONRY UNITS (CMU) SHALL HAVE A MINIMUM 3" EDGE DISTANCE FROM ALL EDGES OF CONCRETE OR CONCRETE MASONRY UNITS. ANCHORS FOR CONCRETE AND CMU SHALL HAVE A MINIMUM SPACING OF 3-3/4"

8) LAG SCREWS SHALL BE CENTERED IN ONE OF THE 1-1/2" DIMENSION FACES OF THE TRIPLE 2X6 WALL STUDS.

9) WASHERS ARE REQUIRED ON ALL FASTENERS.

10) THE WIND LOAD VS. ANCHOR SPACING CHART IS FOR A MAXIMUM DOOR SIZE OF 18' X 8' AT A MAXIMUM 42 PSF DESIGN WIND LOAD.

11) FOR THE UPPER THREE INDIVIDUAL STEEL JAMB BRACKETS, BRACKETS SHALL BE CENTERED BETWEEN THE TWO CLOSEST 2X6 WOOD JAMB ANCHORS. IF THE STEEL JAMB BRACKET IS NOT CENTERED BETWEEN THE TWO CLOSEST 2X6 WOOD JAMB ANCHORS, ADD AN ADDITIONAL 2X6 WOOD JAMB ANCHOR NEAR THAT STEEL BRACKET TO INSURE THAT THE LOAD FROM THE STEEL BRACKET IS EQUALLY TRANSFERRED TO TWO WOOD JAMB ANCHORS.

GADCO GENERAL AMERICAN DOOR COMPANY
5050 BASELINE ROAD
MONTGOMERY, IL 60538

SCALE: NONE
DATE: 9-30-99
DRAWN BY: DV
DESCRIPTION: JAMB TO STRUCTURE ATTACHMENT FOR WIND LOADED GARAGE DOORS
A10560

ELK

PRESTIQUE®
HIGH DEFINITION®

RAISED PROFILE™

Prestique Plus *High Definition* and Prestique Gallery Collection™

Product size	13¼"x 39⅜"
Exposure	5⅝"
Pieces/Bundle	16
Bundles/Square	4/98.5 sq.ft.
Squares/Pallet	11

50-year limited warranty period: non-prorated coverage for shingles and application labor for the initial 5 years, plus an option for transferability*; prorated coverage for application labor and shingles for balance of limited warranty period; 5-year limited wind warranty*.

Raised Profile

Product size	13¼"x 38¾"
Exposure	5⅝"
Pieces/Bundle	22
Bundles/Square	3/100 sq.ft.
Squares/Pallet	16

30-year limited warranty period: non-prorated coverage for shingles and application labor for the initial 5 years, plus an option for transferability*; prorated coverage for application labor and shingles for balance of limited warranty period; 5-year limited wind warranty*.

Prestique I *High Definition*

Product size	13¼"x 39⅜"
Exposure	5⅝"
Pieces/Bundle	16
Bundles/Square	4/98.5 sq.ft.
Squares/Pallet	14

40-year limited warranty period: non-prorated coverage for shingles and application labor for the initial 5 years, plus an option for transferability*; prorated coverage for application labor and shingles for balance of limited warranty period; 5-year limited wind warranty*.

Prestique *High Definition*

Product size	13¼"x 38¾"
Exposure	5⅝"
Pieces/Bundle	22
Bundles/Square	3/100 sq.ft.
Squares/Pallet	16

30-year limited warranty period: non-prorated coverage for shingles and application labor for the initial 5 years, plus an option for transferability*; prorated coverage for application labor and shingles for balance of limited warranty period; 5-year limited wind warranty*.

HIP AND RIDGE SHINGLES

Seal-A-Ridge® w/*FLX*™

Size: 12"x 12"
Exposure: 6⅓"
Pieces/Bundle: 45
Coverage: 4 Bundles = 100 linear feet

Elk Starter Strip

52 Bundles/Pallet
18 Pallets/Truck
936 Bundles/Truck
19 Pieces/Bundle
1 Bundle = 120.33 linear feet

Available Colors: Antique Slate, Weatheredwood, Shakewood, Sablewood, Hickory, Barkwood**, Forest Green, Wedgewood**, Birchwood**, Sandalwood. Gallery Collection: Balsam Forest™, Weathered Sage™, Sienna Sunset™.

All Prestique, Raised Profile and Seal-A-Ridge roofing products contain Elk WindGuard® sealant. WindGuard activates with the sun's heat, bonding shingles into a wind and weather resistant cover that resists blow-offs and leaks.

Check for availability with built-in StainGuard® treatment to inhibit the discoloration of roofing granules caused by the growth of certain types of algae. Not available in Sablewood.

All Prestique and Raised Profile shingles meet UL® Wind Resistant (UL 997) and Class "A" Fire Ratings (UL 790); and ASTM Specifications D 3018, Type-I; D 3161, Type-I; E 108 and the requirements of ASTM D 3462.

All Prestique and Raised Profile shingles meet the latest Metro Dade building code requirements.

***See actual limited warranty for conditions and limitations.**
****Check for product availability.**

SPECIFICATIONS

SCOPE: Work includes furnishing all labor, materials and equipment necessary to complete installation of (name) shingles specified herein. Color shall be (name of color).

MATERIALS: Underlayment for standard roof slopes, 4" per foot (101.6/304.8mm) or greater: apply non-perforated No. 15 or 30 asphalt-saturated felt underlayment. Eaves...

warranties are contingent upon the correct installation as shown on the instructions. These instructions are the

Residential System Sizing Calculation

Summary

Ralph & Carolyn Norris
SW CR242
Lake City, FL

Project Title:
508231NorrisRes.

Class 3 Rating
Registration No. 0
Climate: North

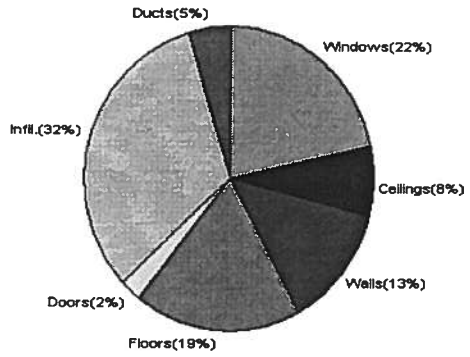
9/8/2005

Location for weather data: Gainesville - Defaults: Latitude(29) Temp Range(M) Humidity data: Interior RH (50%) Outdoor wet bulb (77F) Humidity difference(51gr.)					
Winter design temperature	31	F	Summer design temperature	93	F
Winter setpoint	70	F	Summer setpoint	75	F
Winter temperature difference	39	F	Summer temperature difference	18	F
Total heating load calculation	**40061**	**Btuh**	**Total cooling load calculation**	**39144**	**Btuh**
Submitted heating capacity	% of calc	Btuh	Submitted cooling capacity	% of calc	Btuh
Total (Electric Heat Pump)	119.8	48000	Sensible (SHR = 0.75)	125.4	36000
Heat Pump + Auxiliary(0.0kW)	119.8	48000	Latent	115.0	12000
			Total (Electric Heat Pump)	122.6	48000

WINTER CALCULATIONS

Winter Heating Load (for 2233 sqft)

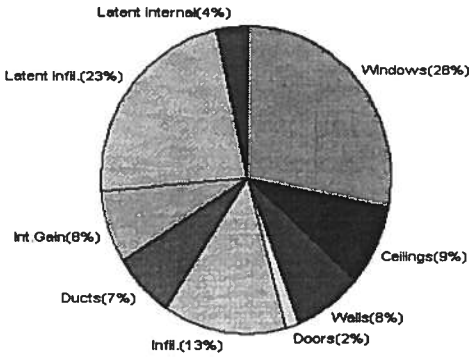
Load component			Load	
Window total	307	sqft	8688	Btuh
Wall total	1826	sqft	5178	Btuh
Door total	60	sqft	921	Btuh
Ceiling total	2344	sqft	3047	Btuh
Floor total	238	ft	7521	Btuh
Infiltration	298	cfm	12798	Btuh
Subtotal			**38153**	**Btuh**
Duct loss			1908	Btuh
TOTAL HEAT LOSS			**40061**	**Btuh**



SUMMER CALCULATIONS

Summer Cooling Load (for 2233 sqft)

Load component			Load	
Window total	307	sqft	11044	Btuh
Wall total	1826	sqft	2952	Btuh
Door total	60	sqft	608	Btuh
Ceiling total	2344	sqft	3328	Btuh
Floor total			0	Btuh
Infiltration	261	cfm	5169	Btuh
Internal gain			3000	Btuh
Subtotal(sensible)			**26101**	**Btuh**
Duct gain			2610	Btuh
Total sensible gain			**28711**	**Btuh**
Latent gain(infiltration)			9053	Btuh
Latent gain(internal)			1380	Btuh
Total latent gain			**10433**	**Btuh**
TOTAL HEAT GAIN			**39144**	**Btuh**



EnergyGauge® System Sizing based on ACCA Manual J.
PREPARED BY:
DATE: 9/8/05

System Sizing Calculations - Winter

Residential Load - Component Details

Ralph & Carolyn Norris
SW CR242
Lake City, FL

Project Title:
508231NorrisRes.

Class 3 Rating
Registration No. 0
Climate: North

Reference City: Gainesville (Defaults) Winter Temperature Difference: 39.0 F

9/8/2005

Window	Panes/SHGC/Frame/U	Orientation	Area X	HTM=	Load
1	2, Clear, Metal, DEF	N	16.0	28.3	453 Btuh
2	2, Clear, Metal, DEF	N	26.0	28.3	736 Btuh
3	2, Clear, Metal, DEF	N	20.0	28.3	566 Btuh
4	2, Clear, Metal, DEF	NW	15.0	28.3	424 Btuh
5	2, Clear, Metal, DEF	N	20.0	28.3	566 Btuh
6	2, Clear, Metal, DEF	NE	15.0	28.3	424 Btuh
7	2, Clear, Metal, DEF	S	15.0	28.3	424 Btuh
8	2, Clear, Metal, DEF	S	90.0	28.3	2547 Btuh
9	2, Clear, Metal, DEF	S	20.0	28.3	566 Btuh
10	2, Clear, Metal, DEF	S	40.0	28.3	1132 Btuh
11	2, Clear, Metal, DEF	W	24.0	28.3	679 Btuh
12	2, Clear, Metal, DEF	W	6.0	28.3	170 Btuh
	Window Total		307		8688 Btuh
Walls	Type	R-Value	Area X	HTM=	Load
1	Frame - Exterior	13.0	1504	3.1	4662 Btuh
2	Frame - Adjacent	13.0	322	1.6	515 Btuh
	Wall Total		1826		5178 Btuh
Doors	Type		Area X	HTM=	Load
1	Insulated - Exter		20	18.3	367 Btuh
2	Insulated - Adjac		20	9.4	188 Btuh
3	Insulated - Exter		20	18.3	367 Btuh
	Door Total		60		921Btuh
Ceilings	Type	R-Value	Area X	HTM=	Load
1	Under Attic	30.0	2344	1.3	3047 Btuh
	Ceiling Total		2344		3047Btuh
Floors	Type	R-Value	Size X	HTM=	Load
1	Slab-On-Grade Edge Insul	0	238.0 ft(p)	31.6	7521 Btuh
	Floor Total		238		7521 Btuh
Infiltration	Type	ACH X	Building Volume	CFM=	Load
	Natural	0.80	22330(sqft)	298	12798 Btuh
	Mechanical			0	0 Btuh
	Infiltration Total			298	12798 Btuh

Totals for Heating	**Subtotal**	**38153 Btuh**
	Duct Loss(using duct multiplier of 0.05)	**1908 Btuh**
	Total Btuh Loss	**40061 Btuh**

Manual J Winter Calculations

Residential Load - Component Details (continued)

Ralph & Carolyn Norris
SW CR242
Lake City, FL

Project Title:
508231NorrisRes.

Class 3 Rating
Registration No. 0
Climate: North

9/8/2005

Key: Window types (SHGC - Shading coefficient of glass as SHGC numerical value or as clear or tint)
(Frame types - metal, wood or insulated metal)
(U - Window U-Factor or 'DEF' for default)
(HTM - ManualJ Heat Transfer Multiplier)
Key: Floor size (perimeter(p) for slab-on-grade or area for all other floor types)

System Sizing Calculations - Summer

Residential Load - Component Details

Ralph & Carolyn Norris
SW CR242
Lake City, FL

Project Title:
508231NorrisRes.

Class 3 Rating
Registration No. 0
Climate: North

Reference City: Gainesville (Defaults) Summer Temperature Difference: 18.0 F 9/8/2005

Window	Type Panes/SHGC/U/InSh/ExSh	Ornt	Overhang Len	Hgt	Window Area(sqft) Gross	Shaded	Unshaded	HTM Shaded	Unshaded	Load
1	2, Clear, DEF, N, N	N	1.5	6	16.0	0.0	16.0	22	22	352 Btuh
2	2, Clear, DEF, N, N	N	13.5	8.5	26.0	0.0	26.0	22	22	572 Btuh
3	2, Clear, DEF, N, N	N	13.5	8.5	20.0	0.0	20.0	22	22	440 Btuh
4	2, Clear, DEF, N, N	NW	25	7	15.0	0.0	15.0	22	50	750 Btuh
5	2, Clear, DEF, N, N	N	11.8	7	20.0	0.0	20.0	22	22	440 Btuh
6	2, Clear, DEF, N, N	NE	99	7	15.0	0.0	15.0	22	50	750 Btuh
7	2, Clear, DEF, N, N	S	1.5	7	15.0	15.0	0.0	22	37	330 Btuh
8	2, Clear, DEF, N, N	S	0	0	90.0	0.0	90.0	22	37	3330 Btuh
9	2, Clear, DEF, N, N	S	6.5	10	20.0	20.0	0.0	22	37	440 Btuh
10	2, Clear, DEF, N, N	S	0	0	40.0	0.0	40.0	22	37	1480 Btuh
11	2, Clear, DEF, N, N	W	1.5	8	24.0	0.0	24.0	22	72	1728 Btuh
12	2, Clear, DEF, N, N	W	1.5	5	6.0	0.0	6.0	22	72	432 Btuh
	Window Total				307					11044 Btuh

Walls	Type	R-Value	Area	HTM	Load
1	Frame - Exterior	13.0	1504.0	1.7	2617 Btuh
2	Frame - Adjacent	13.0	322.0	1.0	335 Btuh
	Wall Total		1826.0		2952 Btuh

Doors	Type	Area	HTM	Load
1	Insulated - Exter	20.0	10.1	203 Btuh
2	Insulated - Adjac	20.0	10.1	203 Btuh
3	Insulated - Exter	20.0	10.1	203 Btuh
	Door Total	60.0		608 Btuh

Ceilings	Type/Color	R-Value	Area	HTM	Load
1	Under Attic/Dark	30.0	2344.0	1.4	3328 Btuh
	Ceiling Total		2344.0		3328 Btuh

Floors	Type	R-Value	Size	HTM	Load
1	Slab-On-Grade Edge Insulation	0.0	238.0 ft(p)	0.0	0 Btuh
	Floor Total		238.0		0 Btuh

Infiltration	Type	ACH	Volume	CFM=	Load
	Natural	0.70	22330	261.0	5169 Btuh
	Mechanical			0	0 Btuh
	Infiltration Total			261	5169 Btuh

Internal gain	Occupants	Btuh/occupant		Appliance	Load
	6	X 300	+	1200	3000 Btuh

Manual J Summer Calculations

Residential Load - Component Details (continued)

Ralph & Carolyn Norris
SW CR242
Lake City, FL

Project Title:
508231NorrisRes.

Class 3 Rating
Registration No. 0
Climate: North

9/8/2005

Totals for Cooling	**Subtotal**	**26101 Btuh**
	Duct gain(using duct multiplier of 0.10)	**2610 Btuh**
	Total sensible gain	**28711 Btuh**
	Latent infiltration gain (for 51 gr. humidity difference)	**9053 Btuh**
	Latent occupant gain (6 people @ 230 Btuh per person)	**1380 Btuh**
	Latent other gain	**0 Btuh**
	TOTAL GAIN	**39144 Btuh**

Key: Window types (SHGC - Shading coefficient of glass as SHGC numerical value or as clear or tint)
(U - Window U-Factor or 'DEF' for default)
(InSh - Interior shading device: none(N), Blinds/Daperies(B) or Roller Shades(R))
(ExSh - Exterior shading device: none(N) or numerical value)
(Ornt - compass orientation)